



Effective Health Care Program

Comparative Effectiveness Review
Number 80

Strategies To Reduce Cesarean Birth in Low-Risk Women



Agency for Healthcare Research and Quality
Advancing Excellence in Health Care • www.ahrq.gov

Strategies To Reduce Cesarean Birth in Low-Risk Women

Prepared for:

Agency for Healthcare Research and Quality
U.S. Department of Health and Human Services
540 Gaither Road
Rockville, MD 20850
www.ahrq.gov

Contract No. 290-2007-10065-I

Prepared by:

Vanderbilt Evidence-based Practice Center
Nashville, TN

Investigators:

Katherine E. Hartmann, M.D., Ph.D.
Jeffrey C. Andrews, M.D.
Rebecca N. Jerome, M.L.I.S., M.P.H.
Rashonda M. Lewis, J.D., M.H.A.
Frances E. Likis, Dr.P.H., N.P., C.N.M.
J. Nikki McKoy, M.P.H.
Tanya S. Surawicz, M.P.H.
Stephaine H. Walker, M.D., M.P.H.

This report is based on research conducted by the Vanderbilt Evidence-based Practice Center (EPC) under contract to the Agency for Healthcare Research and Quality (AHRQ), Rockville, MD (Contract No. 290-2007-10065-I). The findings and conclusions in this document are those of the authors, who are responsible for its contents; the findings and conclusions do not necessarily represent the views of AHRQ. Therefore, no statement in this report should be construed as an official position of AHRQ or of the U.S. Department of Health and Human Services.

The information in this report is intended to help health care decisionmakers—patients and clinicians, health system leaders, and policymakers, among others—make well-informed decisions and thereby improve the quality of health care services. This report is not intended to be a substitute for clinical judgment. Anyone who makes decisions concerning the provision of clinical care should consider this report in the same way as any medical reference and in conjunction with all other pertinent information, i.e., in the context of available resources and circumstances presented by individual patients.

This report may be used, in whole or in part, as the basis for development of clinical practice guidelines and other quality enhancement tools, or as a basis for reimbursement and coverage policies. AHRQ or U.S. Department of Health and Human Services endorsement of such derivative products may not be stated or implied.

This document is in the public domain and may be used and reprinted without special permission except those copyrighted materials that are clearly noted in the document. Further reproduction of those copyrighted materials is prohibited without the specific permission of copyright holders.

Persons using assistive technology may not be able to fully access information in this report. For assistance contact EffectiveHealthCare@ahrq.hhs.gov.

None of the investigators have any affiliations or financial involvement that conflicts with the material presented in this report.

Suggested citation: Hartmann KE, Andrews JC, Jerome RN, Lewis RM, Likis FE, McKoy JN, Surawicz TS, Walker SH. Strategies To Reduce Cesarean Birth in Low-Risk Women. Comparative Effectiveness Review No. 80. (Prepared by the Vanderbilt Evidence-based Practice Center under Contract No. 290-2007-10065-I.) AHRQ Publication No. 12(13)-EHC128-EF. Rockville, MD: Agency for Healthcare Research and Quality. October 2012. www.effectivehealthcare.ahrq.gov/reports/final.cfm.

Preface

The Agency for Healthcare Research and Quality (AHRQ) conducts the Effective Health Care Program as part of its mission to organize knowledge and make it available to inform decisions about health care. As part of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, Congress directed AHRQ to conduct and support research on the comparative outcomes, clinical effectiveness, and appropriateness of pharmaceuticals, devices, and health care services to meet the needs of Medicare, Medicaid, and the Children's Health Insurance Program (CHIP).

AHRQ has an established network of Evidence-based Practice Centers (EPCs) that produce Evidence Reports/Technology Assessments to assist public- and private-sector organizations in their efforts to improve the quality of health care. The EPCs now lend their expertise to the Effective Health Care Program by conducting Comparative Effectiveness Reviews (CERs) of medications, devices, and other relevant interventions, including strategies for how these items and services can best be organized, managed, and delivered.

Systematic reviews are the building blocks underlying evidence-based practice; they focus attention on the strength and limits of evidence from research studies about the effectiveness and safety of a clinical intervention. In the context of developing recommendations for practice, systematic reviews are useful because they define the strengths and limits of the evidence, clarifying whether assertions about the value of the intervention are based on strong evidence from clinical studies. For more information about systematic reviews, see

www.effectivehealthcare.ahrq.gov/reference/purpose.cfm.

AHRQ expects that CERs will be helpful to health plans, providers, purchasers, government programs, and the health care system as a whole. In addition, AHRQ is committed to presenting information in different formats so that consumers who make decisions about their own and their family's health can benefit from the evidence.

Transparency and stakeholder input are essential to the Effective Health Care Program. Please visit the Web site (www.effectivehealthcare.ahrq.gov) to see draft research questions and reports or to join an email list to learn about new program products and opportunities for input. Comparative Effectiveness Reviews will be updated regularly.

We welcome comments on this CER. They may be sent by mail to the Task Order Officer named below at: Agency for Healthcare Research and Quality, 540 Gaither Road, Rockville, MD 20850, or by email to epc@ahrq.hhs.gov.

Carolyn M. Clancy, M.D.
Director
Agency for Healthcare Research and Quality

Jean Slutsky, P.A., M.S.P.H.
Director, Center for Outcomes and Evidence
Agency for Healthcare Research and Quality

Stephanie Chang, M.D., M.P.H.
Director, EPC Program
Center for Outcomes and Evidence
Agency for Healthcare Research and Quality

Shilpa H. Amin, M.D., M.Bsc., FAAFP
Task Order Officer
Center for Outcomes and Evidence
Agency for Healthcare Research and Quality

Acknowledgments

The authors gratefully acknowledge the following individuals for their contributions to this project:

Dr. Melissa McPheeters, Co-Director of the Evidence-based Practice Center, was crucial in conferring on and guiding review methods, including searches, data extraction, quality rating, strength-of-evidence reporting, and applicability assessment. She was especially helpful as a neutral adjudicator and as a sounding board for challenging decisions about scope and focus.

Dr. Mark Hartmann brought his extraordinary attention to detail—and his commitment to perfection—to completion of the evidence tables. He spent time checking and rechecking tables both for formatting and for content. His ability to point out inconsistencies and enhance uniformity was key to ensuring smooth development of the evidence tables.

Ms. Kerry Harville served as project coordinator, shepherding innumerable planning, implementation, and writing tasks to completion. She guided and contributed to production of the plethora of forms, spreadsheets, and tables that are required to produce reliable evidence tables and summary data. Her attentiveness to the needs of the investigator team and to pacing the work was especially valued.

Mr. Songphan Choemprayon's support of Ms. Jerome, including a detailed approach to abstract and full-text review, was invaluable.

Key Informants

Sean C. Blackwell, M.D.
Associate Professor, Vice Chair for Clinical
Research
Director, Larry C. Gilstrap, M.D., Center for
Perinatal and Women's Health Research
University of Texas Health Science Center
at Houston
Houston, TX

Hugh Ehrenberg, M.D.
Associate Professor, Clinical, Obstetrics &
Gynecology
Ohio State University Medical Center
Columbus, OH

Janice Gomersall, M.D.
Medicaid Medical Directors Learning
Network
Mountain View Family Medical &
Obstetrics & Gynecology
Missoula, MT

Tekoa King, C.N.M., M.P.H.
Clinical Professor, Department of
Obstetrics, Gynecology, and Reproductive
Sciences
University of California, San Francisco
Deputy Editor, Journal of Midwifery &
Women's Health
San Francisco, CA
Valerie King, M.D., M.P.H.
Clinical Epidemiologist
Center for Evidence-based Policy
Associate Professor, Department of Family
Medicine
Oregon Health & Science University
OHSU School of Medicine
Portland, OR

Audrey Lyndon, R.N.C., Ph.D., C.N.S.
Assistant Professor, Department of Family
Health Care Nursing
University of California, San Francisco
San Francisco, CA

Howard Minkoff, M.D.
Professor, Obstetrics and Gynecology
SUNY-Brooklyn
Maimonides Medical Center
Brooklyn, NY

Sharon Schindler Rising, C.N.M., M.S.N.
Executive Director, Centering Healthcare
Institute, Inc.
Cheshire, CT

James R. Scott, M.D.
Editor-In-Chief, Obstetrics and Gynecology
Professor and Chair Emeritus, Department
of Obstetrics and Gynecology
University of Utah Health Care
Salt Lake City, UT

Caroline Signore, M.D., M.P.H.
Medical Officer, Obstetrics
Program Scientist, PASS Network
Pregnancy and Perinatology Branch, Center
for Developmental Biology and Perinatal
Medicine
Eunice Kennedy Shriver National Institute
of Child Health and Human Development
Bethesda, MD

Technical Expert Panel

Sean C. Blackwell, M.D.
Associate Professor, Vice Chair for Clinical
Research
Director, Larry C. Gilstrap, MD Center for
Perinatal and Women's Health Research
University of Texas Health Science Center
at Houston
Houston, TX

Hugh Ehrenberg, M.D.
Associate Professor, Clinical, Obstetrics &
Gynecology
Ohio State University Medical Center
Columbus, OH

Robert M. Silver, M.D.
Professor, Division Chief of Maternal-Fetal
Medicine
Department of Obstetrics and Gynecology
University of Utah Health Sciences Center
Salt Lake City, UT

Catherine Y. Spong, M.D.
Chief, Pregnancy and Perinatology Branch
Eunice Kennedy Shriver National Institute
of Child Health and Human Development
Bethesda, MD

John Thorp, Jr., M.D.
Division Director, Professor
Department of Obstetrics and Gynecology
University of North Carolina at Chapel Hill
Chapel Hill, NC

Janice Gomersall, M.D.
Medicaid Medical Directors Learning
Network
Mountain View Family Medical &
Obstetrics & Gynecology
Missoula, MT

Tekoa King, C.N.M., M.P.H.
Clinical Professor, Department of
Obstetrics, Gynecology, and Reproductive
Sciences
University of California, San Francisco
Deputy Editor, Journal of Midwifery &
Women's Health
San Francisco, CA

Valerie King, M.D., M.P.H.
Clinical Epidemiologist, Center for
Evidence-based Policy
Associate Professor, Department of Family
Medicine
Oregon Health & Science University
OHSU School of Medicine
Portland, OR

Audrey Lyndon, R.N.C., Ph.D., C.N.S.
Assistant Professor, Department of Family
Health Care Nursing
University of California, San Francisco
San Francisco, CA

Howard Minkoff, M.D.
Professor, Obstetrics and Gynecology
SUNY-Brooklyn
Maimonides Medical Center
Brooklyn, NY

Amy Romano, M.S.N., C.N.M.
Associate Director of Programs
Childbirth Connection
New York, NY

Sharon Schindler Rising, C.N.M., M.S.N.
Executive Director, Centering Healthcare
Institute, Inc.
Cheshire, CT

James R. Scott, M.D.
Editor-In-Chief, Obstetrics and Gynecology
Professor and Chair Emeritus, Department
of Obstetrics and Gynecology
University of Utah Health Care
Salt Lake City, UT

Caroline Signore, M.D., M.P.H.
Medical Officer, Obstetrics
Program Scientist, PASS Network
Pregnancy and Perinatology Branch, Center
for Developmental Biology and Perinatal
Medicine
Eunice Kennedy Shriver National Institute
of Child Health and Human Development
Bethesda, MD

Robert M. Silver, M.D.
Professor, Division Chief of Maternal-Fetal
Medicine
Department of Obstetrics and Gynecology
University of Utah Health Sciences Center
Salt Lake City, UT

Catherine Y. Spong, M.D.
Chief, Pregnancy and Perinatology Branch
Eunice Kennedy Shriver National Institute
of Child Health and Human Development
Bethesda, MD

John Thorp, Jr., M.D.
Division Director, Professor
Department of Obstetrics and Gynecology
University of North Carolina at Chapel Hill
Chapel Hill, NC

Peer Reviewers

Jennifer Bailit, M.D., M.P.H.
Director, Labor and Delivery
Associate Professor, Case Western Reserve
University School of Medicine
Cleveland, OH

Mark Deutchman
Professor, School of Medicine Department
of Family Medicine & School of Dental
Medicine
University of Colorado
Aurora, CO

Sharon L Dooley, M.D.
Albert B. Gerbie, M.D., Professor of
Obstetrics and Gynecology
Professor in Obstetrics and Gynecology-
Maternal Fetal Medicine
Northwestern University Feinberg School of
Medicine
Chicago, IL

Janice Gomersall, M.D.
Medicaid Medical Directors Learning
Network
Mountain View Family Medical &
Obstetrics & Gynecology
Missoula, MT

Heidi Gullett, M.D., M.P.H.
Department of Family Medicine
Oregon Health and Science University
Portland, OR

Andra H. James, M.D.
Division of Maternal and Fetal Medicine,
Departments of Obstetrics and
Gynecology and Medicine
Duke University
Durham, NC

Valerie King, M.D., M.P.H.
Clinical Epidemiologist, Center for
Evidence-based Policy
Associate Professor, Department of Family
Medicine
Oregon Health & Science University
OHSU School of Medicine
Portland, OR

Lawrence Leeman, M.D.
Associate Professor
Department of Obstetrics and Gynecology
University of New Mexico Health Sciences
Center
Albuquerque, NM

Audrey Lyndon, R.N.C., Ph.D., C.N.S.
Assistant Professor, Department of Family
Health Care Nursing
University of California, San Francisco
San Francisco, CA

Howard Minkoff, M.D.
Professor, Obstetrics and Gynecology
SUNY-Brooklyn
Maimonides Medical Center
Brooklyn, NY

Amy Romano, M.S.N., C.N.M.
Associate Director of Programs
Childbirth Connection
New York, NY

Sharon Schindler Rising, C.N.M., M.S.N.
Executive Director, Centering Healthcare
Institute, Inc.
Cheshire CT

James R. Scott, M.D.
Editor-In-Chief, Obstetrics and Gynecology
Professor and Chair Emeritus, Department
of Obstetrics and Gynecology
University of Utah Health Care
Salt Lake City, UT

Caroline Signore, M.D., M.P.H.
Medical Officer, Obstetrics
Program Scientist, PASS Network
Pregnancy and Perinatology Branch, Center
for Developmental Biology and Perinatal
Medicine
Eunice Kennedy Shriver National Institute
of Child Health and Human Development
Bethesda, MD

John Thorp, Jr., M.D.
Division Director, Professor
University of North Carolina at Chapel Hill
Chapel Hill, NC

Strategies To Reduce Cesarean Birth in Low-Risk Women

Structured Abstract

Objectives. The Evidence-based Practice Center systematically reviewed evidence addressing strategies to reduce cesarean birth.

Data Sources. We searched MEDLINE® via PubMed and the Cumulative Index of Nursing and Allied Health Literature as well as the reference lists of included studies.

Review Methods. We included studies published in English from 1968 to February 2012. We excluded publications that did not address a Key Question, were not an eligible study design, or did not aim to reduce cesarean birth among low-risk women.

Results. Of the 97 studies included, 16 were good quality, 28 fair, and 53 poor. In this review, all studies compared the novel strategy to usual care or to variations in the same strategy. Few studies addressed prenatal strategies; the one such strategy that reduced cesarean was treatment of the cervix with hyaluronidase in the clinic at term to promote cervical softening. Strategies intended for use in labor included four trials that favored active management of labor, with 2.8- to 7.4-percent decreases in cesarean; one study showed a significant decrease. Doula support in labor was associated with significant reductions in cesarean (5.0 to 22.0%) in three studies. One of six trials of fetal assessment reported a significant reduction in total cesareans (20.6%). Three of eight trials of amnioinfusion reported a significant reduction in total cesareans (15 to 34.2%).

Virtually all studies within health care systems that changed policies or procedures evaluated strategies with more than one component. Seventeen of 31 studies reported statistically significant reductions in cesarean from 1.6 to 17.0 percent. Ten of the 17 effective strategies included audit and feedback of cesarean trend data to participating units and/or care providers, 7 included protocols for vaginal birth after prior cesarean, 6 included agreement on overarching labor and delivery guidelines, and 5 included active management of labor protocols. Overall, it is not possible to determine which components are definitively associated with reductions.

Conclusions. No single strategy was uniformly successful in reducing cesareans. Strength of evidence was low to insufficient for all strategies. No approach dominated as a strategy appropriate to reduce use of cesarean among low-risk women in the United States.

Contents

Executive Summary	ES-1
Introduction	1
Background	1
Objectives	2
Strategies	2
Goal of This Comparative Effectiveness Review (CER)	3
Scope and Key Questions	3
Organization of This Evidence Report	4
Uses of This Report	4
Methods	6
Topic Development and Refinement	6
Analytic Framework	6
Literature Search Strategy	7
Databases	7
Search Terms	7
Process for Study Selection	8
Inclusion and Exclusion Criteria	8
Screening of Studies	9
Data Extraction and Data Management	10
Individual Study Quality Assessment	10
Data Synthesis	11
Strength of Evidence for Each KQ	11
Applicability	11
Peer Review and Public Commentary	12
Results	13
Article Selection	13
KQ1. What strategies during pregnancy are effective to reduce the use of cesarean birth among women, with a singleton pregnancy, who are intending a vaginal birth?	18
Overview of the Literature	18
Key Points	18
Detailed Synthesis	19
KQ2. What strategies during labor are effective to reduce the use of cesarean birth among women, with a singleton pregnancy, who are intending a vaginal birth?	23
Management of Labor	23
Psychosocial Support	34
Pain Management	39
Fetal Assessments	42
Amnioinfusion	49
Unique Strategies	54
Systems-Level Strategies	57
KQ3. Where head-to-head comparisons are available, what strategies are shown to be superior in reducing the use of cesarean birth among women, with a singleton pregnancy, who are intending a vaginal birth?	65

KQ4. What are the nature and frequency of adverse effects resulting from strategies used to reduce cesarean birth among women, with a singleton pregnancy, who are intending a vaginal birth?	66
Overview of the Literature	66
Key Points	66
Detailed Synthesis	66
Discussion	71
State of the Literature	71
Summary of Outcomes by KQ	71
KQ1. Strategies During Pregnancy	71
KQ2. Strategies During Labor	71
KQ3. Head-to-Head Comparisons	74
KQ4. Adverse Effects of Strategies	75
Strength of the Evidence for Effectiveness of Strategies	75
Overview	75
Strength of the Evidence by KQ	76
Applicability	78
Future Research	79
State of the Science	79
Methodologic Issues	79
Gaps in Areas of Research	80
Conclusions	82
References	84
Acronyms/Abbreviations/Symbols	93

Tables

Table A. Inclusion/Exclusion Criteria	ES-4
Table B. Strength of Evidence for Various Strategies To Reduce Cesarean Birth	ES-13
Table 1. Inclusion and Exclusion Criteria	8
Table 2. Summary of Effectiveness of Cesarean Reduction Strategies From Greatest to Least Change	14
Table 3. Summary of Effectiveness of Cesarean Reduction Strategies During Pregnancy	19
Table 4. Maternal Outcomes for Antenatal Strategies To Reduce Cesarean Births	21
Table 5. Neonatal Outcomes for Antenatal Management Strategies To Reduce Cesarean Births	22
Table 6. Summary of Effectiveness of Labor Management Cesarean Reduction Strategies: Early Labor Assessment	25
Table 7. Summary of Effectiveness of Labor Management Cesarean Reduction Strategies: Measurement of Labor Progress	26
Table 8. Summary of Effectiveness of Labor Management Cesarean Reduction Strategies: Active Management of Labor	28
Table 9. Summary of Effectiveness of Labor Management Cesarean Reduction Strategies: Management of Abnormal Labor	31
Table 10. Maternal Outcomes for Labor Management Strategies To Reduce Cesarean Births	33

Table 11. Neonatal Outcomes for Labor Management Strategies To Reduce Cesarean Births	34
Table 12. Summary of Effectiveness of Cesarean Reduction Strategies Using Doula Support	36
Table 13. Maternal Outcomes for Psychosocial/Labor Support Strategies To Reduce Cesarean Births	37
Table 14. Neonatal Outcomes for Psychosocial/Labor Support Strategies To Reduce Cesarean Births	37
Table 15. Summary of Effectiveness of Cesarean Reduction Strategies: Labor Support by Nurses and Midwifery Students	38
Table 16. Summary of Effectiveness of Cesarean Reduction Strategies of Pain Management.....	40
Table 17. Maternal Outcomes for Pain Management Strategies To Reduce Cesarean Births	42
Table 18. Neonatal Outcomes for Labor Management Strategies To Reduce Cesarean Births	42
Table 19. Summary of Effectiveness of Cesarean Reduction Strategies: Fetal Pulse Oximetry.....	44
Table 20. Maternal Outcomes for Fetal Assessment Strategies To Reduce Cesarean Births	47
Table 21. Neonatal Outcomes for Fetal Assessment Strategies To Reduce Cesarean Births	47
Table 22. Summary of Effectiveness of Fetal Assessment Cesarean Reduction Strategies: Fetal STAN	48
Table 23. Summary of Effectiveness of Cesarean Reduction Strategies: Amnioinfusion for Meconium	50
Table 24. Maternal Outcomes for Amnioinfusion Strategies To Reduce Cesarean Births	51
Table 25. Neonatal Outcomes for Amnioinfusion To Reduce Cesarean Births	51
Table 26. Summary of Effectiveness of Cesarean Reduction Strategies: Amnioinfusion for Fetal Distress.....	53
Table 27. Summary of Effectiveness of Cesarean Reduction Strategies: Unique Strategies	55
Table 28. Maternal Outcomes for Unique Strategies To Reduce Cesarean Births.....	56
Table 29. Neonatal Outcomes for Unique Strategies To Reduce Cesarean Births.....	56
Table 30. Summary of Systems-Level Strategies To Reduce Cesarean Births	59
Table 31. Components of Strategies in the United States With at Least 5-Percent Reduction of Cesarean	64
Table 32. Components of Strategies in the United States With Least Success in Reduction of Cesarean	65
Table 33. Overview of Adverse Effects Reported in Studies of Strategies To Reduce Cesarean Birth.....	66
Table 34. Strength of Evidence for Various Strategies To Reduce Cesarean Birth	76

Figures

Figure A. Analytic Framework for Strategies To Reduce Cesarean Birth in Low-Risk Women	ES-5
Figure B. Disposition of Articles Identified by the Search Strategy	ES-8
Figure 1. Analytic Framework for Strategies To Reduce Cesarean Birth	7
Figure 2. Disposition of Articles Identified by the Search Strategy	13

Appendixes

Appendix A. Exact Search Strings and Results
Appendix B. Excluded Studies
Appendix C. Evidence Tables
Appendix D. Sample Data Abstraction Forms
Appendix E. Quality of the Literature
Appendix F. Applicability Summary Tables
Appendix G. Strength of the Evidence Calculator
Appendix H. Summary PICOTS Table

Executive Summary

Background

Thirty-two percent of pregnancies in the United States conclude with a cesarean birth.¹ This record high rate reflects a relative increase of 53 percent in use of cesarean from 1991 to 2007.¹ The pattern of increasing use of cesarean has been of concern for decades, with the last decline of 2 to 3 percent, occurring in the mid-1990s, being fully reversed by 1999, and the rate increasing over 50 percent from 1996 to 2007.² Nearly one in three births by cesarean translates to a total of 1.4 million cesarean births each year, making cesarean the most commonly performed major surgery in the United States.¹

The Joint Commission has expressed concern about U.S. cesarean birth rates in its Specifications Manual for Joint Commission National Quality Core Measures, noting: “There are no data that higher rates improve any outcomes, yet the CS [cesarean section] rates continue to rise.”³ Cesarean birth is not without consequences. In general, cesarean is more costly to the health care system, is associated with increased risk for both mother and infant, and has the potential to complicate subsequent pregnancies.^{4,5} Complications such as uterine rupture and abnormalities in placental attachment to the uterus (e.g., placenta accreta and percreta), which previously were extraordinarily rare, are becoming more common modern obstetric care challenges.^{6,7} Uterine rupture occurs along the scar line of a prior cesarean, and susceptibility is believed to result from relative weakness of the uterine wall at the point of scarring. Placenta accreta and percreta result when placental implantation occurs over or adjacent to scarring and the placenta invades the uterine muscle more deeply. This is believed to occur because the scarred tissue from prior cesarean has a less robust blood supply and abnormal architecture at the tissue and cellular level. Indeed, because the effects of these complications can be devastating and include fetal death, emergent hysterectomy, and maternal mortality from associated bleeding, labor and delivery units have increased the use of “code teams” that conduct practice drills to be prepared for such emergencies.

Cesarean birth rates vary considerably by geographic region, ranging from 25 to 38 percent among States, with the highest rates in the southeastern United States.¹ One research group examining differences across hospitals documented a span from 9 percent to 37 percent for primary cesarean births.⁸ While health care providers and health systems initially viewed such variation as a reflection of underlying differences in the risk profile of the women receiving care at the hospitals, it has become increasingly clear, through use of techniques such as risk adjustment, that a large proportion of variation is not explained by some facilities having much higher or lower risk patients than others. In medical care, when there is variation of the magnitude we see in use of cesarean after taking into account differences in patient characteristics, the conclusion is that provider preferences, and to a lesser extent patient preferences, are important drivers of variation.⁹⁻¹¹

Goals to reduce cesarean in the United States have become less ambitious. The Healthy People 2000 goal was to reduce cesarean to 15 percent of all births.¹² For Healthy People 2010, this goal was revised to 15 percent among women who had not had a prior cesarean, and in Healthy People 2020, the new target for cesarean among low-risk women in a first pregnancy with a full-term singleton pregnancy and vertex presentation is 23.9 percent.^{13,14} The moving target reflects ambivalence in knowing the right rate for optimal maternal and infant outcomes and doubts about what strategies can safely reduce use of cesarean.^{15,16}

Commentary on the factors driving change in cesarean use has been robust. Putative influences include:

- Changes in reimbursement for births that favor interventions such as cesarean¹⁷
- Amplified perception of the risk of medicolegal liability claims for less than perfect infant outcomes or for failing to intervene¹⁸
- Shifts in consumer attitude that include less fear of or regret about cesarean¹⁹
- Lower psychosocial or emotional value placed on the experience of vaginal birth²⁰
- Concerns about pelvic floor damage and future continence^{21,22}
- Maternal desire for greater control over the timing and circumstances of birth,²³ such as maternal request for elective induction and cesarean²⁴

Research has addressed predictors of cesarean such as the shift toward older maternal age, higher body mass index, greater maternal comorbidity, use of assisted reproductive technology, and increased incidence of multiple gestations.^{25,26}

Nonetheless, relatively little focus has been placed on research specifically designed to assess strategies to reduce use of cesarean. The notable exception is a study of approaches to promote trial of vaginal birth after cesarean (VBAC). Systematic reviews of VBAC interventions report increases in vaginal births from 6 to 70 percent with strategies to support a trial of labor.^{27,28} The state of general knowledge about evidence-based approaches to reduce cesarean overall is uncharted. In this review we aim to bring that literature to the forefront by systematically examining the outcomes of strategies intended to reduce use of cesarean among low-risk women.

Objectives

The goal of this systematic evidence review is to examine the effects of available strategies to reduce cesarean birth among low-risk pregnant women who have a singleton pregnancy, focusing on the following outcomes: route of birth, maternal morbidity and mortality, and neonatal morbidity and mortality.

The PICOTS (population, intervention (“strategy” is used here), comparator, outcome, timing, and setting) are given below. Inclusion and exclusion criteria are given in Table A.

Population: The population consisted of low-risk pregnant women who have a singleton pregnancy and a vertex presentation, are at term, and have not had a prior cesarean birth.

Strategies: Studies assessed strategies implemented specifically with the goal of reducing cesarean birth, including those used during prenatal care, during labor, and as part of health systems strategies (quality assurance, audit and feedback, implementation of guidelines, etc.).

During prenatal care:

- Antenatal care models
- Exercise training
- Management of fear of childbirth
- Induction of labor for women at risk for cesarean
- Structured education for pushing
- Hyaluronidase injection in cervix

During labor:

- Early labor assessment

- Midwife-led care
- Measurement of labor progress
- Active management of labor
- Management of abnormal labor
- Amniotomy (surgical rupture of fetal membranes)
- Increased intravenous fluids
- Psychosocial support, including doulas
- Pain management
- Fetal assessment
- Amnioinfusion
- Unique strategies, including acupuncture and devices

Comparators: Comparators were usual care, placebo, and comparative strategies or combinations of strategies.

Outcome Measures for Each Key Question: Outcomes included route of birth, maternal morbidity and mortality, and neonatal morbidity and mortality. We also assessed the harms of the strategies used, defined by the Evidence-based Practice Center Program as all possible adverse consequences of a strategy, including adverse events (Figure A).²⁹

Timing: Strategies used during pregnancy and during labor were included.

Setting: Strategies used in all health care settings, including the home, hospital, provider offices, clinics, and community, were included.

Key Questions

We synthesized evidence in the published literature to address these Key Questions (KQs):

KQ1. What strategies during pregnancy are effective to reduce the use of cesarean birth among women with a singleton pregnancy who are intending a vaginal birth?

KQ2. What strategies during labor are effective to reduce the use of cesarean birth among women with a singleton pregnancy who are intending a vaginal birth?

KQ3. Where head-to-head comparisons are available, what strategies are shown to be superior in reducing the use of cesarean birth among women with a singleton pregnancy who are intending a vaginal birth?

KQ4. What are the nature and frequency of adverse effects resulting from strategies used to reduce cesarean birth among women with a singleton pregnancy who are intending a vaginal birth?

Table A. Inclusion/exclusion criteria

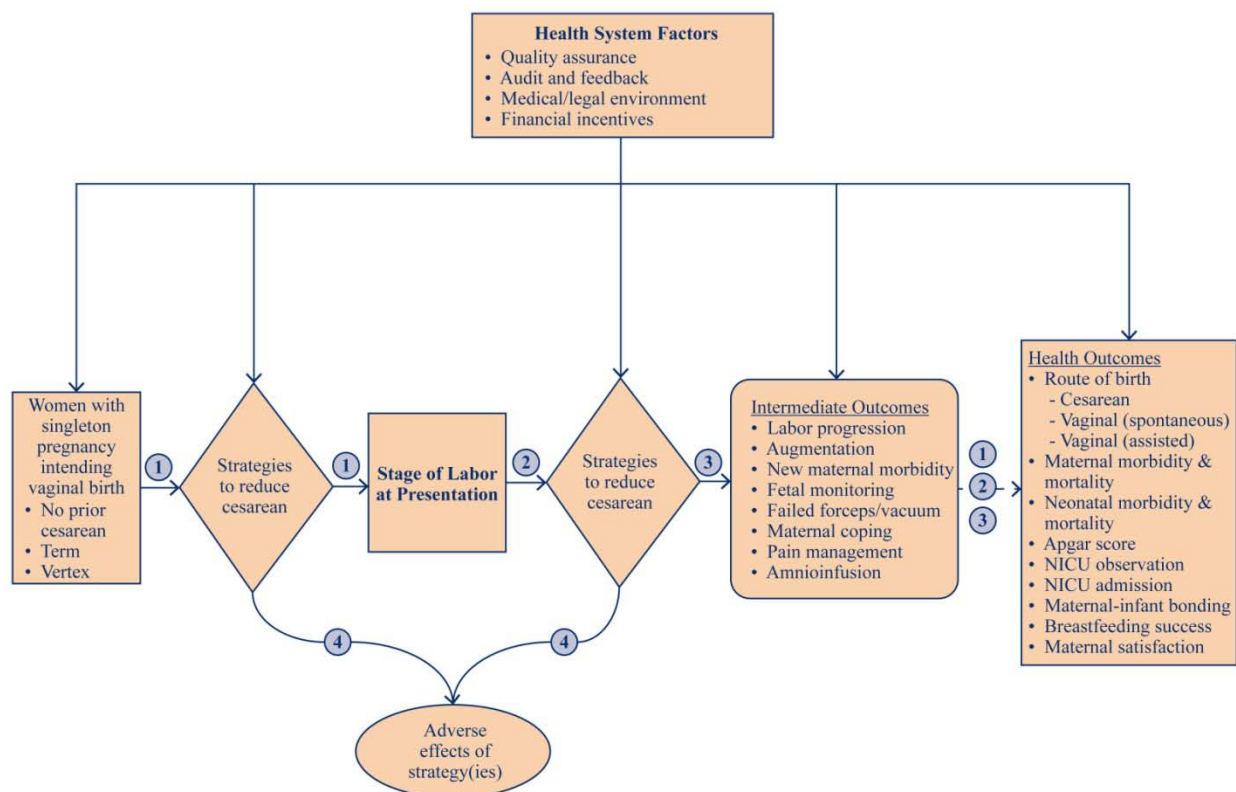
Category	Criteria
Study Population	Low-risk pregnant women who have a singleton pregnancy, a vertex presentation (as defined by the authors, where reported), term birth, and no previous cesarean birth
Time Period	All years
Publication Languages	English only
Admissible Evidence (Study Design and Other Criteria)	<p>Admissible designs Randomized controlled trials of interventions (KQs 1–4) Pre- and post-studies related to large-scale health systems changes (KQ2 only)</p> <p>Other criteria Original research studies must provide sufficient detail regarding methods and results to enable interpretation of the data and results Studies must include extractable data for one or more relevant outcomes listed in the PICOTS</p>

Note: KQ = Key Question. PICOTS = population, intervention (here, strategy), comparator, outcome, timing, and setting; they refer to the framework used by the Effective Health Care Program to summarize study characteristics.

Analytic Framework

We developed the analytic framework (Figure A) based on the literature and clinical expertise and refined it with input from our Key Informants and Technical Expert Panel members. The framework summarizes how strategies to reduce cesarean before and/or during labor may mediate intermediate outcomes such as labor progression, maternal coping, and pain management, and result in long-term outcomes such as route of birth, maternal morbidity and mortality, and neonatal morbidity and mortality. Adverse effects may occur at any point after the strategy has been implemented.

Figure A. Analytic framework for strategies to reduce cesarean birth in low-risk women



NICU = Neonatal intensive care unit

Note: Numbers in circles indicate the position of Key Questions in intervention process.

Methods

Input From Stakeholders

The topic for this report was nominated by a physician and health benefits plan/insurance carrier in a public process using the Effective Health Care Web site. Working from the nomination, we drafted the initial KQs and analytic framework. The KQs and analytic framework were refined with input from Key Informants representing the fields of obstetrics and gynecology, midwifery, nursing, pediatric care, primary care, and patient advocacy. The Agency for Healthcare Research and Quality (AHRQ) reviewed the KQs and posted them to a public Web site for public comment. Using public input, we submitted final KQs, which AHRQ reviewed. We convened a Technical Expert Panel representing the fields of obstetrics and gynecology, midwifery, nursing, pediatric care, primary care, and patient advocacy to provide input during the project on issues such as setting the inclusion/exclusion criteria and refining the analytic framework.

Literature Search

Our search included MEDLINE[®] via the PubMed interface and the Cumulative Index to Nursing and Allied Health Literature (CINAHL[®]) from 1968 to February 2012. We also hand-searched references of included articles to identify additional studies. Controlled vocabulary

terms served as the foundation of our search, complemented by additional keyword phrases to represent the myriad ways that cesarean is referred to in the clinical literature. We also employed indexing terms within each database to exclude undesirable publication types and articles in languages other than English.

Inclusion and Exclusion Criteria

We excluded studies that:

- Were not original research
- Did not report information pertinent to the KQs
- Did not describe an intention to reduce cesarean in low-risk women
- Did not include aggregate data or presented data only in graphics/figures
- Were not randomized controlled trials (RCTs) or pre-post studies of changes in policies or procedures within a health care system
- Were not published in English.

Article Selection Process

We examined abstracts of articles to determine whether studies met our criteria. Two reviewers separately evaluated the abstracts for inclusion or exclusion. If one reviewer concluded the article could be eligible for the review based on the abstract, we retained it. Full publications were then jointly reviewed for final inclusion, with disagreements resolved via adjudication by an independent third reviewer. Reasons and process for exclusions are described in the full report.

Data Extraction

All team members shared the task of entering information into evidence tables. After initial data extraction by one member, another member checked table entries for accuracy, completeness, and consistency. Abstracters reconciled inconsistencies.

Quality Assessment

The quality of individual studies was assessed using specific established tools for each type of study. For RCTs, the Cochrane Collaboration's tool for assessing risk of bias was employed. Fundamental domains include: adequate sequence generation, allocation concealment, blinding, addressing of incomplete outcome data, and freedom from selective reporting bias. For nonrandomized and observational studies, the Newcastle-Ottawa scale was utilized. The scale assesses three broad perspectives: (1) selection of study groups, (2) comparability of the groups, and (3) ascertainment of the outcome of interest. Both quality assessment tools are commonly used tools accepted by AHRQ.

Evidence Synthesis

Text that summarizes the research evidence is organized by KQ. Within each KQ we have organized the sections to (1) summarize the number and crucial descriptors of studies, (2) note the quality of studies, (3) summarize the number of studies that identified benefits of the intervention out of the total, (4) describe interventions that were effective in more detail, and (5)

note the overall strength of evidence for an intervention. In the full report, we include evidence tables and summary tables for common outcomes, and provide extended analysis.

Strength of Evidence

The degree of confidence that the observed effect of an intervention is unlikely to change is presented as strength of evidence. The overall strength of evidence can be graded as “high,” “moderate,” “low,” or “insufficient.” It describes the adequacy of the current research in quantity and quality, and the degree to which the entire body of current research provides a consistent and precise estimate of effect. We evaluated the overall strength of the evidence for the primary outcomes using the approach to strength of evidence described in AHRQ’s Methods Guide for Effectiveness and Comparative Effectiveness Reviews^{30,31} and a standardized strength-of-evidence evaluation sheet with scoring algorithm (shown in the full report). The strength-of-evidence rating was based on:

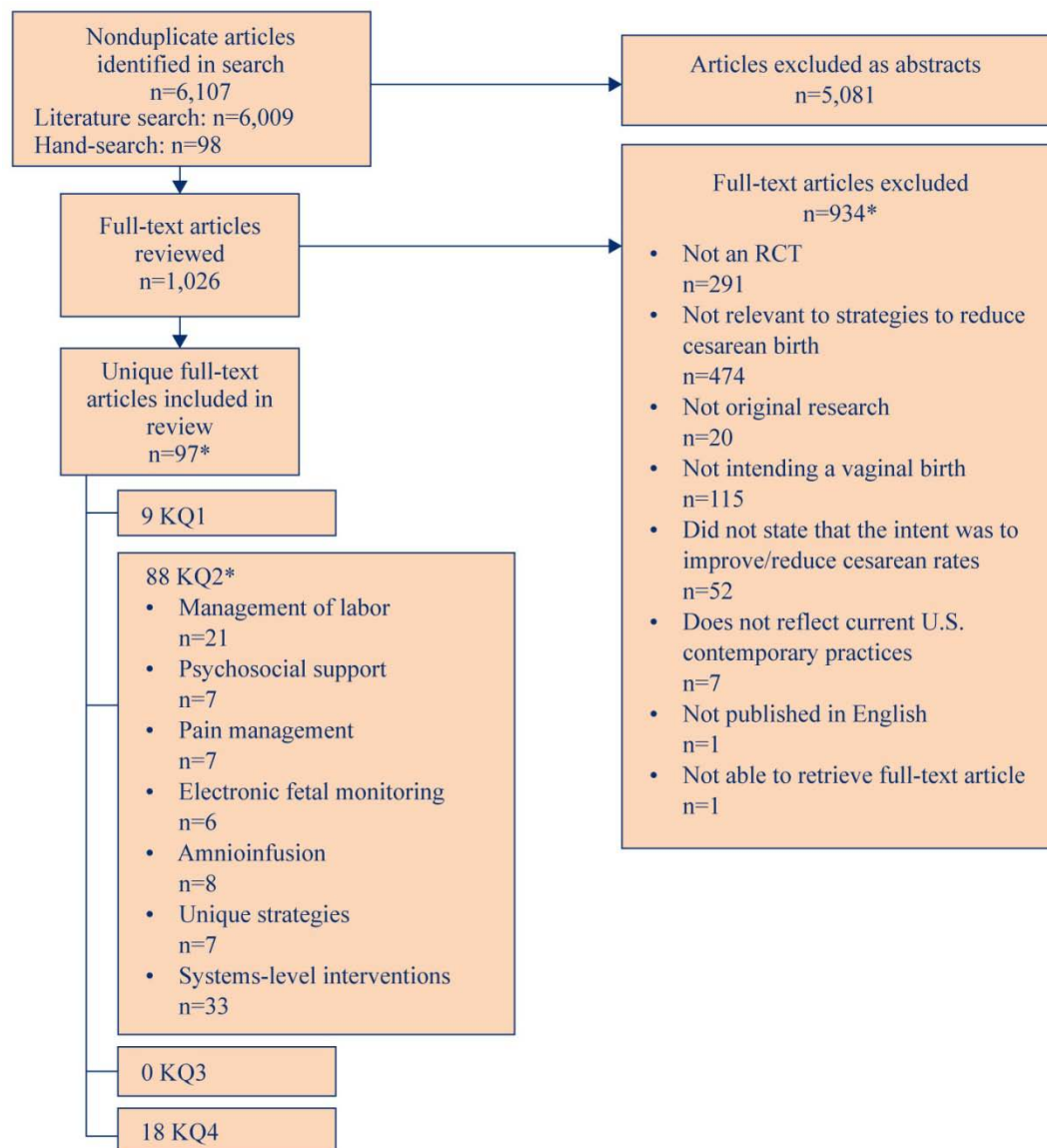
- Risk of bias (low, medium, or high)
- Consistency of findings (inconsistency not present, inconsistency present, or unknown or not applicable)
- Directness (direct comparison of influence on outcomes in RCT or indirect information from observational research)
- Precision (precise or imprecise based on outcome rates, size of individual studies, and total number of women in the studies for the strategy category)

Results

Literature Search Yield

We identified 6,107 nonduplicate publications. Ninety-seven were included in the review (Figure B). They represent 95 distinct study populations. Sixty-eight were RCTs and 29 were pre-post studies of health system changes. The most common reasons for exclusion were ineligible study design and irrelevance to the topic. Nine articles pertain to KQ1, 88 articles to KQ2, no articles to KQ3, and 18 articles to KQ4.

Figure B. Disposition of articles identified by the search strategy



KQ = Key Question

*The numbers of articles addressing KQs and excluded articles exceed the total number of articles in each category because some articles fit multiple exclusion categories or addressed more than one KQ.

KQ1. Effectiveness of Strategies Used During Pregnancy

Nine studies of strategies used during pregnancy were included in the review. Seven trials were rated as fair and two as poor. Three of the nine studies showed statistically significant benefit, but without replication, strength of evidence overall was insufficient. Care by members of a midwifery practice team who provided both prenatal and birth care demonstrated a modest 4.5-percent reduction in cesarean births in one study, with no difference reported in two similar studies. In another study, injection of hyaluronidase into the cervix in the outpatient clinic for patients at term with a low Bishop score promoted cervical softening. This strategy of cervical preparation, or “ripening,” reduced cesarean births by 31 percent. The study was small (n=168),

the vehicle use for the hyaluronidase injections is not allowed in the United States, and no other studies were found that investigated this strategy. Light exercise, strategies to reduce fear of labor, education about how to push in labor, and preemptive management of specific risks detected during antenatal care were among the ineffective outpatient strategies reported in individual studies.

The evidence about reducing cesarean through antenatal care models designed to enhance continuity is based on four RCTs with 4,337 participants (Table B). These fair-quality and poor-quality studies had inconsistent findings; two studies found a reduction in cesarean of 4.5 and 11.1 percent, while two found no benefit. This provides insufficient evidence. Each of the other approaches used during pregnancy is represented by a single trial with fewer than 300 participants that provides insufficient evidence to guide care.

KQ2. Effectiveness of Strategies Used During Labor

Management of Labor

Twenty-one studies on labor management strategies were included. Three labor management strategies that significantly reduced the use of cesarean in individual studies, all of good quality, each conducted in a different country (United States, South Africa, and United Kingdom) were: (1) use of a partogram, a graphic representation of the progress of labor, to plot labor progress over a 4-hour versus a 3-hour window (5.8%, odds ratio [OR]=1.8, 95% confidence interval [CI], 1.1 to 3.2); (2) a combined strategy of using a partogram to graph labor progress along with active management to augment labor (7.4%, relative risk [RR]=0.68, 95% CI, 0.50 to 0.93); and (3) administration of the beta-blocker propranolol in addition to oxytocin for treatment of labor that was not progressing normally (24.6%, RR=0.58, 95% CI, 0.35 to 0.93, p=0.02). Two of these studies addressed carefully documenting the progress of labor in women having their first birth, with structured responses for intervening for slowly progressing labors. The third addressed the management of abnormal progress in a group of women approximately half of whom had a prior birth.

Home-based triage of when a woman in labor should leave for the hospital did not reduce use of cesarean when compared with telephone triage. Early labor assessment done to delay hospital admission until active labor did not reduce use of cesarean when compared with direct admission of women in labor. A midwife-led unit for birth did not reduce use of cesarean when compared with a normal unit and special unit. Cesarean rates were identical in women who did and did not have amniotomy, artificial rupture of the membranes, at the time of hospital admission. Increased intravenous fluids during labor did not reduce use of cesarean. An oral carbohydrate solution increased use of cesarean. Each of these strategies was assessed to have provided insufficient evidence (Table B).

Evidence about measurement of labor progress is conflicting in two studies of good quality, one study of fair quality, and one of poor quality. In contrast to the two trials, mentioned above, that noted benefit for specific uses of partograms, adding a partogram with a 2-hour alert line and no action line to the usual written labor progress notes did not reduce the use of cesarean in two units in a tertiary care perinatal complex, and the proportion of births by cesarean among women randomized to a 2-hour versus a 4-hour partogram were equivalent. Providing a computerized reference range for assessing labor progress also did not reduce the use of cesarean.

Active management of labor did not reduce the use of cesarean in five studies, and a second study of propranolol administered simultaneously with oxytocin for arrested first stage of labor

did not find a significant reduction in cesarean. The six RCTs of active management have conflicting findings, but as fair- and good-quality studies of more than 5,300 women, they provide low strength of evidence for lack of benefit. Single studies of strategies used during labor provide insufficient evidence to inform care.

Psychosocial Support

We identified seven studies that examined the effect of psychosocial support strategies on cesarean births. One trial was of fair quality and six of poor quality. The three doula-support studies showed a reduction in cesarean births for women in the doula-support groups ranging from 5 to 22 percent. A doula is a woman experienced in childbirth who provides continuous physical and emotional support throughout labor and birth. These studies used women unfamiliar to the study participant who had experience and training in childbirth and support of women in labor. The specific mechanism by which doula support influences outcomes is unknown. A study using female family members or friends, who received 4 hours of training, to provide labor support showed no reduction in cesarean. In other models of one-to-one support, there was no advantage in reducing cesarean among women who received continuous labor support from nurses or midwifery students compared with women who received usual labor care. There is low strength of evidence favoring benefit for traditional trained doula support. The lay model of support provides insufficient evidence, and nursing models of one-to-one support in three trials with 7,568 participants provide low strength of evidence for benefit (Table B).

Pain Management

We identified seven trials that aimed to reduce cesarean by optimizing the pain management approach, predominantly through varied dosing strategies. These included ambulatory versus nonambulatory epidural, epidural with high-dose anesthetic versus epidural with low-dose anesthetic, continuous versus intermittent epidural, promethazine only versus promethazine with paracervical block, intravenous meperidine or epidural versus combined spinal-epidural anesthesia (two studies), and intramuscular pethidine versus epidural with ropivacaine and fentanyl. A single study, judged to be poor quality due to lack of description of the randomization allocation and concealment procedures, reported a threefold reduction in cesareans among women who received intermittent epidural (5%) compared with continuous epidural (15%, $p=0.03$). A larger good-quality study that compared high- versus low-dose epidural reported significantly fewer instrumental births (vacuum extraction and cesarean) in women who received the lower dose of analgesia (30% compared with 49%, $p<0.00001$). The proportion of cesareans was 10.2 percent for the low-dose group and 14.7 percent for the high-dose group, but no statistical analysis was reported. None of the remaining five studies reported a significant difference in use of cesarean. These studies varied in quality, sample size, comparison of anesthetics used, parity of the study population, and overall rate of cesarean birth. All examined different strategies. Results across these studies are inconsistent. In total, they provide low strength of evidence for lack of benefit of pain management strategies as an approach to reduce cesarean (Table B).

Fetal Assessments

Six studies of approaches to assessing fetal well-being in labor were included in this review. Of these, one was good quality and five were fair. Three of the four studies investigating use of fetal pulse oximetry to measure oxygen levels and blood pH demonstrated a significant reduction

in cesarean performed for fetal distress. Reduction in cesareans performed for fetal distress ranged from 5.7 to 24.6 percent; however, knowledge of intrapartum fetal oxygen saturation did not have a significant effect on overall use of cesarean. There was no evidence that fetal pulse oximetry slowed or interfered with labor. Use of ST analysis in conjunction with fetal heart rate monitoring did not reduce cesarean rates overall or cesarean rates for nonreassuring fetal heart tracing when compared with routine fetal heart rate monitoring alone. Across these categories of fetal assessment strategies, there is low strength of evidence for lack of benefit from six studies including more than 9,300 women (Table B).

Amnioinfusion

Eight studies of fetal strategies during labor were included. Three were rated as fair quality and five as poor quality. Amnioinfusion, instilling sterile fluid into the uterus to surround the fetus, is performed for fetal heart tracings indicating potential distress. Four of eight studies found that its use led to a significant reduction, ranging from 12 to 20 percent, in cesareans for fetal distress; however, these studies did not find a consistent overall decrease in use of cesarean.

Amnioinfusion to dilute moderate or heavy meconium, when performed in under-resourced hospital settings where electronic monitoring was limited or absent, improved neonatal outcomes. Prophylactic amnioinfusion for oligohydramnios, low levels of fluid surrounding the fetus, did not reduce use of cesarean. The data are conflicted about its effectiveness for preventing cesarean. Overall, amnioinfusion decreased cesarean, although the strength of evidence is insufficient to support its use to prevent cesarean (Table B).

Unique Strategies

Seven studies not amenable to grouping focused on unique strategies to reduce cesarean births. These studies varied in quality, with two good-quality, two fair-quality, and three poor-quality studies. Large single studies, comprising approximately 500 to 2,400 participants each, of encouraging walking, allowing eating, or using an inflatable obstetric belt to augment contractions during labor showed no effect on the incidence of cesarean compared with usual care. Small studies of other strategies, such as acupuncture, a molded dental device for use during pushing, or a single intravenous dose of propranolol given after admission, did not show reduced risk of cesarean when compared with standard care approaches. As unique studies, these provide insufficient evidence to guide care (Table B).

Systems-Level Strategies

Thirty-three publications in 31 study settings described the findings of systems-level strategies, which included changes in policies, procedures, or protocols intended to reduce cesarean births. From baseline to followup, 18 of 31 studies achieved statistically significant reductions in cesarean, with decreases ranging from 1.6 to 17.0 percent. None of the four systems-level RCTs demonstrated effectiveness. Three of these trials were poor quality and one was fair (Table B).

More than 16 different types of strategy components were used in various combinations in these reports of systems-level changes. This makes interpretation challenging, because when multiple components are put into place and no two studies compare exactly the same components, the data cannot be directly aggregated and effective components cannot be identified with certainty.

Twelve observational studies reported achieving a reduction in cesarean of 5 percent or more. Ten of these pre-post studies documented reductions in cesarean with strategies that included

varied forms of auditing of individual or group cesarean use trends, with regular feedback of data to either the organizational unit (hospital, department, and labor and delivery staff) or the individual care providers or both. Across these studies, audit and feedback data were most often provided at both the unit and individual level. The next most common components of successful strategies, with a 5-percent or greater reduction, were tracking of progress of labor using a partogram, often implemented along with agreed procedures for taking action when labor was not progressing at the rate indicated in the intervention protocols.

When comparing successful with unsuccessful systems-level strategies, the overall number of components used in any one study is modestly lower among unsuccessful interventions. Successful and unsuccessful strategies had many components in common. In general, it is not possible to determine which components are definitively associated with reductions. Variation across study interventions, relatively modest effects in U.S. settings, and the observational nature of these data mean that the evidence is insufficient to determine if systems-level strategies reduce cesarean.

KQ3. Head-to-Head Comparisons of Strategies

All studies compared the novel strategy with usual care or with a variation on the same strategy.

We did not identify comparisons of distinctive strategies—for instance, doula support versus active management of labor or pain management strategies versus fetal monitoring strategies. Several comparisons evaluated different approaches to the same strategy such as different approaches to epidural dosing or to monitoring progress of labor. These comparisons of variations on like strategies are noted in the sections that discuss those interventions. For now, there is no evidence to inform prioritization of one type of intervention to another.

KQ4. Adverse Effects of Strategies To Reduce Cesarean Birth

Eighteen studies included in the review reported on adverse effects in the populations participating in these studies of strategies to reduce cesarean. Few of the adverse effects presented in the reports had a plausible direct correlation to the strategy used to prevent cesarean birth. Most studies summarized obstetrics outcome measures traditionally reported in the literature such as maternal fever, nausea and vomiting, and anesthesia-related side effects. When a relationship with the strategy was plausible, such as for use of in utero monitoring in labor and risk of infection, there was no systematic evidence of increased risk in the intervention groups.

Discussion

Summary Strength of Evidence and Findings

Overall, the strength of evidence to answer the KQs ranged from insufficient to low (Table B). Deficiencies in the strength of evidence most often related to a preponderance of studies with inadequate study size, high risk of bias (failure to properly randomize or to conceal allocation), inconsistent findings across studies (no strategy had entirely consistent evidence supporting effectiveness), and variation in reporting of indications for cesarean. At times there was low strength of evidence for lack of benefit. This means that studies with some deficiencies did not demonstrate reduced use of cesarean, but future research could change that assessment.

Table B. Strength of evidence for various strategies to reduce cesarean birth

Strategy: n Total Studies (n Total Participants)	Risk of Bias	Consistency	Directness	Precision	Strength of Evidence
<i>KQ1. Strategies During Pregnancy (n=9)</i>					
Antenatal care model 4 (4,337)	Moderate	Inconsistent	Direct	Imprecise	Insufficient; 3 fair-quality studies, 1 poor-quality study
Exercise training 1 (160)	Moderate	N/A	Direct	Imprecise	Insufficient; 1 fair-quality study
Management of fear of childbirth 1 (176)	Moderate	N/A	Direct	Imprecise	Insufficient; 1 poor-quality study
Induction of labor for women at-risk for cesarean 1 (270)	Moderate	N/A	Direct	Imprecise	Insufficient; 1 fair-quality study
Education on pushing 1 (100)	Moderate	N/A	Direct	Imprecise	Insufficient; 1 fair-quality study
Hyaluronidase 1 (168)	Moderate	N/A	Direct	Imprecise	Insufficient; 1 fair-quality study
<i>KQ2. Strategies During Labor Management of Labor (n=21)</i>					
Early labor assessment 2 (1,668)	Moderate	Inconsistent	Direct	Imprecise	Insufficient; 2 fair-quality studies with conflicting findings
Midwife-led unit 1 (1,111)	High	N/A	Direct	Imprecise	Insufficient; 1 poor-quality study
Measurement of labor progress 4 (10,823)	Moderate	Inconsistent	Direct	Imprecise	Low strength of evidence for lack of benefit; 2 good-quality studies, 1 fair-quality and 1 poor-quality study
Active management of labor 6 (5,330)	Moderate	Inconsistent	Direct	Imprecise	Low strength of evidence for lack of benefit; 2 good-quality studies, 2 fair-quality studies
Management of abnormal labor 5 (2,764)	Moderate	Inconsistent	Direct	Imprecise	Insufficient; 2 good-quality studies, 2-fair quality studies, 1 poor-quality study
Amniotomy 1 (128)	Moderate	N/A	Direct	Imprecise	Insufficient; 1 fair-quality study
Increased intravenous fluids 1 (195)	Low	N/A	Direct	Imprecise	Insufficient; 1 good-quality study
Oral carbohydrate solution 1 (201)	Moderate	N/A	Direct	Imprecise	Insufficient; 1 fair-quality study

Table B. Strength of evidence for various strategies to reduce cesarean birth (continued)

Strategy: n Total Studies (n Total Participants)	Risk of Bias	Consistency	Directness	Precision	Strength of Evidence
<i>KQ2. Strategies During Labor (continued)</i>					
<i>Psychosocial Support (n=7)</i>					
Doula support 3 (1,136)	High	Consistent	Direct	Precise	Low strength of evidence for benefit; 3 poor-quality studies
Trained friend or family as labor support 1 (598)	High	N/A	Direct	Imprecise	Insufficient; 1 poor-quality study
Nursing and midwifery student support 3 (7,568)	High	Consistent	Direct	Imprecise	Low strength of evidence for lack of benefit; 2 poor-quality studies and 1 fair-quality study
<i>Pain Management (n=7)</i>					
Pain management 7 (5,525)	Moderate	Inconsistent	Direct	Imprecise	Low strength of evidence for lack of benefit; 4 poor-quality studies, 2 fair-quality studies, 1 good-quality study
<i>Fetal Assessment (n=6)</i>					
Fetal pulse oximetry 4 (7,098)	Moderate	Inconsistent	Direct	Imprecise	Low strength of evidence for lack of benefit; 1 good-quality, 3 fair-quality studies
Fetal assessment by STAN 2 (2,271)	Moderate	Consistent	Direct	Imprecise	Low or moderate evidence for lack of benefit; 2 fair-quality studies
<i>Amnioinfusion (n=8)</i>					
Amnioinfusion for fetal distress 2 (588)	High	Inconsistent	Direct	Imprecise	Insufficient; 1 fair-quality and 1 poor-quality study
Amnioinfusion for meconium 5 (1,565)	High	Inconsistent	Direct	Imprecise	Insufficient; 3 poor-quality and 2 fair-quality studies
Amnioinfusion for oligohydramnios 1 (60)	High	N/A	Direct	Imprecise	Insufficient; 1 fair-quality study

Table B. Strength of evidence for various strategies to reduce cesarean birth (continued)

Strategy: n Total Studies (n Total Participants)	Risk of Bias	Consistency	Directness	Precision	Strength of Evidence
KQ2. Strategies During Labor (continued)					
Unique Strategies (n=7)					
Acupuncture 2 (145)	High	Inconsistent	Direct	Imprecise	Insufficient; 2 fair-quality studies
Dental device 1 (64)	High	N/A	Direct	Imprecise	Insufficient; 1 poor-quality study
Allowing eating 1 (2,426)	Low	N/A	Direct	Precise	Insufficient; 1 good-quality study
Inflatable obstetric belt 1 (500)	Low	N/A	Direct	Imprecise	Insufficient; 1 good-quality study
Propranolol 1 (57)	High	N/A	Direct	Imprecise	Insufficient; 1 poor-quality study
Allowing walking 1 (916)	High	N/A	Direct	Precise	Insufficient; 1 poor-quality study
Systems-Level Strategies (n=33)					
Systems-level strategies 33	High	Inconsistent	Indirect	Precise	Insufficient
KQ4. Adverse Effects of Strategies					
Adverse effects 18 (14,075)	Moderate	Inconsistent	Indirect	Imprecise	Insufficient; fair- to poor-quality studies with inconsistent reporting of multiple adverse effects

KQ = Key Question; N/A = not applicable; STAN = ST segment analysis of fetal electrocardiography

Note: See the Methods section for more detail about grading strength of evidence. Assessment of insufficient evidence often resulted from single trials or small numbers of studies with combinations of high risk of bias, inconsistent results, and poor precision. The latter often resulted from relatively limited power of individual or aggregated studies to accurately estimate the effect. Low strength of evidence for lack of benefit was most commonly assigned in the setting of moderate to low risk of bias and larger studies in which the predominance of the literature found no benefit but a single study reported reduction in cesarean.

Applicability

In this report, the study populations were, by design of the review, intended to be low-risk pregnant women with a singleton pregnancy, a vertex presentation, at term, and without a history of previous cesarean birth. However, authors did not always provide sufficient detail to ensure that the entire study population met this low-risk definition. It is likely that, overall, we have captured studies with predominantly low-risk groups that can inform the question of how best to prevent cesarean in low-risk women at term. The strategies used during pregnancy and in labor varied widely, and few interventions were used in more than one setting. For all of the studies included in this review, the comparators were standard obstetric care or pain medications in the same drug class, but standards and patterns of care vary. The primary outcome of interest was route of birth, including vaginal, vaginal assisted, and cesarean. However, the reporting of each category was incomplete among the studies reviewed, so it was not always possible to assess whether reductions in cesarean were achieved at the expense of an increase in assisted or complicated vaginal births. The studies reflected the base population of women seeking care in the setting in which the study was done and intending vaginal births. We did not include studies focused only on high-risk populations.

Most importantly, fewer than half of the studies included were conducted in the United States (41 of 93), so outcomes reflect data from many countries and settings that may not directly apply to the United States. We have taken care to indicate when this is the case in the detailed tables of the full report. Differences in the health systems, homogeneity of the population, and prevailing rates of cesarean are important to note. While we attempted to restrict the review to trials conducted in settings with clinical care settings similar to those in the United States, this was likely not the case in all instances. Even developed westernized countries may deploy medical resources and have patterns of care that dramatically differ from those in the United States. It is important to note that applicability for guiding care for women in the United States is best served by relatively contemporary U.S. data because cultural norms and health systems factors mitigate against international studies' fully capturing the context of care and populations in the United States.

Conclusions

No particular intervention strategy was uniformly successful in reducing cesareans in all trials of the strategy. Strength of evidence was low to insufficient across all strategies. The only strategy to achieve evidence of benefit was involvement of doulas for personalized support in labor, and that evidence was rated low because of the poor quality of trials.

Several strategies are not supported by the current literature. These include measurement of progress in labor as the primary component of intervention, active management of labor, nursing and midwifery students as support in labor, modifications of pain management approaches, fetal pulse oximetry, and fetal assessment by ST segment analysis of fetal electrocardiography. This does not mean the strategy has no merit and should not be investigated in the future. It does mean that, based on the current literature, there is not evidence of effectiveness for the purpose of reducing cesarean use among low-risk women. For the majority of strategies, the evidence is insufficient, including many instances in which a single study is the only evidence about the approach. While certain components of systems-level interventions were common among successful interventions, none was supported by a randomized trial, and for each instance of inclusion in a successful pre-post intervention, there were instances of unsuccessful use of similar components.

This literature contains intriguing examples of single studies that deserve further exploration. Use of hyaluronidase to hasten cervical changes favorable to labor at term was studied using a vehicle for the injection that is not allowed in the United States. Modifications and safety evaluation would be a prerequisite to future trials. Further exploration of the elements of doula support that were common across successful trials would be informative in order to conduct larger scale replications in U.S. populations. Similarly, use of amnioinfusion to reduce fetal distress appears to reduce cesareans for this indication. More information is needed about why it did not reduce overall use of cesarean. Potential explanatory factors include trials that were underpowered or use of outcome measurements that allow cesareans undertaken for varied reasons to be grouped in uninformative ways. We also need evaluations of whether components of systems interventions succeed because of the components themselves or because the interventions selected reflect the will of the health system and care providers to promote decreased use of cesarean. Detailed research in the context of multisite trials is warranted to more carefully parse which tools, individually and combined, have effect. Indeed, the need for future research in this area is clear. Better definition of research needs is the focus of a companion piece to this evidence review: Future Research Needs for Strategies To Reduce

Cesarean Birth in Low-Risk Women. In producing the companion report (Future Research Needs Paper No. 22), information was gathered from multiple stakeholders, including obstetricians, family physicians, midwives, insurers, advocacy groups, and individual women, and a system of information gathering and surveys was used to prioritize the research most urgently needed.

In conclusion, no approach dominated as a strategy appropriate to reduce use of cesarean in low-risk women in the United States. The literature spans the globe and may not have the level of applicability we would desire to contemporary U.S. populations. This is a concern, as cesarean rates among low-risk women continue to rise, and the individual and public benefits of avoiding unnecessary cesarean may be substantial.

References

1. Menacker F, Hamilton BE. Recent trends in cesarean delivery in the United States. *NCHS Data Brief*. 2010 Mar(35):1-8. PMID: 20334736.
2. Martin JA, Hamilton BE, Sutton PD, et al. Births: final data for 2007. *Natl Vital Stat Rep*. 2010 Aug 9;58(24):1-85. PMID: 21254725.
3. The Joint Commission. Specifications manual for Joint Commission national quality core measures. 2010. manual.jointcommission.org/releases/TJC2010B/MIF01067.html. Accessed February 4, 2011.
4. National Institutes of Health Consensus Development conference statement: vaginal birth after cesarean: new insights March 8-10, 2010. *Obstet Gynecol*. 2010 Jun;115(6):1279-95. PMID: 20502301.
5. NIH consensus development statement on cesarean childbirth. The Cesarean Birth Task Force. *Obstet Gynecol*. 1981 Apr;57(4):537-45. PMID: 7243111.
6. Getahun D, Oyelese Y, Salihu HM, et al. Previous cesarean delivery and risks of placenta previa and placental abruption. *Obstet Gynecol*. 2006 Apr;107(4):771-8. PMID: 16582111.
7. Blanchette H. The rising cesarean delivery rate in America: what are the consequences? *Obstet Gynecol*. 2011 Sep;118(3):687-90. PMID: 21860302.
8. Clark SL, Belfort MA, Hankins GD, et al. Variation in the rates of operative delivery in the United States. *Am J Obstet Gynecol*. 2007 Jun;196(6):526 e1-5. PMID: 17547880.
9. Wennberg JE. *Tracking Medicine: A Researcher's Quest to Understand Health Care*. Oxford, England: Oxford University Press; 2010.
10. Baicker K, Buckles KS, Chandra A. Geographic variation in the appropriate use of cesarean delivery. *Health Aff (Millwood)*. 2006 Sep-Oct;25(5):w355-67. PMID: 16895942.
11. Luthy DA, Malmgren JA, Zingheim RW, et al. Physician contribution to a cesarean delivery risk model. *Am J Obstet Gynecol*. 2003 Jun;188(6):1579-85; discussion 85-7. PMID: 12824996.
12. National Center for Health Statistics. *Healthy People 2000 Final Review*. Hyattsville, MD: Public Health Service; 2001.
13. U.S. Department of Health and Human Services. *Healthy People 2010: Understanding and Improving Health*. Washington, DC: U.S. Government Printing Office; 2000. www.healthypeople.gov/2010. Accessed May 5, 2011.
14. U.S. Department of Health and Human Services. *Healthy People 2020*. Washington, DC; 2011. www.healthypeople.gov/2020/default.aspx. Accessed May 5, 2011.
15. Cyr RM. Myth of the ideal cesarean section rate: commentary and historic perspective. *Am J Obstet Gynecol*. 2006 Apr;194(4):932-6. PMID: 16580278.
16. Resnik R. Can a 29% cesarean delivery rate possibly be justified? *Obstet Gynecol*. 2006 Apr;107(4):752-4. PMID: 16582108.
17. Gruber J, Kim J, Mayzlin D. Physician fees and procedure intensity: the case of cesarean delivery. *J Health Econ*. 1999 Aug;18(4):473-90. PMID: 10539618.
18. Zwecker P, Azoulay L, Abenhaim HA. Effect of fear of litigation on obstetric care: a nationwide analysis on obstetric practice. *Am J Perinatol*. 2011 Apr;28(4):277-84. PMID: 21249618.
19. Dursun P, Yanik FB, Zeyneloglu HB, et al. Why women request cesarean section without medical indication? *J Matern Fetal Neonatal Med*. 2011 Sep;24(9):1133-7. PMID: 21668323.
20. Quiroz LH, Blomquist JL, Macmillan D, et al. Maternal goals for childbirth associated with planned vaginal and planned cesarean birth. *Am J Perinatol*. 2011 Oct;28(9):695-702. PMID: 21660899.

21. O'Boyle AL, Davis GD, Calhoun BC. Informed consent and birth: protecting the pelvic floor and ourselves. *Am J Obstet Gynecol.* 2002 Oct;187(4):981-3. PMID: 12388991.
22. Handa VL, Blomquist JL, Knoepp LR, et al. Pelvic floor disorders 5-10 years after vaginal or cesarean childbirth. *Obstet Gynecol.* 2011 Oct;118(4):777-84. PMID: 21897313.
23. Bettes BA, Coleman VH, Zinberg S, et al. Cesarean delivery on maternal request: obstetrician-gynecologists' knowledge, perception, and practice patterns. *Obstet Gynecol.* 2007 Jan;109(1):57-66. PMID: 17197588.
24. Simpson KR, Thorman KE. Obstetric "conveniences": elective induction of labor, cesarean birth on demand, and other potentially unnecessary interventions. *J Perinat Neonatal Nurs.* 2005 Apr-Jun;19(2):134-44. PMID: 15923963.
25. Bayrampour H, Heaman M. Advanced maternal age and the risk of cesarean birth: a systematic review. *Birth.* 2010 Sep;37(3):219-26. PMID: 20887538.
26. Kulie T, Slattengren A, Redmer J, et al. Obesity and women's health: an evidence-based review. *J Am Board Fam Med.* 2011 Jan-Feb;24(1):75-85. PMID: 21209347.
27. Khunpradit S, Tavender E, Lumbiganon P, et al. Non-clinical interventions for reducing unnecessary caesarean section. *Cochrane Database Syst Rev.* 2011(6):CD005528. PMID: 21678348.
28. Catling-Paull C, Johnston R, Ryan C, et al. Non-clinical interventions that increase the uptake and success of vaginal birth after caesarean section: a systematic review. *J Adv Nurs.* 2011 Aug;67(8):1662-76. PMID: 21535091.
29. Chou R, Aronson N, Atkins D, et al. AHRQ series paper 4: assessing harms when comparing medical interventions: AHRQ and the effective health-care program. *J Clin Epidemiol.* 2010 May;63(5):502-12. PMID: 18823754.
30. Agency for Healthcare Research and Quality. *Methods Guide for Effectiveness and Comparative Effectiveness Reviews.* Rockville, MD; 2008. www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=21433403.
31. Owens DK, Lohr KN, Atkins D, et al. AHRQ series paper 5: grading the strength of a body of evidence when comparing medical interventions--agency for healthcare research and quality and the effective health-care program. *J Clin Epidemiol.* 2010 May;63(5):513-23. PMID: 19595577.

Introduction

Background

Thirty-two percent of pregnancies in the United States conclude with a cesarean birth.¹ This record high rate reflects a relative increase of 53 percent in use of cesarean from 1991 to 2007.¹ The pattern of increasing use of cesarean has been concerning for decades, with the last decline of 2 to 3 percent occurring in the mid-1990s being fully reversed by 1999 and increasing over 50 percent from 1996 to 2007.² Nearly one in three births by cesarean translates to a total of 1.4 million cesarean births each year, making cesarean the most commonly performed major surgery in the United States.¹

The Joint Commission has expressed concern about U.S. cesarean birth rates in its Specifications Manual for Joint Commission National Quality Core Measures, noting that, “There are no data that higher rates improve any outcomes, yet the CS [cesarean section] rates continue to rise.”³ Cesarean birth is not without consequences. In general, cesarean is more costly to the health care system, is associated with increased risk for both mother and infant, and has the potential to complicate subsequent pregnancies.⁴⁻⁵ Previously extraordinarily rare complications like uterine rupture and abnormalities in placental attachment to the uterus, such as placenta accreta and percreta, are becoming more common modern obstetric care challenges.⁶⁻⁷ Uterine rupture occurs along the scar line of a prior cesarean and susceptibility is believed to result from relative weakness of the uterine wall at the point of scarring. Placenta accreta and percreta result when placental implantation occurs over or adjacent to scarring and the placenta invades the uterine muscle more deeply. This is believed to occur because the scarred tissue from prior cesarean has a less robust blood supply and abnormal architecture at the tissue and cellular level. Indeed, because the effects of these complications can be devastating and include fetal death, emergent hysterectomy and maternal mortality from associated bleeding, labor and delivery units have increased the use “code teams” that conduct practice drills to be prepared for such emergencies.

Cesarean birth rates vary considerably by geographic region, ranging from 25 to 38 percent among different states with the highest rates in the southeastern United States.¹ One research group examining differences across hospitals documented a span from 9 percent to 37 percent for primary cesarean births.⁸ While health care providers and health systems initially viewed such variation as a reflection of underlying differences in the risk profile of the women receiving care at the hospitals, it has become increasingly clear, through use of techniques like risk adjustment, that a large proportion of variation is real. It is not explained by some facilities having much higher or lower risk patients than others. In medical care, when there is variation of the magnitude we see in use of cesarean after taking into account differences in patient characteristics, the conclusion is that provider preferences, and to a lesser extent patient preferences are important drivers of variation.⁹⁻¹²

Goals for reducing cesarean in the United States have become less ambitious over time. The Healthy People 2000 goal was to reduce cesarean to 15 percent of all births.¹³ For Healthy People 2010 this goal was revised to 15 percent among women who had not had a prior cesarean, and in Healthy People 2020 the new target for cesarean among low-risk women in a first pregnancy with full-term singleton pregnancies and vertex presentation is 23.9 percent.¹⁴⁻¹⁵ The moving target for both numerator and denominator in these goals reflects ambivalence in

knowing what the right rate is for optimal maternal and infant outcomes and doubts about what interventions can safely reduce use of cesarean.¹⁶⁻¹⁷

Commentary on the factors driving change in cesarean use have been robust. Putative influences include:

- Changes in reimbursement for births that favor interventions like cesarean¹⁸
- Amplified perception of risk of medico-legal liability claims for less than perfect infant outcomes or for failing to intervene¹⁹
- Shifts in consumer attitude that include less fear of or regret about cesarean²⁰
- Lower psychosocial or emotional value placed on the experience of vaginal birth²¹
- Concerns about pelvic floor damage and future continence²²⁻²³
- Maternal desire for greater control over the timing and circumstances of birth²⁴ such as maternal request for elective induction and cesarean.²⁵

Research has addressed predictors of cesarean such as the shift toward older maternal age, higher body mass index, greater maternal comorbidity, use of assisted reproductive technology, and increased incidence of multiple gestations.²⁶⁻²⁷

Nonetheless relatively little focus has been placed on research specifically designed to assess strategies to reduce use of cesarean. The notable exception is a study of approaches to promote trial of vaginal birth after prior cesarean (VBAC). Systematic reviews of VBAC interventions report increases in vaginal births from 6 to 70 percent with strategies to support a trial of labor.²⁸⁻²⁹ The state of general knowledge about evidence-based approaches to reduce cesarean overall is uncharted. In this review we aim to bring that literature to the forefront by systematically examining the outcomes of interventions intended to reduce use of cesarean among low-risk women.

Objectives

The goal of this systematic evidence review is to examine the effects of available strategies to reduce cesarean birth among low-risk pregnant women who have a singleton pregnancy focusing on the following outcomes: route of birth, maternal morbidity and mortality, and neonatal morbidity and mortality.

Strategies

Low-risk pregnant women who have a singleton pregnancy, with a vertex presentation, at term, and no previous cesarean births are the focus of this review. Studies assessed strategies implemented specifically with the goal of reducing cesarean birth, including strategies used during prenatal care, during labor, and as part of health systems strategies (quality assurance, audit and feedback, implementation of guidelines, etc.).

During prenatal care

- Antenatal care models
- Exercise training
- Management of fear of childbirth
- Induction of labor for women at risk for cesarean
- Structured education for pushing
- Hyaluronidase injection in cervix

During labor

- Early labor assessment
- Midwifery-led care
- Measurement of labor progress
- Active management of labor
- Management of abnormal labor
- Amniotomy (surgical rupture of fetal membranes)
- Increased intravenous fluids
- Psychosocial support, including doulas
- Pain management
- Fetal assessment
- Amnioinfusion
- Unique strategies, including acupuncture and devices

Goal of This Comparative Effectiveness Review (CER)

The overall goal of this CER is to inform clinician and patient decisions about the strategies that could be used to reduce cesarean births. This CER summarizes evidence for the effectiveness of strategies before and during labor to prevent a birth by cesarean. We also address any adverse effects of strategies employed by pregnant women or their health care providers as reported in the literature. “Adverse effects” are defined by the Evidence Based Practice Center program as the totality of all possible adverse consequences of an intervention.³⁰ We also sought not to duplicate efforts of other recent AHRQ reviews including vaginal birth after cesarean, maternal request for cesarean, and elective induction.³¹⁻³³

Scope and Key Questions

Scope of the Report

Evidence reviews of interventions seek to identify and systematically summarize objective information about the evidence related to factors including the:

- Effectiveness of specific strategies
- Relative benefit of one strategy over another
- Common side effects and serious risks of a strategy

We focused this review on strategies to reduce cesarean birth in low-risk pregnant women who have a singleton pregnancy, a vertex presentation, term birth, and no previous cesarean births.

Key Questions

We have synthesized evidence in the published literature to address the following Key Questions (KQs):

KQ1: What strategies during pregnancy are effective to reduce the use of cesarean birth among women with a singleton pregnancy, who are intending a vaginal birth?

KQ2: What strategies during labor are effective to reduce the use of cesarean birth among women, with a singleton pregnancy, who are intending a vaginal birth?

KQ3: Where head-to-head comparisons are available, what strategies are shown to be superior in reducing the use of cesarean birth among women, with a singleton pregnancy, who are intending a vaginal birth?

KQ4: What are the nature and frequency of adverse effects resulting from strategies used to reduce cesarean birth among women, with a singleton pregnancy, who are intending a vaginal birth?

Organization of This Evidence Report

The Methods section describes our processes including our search strategy, inclusion and exclusion criteria, approach to review of abstracts and full publications, and methods for extraction of data into evidence tables, and compiling evidence. We also describe our approach to grading the quality of the literature and to describing the strength of the body of evidence.

The Results section presents the findings of the literature search and the review of the evidence by KQ, synthesizing the findings across strategies. We have organized the sections to (1) summarize the number and crucial descriptors of studies; (2) note the quality of studies; (3) summarize the number of studies that identified benefits of the intervention out of the total; (4) describe interventions that were effective in more detail; and note (5) the overall strength of evidence for an intervention.

The final section of the report discusses the results and enlarges on the methodologic considerations relevant to each KQ. We also outline the current state of the literature and challenges for future research on the strategies to reduce cesarean birth. In addition, we have produced a companion piece to this evidence review: Future Research Needs for Strategies To Reduce Cesarean Birth in Low-Risk Women (Future Research Needs Paper No. 22). Information was gathered from multiple stakeholders, including obstetricians, family physicians, midwives, insurers, advocacy groups, and individual women, and a system of information gathering and surveys was used to prioritize the research most urgently needed.

The report includes a number of appendixes to provide further detail on our methods and the studies assessed. The appendixes are as follows:

- Appendix A: Search Strategy
- Appendix B: List of Excluded Studies
- Appendix C: Evidence Tables
- Appendix D: Data Extraction Forms
- Appendix E: Quality of the Literature
- Appendix F: Applicability Summary Tables
- Appendix G: Strength of the Evidence Calculator
- Appendix H: Summary PICOTS table

We also include a list of abbreviations and acronyms at the end of the report.

Uses of This Report

We anticipate this report will be of value to all health care providers who take care of women of childbearing age, including members of the American Congress of Obstetricians and Gynecologists; the Association of Women's Health; Obstetric and Neonatal Nurses; the American College of Nurse-Midwives; the American Academy of Family Physicians; the National Association of Nurse Practitioners in Women's Health; and other clinical professional organizations. In addition, this review will be of use to the National Institutes of Health, Centers

for Disease Control and Prevention, Centers for Medicare and Medicaid Services, and the Health Resources and Services Administration—all of which have offices or bureaus devoted to women’s health issues. In conjunction with existing reviews on related topics such as vaginal birth after cesarean, maternal request for cesarean, and elective induction, this report can bring providers up to date about the current state of evidence, and it provides an assessment of the quality of studies that aim to determine the effectiveness of strategies to reduce cesarean birth.³¹⁻

³³ It will be of interest to individual women and the general public because of the continuing increase in cesarean births, and the recurring need for women and their health care providers to make the best possible decisions and choices from among numerous options. We also anticipate it will be of use to private sector organizations concerned with women’s health, such as Childbirth Connection, the March of Dimes, the National Women’s Health Network, and Our Bodies Ourselves, as well as childbirth education organizations and professionals.

Researchers can obtain a concise analysis of the current state of knowledge in this field. They will be poised to pursue further investigations that are needed to advance research methods, understand risk factors, develop prevention strategies, develop new treatment options, and optimize the effectiveness and safety of clinical care for low-risk women.

Methods

Topic Development and Refinement

The topic for this report was nominated by a physician and health benefits plan/insurance carrier in a public process using the Effective Health Care Web site. Working from the nomination we drafted the initial Key Questions (KQs) and analytic framework. The KQ and analytic framework were refined with input from Key Informants representing the fields of obstetrics and gynecology, midwifery, nursing, pediatric care, primary care, and patient advocacy. After review from the Agency for Healthcare Research and Quality (AHRQ), the questions and framework were posted online for public comment. All members of the research team were required to submit information about potential conflicts of interest before initiation of the work. No members of the review team have any conflicts.

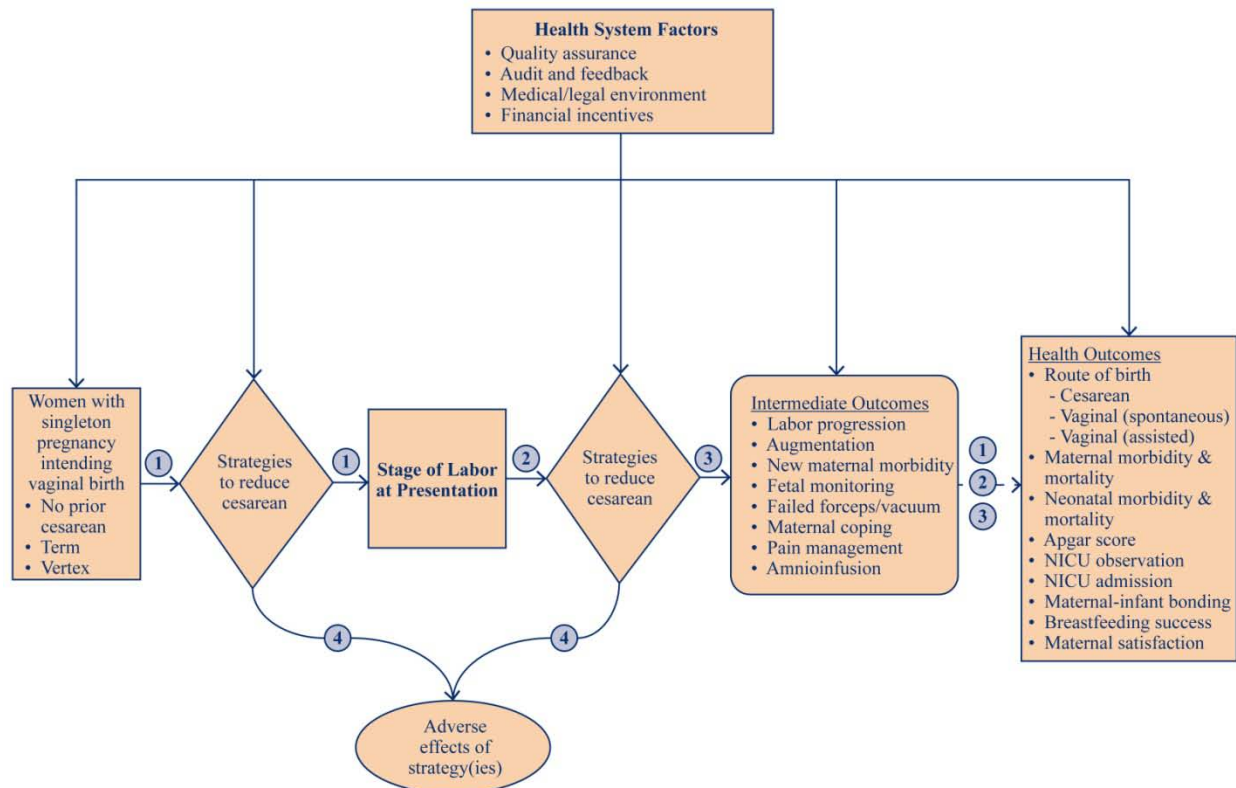
After reviewing the public commentary, we prepared final KQ and submitted them to AHRQ for review. The primary change in response to public comments was to broaden the terminology from “interventions” to “strategies” to more clearly indicate interest in all approaches to reduce cesarean. We identified technical experts on the topic in the fields of maternal and child health, obstetrics, nursing, and midwifery to provide assistance during the project. The Technical Expert Panel (TEP), representing the fields of obstetrics and gynecology, midwifery, nursing, pediatric care, primary care, and patient advocacy, contributed to the AHRQ’s broader goals of (1) creating and maintaining science partnerships as well as public-private partnerships and (2) meeting the needs of an array of potential customers and users of its products. Thus, the TEP was both an additional resource and a sounding board during the project. The TEP included 12 members serving as technical or clinical experts. To ensure robust, scientifically relevant work, we called on the TEP to review and provide comments as our work progressed. TEP members participated in conference calls and discussions through email to:

- Refine the analytic framework and Key Questions at the beginning of the project;
- Discuss the preliminary assessment of the literature, including inclusion/exclusion criteria.

Analytic Framework

We developed the analytic framework (Figure 1) based on clinical expertise and refined it with input from our Key Informants and TEP members. The framework summarizes how strategies to reduce cesarean before and/or during labor may result in intermediate outcomes such as labor progression, maternal coping, and pain management and/or long-term outcomes such as route of birth, maternal morbidity and mortality, or neonatal morbidity. Also, adverse events may occur at any point after the strategy has been implemented.

Figure 1. Analytic framework for strategies to reduce cesarean birth



NICU = neonatal intensive care unit

Note: Numbers in circles indicate the position of Key Questions in the intervention process.

Literature Search Strategy

Databases

We employed search strategies provided in Appendix A to retrieve research on interventions to reduce the incidence of cesarean. Our primary literature search used two databases, MEDLINE[®] via the PubMed interface and the Cumulative Index to Nursing and Allied Health Literature (CINAHL[®]). We also hand-searched the reference lists of all included articles and relevant reviews to identify additional studies for review.

Search Terms

Our search used a combination of keywords and controlled vocabulary terms used to represent cesarean birth in the medical, nursing, and allied health fields. To refine the search in line with our focus on randomized controlled trials (RCTs) and systems-level strategies, we employed an adapted version of the Cochrane highly sensitive search strategy.³⁴ We also used a variety of indexing terms to exclude undesired publication types (e.g., reviews, case reports, letters) in each database.

Our searches were executed between October 2010 and February 2012. Appendix A provides our search terms and yield for each database.

Process for Study Selection

For this review, the relevant population for all KQs were low-risk pregnant women who have a singleton pregnancy, a vertex presentation, term birth, and with no previous cesarean births.

Inclusion and Exclusion Criteria

Table 1 lists the inclusion/exclusion criteria we selected based on our understanding of the literature, the topic-refinement phase, input from the TEP, and established principles of methodological quality.

Table 1. Inclusion and exclusion criteria

Category	Criteria
Study population	Low-risk pregnant women who have a singleton pregnancy, a vertex presentation, term birth, and no previous cesarean birth
Time period	All years
Publication languages	English only
Admissible evidence (study design and other criteria)	<p><u>Admissible designs</u> Randomized controlled trials of strategies (KQ1–4) Pre- and post-studies related to large-scale health systems changes (KQ2 only)</p> <p><u>Other criteria</u> Original research studies that provide sufficient detail regarding methods and results to enable interpretation of the data and results Studies must include extractable data for one or more relevant outcomes listed in the PICOTS</p>

KQ=Key Question; PICOTS=population, intervention, comparator, outcome, timing, and setting—refers to the framework used by the Effective Health Care Program to summarize study characteristics.

Study Population

For this review, the relevant population for all KQs was low-risk pregnant women who have a singleton pregnancy, a vertex presentation, at-term birth, and no previous cesarean births.

Language

We did not have translation services available to us to review non-English papers and our TEP agreed that the vast majority of the relevant literature would be published in English. Furthermore, this review is intended to inform U.S. health care, and most research in the population of pregnant women in the United States is published in English language journals. Empirical evidence on the potential for bias created by excluding non-English studies also suggests little effect.³⁵ We did not review 170 abstracts of probable RCTs that appeared in non-English literature; based on the proportion of includes in the English language materials reviewed, this suggests we excluded fewer than five studies that could have had relevance.

Time Period

No time limits were set in this review. Searches were from the earliest literature currently available, 1968.

Sample Size

No limits on sample size were set in this review.

Study Design

We only reviewed published RCTs of strategies to reduce the rate of cesarean births or those pre- and post-studies related to health system changes (KQ2) to decrease the number of cesareans. In addition, studies were included if the stated or implied aim of the study was to reduce cesarean births (determined by one or more of the following criteria):

- The introduction of the paper includes a literature review of rationale, indicating interest in improving or reducing cesarean risk/rate or in influencing route of birth (vaginal, assisted, cesarean) as an outcome that would be influenced by the strategy under study.
- The stated primary or secondary aims indicate intention to examine influence of the strategy on cesarean risk/rate or route of birth.
- The analytic models indicate the authors conducted data analysis of the effect of the strategy as it relates to cesarean risk/rate or route of birth.
- The results feature data about the relationship of the strategy to cesarean risk/rate or route of birth as reporting of a primary or secondary aim.
- The tables in the results section feature data about the relationship of the strategy to cesarean risk/rate or route of birth as reporting of a primary or secondary aim.
- The discussion interprets the strategy as potentially having value for modifying cesarean risk/rates or influencing route of birth or the authors express dismay that they did not find it had value for modifying cesarean risk/rates or influencing route of birth.

Outcomes

KQ1 through KQ3 seek to identify strategies that reduce the number and/or proportion of cesarean births between comparison groups. The intermediate outcomes include labor progression, need for augmentation, onset of maternal morbidity, and maternal coping and pain management. The final outcomes of most interest include route of birth (comparing number and/or proportion of cesarean births to those that are spontaneous and assisted vaginal). Additional final outcomes included maternal and neonatal morbidity and mortality, Apgar scores, NICU admission, maternal satisfaction, maternal-infant bonding, and breastfeeding success.

KQ4 seeks to identify any adverse effects resulting from the use of strategies to reduce cesarean birth. Adverse effects include onset of maternal morbidity, need for additional intervention, and fetal distress.

Screening of Studies

Once we identified articles through the electronic database searches, review articles, and bibliographies (discussed above), we examined abstracts of articles to determine whether studies met our criteria. Two reviewers separately evaluated each abstract for inclusion or exclusion, using an Abstract Review Form (Appendix D). If at least one reviewer concluded that the article could be eligible for the review based on the abstract, we retained it for full text assessment.

Two reviewers independently assessed the full text of each included study using a standardized form (Appendix D) that included questions stemming from our inclusion/exclusion

criteria. Disagreements between reviewers were resolved by a third-party adjudicator. The group of abstract and full text reviewers included expert clinicians and health services researchers.

Data Extraction and Data Management

Evidence tables, jointly developed and tested by the team, were used as data extraction tools. All data were extracted by one team member and checked by a second. Evidence tables collected descriptive information related to the strategy used to reduce cesarean birth as well as key study design and comparator data. When possible to identify, analyses resulting from the same study were grouped into a single evidence table. The final evidence tables are presented in their entirety in Appendix C.

Individual Study Quality Assessment

We followed the methods outlined in the Evidence-based Practice Centers' (EPC) Methods Guide for Effectiveness and Comparative Effectiveness Reviews³⁶ and the Cochrane Handbook for Systematic Reviews of Interventions³⁷ to assess the quality of individual RCTs. Decision rules regarding application of the tools were developed a priori by the research team. We developed separate quality assessment approaches for RCTs and the pre- and post-studies related to large-scale health-systems changes studies. Two reviewers independently assessed each study, with disagreements between assessors resolved by a third adjudicator. For all RCTs we assessed each of the following domains, using the Cochrane Risk of Bias (ROB) tool, as having “low risk,” “high risk,” or “unclear risk” of bias:

- Selection bias
 - Random sequence generation
 - Allocation concealment
- Performance bias
 - Blinding of participants and personnel
- Detection bias
 - Blinding of outcome assessment
- Attrition bias
 - Incomplete outcome data
- Reporting bias
 - Selective reporting
- Other bias
 - Other sources of bias

We used the Newcastle-Ottawa Quality Assessment Scale (NOQAS) to assess the quality of all nonrandomized studies (pre- and post-studies). This scale assesses three broad perspectives: the selection of study groups, the comparability of study groups, and the ascertainment of the outcome of interest. We describe the individual quality components below and report individual quality assessments for each study in Appendix E.

Determining Risk of Bias Levels

For RCTs, according to the criteria determined by Cochrane, we considered a “low-risk” of bias study as one that had low-risk of bias for all domains.³⁷ We considered studies that were assessed to have unclear risk of bias for one or more key items as having “unclear risk” of bias.

Studies with a high risk of bias for one or more domains were considered to have a “high risk” of bias.

Data Synthesis

There was significant heterogeneity among studies reporting results of strategies to reduce cesarean birth, including heterogeneity of population inclusion criteria, heterogeneity of strategy, and heterogeneity of outcome measures. Therefore, it was not appropriate to perform meta-analysis.

Strength of Evidence for Each KQ

We evaluated the overall strength of the evidence for the primary outcome of reduction of cesarean use for each category of strategy. We used the approach to strength of evidence as described in the EPCs’ Methods Guide for Effectiveness and Comparative Effectiveness Reviews.^{36, 38}

We examined the following four major domains using a standardized strength of evidence evaluation sheet with scoring algorithm (Appendix G):

- risk of bias (low, medium, or high),
- consistency of findings (inconsistency not present, inconsistency present, or unknown or not applicable),
- directness (direct comparison of influence on outcomes in RCT, or indirect information from observational research), and
- precision (precise or imprecise based on outcomes rates, size of the individual studies and the total number of women in the studies for the category of strategy).

The key outcome for each category of strategy in the body of literature was use of cesarean.

The overall strength of evidence could be graded as “high” (indicating high confidence that the evidence reflects the true effect and further research is very unlikely to change our confidence in the estimate of effect); “moderate” (indicating moderate confidence that the evidence reflects the true effect and further research may change our confidence in the estimate of effect and may change the estimate); “low” (indicating low confidence that the evidence reflects the true effect and further research is likely to change our confidence in the estimate of effect and is likely to change the estimate); or “insufficient” (indicating that evidence is either unavailable or does not permit estimation of an effect). These overall grades resulted from use of the scoring algorithm.

Strength of evidence was applied both to evidence of benefit and to evidence of lack of benefit. This means for instance that for a category of strategy in which there are multiple studies, with moderate bias and direct evidence showing no effect, and a single study reporting a insignificant reduction, the body of literature for the category of strategy could be scored as low evidence of lack of benefit. Two reviewers independently graded the body of evidence and calculated assigned strength of evidence using the scoring algorithm; disagreements were resolved through discussion or a third reviewer adjudication.

Applicability

Finally, it is important to consider the ability of the findings to apply both to other populations and to other settings. Our assessment of applicability included determining the

population, intervention, comparator, and setting in each study and developing an overview of these elements for each strategy category (Appendix F).

Peer Review and Public Commentary

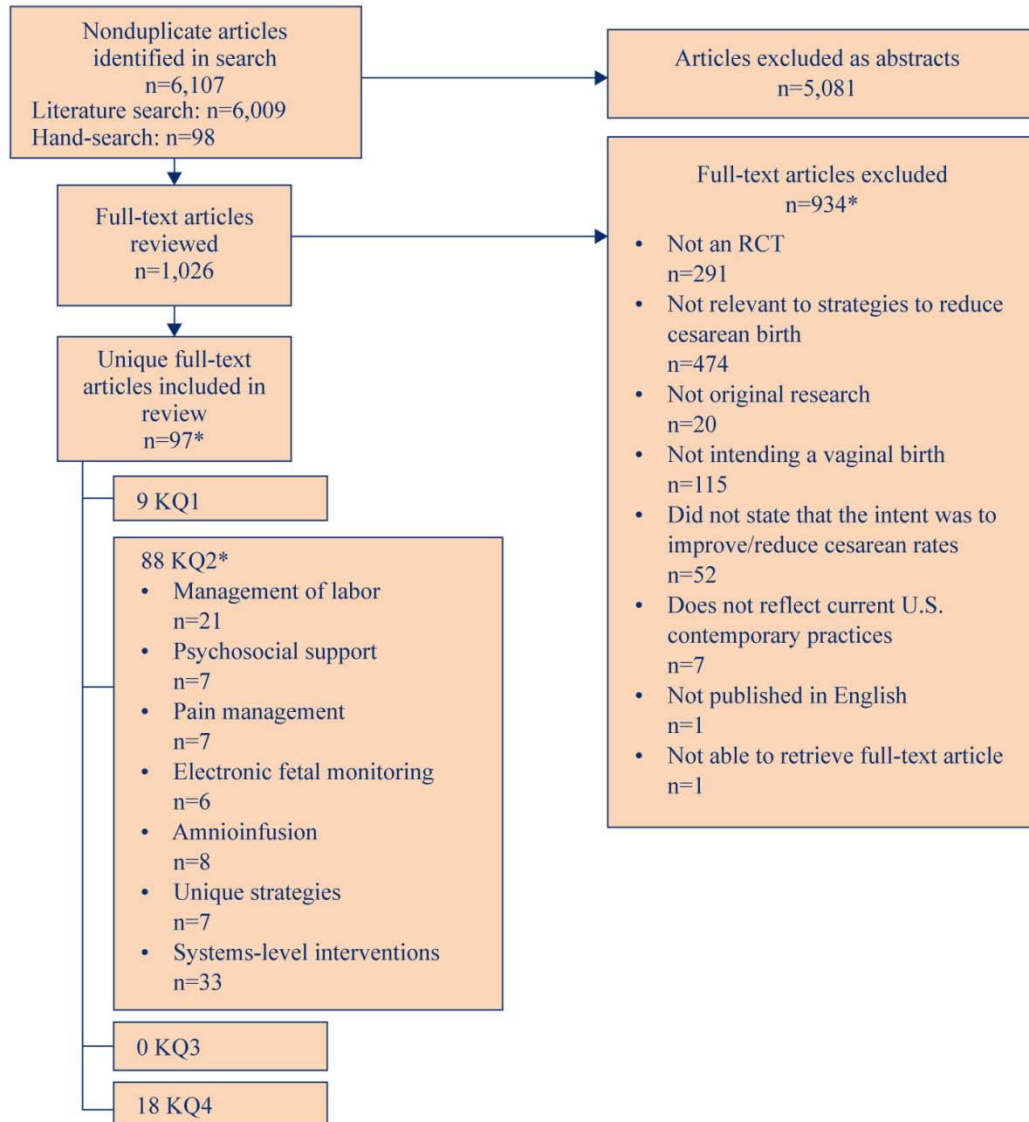
Experts were invited to provide external peer review. The draft report was posted for four weeks to elicit public comment. We addressed all reviewer comments by revising the text as appropriate. We responded to each comment submitted from peer and public review in a disposition of comments report. This report will be available on the AHRQ Web site 3 months after the posting of this final CER.

Results

Article Selection

We identified 6,107 nonduplicate publications through the search process, with 1,026 proceeding to full-text review (Figure 2). Sixty-eight RCTs were included in the review, representing 68 distinct study populations. Sixty-four RCTs were conventional strategy trials and four were RCTs of systems-level strategies. Twenty-nine pre-post studies of large scale health systems changes were also identified.

Figure 2. Disposition of articles identified by the search strategy



KQ = Key Question

*The number of articles addressing Key Questions and those excluded exceed the total number of articles in each category because some articles fit multiple exclusion categories or addressed more than one Key Question.

The most common reasons for exclusion were irrelevance to the topic and ineligible study design (66%). Nine articles pertain to Key Question (KQ) 1, 88 articles to KQ2, zero articles to KQ3, and 18 articles to KQ4. Tables 2 and 30 provide a summary of the strategies to reduce cesarean represented in this review in order from greatest to least observed reduction in cesarean.

Table 2. Summary of effectiveness of cesarean reduction strategies from greatest to least change

Author, Year Country	Strategy (n)	Cesarean Birth, %	Change in Cesarean, % ^a
Choudhary et al., 2010 ³⁹ India	Standard obstetric care without amnioinfusion (146)	63.7	34.2 lower
	Transcervical amnioinfusion (146)	29.5	
Spallicci et al., 2007 ⁴⁰ Brazil	Placebo cervical injection (85)	49.0	31.0 lower
	Hyaluronidase injection in cervix (83)	18.0	
Sanchez-Ramos et al., 1996 ⁴¹ US	Oxytocin plus placebo (47)	51.1	24.6 lower
	Oxytocin plus propranolol (49)	26.5	
Trueba et al., 2000 ⁴² Mexico	Standard care (50)	24.0	22.0 lower
	Childbirth educator trained as doula (50)	2.0	
Kuhnert et al., 2004 ⁴³ Germany	Fetal monitoring with cardiotocography and fetal scalp blood sampling only (73)	37.0	20.6 lower
	Fetal monitoring with cardiotocography and fetal pulse oximetry and fetal scalp blood sampling (73)	16.4	
Abdel-Aleem et al., 2005 ⁴⁴ Egypt	Standard obstetric care without amnioinfusion (219)	68.0	20.1 lower
	Transcervical amnioinfusion (219)	47.9	
Rathor et al., 2002 ⁴⁵ India	Standard obstetric care without amnioinfusion (100)	36.0	15.0 lower
	Transcervical amnioinfusion (100)	21.0	
McGrath and Kennell, 2008 ⁴⁶ US	Routine care (196)	25.0	11.6 lower
	Doula support (224)	13.4	
Harvey et al., 1996 ⁴⁷ Canada	Physician care (93)	15.1	11.1 lower
	Nurse-midwife care (101)	4.0	
Kennell et al., 1991 ⁴⁸ US	Control group assigned after birth (204)	18.0	10.0 (control vs. doula) 5.0 (control vs. observer) lower
	Received support of a doula (212)	8.0	
	Observed by an inconspicuous observer (200)	13.0	
Skrablin et al., 2011 ⁴⁹ Croatia	Continuous epidural (104)	14.4	9.4 lower
	Intermittent epidural (101)	5.0	
Pattinson et al., 2003 ⁵⁰ South Africa	Expectant management (350)	23.4	7.4 lower
	Aggressive management (344)	16.0	
Lavender et al., 1998 ⁵¹ UK	3-hour partogram (302)	14.2	5.8 (4-hour vs. 3-hour) lower
	4-hour partogram (311)	8.4	
	2-hour partogram (315)	11.1	
Homer et al., 2001 ⁵² Australia	Standard hospital-based care(539)	17.8	4.5 lower
	Community-based model care (550)	13.3	
Harper et al., 2006 ⁵³ US	Usual care (26)	39.0	22.0 same
	Acupuncture sessions (30)	17.0	

Table 2. Summary of effectiveness of cesarean reduction strategies from greatest to least change (continued)

Author, Year Country	Strategy (n)	Cesarean Birth, %	Change in Cesarean, % ^a
Bidgood et al., 1987 ⁵⁴ UK	Observation (20)	45.0	18.7 (high-dose vs. obs.) same
	High-dose oxytocin (19)	26.3	
	Low-dose oxytocin (21)	33.3	
Matsuo et al., 2009 ⁵⁵ US	Usual care (32)	25.0	12.5 same
	Dental support device during active pushing (32)	12.5	
Garite et al., 2000 ⁵⁶ US	Standard intravenous fluids of 125 ml/hr (94)	17.0	7.1 same
	Increased intravenous fluids (101)	9.9	
Moodley et al., 1998 ⁵⁷ South Africa	Standard obstetric care without amnioinfusion (30)	47.0	7.0 same
	Transcervical amnioinfusion (30)	40.0	
Karraz, 2003 ⁵⁸ France	Intermittent epidural bolus injections of 0.1% ropivacaine with 0.6 µg/ml sufentanil, non-ambulatory (74)	16.2	7.0 same
	Intermittent epidural bolus injections of 0.1% ropivacaine with 0.6 µg/ml sufentanil, ambulatory (141)	9.2	
Strong et al., 1990 ⁵⁹ US	Standard care (30)	20.0	7.0 same
	Amnioinfusion (30)	13.0	
Adamsons et al., 1999 ⁶⁰ Puerto Rico	Usual care (23)	17.4	5.7 same
	Propranolol during labor (34)	11.7	
Saisto et al., 2001 ⁶¹ Finland	Conventional therapy (91)	48.4	4.9 same
	Intensive therapy (85)	43.5	
Nicholson et al., 2008 ⁶² US	Standard care (134)	14.9	4.6 same
	Induction of labor (136)	10.3	
Olofsson et al., 1998 ⁶³ Sweden	Epidural anesthesia with high dose local anesthetic (0.25% bupivacaine with adrenaline) (435)	14.7	4.5 same
	Epidural anesthesia with low dose (0.125% bupivacaine with sufentanil 10 µg) (422)	10.2	
Rogers et al., 1997 ⁶⁴ US	Usual care (205)	11.7	4.2 same
	Active management (200)	7.5	
Phipps et al., 2009 ⁶⁵ Australia	Standard care (50)	26.0	4.0 same
	Structured education for pushing (50)	22.0	
Lopez-Zeno et al., 1992 ⁶⁶ US	Traditional management (354)	14.1	3.6 same
	Active management (351)	10.5	
Hemminki et al., 1990 ⁶⁷ Finland	Usual care (118)	5.0	3.0 same
	Midwifery student support (122)	2.0	
McNiven et al., 1998 ⁶⁸ Canada	Direct admission (104)	10.6	3.0 same
	Early labor assessment (105)	7.6	

Table 2. Summary of effectiveness of cesarean reduction strategies from greatest to least change (continued)

Author, Year Country	Strategy (n)	Cesarean Birth, %	Change in Cesarean, % ^a
Vayssiere et al., 2007 ⁷⁰ France	Fetal monitoring with cardiotocography only (400)	16.3	2.8 same
	Fetal monitoring with cardiotocography and STAN (399)	13.5	
Mahomed et al., 1998 ⁶⁹ Zimbabwe	Standard obstetric care without amnioinfusion (336)	11.3 ^b	1.8 same
	Transcervical amnioinfusion (325)	9.5	
Somprasit et al., 2005 ⁷¹ Thailand	Conventional management (640)	14.7	2.8 same
	Active management (320)	11.9	
Bernitz et al., 2011 ⁷² Norway	Special unit (282)	18.8	2.8 same
	Normal unit (417)	18.0	
	Midwife-led unit (412)	16.0	
Gagnon et al., 1997 ⁷³ Canada	Usual nursing care (204)	16.2	2.3 same
	One-to-one nursing care (209)	13.9	
East et al., 2006 ⁷⁴ Australia	Fetal monitoring with cardiotocography only (295)	48.1	2.2 same
	Fetal monitoring without cardiotocography and fetal pulse oximetry (306)	45.9	
Bloom et al., 1998 ⁷⁵ US	Usual care (531)	6.0	2.0 same
	Walking during 1 st stage of labor (536)	4.0	
Mehrangiz et al., 2004 ⁷⁶ Iran	Promethazine only (50)	4.0	2.0 same
	Paracervical block with promethazine (50)	2.0	
Waldenstrom et al., 1997 ⁷⁷ Sweden	Standard maternity care (932)	8.9	1.8 same
	Birth center care (928)	7.1	
World Health Organization, 1994 ⁷⁸ Indonesia, Thailand, Malaysia	Baseline (10,049)	6.2	1.7 same
	Use of WHO partogram to guide active management of labor and decisions about cesarean (9,130)	4.5	
Cohen et al., 1987 ⁷⁹ US	Control (75)	14.6	1.3 same
	Early aggressive management (75)	13.3	
Bloom et al., 2006 ⁸⁰ US	Fetal pulse oximetry with oxygen saturation not displayed to clinician (2,712)	27.5	1.2 same
	Fetal pulse oximetry with oxygen saturation displayed to clinician (2,629)	26.3	
Hofmeyr et al., 1998 ⁸¹ South Africa	Standard obstetric care without amnioinfusion (176)	43.0	1.0 same
	Transcervical amnioinfusion (176)	42.0	
Windrim et al., 2007 ⁸² Canada	Labor progress documented by standard sequential notes (962)	25.4	0.7 same
	Partogram added to standard written labor progress notes (970)	24.7	
Sadler et al., 2000 ⁸³ New Zealand	Routine management (331)	9.7	0.3 same
	Active management (320)	9.4	

Table 2. Summary of effectiveness of cesarean reduction strategies from greatest to least change (continued)

Author, Year Country	Strategy (n)	Cesarean Birth, %	Change in Cesarean, % ^a
Barakat et al., 2009 ⁸⁴ Spain	No exercise training (80)	15.7	0.4 same
	Exercise training (80)	15.3	
Althabe et al., 2004 ⁸⁵ South America	Usual care (39,175)	24.9	0.2 same
	Mandatory second opinion driven by evidence-based guidelines for indications (34,735)	24.7	
Hodnett et al., 2002 ⁸⁶ US & Canada	Usual care (3,461)	12.6	0.1 same
	Nurse support (3,454)	12.5	
Frigoletto et al., 1995 ⁸⁷ US	Active management (1,009)	19.5	0.1 same
	Usual care (906)	19.4	
Ajadi et al., 2006 ⁸⁸ Nigeria	No amniotomy on admission (64)	1.6	0.0 same
	Amniotomy on admission (64)	1.6	
Elferink-Stinkens et al., 2004 ⁸⁹ Netherlands	Usual care (>130,000)	NR	0.0 same
	Report of departmental data in table and graph form with follow-up (>130,000)	NR	
Hinshaw et al., 2008 ⁹⁰ UK	Delayed oxytocin (204)	13.7	0.0 same
	Early oxytocin (208)	13.7	
Lavender et al., 2006 ⁹¹ UK	4-hour partogram (1,485)	9.1	0.0 same
	2-hour partogram (1,490)	9.1	
O'Sullivan et al., 2009 ⁹² UK	Usual care (1,216)	30.0	0.0 same
	Allowed to eat during labor (1,227)	30.0	
Waldenstrom et al., 2001 ⁹³ Sweden	Standard care (505)	11.9	0.0 same
	Team midwife care (495)	11.9	
Hamilton et al., 2004 ⁹⁴ US & Canada	Labor progress evaluated by plotting cervical dilatation against time (2,514)	16.9	-0.7 same
	Computerized reference range used to evaluate labor progress (2,474)	17.6	
Gambling et al., 1998 ⁹⁵ US	Intravenous meperidine analgesia (607)	5.6	-0.7 same
	Combined spinal-epidural anesthesia (616)	6.3	
Campbell et al., 2006 ⁹⁶ US	Standard care (300)	17.9	-1.0 same
	Lay doula support (298)	18.9	
Norris et al., 2001 ⁹⁷ US	Epidural analgesia (1,112)	13.4	-1.1 same
	Combined spinal-epidural anesthesia (1,071)	14.5	
Regi et al., 2009 ⁹⁸ India	Standard obstetric care without amnioinfusion (75)	37.3	-1.1 same
	Transcervical amnioinfusion (75)	38.4	
Ojala et al., 2006 ⁹⁹ Finland	Fetal monitoring with cardiotocography only (739)	4.7	-1.7 same
	Fetal monitoring with STAN (733)	6.4	

Table 2. Summary of effectiveness of cesarean reduction strategies from greatest to least change (continued)

Author, Year Country	Strategy (n)	Cesarean Birth, %	Change in Cesarean, % ^a
Cox et al., 1999 ¹⁰⁰ UK	Usual care (240)	3.8	-2.0
	Inflatable obstetric belt (260)	5.8	same
Garite et al., 2000 ¹⁰¹ US	Fetal monitoring with cardiotocography only (502)	26.0	-3.0
	Fetal monitoring with cardiotocography and fetal pulse oximetry (508)	29.0	same
Janssen et al., 2006 ¹⁰² Canada	Telephone triage (731)	25.4	-3.2
	Home-based triage (728)	28.6	same
Jalil et al., 2009 ¹⁰³ Malaysia	IM pethidine analgesia (98)	7.1	-4.6
	Epidural ropivacaine 0.2% with fentanyl 2 µg/ml (94)	11.7	same
Palomäki et al., 2006 ¹⁰⁴ Finland	Oxytocin plus placebo (55)	4.0	-7.0
	Oxytocin plus propranolol (55)	11.0	same
Asher et al., 2009 ¹⁰⁵ US	Acupuncture (30)	20.0	-10.0
	Usual care (no acupuncture) (30)	10.0	3.0
	Sham acupuncture (29)	7.0	same
Scheepers et al., 2002 ¹⁰⁶ Netherlands	Placebo (99)	7.1	-13.5
	Oral carbohydrate solution (102)	20.6	higher

^a**Lower** indicates a lower rate supported by statistical significance; **same** indicates the use of cesarean was not statistically different across the strategy and comparison arms of the trial, **higher** indicates a higher rate supported by statistical significance

^bReported in text as 12.3, but based on data presented should be 11.3

KQ1. What strategies during pregnancy are effective to reduce the use of cesarean birth among women, with a singleton pregnancy, who are intending a vaginal birth?

Overview of the Literature

Nine studies of strategies used during pregnancy were included in the review (Table 3).^{40, 47, 52, 61-62, 65, 77, 84, 93} One study of identifying women at high risk of cesarean and preemptively conducting cervical ripening and induction of labor was done in the United States,⁶² one study of cervical ripening with injection of hyaluronidase in clinic was conducted in Brazil,⁴⁰ and the balance were conducted in Europe and Australia. Seven trials were rated as fair,^{40, 47, 62, 65, 77, 84, 93} and two as poor (Appendices E and H).^{52, 61}

Key Points

- Evidence about reducing cesarean through antenatal care models designed to enhance continuity is based on four RCTs with 4,337 participants. These studies have inconsistent findings and provide insufficient evidence. Each of the other approaches used during pregnancy is represented by a single trial with fewer than 300 participants and provides insufficient evidence to guide care (Table 34).
- Care from members of a midwifery practice team who provided both prenatal and birth care compared to conventional care demonstrated a modest 4.5-percent reduction in

cesarean births in one study (n=1283). Two other studies of team midwifery and birth center prenatal care did not document reductions.

- Injection of hyaluronidase into the cervix, in patients at term with a low Bishop score demonstrated a 31 percent reduction in risk of cesarean birth in one small study (n=168). No other studies were found that repeated evaluation of this strategy.

Table 3. Summary of effectiveness of cesarean reduction strategies during pregnancy

Author, Year Country; Quality	Strategy (n)	Cesarean Birth, %	Change in Cesarean, % ^a
Spallicci et al., 2007 ⁴⁰ Brazil; Fair	Placebo cervical injection (85)	49.0	31.0 lower
	Hyaluronidase injection in cervix (83)	18.0	
Harvey et al., 1996 ⁴⁷ Canada; Fair	Physician care (93)	15.1	11.1 lower
	Nurse-midwife care (101)	4.0	
Homer et al., 2001 ⁵² Australia; Poor	Standard hospital-based care (539)	17.8	4.5 lower
	Community-based model care (550)	13.3	
Saisto et al., 2001 ⁶¹ Finland; Poor	Conventional therapy (91)	48.4	4.9 same
	Intensive therapy (85)	43.5	
Nicholson et al., 2009 ⁶² US; Fair	Standard care (134)	14.9	4.6 same
	Induction of labor (136)	10.3	
Phipps et al., 2009 ⁶⁵ Australia; Fair	Standard care (50)	26.0	4.0 same
	Structured education for pushing (50)	22.0	
Waldenstrom et al., 1997 ⁷⁷ Sweden; Fair	Standard maternity care (932)	8.9	1.8 same
	Birth center care (928)	7.1	
Barakat et al., 2009 ⁸⁴ Spain; Fair	No exercise training (80)	15.7	0.4 same
	Exercise training (80)	15.3	
Waldenstrom et al., 2001 ⁹³ Sweden; Fair	Standard care (505)	11.9	0.0 same
	Team midwife care (495)	11.9	

^a**Lower** indicates a lower rate supported by statistical significance; **same** indicates the use of cesarean was not statistically different across the strategy and comparison arms of the trial.

Detailed Synthesis

Antenatal Care Models

Continuity of care and familiarity of the patient with her care provider and her provider with her history and specific pregnancy details has been proposed to reduce uncertainty in decision making and to preempt strategies like cesarean that might otherwise be undertaken in the context of less shared knowledge and experience. Studies examining care models have typically sought to evaluate if continuity from prenatal into birth care can reduce cesarean. An RCT conducted in Australia randomized 1,283 pregnant women at their first antenatal visit to either a “community model of care” with six midwives, and obstetrician, and a registrar providing consistent care with a team continuity model or to a “standard model of care” with a larger number of midwives, obstetricians, registrars, and general practitioners, without an attempt to have consistency among providers.⁵² The RCT used the Zelen model of randomization -- the participants were first randomized, and then asked to consent. If a participant randomized to the intervention wished to

receive the control care model, she was allowed to do so and was included in the intervention group for intention-to-treat analysis. Cesarean incidence was 13.3 percent in the intervention group and 17.8 percent in the control group. This is an absolute reduction of cesarean use of 4.5 percent among those assigned to team based care compared to usual care (adjusted odds ratio [AOR]=0.6, 95% confidence interval (CI): 0.4, 0.9; p=0.02).⁵²

Another RCT conducted in Australia randomized 1,000 pregnant women with uncomplicated pregnancies prior to 25 weeks gestation to either team midwifery care or standard obstetric care.⁹³ Cesarean risk did not differ between the two groups, by intention-to-treat analysis. Of the women receiving team midwife care, 55 of 464 (11.9%) had a cesarean, compared to 56 of 471 (11.9%) receiving standard care (OR=1.00, 95% CI: 0.66, 1.15). There was no difference between the reported neonatal outcomes for the intervention and control groups (mortality 1.1% vs. 1.5%, 5-minute Apgar <7 1.9% vs. 1.5%, NICU admission 10.3% vs. 7.6% [OR=1.4, 95% CI: 0.87, 2.26]) (Tables 4 and 5).⁹³

A pilot study of nurse-midwifery care compared to physician care in Canada randomized 194 women from the community.⁴⁷ Women in the control group chose their physician, any obstetrician or family physician in the city, using a standard referral process. Women assigned to nurse-midwife care received care from a team of seven nurse-midwives. The scheduling for the midwifery clinic was designed so that women saw as many of the midwives as possible during their antenatal clinic visits. Women who received care from the nurse-midwives were significantly less likely to have a cesarean. Of the women receiving midwifery care 4 of 101 (4.0%) had a cesarean compared to 14 of 93 (15.1%) of those who received physician care (95% CI: 2.89, 19.3%; p=0.01). More infants in the physician care group had Apgar scores less than seven at one minute (13.9% vs. 29.0, 95% CI: 3.75, 26.6%; p=0.013) and were admitted to the NICU (7.9% vs. 19.4, 95% CI: 1.8, 2.1%; p=0.02). There were no neonatal deaths in either group.⁴⁷

A Swedish RCT randomized 1,860 women at their first or second antenatal visit to either a birth center care model or a standard care model.⁷⁷ The birth center care model was comprehensive and integrated antenatal, intrapartum and postpartum care with the same team of midwives. Their practice, which is in a hospital-based birth center, includes restricted use of medical technology and discharge within 24 hours. The standard care model was the usual form of public maternity care offered to women in the Greater Stockholm area, with approximately 75 community centers providing antenatal care (two of which were private) and seven hospitals providing intrapartum and postpartum care. While midwives were the primary caregivers in this model, as well, there were separate antenatal and intrapartum midwife teams.⁷⁷

Women were allowed to change groups, but data analysis was by intention-to-treat so this bias would have tended to lower the measured effect. There was no significant difference in cesarean use: 7.1 percent in the intervention group and 8.9 percent in the control group, an absolute reduction of 1.8 percent (95% CI: -4.3, 0.7; p=0.18).⁷⁷ Neonatal outcomes for the intervention and control groups did not differ (mortality 0.9% vs. 0.2 percent, five-minute Apgar less than seven 1.3% vs. 1.1 percent, and special care nursery admission 11.1% vs. 9.0%).⁷⁷

Table 4. Maternal outcomes for antenatal strategies to reduce cesarean births

Strategy	Fever, % (n Studies)	Infection, % (n Studies)	Hemorrhage, % (n Studies)	Mortality, % (n Studies)
Control	2.2-3.0 ^{47, 62}	NR	2.6-12.7 ^{47, 52, 77, 93} (4)	0 ^{47, 77}
Antenatal care, community model ⁵² , birth center ⁷⁷ , team midwife care ^{47, 93}	1.0 ⁴⁷	NR	1.6-12.5 ^{47, 52, 77, 93} (4)	0 ^{47, 77}
Exercise training ⁸⁴	NR	NR	NR	NR
Education on pushing ⁶⁵	NR	NR	NR	NR
Hyaluronidase injection in cervix ⁴⁰	NR	NR	NR	NR
Induction ⁶²	4.4	NR	NR	NR
Intensive therapy for fear of childbirth ⁶¹	NR	NR	NR	NR

NR=not reported

Exercise Training

Physical activity has been associated with reduced maternal complications in pregnancy and may have potential to reduce cesarean risk.¹⁰⁸⁻¹⁰⁹ An RCT conducted in Spain randomized 160 pregnant women to either light intensity resistance exercise training during the second and third trimesters or to no exercise training.⁸⁴ Inclusion criteria limited participants to women with uncomplicated pregnancies who were sedentary (not exercising more than 20 minutes on more than three days per week). Analysis was not done using an intention-to-treat approach. There was no difference in the cesarean rate between the intervention and control groups (15.3% vs. 15.7%).⁸⁴

Management of Fear of Childbirth

If fear of labor, interventions, or the birth itself impairs progress in labor or ability to work in partnership with care providers, fear could elevate cesarean risk. A community-based RCT, conducted in Finland, randomized 176 pregnant women with fear of childbirth to either intensive intervention or conventional care.⁶¹ The participants were physically healthy with low-risk pregnancies. The intensive intervention included written education materials, questionnaires, cognitive behavioral therapy, provider discussions, and creation of a birth plan. There was no statistical difference in use of cesarean between the two groups: 43.5 percent among those in the intervention and 48.4 in the control group.⁶¹

Table 5. Neonatal outcomes for antenatal management strategies to reduce cesarean births

Strategy	Apgar Score <7 at 5 Min, % (n Studies)	NICU Admission, % (n Studies)	NICU Days, Mean ± SD (n Studies)	Mortality,% (n Studies)
Control	0.8-8.2 ^{40, 47, 52, 62, 77, 93} (6) ^a	6.7-19.4 ^{47, 52, 62, 77, 93} (5)	10.2-17.2 ^{77, 93} (2)	0-1.5 ^{47, 52, 77, 93} (4)
Antenatal care, community model ⁵² , birth center ⁷⁷ , team midwife care ^{47, 93}	1.3-4.0 ^{47, 52, 77, 93} (4)	7.9-14.5 ^{47, 52, 77, 93} (4)	9.6-11.1 ^{77, 93} (2)	0-1.1 ^{47, 52, 77, 93} (4)
Exercise training ⁸⁴	9.9 ± 0.2 ^b	NR	NR	NR
Education on pushing ⁶⁵	NR	NR	NR	NR
Hyaluronidase injection ⁴⁰	2.4 ^b	NR	NR	NR
Induction ⁶²	0	1.5	NR	0
Intensive therapy for fear of childbirth ⁶¹	NR	NR	NR	NR

NICU=neonatal intensive care unit ^a Not specified if 1, 5, or 10 minute Apgar score; ^b Mean ± SD; Control group: 9.9 ± 0.3⁸⁴
NR=not reported

Induction of Labor for Women at Risk for Cesarean

A multi-site RCT conducted in the U.S. randomized 270 pregnant women to either induction of labor after 37 weeks and 4 days gestation or to usual care.⁶² The authors hypothesized that pre-emptive induction of labor rather than spontaneous onset of labor, could prevent cesarean in women who were predicted to be at high risk of cesarean. Between 32 and 37 weeks gestation, pregnant women were assessed for six risk factors for high probability of a cesarean birth: (1) maternal age greater than or equal to 35 at birth, (2) maternal height less than or equal to 62 inches, (3) BMI ≥30 kg/m², (4) blood pressure more than 80 mmHg diastolic or 120 mmHg systolic, (5) hemoglobin less than 11 g/dL in first trimester, (6) history of a prior birthweight more than 8 lbs 8 oz. If the patient had one or more of these risk factors for cesarean, she was invited to enroll in the study; participants were then randomized. Participants in the intervention group who had not given birth by 37 weeks and 4 days were scheduled for cervical ripening and induction of labor one to four days prior to what was considered by the study algorithm to be the upper limit for optimal timing of birth. Data analysis was not by intention-to-treat. Cesarean risk was statistically the same across groups: 10.3 percent among the intervention group and 14.9 percent among those who received standard care, in this study powered to detect a 66 percent relative difference.⁶² There was no difference between these reported neonatal outcomes for the intervention and control groups: (mortality 0.0% vs. 0.8%, 5-minute mean Apgar score 8.9 vs. 8.9, 5-minute Apgar score less than 7 0.0% vs. 0.8%). NICU admission rates for the intervention were lower for the intervention group (1.5% vs. 6.7%: RR=0.22, 95% CI: 0.05, 0.99; p=0.03).⁶²

Structured Education for Pushing

Second stage or “pushing” is the final phase of labor before the birth. Maternal exhaustion, fear, or difficulty in coordinating pushing could theoretically result in a dysfunctional second stage and increase cesarean risk. An RCT conducted in Australia randomized 100 low-risk women who had not previously given birth to either structured education about pushing or routine care.⁶⁵ The strategy was two 15-minute structured education sessions teaching pushing with observation of the perineum and digital pressure and biofeedback to the levator muscle.

Cesarean risk did not differ between the two groups: 22 percent among those who received structured education for pushing and 26 percent among those receiving standard care. The study had inadequate sample size to detect differences in cesarean risk.⁶⁵ Use of episiotomy and incidence of perineal tears did not differ between the groups.⁶⁵

Hyaluronidase Injection Into the Cervix

Before labor, the cervix typically softens or “ripens” becoming more pliable to allow dilation and effacement during labor. A standardized score, the Bishop score, can be used to describe whether the cervix is favorable or unfavorable for induction of labor. In this case the investigators used that scoring mechanism in a novel way to identify women with little cervical softening in order to use an agent that could accelerate cervical ripening. An RCT conducted in Brazil randomized 168 women with a Bishop Score of less than five to either injection of hyaluronic acid or injection of a placebo mixture.⁴⁰ The strategy consisted of 5 ml of 20,000 IU lyophilized hyaluronidase, sodium chloride, mannitol, and thiomersal diluted in distilled water and injected at 12 o'clock and 6 o'clock into the cervix. The control consisted of sodium chloride, mannitol, thiomersal, benzalkonium chloride, and riboflavin phosphate diluted in distilled water and injected at 12 o'clock and 6 o'clock into the cervix. Technically the study compared two strategies: hyaluronidase versus benzalkonium chloride and riboflavin phosphate. Thiomersal contains mercury and could not be given to pregnant women in the United States. Benzalkonium chloride can be toxic in humans and could not be given to pregnant women in the United States. The cesarean rate in the control group of 85 women was 49 percent, and the overall cesarean rate among 2,684 women giving birth at the same hospital over the same period of time was 29 percent. Eighteen percent of women in the intervention group compared to 49 percent in the control group had a cesarean. The absolute risk reduction was 31 percent (95% CI: 18, 44; $p < 0.0001$).⁴⁰ Apgar scores were not different between the two groups. This systematic literature review and subsequent hand-searching did not identify a published study that preceded or attempted to replicate this research.⁴⁰

KQ2. What strategies during labor are effective to reduce the use of cesarean birth among women, with a singleton pregnancy, who are intending a vaginal birth?

Management of Labor

Overview of the Literature

This section presents results of 21 studies meeting our review criteria and addressing strategies for management of labor. These strategies are used almost exclusively during the first stage of labor, which is the time period in which the cervix is dilating and thinning. The strategies include early labor assessment (two trials);^{68, 102} a midwife-led unit;⁷² measurement of labor progress with a partogram, a graphic representation of the progress of labor, or computerized reference curve (four trials);^{51, 82, 91, 94} active management of labor (six trials);^{50, 64, 66, 71, 83, 87} management of abnormal labor (five trials);^{41, 54, 79, 90, 104} amniotomy (one trial);⁸⁸ intravenous (IV) fluids (one trial);⁵⁶ and an oral carbohydrate solution (one trial).¹⁰⁶ Of the 17 trials, six were conducted in the United States,^{41, 56, 64, 66, 79, 87} four in the UK,^{51, 54, 90-91} three in Canada,^{68, 82, 102} one in the Netherlands,¹⁰⁶ one in Norway,⁷² one in Finland,¹⁰⁴ one in New Zealand,⁸³ one in Thailand,⁷¹ one in Nigeria,⁸⁸ one in South Africa,⁵⁰ and one was multinational

(US and Canada)⁹⁴. All but three of the trials^{41, 72, 104} included only nulliparous women. Two studies were published in the 1980s,^{54, 79} six studies in the 1990s,^{41, 51, 64, 66, 68, 87}; and 13 studies in 2000 or later.^{50, 56, 71-72, 82-83, 88, 90-91, 94, 102, 104, 106} There were five trials of good quality,^{41, 50-51, 56, 91} seven of fair quality,^{54, 68, 82, 88, 102, 104, 106} and nine of poor quality (Appendices E and H).^{64, 66, 71-72, 79, 83, 87, 90, 94}

Key Points

- Early labor assessment to delay hospital admission until active labor, defined by cervical change, compared with direct admission of women in labor regardless of progression did not reduce the use of cesarean.
- Home-based triage, compared with telephone triage to help a woman judge when to come to the hospital in labor, did not reduce the use of cesarean.
- Each of the early labor assessment strategies was found to provide insufficient evidence (Table 34). The four studies of measurement of labor progress, which enrolled 10,832 women, provide low strength of evidence for lack of benefit of partograms for reducing cesarean. The six RCTs of active management have conflicting findings but as good and poor quality studies of more than 5,300 women, they provide low strength of evidence for lack of evidence of benefit. Single studies provide insufficient evidence to inform care.
- Adding a partogram to standard written labor progress notes did not reduce the use of cesarean. Cesarean rates with 2-hour and 4-hour partograms were equivalent.
- A computerized reference range for assessing labor progress did not reduce the use of cesarean.
- A midwife-led unit, compare to a normal unit and special unit, did not reduce the use of cesarean.
- Active management of labor, as defined by the authors, did not reduce the use of cesarean.
- The only labor management strategies that significantly reduced the use of cesarean were the addition of propranolol to oxytocin for augmentation of dysfunctional labor, a combined strategy of partogram with active management, and use of a 4-hour partogram compared with a three-hour partogram (see Table 2). However, a second study did not find a significant reduction in the use of cesarean when propranolol and oxytocin were initiated simultaneously for dysfunctional labor treatment.
- Cesarean rates were identical in women who did and did not have amniotomy at the time of hospital admission.
- Increased intravenous fluids did not reduce the use of cesarean.
- An oral carbohydrate solution increased the use of cesarean.

Detailed Synthesis

Early Labor Assessment

The goal of early labor assessment is to delay hospital admission until a woman is in active labor because early admission is associated with increased rates of obstetric intervention, including cesarean.¹¹⁰⁻¹¹¹ Two Canadian trials of fair quality assessed the effect of early labor assessment strategies (see Table 6 below).^{68, 102} A trial of 1,459 nulliparous women compared home-based triage (n=728) with telephone triage (n=731).¹⁰² Women in both groups were evaluated for labor progress and abnormalities, fetal movement, and maternal coping. In

addition, those women who had home visits also had maternal vital signs checked, abdominal palpation, fetal heart rate auscultation, assessment of contractions, and cervical examination. Women in the telephone group were given suggestions for coping with contractions while women and their partners in the home visit group received education about comfort measures. Criteria for advising women to proceed to the hospital were the same for both groups except cervical dilatation, which was used as an additional criterion for the home visit group. The percentage of women who had a cesarean birth was higher in the home-based triage group (28.6%) than the telephone triage group (25.4%), but this difference was not statistically significant (RR=1.12, 95% CI: 0.94, 1.32). Five-minute Apgar scores (RR=1.52, 95% CI 0.54-4.23), admission to a Level II nursery (RR=0.93, 95% CI: 0.63, 1.37), and admission to a Level III nursery (RR=2.35, 95% CI: 0.90, 6.08) were comparable (Tables 10 and 11).

Table 6. Summary of effectiveness of labor management cesarean reduction strategies: early labor assessment

Author, Year Country; Quality	Strategy (n)	Cesarean Birth, %	Change in Cesarean, % ^a
McNiven et al., 1998 ⁶⁸ Canada; Fair	Direct admission (104)	10.6	3.0
	Early labor assessment (105)	7.6	same
Janssen et al., 2006 ¹⁰² Canada; Fair	Telephone triage (731)	25.4	-3.2
	Home-based triage (728)	28.6	same

^aSame indicates the use of cesarean was not statistically different across the strategy and comparison arms of the trial.

In a trial that enrolled 209 women without prior births, participants were randomized to early labor assessment or direct admission when they presented to the hospital in labor.⁶⁸ Women in the early labor assessment group were evaluated and only admitted to the labor and delivery unit if they were in active labor, defined as the presence of regular, painful contractions and cervical dilation greater than 3 cm. Women who were not in active labor were advised to walk outside or return home until active labor began. Women in the control group were not assessed prior to admission to the labor and delivery unit. The percentage of women who had a cesarean birth was lower in the early labor assessment group (7.6%) than the direct admission group (10.6%), but this difference was not statistically significant (OR=0.70, 95% CI: 0.27, 1.81).⁶⁸ As shown in Table 11, the percentage of infants with Apgar scores lower than seven at five minutes was comparable (p=0.318).⁶⁸

Midwifery-Led Care

According to the U.K.'s National Institute for Health and Clinical Excellence, low-risk women who give birth in a midwife-led unit are more likely to have a normal birth with less intervention.¹¹² A poor quality trial from Norway compared outcomes for nulliparous and multiparous women who gave birth in 1) a midwife-led unit for low-risk women who wanted as little intervention as possible where epidural and augmentation outside of the second phase of second stage of labor were not available (n=412); 2) a normal unit for women with expected normal births where extended surveillance, epidural, operative vaginal birth, cesareans, and induction of labor were offered (n=417); and 3) a special unit for women requiring extended surveillance in the antepartum period, during labor, or after birth (n=282).⁷² Women expecting normal births can give birth at any of the three units; however, the midwife-led unit only accepts low-risk women. Eligible women who desired to participate were randomized to one of the three

units at the onset of spontaneous labor. The percentage of women who had a cesarean birth was lower in the midwife-led unit (16.0%) than the normal unit (18.0%) or special unit (18.8%), but these differences were not statistically significant (midwife-led unit vs. normal unit RR=0.90, 95% CI: 0.67, 1.22; midwife-led unit vs. special unit RR=0.87, 95% CI: 0.62, 1.20).⁷² The percentage of women with postpartum hemorrhage, neonates with Apgar score less than seven at five minutes, and NICU admissions did not differ significantly across groups (Tables 10 and 11).⁷²

Measurement of Labor Progress

The purpose of measuring labor progress is to remain vigilant for and intervene early in abnormal progress, also known as labor dystocia, which is the most common indication for primary cesareans in the United States.¹¹³ When dystocia is identified, strategies to improve labor progress, such as augmentation with oxytocin, can be used. Various methods of tracking labor progress are available including the partogram, which is a paper form used to record labor examination findings such as cervical dilation, fetal descent, and contraction frequency. The partogram provides a graphical representation of labor progress and alerts clinicians to abnormal progress.¹¹⁴ Four trials investigated strategies to measure labor progress. Three involved partograms,^{51, 82, 91} and the fourth used a computerized reference range (Table 7).⁹⁴

Table 7. Summary of effectiveness of labor management cesarean reduction strategies: measurement of labor progress

Author, Year Country; Quality	Strategy (n)	Cesarean Birth, %	Change in Cesarean, % ^a
Lavender et al., 1998 ⁵¹ UK; Good	3-hour partogram (302)	14.2	5.8 (4-hour vs. 3-hour) lower
	4-hour partogram (311)	8.4	
	2-hour partogram (315)	11.1	
Windrim et al., 2007 ⁸² Canada; Fair	Labor progress documented by standard sequential notes (962)	25.4	0.7 same
	Partogram added to standard written labor progress notes (970)	24.7	
Lavender et al., 2006 ⁹¹ UK; Good	4-hour partogram (1,485)	9.1	0 same
	2-hour partogram (1,490)	9.1	
Hamilton et al., 2004 ⁹⁴ US & Canada; Poor	Labor progress evaluated by plotting cervical dilatation against time (2,514)	16.9	-0.7 same
	Computerized reference range used to evaluate labor progress (2,474)	17.6	

^a**Lower** indicates a lower rate supported by statistical significance; **same** indicates the use of cesarean was not statistically different across the strategy and comparison arms of the trial.

Use of a partogram in conjunction with standard written labor progress notes was compared to documentation of labor progress solely with sequential notes in a Canadian study with 1,962 participants.⁸² The proportion of women who had a cesarean birth was lower in the group whose labors were assessed with the partogram compared with those who only had standard notes (24.7 percent vs. 25.4%), but this difference was not statistically significant (p=NS reported with no specific value given).⁸² The differences in rates of maternal fever, five-minute Apgar scores less than seven, and NICU admission were not statistically significant (test results not reported, see Tables 10 and 11).

Partograms typically include pre-printed alert and action lines. The alert line represents the labor progress of the slowest (less than or equal to the 10th percentile) of nulliparous women. The

action line, which prompts clinicians that intervention may be warranted for slow labor progress, is placed a number of hours (usually two to four) after the alert line.¹¹⁴ In two trials in the United Kingdom, women whose labor progress crossed the action line had management for prolonged labor (oxytocin augmentation with amniotomy if membranes were intact).^{51, 91} In the first trial,⁵¹ 315 women had a partogram with a two-hour action line, 302 women had a partogram with a three-hour action line, and 311 women had a partogram with a four-hour action line. The rate of cesarean birth was lowest in the women in the 4-hour group (8.4%) followed by the two-hour group (11.1%) and the three-hour group (14.2%).⁵¹ When the intervals were compared (2-hour vs. 3-hour, 3-hour vs. 4-hour, and 2-hour vs. 4-hour), only the results for the 4-hour versus the 3-hour were significant (OR=1.8, 95% CI: 1.1, 3.2).⁵¹ In the second trial,⁹¹ 1,490 women had a partogram with a 2-hour action line, and 1,485 women had a partogram with a 4-hour action line. The rate of cesarean birth in both groups was identical (9.1%).⁹¹ Both trials had rates of postpartum hemorrhage, 5-minute Apgar scores less than seven, and NICU admission that did not differ significantly across groups (see Tables 10 and 11).^{51, 91}

One trial in 4,988 women evaluated the addition of a computerized reference range to standard measurement of labor progress by plotting cervical dilatation against time in nulliparous women.⁹⁴ The software combined the results of clinical examinations with contraction frequency from uterine monitoring to produce a percentile comparison to the reference range. Cesareans were performed in 17.6 percent of the experimental group and 16.9 percent of the control group. This difference was not statistically significant (RR=1.04, 95% CI: 0.92, 1.18).⁹⁴ The only maternal or neonatal outcome of interest that was reported was the percentage of newborns in each group who had five-minute Apgar scores lower than seven, which was nearly identical (see Table 11).

Active Management of Labor

Active management of labor is a general term for a multifaceted approach to labor care that includes some or all of the following: “patient education, strict criteria for the diagnosis of labor, strict criteria for the determination of abnormal progress of labor, high-dose oxytocin infusion, one-to-one nursing support in labor, strict criteria for interpretation of fetal compromise, and peer review of operative deliveries.”¹¹³ The purpose of active management of labor is to decrease the incidence of dystocia, which should in turn decrease the cesarean rate.⁶⁶ A Cochrane review of seven active management trials initially did not find a significant reduction in the cesarean rate, but the difference was significant (RR=0.77, 95% CI: 0.63, 0.94) when a trial in which more than one-third of participants become ineligible after randomization was removed from the analysis.¹¹⁵ The Cochrane review differed from this report in that it specifically sought studies examining active management regardless of low-risk status or primary aim of reducing cesarean.¹¹⁵

Six trials examined use of active management of labor for cesarean reduction; one demonstrated effectiveness (Table 8).^{50, 64, 66, 71, 83, 87} This trial of good quality in South Africa combined use of a partogram with aspects of active management.⁵⁰ Nulliparous women in active labor, defined as regular and painful contractions with cervical dilatation of four or more centimeters, were assigned to aggressive (n=344) or expectant (n=350) management.⁵⁰ A partogram with a single alert line was used for the aggressive management group who had a repeat vaginal examination two hours after the first examination. If cervical dilatation had progressed on or above the alert line, the cervix was reexamined in two to four hours depending on when complete cervical dilatation was expected. If cervical dilatation crossed the alert line,

fetal heart rate was normal, and gross cephalopelvic disproportion was not present, oxytocin was started. The expectant management group had a partogram with an alert line and a four-hour action line. Their cervical examination was repeated four hours after initial examination. If cervical dilatation had progressed on or above the alert line, the cervix was reexamined in two to four hours depending on current dilatation and expected time of complete dilatation. If cervical dilatation had moved to the right of the alert line, the cervix was reexamined at the time it was anticipated the action line would be crossed. If cervical dilatation reached or crossed the action line, fetal heart rate was normal, and gross cephalopelvic disproportion was not present, oxytocin was started. Amniotomy was not performed due to the high prevalence of HIV and thus need to prevent vertical transmission. The cesarean rate was 16.0 percent in the aggressive management group and 23.4 percent in the expectant management group (RR=0.68, 95% CI: 0.50, 0.93).⁵⁰ As shown in Table 11, three newborns (one of which was a known intrauterine fetal death [IUFD] prior to enrollment) in the aggressive management group and none in the expectant management group had Apgar scores less than eight at 10 minutes.⁵⁰ There were three perinatal deaths in the aggressive management group (including the known IUFD) and none in the expectant management group, but this difference was not statistically significant (RR=7.12, 95% CI: 0.37, 137.37).⁵⁰

Table 8. Summary of effectiveness of labor management cesarean reduction strategies: active management of labor

Author, Year Country; Quality	Strategy (n)	Cesarean Birth, %	Change in Cesarean, % ^a
Pattinson et al., 2003 ⁵⁰ South Africa; Good	Expectant management (350)	23.4	7.4 lower
	Aggressive management (344)	16.0	
Rogers et al., 1997 ⁶⁴ US; Good	Usual care (205)	11.7	4.2 same
	Active management (200)	7.5	
Lopez-Zeno et al., 1992 ⁶⁶ US; Poor	Traditional management (354)	14.1	3.6 same
	Active management (351)	10.5	
Somprasit et al., 2005 ⁷¹ Thailand; Poor	Conventional management (640)	14.7	2.8 same
	Active management (320)	11.9	
Sadler et al., 2000 ⁸³ New Zealand; Poor	Routine management (331)	9.7	0.3 same
	Active management (320)	9.4	
Frigoletto et al., 1995 ⁸⁷ US; Poor	Active management (1009)	19.5	0.1 same
	Usual care (906)	19.4	

^a**Lower** indicates a lower rate supported by statistical significance; **same** indicates the use of cesarean was not statistically different across the strategy and comparison arms of the trial.

A New Zealand trial of poor quality randomized 551 nulliparous women to active (n=320) or routine (n=331) management when labor was diagnosed, which was defined as regular, painful contractions every five minutes or more lasting at least 40 seconds accompanied by either spontaneous rupture of membranes or complete cervical effacement with cervical dilatation of at least two centimeters.⁸³ In the active management group, amniotomy was encouraged at the time of labor diagnosis, and the cervix was assessed every two hours. Oxytocin augmentation was initiated if cervical dilation was less than one centimeter per hour, descent of the fetal head had

not occurred after 30 minutes of pushing, or contractions were more than five minutes apart without imminent birth during the second stage of labor. Oxytocin was started at 6 mU per minute and increased by 6 mU every 15 minutes to a maximum dose of 36 mU per minute. In the routine management group, the caregiver determined use of amniotomy, frequency of cervical examination, and use of oxytocin.⁸³ The cesarean rate was 9.4 percent in the active management group and 9.7 percent in the routine management group ($p=0.5$).⁸³ The groups did not differ significantly in maternal infection (RR = 1.12; 95% CI: 0.72, 1.74) or postpartum hemorrhage (RR=1.04, 95% CI: 0.72, 1.51; see Table 10).⁸³

In a U.S. trial of poor quality, nulliparous women were randomized to active management ($n=1,009$) or usual care ($n=906$) before 30 weeks' gestation.⁸⁷ Women in the active management group attended special childbirth classes to explain the protocol, while women in the usual care group were given payment to attend the classes of their choice. Active management was provided in a separate unit by nurse-midwives and nurses who worked exclusively for the study. Active management included one-to-one nursing care and standardized criteria for labor diagnosis (painful contractions with effacement of at least 80 percent, bloody show, or spontaneous rupture of membranes). Women in the active management group had amniotomy within one hour of labor diagnosis and cervical examinations at least every two hours. Women who had inefficient uterine action (cervical dilation of less than one centimeter per hour during first stage or greater than one hour between full dilatation and the fetal head reaching the pelvic floor during second stage) or more than 30 minutes elapsed between the fetal head reaching the pelvic floor and the birth received oxytocin (started at 4 mU per minute and increased by 4 mU every 15 minutes to a maximum dose of 40 mU per minute).⁸⁷ Care of women with failure to progress (cervical dilation less than one centimeter per hour after efficient uterine action was established with oxytocin or prolonged second stage) was assumed by the woman's regular provider. No constraints were placed on management of the usual care group. Use of amniotomy, initiation of oxytocin, and cervical examination were at the provider's discretion. When oxytocin was used, it was typically started at a dose of one to two mU per minute and increased by 1-2 mU per minute periodically. The rate of cesarean was 19.5 percent in the active management group and 19.4 percent in the usual care group (RR=1.0, 95% CI: 0.8, 1.2).⁸⁷ Among the protocol-eligible subgroup ($n=678$ active management, $n=585$ usual care), incidence of maternal fever was lower in the active management group than the usual care group (n not provided; RR=0.6, 95% CI: 0.4, 0.9).⁸⁷ There was no significant difference between groups in admission to the NICU (n and statistical test result not provided).⁸⁷

A U.S. trial of poor quality with 705 nulliparous women enrolled participants in spontaneous labor, which was defined as regular, painful contractions at least every five minutes plus complete cervical effacement or spontaneous rupture of membranes.⁶⁶ Active management included amniotomy within one hour of labor diagnosis, hourly cervical examinations for the first three hours then examinations every two hours, and high-dose oxytocin augmentation (started at 6 mU per minute and increased by 6 mU per minute every 15 minutes) for cervical dilation of less than one centimeter per hour in the first stage of labor or fetal descent of less than one centimeter per hour in the second stage of labor. In the traditional management group, the physician decided when to perform amniotomy, how often to examine the cervix, and what criteria were used to diagnose inadequate labor progress. When oxytocin augmentation was used, it was typically started at 1 mU per minute and increased by 1-2 mU per minute every 15 minutes until there were eight contractions per 20 minutes. The cesarean rate was 10.5 percent in the active management group, and 14.1 percent in the traditional management group ($p=0.18$).⁶⁶

The active management group had a significantly lower rate of chorioamnionitis than the traditional management group (4.6% vs. 9.9% percent, $p < 0.01$).⁶⁶ Differences in five-minute Apgar scores less than seven and NICU admission rates were not significant (test result not reported, see Table 11).⁶⁶ No neonatal deaths occurred in either group.⁶⁶

Another U.S. trial of poor quality enrolled 405 nulliparous women.⁶⁴ Participants in the active management group were diagnosed with labor when they had regular, painful contractions every two to five minutes with at least 80 percent cervical effacement, regardless of dilatation. They had amniotomy within two hours of admission, cervical examination every two hours, and high-dose oxytocin augmentation (started at 6 mU per minute and increased every 15 minutes) for cervical dilation of less than one centimeter per hour in the first stage of labor or fetal descent of less than one centimeter per hour in the second stage of labor. Participants in the control group were admitted when they had regular, painful contractions every two to five minutes and three to four centimeters of cervical dilatation, regardless of effacement.⁶⁴ Amniotomy was performed at the physician's discretion. If the cervix did not change 1.25 centimeters per hour once the active phase of labor began, low-dose oxytocin was started (1 mU per minute and increased by 1 mU/min every 30 to 40 minutes). The cesarean rate was 7.5 percent in the active management group and 11.7 percent in the expectant management group, which was not a significant difference.⁶⁴ Maternal and neonatal outcomes were similar in both groups (not statistically significant, no test results reported, see Tables 10 and 11).⁶⁴

In a poor quality trial of 960 nulliparous women in Thailand,⁷¹ labor was diagnosed when by regular, painful contractions lasting at least 40 seconds and occurring at least once per five minutes plus spontaneous rupture of membranes or bloody show with cervical dilatation and complete effacement. The active management group had amniotomy within one hour of admission, cervical examination every two hours, and high doses of oxytocin (started at 6 mU per minute and increased by 2 mU per minute every 30 minutes until there were five contractions per 10 minutes or the rate was 40 mU per minute) if cervical dilatation was less than one centimeter per hour in the first stage of labor.⁷¹ The conventional management group did not have a protocol for amniotomy, cervical examination, or oxytocin initiation. The use of cesarean was lower in the active management group (11.9%) than the conventional management group (14.7%), but this difference was not significant (p-value not reported).⁷¹ There were no significant differences (test results not reported) between groups in rates of maternal fever, chorioamnionitis, and one-minute Apgar scores less than seven (Tables 10 and 11).⁷¹

Management of Abnormal Labor

Five trials assessed strategies for managing abnormal labor (see Table 9).^{41, 54, 79, 90, 104} One resulted in proven reduction of cesarean. A poor quality trial of early versus delayed oxytocin included 412 nulliparous women with primary dysfunctional labor, diagnosed by cervical dilatation of two centimeters or less over four hours from initial dilatation of three to six centimeters.⁹⁰ Women with intact membranes had amniotomy prior to randomization. The early oxytocin group started oxytocin within 20 minutes of randomization, while the delayed oxytocin group did not receive oxytocin for eight hours unless intervention was warranted.⁹⁰ Cesarean risk was identical in the two groups (14%), and there were no significant differences in postpartum hemorrhage (OR=0.87, 95% CI: 0.5, 1.4), five-minute Apgar scores (OR=1.6, 95% CI: 0.4, 7.0), NICU admission (OR=1.2, 95% CI: 0.4, 3.9), or neonatal death (OR=0.98, 95% CI: 0.06, 16) (Tables 10 and 11).⁹⁰

Two trials, one of good quality in the U.S.⁴¹ and one of fair quality in Finland,¹⁰⁴ compared oxytocin alone and with propranolol, a beta receptor blocking agent thought to have the potential to enhance uterine activity, for treatment of abnormal labor progress. These were the only trials related to management of labor that included both nulliparous and multiparous women. The first trial defined dysfunctional labor as no cervical dilatation for at least two hours in the active phase of labor or a deceleration phase of at least three hours in nulliparas and one hour in multiparas.⁴¹ All women continued to receive oxytocin. Propranolol (n=49) or placebo (n=47) were administered intravenously and repeated after one hour if cervical dilatation did not change. Cesarean was performed if there was no response within an hour after the second dose.⁴¹ The cesarean rate was 26.5 percent in the propranolol group and 51.1 percent in the placebo group (RR=0.58, 95% CI: 0.35, 0.93; p=0.02).⁴¹ Differences in Apgar scores and NICU admissions were not significant (Table 11). The second trial defined arrest of labor as hypocontractility with other causes of dystocia, such as disproportion, excluded.¹⁰⁴ At the time of diagnosis of arrested labor, oxytocin was initiated along with a dose of propranolol (n=55) or placebo (n=52), which was repeated an hour later if the cervical status was unchanged.¹⁰⁴ The timing of cesarean was not specified as it was in the first trial. The cesarean rate was 11 percent in the propranolol group and 4 percent in the placebo group (p=0.154). The difference in NICU admissions was not significant (Table 11).¹⁰⁴

Table 9. Summary of effectiveness of labor management cesarean reduction strategies: management of abnormal labor

Author, Year Country; Quality	Strategy (n)	Cesarean Birth, %	Change in Cesarean, % ^a
Sanchez-Ramos et al., 1996 ⁴¹ US; Good	Oxytocin plus placebo (47)	51.1	24.6 lower
	Oxytocin plus propranolol (49)	26.5	
Bidgood et al., 1987 ⁵⁴ UK; Fair	Observation (20)	45.0	18.7 (high-dose vs. obs.) same
	High-dose oxytocin (19)	26.3	
	Low-dose oxytocin (21)	33.3	
Cohen et al., 1987 ⁷⁹ US; Poor	Control (75)	14.6	1.3 same
	Early aggressive management (75)	13.3	
Hinshaw et al., 2008 ⁹⁰ UK; Poor	Delayed oxytocin (204)	13.7	0 same
	Early oxytocin (208)	13.7	
Palomäki et al., 2006 ¹⁰⁴ Finland; Fair	Oxytocin plus placebo (55)	4.0	-7.0 same
	Oxytocin plus propranolol (55)	11.0	

^a**Lower** indicates a lower rate supported by statistical significance; **same** indicates the use of cesarean was not statistically different across the strategy and comparison arms of the trial.

One trial of fair quality, done in the United Kingdom, examined three oxytocin protocols in 60 nulliparous women in labor (diagnosed by complete cervical effacement, dilatation greater than or equal to three centimeters, regular contractions with at least one per five minutes, and cervical progress on a partogram) whose cervical dilatation was less than 0.5 centimeters per hour.⁵⁴ Amniotomy was performed prior to randomization for women with intact membranes. Participants were randomized into three arms: delayed oxytocin for eight hours (n=20); automatic infusion system (AIS) oxytocin (2 mU per minute increased by 2 mU every 15 minutes) for women whose uterine activity was less than 700 kPas per 15 minutes (n=21, 13 received oxytocin); and high-dose oxytocin (7 mU per minute increased by 7 mU every 15

minutes, n=19).⁵⁴ The cesarean rate was 45 percent in the delayed oxytocin group, 33.3 percent in the AIS oxytocin group, and 26.3 percent in the high-dose oxytocin use. Differences across groups were not statistically significant.⁵⁴ Five-minute Apgar scores lower than seven (Table 11) did not differ significantly between groups (test result not reported).⁵⁴

A poor quality U.S. trial of early intervention included 150 primigravid women who had been admitted in labor (diagnosed by contractions plus cervical dilatation of three centimeters or ruptured membranes) and had an inadequate contraction pattern (less than 3 contractions lasting 40 seconds each in a 10-minute time period).⁷⁹ The early intervention group had amniotomy if membranes were intact, insertion of a fetal electrode and an intrauterine pressure cannula, and initiation of oxytocin infusion, all of which were performed within 30 minutes of admission. The control group had external fetal monitoring and oxytocin infusion if the cervical dilatation did not change for more than two hours or if there was no change in station for one hour during the second stage of labor.⁷⁹ The cesarean incidence was 13 percent in the early intervention group and 15 percent in the control group, a difference that was not statistically significant.⁷⁹

Amniotomy

Amniotomy, the surgical rupture of fetal membranes, has been purported to shorten the duration of the first stage of labor although a Cochrane review of 15 studies found no statistical difference in first-stage labor length or the rate of cesarean when amniotomy was performed.¹¹⁶ A fair quality trial in Nigeria, randomly assigned 128 women to amniotomy or no amniotomy upon presentation in labor.⁸⁸ Both groups had identical risk of cesarean (1.6 percent; $p>0.05$). The only neonatal outcome reported was five-minute Apgar scores, which were comparable between groups (test result not reported, see Table 11).⁸⁸

Increased Intravenous Fluids

One U.S. trial of good quality evaluated the effect of increased intravenous hydration in labor based on the rationale that adequate fluid replacement might improve labor progress, and subsequently reduce the cesarean rate, similar to the effects of adequate hydration on the exercise performance of athletes.⁵⁶ Women received increased (250 ml/hour, n=101) or standard (125 ml/hour, n=94) rates of lactated Ringer's solution or isotonic sodium chloride solution.⁵⁶ The percentage of women who had a cesarean birth was lower in the 250-ml group (9.9%) than the 125-ml group (17.0%), but this difference was not statistically significant ($p=0.22$). Maternal and infant outcomes were similar (no test of statistical significance reported, see Tables 10 and 11).⁵⁶

Oral Carbohydrate Solution

One trial of fair quality from the Netherlands evaluated the effect of an oral carbohydrate solution during labor based on the rationale that carbohydrate intake might reduce the cesarean rate and improve labor progress, similar to the effects of carbohydrate intake on the exercise capacity and fatigue among athletes.¹⁰⁶ Women received a carbohydrate (n=102) or placebo (n=99) solution to drink at will. They were not offered other food or drinks but could have small amounts of either upon request.¹⁰⁶ The percentage of women who had a cesarean birth was higher in the carbohydrate group (20.6%) than the placebo group (7.1 percent; RR=2.91, 95% CI: 1.29, 6.54).¹⁰⁶ Maternal and infant outcomes we extracted were not reported (Tables 10 and 11).¹⁰⁶

Table 10. Maternal outcomes for labor management strategies to reduce cesarean births

Strategy	Fever, % (n Studies)	Infection, % (n Studies)	Hemorrhage, % (n Studies)	Mortality, % (n Studies)
Control	8.1-19.1 ^{56, 71, 82} (3)	0.9-19.1 ^{56, 64, 66, 71, 83} (5)	2.2-22.1 ^{51, 56, 64, 83, 90-91, 117} (7)	NR
Amniotomy at admission ⁸⁸	NR	NR	NR	NR
High-dose oxytocin ⁵⁴	NR	NR	NR	NR
Low-dose oxytocin ⁵⁴	NR	NR	NR	NR
Early aggressive management ^{50, 79}	NR	NR	NR	NR
Increased IV fluids ⁵⁶	14.9	14.9	4.0	NR
Computerized range for labor progress ⁹⁴	NR	NR	NR	NR
Early oxytocin ⁹⁰	NR	NR	19.7	NR
Home-based triage ¹⁰²	NR	NR	NR	NR
2-hour partogram ^{51, 91}	NR	NR	12.4-12.5	NR
3-hour partogram ⁵¹	NR	NR	12.9	NR
4-hour partogram ^{51, 91}	NR	NR	12.5	NR
Active management ^{64, 66, 71, 83, 87}	8.1 ⁷¹	0-14 ^{66, 83a}	4.0-15.0 ^{64, 83}	NR
Early labor assessment ⁶⁸	NR	NR	NR	NR
Oxytocin plus propranolol ^{41, 104}	NR	NR	NR	NR
Partogram plus standard labor progress notes ⁸²	11.8	NR	NR	NR
Midwife-led unit ⁷²	NR	NR	1.7	NR
Oral carbohydrate solution ¹⁰⁶	NR	NR	NR	NR

^aP<0.01⁶⁶; NR=not reported

Table 11. Neonatal outcomes for labor management strategies to reduce cesarean births

Strategy	Apgar Score <7 at 5 Min, % (n Studies)	NICU Admission, % (n Studies)	NICU Days, Mean ± SD (n Studies)	Mortality, % (n Studies)
Control	0-6.3 ^{41, 50-51, 54, 56, 64, 66, 68, 71-72, 82, 88, 90-91, 94, 102} (16)	2.0-11.0 ^{41, 51, 56, 64, 66, 72, 82, 90-91, 102, 104} (11)	NR	0-0.5 ^{50, 66, 90} (3)
Amniotomy at admission ⁸⁸	7.8 ^a	NR	NR	NR
High-dose oxytocin ⁵⁴	0.0	NR	NR	NR
Low-dose oxytocin ⁵⁴	4.8	NR	NR	NR
Early aggressive management ^{50, 79}	0.9 ^{50,d}	NR	NR	0.9 ^{50,e}
Increased IV fluids ⁵⁶	1.0	9.9	NR	NR
Computerized range for labor progress ⁹⁴	2.0	NR	NR	NR
Early oxytocin ⁹⁰	2.5 ^b	2.9	NR	0.5
Home-based triage ¹⁰²	1.2	8.1 ^c	NR	NR
2-hour partogram ^{51, 91}	1.5-1.9	1.3-1.4	NR	NR
3-hour partogram ⁵¹	1.3	0.3	NR	NR
4-hour partogram ^{51, 91}	1.6-2.0	0.6-2.0	NR	NR
Active management ^{64, 66, 71, 83, 87,f}	0.3-1.9	0.5-4.0 ^{64, 66}	NR	0 ⁶⁶
Early labor assessment ⁶⁸	1.0	NR	NR	NR
Oxytocin plus propranolol ^{41, 104}	2.0 ⁴¹	2.0-11.0	NR	NR
Partogram plus standard labor progress notes ⁸²	1.2	3.4	NR	NR
Midwife-led unit ⁷²	1.0	8.0	NR	NR
Oral carbohydrate solution ¹⁰⁶	NR	NR	NR	NR

NICU=neonatal intensive care unit; IV=intravenous; NR=not reported

^aOne-minute Apgar scores. Five-minute Apgar scores were not provided, but the articles notes were no statistically significant differences in the number of newborns with Apgar scores < 7 at one or five minutes.

^bApgar scores ≤ 7

^cIncludes admission to Level II or Level III nursery

^dApgar < 8 at 10 minutes

^eIncludes an intrauterine death known prior to trial enrollment

^fOne-minute Apgar scores (five-minute Apgar scores not reported)

Psychosocial Support

“Doula” is a Greek word that refers to a woman caregiver⁹⁶ or an experienced woman who helps another woman or a new mother.^{46, 48, 118} Today, the word has come to mean a woman experienced in childbirth who provides continuous physical and emotional support throughout labor and birth.^{42, 46, 48, 96, 118} Continuous one-on-one nursing support is uninterrupted support by staff nurses with training in labor support.⁸⁶ Labor support is defined as “the presence of an

empathetic person who offers advice, information, comfort measures, and other forms of tangible assistance to help a woman cope with the stress of labor and birth.”⁸⁶ Unlike standard maternity care for women in labor, with continuous one-on-one nursing, one nurse is assigned to provide uninterrupted care for one laboring patient throughout labor and childbirth.

Overview of the Literature

We identified seven RCTs^{42, 46, 48, 67, 73, 86, 96, 118} that examined the effect of psychosocial support interventions on cesarean births. One study added a non-randomized control group after randomizing participants into two other groups.⁴⁸ Three studies were conducted in the United States,^{46, 48, 96} one in Mexico,⁴² one study in the United States and Canada,⁸⁶ one in Canada,⁷³ and one in Finland.⁶⁷ All interventions took place in labor and delivery. Three studies were conducted in community practices^{42, 46, 48} and three were conducted in academic single sites.^{67, 73, 96} One study was conducted in multiple settings, including nine academic and four non-academic sites.⁸⁶ Five of the studies were restricted to nulliparous women, two included nulliparous and parous women.^{67, 86} We separated the seven studies into three categories: doulas as providers of labor support,^{42, 46, 48} a female friend or family member as a provider of labor support,⁹⁶ and nurses and midwifery students as providers of labor support.^{67, 73, 86} There was one trial of fair quality⁸⁶ and six of poor quality (Appendices E and H).^{42, 46, 48, 67, 73, 96}

Key Points

- Low strength of evidence for benefit of trained doula support for reducing cesarean. The single model in which female friends and family give labor support provides insufficient evidence and nursing models of one-to-one support in three trials with 7,568 participants provide low strength of evidence of lack of benefit (Table 34).
- The three doula support studies showed a reduction in cesarean births for women in the groups who received doula support. The absolute reduction in cesarean ranged from five to 22 percent.
- Cesarean was not reduced by support from a female friend or family member trained to provide labor support.
- Cesarean rates were not lower for women who received continuous labor support from nurses or midwifery students compared to women who received usual labor care.

Detailed Synthesis

Doulas as Providers of Labor Support

Three doula support studies were included (Table 12).^{42, 46, 48} All studies of doula support were conducted with participants in labor who had uncomplicated pregnancies at term and were having their first birth. One RCT in Mexico⁴² compared 50 women who received labor support from childbirth educators who had doula training to 50 women who received usual labor care. The study was conducted at a public hospital with an overall cesarean rate of 40 percent. Doulas were Lamaze-trained childbirth educators, who received doula training as part of the Lamaze Childbirth Education curriculum. During labor and childbirth, doulas provided advice and information, physical assistance and emotional support to the study participants and worked actively to promote natural childbirth.⁴²

Table 12. Summary of effectiveness of cesarean reduction strategies using doula support

Author, Year Country; Quality	Strategy (n)	Cesarean Birth, %	Change in Cesarean, % ^a
Trueba et al., 2000 ⁴² Mexico; Poor	Standard care (50)	24.0	22.0 lower
	Childbirth educator trained as doula (50)	2.0	
McGrath and Kennell, 2008 ⁴⁶ US; Poor	Routine care (196)	25.0	11.6 lower
	Doula support (224)	13.4	
Kennell et al., 1991 ⁴⁸ US; Poor	Control group assigned after delivery (204)	18.0	10.0 lower 5.0
	Received support of a doula (212)	8.0	
	Observed by an inconspicuous observer (200)	13.0	

^a**Lower** indicates a lower rate supported by statistical significance; **same** indicates the use of cesarean was not statistically different across the strategy and comparison arms of the trial.

The proportion of births by cesarean for the doula supported and usual care groups were 2 and 24 percent respectively ($p < 0.003$).⁴² Labor duration did not differ significantly for the two groups (p -value not reported). Incidence of oxytocin administration for the doula supported and usual care groups were 42 percent and 96 percent respectively ($p < 0.001$).⁴²

In a U.S. trial,⁴⁶ 224 women were assigned to doula support and 196 to usual care. The study was conducted at a university hospital with an overall cesarean rate of 24 percent. All doulas completed training requirements that were equivalent to the Doulas of North America International doula certification. The doula met couples shortly after random assignment and stayed with them throughout labor and birth providing verbal encouragement, reassurance, teaching, and touch, to support the laboring woman and her partner.⁴⁶ Women in the doula supported group had significantly fewer cesarean births (13.4% vs. 25.0%, $p = 0.002$) and fewer epidurals (64.7% vs. 76.0%, $p = 0.008$). Five-minute Apgar scores did not differ ($p = 0.30$) (Table 14).⁴⁶

Another U.S. trial⁴⁸ randomized 412 women to doula support or monitoring by an inconspicuous observer. The authors also selected an additional 204 women for an additional “control” comparison group.⁴⁸ The trial was conducted at a public hospital where companions were not routinely permitted to be with a woman during labor and birth. For study participants, brief visits by family members were allowed if the labor area was not too busy. All doulas completed a three-week training period.⁴⁸ They stayed at the patient bedside from admission through birth providing touch, encouragement and information about the labor and childbirth process. The observer stayed in the labor room, but at a distance from the mother, and did not interact with the laboring woman.

The proportions of cesarean births for the doula support, observed, and control groups were 8, 13 and 18 percent respectively ($p < 0.0001$ for all three groups).⁴⁸ When pair wise comparisons were made, significant differences remained (doula vs. observed, $p = 0.009$ and doula vs. control, $p = 0.004$). This study reported forceps births for 8.2 percent of women in the doula support group and 21.3 percent for women in the observed group ($p = 0.0006$).⁴⁸ Forceps-assisted births occurred in 26.3 percent of women in the control group ($p = 0.006$, doula support group vs. control group). Among participants who had spontaneous vaginal births, epidural use varied significantly for the doula, observed, and control groups ($p < 0.0001$).⁴⁸ The mean duration of labor was significantly shorter for the doula group compared to the observed ($p < 0.02$) and control ($p < 0.02$) groups.⁴⁸ Labor augmentation occurred less frequently in the support group compared to the control group ($p < 0.0001$).⁴⁸ The percentages for oxytocin use for labor augmentation were 17, 23 and 43.6

percent, across groups ($p < 0.0001$).⁴⁸ Maternal fever was more common in the observed and control groups than in the supported group, but there was no statistical analysis provided (Table 13).⁴⁸ The authors noted that the proportion of newborns who remained in the hospital more than 48 hours because of medical problems was lower in the supported group (Table 14).⁴⁸

Table 13. Maternal outcomes for psychosocial/labor support strategies to reduce cesarean births

Strategy	Fever, % (n Studies)	Infection, % (n Studies)	Hemorrhage, % (n Studies)	Mortality, % (n Studies)
Control	10.3 ^{48, 86} (2)	NR	2.6 ⁸⁶	0 ⁴⁶
Doula support ^{42, 46, 48}	1.4 ^{48a}	NR	NR	0 ⁴⁶
Observation by inconspicuous observer ⁴⁸	7.0	NR	NR	NR
Nursing support ^{73, 86}	0.7 ⁸⁶	NR	2.7 ⁸⁶	NR
Midwifery student support ⁶⁷	NR	NR	NR	NR
Trained friend or family member as labor support ⁹⁶	NR	NR	NR	NR

^aOne study⁴⁶ reported fever $\geq 37.5^\circ$ for the total study population: 17.4%; $\geq 38^\circ$: 6.9%; NR=not reported

Table 14. Neonatal outcomes for psychosocial/labor support strategies to reduce cesarean births

Strategy	Apgar Score <7 at 5 Min, % (n Studies)	NICU Admission, % (n Studies)	NICU Days, Mean \pm SD (n Studies)	Mortality, % (n Studies)
Control	0.7-3.1 ^{46, 86, 96} (3) ^{a, b, c}	4.9-7.3 ^{73, 86} (2)	NR	0-0.03 ^{48, 86} (2)
Doula support ^{42, 46, 48}	1.8 ^{46a, b}	NR	NR	0 ⁴⁸
Observation by inconspicuous observer ⁴⁸	NR	NR	NR	0
Nursing support ^{73, 86}	0.9 ⁸⁶ 8.9 \pm 0.9 ^{b73}	7.1-7.2 ^{73, 86}	NR	0.06 ⁸⁶
Midwifery student support ⁶⁷	9.12 \pm 0.48 ^b	NR	NR	NR
Trained friend or family member as labor support ⁹⁶	0.3 ^c	NR	NR	NR

NICU=neonatal intensive care unit; NR=not reported

^aPercent with Apgar ≤ 7 at 5 min^{46, 86}

^bReported mean Apgar \pm SD at 5 minutes--Control 8.98 \pm 0.45⁶⁷; Control: 9.0 \pm 0.8⁷³

^cPercent with Apgar ≤ 6 at 5 min⁹⁶

Trained Female Friend or Family Member as Provider of Labor Support

In the RCT that used family or friend supports,⁹⁶ 291 women were assigned to the supported group and 295 women were assigned to usual care. The participant selected a female friend or family member who participated in two 2-hour learning sessions.⁹⁶ A research assistant who was a doula certified by Doulas of North America conducted training that included: anatomy and physical changes during labor and childbirth, assessing labor progression, coping strategies, how to provide anticipatory guidance, comfort measures and reassurance to laboring women.⁹⁶ There were no restrictions on visitors or other support for laboring women at the hospital. The primary cesarean rate for the study facility during the enrollment period was 17.9 percent.

In this study, support from a trained friend or family member did not reduce cesarean births. The proportions of cesarean births for the intervention and usual care groups were 18.9 and 17.9 percent respectively ($p=0.7$).⁹⁶ Women in the supported group had significantly shorter lengths of labor ($p=0.004$), greater cervical dilation at the time of epidural ($p=0.007$), and a higher proportion of five-minute Apgar scores above six ($p=0.006$).⁹⁶

Nurses and Midwifery Students as Providers of Labor Support

Two studies in the U.S. and Canada investigated the effects of continuous labor support by nurses,^{73, 86} and one in Finland examined the effects of labor support by midwifery students.⁶⁷ The effectiveness of these strategies are presented in Table 15.

Table 15. Summary of effectiveness of cesarean reduction strategies: labor support by nurses and midwifery students

Author, Year Country; Quality	Strategy (n)	Cesarean Birth, %	Change in Cesarean, % ^a
Hemminki et al., 1990 ⁶⁷ Finland; Poor	Usual care (118)	5.0	3.0 same
	Midwifery student support (122)	2.0	
Gagnon, 1997 ⁷³ Canada; Poor	Usual nursing care (204)	16.2	2.3 same
	One-to-one nursing care (209)	13.9	
Hodnett et al., 2002 ⁸⁶ US & Canada; Fair	Usual care (3,461)	12.6	0.1 same
	Nurse support (3,454)	12.5	

^aSame indicates the use of cesarean was not statistically different across the strategy and comparison arms of the trial.

One randomized controlled Canadian trial⁷³ of poor quality, assigned 209 women to one-to-one intrapartum support from a nurse and 204 women to usual care. Usual care consisted of two to three patients per nurse with variable labor support techniques provided. The strategy was almost continuous one-to-one nursing care from the time of randomization until one hour after the birth. In addition to usual intrapartum care, the support nurse provided physical comfort, emotional support, instruction on relaxation and coping with pain, and support for the father. The support nurses completed an initial 30-hour training period and quarterly refresher workshops.⁷³

Cesarean risk was not significantly different.⁷³ The proportion of cesareans in the supported and usual care groups was 13.9 and 16.2 percent, respectively (RR=0.86, 95% CI: 0.54, 1.36). Use of oxytocin stimulation for women in the nurse supported group was 17 percent lower (RR=0.83; 95% CI: 0.67, 1.04).⁷³ There were no significant differences in epidural analgesia (RR=0.96, 95% CI: 0.84, 1.09), instrumented vaginal births (RR=1.06, 95% CI: 0.74, 1.53), five-minute Apgar scores (Mean difference=-0.1, 95% CI: 0.1, 1.05), and NICU admissions (RR=1.46, 95% CI: 0.64, 3.18).⁷³

A RCT⁸⁶ randomized 6,290 participants to continuous labor support or usual care. Study sites included nine tertiary care and four community hospitals. The strategy was continuous labor support by a specially trained nurse from the time of randomization to birth. Nurses volunteered to participate and completed a two-day training program conducted by an expert labor nurse doula trainer.⁸⁶ Usual care varied depending on a patient's stage of labor, condition, and nurse workload but did not include care by a nurse with special labor support training.

The proportion of cesarean births in the intervention and usual care groups was 12.5 and 12.6 percent, respectively ($p=0.44$).⁸⁶ Labor augmentation for the continuous labor support and usual care groups was 30.1 and 27.2 percent, respectively ($p=0.008$).⁸⁶ Assisted vaginal births, duration

of labor, and use of epidural did not differ. There were no significant differences in neonatal outcomes including neonatal deaths (p-value not provided), need for higher level of nursery care (p=0.70), five-minute Apgar scores (p=0.50) and length of hospital stay (p-value not provided).⁸⁶

A study conducted in Finland⁶⁷ included three trials: one small pilot using laywomen as labor support persons and two trials using midwifery students as labor support persons, one conducted in 1987 and one in 1988. The pilot study with laywoman support was stopped for economic and other reasons.

These studies were conducted at a university hospital.⁶⁷ At this hospital, normal births are attended by midwives who do not stay with the patient constantly, and usually take care of more than one laboring woman at a time. Fathers are present for 60 to 70 percent of births. The hospital's cesarean birth rate was 9.8 percent. In 1987, 11 midwifery students volunteered to provide support in labor for study participants, and in 1988 all 16 midwifery students were required to participate.⁶⁷

The 1987 trial randomized 79 women to midwifery student labor support or usual care.⁶⁷ The 1988 midwifery student trial randomized 161 women to either a midwifery student for labor support or usual care. The authors reported outcomes for each trial year and for both combined.⁶⁷ Cesarean births were equally common: none among supported and eight percent in the usual care in 1987, three and four percent in 1988, and five and five percent for both years combined. The supported group had significantly shorter labors from admission to birth (p<0.05). Among women giving birth for the first time, a smaller percentage of women in the supported group had labor durations of 11 hours or more (p<0.01).⁶⁷ The percentage of women whose contractions stopped was significantly lower in the supported group (5 vs. 15%; p<0.01). Postpartum complications (infections, discharge diagnoses and proportion of mothers not nursing at discharge) were rare and similar in both groups. Mean Apgar scores were higher for neonates in the supported group (p<0.05).⁶⁷

Pain Management

Methods of pharmacologic pain management include epidurals, spinal blocks, combined spinal-epidurals (CSE), and systemic and local analgesia. Epidural analgesia, in which local anesthetic, usually in conjunction with an opioid, is administered into the lower spinal area, is widely used in the United States. A recent report from 27 states showed more than 60 percent of women who gave birth vaginally in 2008 received epidural or spinal anesthesia.¹²⁰ Though the technique may be similar there are differences in the medications used and the method of administration (bolus, continuous infusion, patient controlled). A Cochrane review that evaluated epidural versus nonepidural or no analgesia in labor concluded that epidurals as compared to opiates were associated with an increased risk of instrumented birth but not an increased risk of cesarean.¹²¹

Overview of the Literature

Seven studies compared pain management strategies in labor with a goal of reducing cesarean births.^{49, 58, 63, 76, 95, 97, 103} Two studies were conducted in the United States,^{95, 97} three in Europe,^{49, 58, 63} and two in Asia.^{76, 103} Six of the studies were randomized clinical trials^{49, 58, 63, 76, 95, 103} and one was a quasi-randomized trial.⁹⁷ All studies took place in the labor and delivery suites in single hospitals. Inclusion criteria included term singleton pregnancy without medical complications, vertex presentation, and intention of vaginal birth. One study¹⁰³ required previous childbirth, and one was restricted to women who had not previously had births.⁴⁹ Five of the

studies included both nulliparous and parous women.^{58, 63, 76, 95, 97} Six studies used epidural analgesia although each of the studies was unique in their drug regimens and dosages. In four studies all women received epidurals and the intervention was focused on type,⁹⁷ medication dose,^{49, 63} or ability to ambulate.⁵⁸ Two trials compared epidural to analgesia given intravenously (IV) or by intramuscular (IM) injection^{95, 103} and one evaluated paracervical block with tranquilizer to tranquilizer only.⁷⁶ Two studies were assessed as being of fair,^{95, 103} and the remaining five were poor quality (Appendices E and H).^{49, 58, 63, 76, 97}

Key Points

- Results across these studies are inconsistent. In total they provide low strength of evidence for lack of benefit of pain management strategies as an approach to reduce cesarean (Table 34).
- One study reported a significantly lower use of cesarean associated with intermittent epidural versus continuous epidural suggesting that lower cumulative doses of epidural analgesia may be associated with lower cesarean risk.⁴⁹
- Cesarean risk among women receiving epidural analgesia as compared to IV or IM analgesia did not differ.^{95, 103}

Detailed Synthesis

Seven studies evaluated the effect of various pain management strategies to reduce cesarean births.^{49, 58, 63, 76, 95, 97, 103} The effectiveness of these strategies is presented in Table 16 below.

Table 16. Summary of effectiveness of cesarean reduction strategies of pain management

Author, Year Country; Quality	Strategy (n)	Cesarean Birth, %	Change in Cesarean, % ^a
Skrablin et al., 2011 ⁴⁹ Croatia; Poor	Continuous epidural (104)	14.4	9.4 lower
	Intermittent epidural (101)	5.0	
Karraz, 2003 ⁵⁸ France; Poor	Intermittent epidural bolus injections of 0.1% ropivacaine with 0.6 µg/ml sufentanil, non-ambulatory (74)	16.2	7.0 same
	Intermittent epidural bolus injections of 0.1% ropivacaine with 0.6 µg/ml sufentanil, ambulatory (141)	9.2	
Olofsson et al., 1998 ⁶³ Sweden; Poor	Epidural anesthesia with high dose local anesthetic (0.25% bupivacaine with adrenaline) (435)	14.7	4.5 same
	Epidural anesthesia with low dose (0.125% bupivacaine with sufentanil 10 µg) (422)	10.2	
Mehrangiz et al., 2004 ⁷⁶ Iran; Poor	Promethazine only (50)	4.0	2.0 same
	Paracervical block with promethazine (50)	2.0	
Gambling et al., 1998 ⁹⁵ US; Fair	Intravenous meperidine analgesia (607)	4.0	2.0 same
	Combined spinal-epidural anesthesia (616)	2.0	
Norris et al., 2001 ⁹⁷ US; Poor	Epidural analgesia (1112)	13.4	-1.1 same
	Combined spinal-epidural anesthesia (1071)	14.5	
Jalil et al., 2009 ¹⁰³ Malaysia; Fair	IM pethidine analgesia (98)	7.1	-4.6 same
	Epidural ropivacaine 0.2% with fentanyl 2µg/ml (94)	11.7	

^a **Lower** indicates a lower rate supported by statistical significance; **same** indicates the use of cesarean was not statistically different across the strategy and comparison arms of the trial.

Two studies examined whether the amount of epidural anesthesia received influences cesarean risk.^{49, 63} The most recent study conducted in 205 women in Croatia⁴⁹ reported lower use of cesarean among nulliparous women who received an intermittent epidural (5%) compared to a continuous epidural (14.4%) (RR=2.9, 95% CI: 1.1, 7.7; p=0.03). The mean doses of levobupivacaine and fentanyl were significantly lower in the intermittent group.⁴⁹ A poor quality trial in Sweden with 1,000 participants⁶³ demonstrated a significantly lower rate of combined instrumented births for women who received an epidural with low dose local anesthesia (bupivacaine 1.25 mg/ml with sufentanil 5µg/ml) (29.7%) as compared to epidural with high dose of local anesthesia (bupivacaine 2.5 mg/ml with adrenaline 5µg/ml) (48.9%) (p<0.0001). Cesarean births were 10.2 percent and 14.7 percent for the low and high dose respectively, but no statistical analysis was reported.⁶³

A study of 2,182 births in the U.S.⁹⁷ compared CSE to epidural only and reported no significant difference in cesarean use (14.5% for the CSE group and 13.4% for the epidural only). This poor quality study was unusual in that the anesthesia assignment was randomized by day of birth for a 10-month period.⁹⁷ Additionally data sheets were missing for more than 600 women. A French study⁵⁸ investigated the impact of epidural dosing to allow ambulation in 215 women and reported 9.2 percent of women in the ambulatory group compared to 16.2 percent of women in the non-ambulatory group had cesareans (p=0.15). The ambulatory group also had a significantly shorter duration of labor.⁵⁸

A U.S. study with 1,223 participants⁹⁵ compared CSE (sufentanil, bupivacaine and fentanyl) to IV meperidine but did not find differences in cesarean (6% and 5.5% respectively, p=ns).⁹⁵ The use of forceps was higher in the subset of nulliparous women, but not different between the groups (10% for CSE and 9% for IV only; p=NS). A Malaysian study of 192 parous women¹⁰³ compared epidural (0.2% ropivacaine with fentanyl 2 µg/ml) to IM pethidine/meperidine with no statistically significant difference in cesarean (11.7% among women who received epidurals vs. 7.1% in the IM arm; p=0.19).¹⁰³ Women who received epidurals were more likely to have an instrumented birth and prolonged first and second stages of labor.¹⁰³ A study of 100 women in Iran⁷⁶ compared paracervical block with tranquilizer to tranquilizer only and found no differences in cesarean (p=0.3). Women who received the block had faster pain relief and a shorter duration of the first stage of labor.⁷⁶

Data on maternal harms were reported in only three studies (Table 17).^{49, 95, 97} In the first, incidence of fever was similar in the intermittent (23%) and continuous (20%) epidural treatment groups and postpartum hemorrhage was reported in three women.⁴⁹ Gambling and colleagues⁹⁵ reported fever in 22 percent of women in the CSE group and only three percent in the IV group (p<0.005). Norris et al.⁹⁷ reported low rates of accidental dural puncture (1.3% in the CSE group compared to 1.2 percent in the epidural group).

Overall data on infant harms were not well reported. No significant differences in five-minute Apgar scores between groups were seen in any of the studies. Data on NICU admissions were not reported in any study. There were no infant deaths in the three studies that reported this information (Table 18).^{76, 95, 103}

Table 17. Maternal outcomes for pain management strategies to reduce cesarean births

Strategy	Fever, % (n Studies)	Infection, % (n Studies)	Hemorrhage, % (n Studies)	Mortality, % (n Studies)
Control	3.0 ⁹⁵	NR	NR	0.0 ¹⁰³
Intermittent epidural ⁴⁹	23.0	NR	1.0	NR
Continuous epidural ⁴⁹	20.0	NR	2.0	NR
Combined spinal-epidural ^{95, 97}	22.0 ⁹⁵	NR	NR	NR
Epidural with high dose local anesthetic ⁶³	NR	NR	NR	NR
Epidural; ¹⁰³ ambulatory ⁵⁸	NR	NR	NR	NR
Paracervical block with tranquilizer ⁷⁶	NR	NR	NR	NR

NR=not reported

Table 18. Neonatal outcomes for labor management strategies to reduce cesarean births

Strategy	Apgar Score <7 at 5 Min, % (n Studies)	NICU Admission, % (n Studies)	NICU Days, Mean ± SD (n Studies)	Mortality, % (n Studies)
Control	0-3.9 ^{63, 76, 95, 103} (4)	NR	NR	0 ^{76, 95, 103} (3)
Intermittent epidural ⁴⁹	3.0	NR	NR	NR
Continuous epidural ⁴⁹	1.9	NR	NR	NR
Combined spinal-epidural ^{95, 97}	0 ^{95a}	NR	NR	0 ⁹⁵
Epidural with high dose local anesthetic ⁶³	4.5	NR	NR	NR
Epidural; ¹⁰³ ambulatory ⁵⁸	1.1 ¹⁰³	NR	NR	0 ¹⁰³
Paracervical block with tranquilizer ⁷⁶	0	NR	NR	0

NICU=neonatal intensive care unit; NR=not reported

^aMean Apgar scores of 9 in both groups⁹⁷

Fetal Assessments

Electronic fetal monitoring (EFM) uses special equipment to measure the fetal heart rate (FHR) in response to contractions of the uterus. It provides an ongoing record that can be followed by the health care provider. EFM has been the predominant tool used for fetal surveillance during labor. Methods for monitoring can be external, internal, or both. With external fetal monitoring a belt with an ultrasound transducer is strapped around the woman's abdomen to detect the FHR. Another belt is placed on the abdomen to measure the frequency and duration of contractions. The FHR and uterine contraction information is recorded. For internal fetal monitoring, a wire or electrode is placed on the part of the fetus closest to the cervix, which is usually the scalp. This device records the heart rate. Uterine contractions and their strengths also may be monitored with a special intrauterine pressure catheter inserted through the cervix into the uterus. Internal monitoring can be used only after the membranes of the amniotic sac have ruptured. The normal FHR is between 110 and 160 beats per minute and typically changes

in response to contractions, slowing down as a contraction begins. Accelerations (increases in the fetal heart rate meeting specific criteria) often indicate the fetus is well oxygenated at the time they are observed. Periodic increases in the heart rate also are normal. These changes form a pattern. Some patterns may suggest that the fetus is not getting enough oxygen.

Intermittent fetal scalp sampling is another way to evaluate fetal status during labor and is sometimes used in conjunction with EFM, with a trend towards less use over time in the United States.⁴³ Fetal scalp sampling helps determine recent fetal oxygenation status by testing the pH of fetal blood during periods of concerning heart rate patterns referred to as nonreassuring FHR patterns. This procedure requires a small blood sample to be taken from the scalp of the fetus. Normal pH documents adequate fetal oxygenation.

Fetal pulse oximetry was first tested in the late 1990s.⁷⁰ It is another way that has been developed to continuously monitor the fetus during labor. It has been used for research purposed in the United States and is not in general use. It uses far red and near-infrared wavelengths in conjunction with a sensor placed near the fetal cheek to provide a continuous reading of fetal oxygenation during labor.⁴³ Human and animal studies have shown that in the fetus, which normally has an oxygen saturation in labor of 35 percent to 65 percent, an oxygen deficit does not develop until the saturation falls below 30 percent for at least 10 to 15 minutes.¹²²⁻¹²⁴ Therefore fetal oxygen saturation 30 percent or greater tends to be considered reassuring, whereas values less than 30 percent for at least 10 minutes require further assessment or intervention.^{122, 125-128}

Most recently, ST segment analysis of fetal electrocardiography (STAN) has emerged as an adjunct for fetal surveillance. STAN is another continuous monitoring device used for analyzing changes in the fetal electrocardiogram.⁹⁹ The device combines standard EFM technology with the addition of ST waveform analysis to provide a fetal electrocardiogram (ECG). The fetal ECG is obtained via a fetal scalp electrode. The STAN automatically identifies and analyses changes in the T wave and the ST segment of the fetal ECG to give clinicians more detailed information about fetal well-being.

Overview of the Literature

Six studies addressing the use of electronic fetal monitoring to reduce cesarean rates were included.^{43, 70, 74, 80, 99, 101} Two RCTs were conducted in the U.S.;^{80, 101} three are European studies conducted in Germany, France and Finland;^{43, 70, 99} and one was conducted in Australia.⁷⁴ Three studies compared the use of fetal pulse oximetry with fetal heart monitors to the use of fetal heart monitors either alone or with fetal pulse oximetry that did not display the readings.^{74, 80, 101} One study compared the use of fetal pulse oximetry in addition to fetal heart monitoring and fetal scalp sampling to fetal heart monitoring and fetal scalp sampling alone.⁴³ Two studies compared the use of fetal ST-segment analysis of fetal cardiotocography to cardiotocography either alone or with an additional monitoring device.^{70, 99} Of six studies, one was good quality⁸⁰ with five being of fair quality (Appendices E and H).^{43, 74, 99, 101}

Key Points

- Across these categories of fetal assessment strategies there is low strength of evidence for lack of benefit, from six studies including more than 9,700 women (Table 34).
- Three of the four studies looking at the use of fetal pulse oximetry demonstrated a significant reduction in cesarean performed for fetal distress; however, knowledge of intrapartum fetal oxygen saturation had no significant effect on overall use of cesarean.

- Fetal pulse oximetry did not slow or interfere with labor, nor did it result in an increase in adverse maternal, fetal, or neonatal outcomes.
- Use of fetal ST-segment analysis in conjunction with FHR monitoring did not reduce total cesareans or cesareans for nonreassuring fetal heart tracing when compared to routine FHR monitoring alone.

Detailed Synthesis

Fetal Pulse Oximetry

Three studies^{43, 74, 101} evaluated whether the addition of fetal pulse oximetry to FHR monitoring, fetal scalp sampling or both, would improve fetal assessment and reduce operative birth rates without increasing adverse outcomes for the women, the fetus or the newborn. These trials enrolled women who were at least 36 weeks gestation, with a singleton fetus in vertex presentation, in labor with ruptured membranes (or if not ruptured consented for artificial rupture), and nonreassuring FHR. The effectiveness of these strategies is presented in Table 19.

Table 19. Summary of effectiveness of cesarean reduction strategies: fetal pulse oximetry

Author, Year Country; Quality	Strategy (n)	Cesarean Birth, %	Change in Cesarean, % ^a
Kuhnert et al., 2004 ⁴³ Germany; Fair	Fetal monitoring with CTG and fetal scalp blood sampling (73)	37.0	20.6 lower
	Fetal monitoring with CTG and fetal pulse oximetry and fetal scalp blood sampling (73)	16.4	
East et al., 2006 ⁷⁴ Australia; Fair	Fetal monitoring with CTG (295)	48.1	2.2 same
	Fetal monitoring without CTG and fetal pulse oximetry (306)	45.9	
Bloom et al., 2006 ⁸⁰ US; Good	Fetal pulse oximetry with oxygen saturation not displayed to clinician (2,712)	27.5	1.2 same
	Fetal pulse oximetry with oxygen saturation displayed to clinician (2,629)	26.3	
Garite et al., 2000 ¹⁰¹ US; Fair	Fetal monitoring with CTG (502)	26.0	-3.0 same
	Fetal monitoring with CTG and fetal pulse oximetry (508)	29.0	

^a**Lower** indicates a lower rate supported by statistical significance; **same** indicates the use of cesarean was not statistically different across the strategy and comparison arms of the trial.

CTG=cardiotocography

The first study was a U.S. multicenter trial at nine centers.¹⁰¹ Patients gave consent for possible study inclusion but were only randomized once one of the pre-determined concerning FHR patterns developed while in labor. Included women also needed to be at least two centimeters dilated and at minus two station or lower in the pelvis. All randomized participants (n=1,010) underwent FHR monitoring with either Doppler or scalp electrode, or both.¹⁰¹ For patients in the intervention group a fetal oxygen sensor was placed against the fetal cheek and connected to a monitor. For women in the control group, only an electronic FHR monitor was used. For both groups the FHR was defined as reassuring, nonreassuring, or ominous. An ominous FHR pattern, defined as FHR persistently less than 70 beats per minute for at least seven minutes, required immediate birth in either group. The difference in management between the two groups occurred among the patients with nonreassuring FHR patterns. In the intervention group a fetus with a nonreassuring FHR tracing was considered to be normally oxygenated if the

fetal oxygen saturation was greater than 30 percent at any time between two contractions. However, if the fetal oxygen saturation remained less than 30 percent for the entire interval between two contractions, the clinician reverted back to the FHR and used the same criteria as that used for the standard control group: if the FHR was persistently nonreassuring the clinician could rule out acidosis by examining spontaneous or induced FHR accelerations or scalp pH to rule out fetal acidosis. If reassurance could not be established, cesarean or operative vaginal birth was undertaken.¹⁰¹

Despite randomization, the intervention arm included more women with induced labors and use of prostaglandins for cervical ripening.¹⁰¹ There was a 50 percent relative reduction, in the number of cesareans performed for nonreassuring fetal status (intervention group 4.5% vs. 10.2% for controls) with no significant difference in overall cesarean use between the two groups (29% in the intervention group and 26% in the control group). An independent reviewer evaluated all electronic FHR tracings. The reviewer identified three cesarean births in each group done for nonreassuring fetal status in which there were protocol violations. There were no differences between the two groups in adverse maternal outcomes (including placental abruption, postpartum hemorrhage, wound infection, intrapartum fever, and endometritis).¹⁰¹ Neonatal outcomes were similar with five neonatal deaths, three in the intervention group and two in the control group.¹⁰¹ Four of the five deaths were caused by complex congenital heart anomalies. The fifth occurred in an infant from the intervention group whose five-minute Apgar score and umbilical cord pH were normal, yet postnatally developed bilateral tension pneumothoraces (Table 21).¹⁰¹

In a German trial,⁴³ 146 patients were recruited with nonreassuring FHR patterns (defined by International Federation of Gynaecology and Obstetrics [FIGO] score less than 8).¹²⁹ Women in the study also needed to be at least two centimeters dilated and at minus two station or lower in the pelvis. They were randomized to two groups: triple fetal surveillance with a FHR monitor, fetal scalp sampling, and fetal pulse oximetry (n=73) or a control group in which women received only FHR monitoring and fetal scalp sampling (n=73).⁴³ After randomization, management of labor varied by group. In the intervention group, if cardiotocography (CTG) was nonreassuring, fetal blood sample (FBS) pH was greater than 7.25, and fetal pulse oximetry was greater than 30 percent, they continued CTG and fetal pulse oximetry and attempted vaginal birth. If the CTG was nonreassuring and the fetal blood sample pH was greater than 7.25, but the fetal pulse oximetry was less than 30 percent, they still continued CTG and fetal pulse oximetry; however, a followup fetal scalp sampling was performed. If that repeat scalp sampling pH was less than or equal to 7.25, clinical intervention was necessary (either tocolysis for intrauterine resuscitation, cesarean, or assisted vaginal birth). In the control group, if CTG was nonreassuring and fetal scalp blood sample pH was greater than 7.25, they continued CTG and attempted vaginal birth. If the fetal blood sample pH was less than or equal to 7.25 clinical intervention was necessary. In either group if CTG was ever found to be pathologic, patients were delivered immediately.⁴³

There was no difference between the two groups in incidence of nonreassuring FHR patterns in the first and second stages of labor.⁴³ The first scalp pH sampling for baseline assessment in the two groups was also similar. The proportion of cesareans was significantly lower in the intervention group than in the control group (16.4% vs. 37%), and the proportion of operative vaginal births for nonreassuring fetal status was also significantly lower in the intervention versus control group (17.8% vs. 30.1%) demonstrating almost a 50 percent reduction in the risk

of operative births for nonreassuring fetal status. There were no adverse maternal or neonatal events in either group (Tables 20 and 21).⁴³

The third trial, called the FOREMOST trial, was conducted in four Australian academic hospitals.⁷⁴ Six-hundred and one women with nonreassuring fetal monitoring were randomly assigned to a group with fetal pulse oximetry with CTG or a control group monitored using conventional CTG alone.⁷⁴ Monitoring continued from the time a sensor was placed until as close to birth as possible. In either group, if the CTG became reassuring, labor was continued unless otherwise indicated. In both groups, ominous FHR patterns prompted birth. In the control group, a nonreassuring CTG prompted evaluation and management of the FHR pattern. In the intervention group, if oxygen saturation levels were less than 30 percent for 10 minutes or not recording, evaluation and management of FHR pattern was recommended. Evaluation and management could include maternal position change, supplemental oxygen, hydration, correction of hypotension, discontinuation of oxytocin infusion, or birth. Fetal blood scalp sampling was available to all without restriction and the study did not regulate management based on fetal scalp pH or lactate values.⁷⁴

The primary outcome measured was operative birth (cesarean, forceps, vacuum) for nonreassuring fetal status.⁷⁴ This study reported a significant reduction in operative births for nonreassuring fetal status in the intervention group compared to those in the control group (24.9% vs. 32.2%; RR=0.77, 95% CI: 0.599, 0.999; p=0.048). Cesareans for nonreassuring fetal status represented 13.8 percent of intervention group and 20 percent of control group births (RR=0.69, 95% CI: 0.48, 0.99; p=0.042).⁷⁴ However, the overall rate of operative births between the two groups did not differ (intervention group 73% vs. control group 71%; RR=0.77, 95% CI: 0.599, 0.999; p=0.48). Women in the intervention group were more likely to have an operative birth secondary to dystocia than those in the control group. This difference in indication was significant for assisted vaginal birth, not for cesareans. Fetal scalp blood sampling was performed more often in the control group. There were four cases of endometritis in the intervention group and one in the control group (p=0.192). Postpartum maternal fever was similar between the groups (p=0.792) (Table 20). There was also no difference in neonatal outcomes (Apgar score, cord pH/fetal acidosis, NICU admission), or serious adverse events (Table 21).⁷⁴

The fourth study was conducted by the National Institute of Child Health and Human Development Maternal-Fetal Medicine Units Network.⁸⁰ This RCT enrolled women at 14 academic centers to test whether fetal oximetry in addition to conventional EFM would reduce the overall use of cesarean. The study was launched after a rigorous training phase with the oximetry equipment. During the study, all women recruited underwent placement of fetal pulse oximeter after placement of a standard internal electronic FHR monitor and intrauterine pressure catheter.⁸⁰ If the oximeter was not placed within three attempts or if a signal registration was not accomplished by 15 minutes the attempt was considered unsuccessful, and the patient was not randomized. One hundred seventy women had failed attempts at sensor placement and 42 other attempts were abandoned secondary to prolonged FHR decelerations during placement. Ultimately, 5,341 women were randomly assigned to open fetal oximetry in addition to conventional electronic fetal monitoring or to masked fetal oximetry with conventional electronic fetal monitoring.⁸⁰

Nonreassuring FHR patterns were defined according to the criteria used by Garite.¹⁰¹ Intrapartum management in both groups was otherwise left to the discretion of the attending physician.⁸⁰ Fetal pulse oximeter sensors were removed before study completion in 238 women

in the intervention group and 267 women in the masked group (reasons: patient request, n=244; physician request, n=196; technical problems, n=65). Discomfort accounted for 92 percent of patient requests for sensor removal and interference with cervical examination or management of labor for 67 percent of physician requests.⁸⁰

Cesarean births did not differ between the oximetry and masked groups (26.3 and 27.5%; p=0.31).⁸⁰ Cesarean births for nonreassuring FHR (7.1 and 7.9%; p=0.30) and dystocia (18.6 and 19.2%; p=0.76) were also similar. Results were similar in the subgroup (n=2,168) of women in whom a nonreassuring FHR was detected prior to randomization as well as those with normal baseline FHR. Maternal and neonatal outcomes did not differ significantly between groups (Tables 20 and 21). One neonatal death occurred due to sepsis in the masked group.⁸⁰

Table 20. Maternal outcomes for fetal assessment strategies to reduce cesarean births

Strategy	Fever, % (n Studies)	Infection, % (n Studies)	Hemorrhage, % (n Studies)	Mortality, % (n Studies)
Control	8.0-29.8 ^{74, 101} (2)	10.7 ^{80a}	3.2 ¹⁰¹	NR
Fetal monitoring with CTG, fetal pulse oximetry and fetal blood sampling ⁴³	NR	NR	NR	NR
Fetal monitoring with CTG and fetal pulse oximetry ^{74, 101}	9.0-30.8 ^{74, 101}	NR	3.0 ¹⁰¹	NR
Fetal pulse oximetry with oxygen saturation displayed to clinician ⁸⁰	NR	10.7 ^a	NR	NR
Fetal monitoring with CTG and STAN ⁷⁰	NR	NR	NR	NR
Fetal monitoring with STAN ⁹⁹	NR	NR	NR	NR

CTG=cardiotocography; STAN=ST analysis; NR=not reported; ^a Reported chorioamnionitis

Table 21. Neonatal outcomes for fetal assessment strategies to reduce cesarean births

Strategy	Apgar Score <7 at 5 Min, % (n Studies)	NICU Admission, % (n Studies)	NICU Days, Mean ± SD (n Studies)	Mortality, % (n Studies)
Control	0.1-3.8 ^{70, 74, 80, 99, 101, a} (5)	1.5-14.7 ^{70, 74, 80, 99, 101} (5)	NR	0-0.4 ^{70, 80, 99, 101} (4)
Fetal monitoring with CTG, fetal pulse oximetry and fetal blood sampling ⁴³	NR	NR	NR	NR
Fetal monitoring with CTG and fetal pulse oximetry ^{74, 101}	1.6-16.7 (2)	3.0-18.1 (2)	NR	0.6 ¹⁰¹
Fetal pulse oximetry with oxygen saturation displayed to clinician ⁸⁰	0.2 ^a	4.8	NR	0
Fetal monitoring with CTG and STAN ⁷⁰	1.5	1.3	NR	0
Fetal monitoring with STAN ⁹⁹	1.3	3.6	NR	0

NICU=neonatal intensive care unit; CTG=cardiotocography; STAN=ST analysis; NR=not reported; ^a Percent with Apgar < 4 at 5 min

Fetal ST-Segment Analysis Studies

Two RCTs assessed ST-segment analysis (STAN) to provide additional information.^{70, 99} The effectiveness of these strategies is presented in Table 22 below.

Table 22. Summary of effectiveness of fetal assessment cesarean reduction strategies: fetal STAN

Author, Year Country; Quality	Strategy (n)	Cesarean Birth, %	Change in Cesarean, % ^a
Vayssiere et al., 2007 ⁷⁰ France; Fair	Fetal monitoring with CTG (400)	16.3	2.8 same
	Fetal monitoring with CTG and STAN (399)	13.5	
Ojala et al., 2006 ⁹⁹ Finland; Fair	Fetal monitoring with CTG (739)	4.7	-1.7 same
	Fetal monitoring with STAN (733)	6.4	

^aSame indicates the use of cesarean was not statistically different across the strategy and comparison arms of the trial.
CTG=cardiotocography; STAN=ST analysis

A study at an academic institution in Finland examined whether intrapartum monitoring with STAN could reduce the rate of neonatal acidemia and operative intervention during labor.⁹⁹ A total of 1,483 women were randomly assigned to the intervention group, with monitoring by STAN through a scalp electrode, or the control group with monitoring by a conventional FHR monitor either via an internal intrauterine scalp electrode or an external ultrasound signal sensor.⁹⁹ Fetal blood sampling was optional in both groups, based on clinician judgment. If scalp pH was less than 7.20, immediate birth was recommended. Primary outcome measures were neonatal acidemia (defined as umbilical artery pH less than 7.10), operative interventions (cesarean and vacuum birth), and need for fetal blood sampling.⁹⁹

An umbilical artery blood gas was available for 714 neonates in the intervention group and 722 in the control group.⁹⁹ There were 83 cases of inadequate monitoring, five in the control group (secondary to technical difficulties) and 78 in the intervention group. Failure in the intervention group was attributed to: monitoring stopped more than 20 minutes before birth (n=25), poor signal quality (n=21), technical difficulties with scalp electrode (n=19), total recording time less than 20 minutes (n=7) and one case of unsuccessful recording. In the control group, 83 percent used an internal scalp electrode for monitoring, and 17 percent used an external ultrasound sensor. Overall cesarean rate did not differ between the two groups (6.4% intervention vs. 4.7% control; p=0.24).⁹⁹ Fetal blood sampling was used less in the intervention group compared to the control group (7% vs. 15.6%; p<0.001). When evaluating fetal pH using values less than 7.10 as a criterion of neonatal acidemia, there were no differences between the groups. There were no maternal complications related to the STAN, electronic fetal monitor or fetal blood sampling (Table 20). Neonatal outcomes did not differ between groups with no difference in neonatal acidemia, Apgar scores, need for intubation, or admission to the NICU (Table 21). There were no neonatal deaths.⁹⁹

In the second study,⁷⁰ a multicenter trial in France, the authors sought to assess whether STAN reduced operative births for nonreassuring fetal status or reduced need for at least one scalp pH during labor. The study population included participants who either had an abnormal FHR pattern (by FIGO classification) or thick meconium stained amniotic fluid during labor. After rupture of membranes, 799 women were randomized to intervention with both STAN and an electronic fetal monitor for CTG to monitor fetal status in labor or to the control group with only an electronic fetal monitor for CTG to monitor fetal status.⁷⁰ In the STAN group, fetuses were monitored continuously through a scalp electrode and recommendations were based on STAN guidelines. Scalp pH testing was optional in both groups. If scalp blood pH was less than 7.20, immediate birth was recommended. As soon as possible after birth, umbilical cord artery and vein gases were obtained and analyzed.

The proportion of operative births for nonreassuring fetal status did not differ between the two groups (33.6% for the study group vs. 37% for the control group; RR=0.91, 95% CI: 0.75,

1.10).⁷⁰ Use of operative interventions for dystocia also did not differ between groups. The percentage of women whose fetus had at least one blood scalp pH measurement during labor was substantially lower in the intervention group (27% compared with 62% in the control group; RR=0.44, 95% CI: 0.36, 0.52). Neonatal outcomes did not differ between groups (acidosis, Apgar score, and NICU admission), with one fetal death in the CTG only group (Table 21).⁷⁰

Amnioinfusion

Amnioinfusion (AI) refers to instilling fluid (lactated ringers solution or normal saline) into the amniotic cavity. This procedure is typically performed during labor through a catheter introduced transcervically after rupture of fetal membranes. A nasogastric feeding tube can also be used if an intrauterine pressure catheter is not available.⁴⁴

Severe reduction of amniotic fluid (oligohydramnios) can increase the risk of a number of pregnancy complications, including FHR deceleration, cord compression during labor, fetal hypoxia and acidosis. Variable FHR decelerations are the most common type, seen in 50 to 80 percent of labors.⁹⁸ Recurrent variable decelerations have been shown to be due to cord compression in labor in women with oligohydramnios.¹³⁰ Oligohydramnios can be present before rupture of membranes or more commonly occurs in labor after rupture of membranes. Variable decelerations are common and may accompany each contraction. They are not specifically indicative of distress and are interpreted in the larger context of monitoring patterns; however, when severe or if they remain persistent, they may be associated with fetal compromise as a result of hypoxia and acidemia.¹³¹ As a result, severe variable decelerations when recurrent are often nonreassuring and can lead to increased risk of instrumented and cesarean births. Amnioinfusion has been shown to be a simple, inexpensive, effective, and safe method for the relief of significant heart rate abnormalities during prolonged labor with oligohydramnios and has been associated with decreased use of cesarean but debate continues.^{44, 132}

Overview of the Literature

We identified eight RCTs addressing use of amnioinfusion to reduce cesarean birth rates.^{39, 44-45, 57, 59, 69, 81, 98} Three were conducted in India,^{39, 45, 98} two were conducted in South Africa,^{57, 69} one in Zimbabwe,⁶⁹ one in Egypt,⁴⁴ and one in the United States.⁵⁹ Four were found to be of fair quality^{44-45, 59, 69} with the remaining four being of poor quality (Appendices E and H).^{39, 57, 81, 98}

All eight studies compared the use of transcervical amnioinfusion to the use of standard obstetric care without amnioinfusion. Five studies evaluated amnioinfusion in the context of moderate to heavy meconium stained amniotic fluid,^{39, 45, 57, 69, 81} two studies evaluated use of amnioinfusion in the context of nonreassuring FHR tracings,^{44, 98} and one evaluated use of prophylactic amnioinfusion in the context of oligohydramnios.⁵⁹

Although all studies used either warmed or room temperature normal saline, the amnioinfusion protocols varied. In five studies^{39, 44-45, 69, 98} 500 ml of normal saline was initially infused over 30 minutes, followed by slow infusions up to either 1 liter total volume^{44-45, 69} or until birth.^{39, 98} Three studies infused normal saline at 15 ml per minute either to a volume of 1 liter,⁵⁷ 800 ml followed by a slower infusion until birth,⁸¹ or 250 ml to attain an amniotic fluid index greater than or equal to 8 centimeters.⁵⁹

Key Points

- Studies of amnioinfusion did not find consistent overall decrease in use of cesarean. The strength of evidence is insufficient to support use to prevent cesarean (Table 34).

- Amnioinfusion did not consistently lead to a reduction in overall cesarean rates. When performed for concerning fetal heart tracings, four of eight studies reported a significant reduction in cesareans performed for fetal distress.^{39, 44-45, 98}
- Amnioinfusion for moderate or heavy meconium when performed in under-resourced hospital settings where electronic monitoring was limited or absent, improved neonatal outcomes.
- Prophylactic amnioinfusion for oligohydramnios did not reduce use of cesarean.

Detailed Synthesis

Five RCTs^{39, 45, 57, 69, 81} evaluated the effect of transcervical amnioinfusion during labor complicated by the presence of moderate or heavy meconium. The effectiveness of these strategies is presented in Table 23.

Table 23. Summary of effectiveness of cesarean reduction strategies: amnioinfusion for meconium

Author, Year Country; Quality	Strategy (n)	Cesarean Birth, %	Change in Cesarean, % ^a
Choudhary et al., 2010 ³⁹ India; Poor	Standard obstetric care without amnioinfusion (146)	63.7	34.2 lower
	Transcervical amnioinfusion (146)	29.5	
Rathor et al., 2002 ⁴⁵ India; Fair	Standard obstetric care without amnioinfusion (100)	36.0	15.0 lower
	Transcervical amnioinfusion (100)	21.0	
Moodley et al., 1998 ⁵⁷ South Africa; Poor	Standard obstetric care without amnioinfusion (30)	47.0	7.0 same
	Transcervical amnioinfusion (30)	40.0	
Mahomed et al., 1998 ⁶⁹ Zimbabwe; Fair	Standard obstetric care without amnioinfusion (336)	11.3 ^b	1.8 same
	Transcervical amnioinfusion (325)	9.5	
Hofmeyr et al., 1998 ⁸¹ South Africa; Poor	Standard obstetric care without amnioinfusion (176)	43.0	1.0 same
	Transcervical amnioinfusion (176)	42.0	

^a**Lower** indicates a lower rate supported by statistical significance; **same** indicates the use of cesarean was not statistically different across the strategy and comparison arms of the trial.

^bReported as 12.3 in text, but should be 11.3 based on data presented in paper.

The first two^{39, 45} were conducted in teaching hospitals in India with women at term who had moderate or thick meconium during labor. In both of these studies in under-resourced areas labors were not monitored continuously by electronic fetal monitors, but instead intermittently (approximately every 15 minutes) via auscultation for FHR, and contractions were assessed every 30 minutes by palpation, evaluating the uterine tone, intensity, frequency, and duration of contractions. Choudhary et al.³⁹ enrolled 292 participants who were randomly assigned to the intervention group and received transcervical amnioinfusion or the control group and received standard labor management. Cesareans were performed if there were FHR abnormalities defined as bradycardia or severe irregularity for 10 to 20 minutes, or if there was a slow progression of labor.

This study reported a significant reduction in the incidence of cesarean birth rates in the amnioinfusion group compared to the control group (29.5% vs. 63.7% cesarean births) with a significantly higher rate of normal vaginal birth in the intervention group compared to the control group (70.5% vs. 31.5%).³⁹ Maternal fever was lower in the intervention group than in the

control group, but the difference was not significant (p=0.238) (Table 24). Amnioinfusion during labor was not associated with any significant maternal complications.

Table 24. Maternal outcomes for amnioinfusion strategies to reduce cesarean births

Strategy	Fever, % (n Studies)	Infection, % (n Studies)	Hemorrhage, % (n Studies)	Mortality, % (n Studies)
Control	0-12 ^{39, 44-45, 59, 69, 81, 98} (7)	0 ⁹⁸	NR	NR
Transcervical amnioinfusion ^{39, 44-45, 57, 59, 69, 81, 98}	0.9-20 ^{39, 44-45, 59, 69, 81, 98} (7)	0 ⁹⁸	NR	NR

NR=not reported

Amnioinfusion was associated with improved neonatal outcomes as evidenced by the incidence of respiratory distress in the newborn infants, which was greatly reduced by amnioinfusion in the study versus control group (2.7% vs. 23.3%; p=0.000).³⁹ Meconium aspiration syndrome was also markedly reduced by amnioinfusion with 0.68 percent incidence in the intervention group compared to 15.8 percent in the control group (p=0.000). Neonatal mortality was much higher at 10.9 percent in the control group compared to 1.4 percent in the intervention group (p=0.010). Amnioinfusion improved the Apgar score at both one and five minutes in newborns in the study group versus the control group (10.3% vs. 30.8% and 0.7% vs. 8.2%; p=0.000). Amnioinfusion was not associated with increasing any significant neonatal complications (Table 25).³⁹

Table 25. Neonatal outcomes for amnioinfusion to reduce cesarean births

Strategy	Apgar Score <7 at 5-Min, % (n Studies)	NICU Admission, % (n Studies)	NICU Days, Mean ± SD (n Studies)	Mortality, % (n Studies)
Control	0-13.2 ^{39, 44-45, 59, 69, 81, 98} (7) ^a	2.5-22.9 ^{44-45, 69, 81} (4)	3.0% ^{69b}	0-11 ^{39, 44-45, 57, 69, 81} (6)
Transcervical amnioinfusion ^{39, 44-45, 57, 59, 69, 81, 98}	0-4.1 ^{39, 44-45, 59, 69, 81, 98} (7) ^a	1.8-12.8 ^{44-45, 69, 81} (4)	1.6% ^{69b}	0-2 ^{39, 44-45, 57, 69, 81} (6)

NICU=neonatal intensive care unit; NR=not reported

^aReported mean Apgar at 5 minutes ± SD--Intervention: 9.57 ± 0.67; Control: 9.33 ± 1.03⁵⁷

^bReported percent in NICU more than 4 days

In the second study, Rathor and colleagues⁴⁵ enrolled 200 women in labor, who were randomized to either an amnioinfusion or control group. The authors reported cesarean was significantly less frequent in the amnioinfusion group compared to the control group (21% vs. 36%) with cesarean for fetal distress also reduced to 12 percent in the amnioinfusion group compared to 26 percent in the control group.⁴⁵ Five percent of infants were born by forceps in the amnioinfusion group versus 14 percent in the control group. The incidence of maternal fever was lower in the amnioinfusion group compared to the control group, but the difference was not significant (Table 24).⁴⁵ Seven neonatal deaths occurred: two in the amnioinfusion group and five in the control group. Amnioinfusion was associated with a significant improvement in one-minute Apgar scores and fewer admissions to the NICU compared to the control group (Table 25).⁴⁵

The last two RCTs⁸¹ were from different sites of the same trial, the Collaborative Randomized Amnioinfusion for Meconium Project (CRAMP) in South Africa and Zimbabwe. The sample size calculation for the multicenter study was based on an expected incidence of meconium aspiration of 10 percent of the control group. After initiation of the study it became clear that the South African centers had lower incidence of MAS than those used to estimate sample size in Zimbabwe. Therefore the two sites, South Africa (CRAMP 1) and Zimbabwe (CRAMP 2) reported findings separately.^{69, 81}

The South African site (CRAMP 1)⁸¹ evaluated 176 women randomized to the amnioinfusion group and a control group of 176 who received standard obstetric care. All women allocated to the intervention group received amnioinfusion. One woman in the control group also received an amnioinfusion but was retained in the control group for intention-to-treat analysis. The care differed in this portion of the study (compared to Zimbabwe) in that electronic fetal monitoring and intrauterine pressure monitoring were available and used in most cases. Cesarean risk was similar with 42 percent in the amnioinfusion group and 43 percent in the control group having cesarean births (RR=0.98, 95% CI: 0.76, 1.26).⁸¹ There was no significant difference in assisted vaginal births (RR=0.72, 95% CI: 0.31, 1.67), nor was there significant difference in the incidence of maternal fever (RR=1.23, 95% CI: 0.65, 2.33).⁸¹ The study did not report maternal deaths. Overall incidence of meconium aspiration syndrome was much lower than expected, with no significant difference between the two groups (0.02% in the amnioinfusion group vs. 0.03% in the control; RR=0.67, 95% CI: 0.19, 2.33). There were no perinatal deaths and no significant differences in five-minute Apgar scores less than 7 (RR=1.49, 95% CI: 0.43, 5.18) or NICU admissions (RR=0.75, 95% CI: 0.17, 3.28) (Table 25).⁸¹

Of 661 women enrolled in the Zimbabwe study (CRAMP 2),⁶⁹ 325 were randomly assigned to amnioinfusion and 336 were assigned to standard obstetric care. No electronic FHR monitors were used in this study, instead patients were auscultated and occasionally a handheld ultrasound detector was used to assess FHR. In this setting the midwives were aware of the need for suctioning of the airway of infants born with meconium but were usually unable to do so because of lack of equipment. Also, the pediatrician was never present at the birth, only being called after birth when there was a problem. The primary outcomes were cesarean, meconium aspiration syndrome, and perinatal death.⁶⁹ Use of cesarean did not differ between groups (9.5% in the intervention group compared to 12.3% in the control; RR=0.84, 95% CI: 0.53, 1.32), nor were there significant differences in the rate of cesarean births secondary to fetal distress (RR=0.61, 95% CI: 0.24, 1.52).⁶⁹ MAS was significantly less frequent in the amnioinfusion group (3.1% vs. 12.8% in the control; RR=0.24, 95% CI: 0.12, 0.48). Perinatal morbidity was reduced in the amnioinfusion group in regards to the need for neonatal ventilation (RR=0.31, 95% CI: 0.15, 0.61).⁶⁹ There were four neonatal deaths in the amnioinfusion group (1.2%) and twelve in the control group (3.6%), which was not significant (RR=0.34, 95% CI: 0.11, 1.06). There were significant reductions in five-minute Apgar scores less than seven (RR=0.35, 95% CI: 0.17, 0.73) as well as NICU admissions (RR=0.56, 95% CI: 0.39, 0.79). No complications of amnioinfusion were detected (Table 25).⁶⁹

In the fifth study, a separate study from South Africa, 60 patients were randomized into two groups, either amnioinfusion or standard obstetric care.⁵⁷ Only those in the active phase of labor, with meconium stained amniotic fluid, and a normal electronic fetal monitor recording were allowed to participate. Sixty-five percent of the participants were primigravidas. A total of 12 patients (40%) in the amnioinfusion group gave birth by cesarean, compared to 14 (47%) in the control group.⁵⁷ Of these, three (10%) in the study group and seven patients (23%) in the control

group had cesareans for fetal distress; the remainder in both groups had a cesarean for dystocia. These differences were not statistically significant. There were no maternal complications related to the amnioinfusion. Fewer infants in the study group developed hypoxic-ischemic encephalopathy (HIE) (zero vs. two controls) or MAS (one vs. four controls), neither statistically significant. There were no neonatal deaths (Table 25).⁵⁷

Two additional RCTs^{44, 98} conducted in academic hospitals evaluated the use of amnioinfusion in cases of intrapartum fetal distress as noted by moderate or severely abnormal FHR patterns, to reduce need for cesarean (Table 26).

Table 26. Summary of effectiveness of cesarean reduction strategies: amnioinfusion for fetal distress

Author, Year Country; Quality	Strategy (n)	Cesarean Birth, %	Change in Cesarean, % ^a
Abdel-Aleem et al., 2005 ⁴⁴ Egypt; Fair	Standard obstetric care without amnioinfusion (219)	68.0	20.1 lower
	Transcervical amnioinfusion (219)	47.9	
Regi et al., 2009 ⁹⁸ India; Poor	Standard obstetric care without amnioinfusion (75)	37.3	-1.1 same
	Transcervical amnioinfusion (75)	38.4	

^a**Lower** indicates a lower rate supported by statistical significance; **same** indicates the use of cesarean was not statistically different across the strategy and comparison arms of the trial.

In a study in Egypt at a university hospital,⁴⁴ women with nonreassuring or ominous FHR tracings were approached for enrollment as long as immediate birth was not contemplated and 438 were randomized. The intervention group received amnioinfusion in addition to conventional treatment, and the control group received standard obstetrical care without amnioinfusion.⁴⁴ If the FHR pattern did not become reassuring after the first 200 ml of amnioinfusion, a cesarean was performed. However, if the FHR pattern corrected, the infusion was completed and the FHR monitoring continued until birth of infant. Women in the amnioinfusion group also received 1 g of amoxicillin IV for infection prophylaxis prior to the procedure. Amnioinfusion was completed in all but five women. These women were included in the amnioinfusion group for the intent-to-treat analysis.⁴⁴

The amnioinfusion group had a significant reduction in use of cesarean for fetal distress compared to the control group (47.9% vs. 68%, respectively; RR=0.7, 95% CI: 0.60, 0.83).⁴⁴ This study also reported a reduction in nonreassuring and ominous FHR patterns in the amnioinfusion group compared to the control group (47.9% vs. 68%, respectively, RR=0.7, 95% CI: 0.60, 0.83). Incidence of uterine hypertonicity and maternal pyrexia did not differ by group. Significantly fewer newborns had Apgar scores less than seven at one (RR=0.38, 95% CI: 0.26, 0.55) and five (RR=0.31, 95% CI: 0.15, 0.64) minutes in the amnioinfusion group compared to the control group (Table 25).⁴⁴ Also, 14 newborns in the amnioinfusion group were admitted to the NICU, compared to 31 newborns in the control group (RR=0.45, 95% CI: 0.25, 0.83). All newborns in the amnioinfusion group were discharged alive without complication, whereas three newborns in the control group had meconium aspiration syndrome and one died (Table 25).⁴⁴

An Indian study enrolled 150 women in active labor with repetitive moderate or severe decelerations.⁹⁸ Women were randomized to amnioinfusion or standard obstetrical care with no amnioinfusion. Cesarean or operative vaginal birth was performed if there was evidence of nonreassuring fetal status. Two women from the amnioinfusion group were excluded, one because the catheter could not be placed, and the other woman gave birth before the amnioinfusion could be started. Most participants (70.9%) were nulliparous. Cesarean risk did

not differ between the intervention and control groups (38% vs. 37.3%, respectively).⁹⁸ Cesareans for fetal distress were less common in the amnioinfusion group (20%) compared to the control group (32%; p=0.009). Variable decelerations fully resolved in 79.5 percent of the amnioinfusion group (p=0.001). There were two cases of maternal fever in the amnioinfusion group; however, this was not significant (Table 24).⁹⁸ No other adverse maternal outcomes were reported. Birth asphyxia, Apgar scores at one or five minutes, and NICU admission did not differ between the two groups (Table 25).⁹⁸

In the final study by Strong and colleagues, prophylactic amnioinfusion was performed in the setting of oligohydramnios (amniotic fluid index less than or equal to five) to assess impact on cesarean.⁵⁹ Women were randomized into two groups: prophylactic amnioinfusion (n=30) and a control group (n=30) who received standard obstetric care without amnioinfusion. Overall risk of cesarean was lower in the amnioinfusion group at 13.3 percent compared to 20 percent in the control group, but not significantly.⁵⁹ Cesareans performed for fetal distress were similar. There was no difference in rate of forceps births between groups. Maternal fever occurred in 20 percent of the amnioinfusion group compared to seven percent of the control group, but was not statistically significant (Table 24).⁵⁹ There were no differences in Apgar scores at one or five minutes between the two groups (Table 25).⁵⁹

Unique Strategies

Overview of the Literature

We identified seven RCTs that explored the effects of various other unique interventions on the incidence of cesarean birth, including two studies examining traditional Chinese medicine acupuncture,^{53, 105} two assessing devices,^{55, 100} one assessing the effect of propranolol administration every four hours during labor,⁶⁰ and two on the role of activities such as walking⁷⁵ or eating⁹² during labor. Four of these studies were conducted in the United States,^{53, 55, 75, 105} two in the United Kingdom,^{92, 100} and one in Puerto Rico.⁶⁰ Five studies were completed in academic health sciences centers^{53, 55, 60, 75, 105} and two were conducted in a non-academic hospital setting.^{92, 100} All studies employed a usual care comparison group; one study¹⁰⁵ also included a sham procedure comparison. Two were good quality,^{92, 100} two were fair quality,^{53, 105} and the remaining three were poor quality (Appendices E and H).^{55, 60, 75}

Key Points

- As single studies of unique strategies this literature provides insufficient evidence to guide care (Table 34).
- Large single studies of walking, eating, or using an inflatable obstetric belt during labor showed no effect on the incidence of cesarean birth as compared with usual care.
- Small studies of other interventions such as acupuncture, a molded dental device, or propranolol showed no effect of intervention on rates of cesarean birth when compared with standard care approaches.

Detailed Synthesis

We identified seven studies evaluating the effect of unique strategies to reduce cesarean births.^{53, 55, 60, 75, 92, 100, 105} The effectiveness of these strategies is presented in Table 27 below.

Table 27. Summary of effectiveness of cesarean reduction strategies: unique strategies

Author, Year Country; Quality	Strategy (n)	Cesarean Birth, %	Change in Cesarean, % ^a
Harper et al., 2006 ⁵³ US; Fair	Usual care (26)	39.0	22.0
	Acupuncture sessions (30)	17.0	same
Matsuo et al., 2009 ⁵⁵ US; Poor	Usual care (32)	25.0	12.5
	Dental support device during active pushing (32)	12.5	same
Adamsons et al., 1999 ⁶⁰ Puerto Rico; Poor	Usual care (23)	17.4	5.7
	Propranolol during labor (34)	11.7	same
Bloom et al., 1998 ⁷⁵ US; Poor	Usual care (531)	6.0	2.0
	Walking during 1 st stage of labor (536)	4.0	same
O'Sullivan et al., 2009 ⁹² UK; Good	Usual care (1,216)	30.0	0
	Allowed to eat during labor (1,227)	30.0	same
Cox et al., 1999 ¹⁰⁰ UK; Good	Usual care (240)	3.8	-2.0
	Inflatable obstetric belt (260)	5.8	same
Asher et al., 2009 ¹⁰⁵ US; Fair	Acupuncture (30)	20.0	-10.0
	Usual care (no acupuncture) (30)	10.0	3.0
	Sham acupuncture (29)	7.0	same

^aSame indicates the use of cesarean was not statistically different across the strategy and comparison arms of the trial.

Acupuncture

Two RCTs from the same institution evaluated the use of traditional Chinese medicine acupuncture to initiate labor, with secondary objectives including reducing the rate of cesarean.^{53, 105} In the first trial,⁵³ 30 women were randomized to receive acupuncture on three of four consecutive days for initiation of labor, with 26 women randomized to usual care. The incidence of cesarean was 17 percent in the intervention group and 39 percent among control patients (p=0.07). In the second trial,¹⁰⁵ participants were randomized to up to five acupuncture treatments over two weeks (n=20), sham acupuncture (n=29), or usual care (n=30). The cesarean rate was 20 percent in the acupuncture group as compared with 57 percent in the usual care group; however, the sham treatment had the lowest incidence of cesarean, at 7 percent (p=0.37 for comparison across the three groups). Both studies found similar maternal and neonatal outcomes for intervention as compared with control participants (Tables 28 and 29).

Devices

Two trials evaluated the utility of devices for reducing use of cesarean. The larger of these studies¹⁰⁰ randomized women to use of an inflatable obstetric belt to provide fundal pressure during contractions (n=260) or to usual care (n=240), finding a similar incidence of cesarean between the groups (5.8 and 3.8% respectively; p=0.29). There were fewer malpositions at birth in the belt group as compared with usual care (15% vs. 20.8%) but the difference was not statistically significant. Other neonatal and maternal outcomes were similar between the two groups (Tables 28 and 29).

Matsuo and colleagues⁵⁵ assessed whether the use of a molded dental device during active pushing (n=32) had an effect on cesarean as compared with usual care (n=32). The device was designed to optimize dental occlusion, based on evidence indicating this may improve isometric muscle strength.¹³³ The observed incidence of cesarean was 12.5 percent in the intervention

group as compared with 25.0 percent in patients treated per usual care (no test of statistical significance reported).

Table 28. Maternal outcomes for unique strategies to reduce cesarean births

Strategy	Fever, % (n Studies)	Infection, % (n Studies)	Hemorrhage, % (n Studies)	Mortality, % (n Studies)
Control	NR	7-8 ^{75, 105} (2)	0-3.3 ^{60, 100, 105} (3)	0.08 ⁹²
Acupuncture ^{53, 105}	NR	23 ¹⁰⁵	10 ¹⁰⁵	NR
Sham acupuncture ¹⁰⁵	NR	21	7	NR
Propranolol ⁶⁰	NR	NR	0	NR
Inflatable obstetrical belt ¹⁰⁰	NR	NR	1.2	NR
Dental support device during pushing ⁵⁵	NR	NR	NR	NR
Walking during first stage labor ⁷⁵	NR	8	NR	NR
Allowed to eat during labor ⁹²	NR	NR	NR	0

NR=not reported

Table 29. Neonatal outcomes for unique strategies to reduce cesarean births

Strategy	Apgar Score <7 at 5-Min, % (n Studies)	NICU Admission, % (n Studies)	NICU Days, Mean ± SD (n Studies)	Mortality, % (n Studies)
Control	0-1.8 ^{75, 92} 9.0 ± 0.2 ^{105a} 9.0 ^{92b} (4)	3.3-9.4 ^{55, 92, 105} (3)	1.9 ± 0.5 ¹⁰⁵	0 ^{75, 100} (2)
Acupuncture ^{53, 105}	8.8 ± 0.8 ^{105a}	0 ¹⁰⁵	2.1 ± 0.5 ¹⁰⁵	NR
Sham acupuncture ¹⁰⁵	8.9 ± 0.4 ^a	0	2.0 ± 0.6 ¹⁰⁵	NR
Propranolol ⁶⁰	NR	NR	NR	NR
Inflatable obstetrical belt ¹⁰⁰	NR	NR	NR	0
Dental support device during pushing ⁵⁵	9 ^b	9.4	NR	NR
Walking during first stage labor ⁷⁵	0	NR	NR	0
Allowed to eat during labor ⁹²	1.3 ^c	5.0	NR	NR

NICU=neonatal intensive care unit; NR=not reported

^aReported mean Apgar at 5 minutes ± SD

^bReported median Apgar at 5 minutes

^cReported Apgar ≤ 7 at 5 minutes

Medical Interventions

One small RCT⁶⁰ found a modest, insignificant effect of a single intravenous 2 mg dose of propranolol at admission for beta-adrenergic blockage and prevention of dysfunctional labor (n=34), with 11 percent of intervention participants having a cesarean compared with 17.6 percent those receiving usual care (p=0.367). Duration of the first stage of labor was similar between the two groups, while second stage duration was significantly longer in the medication group as compared with usual care (median 31 vs. 19 minutes; p<0.001). Neonatal and other outcomes were similar between the two groups (Tables 28 and 29).

Activities

Two RCTs assessed whether simple changes in activities during labor may influence risk of cesarean. A large RCT of walking during the first stage of labor (n=536) found similar use of cesarean as compared with patients who were restricted to bed (n=531), 4 percent and 6 percent respectively (p=0.25).⁷⁵ Investigators noted that 22 percent of women randomized to walk did not elect to walk. Duration of labor and other maternal and infant outcomes were similar between the walking and usual care groups (Tables 28 and 29).

Another large RCT assessed the incidence of cesarean among women encouraged to eat a light diet during labor (n=1,227) as compared with those limited to water and ice consumption (n=1,216). This trial also found similar incidence of cesarean in both groups (30% in each).⁹² In terms of adherence to the intervention, 29 percent of those randomized to the eating group chose not to eat, while 20 percent of those randomized to usual care with restricted intake elected to eat during labor. The overall incidence of vomiting was similar between those randomized to eating as compared with those limited to water consumption; no cases of pulmonary aspiration were observed in either group (Tables 28 and 29).

Systems-Level Strategies

Overview of the Literature

We classified research as systems-level strategies when an entire administrative unit within a health system was responsible for implementing policies or procedures that were aimed at reducing cesarean birth rates. The level from which strategies were launched ranged from a national health ministry and multi-hospital quality improvement teams, to individual departments' decisions about labor and delivery routines. Strategies included varied scopes of influence from a national media focus on publically released cesarean birth rates for all hospitals in South Korea, to introduction of a new computerized system to analyze progress of labor in a single facility. Common strategies included audit and feedback of hospital and physician data about cesarean trends, and implementation of guidelines or standardized protocols for particular procedures such as management of vaginal breech births.

We identified a total of 31 studies with 33 publications that were designed to investigate the effectiveness of one or more systems-level strategies for reducing use of cesarean birth.^{78, 85, 89, 94, 134-162} Multiple publications from the same study were instances in which authors extended the length of followup. Because systems-level randomized trials are rare, we elected during design of this review that system-level strategies would be the only portion of the systematic review to include studies that are not randomized. Twenty-seven studies compared a baseline period with subsequent trends in cesarean after implementation of the strategy(ies) intended to decrease rates of cesarean.^{134-144, 146-148, 150-162} For brevity in tables and text we have called these pre-post assessments. There were seven unique pre-post studies of good quality^{137, 140, 142-144, 150, 157} and 22 of poor quality (Appendices E and H).^{146-149, 151-156, 158-162}

Four studies provide outcomes from randomized trials: three conducted outside the United States^{78, 85, 89} and one within a consortium of U.S. and Canadian hospitals.⁹⁴ Of the 27 pre-post assessment studies, 16 were conducted in the United States,^{136, 138-139, 141-142, 144, 146-148, 150-152, 154-155, 158, 160} four in Europe,^{134-135, 156-157} three in Asia,^{137, 153, 161} one in Australia,¹⁶² one in Canada,¹⁴³ one in South America,¹⁵⁹ and one spanned multiple continents.¹⁴⁰ There was one trial of fair quality⁷⁸ and three of poor quality.^{85, 89, 94}

Key Points

- No system-level strategies are supported by clinical trials. The content of strategies examined in observational studies is varied. Overall the evidence is insufficient to determine if systems-based strategies reduce cesarean (Table 34).
- Seventeen of 31 studies reported statistically significant reductions in cesarean with a range of 1.6 to 17.0 percent decreases.
- No randomized trials documented the effectiveness of strategies.
- Twelve observational studies reported achieving a reduction of 5 percent or more.
- More than 16 categories of components have been used in various combinations in these systems strategies. The most common component was audit and feedback of data.
- Ten pre-post studies documented reductions in cesarean from implementing varied forms of auditing of trends with regular feedback of data to either the organizational unit (hospital, department, labor and delivery staff) or the individual care providers, or both.
- The next most common components of successful strategies, with a 5 percent or greater reduction, were tracking of progress in labor and protocols for active management of labor.
- These same components were also common in systems-level strategies that failed to reduce cesarean use; thus it is not possible to say which components are superior.

Detailed Synthesis

Overview

The outcomes of systems-levels strategies are summarized in Table 30 (below). Both randomized trials and pre-post study types are included. The indication that cesarean risk was the “same” in a study is based on small effect size with lack of statistical significance. Indication of higher risk means the risk was statistically higher in the intervention portion of trials or at the end of the intervention period than at baseline.

Table 30. Summary of systems-level strategies to reduce cesarean births

Author, Year Country Study Type; Quality	Health Systems Strategies (n)	Cesarean Birth, %	Change in Cesarean, % ^a
Sanchez-Ramos et al., 1990 ¹⁵² US Pre-post; Poor	Baseline: (4,350)	27.5	17.0 lower
	Intervention: New guidelines for managing women with prior CS; also guidelines for evaluation and management of dystocia and fetal distress to reduce primary CS (5,163)	10.5	
Langrew et al., 1996 ¹⁵⁸ US Pre-post; Poor	Baseline: (NR)	31.1	15.7 lower
	Intervention: Confidential provider feedback, more aggressive labor techniques (12,118)	15.4	
Berglund et al., 2010 ¹³⁴ Ukraine Pre-post; Poor	Baseline: (1,696)	29.9	14.5 lower
	Intervention: WHO Effective Perinatal Care training and implementation (2,439)	15.4	
Rust et al., 1993 ¹⁵⁴ US Pre-post; Poor	Baseline: (467)	21.2	11.0 lower
	Intervention: Vaginal birth after CS, external cephalic version, adequate labor documentation and peer review of all CS for fetal distress (430)	10.2	
Socol et al., 1993 ¹⁴² US Pre-post; Good	Baseline: (4,240)	27.3	10.4 lower
	Intervention: Vaginal birth after CS encouraged, provider data circulated, active management of labor introduced as routine (4,669)	16.9	
Iglesias et al., 1991 ¹⁴³ Canada Pre-post; Good	Baseline: (237)	23.0	10.0 lower
	Intervention: Vaginal birth after CS encourage, breech protocol introduced; guidelines for dystocia indication implemented (242)	13.0	
Maher et al., 1994 ¹⁶² Australia Pre-post; Poor	Baseline: (1,112)	20.6	9.6 lower
	Intervention: Vaginal birth after CS encouraged, active management of labor and regular peer review (1,167)	11.0	
Poma, 1998 ¹⁴⁶ US Pre-post; Poor	Baseline: (2,234)	23.2	7.2 lower
	Intervention: Case review of cesareans using ACOG guidelines with feedback to individual providers (1,783)	16.0	
Calvo et al., 2009 ^{135b} Spain (Menorca) Pre-post; Poor	Baseline: (NR)	29.0	7.0 lower ^c
	Intervention: Multifaceted feedback with rating of appropriateness of all CS (NR)	22.0	
Liang et al., 2004 ¹⁶¹ Taiwan Pre-post; Poor	Baseline: (9,864)	36.7	6.5 lower
	Intervention: Peer review included pre CS consultation (required second opinion for all CS) and post CS surveillance. Weekly CS conferences; physicians CS rates presented at conference. Protocol for selective trial of labor for women with prior CS. (7,937)	30.2	

Table 30. Summary of systems-level strategies to reduce cesarean births (continued)

Author, Year Country Study Type; Quality	Health Systems Strategies (n)	Cesarean Birth, %	Change in Cesarean, % ^a
Meyers and Gleicher, 1988, 1993 ^{141, 145} US Pre-post; Poor	Baseline: (1,697)	17.5	5.6 lower
	Intervention: Implementation of six key guidelines with data feedback to individual providers (3,218)	11.9	
Boylan et al., 1991 ¹⁴⁴ US Pre-post; Good	Baseline: (1,843)	24.3	5.5 lower
	Intervention: Active management of labor introduced as routine (2,057)	18.8	
Main et al., 1999 ¹³⁹ US Pre-post; Poor	Baseline: (3,200 to 3,600)	24.0	5.5 lower
	Intervention: Intensive outcomes feedback initially with provider identity coded then public within departments (NR)	18.5	
Sloan et al., 2000 ¹⁵⁹ Ecuador Pre-post; Poor	Baseline: (14,743)	26.6	4.5 lower
	Intervention: Policy to provide co-management for CS candidates, including required second opinion (7,381)	22.1	
Kim et al., 2005 ¹³⁷ South Korea Pre-post; Good	Baseline: (161,360)	43.0	3.4 lower
	Intervention: Public media release of hospital cesarean data (NR)	39.6	
Bickell et al., 1996 ¹⁵⁰ and Dillon et al., 1992 ¹⁴⁹ US Pre-post; Good, Poor	Baseline: (1,430 mean for 45 hospitals)	29.1	3.3 same ^c
	Intervention: External peer review (1,503 mean for 45 hospitals)	25.8	
Kiwauka and Moore, 1993 ¹⁵⁶ UK Pre-post; Poor	Baseline: (1,895)	15.9	3.2 lower
	Intervention: Audit and feedback (2,216)	12.7	
Kazandjian and Lied, 1998 ¹⁴⁰ US, Canada, UK, Japan Pre-post; Good	Baseline: (NR)	22.5	3.1 lower
	Intervention: Reporting of cesarean rates within a quality improvement program (NR)	19.4	
Robson et al., 1996 ¹⁵⁷ UK Pre-post; Good	Baseline: (12,628)	12.0	2.5 lower
	Intervention: Medical audit(8,497)	9.5	
Smith et al., 2000 ¹³⁶ US Pre-post; Poor	Baseline: (NR)	27.0	2.5 lower ^c
	Intervention: Reporting of cesarean rates within a quality improvement program (NR)	24.5	

Table 30. Summary of systems-level strategies to reduce cesarean births (continued)

Author, Year Country Study Type; Quality	Health Systems Strategies (n)	Cesarean Birth, %	Change in Cesarean, % ^a
Calvo et al., 2009 ^{135b} Spain (Llatzer) Pre-post; Poor	Baseline: (NR)	17.5	1.7 same
	Intervention: Multifaceted feedback with rating of appropriateness of all CS (NR)	15.8	
World Health Organization, 1994 ⁷⁸ Indonesia, Thailand, Malaysia RCT; Fair	Baseline: (10,049)	6.2	1.7 same
	Intervention: Use of WHO partogram with action line at 4hrs to guide active management of labor and decisions about cesarean (9,130)	4.5	
Gilstrap et al., 1984 ¹⁵¹ US Pre-post; Poor	Baseline: (6,693)	16.8	1.6 lower
	Intervention: Informal criteria and policies established to assure adequate trial of labor, monitoring fetal distress, and criteria for management of breech (6,162)	15.2	
Studnicki et al., 1997 ¹⁶⁰ US Pre-post; Poor	Baseline: (NR)	24.5	1.0 same ^c
	Intervention State legislation requiring practice guidelines to staff credentialed for CS deliveries and establishment of peer review boards to review CS deliveries (183,921)	23.5	
Tay et al., 1992 ¹⁵³ Singapore Pre-post; Poor	Baseline: (3,156)	12.3	0.6 same
	Intervention: Critical review of indications for CS and departmental audit (5,238)	11.7	
Althabe et al., ⁸⁵ South America RCT; Poor	Control Group: Usual care (39,175)	24.9	0.2 same
	Intervention: Mandatory second opinion driven by evidence-based guidelines for indications (34,735)	24.7	
Elferink-Stinkens et al., 2004 ⁸⁹ Netherlands RCT; Poor	Control Group: Usual care (>130,000)	NR	0.0 same
	Intervention: Report of departmental data in table and graph form with follow-up (>130,000)	NR	
Gregory et al., 1999 ¹³⁸ US Pre-post; Poor	Baseline: (5,134)	29.6	-0.5 same
	Intervention: 17 sequentially introduced quality improvement interventions (>30,000 births)	30.1	
Hamilton et al., 2004 ⁹⁴ US and Canada RCT; Poor	Control Group: (2,515)	16.9	-0.7 same
	Intervention: Computer assisted evaluation of labor progress with visual display of labor curves and reference ranges (2,478)	17.6	

Table 30. Summary of systems-level strategies to reduce cesarean births (continued)

Author, Year Country Study Type; Quality	Health Systems Strategies (n)	Cesarean Birth, %	Change in Cesarean, % ^a
Oleske et al., 1992 ¹⁴⁸ US Pre-post; Poor	Baseline: (130,249)	21.2	-1.2 same
	Intervention: Informational brochures on average cost, length of stay and CS birth rate distributed to patients and providers. Press release of statewide cesarean birth patterns (167,654)	22.4	
Porreco, 1990 ¹⁴⁷ US Trend; Poor	Baseline: (22,624)	17.3	2.0 higher
	Intervention: Educational strategy focused on management of six key drivers of CS rate (23,462)	19.3	
Pridjian et al., 1991 ¹⁵⁵ US Pre-post; Poor	Baseline (2,827)	12.5	3.4 higher
	Intervention: Systematically incorporating VBAC into patient management (3,049)	15.9	

^a**Lower** indicates a lower rate supported by statistical significance; **same** indicates the use of cesarean was not statistically different across the strategy and comparison arms of the trial.

^bTwo entries in table to reflect sites with data that could not be combined and had different outcomes.

^cStatistical evidence not provided.

Randomized Clinical Trials

Each of the four trials grouped hospitals in pairs matched for key characteristics. The researchers randomly assigned a member of the pair to implement the strategy while the other member of the pair continued usual practice.^{78, 85, 89, 94} Each trial evaluated a different type of strategy and none demonstrated effectiveness for reducing use of cesarean.

- **Nationwide trial of annual audit and feedback in the Netherlands.** The intervention consisted of annual reports summarizing each department's cesarean profile in the context of anonymized data from other departments. Several analyses were provided that included graphs and figures to make clear the status of a particular department. The departmental leadership was contacted after receipt of the report to followup and to answer questions. This ensured the reports were reviewed. Over the course of three years during which the reports evolved from only departmental data to include individual provider data in context, the variation in cesarean use within hospital in the intervention decreased but there was no overall difference at the end of the trial between those randomized to receive or not receive reports and followup.⁸⁹
- **Implementation of the World Health Organization partogram** with four hour action line to guide active management of labor. The trial was conducted in Indonesia, Thailand, and Malaysia. The authors do not report an intention-to-treat analysis of the hospitals as randomized but do reveal the overall change from baseline at intervention hospitals was a 1.7 percent reduction that was not statistically meaningful.⁷⁸
- **Requirement for a second opinion** of a higher or equal rank physician with application of evidence-based guidelines for each category of indications for cesarean (e.g., elective, breech, failure to progress, emergent, etc.). In the intervention group cesarean was the route for 24.9 percent of births, compared with 24.7 in the hospitals that did not implement the requirements.⁸⁵

- **Use of a novel computer system** for evaluation of labor progress in a consortium of Canadian and U.S. hospitals. The computerized system featured visual display of labor curves with addition of reference ranges (5th, 50th, and 95th percentile norms); 16.9 percent of women who gave birth in hospitals that continued their usual care patterns had cesareans compared to 17.6 in the hospitals using the computerized system.⁹⁴

Observational Data

The 27 nonrandomized studies used prospective observational designs in which baseline data about route of birth were collected for an extended period of time prior to implementation of a policy, protocol, or procedure change.^{134-144, 146-148, 150-162} Then followup data were collected over time after implementation. Across these studies numerous types of strategies were implemented and evaluated. In order to describe content, we grouped strategies into 16 broad categories: (1) active management of labor, (2) group agreement on guidelines (3) audit and feedback of site specific data about cesarean trends at regular intervals, (4) evaluation of labor progression (5) evidence-based practice education and tools, (6) feedback of data to individual providers, (7) goals for increasing vaginal births after prior cesarean, (8) maternal support in labor (partner, doula, etc.), (9) protocols for breech vaginal birth, (10) protocols for induction, (11) protocols for pain management in labor, (12) protocols for twin vaginal birth, (13) quality improvement teams or tools used, (14) required second opinions, (15) World Health Organization initiatives, and (16) miscellaneous unique components. Rarely a study evaluated a single component; most often researchers studied the influence of a combination of approaches. None of the studies demonstrating decreased use of cesarean used only a single component (Table 31).

Eight studies explicitly included policies about management of vaginal birth after cesarean among other components of a systems-level strategy.^{138, 141-142, 147-148, 152, 154-155} Other studies that provide limited detail and describe only implementation of uniform policies or review of all cesareans may also have included this element. Since it was a common element, these studies are included. It is important to note that this departs from the overall structure of this review since it means that women who are not at low risk for cesarean are included. This situation would be expected whenever a full health care system implements a policy for all births. However it is a limitation since it means, in the related studies, that some of the change in cesarean use may have been accomplished (or failed) because of the VBAC elements.

Five international studies achieved reductions in cesarean of 5 or more percent from baseline.^{134-135, 143, 161-162} One focused on implementation of the World Health Organization Effective Perinatal Care Program in the Ukraine and resulted in a 14.5 percent lower proportion of cesarean at the end of the two-year evaluation period.¹³⁴ A six-component study in Australia that included protocols for vaginal birth after cesarean and audit and feedback through peer review achieved a reduction to an 11.0 percent annual cesarean rate from 20.6 percent, a decrease of 9.6 percent.¹⁶² Of the international pre-post intervention studies, this 1994 study bears the most similarities to a U.S. practice setting. A Canadian study in a small hospital with fewer than 300 births a year reduced their annual cesarean rate by 10 percent through implementing protocols for vaginal birth after cesarean, management of breech, and diagnosis of dystocia.¹⁴³ Another small study in two Spanish hospitals used audit and feedback of data to providers along with appropriateness ratings of all cesareans.¹³⁵ The authors reported a 7 percent decline in cesarean at one site, and a 1.7 percent decrease at a second site.¹³⁵ Data were not combined in a single estimate, and the publication did not include statistical testing of the precision of either estimate. Of note, the site with the higher baseline rate (29.0 compared to

17.5%) was the site with the greater reduction in cesarean. The final international study to meet the criteria of important reduction was conducted in Taiwan and included audit and feedback at the departmental and individual level as well as regular cesarean review meetings and protocols for trial of labor among women with prior cesarean.¹⁶¹

Table 31. Components of strategies in the United States with at least 5-percent reduction of cesarean

Author, Year	Evaluation of Labor Progress	Audit and Feedback to Units	Feedback to Individual Provider	Goals for Increasing VBAC	Active Management of Labor	Agreed on Guidelines	Protocols for Vaginal Breech	Protocols for Induction of Labor	Other Unique Components	Maternal Support in Labor (Partner/Doula)	Protocols for Vaginal Twins	Protocols for Labor Pain Management	Required Second Opinion	Total Components of 16 Possible	Percent Reduction
Sanchez-Ramos et al., 1990 ¹⁵²	•	•		•		•	•	•	•		•			8	17.0
Langrew et al., 1996 ¹⁵⁸	•	•	•		•			•	•					6	15.7
Rust et al., 1993 ¹⁵⁴	•			•	•	•	•	•						6	10.9
Socol et al., 1993 ¹⁴²	•	•	•	•	•					•		•		7	9.4
Poma, 1998 ¹⁴⁶		•	•			•								3	7.2
Meyers and Gleicher, 1998, 1993 ^{141, 145}	•	•	•	•			•		•				•	7	5.6
Boylan et al., 1991 ¹⁴⁴	•				•									2	5.5
Main et al., 1999 ¹³⁹		•	•											2	5.6
Total studies (n)	6	6	5	4	4	4	3	3	3	1	1	1	1		

In order to examine the total number and type of components used in less successful systems-level strategies in the U.S. we grouped those studies in Table 32 below. While the overall number of components used in any one study is modestly lower than more successful strategies and there is a shift in the components used, commonality with those studies that reported decreased rates is also apparent. This implies that it is not possible to determine from components alone which strategies are destined to succeed.

Table 32. Components of strategies in the United States with least success in reduction of cesarean

Author, Year	Evaluation of Labor Progress	Audit and Feedback to Units	Feedback to Individual Provider	Goals for Increasing VBAC	Active Management of Labor	Agreed on Guidelines	Protocols for Vaginal Breech	Protocols for Induction of Labor	Other Unique Components	Maternal Support in Labor (Partner/Doula)	Protocols for Vaginal Twins	Protocols for Labor Pain Management	Required Second Opinion	Total Components of 16 Possible	Percent Reduction
Gilstrap et al., 1984 ¹⁵¹	•					•	•							3	1.6
Studnicki et al., 1997 ¹⁶⁰		•				•								2	1.5
Gregory et al., 1999 ¹³⁸	•	•	•	•	•	•		•	•	•		•		10	-0.5
Hamilton et al., 2004 ⁹⁴	•													1	-0.7
Oleske et al., 1992 ¹⁴⁸				•					•					2	-1.2
Porreco, 1990 ¹⁴⁷	•			•			•	•	•		•			6	-2.0
Pridjian et al., 1991 ¹⁵⁵				•										1	-3.4
Total studies (n)	4	2	1	4	1	3	2	2	3	1	1	1	0		

In summary, no system-level strategies are supported by clinical trials. The content of strategies examined in observational studies is varied. Overall the evidence is insufficient to determine if systems based strategies reduce cesarean.

KQ3. Where head-to-head comparisons are available, what strategies are shown to be superior in reducing the use of cesarean birth among women, with a singleton pregnancy, who are intending a vaginal birth?

No studies addressed KQ3. It is discussed as a part of Future Research. All studies compared the novel strategy to usual care or to a variation on the same strategy.

We did not identify comparisons of distinctive strategies, for instance doula support vs. active management of labor, or pain management strategies compared to fetal monitoring strategies. Several comparisons evaluated different approaches to the same strategy like different approaches to epidural dosing or to monitoring progress of labor. These comparisons of variations on like strategies are noted in the sections that discuss those interventions. For now, there is no evidence to inform prioritization of one type of intervention to another.

KQ4. What are the nature and frequency of adverse effects resulting from strategies used to reduce cesarean birth among women, with a singleton pregnancy, who are intending a vaginal birth?

Overview of the Literature

We have included summaries of standard maternal outcomes of labor for each strategy (Tables 4, 10, 13, 17, 20, 24, and 28) in the context of results for KQs 1–2. These include events such as fever, infection, and hemorrhage. We have not considered these to be direct adverse effects, instead we have summarized the adverse effects that are plausibly caused by the strategy, for example dural puncture for epidural and perineal tears for education on pushing. Many of the studies included in this review, such as those related to psychosocial support have no known adverse effects. Of the studies reporting outcomes of strategies employed to reduce cesarean, 18^{39-40, 44, 47, 49, 54, 59-60, 65, 80, 84, 90, 92, 95, 97-98, 100, 105} reported data about outcomes that could be classified as adverse events or harms related to the strategy implemented to reduce cesarean (Table 33).

Key Points

Few of the adverse effects presented have a direct relationship to the strategy being used to prevent cesarean birth.

The adverse effects most commonly reported include maternal fever, nausea/vomiting, and anesthesia-related side effects.

Detailed Synthesis

The most common side effects reported were maternal fever, nausea/vomiting, and anesthesia-related morbidities (Table 33). There were no reports of adverse effects that were directly causally linked to the strategy used to prevent cesarean.

Table 33. Overview of adverse effects reported in studies of strategies to reduce cesarean birth

Author, Year Country	Strategy (n)	Key Adverse Effects
Abdel-Aleem et al., 2005 ⁴⁴ Egypt	G1: Transcervical amnioinfusion (219) G2: Standard obstetric care without amnioinfusion (219)	<ul style="list-style-type: none"> Maternal fever >38°C in 16 of amnioinfusion group, compared to 13 in the standard care group (RR=1.23, 95% CI: 0.61, 2.50) Uterine hypertonicity in 16 in amnioinfusion group compared to 14 in standard care group (RR=1.14, 95% CI: 0.57, 2.28)
Asher et al., 2009 ¹⁰⁵ US	G1: Acupuncture (30) G2: Sham acupuncture (29) G3: Usual care (no acupuncture) (30)	<ul style="list-style-type: none"> Chorioamnionitis was reported in 23% of the acupuncture group, 21% of the sham acupuncture group, and 7% of the usual care group (p=0.20) No significant difference in postpartum hemorrhage and/or uterine atony among the groups (p=0.70).
Adamsons et al., 1999 ⁶⁰ Puerto Rico	G1: Propranolol during labor (34) G2: Usual care (23)	<ul style="list-style-type: none"> No anesthesia-related morbidity in either group

Table 33. Overview of adverse effects reported in studies of strategies to reduce cesarean birth (continued)

Author, Year Country	Strategy (n)	Key Adverse Effects
Barakat et al., 2009 ⁸⁴ Spain	G1: Exercise training (80) G2: No exercise training (80)	<ul style="list-style-type: none"> No exercise-related injuries in either group 2 preterm births in the training group vs. 3 in the control group
Bidgood et al., 1987 ⁵⁴ UK	G1: High-dose oxytocin (19) G2: Low-dose oxytocin (21) G3: Observation (20)	<ul style="list-style-type: none"> Hyperstimulation, defined as >7 contractions in 15 min and/or rise in baseline tone >1.33 kPa pressure, in 7 women in the high-dose oxytocin group
Bloom et al., 2006 ⁸⁰ US	G1: Fetal pulse oximetry with oxygen saturation displayed to clinician (2,629) G2: Fetal pulse oximetry with oxygen saturation not displayed to clinician (2,712)	<ul style="list-style-type: none"> Chorioamnionitis was reported in 10.7% of each group No significant difference in postpartum endometritis (p=0.87) or wound complications (p=0.72) Reported facial marks from the sensor (5.8% vs. 3.4%; p=0.74)
Choudhary et al., 2010 ³⁹ India	G1: Transcervical amnioinfusion (146) G2: Standard obstetric care without amnioinfusion (146)	<ul style="list-style-type: none"> No significant difference in maternal fever--3% of the amnioinfusion group compared to 5% of standard care (p=0.238)
Cox et al., 1999 ¹⁰⁰ UK	G1: Inflatable obstetric belt (260) G2: Usual care (240)	<ul style="list-style-type: none"> Significantly more women in the control group had an intact perineum (16.5% vs. 9.6%; OR=1.870; 95% CI: 1.094, 3.193) or experienced a 3rd degree perineal tear (6.5% vs. 0.4%; OR=16.72, 95% CI: 2.81, >2.81) Six women in the obstetrical belt group needed catheter insertion for urinary retention compared to 2 in the standard care group
Gambling et al., 1998 ⁹⁵ US	G1: Combined spinal-epidural anesthesia (616) G2: Intravenous meperidine analgesia (607)	<ul style="list-style-type: none"> Maternal fever (>38°C was more common in CSE group (22% vs. 3%; p<0.005) 8 infants delivered by emergency cesarean due to profound fetal bradycardia within 1 hr of analgesia Pruritus reported in 48% of participants Nausea reported in 2.4% of participants
Harvey et al., 1996 ⁴⁷ Canada	G1: Nurse-midwife care (101) G2: Physician care (93)	<ul style="list-style-type: none"> Postpartum hemorrhage and retained placenta were more common in the nurse-midwife group (5.9% vs. 3.2 and 2.9% vs 2.2). Two women in the nurse-midwife group compared to one woman in the physician care group had a fever.
Hinshaw et al., 2008 ⁹⁰ UK	G1: Early oxytocin (208) G2: Delayed oxytocin (204)	<ul style="list-style-type: none"> No significant differences in maternal fever (p=0.48) postpartum hemorrhage (>500 ml; (p=0.87) and blood transfusion rates reported (4.8% vs. 4.9%) Reported major depression within 48 hours of labor by Edinburgh Postnatal Depression Scale (20% vs. 15%; p=0.22)

Table 33. Overview of adverse effects reported in studies of strategies to reduce cesarean birth (continued)

Author, Year Country	Strategy (n)	Key Adverse Effects
Norris et al., 2001 ⁹⁷ US	G1: Combined spinal-epidural anesthesia (1,071) G2: Epidural analgesia (1,112)	<ul style="list-style-type: none"> • Accidental dural puncture in 1.3% of CSE group and 1.2% of epidural group • Intravascular catheter in 6.4% of CSE group and 4.4% of epidural group • Failed epidural in 0.8% of CSE group and 0.7% of epidural group • Positional headache in 1.7% of CSE group and 1.6% of epidural group • Blood patch in 0.4% of CSE group and 0.6% of epidural group
O'Sullivan et al., 2009 ⁹² UK	G1: Allowed to eat during labor (1,227) G2: Usual care (1,216)	<ul style="list-style-type: none"> • 35% of those allowed to eat during labor vomited compared to 34% of those only allowed ice chips and water (RR=1.05, 95% CI: 0.94, 1.17; p=0.41)
Phipps et al., 2009 ⁶⁵ Australia	G1: Structured education for pushing (50) G2: Standard care (50)	<ul style="list-style-type: none"> • Reported episiotomy and perineal tear rates • No significant difference in 3rd degree tear rates (p=0.142)
Regi et al., 2009 ⁹⁸ India	G1: Transcervical amnioinfusion (75) G2: Standard obstetric care without amnioinfusion (75)	<ul style="list-style-type: none"> • Intrapartum temperature $\geq 38.3^{\circ}\text{C}$ in 2.7% of the amnioinfusion group, 0% in standard care group.
Skrablin et al., 2011 ⁴⁹ Croatia	G1: Continuous epidural (104) G2: Intermittent epidural (101)	<ul style="list-style-type: none"> • Maternal fever ($>38.5^{\circ}\text{C}$) did not differ between groups (21 vs. 23 women; p=0.38). • Hypotension was more common in the women who received intermittent epidural (22 vs. 33 women; relative risk=1.53).
Spallicci et al., 2007 ⁴⁰ Brazil	G1: Hyaluronidase injection in cervix (83) G2: Placebo cervical injection (85)	<ul style="list-style-type: none"> • No significant difference in those reporting cramps between the two groups (p=0.2709).
Strong et al., 1990 ⁵⁹ US	G1: Amnioinfusion (30) G2: Standard care (30)	<ul style="list-style-type: none"> • Maternal fever ($>38^{\circ}\text{C}$) was more common in amnioinfusion group (20% vs. 7%; p=0.06). • Meconium (13% vs. 37%; p=0.04), severe variable decelerations (7% vs. 27%; p=0.04), and end-stage bradycardia (1 vs. 7; p=0.05) were more common in the standard care group.

Adverse Effects of Strategies Used During Pregnancy

In the Brazilian trial of hyaluronidase injections into the cervix the authors provided little information related to adverse effects. However, they did report that the p-value for cramps was p=0.2709.⁴⁰ The Australian trial of structured education for pushing reported more common occurrence of chorioamnionitis and postpartum hemorrhage and/or uterine atony among the women who received traditional acupuncture compared to those who received no or sham acupuncture.⁶⁵ In the Canadian trial of nurse-midwifery care compared to physician care postpartum hemorrhage and retained placenta were more common in the nurse-midwifery group.⁴⁷ There were no exercise related injuries in either the control or intervention group in the trial of exercise training and preterm births were more common in the control group.⁸⁴

Adverse Effects of Strategies Used During Labor

Management of Abnormal Labor

Two trials of strategies used to manage abnormal labor reported various adverse effects of the intervention.^{54,90} Bidgood and colleagues reported seven women with hyperstimulation within 15 minutes after infusion, all in the high-dose oxytocin group.⁵⁴ In a trial of early and delayed oxytocin there were no significant differences in maternal fever, postpartum hemorrhage, need for blood transfusion, or major depression.⁹⁰

Pain Management

Two U.S. studies comparing combined spinal-epidural anesthesia and IV meperidine analgesia⁹⁵ and epidural⁹⁷ reported several adverse effects. Maternal fever greater than 38°C was more common in the combined spinal-epidural group (22% vs. 3%; $p < 0.005$).⁹⁵ In addition this study reported that eight infants were delivered by emergency cesarean due to profound fetal bradycardia within one hour of analgesia. Norris and colleagues reported higher rates of accidental dural puncture, intravascular catheterization, failed epidural and positional headache among women who received the combined spinal-epidural.⁹⁷ However, proportion of participants experiencing a blood patch was higher in the epidural group.⁹⁷ Maternal fever did not differ significantly among participants in the Croatian trial of continuous versus intermittent epidural.⁴⁹ Hypotension was more common among women who received the intermittent epidural.⁴⁹

Fetal Assessments

Only one study of fetal pulse oximetry reported adverse effects.⁸⁰ There were no significant differences in the proportion of chorioamnionitis (10.7% in each group), endometritis, or wound complications. The sensor used in the trial resulted in facial marks on 5.8 percent of infants in the open group versus 3.4 percent in the masked group.⁸⁰

Amnioinfusion

Three of the four studies of amnioinfusion reported higher numbers of maternal fever in the amnioinfusion group compared to standard care without amnioinfusion.^{44, 59, 98} However, this was not seen in the study by Choudhary and colleagues.³⁹

Unique Strategies

Four studies of unique strategies to reduce cesarean report adverse effects.^{60, 92, 100, 105} Chorioamnionitis was more common among women who received acupuncture in the study of acupuncture compared to sham acupuncture and no acupuncture (23% vs. 21% and 7%).¹⁰⁵ There were no significant differences in postpartum hemorrhage and uterine atony across the three groups. Adamsons and colleagues compared propranolol during labor to usual care and reported no anesthesia-related morbidity among study participants.⁶⁰ In the study examining the effectiveness of an inflatable obstetrical belt,¹⁰⁰ significantly more women in the control group experienced a 3rd degree perineal tear (6.5% vs. 0.4%). Six women in the obstetrical belt group needed catheter insertion for urinary retention compared to two women in the standard care group.¹⁰⁰ In the study by O'Sullivan and colleagues there was no difference in the percent of women who vomited among those who were allowed to eat in labor versus those only allowed to have ice chips and water.⁹²

Overall the included trials were small and unlikely to detect rate, but potential important events. Those strategies that were directly associated with adverse effects were primarily procedural such as risk of dural puncture with epidural. While this is a known risk of epidural it is not the case that it would be uniquely associated with the particular dosing strategy to be used, for instance continuous versus intermittent dosing. We have considered these sorts of complications as not specific to the intention of the use, and because this is not a review of all the uses of these categories of strategy (social support in labor, fetal monitoring devices, etc), we do not provide estimates per se of these sorts of adverse effects. Overall no adverse effects were identified that were unique or notably exacerbated by use of the intervention for the purpose of attempting to decrease use of cesarean.

Discussion

State of the Literature

We identified 6,107 nonduplicate publications through the search process, with 1,025 proceeding to full text review (Figure 2). Ninety-seven publications were included, 68 randomized controlled trials (RCTs) and 29 pre-post studies of large scale health systems changes, representing 96 distinct study populations. Using uniform criteria for assessment we found 16 of these studies to be good quality; 28 fair; and 53 poor. The most common reasons for exclusion were irrelevance to the topic and ineligible study design. Nine articles pertain to Key Question (KQ) 1, 88 articles to KQ2, no articles to KQ3, and 18 articles to KQ4. Few strategies have been studied in more than three trials. Most included trials were the only randomized study of the strategy.

Summary of Outcomes by KQ

KQ1. Strategies During Pregnancy

Collaborative consistent midwifery care during pregnancy and in labor, compared to conventional care, reduced cesarean births by 4.5–11.1 percent in two RCTs. No difference was reported in two similar studies. Outpatient injection of hyaluronidase into the cervix, in patients at term with a low Bishop score, decreased cesarean births by 31 percent (from 49% to 18%) in a single Brazilian study. No other studies were found that repeated evaluation of this or other agents for cervical ripening as a means to prevent cesarean. Light exercise, intervention to reduce fear of labor, education about how to push in labor, and pre-emptive management of specific risks detected during antenatal care were among the ineffective outpatient strategies. Each of these strategies was represented by only one study.

KQ2. Strategies During Labor

Management of Labor

The only labor management strategies found to significantly reduce use of cesarean were seen in individual trials of (1) administration of propranolol concurrent with oxytocin for dysfunctional labor treatment, (2) use of a partogram with an active management protocol, and (3) use of a 4-hour partogram compared with a 3-hour partogram, meaning more time was taken to assess/restore labor progress (see Table 2). However, these findings were often not replicated in similar strategies. A second study did not find a significant reduction in the use of cesarean when propranolol and oxytocin were used for similar indications. Adding a partogram to standard written labor progress notes was not effective. Cesarean rates with two-hour and four-hour partograms were equivalent. Providing an individualized, computer-generated reference range for assessing labor progress did not reduce the use of cesarean. Active management of labor was evaluated in six studies and did not reduce the use of cesarean.

Other strategies included home-based triage, which when compared with telephone triage, did not reduce the use of cesarean. Early labor assessment to delay hospital admission until active labor, compared with direct admission of women in labor, did not reduce the use of cesarean. Care in a midwife-led unit did not reduce the use of cesarean compared to a normal

unit and special unit. Cesarean rates were identical in women who did and did not have amniotomy at the time of hospital admission. Increased intravenous fluids did not reduce the use of cesarean. An oral carbohydrate solution increased the use of cesarean.

Psychosocial Support

Seven studies investigated potential benefits of psychosocial support in labor. One study was assessed as being fair quality and the remaining six studies were poor quality. Three doula support interventions reduced cesarean births. Women who had doula support had five to 22 percent fewer cesareans. In contrast to trained doulas, there were no significant differences in cesarean use for women who received labor support from trained female friends or family members, nurses, or midwifery students compared to women who received usual labor care.

Pain Management

We identified seven trials of pain management that aimed to reduce cesarean. One study was assessed as being good quality; two were fair quality; and four were poor quality. A single study, judged to be of poor quality due to the lack of description of the randomization allocation and concealment procedures, reported almost a threefold reduction in cesarean rates for women who received intermittent epidural (5%) as compared to continuous epidural (15%, $p=0.03$).⁴⁹ A larger good quality study that compared high versus low dose epidural reported significantly fewer instrumental births (vacuum extraction and cesarean) in women who received the lower dose of analgesia (30% compared with 49% in the high dose group, $p<0.00001$).⁶³ The cesarean rates for the two groups were 10.2 percent and 14.7 percent for the low and high dose respectively, but no statistical analysis was reported. None of the remaining five studies reported a significant difference in use of cesarean. These studies varied in quality, sample size, comparison of anesthetics used, parity of the study population, and overall rate of cesarean birth. None examined the same intervention.

Fetal Assessments

Of six studies investigating means to improve assessment of fetal status, one was good quality with five being of fair quality. Three of four studies investigating use of fetal pulse oximetry demonstrated a significant reduction in cesarean performed for fetal distress. Reduction in cesareans performed for fetal distress ranged from 5.7 to 24.6 percent however, knowledge of intrapartum fetal oxygen saturation did not have a significant effect on overall use of cesarean. Fetal pulse oximetry did not slow or interfere with labor, nor did it result in an increase in adverse maternal, fetal, or neonatal outcomes. Use of ST analysis in conjunction with FHR monitoring did not reduce cesarean rates overall, nor cesarean rates for non-reassuring fetal heart tracing when compared to routine FHR monitoring alone. In total, of the six studies only reported significant reduction in overall cesarean use.

Amnioinfusion

Eight studies investigated amnioinfusion as an intervention for fetal benefit that could prevent cesarean. Four studies were assessed to be of fair quality with the remaining four being poor quality. Three of eight studies found a significant reduction in cesarean use. While amnioinfusion did not consistently lead to a reduction in overall cesarean rates when performed for concerning fetal heart tracings, four of eight studies did show a significant reduction in cesareans performed for suspected fetal distress. Amnioinfusion for moderate or heavy

meconium, when performed in under-resourced hospital settings where electronic monitoring was limited or absent, improved neonatal outcomes. Prophylactic amnioinfusion for oligohydramnios without fetal distress did not reduce use of cesarean. Amnioinfusion did not increase maternal or neonatal morbidity, mortality, or complications. It appears to be simple, safe, and relatively easy to perform and can be done even in under-resourced or underfunded hospital settings. However, in developed countries there was no evidence to support use of amnioinfusion for the specific purpose of reducing cesarean.

Unique Strategies

Seven studies explored the influence of various other unique strategies on the incidence of cesarean birth. Two studies were assessed to be of good quality, two were fair quality, and the remaining three were poor quality. Large single studies of walking, eating, or using an inflatable obstetric belt during labor showed no effect on the incidence of cesarean as compared with usual care. Small studies of other strategies such as acupuncture, a molded dental device, or propranolol had no effect of intervention on rates of cesarean birth when compared with standard care approaches.

Systems-Level Strategies

From baseline to followup, 18 of 31 studies achieved statistically significant reductions in cesarean with a range of 1.6 to 17.0 percent decreases. None of the four systems-level RCTs demonstrated effectiveness. Three were poor quality and one fair. Twelve observational studies reported achieving a reduction of 5 percent or more. More than 16 broad categories of components have been used in various combinations in these systems strategies.

Ten pre-post studies documented reductions in cesarean from implementing varied forms of auditing of trends with regular feedback of data to either the organizational unit (hospital, department, labor and delivery staff) or the individual care providers or both. Overall audit and feedback was most often provided at both the unit and individual level. These components individually or combined were the most common component of studies that reported a decrease in cesarean of 5 percent or more. Of the eight studies in which the primary intervention was audit and feedback of cesarean data (not embedded in a larger quality improvement program), five achieved a reduction of use of cesarean ranging from 7.2 to 2.5 percent. This is compatible with systematic reviews of obstetrics and general use of audit and feedback¹⁶³ suggesting it is effective for changing provider behavior.¹⁶⁴

The next most common components of successful strategies, with a 5 percent or greater reduction, were tracking of progress in labor combined with active management. Care must be taken in interpretation because similar components were used in strategies that were associated with decreased rates of cesarean and with unchanged or worse rates.

Caution must be used in interpreting this literature. Both trials and observational studies have limitations in assuring the intervention is the cause of change, or lack of change, in cesarean use. To be a site of a randomized trial, at minimum, the leadership of units involved were invested in the importance of research on reducing cesarean and willing to participate in a study about how best to accomplish that goal. In the included randomized studies, trial assignment could not possibly be masked at all levels-sites would have been able to infer their status. Sites not assigned to implement the study protocol, or to delay, may nonetheless have galvanized inclinations to reduce cesarean and have informally, even unwittingly, initiated changes over multi-year followup periods that reduced cesarean to a degree. If this effect were at work the

trials would be biased towards the null meaning they were less likely to detect an effect of intervention.

Especially in pre-post studies, determining with confidence what components are crucial in decreasing cesarean is challenging. As an illustration of the difficulty of determining the importance of specific components, consider Table 32 as an example. This table presents the same analysis of components of strategies as that in Table 31 which features successful strategies in the United States. This table compiles the data for the seven studies in the United States that showed either no benefit or that the strategy was worse than control or baseline. Overall, these less successful strategies included fewer components with the exception of the study that had 10 of the 16 categories we examined. The components used however, overlap with those incorporated into systems-level strategies that had greater effects. In short, there does not appear to be a guaranteed “active component” or threshold number of components that is consistently associated with the desired result of fewer cesareans.

It is possible that the ability to change rates is related to the novelty of the concept that it is possible to exert influence at a systems-level. Some have suggested that the window may be closing in which health care systems are willing to focus efforts on decreasing annual cesarean rate or on improving trends in specific categories of indication for cesarean. In this instance earlier studies would be expected to have greater effect. Including all 33 publications, so that followup data are reflected in the proper timeframe, no clear secular trend is apparent in the outcomes of grouped by calendar time:

- The two strategies published before 1990, significantly reduced cesarean by almost 2 and 6 percent.^{145, 151}
- From 1990 up to 1995, there were 14 reports of which seven reported a significant decrease in cesarean.^{142-144, 152, 154, 156, 162}
- From 1995 up to 2000, there were eight studies of which four reported a significant decrease.^{158 157 146 140}
- In 2000 and after, four of nine reported a significant decrease.^{94, 134, 159, 161}

Neither year of publication nor year of intervention initiation was correlated with effect size.

Similarly, it has been proposed that sites with higher rates of cesarean will experience a greater urgency to reduce that rate or simply that a higher baseline allows greater potential to accomplish decreases in cesarean. We did not find this to be a strong effect. When the baseline cesarean rate for all included studies is plotted against the achieved reduction in cesarean, baseline is modestly correlated ($r=0.44$, with $r^2=0.19$) with the absolute magnitude of reduction in cesarean. However, this contribution is far from suggesting there are sites with rates that make them destined to succeed or doomed to failure.

Seventeen of 31 (55%) of these studies achieved reduction in cesarean that was statistically distinct from their baseline rate. Eleven reduced the rate of cesarean by an absolute amount of 5 percent or more. Since the trend in almost all of these study settings has been for cesarean rates to rise, this suggests that systems-level strategies can contribute to “bending the curve” and reducing or perhaps holding steady the proportion of women who give birth by cesarean. Which components are effective at doing this is unclear.

KQ3. Head-to-Head Comparisons

All studies compared the novel strategy to usual care or to a variation on the same strategy. We did not identify comparisons of distinctive strategies, for instance doula support versus active management of labor, or pain management strategies compared to fetal monitoring strategies.

Several comparisons evaluated different approaches to the same strategy like different approaches to epidural dosing or to monitoring progress of labor. These comparisons of variations on like strategies are noted in the sections that discuss those interventions. For now, there is no evidence to inform prioritization of one type of intervention to another.

KQ4. Adverse Effects of Strategies

Few of the adverse effects presented have a direct relationship to the strategy used to prevent cesarean birth. The adverse effects most commonly systematically collected by authors included maternal fever, nausea/vomiting, and anesthesia-related side effects. Where devices were used that were introduced into the uterus there was not compelling evidence of increased risk for infection. Some strategies like amnioinfusion were associated in some studies with significant improvements in neonatal outcomes. Many of the studies included in this review, such as those related to psychosocial support have no known adverse effects.

Strength of the Evidence for Effectiveness of Strategies

Overview

Overall the strength of evidence to answer the KQs was insufficient to low (Table 34 and Appendix G). Deficiencies in the strength of evidence most often related to:

- High proportion of strategies that were represented by only one study which prevents determination of consistency of findings across studies and populations.
- Preponderance of study designs with high risk of bias in part because means to mask participants and providers to status is challenging.
- Underpowered studies that did not enroll sufficient participants to properly evaluate cesarean as an outcome though reducing cesarean was a stated aim.
- Inconsistent findings across studies; for all strategies in which there was more than one RCT, there was not consistent demonstration of effectiveness.
- Inconsistent selection and definition of outcomes; studies did not consistently report total cesarean, primary cesarean, and repeat cesarean (when applicable).
- Operational definitions of indications for cesarean are incompatible across studies so that these outcomes cannot be aggregated across studies.

In the table that follows we provide strength of evidence ratings grouped by strategies (where applicable) within KQ (Appendix G).

Strength of the Evidence by KQ

Table 34. Strength of evidence for various strategies to reduce cesarean birth

Strategy n Total Studies (n Total Participants)	Risk of Bias	Consistency	Directness	Precision	Strength of Evidence
<i>KQ1. Effectiveness of Strategies During Pregnancy to Reduce Cesarean Birth (n=9)</i>					
Antenatal Care Model 4 (4,337)	Moderate	Inconsistent	Direct	Imprecise	Insufficient; 3 fair-quality studies , 1 poor-quality study
Exercise training 1 (160)	Moderate	N/A	Direct	Imprecise	Insufficient; 1 fair-quality study
Management of fear of childbirth 1 (176)	Moderate	N/A	Direct	Imprecise	Insufficient; 1 poor-quality study
Induction of labor for at-risk 1 (270)	Moderate	N/A	Direct	Imprecise	Insufficient; 1 fair-quality study
Education on pushing 1 (100)	Moderate	N/A	Direct	Imprecise	Insufficient; 1 fair-quality study
Hyaluronidase 1 (168)	Moderate	N/A	Direct	Imprecise	Insufficient; 1 fair-quality study
<i>KQ2. Effectiveness of Strategies During Labor to Reduce Cesarean Birth</i>					
<i>Management of Labor (n=21)</i>					
Early labor assessment 2 (1,668)	Moderate	Inconsistent	Direct	Imprecise	Insufficient; 2 fair-quality studies with conflicting findings
Midwife-led unit 1 (1,111)	High	N/A	Direct	Imprecise	Insufficient; 1 poor-quality study
Measurement of labor progress 4 (10,823)	Moderate	Inconsistent	Direct	Imprecise	Low strength of evidence for lack of benefit; 2 good- quality studies, 1 fair- quality and 1 poor-quality study
Active management of labor 6 (5,330)	Moderate	Inconsistent	Direct	Imprecise	Low strength of evidence for lack of benefit; 2 good- quality studies, 2 fair- quality studies
Management of abnormal labor 5 (2,764)	Moderate	Inconsistent	Direct	Imprecise	Insufficient; 2 good-quality studies, 2 fair-quality studies, 1 poor-quality study
Amniotomy 1 (128)	Moderate	N/A	Direct	Imprecise	Insufficient; 1 fair-quality study
Increased IV fluids 1 (195)	Low	N/A	Direct	Imprecise	Insufficient; 1 good-quality study
Oral carbohydrate solution 1 (201)	Moderate	N/A	Direct	Imprecise	Insufficient; 1 fair-quality study

Table 34. Strength of evidence for various strategies to reduce cesarean birth* (continued)

Strategy n Total Studies (n Total Participants)	Risk of Bias	Consistency	Directness	Precision	Strength of Evidence
KQ2. Effectiveness of Strategies During Labor to Reduce Cesarean Birth (continued)					
Psychosocial Support (n=7)					
Doula support 3 (1,136)	High	Consistent	Direct	Precise	Low strength of evidence for benefit; 3 poor-quality studies
Trained friend or family as labor support 1 (598)	High	N/A	Direct	Imprecise	Insufficient; 1 poor-quality study
Nursing and midwifery student support 3 (7,568)	High	Consistent	Direct	Imprecise	Low strength of evidence for lack of benefit; 2 poor-quality and 1 fair-quality studies
Pain Management (n=7)					
Pain management 7 (5,525)	Moderate	Inconsistent	Direct	Imprecise	Low strength of evidence for lack of benefit; 4 poor-quality studies, 2 fair-quality studies, 1 good-quality study
Fetal Assessment (n=6)					
Fetal pulse oximetry 4 (7,098)	Moderate	Inconsistent	Direct	Imprecise	Low strength of evidence for lack of benefit; 1 good-quality study, 3 fair-quality studies
Fetal assessment by STAN 2 (2,271)	Moderate	Consistent	Direct	Imprecise	Low or moderate evidence for lack of benefit; 2 fair-quality studies
Amnioinfusion (n=8)					
Amnioinfusion for fetal distress 2 (588)	High	Inconsistent	Direct	Imprecise	Insufficient; 1 fair-quality and 1 poor-quality study
Amnioinfusion for meconium 5 (1,565)	High	Inconsistent	Direct	Imprecise	Insufficient; 3 poor-quality and 2 fair-quality studies
Amnioinfusion for oligohydramnios 1 (60)	High	NA	Direct	Imprecise	Insufficient; 1 fair-quality study
Unique Strategies (n=7)					
Other strategies (acupuncture) 2 (145)	High	Inconsistent	Direct	Imprecise	Insufficient; 2 fair-quality studies
Dental device 1 (64)	High	N/A	Direct	Imprecise	Insufficient; 1 poor-quality study
Allowing eating 1 (2,426)	Low	N/A	Direct	Precise	Insufficient; 1 good-quality study
Inflatable obstetric belt 1 (500)	Low	N/A	Direct	Imprecise	Insufficient; 1 good-quality study

Table 34. Strength of evidence for various strategies to reduce cesarean birth (continued)

Strategy n Total Studies (n Total Participants)	Risk of Bias	Consistency	Directness	Precision	Strength of Evidence
KQ2. Effectiveness of Strategies During Labor to Reduce Cesarean Birth (continued)					
Unique Strategies (n=7)					
Propranolol 1 (57)	High	N/A	Direct	Imprecise	Insufficient; 1 poor-quality study
Allowing walking 1 (916)	High	N/A	Direct	Precise	Insufficient; 1 poor-quality study
Systems-Level Strategies (n=33)					
Systems-level strategies 33	High	Inconsistent	Indirect	Precise	Insufficient
KQ4. Adverse Effects of Strategies to Reduce Cesarean Birth					
Adverse effects 18 (14,075)	Moderate	Inconsistent	Indirect	Imprecise	Insufficient; fair- to poor-quality studies with inconsistent reporting of multiple adverse events

N/A=not applicable

*See Methods for more detail about grading strength of evidence. Assessment of insufficient evidence often resulted from single trials or small numbers of studies with combinations of high risk of bias, inconsistent results, and poor precision. The latter often resulted from relatively limited power of individual or aggregated studies to accurately estimate the effect. Low strength of evidence for lack of benefit was most commonly assigned in the setting of moderate to low risk of bias and larger studies in which the predominance of the literature found no benefit but a single study reported reduction in cesarean.

Applicability

Studies included in the review were selected to provide data that is relevant to the care of low-risk, term pregnant women. Applicability describes the extent to which study population, interventions, and outcomes in this literature apply to that target group. In this report, the study populations were predominantly low-risk pregnant women at term with a singleton pregnancy, a vertex presentation, and no previous cesarean birth. However, eligibility criteria and participant characteristics were not always clearly described in detail. Some studies that recruited from among laboring women included a proportion of women with multiple gestations, complications of pregnancy, and prior pelvic surgery or cesarean, not meeting the criteria of low-risk.

In these instances the studies reflected the base population of women seeking care in the setting in which the study was done and who were intending vaginal births. We did not include studies focused only on high-risk populations. More than half of the studies were conducted outside the United States and differences in the health systems, homogeneity of the population, and prevailing rates of cesarean are important to note. While we attempted to restrict the review to trials conducted in settings with clinical care settings similar to the United States, this was likely not the case in all instances. Even developed westernized countries may deploy medical resources and have patterns of care that dramatically differ from those in the United States. It is important to note that applicability for guiding care for women in the United States is best served by relatively contemporary U.S. data because cultural norms and health systems factors mitigate against international studies fully capturing the context of care and populations in the United States.

Strategies varied widely with most not being replicated in more than one study. All of the strategies evaluated were of potential utility to the target population for the report. Likewise the

comparison group for the RCTs was standard care, which with the exception of international settings with limited resources, is becoming increasingly similar around the globe. Where distinct differences such as midwifery based care or lack of use of electronic monitoring are the norm, we have called attention to this in order to alert the reader to limitations in applicability. Fortunately the outcome of interest—cesarean—is readily measured with accuracy and would not be expected to differ in ways that would affect applicability with the exception of classification of reasons for cesarean which has high variability even among individual providers within the same facilities.

A particular challenge that is difficult to assess is the influence of baseline use of cesarean prior to initiation of the strategy to reduce cesarean. It is likely that the difficulty of changing rates is greater when use is already low. For this reason we have presented the proportion of births in the usual care arms of trials and the baseline data for systems intervention studies. While strategies may well be applicable across setting regardless of how low or high the initial use of cesarean is, it makes this literature more challenging to interpret. In particular, while there is no a priori reason to believe that strategies that work in settings that have low cesarean use could not work in settings with higher use, we recognize that it is harder to dismiss the potential for benefit of a strategy in a higher use setting that did not provide statistically meaningful reductions in a low use setting.

In summary, constraints for applicability are easily identified in this literature and the reader will generally be able to understand any differences in the study setting and their setting. The primary hindrance is the lack of clear evidence to apply. No clearly effective means of decreasing cesarean in the target population emerged from the synthesis of the evidence.

Future Research

State of the Science

Recent reports by the Consortium on Safe Labor, a group of 19 U.S. hospitals conducting an observational study on labor progression and the use and timing of cesareans among women with labor protraction and arrest, show that cesarean birth among women having their first birth has risen to almost one in three.¹⁶⁵ Much of this increase occurred with the past decade.¹ Since the 1980s researchers and policymakers have sought to implement strategies both in the context of trials and systems-level changes to reduce the number of cesarean births in low-risk women. No approaches to prevent cesarean have proven to be effective with moderate or high strength of evidence. Means to forestall a continued rise in cesarean are needed which will require continued research. Some cross-cutting methodologic challenges should be noted in future research.

Methodologic Issues

- Develop data-driven estimates of plausible decreases in cesarean for use in power calculations.
- Develop definitions of indications for cesarean that can be validated from medical records and case-report forms.
- Include placebo, sham, or attention control comparison groups, and innovative means of masking patients and providers in studies of interventions.

- Conduct studies directly comparing and combining candidate strategies to detect additive and multiplicative effects of combining two effective interventions over each effective intervention alone.
- Design studies with prespecified secondary outcomes and adequate power for these outcomes.
- Conduct studies that allow stratification on patient characteristics such as nulliparity and multiparity and have adequate power to detect differences across strata.
- Track and report total, primary, and repeat cesareans in studies not restricted to nulliparous women.
- Capture all categories of birth outcomes (cesarean, emergent cesarean, assisted vaginal and spontaneous births) and related complications in order to assess if reductions in cesarean occur at the cost of increased use of other interventions or increased complications.
- Include robust measures of maternal coping, satisfaction, and perceived quality of the birth experience. Expand infant outcomes to include a uniform panel of measures that capture infant status better than Apgar scores and NICU admission.
- Include maternal length of stay and incidence of specific complications like chorioamnionitis, endometritis, and wound healing complications, as outcomes.
- Conduct multisite studies to improve applicability and assure power and precision.
- Conduct larger trials of health system interventions.
- Develop registries that capture both short term and long term outcomes.
- Determine the best measures of patient and provider route of birth preferences.
- Determine the scales/indices that best capture factors that mothers and partners value about the birth experience.
- Include longterm followup of infants into childhood to assure any reduction in cesarean is not achieved at the risk of future neurodevelopmental impairments and to determine if outcomes of infants born by cesarean are similar to those resulting from vaginal births.

Gaps in Areas of Research

We identified gaps using four general strategies: (1) review of the analytic framework and assessment of the degree to which strategies have been examined that attempt to reduce cesarean at different time-points (e.g. during prenatal care, in triage for admission to labor and delivery, during labor); (2) consideration of areas in which we expected to identify literature and did not (e.g. strategies to modify change of shift staffing plans, trials of midwifery care explicitly powered for reduction in cesarean); (3) promising areas of the observational literature not covered in this review that would benefit from examination in a randomized clinical trial; and (4) noting intriguing results from single or lower quality studies included in the review that could benefit from replication.

- Why do some patients prefer to undergo elective cesarean?
- What factors drive a patient's decision to undergo a primary cesarean during labor, e.g. prior cesarean, general fears, fear of future pelvic floor disorders?
- What patient preferences influence decisions to convert to primary cesarean during labor, e.g. pain management, progress of labor, fears about baby's well-being?

- What physician factors contribute to the use of elective cesarean, e.g. residency training, attitude toward elective cesarean, practice size, practice setting, shift/time of day, use of hospitalists, personal birth experience?
- What physician factors contribute to the use of cesarean during labor, e.g. residency training, attitude toward cesarean, practice setting, practice size, shift/time of day, use of hospitalists, personal birth experience?
- To what extent do non-financial incentives such as time savings, control and perceived improvement in patient relations affect physician decisions to use cesarean?
- What nurse or midwife factors contribute to the use of cesarean during labor?
- What nurse or midwife factors contribute to the use of elective cesarean?
- What hospital factors contribute to the use of cesarean during labor, e.g. teaching status, geographical region, urban location, socioeconomic status of patients, staffing and scheduling pattern, provider attitudes toward cesarean use?
- What hospital factors contribute to the use of elective cesarean, e.g. teaching status, geographical region, urban location, socioeconomic status of patients, staffing and scheduling pattern, provider attitudes toward cesarean use?
- Do audit and feedback interventions influence physician use of cesarean?
- Do interventions aimed at disrupting staffing and scheduling phenomena – like the increase in cesarean near change of shifts and differential rates through the week – have promise?
- Does use of cesareans correlate with specific days of the week or time of day?
- Do different staffing models like use of hospitalists and integration of midwives reduce the number of cesarean births?
- Do provider peer-review models change provider patterns of cesarean use?
- Do natural experiments in tort reform support assertions that liability concerns contribute to use of cesarean?
- Do natural experiments in payment reform support the assertions that certain incentive structures contribute to the use of cesarean?
- To what degree is use of cesarean driven by uniform compensation for vaginal and cesarean birth as tested by an RCT?
- Does public reporting of hospital primary and total cesarean rates affect hospital cesarean rates over time?
- Does public reporting of hospital primary and total cesarean rates affect hospital induction rates over time?
- Does public reporting of individual physician primary and total cesarean rates affect physician use of cesarean over time?
- Does public reporting of individual physician primary and total cesarean rates affect physician use of induction over time?
- Does use of informed medical decision making models change patient decisions about desire for cesarean or for procedures like induction that may increase risk of cesarean?
- Is the Bishop's score routinely used by providers as a decision making tool? If not, why not?
- To what extent do patient educational and decision support tools affect patient decisions to undergo elective cesarean?

- To what extent do educational tools that manage patient expectations and describe the risks of cesarean influence use of cesareans during labor?
- Do system level changes applied to all patients in a care setting with the goal of reducing cesarean increase risk of neurodevelopmental delays in children evaluated over years after birth?
- When strictly operationalized and compared in clinical trials what components of systems intervention are effective in reducing cesarean use?
- Can technologies to enhance fetal surveillance [specify most promising – are there any technology studies worth doing?] improve infant outcomes while reducing cesarean?
- Does a protocol for use of scalp pH sampling reduce use of cesarean?
- Does outpatient hyaluronidase injection into the cervix for cervical ripening at term reduce risk of cesarean (replication of single promising trial)?
- Does active management of labor, using updated US labor curves, reduce use of cesarean in US community care settings?
- Does use of the Consortium for Safe Labor labor curves reduce use of cesarean?
- Does elective induction at 39 week vs. expectant management at 39 weeks influence use of cesarean?
- Can protocols supporting trial of induction of labor make it realistic for physicians to send a patient home if induction of labor does not progress in a timely fashion?
- What is the mechanism by which doula support exerts an effect?
- Does midwifery care through-out pregnancy in a hospital setting reduce use of cesarean among low-risk women when compared in a randomized clinical trial to obstetric care?
- Does midwifery care in labor in a hospital setting reduce use of cesarean among low-risk women when compared in a randomized clinical trial to obstetric care?
- Can tighter standards for elective induction among primiparous patients reduce use of cesarean?
- Can tighter standards for indicated induction among primiparous patients reduce use of cesarean?
- How does implementing uniform definitions for arrest of labor and its management influence use of cesarean?
- How does implementing a standard indication list affect physician's use of cesarean?
- Would changing the definition of when active labor starts reduce use of cesarean?
- Would changing the timeframes for normal progress in latent and active labor reduce primary cesareans?
- Would a tighter definition of elective cesarean affect physician's use of cesarean?
- What scales/indices best capture factors that mothers and partners value about their birth?
- As assessed by sociologic models, to what extent are cesarean rates perceived as concerning or not among members of the public, women of childbearing age, obstetrical care providers, payors, and policy makers?
- What factors have resulted in the change in patterns of the diagnosis of dystocia over the decades?

Conclusions

No particular intervention strategy was uniformly successful in all trials of the strategy in reducing cesareans. Strength of evidence was low to insufficient across all strategies, with

involvement of doulas for personalized support in labor being the only strategy to achieve evidence of benefit which was low related to poor quality of trials.

Several strategies are not supported by the current literature. This does not mean the strategy has no merit and should not be investigated in the future, but does mean that based on the current literature there is not evidence of effectiveness for the purpose of reducing cesarean use among low risk women. These include measurement of progress in labor as the primary component of intervention, active management of labor, nursing and midwifery students as support in labor, modifications of pain management approaches, fetal pulse oximetry and fetal assessment by STAN. For the majority of strategies the evidence is insufficient, including many instances in which a single study is the only evidence about the approach. While certain components of systems-level interventions were common among successful interventions, none were supported by a randomized trial and for each instance of inclusion in a successful pre-post intervention there were instances of unsuccessful use of similar components.

This literature contains intriguing examples of single studies that deserve further exploration. Use of hyaluronidase to hasten cervical changes favorable to labor at term was studied using a vehicle for the injection which is not allowed in the United States. Modifications and safety evaluation would be a prerequisite to future trials. Further exploration of what elements of doula support were common across successful trials would be informative in order to conduct larger scale replications in U.S. populations. Similarly, use of amnioinfusion to reduce fetal distress appears to reduce cesareans for this indication. More information is needed about why it did not reduce overall use of cesarean. Potential explanatory factors include trials that were underpowered; versus use of outcome measurements that allow cesareans undertaken for varied reasons to be grouped in uninformative ways. We also need evaluations of whether components of systems interventions succeed because of the components themselves or because the interventions selected reflect the will of the health system and care providers to promote decreased use of cesarean. Detailed research in the context of multi-site trials is warranted to more carefully parse which tools, individually and combined, have effect. Indeed the need for future research in this area is clear. Defining those needs better is the focus of a companion piece to this evidence review. The forthcoming report gathered information from multiple stakeholders including obstetricians, family physicians, midwives, insurers, advocacy groups, and individual women, and used a system of information gathering and surveys to prioritize which research is most urgently needed.

In conclusion, no approach dominated as a strategy appropriate to reduce use of cesarean in low-risk women in the United States. The literature spans the globe and may not have the level of applicability we would desire to contemporary U.S. populations. This is concerning as cesarean rates among low risk women continue to rise and the individual and public benefits of avoiding unnecessary cesarean may be substantial.

References

1. Menacker F, Hamilton BE. Recent trends in cesarean delivery in the United States. *NCHS Data Brief*. 2010 Mar(35):1-8. PMID 20334736.
2. Martin JA, Hamilton BE, Sutton PD, et al. Births: final data for 2007. *Natl Vital Stat Rep*. 2010 Aug 9;58(24):1-85. PMID 21254725.
3. The Joint Commission. Specifications manual for Joint Commission national quality core measures. 2010. <http://manual.jointcommission.org/releases/TJC2010B/MIF01067.html>. Accessed on February 4 2011.
4. National Institutes of Health Consensus Development conference statement: vaginal birth after cesarean: new insights March 8-10, 2010. *Obstet Gynecol*. 2010 Jun;115(6):1279-95. PMID 20502301.
5. NIH consensus development statement on cesarean childbirth. The Cesarean Birth Task Force. *Obstet Gynecol*. 1981 Apr;57(4):537-45. PMID 7243111.
6. Getahun D, Oyelese Y, Salihu HM, et al. Previous cesarean delivery and risks of placenta previa and placental abruption. *Obstet Gynecol*. 2006 Apr;107(4):771-8. PMID 16582111.
7. Blanchette H. The rising cesarean delivery rate in America: what are the consequences? *Obstet Gynecol*. 2011 Sep;118(3):687-90. PMID 21860302.
8. Clark SL, Belfort MA, Hankins GD, et al. Variation in the rates of operative delivery in the United States. *Am J Obstet Gynecol*. 2007 Jun;196(6):526 e1-5. PMID 17547880.
9. Wennberg J. Which rate is right? *N Engl J Med*. 1986 Jan 30;314(5):310-1. PMID 3941721.
10. Wennberg JE. *Tracking Medicine: A Researcher's Quest to Understand Health Care*. Oxford, England: Oxford University Press; 2010.
11. Baicker K, Buckles KS, Chandra A. Geographic variation in the appropriate use of cesarean delivery. *Health Aff (Millwood)*. 2006 Sep-Oct;25(5):w355-67. PMID 16895942.
12. Luthy DA, Malmgren JA, Zingheim RW, et al. Physician contribution to a cesarean delivery risk model. *Am J Obstet Gynecol*. 2003 Jun;188(6):1579-85; discussion 85-7. PMID 12824996.
13. National Center for Health Statistics. *Healthy People 2000 Final Review*. Hyattsville, MD: Public Health Service; 2001.
14. U.S. Department of Health and Human Services. *Healthy People 2010: Understanding and Improving Health*. Washington, DC: U.S. Government Printing Office; 2000. www.healthypeople.gov/2010. Accessed on May 5 2011.
15. U. S. Department of Health and Human Services. *Healthy People 2020*. Washington, DC. www.healthypeople.gov/2020/default.aspx. Accessed on May 5, 2011.
16. Cyr RM. Myth of the ideal cesarean section rate: commentary and historic perspective. *Am J Obstet Gynecol*. 2006 Apr;194(4):932-6. PMID 16580278.
17. Resnik R. Can a 29% cesarean delivery rate possibly be justified? *Obstet Gynecol*. 2006 Apr;107(4):752-4. PMID 16582108.
18. Gruber J, Kim J, Mayzlin D. Physician fees and procedure intensity: the case of cesarean delivery. *J Health Econ*. 1999 Aug;18(4):473-90. PMID 10539618.
19. Zwecker P, Azoulay L, Abenheim HA. Effect of fear of litigation on obstetric care: a nationwide analysis on obstetric practice. *Am J Perinatol*. 2011 Apr;28(4):277-84. PMID 21249618.
20. Dursun P, Yanik FB, Zeyneloglu HB, et al. Why women request cesarean section without medical indication? *J Matern Fetal Neonatal Med*. 2011 Sep;24(9):1133-7. PMID 21668323.
21. Quiroz LH, Blomquist JL, Macmillan D, et al. Maternal goals for childbirth associated with planned vaginal and planned cesarean birth. *Am J Perinatol*. 2011 Oct;28(9):695-702. PMID 21660899.

22. O'Boyle AL, Davis GD, Calhoun BC. Informed consent and birth: protecting the pelvic floor and ourselves. *Am J Obstet Gynecol.* 2002 Oct;187(4):981-3. PMID 12388991.
23. Handa VL, Blomquist JL, Knoepp LR, et al. Pelvic floor disorders 5-10 years after vaginal or cesarean childbirth. *Obstet Gynecol.* 2011 Oct;118(4):777-84. PMID 21897313.
24. Bettes BA, Coleman VH, Zinberg S, et al. Cesarean delivery on maternal request: obstetrician-gynecologists' knowledge, perception, and practice patterns. *Obstet Gynecol.* 2007 Jan;109(1):57-66. PMID 17197588.
25. Simpson KR, Thorman KE. Obstetric "conveniences": elective induction of labor, cesarean birth on demand, and other potentially unnecessary interventions. *J Perinat Neonatal Nurs.* 2005 Apr-Jun;19(2):134-44. PMID 15923963.
26. Bayrampour H, Heaman M. Advanced maternal age and the risk of cesarean birth: a systematic review. *Birth.* 2010 Sep;37(3):219-26. PMID 20887538.
27. Kulie T, Slattengren A, Redmer J, et al. Obesity and women's health: an evidence-based review. *J Am Board Fam Med.* 2011 Jan-Feb;24(1):75-85. PMID 21209347.
28. Khunpradit S, Tavender E, Lumbiganon P, et al. Non-clinical interventions for reducing unnecessary caesarean section. *Cochrane Database Syst Rev.* 2011(6):CD005528. PMID 21678348.
29. Catling-Paull C, Johnston R, Ryan C, et al. Non-clinical interventions that increase the uptake and success of vaginal birth after caesarean section: a systematic review. *J Adv Nurs.* 2011 Aug;67(8):1662-76. PMID 21535091.
30. Chou R, Aronson N, Atkins D, et al. AHRQ series paper 4: assessing harms when comparing medical interventions: AHRQ and the effective health-care program. *J Clin Epidemiol.* 2010 May;63(5):502-12. PMID 18823754.
31. Viswanathan M, Visco AG, Hartmann K, et al. Cesarean delivery on maternal request. *Evid Rep Technol Assess (Full Rep).* 2006 Mar(133):1-138. PMID 17627329.
32. Caughey AB, Sundaram V, Kaimal AJ, et al. Maternal and neonatal outcomes of elective induction of labor. *Evid Rep Technol Assess (Full Rep).* 2009 Mar(176):1-257. PMID 19408970.
33. Guise JM, Eden K, Emeis C, et al. Vaginal birth after cesarean: new insights. *Evid Rep Technol Assess (Full Rep).* 2010 Mar(191):1-397. PMID 20629481.
34. Robinson KA, Dickersin K. Development of a highly sensitive search strategy for the retrieval of reports of controlled trials using PubMed. *Int J Epidemiol.* 2002 Feb;31(1):150-3. PMID 11914311.
35. Juni P, Hohenstein F, Sterne J, et al. Direction and impact of language bias in meta-analyses of controlled trials: empirical study. *Int J Epidemiol.* 2002 Feb;31(1):115-23. PMID 11914306.
36. Agency for Healthcare Research and Quality. *Methods Guide for Effectiveness and Comparative Effectiveness Reviews.* Rockville, MD; 2008. www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=21433403.
37. Higgins JPT, Altman DG, Sterne JAC. Chapter 8: Assessing risk of bias in included studies. In: Higgins JPT, Green S, eds. *Cochrane Handbook for Systematic Reviews of Interventions Version 5.1.0 (updated March 2011).* The Cochrane Collaboration; 2011.
38. Owens DK, Lohr KN, Atkins D, et al. AHRQ series paper 5: grading the strength of a body of evidence when comparing medical interventions--agency for healthcare research and quality and the effective health-care program. *J Clin Epidemiol.* 2010 May;63(5):513-23. PMID 19595577.
39. Choudhary D, Bano I, Ali SM. Does amnioinfusion reduce caesarean section rate in meconium-stained amniotic fluid. *Arch Gynecol Obstet.* 2010 Jul;282(1):17-22. PMID 19685066.
40. Spallicci MD, Chiea MA, Singer JM, et al. Use of hyaluronidase for cervical ripening: a randomized trial. *Eur J Obstet Gynecol Reprod Biol.* 2007 Jan;130(1):46-50. PMID 16324780.

41. Sanchez-Ramos L, Quillen MJ, Kaunitz AM. Randomized trial of oxytocin alone and with propranolol in the management of dysfunctional labor. *Obstet Gynecol.* 1996 Oct;88(4 Pt 1):517-20. PMID 8841209.
42. Trueba G, Contreras C, Velazco MT, et al. Alternative strategy to decrease cesarean section: support by Doulas during labor. *J Perinat Educ.* 2000;9(2):8-13. PMID 17273201.
43. Kuhnert M, Schmidt S. Intrapartum management of nonreassuring fetal heart rate patterns: a randomized controlled trial of fetal pulse oximetry. *Am J Obstet Gynecol.* 2004 Dec;191(6):1989-95. PMID 15592281.
44. Abdel-Aleem H, Amin AF, Shokry M, et al. Therapeutic amnioinfusion for intrapartum fetal distress using a pediatric feeding tube. *Int J Gynaecol Obstet.* 2005 Aug;90(2):94-8. PMID 15913621.
45. Rathor AM, Singh R, Ramji S, et al. Randomised trial of amnioinfusion during labour with meconium stained amniotic fluid. *BJOG.* 2002 Jan;109(1):17-20. PMID 11843370.
46. McGrath SK, Kennell JH. A randomized controlled trial of continuous labor support for middle-class couples: effect on cesarean delivery rates. *Birth.* 2008 Jun;35(2):92-7. PMID 18507579.
47. Harvey S, Jarrell J, Brant R, et al. A randomized, controlled trial of nurse-midwifery care. *Birth.* 1996 Sep;23(3):128-35. PMID 8924098.
48. Kennell J, Klaus M, McGrath S, et al. Continuous emotional support during labor in a US hospital. A randomized controlled trial. *JAMA.* 1991 May 1;265(17):2197-201. PMID 2013951.
49. Skrablin S, Grgic O, Mihaljevic S, et al. Comparison of intermittent and continuous epidural analgesia on delivery and progression of labour. *J Obstet Gynaecol.* 2011;31(2):134-8. PMID 21281028.
50. Pattinson RC, Howarth GR, Mdluli W, et al. Aggressive or expectant management of labour: a randomised clinical trial. *BJOG.* 2003 May;110(5):457-61. PMID 12742329.
51. Lavender T, Alfrevic Z, Walkinshaw S. Partogram action line study: a randomised trial. *Br J Obstet Gynaecol.* 1998 Sep;105(9):976-80. PMID 9763048.
52. Homer CS, Davis GK, Brodie PM, et al. Collaboration in maternity care: a randomised controlled trial comparing community-based continuity of care with standard hospital care. *BJOG.* 2001 Jan;108(1):16-22. PMID 11212998.
53. Harper TC, Coeytaux RR, Chen W, et al. A randomized controlled trial of acupuncture for initiation of labor in nulliparous women. *J Matern Fetal Neonatal Med.* 2006 Aug;19(8):465-70. PMID 16966110.
54. Bidgood KA, Steer PJ. A randomized control study of oxytocin augmentation of labour. 1. Obstetric outcome. *Br J Obstet Gynaecol.* 1987 Jun;94(6):512-7. PMID 3620398.
55. Matsuo K, Mudd JV, Kopelman JN, et al. Duration of the second stage of labor while wearing a dental support device: a pilot study. *J Obstet Gynaecol Res.* 2009 Aug;35(4):672-8. PMID 19751326.
56. Garite TJ, Weeks J, Peters-Phair K, et al. A randomized controlled trial of the effect of increased intravenous hydration on the course of labor in nulliparous women. *Am J Obstet Gynecol.* 2000 Dec;183(6):1544-8. PMID 11120525.
57. Moodley J, Matchaba P, Payne AJ. Intrapartum amnioinfusion for meconium-stained liquor in developing countries. *Trop Doct.* 1998 Jan;28(1):31-4. PMID 9481194.
58. Karraz MA. Ambulatory epidural anesthesia and the duration of labor. *Int J Gynaecol Obstet.* 2003 Feb;80(2):117-22. PMID 12566183.
59. Strong TH, Jr., Hetzler G, Sarno AP, et al. Prophylactic intrapartum amnioinfusion: a randomized clinical trial. *Am J Obstet Gynecol.* 1990 Jun;162(6):1370-4; discussion 4-5. PMID 2193511.
60. Adamsons K, de la Vega A, Santiago P. Reduction in the cesarean section rate in nulliparous patients after administration of intravenous propranolol. *P R Health Sci J.* 1999 Mar;18(1):5-8. PMID 10343980.

61. Saisto T, Salmela-Aro K, Nurmi JE, et al. A randomized controlled trial of intervention in fear of childbirth. *Obstet Gynecol.* 2001 Nov;98(5 Pt 1):820-6. PMID 11704175.
62. Nicholson JM, Parry S, Caughey AB, et al. The impact of the active management of risk in pregnancy at term on birth outcomes: a randomized clinical trial. *Am J Obstet Gynecol.* 2008 May;198(5):511 e1-15. PMID 18455526.
63. Olofsson C, Ekblom A, Ekman-Ordeberg G, et al. Obstetric outcome following epidural analgesia with bupivacaine-adrenaline 0.25% or bupivacaine 0.125% with sufentanil--a prospective randomized controlled study in 1000 parturients. *Acta Anaesthesiol Scand.* 1998 Mar;42(3):284-92. PMID 9542554.
64. Rogers R, Gilson GJ, Miller AC, et al. Active management of labor: does it make a difference? *Am J Obstet Gynecol.* 1997 Sep;177(3):599-605. PMID 9322630.
65. Phipps H, Charlton S, Dietz HP. Can antenatal education influence how women push in labour? *Aust N Z J Obstet Gynaecol.* 2009 Jun;49(3):274-8. PMID 19566559.
66. Lopez-Zeno JA, Peaceman AM, Adashek JA, et al. A controlled trial of a program for the active management of labor. *N Engl J Med.* 1992 Feb 13;326(7):450-4. PMID 1732771.
67. Hemminki E, Virta A, Koponen P. A trial on continuous human support during labor; Feasibility, interventions and mothers' satisfaction. *J Psychosom Obstet Gynaecol.* 1990;11(4):239-50.
68. McNiven PS, Williams JI, Hodnett E, et al. An early labor assessment program: a randomized, controlled trial. *Birth.* 1998 Mar;25(1):5-10. PMID 9534499.
69. Mahomed K, Mulambo T, Woelk G, et al. The Collaborative Randomised Amnioinfusion for Meconium Project (CRAMP): 2. Zimbabwe. *Br J Obstet Gynaecol.* 1998 Mar;105(3):309-13. PMID 9532992.
70. Vayssiere C, David E, Meyer N, et al. A French randomized controlled trial of ST-segment analysis in a population with abnormal cardiotocograms during labor. *Am J Obstet Gynecol.* 2007 Sep;197(3):299 e1-6. PMID 17826428.
71. Somprasit C, Tanprasertkul C, Kamudhamas A. Reducing cesarean delivery rates: an active management labor program in a setting with limited resources. *J Med Assoc Thai.* 2005 Jan;88(1):20-5. PMID 15960212.
72. Bernitz S, Rolland R, Blix E, et al. Is the operative delivery rate in low-risk women dependent on the level of birth care? A randomised controlled trial. *BJOG.* 2011 Oct;118(11):1357-64. PMID 21749629.
73. Gagnon AJ, Waghorn K, Covell C. A randomized trial of one-to-one nurse support of women in labor. *Birth.* 1997 Jun;24(2):71-7. PMID 9271971.
74. East CE, Brennecke SP, King JF, et al. The effect of intrapartum fetal pulse oximetry, in the presence of a nonreassuring fetal heart rate pattern, on operative delivery rates: a multicenter, randomized, controlled trial (the FOREMOST trial). *Am J Obstet Gynecol.* 2006 Mar;194(3):606 e1-16. PMID 16522387.
75. Bloom SL, McIntire DD, Kelly MA, et al. Lack of effect of walking on labor and delivery. *N Engl J Med.* 1998 Jul 9;339(2):76-9. PMID 9654537.
76. Mehrangiz Z, Sogra R, Malihe A. Randomized clinical trial to study the effect of paracervical block on reducing pain, improving APGAR Score and on accelerating the active phase of labor. *Internet J Pain, Symptom Control & Palliative Care.* 2004;3(1):7p. PMID 2004164008.
77. Waldenstrom U, Nilsson CA, Winbladh B. The Stockholm birth centre trial: maternal and infant outcome. *Br J Obstet Gynaecol.* 1997 Apr;104(4):410-8. PMID 9141576.
78. World Health Organization partograph in management of labour. World Health Organization Maternal Health and Safe Motherhood Programme. *Lancet.* 1994 Jun 4;343(8910):1399-404. PMID 7910888.

79. Cohen GR, O'Brien WF, Lewis L, et al. A prospective randomized study of the aggressive management of early labor. *Am J Obstet Gynecol.* 1987 Nov;157(5):1174-7. PMID 3688070.
80. Bloom SL, Spong CY, Thom E, et al. Fetal pulse oximetry and cesarean delivery. *N Engl J Med.* 2006 Nov 23;355(21):2195-202. PMID 17124017.
81. Hofmeyr GJ, Gulmezoglu AM, Buchmann E, et al. The Collaborative Randomised Amnioinfusion for Meconium Project (CRAMP): 1. South Africa. *Br J Obstet Gynaecol.* 1998 Mar;105(3):304-8. PMID 9532991.
82. Windrim R, Seaward PG, Hodnett E, et al. A randomized controlled trial of a bedside partogram in the active management of primiparous labour. *J Obstet Gynaecol Can.* 2007 Jan;29(1):27-34. PMID 17346475.
83. Sadler LC, Davison T, McCowan LM. A randomised controlled trial and meta-analysis of active management of labour. *BJOG.* 2000 Jul;107(7):909-15. PMID 10901564.
84. Barakat R, Ruiz JR, Stirling JR, et al. Type of delivery is not affected by light resistance and toning exercise training during pregnancy: a randomized controlled trial. *Am J Obstet Gynecol.* 2009 Dec;201(6):590 e1-6. PMID 19608151.
85. Althabe F, Belizan JM, Villar J, et al. Mandatory second opinion to reduce rates of unnecessary caesarean sections in Latin America: a cluster randomised controlled trial. *Lancet.* 2004 Jun 12;363(9425):1934-40. PMID 15194252.
86. Hodnett ED, Lowe NK, Hannah ME, et al. Effectiveness of nurses as providers of birth labor support in North American hospitals: a randomized controlled trial. *JAMA.* 2002 Sep 18;288(11):1373-81. PMID 12234231.
87. Frigoletto FD, Jr., Lieberman E, Lang JM, et al. A clinical trial of active management of labor. *N Engl J Med.* 1995 Sep 21;333(12):745-50. PMID 7643880.
88. Ajadi MA, Kuti O, Orji EO, et al. The effect of amniotomy on the outcome of spontaneous labour in uncomplicated pregnancy. *J Obstet Gynaecol.* 2006 Oct;26(7):631-4. PMID 17071428.
89. Elferink-Stinkens PM, Brand R, Amelink-Verburg MP, et al. Randomised clinical trial on the effect of the Dutch obstetric peer review system. *Eur J Obstet Gynecol Reprod Biol.* 2002 Apr 10;102(1):21-30. PMID 12039085.
90. Hinshaw K, Simpson S, Cummings S, et al. A randomised controlled trial of early versus delayed oxytocin augmentation to treat primary dysfunctional labour in nulliparous women. *BJOG.* 2008 Sep;115(10):1289-95; discussion 95-6. PMID 18715415.
91. Lavender T, Alfirovic Z, Walkinshaw S. Effect of different partogram action lines on birth outcomes: a randomized controlled trial. *Obstet Gynecol.* 2006 Aug;108(2):295-302. PMID 16880298.
92. O'Sullivan G, Liu B, Hart D, et al. Effect of food intake during labour on obstetric outcome: randomised controlled trial. *BMJ.* 2009;338:b784. PMID 19318702.
93. Waldenstrom U, McLachlan H, Forster D, et al. Team midwife care: maternal and infant outcomes. *Aust N Z J Obstet Gynaecol.* 2001 Aug;41(3):257-64. PMID 11592538.
94. Hamilton E, Platt R, Gauthier R, et al. The effect of computer-assisted evaluation of labor on cesarean rates. *J Healthc Qual.* 2004 Jan-Feb;26(1):37-44. PMID 14763319.
95. Gambling DR, Sharma SK, Ramin SM, et al. A randomized study of combined spinal-epidural analgesia versus intravenous meperidine during labor: impact on cesarean delivery rate. *Anesthesiology.* 1998 Dec;89(6):1336-44. PMID 9856707.
96. Campbell DA, Lake MF, Falk M, et al. A randomized control trial of continuous support in labor by a lay doula. *J Obstet Gynecol Neonatal Nurs.* 2006 Jul-Aug;35(4):456-64. PMID 16881989.
97. Norris MC, Fogel ST, Conway-Long C. Combined spinal-epidural versus epidural labor analgesia. *Anesthesiology.* 2001 Oct;95(4):913-20. PMID 11605932.
98. Regi A, Alexander N, Jose R, et al. Amnioinfusion for relief of recurrent severe and moderate variable decelerations in labor. *J Reprod Med.* 2009 May;54(5):295-302. PMID 19517694.

99. Ojala K, Vaarasmaki M, Makikallio K, et al. A comparison of intrapartum automated fetal electrocardiography and conventional cardiotocography--a randomised controlled study. *BJOG*. 2006 Apr;113(4):419-23. PMID 16553653.
100. Cox J, Cotzias CS, Siakpere O, et al. Does an inflatable obstetric belt facilitate spontaneous vaginal delivery in nulliparae with epidural analgesia? *Br J Obstet Gynaecol*. 1999 Dec;106(12):1280-6. PMID 10609722.
101. Garite TJ, Dildy GA, McNamara H, et al. A multicenter controlled trial of fetal pulse oximetry in the intrapartum management of nonreassuring fetal heart rate patterns. *Am J Obstet Gynecol*. 2000 Nov;183(5):1049-58. PMID 11084540.
102. Janssen PA, Still DK, Klein MC, et al. Early labor assessment and support at home versus telephone triage: a randomized controlled trial. *Obstet Gynecol*. 2006 Dec;108(6):1463-9. PMID 17138781.
103. Jalil NA, Omar M. Does ropivacaine 0.2% with fentanyl change the labour epidural profile? *Int Med J*. 2009;16(2):149-55. PMID 2010326522.
104. Palomaki O, Uotila J, Tammela O, et al. A double blind, randomized trial on augmentation of labour with a combination of intravenous propranolol and oxytocin versus oxytocin only. *Eur J Obstet Gynecol Reprod Biol*. 2006 Mar 1;125(1):44-9. PMID 16051416.
105. Asher GN, Coeytaux RR, Chen W, et al. Acupuncture to initiate labor (Acumoms 2): a randomized, sham-controlled clinical trial. *J Matern Fetal Neonatal Med*. 2009 Oct;22(10):843-8. PMID 19526433.
106. Scheepers HC, Thans MC, de Jong PA, et al. A double-blind, randomised, placebo controlled study on the influence of carbohydrate solution intake during labour. *BJOG*. 2002 Feb;109(2):178-81. PMID 11911101.
107. Waldenstrom U, Nilsson CA. A randomized controlled study of birth center care versus standard maternity care: effects on women's health. *Birth*. 1997 Mar;24(1):17-26. PMID 9271963.
108. Bungum TJ, Peaslee DL, Jackson AW, et al. Exercise during pregnancy and type of delivery in nulliparae. *J Obstet Gynecol Neonatal Nurs*. 2000 May-Jun;29(3):258-64. PMID 10839574.
109. Hall DC, Kaufmann DA. Effects of aerobic and strength conditioning on pregnancy outcomes. *Am J Obstet Gynecol*. 1987 Nov;157(5):1199-203. PMID 3688075.
110. Klein MC, Kelly A, Kaczorowski J, et al. The effect of family physician timing of maternal admission on procedures in labour and maternal and infant morbidity. *J Obstet Gynaecol Can*. 2004 Jul;26(7):641-5. PMID 15248933.
111. Hemminki E, Simukka R. The timing of hospital admission and progress of labour. *Eur J Obstet Gynecol Reprod Biol*. 1986 Jun;22(1-2):85-94. PMID 3721051.
112. Kenyon AP, Piercy CN, Girling J, et al. Obstetric cholestasis, outcome with active management: a series of 70 cases. *BJOG*. 2002 Mar;109(3):282-8. PMID 11950183.
113. ACOG Practice Bulletin Number 49, December 2003: Dystocia and augmentation of labor. *Obstet Gynecol*. 2003 Dec;102(6):1445-54. PMID 14662243.
114. Lavender T, Hart A, Smyth RM. Effect of partogram use on outcomes for women in spontaneous labour at term. *Cochrane Database Syst Rev*. 2008(4):CD005461. PMID 18843690.
115. Brown HC, Paranjothy S, Dowswell T, et al. Package of care for active management in labour for reducing caesarean section rates in low-risk women (Review). *Cochrane Database of Systematic Reviews*. 2009(3).
116. Smyth RM, Alldred SK, Markham C. Amniotomy for shortening spontaneous labour. *Cochrane Database Syst Rev*. 2007(4):CD006167. PMID 17943891.
117. Xia XY, Huang XH, Xia YX, et al. Changes of nerve growth factor in amniotic fluid and correlation with ventriculomegaly. *Chin Med Sci J*. 2011 Jun;26(2):109-12. PMID 21703119.

118. Langer A, Campero L, Garcia C, et al. Effects of psychosocial support during labour and childbirth on breastfeeding, medical interventions, and mothers' wellbeing in a Mexican public hospital: a randomised clinical trial. *Br J Obstet Gynaecol*. 1998 Oct;105(10):1056-63. PMID 9800927.
119. Dongol AS, Shrestha A, Chawla CD. Post partum haemorrhage: prevalence, morbidity and management pattern in Dhulikhel Hospital. *Kathmandu Univ Med J (KUMJ)*. 2010 Apr-Jun;8(30):212-5. PMID 21209538.
120. Osterman MJ, Martin JA. Epidural and spinal anesthesia use during labor: 27-state reporting area, 2008. *Natl Vital Stat Rep*. 2011 Apr 6;59(5):1-13, 6. PMID 21553556.
121. Anim-Somuah M, Smyth R, Howell C. Epidural versus non-epidural or no analgesia in labour. *Cochrane Database Syst Rev*. 2005(4):CD000331. PMID 16235275.
122. Kuhnert M, Seelbach-Goebel B, Butterwegge M. Predictive agreement between the fetal arterial oxygen saturation and fetal scalp pH: results of the German multicenter study. *Am J Obstet Gynecol*. 1998 Feb;178(2):330-5. PMID 9500495.
123. Seelbach-Gobel B, Heupel M, Kuhnert M, et al. The prediction of fetal acidosis by means of intrapartum fetal pulse oximetry. *Am J Obstet Gynecol*. 1999 Jan;180(1 Pt 1):73-81. PMID 9914582.
124. Carbonne B, Langer B, Goffinet F, et al. Multicenter study on the clinical value of fetal pulse oximetry. II. Compared predictive values of pulse oximetry and fetal blood analysis. The French Study Group on Fetal Pulse Oximetry. *Am J Obstet Gynecol*. 1997 Sep;177(3):593-8. PMID 9322629.
125. Kuehnert M, Seelbach-Goebel B, di Renzo GC, et al. Guidelines for the use of fetal pulse oximetry during labor and delivery. *Prenat Neonat Med*. 1998;3(4):432-3.
126. Nijland R, Jongsma HW, Crevels J, et al. The ductus arteriosus, pre- and post-ductal oxygen saturation measurements in fetal lambs. *Eur J Obstet Gynecol Reprod Biol*. 1994 Jun 15;55(2):135-40. PMID 7958151.
127. Nijland R, Jongsma HW, Nijhuis JG, et al. Arterial oxygen saturation in relation to metabolic acidosis in fetal lambs. *Am J Obstet Gynecol*. 1995 Mar;172(3):810-9. PMID 7892869.
128. Dildy GA, Thorp JA, Yeast JD, et al. The relationship between oxygen saturation and pH in umbilical blood: implications for intrapartum fetal oxygen saturation monitoring. *Am J Obstet Gynecol*. 1996 Sep;175(3 Pt 1):682-7. PMID 8828434.
129. International Federation of Gynaecology and Obstetrics. Guidelines for the use of fetal monitoring. Zurich, Switzerland; 1985.
130. Rutherford SE, Phelan JP, Smith CV, et al. The four-quadrant assessment of amniotic fluid volume: an adjunct to antepartum fetal heart rate testing. *Obstet Gynecol*. 1987 Sep;70(3 Pt 1):353-6. PMID 3306497.
131. Kubli FW, Hon EH, Khazin AF, et al. Observations on heart rate and pH in the human fetus during labor. *Am J Obstet Gynecol*. 1969 Aug 15;104(8):1190-206. PMID 5807980.
132. Miyazaki FS, Taylor NA. Saline amnioinfusion for relief of variable or prolonged decelerations. A preliminary report. *Am J Obstet Gynecol*. 1983 Jul 15;146(6):670-8. PMID 6869437.
133. Chakfa AM, Mehta NR, Forgiione AG, et al. The effect of stepwise increases in vertical dimension of occlusion on isometric strength of cervical flexors and deltoid muscles in nonsymptomatic females. *Cranio*. 2002 Oct;20(4):264-73. PMID 12403184.
134. Berglund A, Lefevre-Cholay H, Bacci A, et al. Successful implementation of evidence-based routines in Ukrainian maternities. *Acta Obstet Gynecol Scand*. 2010;89(2):230-7. PMID 20121338.
135. Calvo A, Campillo C, Juan M, et al. Effectiveness of a multifaceted strategy to improve the appropriateness of cesarean sections. *Acta Obstet Gynecol Scand*. 2009;88(7):842-5. PMID 19488884.
136. Smith JE, Fisher DL, Endorf-Olson JJ. Integrating patient satisfaction into performance measurement to meet improvement challenges. *Jt Comm J Qual Improv*. 2000 May;26(5):277-86. PMID 18350772.

137. Kim CY, Ko SK, Kim KY. Are league tables controlling epidemic of caesarean sections in South Korea? *BJOG*. 2005 May;112(5):607-11. PMID 15842285.
138. Gregory KD, Hackmeyer P, Gold L, et al. Using the continuous quality improvement process to safely lower the cesarean section rate. *Jt Comm J Qual Improv*. 1999 Dec;25(12):619-29. PMID 10605652.
139. Main EK. Reducing cesarean birth rates with data-driven quality improvement activities. *Pediatrics*. 1999 Jan;103(1 Suppl E):374-83. PMID 9917479.
140. Kazandjian VA, Lied TR. Cesarean section rates: effects of participation in a performance measurement project. *Jt Comm J Qual Improv*. 1998 Apr;24(4):187-96. PMID 9589331.
141. Myers SA, Gleicher N. The Mount Sinai cesarean section reduction program: an update after 6 years. *Soc Sci Med*. 1993 Nov;37(10):1219-22. PMID 8272900.
142. Socol ML, Garcia PM, Peaceman AM, et al. Reducing cesarean births at a primarily private university hospital. *Am J Obstet Gynecol*. 1993 Jun;168(6 Pt 1):1748-54; discussion 54-8. PMID 8317517.
143. Iglesias S, Burn R, Saunders LD. Reducing the cesarean section rate in a rural community hospital. *CMAJ*. 1991 Dec 1;145(11):1459-64. PMID 1959105.
144. Boylan P, Frankowski R, Rountree R, et al. Effect of active management of labor on the incidence of cesarean section for dystocia in nulliparas. *Am J Perinatol*. 1991 Nov;8(6):373-9. PMID 1814299.
145. Myers SA, Gleicher N. A successful program to lower cesarean-section rates. *N Engl J Med*. 1988 Dec 8;319(23):1511-6. PMID 3185675.
146. Poma PA. Effect of departmental policies on cesarean delivery rates: a community hospital experience. *Obstet Gynecol*. 1998 Jun;91(6):1013-8. PMID 9611015.
147. Porreco RP. Meeting the challenge of the rising cesarean birth rate. *Obstet Gynecol*. 1990 Jan;75(1):133-6. PMID 2296410.
148. Oleske DM, Glandon GL, Tancredi DJ, et al. Information dissemination and the cesarean birth rate. The Illinois experience. *Int J Technol Assess Health Care*. 1992 Fall;8(4):708-18. PMID 1464490.
149. Dillon WP, Choate JW, Nusbaum ML, et al. Obstetric care and cesarean birth rates: a program to monitor quality of care. *Obstet Gynecol*. 1992 Nov;80(5):731-7. PMID 1407907.
150. Bickell NA, Zdeb MS, Applegate MS, et al. Effect of external peer review on cesarean delivery rates: a statewide program. *Obstet Gynecol*. 1996 May;87(5 Pt 1):664-7. PMID 8677064.
151. Gilstrap LC, 3rd, Hauth JC, Toussaint S. Cesarean section: changing incidence and indications. *Obstet Gynecol*. 1984 Feb;63(2):205-8. PMID 6694814.
152. Sanchez-Ramos L, Kaunitz AM, Peterson HB, et al. Reducing cesarean sections at a teaching hospital. *Am J Obstet Gynecol*. 1990 Sep;163(3):1081-7; discussion 7-8. PMID 2403133.
153. Tay SK, Tsakok FH, Ng CS. The use of intradepartmental audit to contain cesarean section rate. *Int J Gynaecol Obstet*. 1992 Oct;39(2):99-103. PMID 1358722.
154. Rust OA, Place JC, Melendez D, et al. Lowering the cesarean rate at a small USAF hospital. *Mil Med*. 1993 Jan;158(1):22-6. PMID 8437736.
155. Pridjian G, Hibbard JU, Moawad AH. Cesarean: changing the trends. *Obstet Gynecol*. 1991 Feb;77(2):195-200. PMID 1988880.
156. Kiwanuka AI, Moore WM. Influence of audit and feedback on use of caesarean section in a geographically-defined population. *Eur J Obstet Gynecol Reprod Biol*. 1993 Jun;50(1):59-64. PMID 8365537.
157. Robson MS, Scudamore IW, Walsh SM. Using the medical audit cycle to reduce cesarean section rates. *Am J Obstet Gynecol*. 1996;174(1):199-205. PMID 8572006.
158. Lagrew DC, Jr., Morgan MA. Decreasing the cesarean section rate in a private hospital: success without mandated clinical changes. *Am J Obstet Gynecol*. 1996 Jan;174(1 Pt 1):184-91. PMID 8572004.

159. Sloan NL, Pinto E, Calle A, et al. Reduction of the cesarean delivery rate in Ecuador. *Int J Gynaecol Obstet.* 2000 Jun;69(3):229-36. PMID 10854864.
160. Studnicki J, Rimmel R, Campbell R, et al. The impact of legislatively imposed practice guidelines on cesarean section rates: the Florida experience. *Am J Med Qual.* 1997 Spring;12(1):62-8. PMID 9116534.
161. Liang WH, Yuan CC, Hung JH, et al. Effect of peer review and trial of labor on lowering cesarean section rates. *J Chin Med Assoc.* 2004 Jun;67(6):281-6. PMID 15366405.
162. Maher CF, Cave DG, Haran MV. Cesarean section rate reduced. *Aust N Z J Obstet Gynaecol.* 1994 Aug;34(4):389-92. PMID 7848224.
163. Jamtvedt G, Young JM, Kristoffersen DT, et al. Does telling people what they have been doing change what they do? A systematic review of the effects of audit and feedback. *Qual Saf Health Care.* 2006 Dec;15(6):433-6. PMID 17142594.
164. Kongnyuy EJ, Uthman OA. Use of criterion-based clinical audit to improve the quality of obstetric care: A systematic review. *Acta Obstet Gynecol Scand.* 2009;88(8):873-81. PMID 19557553.
165. Zhang J, Troendle J, Reddy UM, et al. Contemporary cesarean delivery practice in the United States. *Am J Obstet Gynecol.* 2010 Oct;203(4):326 e1- e10. PMID 20708166.

Acronyms/Abbreviations/Symbols

±	plus or minus
≤	less than or equal to
≥	greater than or equal to
%	percent
AE	adverse events
AHRQ	Agency for Healthcare Research and Quality
AROM	artificial rupture of membranes
BMI	body mass index
BP	blood pressure
bpm	beats per minute
CDC	Center for Disease Control and Prevention
CER	comparative effectiveness review
CI	confidence interval
CINAHL	Cumulative Index to Nursing and Allied Health Literature
cm	centimeter
cm/min	centimeter per minute
CS	cesarean
°C	degree Celsius
CSE	combined spinal epidural
CTG	cardiotocography
ECG	electrocardiogram
EFM	electronic fetal monitoring
EPC	Evidence-based Practice Centers
EPDS	Edinburgh Postnatal Depression Scale
et al.	and others
etc.	et cetera
FBS	Fetal blood sampling
FHR	fetal heart rate
fl	fluid liter
FSPO ₂	Fetal oxygenation
°F	degree Fahrenheit
g	gram(s)
HIE	hypoxic-ischemic encephalopathy
HIV	human immunodeficiency virus
hr(s)	hour(s)
IM	intramuscular
In	inch
IQR	interquartile range
IUPC	Intrauterine pressure catheter
IV	intravenous
kg	kilogram
kPa(s)/min	kilopascal per minute(s)
KQ	Key Question

L, l	liter
MAS	meconium aspiration syndrome
max	maximum
mg	milligram
mg/ml	milligram per milliliter
min	minute(s)
mL, ml	milliliter
mmHg	millimeters of mercury
mU/min	milliunit per minute
n	number
NHS	National Health Services
NICU	neonatal intensive care unit
NOQAS	Newcastle-Ottawa Quality Assessment Scale
NR	not reported
NRFS	nonreassuring fetal status
NS	not significant
OR	odds ratio
O ₂	oxygen
P, p	p value
PCO ₂	partial pressure of carbon dioxide
pH	power of hydrogen
PICOTS	Population(s), Intervention(s), Outcome(s), Timing, and Setting
PO ₂	partial pressure of oxygen
PROM	premature rupture of membrane
pt	patient
RCT	randomized controlled trial
RN	registered nurse(s)
ROB	Cochrane Risk of Bias
RR	relative risk
SD	standard deviation
SE	standard error
SEM	standard error of mean
STAN	ST segment analysis
TEP	technical expert panel
U.K., UK	United Kingdom
U.S., US	United States
VBAC	vaginal birth after cesarean
vs., v	versus
w/	with
wk(s)	week(s)
yr(s)	year(s)
µg/l	micrograms per liter

Appendix A. Exact Search Strings and Results

Table A1. PubMed search strategies

Search terms	Search results
#1 (cesarean section[mh:noexp] OR cesarean[tiab] OR caesarean[tiab] OR c-section[tiab]) AND pregnancy[mh]	38234
#2 randomized controlled trial[pt] OR controlled clinical trial[pt] OR random allocation[mh] OR double-blind method[mh] OR single-blind method[mh] OR clinical trial[pt] OR "clinical trial"[tiab] OR random[tiab] OR randomized[tiab] OR randomly[tiab] OR control[tiab] OR controlled[tiab] OR controls[tiab] OR interrupted time series[tiab] OR ecologic[tiab] OR delivery of health care[majr] OR health services research[majr]	3072065
#3 #1 AND #2 AND eng[la] AND humans[mh]	6966
#4 #3 AND newspaper article[pt]	7
#5 #3 AND letter[pt]	102
#6 #3 AND comment[pt]	92
#7 #3 AND case reports[pt]	340
#8 #3 AND review[pt]	552
#9 #3 AND practice guideline[pt]	11
#10 #3 AND clinical conference[pt]	3
#11 #3 AND editorial[pt]	36
#12 #3 AND historical article[pt]	10
#13 #3 AND meta-analysis[pt]	149
#14 #3 AND congresses[pt]	5
#15 #3 AND in vitro[pt]	50
#16 #3 AND retracted publication[pt]	1
#17 #3 NOT (#4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15 OR #16)	5822

Key: [mh] Medical Subject Heading; [mh:noexp] Medical Subject Heading not including narrower subject terms; [majr] Medical Subject Heading as main focus of article; [tiab] title/abstract word; [pt] publication type

*Note: numbers do not tally as some articles are excluded in more than one category.

Table A2. CINAHL search results

	Search terms	Search results
#1	"cesarean" OR (MH "Cesarean Section") OR "caesarean" OR "c-section"	7755
#2	(MH "Pregnancy") OR "pregnancy"	80117
#3	#1 AND #2	6447
#4	(MH "Clinical Trials") OR "randomized controlled trial" OR (MH "Random Assignment") OR "random allocation" OR "random assignment" OR "clinical trial" OR random OR randomized OR randomly OR controlled OR control OR controls OR "interrupted time series" OR ecologic OR (MH "Health Care Delivery") OR (MH "Health Services Research")	494241
#5	#3 AND #4 AND English Language	1684
#6	#5 AND Publication Type: Letter	77
#7	#5 AND Publication Type: Commentary	145
#8	#5 AND Publication Type: Case study	67
#9	#5 AND Publication Type: Review	81
#10	#5 AND Publication Type: Practice Guidelines	11
#11	#5 AND Publication Type: Editorial	24
#12	#5 AND Publication Type: Historical Material	0
#13	#5 AND Publication Type: Anecdote	5
#14	#5 AND Publication Type: Interview	1
#15	#5 AND Publication Type: Proceedings	2
#16	#6 OR #7 OR #8 OR #9 OR #10 OR #11 OR #12 OR #13 OR #14 OR #15	337
#17	#5 NOT #16	1347
#18	#17 Exclude MEDLINE records	214

KEY: MH major heading

Appendix B. Excluded Studies

Reasons for exclusion:

X-1 = Ineligible study design

X-2 = Not original research

X-3 = Pregnant women not intending a vaginal birth

X-4 = Not relevant to strategies to reduce cesarean birth topic

X-5 = Does not state that intent was to improve/reduce cesarean rates

X-6 = Does not reflect US contemporary practice

X-7 = Not published in English

X-8 = Unable to obtain study

X-9 = Population was all cesarean

1. Symposium on the self-care concept of nursing. *Nurs Clin North Am*. 1980 Mar;15(1):129-217. X-1.
2. *Jefferson v. Griffin Spalding County Hospital Authority*. South East Report Second Ser. 1981 Feb 3;274:457-62. X-1, X-2.
3. NIH consensus development statement on cesarean childbirth. The Cesarean Birth Task Force. *Obstet Gynecol*. 1981 Apr;57(4):537-45. X-1, X-2.
4. Illinois hospital given temporary custody of fetus. *Am Med News*. 1982 Feb 19;25(7):11. X-1.
5. *Mercy Hospital v. Jackson*. Atl Report. 1985 Apr 4;489:1130-4. X-1.
6. *Mercy Hospital v. Jackson*. Atl Report. 1986 Jun 30;510:562-8. X-1.
7. *In re A.C.* Atl Report. 1987 Nov 10;533:611-7. X-1.
8. *Re Baby R*. Dom Law Rep. 1988 Aug 5;53:69-81. X-1.
9. Three opioids compared for postsurgical pain. *Nurses' Drug Alert*. 1989;13(9):71-72. X-3.
10. *In re A.C.* Atl Report. 1990 Apr 26;573:1235-64. X-1.
11. Multicenter survey of diabetic pregnancy in France. Gestation and Diabetes in France Study Group. *Diabetes Care*. 1991 Nov;14(11):994-1000. X-1.
12. Practice parameters: cesarean birth. Minnesota Clinical Comparison and Assessment Project. *QA Rev*. 1991 Jul;3(5):6. X-1.
13. Women's health and rights gain media's and medicine's attention. *Hosp Ethics*. 1991 Jan-Feb;7(1):14-6. X-1.
14. Court orders cesarean section. *Bull Med Ethics*. 1992 Oct;No. 82:3-4. X-1.
15. *Re S (Adult: Refusal of Medical Treatment)*. All Engl Law Rep. 1992 Oct 12;[1992]4:671-2. X-1, X-2.
16. From the Centers for Disease Control and Prevention. Rates of cesarean delivery--United States, 1991. *JAMA*. 1993 May 12;269(18):2360. X-1, X-2.
17. Physician-patient relationships frame ethical issues. *Hosp Ethics*. 1993 Nov-Dec;9(6):13. X-1.
18. A clinical trial of induction of labor versus expectant management in postterm pregnancy. The National Institute of Child Health and Human Development Network of Maternal-Fetal Medicine Units. *Am J Obstet Gynecol*. 1994 Mar;170(3):716-23. X-4e.
19. Comparing routine versus delayed amniotomy in spontaneous first labor at term. A multicenter randomized trial. UK Amniotomy Group. *Online J Curr Clin Trials*. 1994 Apr 1;Doc No 122:[4148 words; 40 paragraphs]. X-5.
20. Costing caesarean sections: a pilot study. *Aust Coll Midwives Inc J*. 1994 Jun;7(2):6-10. X-1.
21. Does anyone know what a caesarean costs? *Aust Coll Midwives Inc J*. 1994 Jun;7(2):10-2. X-1.
22. Forced intervention cases take different lines of argument. *Hosp Ethics*. 1994 Mar-Apr;10(2):9-10. X-1, X-2.
23. *In re Baby Boy Doe*. North East Rep Second Ser. 1994 Apr 5;632:326-35. X-1, X-2.
24. A multicentre randomised trial of amniotomy in spontaneous first labour at term. The UK Amniotomy Group. *Br J Obstet Gynaecol*. 1994 Apr;101(4):307-9. X-4e, X-5.
25. Surgical delivery reduces mother-to-child HIV transmission. *RN*. 1994;57(10):19-19. X-4b.
26. Court-authorized caesareans: new guidance. *Health Care Anal*. 1997 Sep;5(3):240-3. X-1.
27. Enforced caesareans. *Bull Med Ethics*. 1997 Apr(127):21-4. X-1, X-2.
28. Fetal monitors offer protection, may reduce need for surgery. *OB-GYN Malpractice Prevention*. 1997;4(11):81-83. X-2.
29. Institute seeks to close gap between knowledge and delivery in reducing C-section rates. *Healthc Demand Dis Manag*. 1997 Jan;3(1):12-5. X-2.
30. Low Birthweight PORT publishes recent findings. *AHRQ Research Activities*. 1997(202):6-7. X-2.
31. NY study confirms HMO and FFS Medicaid moms have more complicated, costly births. *Public Sect Contract Rep*. 1997 Mar;3(3):45-7. X-1.
32. One-fourth of c-sections examined in New York State may be due to defensive medicine. *AHRQ Research Activities*. 1997(204):11-11. X-2.
33. Priority area 14: maternal and infant health. *Healthy people 2000 review 1997*. 1997:128-135. X-2.
34. Caesareans reduce HIV risk. *Health Service Journal*. 1998;108(5619):3-3. X-4b.
35. High Court endorses women's right to refuse treatment. *Pract Midwife*. 1998 Jun;1(6):7. X-1, X-2, X-3, X-4e, X-5.
36. Nifedipine versus expectant management in mild to moderate hypertension in pregnancy. Gruppo di Studio Ipertensione in Gravidanza. *Br J Obstet Gynaecol*. 1998 Jul;105(7):718-22. X-4e.
37. Outreach program slashes Florida health network's rate of cesarean sections. *Health Care Cost Reengineering Rep*. 1998 Sep;3(9):137-8. X-1.
38. Therapeutic and other interventions to reduce the risk of mother-to-child transmission of HIV-1 in Europe. The European Collaborative Study. *Br J Obstet Gynaecol*. 1998 Jul;105(7):704-9. X-1.
39. Caesarean section does not guarantee satisfaction. *Aust Nurs J*. 1999 Oct;7(4):31. X-1.

40. CM models cut cesarean rates and preterm births: two hospitals monitor high-risk moms-to-be. *Hospital Case Management*. 1999;7(11):190. X-1, X-2, X-3, X-5.
41. Elective caesarean-section versus vaginal delivery in prevention of vertical HIV-1 transmission: a randomised clinical trial. *Lancet*. 1999 Mar 27;353(9158):1035-9. X-3, X-4e.
42. Mother-to-child transmission of human immunodeficiency virus in Italy: temporal trends and determinants of infection. The Italian Collaborative Study on HIV infection in pregnancy. *Hum Reprod*. 1999 Jan;14(1):242-6. X-1.
43. Pemberton v. Tallahassee Memorial Regional Center. *West's Fed Suppl*. 1999;66:1247-57. X-1, X-2, X-3, X-4e, X-5.
44. AHRQ says many cesarean sections performed too early in labor. *Rep Med Guidel Outcomes Res*. 2000 Apr 13;11(8):8. X-1, X-2, X-3, X-4e, X-5.
45. Data benchmarks. Experts urge open discussion about cesarean section rates. *Clin Resour Manag*. 2000 Sep;1(9):141-3, 129. X-1, X-2, X-3, X-4, X-5.
46. The 'Term Breech Trial': a multicentre study finds Caesarean section best. *International Midwifery*. 2000;13(6):10-10. X-4c.
47. ACOG committee opinion: number 265, December 2001. Mode of term single breech delivery. *Obstet Gynecol*. 2001 Dec;98(6):1189-90. X-1, X-2.
48. Effects of mode of delivery and infant feeding on the risk of mother-to-child transmission of hepatitis C virus. European Paediatric Hepatitis C Virus Network. *BJOG*. 2001 Apr;108(4):371-7. X-1.
49. HIV-infected pregnant women and vertical transmission in Europe since 1986. European collaborative study. *AIDS*. 2001 Apr 13;15(6):761-70. X-1.
50. NCHS dataline. *Public Health Reports*. 2001;116(4):379-381. X-1.
51. ACOG committee opinion. Mode of term singleton breech delivery. Number 265, December 2001. American College of Obstetricians and Gynecologists. *Int J Gynaecol Obstet*. 2002 Apr;77(1):65-6. X-1, X-2.
52. Determinants of mother-to-infant human immunodeficiency virus 1 transmission before and after the introduction of zidovudine prophylaxis. *Arch Pediatr Adolesc Med*. 2002 Sep;156(9):915-21. X-1.
53. The Hyperglycemia and Adverse Pregnancy Outcome (HAPO) Study. *Int J Gynaecol Obstet*. 2002 Jul;78(1):69-77. X-1.
54. Program note. Using UN process indicators to assess needs in emergency obstetric services: Bhutan, Cameroon and Rajasthan, India. *Int J Gynaecol Obstet*. 2002 Jun;77(3):277-84. X-1, X-2.
55. Report says c-section rate increasing. *Nursing Spectrum -- Philadelphia Tri -- State Edition*. 2002;11(24):28-28. X-1.
56. Report says c-section rate increasing. *Nursing Spectrum -- Washington DC & Baltimore Edition*. 2002;12(24):29-29. X-1.
57. On-call physician responsibility examined by Indiana court. *Miller v. Martig*. *Hosp Law Newsl*. 2003 Jan;20(3):3-6. X-1, X-2, X-3, X-4e, X-5.
58. Program note. Using UN process indicators to assess needs in emergency obstetric services: Niger, Rwanda and Tanzania. *Int J Gynaecol Obstet*. 2003 Oct;83(1):112-20. X-1, X-2.
59. Program note: using UN process indicators to assess needs in emergency obstetric services: Morocco, Nicaragua and Sri Lanka. *Int J Gynaecol Obstet*. 2003 Feb;80(2):222-30. X-1.
60. A randomised trial of timed delivery for the compromised preterm fetus: short term outcomes and Bayesian interpretation. *BJOG*. 2003 Jan;110(1):27-32. X-4e, X-5.
61. U.S. birth rate reaches record low. *Medical Letter on the CDC*. 2003:13-14. X-1.
62. Female OB/GYNs speak out about health practices. *AWHONN Lifelines*. 2004 Feb-Mar;8(1):14-8. X-1, X-2.
63. NICE guidelines aim to stem cesarean rate. *RCM Midwives*. 2004 Jun;7(6):234. X-1, X-2, X-3, X-4, X-5.
64. NICE orders curbs on caesareans. *Pract Midwife*. 2004 Jun;7(6):8. X-1, X-2, X-3.
65. A significant sex--but not elective cesarean section--effect on mother-to-child transmission of hepatitis C virus infection. *J Infect Dis*. 2005 Dec 1;192(11):1872-9. X-1.
66. Task force: screen all pregnant women for HIV. *Contraceptive Technology Update*. 2005:3-4. X-1, X-2.
67. Term breech delivery in Sweden: mortality relative to fetal presentation and planned mode of delivery. *Acta Obstet Gynecol Scand*. 2005 Jun;84(6):593-601. X-1.
68. Abstracts. *Obstetrics & Gynecology*. 2006;108(5):1293-1296. X-1.
69. Carol Sakala's letter from North America: an uncontrolled experiment: elective delivery predominates in the United States. *Birth*. 2006 Dec;33(4):332-5. X-1, X-2.
70. Epidural versus non-epidural or no analgesia in labour. *Birth: Issues in Perinatal Care*. 2006;33(1):79-79. X-1.
71. From the Centers for Disease Control and Prevention. Rates of cesarean delivery among Puerto Rican women -- Puerto Rico and the U.S. mainland, 1992-2002. *JAMA: Journal of the American Medical Association*. 2006;295(12):1369-1371. X-1.

72. Living: nutrition know-how. In brief: when is it A-OK to choose a C-section? *Health (Time Inc.)*. 2006;20(8):70-70. X-1.
73. Maternity Coalition campaigns against Birth after Caesarean Trial. *Australian Midwifery News*. 2006;6(3):15-16. X-1.
74. The mother-to-child HIV transmission epidemic in Europe: evolving in the East and established in the West. *AIDS*. 2006 Jun 26;20(10):1419-27. X-1.
75. News. *Neonatal Intensive Care*. 2006;19(7):8-12. X-1.
76. News. *Birth: Issues in Perinatal Care*. 2006;33(1):80-82. X-1.
77. Abstracts. *Obstetrics & Gynecology*. 2007;109(2 Part 1):446-449. X-1.
78. The CORONIS Trial. International study of caesarean section surgical techniques: a randomised fractional, factorial trial. *BMC Pregnancy Childbirth*. 2007;7:24. X-1.
79. Midwifery and childbirth news. *Midwifery Today*. 2007(81):60-61. X-1.
80. Midwifery and childbirth news. *Midwifery Today*. 2007(82):62-64. X-1.
81. Outcome better with planned cesarean hysterectomy, vs. emergent surgery. *Contemporary OB/GYN*. 2007;52(10):16-16. X-4b.
82. 2008 SNRS abstracts -- M. *Southern Online Journal of Nursing Research*. 2008;8(4):9-9. X-1.
83. ACORN 13th National Conference: Between the Flags, 21-24 May 2008, Gold Coast, QLD: abstracts. *ACORN: the Journal of Perioperative Nursing in Australia*. 2008;21(2):35. X-1.
84. Midwifery and childbirth news. *Midwifery Today*. 2008(88):62-63. X-1.
85. News. *Technic: The Journal of Operating Department Practice*. 2008;5(2):6-7. X-1.
86. Chapter 14: caring for the woman experiencing complications during labor and birth. *Maternal-child nursing care: optimizing outcomes for mothers, children, and families*. 2009:427-466. X-1, X-2.
87. Hot papers in the literature. *Journal of Women's Health (15409996)*. 2009;18(1):133-137. X-1.
88. Hot papers in the literature. *Journal of Women's Health (15409996)*. 2009;18(2):275-281. X-1.
89. Hot papers in the literature. *Journal of Women's Health (15409996)*. 2009;18(4):595-599. X-1.
90. Human resources for health in the low-resource world: collaborative practice and task shifting in maternal and neonatal care. *Int J Gynaecol Obstet*. 2009 Apr;105(1):74-6. X-1, X-2.
91. Midwifery and childbirth news. *Midwifery Today*. 2009(92):62-62. X-1.
92. News. *Neonatal Intensive Care*. 2009;22(7):15-20. X-1.
93. Noteworthy professional news. *Advances in Neonatal Care (Elsevier Science)*. 2009;9(2):50-52. X-1.
94. Antibiotic prophylaxis versus no prophylaxis for preventing infection after cesarean section... ©Cochrane Library, reproduced with permission. *Journal of Perioperative Practice*. 2010;20(5):159-159.
95. Antibiotic prophylaxis versus no prophylaxis for preventing infection after cesarean section... COCochrane Library, reproduced with permission. *Journal of Perioperative Practice*. 2010;20(5):159-159. X-1, X-2, X-9.
96. Caesarean section surgical techniques: a randomised factorial trial (CAESAR). *BJOG*. 2010 Oct;117(11):1366-76. X-9.
97. Clinical digest. Antibiotic prophylaxis reduces infection in caesarean sections. *Nursing Standard*. 2010;25(13):[16]. X-1, X-9.
98. HIV protection during pregnancy is examined. *Contraceptive Technology Update*. 2010;31(8):92-93. X-1, X-2, X-3, X-4e, X-5.
99. Hyperglycaemia and Adverse Pregnancy Outcome (HAPO) Study: associations with maternal body mass index. *BJOG*. 2010 Apr;117(5):575-84. X-1.
100. Interventions at caesarean section for reducing the risk of aspiration pneumonitis... © Cochrane Library, reproduced with permission. *Journal of Perioperative Practice*. 2010;20(4):128-128. X-4b.
101. Interventions at caesarean section for reducing the risk of aspiration pneumonitis... CO Cochrane Library, reproduced with permission. *Journal of Perioperative Practice*. 2010;20(4):128-128. X-1, X-2, X-9.
102. News. *Neonatal Intensive Care*. 2010 2010 Jan-Feb;23(1):7. X-1.
103. News. *Neonatal Intensive Care*. 2010;23(3):14. X-1.
104. Aali BS and Motamedi B. Women's knowledge and attitude towards modes of delivery in Kerman, Islamic Republic of Iran. *East Mediterr Health J*. 2005 Jul;11(4):663-72. X-1, X-2.
105. Aarimaa T, Ekblad U, Erkkola R, et al. Effect of antepartum ritodrine on the cardiorespiratory status of the newborn after elective cesarean section. *Gynecol Obstet Invest*. 1987;23(3):160-6. X-1.
106. Aaronson D, Harlev A, Sheiner E, et al. Trial of labor after cesarean section in twin pregnancies: maternal and neonatal safety. *J Matern Fetal Neonatal Med*. 2010 Jun;23(6):550-4. X-1.
107. Abad-Sarmiento LR and Oliveros-Vistro T. Must anatomy spell destiny for us women? *Philipp J Nurs*. 1987 Apr-Jun;57(2):44-7. X-1.
108. Abbasi S, Gerdes JS, Sehdev HM, et al. Neonatal outcome after exposure to

- indomethacin in utero: a retrospective case cohort study. *Am J Obstet Gynecol.* 2003 Sep;189(3):782-5. X-1.
109. Abbasi S, Hirsch D, Davis J, et al. Effect of single versus multiple courses of antenatal corticosteroids on maternal and neonatal outcome. *Am J Obstet Gynecol.* 2000 May;182(5):1243-9. X-1.
110. Abboud TK, Afrasiabi A, Davidson J, et al. Prophylactic oral naltrexone with epidural morphine: effect on adverse reactions and ventilatory responses to carbon dioxide. *Anesthesiology.* 1990 Feb;72(2):233-7. X-1.
111. Abboud TK, Curtis J, Earl S, et al. Efficacy of clear antacid prophylaxis in obstetrics. *Acta Anaesthesiol Scand.* 1984 Jun;28(3):301-4. X-9.
112. Abboud TK, D'Onofrio L, Reyes A, et al. Isoflurane or halothane for cesarean section: comparative maternal and neonatal effects. *Acta Anaesthesiol Scand.* 1989 Oct;33(7):578-81. X-9.
113. Abboud TK, Dror A, Mosaad P, et al. Mini-dose intrathecal morphine for the relief of post-cesarean section pain: safety, efficacy, and ventilatory responses to carbon dioxide. *Anesth Analg.* 1988 Feb;67(2):137-43. X-9.
114. Abboud TK, Kim KC, Noueihed R, et al. Epidural bupivacaine, chloroprocaine, or lidocaine for cesarean section--maternal and neonatal effects. *Anesth Analg.* 1983 Oct;62(10):914-9. X-9.
115. Abboud TK, Kim SH, Henriksen EH, et al. Comparative maternal and neonatal effects of halothane and enflurane for cesarean section. *Acta Anaesthesiol Scand.* 1985 Oct;29(7):663-8. X-9.
116. Abboud TK, Lee K, Zhu J, et al. Prophylactic oral naltrexone with intrathecal morphine for cesarean section: effects on adverse reactions and analgesia. *Anesth Analg.* 1990 Oct;71(4):367-70. X-9.
117. Abboud TK, Moore M, Zhu J, et al. Epidural butorphanol or morphine for the relief of post-cesarean section pain: ventilatory responses to carbon dioxide. *Anesth Analg.* 1987 Sep;66(9):887-93. X-9.
118. Abboud TK, Sarkis F, Hung TT, et al. Effects of epidural anesthesia during labor on maternal plasma beta-endorphin levels. *Anesthesiology.* 1983 Jul;59(1):1-5. X-1.
119. Abboud TK, Zhu J, Gangolly J, et al. Transnasal butorphanol: a new method for pain relief in post-cesarean section pain. *Acta Anaesthesiol Scand.* 1991 Jan;35(1):14-8. X-9.
120. Abboud TK, Zhu J, Reyes A, et al. Effect of subarachnoid morphine on the incidence of spinal headache. *Reg Anesth.* 1992 Jan-Feb;17(1):34-6. X-9.
121. Abboud TK, Zhu J, Richardson M, et al. Desflurane: a new volatile anesthetic for cesarean section. Maternal and neonatal effects. *Acta Anaesthesiol Scand.* 1995 Aug;39(6):723-6. X-9.
122. Abboud TK, Zhu J, Richardson M, et al. Intravenous propofol vs thiamylal-isoflurane for caesarean section, comparative maternal and neonatal effects. *Acta Anaesthesiol Scand.* 1995 Feb;39(2):205-9. X-9.
123. Abd Rabbo S. Early oral hydration: a novel regimen for management after elective cesarean section. *J Obstet Gynaecol (Tokyo 1995).* 1995 Dec;21(6):563-7. X-9.
124. Abdelgadir M, Elbagir M, Eltom A, et al. Factors affecting perinatal morbidity and mortality in pregnancies complicated by diabetes mellitus in Sudan. *Diabetes Res Clin Pract.* 2003 Apr;60(1):41-7. X-1.
125. Abdel-Latif ME, Bajuk B, Oei J, et al. Does rural or urban residence make a difference to neonatal outcome in premature birth? A regional study in Australia. *Arch Dis Child Fetal Neonatal Ed.* 2006 Jul;91(4):F251-6. X-1.
126. Abd-El-Maeboud KH, Ibrahim MI, Shalaby DA, et al. Gum chewing stimulates early return of bowel motility after caesarean section. *BJOG.* 2009 Sep;116(10):1334-9. X-9.
127. Abdel-Razeq SS, Campbell K, Funai EF, et al. Normative postpartum intraabdominal pressure: potential implications in the diagnosis of abdominal compartment syndrome. *Am J Obstet Gynecol.* 2010 Aug;203(2):149 e1-4. X-1.
128. Abdulatif M and Taylouni E. Surgeon-controlled mivacurium administration during elective caesarean section. *Can J Anaesth.* 1995 Feb;42(2):96-102. X-1.
129. Abenhaim HA, Benjamin A, Koby RD, et al. Comparison of obstetric outcomes between on-call and patients' own obstetricians. *CMAJ.* 2007 Aug 14;177(4):352-6. X-1.
130. Abenhaim HA and Fraser WD. Impact of pain level on second-stage delivery outcomes among women with epidural analgesia: results from the PEOPLE study. *Am J Obstet Gynecol.* 2008 Nov;199(5):500 e1-6. X-1, X-4e, X-5.
131. Abenhaim HA, Morin L, Benjamin A, et al. Effect of instrument preference for operative deliveries on obstetrical and neonatal outcomes. *Eur J Obstet Gynecol Reprod Biol.* 2007 Oct;134(2):164-8. X-1.
132. Abiodun MO, Ijaiya MA and Aboyeji PA. Awareness and knowledge of mother-to-child transmission of HIV among pregnant women. *J Natl Med Assoc.* 2007 Jul;99(7):758-63. X-1.
133. Abiodun MO, Ijaiya MA, Aboyeji PA, et al. Acceptability of measures aimed at preventing mother-to-child transmission of HIV among pregnant women. *J Natl Med Assoc.* 2008 Apr;100(4):406-10. X-1.

134. Abitbol MM, Castillo I, Taylor UB, et al. Vaginal birth after cesarean section: the patient's point of view. *Am Fam Physician*. 1993 Jan;47(1):129-34. X-1.
135. Abouleish A, Abouleish E and Camann W. Combined spinal-epidural analgesia in advanced labour. *Can J Anaesth*. 1994 Jul;41(7):575-8. X-1.
136. Abouleish E, Abboud T, Lechevalier T, et al. Rocuronium (Org 9426) for caesarean section. *Br J Anaesth*. 1994 Sep;73(3):336-41. X-1.
137. Abouleish E, Rawal N, Fallon K, et al. Combined intrathecal morphine and bupivacaine for cesarean section. *Anesth Analg*. 1988 Apr;67(4):370-4. X-9.
138. Abouleish E, Wingard LB, Jr., de la Vega S, et al. Pancuronium in caesarean section and its placental transfer. *Br J Anaesth*. 1980 May;52(5):531-6. X-1.
139. Abouleish EI. Epinephrine improves the quality of spinal hyperbaric bupivacaine for cesarean section. *Anesth Analg*. 1987 May;66(5):395-400. X-9.
140. Abouleish EI. Epidural and intrathecal opioids in obstetrics: state of the art. *Current Reviews for Nurse Anesthetists*. 1992;14(26):210-216. X-1.
141. Abouleish EI, Abboud TK, Bikhazi G, et al. Rapacuronium for modified rapid sequence induction in elective caesarean section: neuromuscular blocking effects and safety compared with succinylcholine, and placental transfer. *Br J Anaesth*. 1999 Dec;83(6):862-7. X-9.
142. Abouleish EI, Rashid S, Haque S, et al. Ondansetron versus placebo for the control of nausea and vomiting during Caesarean section under spinal anaesthesia. *Anaesthesia*. 1999 May;54(5):479-82. X-9.
143. Abouzeid H, Aggarwal D and De Graaf F. Timing of planned repeated caesarean section: an enigma. *J Obstet Gynaecol*. 2007 Nov;27(8):798-801. X-1.
144. Abouzeid H and Thornton JG. Pre-term delivery by Caesarean section 'en caul': a case series. *Eur J Obstet Gynecol Reprod Biol*. 1999 May;84(1):51-3. X-1.
145. Abramov Y, Elchalal U and Schenker JG. Obstetric outcome of in vitro fertilized pregnancies complicated by severe ovarian hyperstimulation syndrome: a multicenter study. *Fertil Steril*. 1998 Dec;70(6):1070-6. X-1.
146. Abramov Y, Ezra Y, Elchalal U, et al. Markedly elevated levels of inflammatory cytokines in maternal serum and peritoneal washing during arrested labor. *Acta Obstet Gynecol Scand*. 2004 Apr;83(4):358-63. X-1.
147. Abramov Y, Sand PK, Botros SM, et al. Risk factors for female anal incontinence: new insight through the Evanston-Northwestern twin sisters study. *Obstet Gynecol*. 2005 Oct;106(4):726-32. X-1.
148. Abramovici D, Goldwasser S, Mabie BC, et al. A randomized comparison of oral misoprostol versus Foley catheter and oxytocin for induction of labor at term. *Am J Obstet Gynecol*. 1999 Nov;181(5 Pt 1):1108-12. X-4d.
149. Abramovici H, Bornstein J, Ben-David Y, et al. Double-balloon instillation device for second-trimester abortion. Outcome in 340 consecutive cases. *J Reprod Med*. 1995 Jan;40(1):56-62. X-1.
150. Abramson D. More than just a scar. *Midwifery Today Int Midwife*. 2003 Spring(65):27-9. X-1, X-2, X-3, X-4e, X-5.
151. Abu Hamad K, Abed Y and Abu Hamad B. Risk factors associated with preterm birth in the Gaza Strip: hospital-based case-control study. *East Mediterr Health J*. 2007 Sep-Oct;13(5):1132-41. X-1.
152. Abu-Ghazzeah YM and Barqawi R. An appraisal of computed tomography pelvimetry in patients with previous caesarean section. *East Mediterr Health J*. 2000 Mar-May;6(2-3):260-4. X-1, X-4e, X-5.
153. Abu-Halaweh SA, Massad IM, Abu-Ali HM, et al. Rapid sequence induction and intubation with 1 mg/kg rocuronium bromide in caesarean section, comparison with suxamethonium. *Saudi Med J*. 2007 Sep;28(9):1393-6. X-1.
154. Abu-Heija A, al-Chalabi H and el-Iloubani N. Abruptio placentae: risk factors and perinatal outcome. *J Obstet Gynaecol Res*. 1998 Apr;24(2):141-4. X-1.
155. Abu-Heija A, Ali AM and Al-Dakheil S. Obstetrics and perinatal outcome of adolescent nulliparous pregnant women. *Gynecol Obstet Invest*. 2002;53(2):90-2. X-1.
156. Abu-Heija AT. Vaginal birth after one previous caesarean section: a Jordanian experience. *J Obstet Gynaecol (Tokyo 1995)*. 1995 Feb;21(1):9-12. X-1.
157. Abu-Heija AT and Ali AM. Induction of labor in grand multiparous women and previous caesarean section: is it safe? *Gynecol Obstet Invest*. 2002;53(2):121-4. X-1.
158. Abu-Heija AT, Jallad MF and Abukteish F. Maternal and perinatal outcome of pregnancies after the age of 45. *J Obstet Gynaecol Res*. 2000 Feb;26(1):27-30. X-1.
159. Abushama M and Ahmed B. Cesarean section on request. *Saudi Med J*. 2004 Dec;25(12):1820-3. X-1, X-2.
160. Achadi E, Scott S, Pambudi ES, et al. Midwifery provision and uptake of maternity care in Indonesia. *Trop Med Int Health*. 2007 Dec;12(12):1490-7. X-1.

161. Acharya G, Al-Sammarai MT, Patel N, et al. A randomized, controlled trial comparing effect of oral misoprostol and intravenous syntocinon on intra-operative blood loss during cesarean section. *Acta Obstet Gynecol Scand.* 2001 Mar;80(3):245-50. X-9.
162. Ackerman WE, Juneja MM, Kaczorowski DM, et al. A comparison of the incidence of pruritus following epidural opioid administration in the parturient. *Can J Anaesth.* 1989 Jul;36(4):388-91. X-9.
163. Ackermann-Liebrich U, Voegeli T, Gunter-Witt K, et al. Home versus hospital deliveries: follow up study of matched pairs for procedures and outcome. Zurich Study Team. *BMJ.* 1996 Nov 23;313(7068):1313-8. X-1.
164. Adair CD, Sanchez-Ramos L, Whitaker D, et al. Trial of labor in patients with a previous lower uterine vertical cesarean section. *Am J Obstet Gynecol.* 1996 Mar;174(3):966-70. X-1.
165. Adair CD, Weeks JW, Barrilleaux S, et al. Oral or vaginal misoprostol administration for induction of labor: a randomized, double-blind trial. *Obstet Gynecol.* 1998 Nov;92(5):810-3. X-4d.
166. Adam I, Adam ES and Gerai AS. Randomized trial of ceftriaxone prophylaxis in elective cesarean section. *Saudi Med J.* 2005 Mar;26(3):500-1. X-3, X-4b, X-5.
167. Adam I, Hassan OA and Elhassan EM. Oral misoprostol vs. vaginal misoprostol for cervical ripening and labor induction. *Int J Gynaecol Obstet.* 2005 May;89(2):142-3. X-4d.
168. Adami J, Glimelius B, Cnattingius S, et al. Maternal and perinatal factors associated with non-Hodgkin's lymphoma among children. *Int J Cancer.* 1996 Mar 15;65(6):774-7. X-1.
169. Adams DJ. Adequacy of labor epidural information for informed consent. 2007;Ph.D.:122 p. X-1.
170. Adams EK, Nishimura B, Merritt RK, et al. Costs of poor birth outcomes among privately insured. *J Health Care Finance.* 2003 Spring;29(3):11-27. X-1.
171. Adeleye JA and Ogunseyinde AO. Hystero-graphy after lower-uterine-segment cesarean section. *Afr J Med Med Sci.* 1984 Sep-Dec;13(3-4):155-60. X-1.
172. Adeniji OA, Oladokun A, Olayemi O, et al. Pre-induction cervical ripening: transcervical foley catheter versus intravaginal misoprostol. *J Obstet Gynaecol.* 2005 Feb;25(2):134-9. X-4d.
173. Adesina OA and Olayemi O. Fetal macrosomia at the University College Hospital, Ibadan: a 3-year review. *J Obstet Gynaecol.* 2003 Jan;23(1):30-3. X-1.
174. Adewuya AO, Ologun YA and Ibigbami OS. Post-traumatic stress disorder after childbirth in Nigerian women: prevalence and risk factors. *BJOG.* 2006 Mar;113(3):284-8. X-1.
175. Adibi JJ, Hauser R, Williams PL, et al. Maternal urinary metabolites of Di-(2-Ethylhexyl) phthalate in relation to the timing of labor in a US multicenter pregnancy cohort study. *Am J Epidemiol.* 2009 Apr 15;169(8):1015-24. X-1.
176. Adigun TA, Amanor-Boadu SD and Soyannwo OA. Comparison of intravenous ephedrine with phenylephrine for the maintenance of arterial blood pressure during elective caesarean section under spinal anaesthesia. *Afr J Med Med Sci.* 2010 Mar;39(1):13-20. X-3, X-4b, X-5.
177. Adinma JI and Agbai AO. Influence of mode of delivery on twin births. *Afr J Med Med Sci.* 1996 Dec;25(4):377-9. X-1.
178. Adiyatulin AI and Gulyaeva NV. Effect of natural biocorrector Namivit on free-radical processes in abdominal delivery. *Bull Exp Biol Med.* 2002 Nov;134(5):457-9. X-1, X-3, X-4b, X-4e, X-5.
179. Adler G, Duchinski T, Jasinska A, et al. Fibrinogen fractions in the third trimester of pregnancy and in puerperium. *Thromb Res.* 2000 Mar 15;97(6):405-10. X-1.
180. Adler-Levy Y, Lunenfeld E and Levy A. Obstetric outcome of twin pregnancies conceived by in vitro fertilization and ovulation induction compared with those conceived spontaneously. *Eur J Obstet Gynecol Reprod Biol.* 2007 Aug;133(2):173-8. X-1.
181. Adsumelli RS, Steinberg ES, Schabel JE, et al. Sequential compression device with thigh-high sleeves supports mean arterial pressure during Caesarean section under spinal anaesthesia. *Br J Anaesth.* 2003 Nov;91(5):695-8. X-9.
182. Agardh CD, Aberg A and Norden NE. Glucose levels and insulin secretion during a 75 g glucose challenge test in normal pregnancy. *J Intern Med.* 1996 Nov;240(5):303-9. X-1.
183. Agarwal N, Gupta A, Kriplani A, et al. Six hourly vaginal misoprostol versus intracervical dinoprostone for cervical ripening and labor induction. *J Obstet Gynaecol Res.* 2003 Jun;29(3):147-51. X-4d.
184. Agarwal R, Loganath A, Roy AC, et al. Effect of T-helper 1 cytokines on secretion of T-helper 2 cytokines by term trophoblast cells in culture. *Gynecol Endocrinol.* 2000 Oct;14(5):305-10. X-1.
185. Agostini A, De Guibert F, Salari K, et al. Adverse obstetric outcomes at term after hysteroscopic metroplasty. *J Minim Invasive Gynecol.* 2009 Jul-Aug;16(4):454-7. X-1.
186. Agrawal RK, Lui K and Gupta JM. Neonatal hypoglycaemia in infants of diabetic mothers. *J Paediatr Child Health.* 2000 Aug;36(4):354-6. X-1.

187. Ahmad I and Afshan G. Knowledge and attitudes of Pakistani women towards anaesthesia techniques for caesarean section. *J Pak Med Assoc.* 2011 Apr;61(4):359-62. X-1.
188. Ahmad-Nia S, Delavar B, Eini-Zinab H, et al. Caesarean section in the Islamic Republic of Iran: prevalence and some sociodemographic correlates. *East Mediterr Health J.* 2009 Nov-Dec;15(6):1389-98. X-1.
189. Ahmed B, Abu Nahia F and Abushama M. Routine cervical dilatation during elective cesarean section and its influence on maternal morbidity: a randomized controlled study. *J Perinat Med.* 2005;33(6):510-3. X-1.
190. Ahmed ET, Mirghani OA, Gerai AS, et al. Ceftriaxone versus ampicillin/cloxacillin as antibiotic prophylaxis in elective caesarean section. *East Mediterr Health J.* 2004 May;10(3):277-88. X-3, X-4b, X-4e, X-5.
191. Ahmed R. Magnesium sulphate as an anticonvulsant in the management of eclampsia. *J Coll Physicians Surg Pak.* 2004 Oct;14(10):605-7. X-1.
192. Ahmed SM, Khan RM, Bano S, et al. Is spinal anaesthesia safe in pre-eclamptic toxemia patients? *J Indian Med Assoc.* 1999 May;97(5):165-8. X-1.
193. Ahn HJ, Choi DH and Kim CS. Paraesthesia during the needle-through-needle and the double segment technique for combined spinal epidural anaesthesia. *Anaesthesia.* 2006 Jul;61(7):634-8. X-9.
194. Ahsan S, Kitchen N, Jenkins C, et al. Incidence of postdural puncture headache following spinal anaesthesia for lower segment caesarean section with the 25 gauge polymedic spinal needle. *J Pak Med Assoc.* 1996 Dec;46(12):278-81. X-1, X-3, X-4b, X-4e, X-5.
195. Ahsinger J. Making a difference in labor and delivery. *Fla Nurse.* 2002 Sep;50(3):23. X-1, X-2, X-3, X-4e, X-5.
196. Airas U and Heinonen S. Clinical significance of true umbilical knots: a population-based analysis. *Am J Perinatol.* 2002 Apr;19(3):127-32. X-1.
197. Aird IA, Luckas MJ, Buckett WM, et al. Effects of intrapartum hydrotherapy on labour related parameters. *Aust N Z J Obstet Gynaecol.* 1997 May;37(2):137-42. X-1.
198. Airey RJ, Farrar D and Duley L. Alternative positions for the baby at birth before clamping the umbilical cord. *Cochrane Database of Systematic Reviews.* 2010(10). X-1, X-2.
199. Aisien AO, Towobola OA, Otubu JA, et al. Umbilical cord venous progesterone at term delivery in relation to mode of delivery. *Int J Gynaecol Obstet.* 1994 Oct;47(1):27-31. X-1.
200. Aitken MA, Rice G and Brennecke S. Relative abundance of human placental phospholipase A2 messenger RNA in late pregnancy. *Prostaglandins.* 1992 Apr;43(4):361-70. X-1.
201. Aitken ME, Warden CR and Critchlow CW. The effect of health maintenance organization vs commercial insurance status on obstetrical management and outcome. *Arch Pediatr Adolesc Med.* 1997 Nov;151(11):1104-8. X-1.
202. Akasheh HF and Amarin V. Caesarean sections at Queen Alia Military Hospital, Jordan: a six-year review. *East Mediterr Health J.* 2000 Jan;6(1):41-5. X-1.
203. Akerlund M, Bossmar T, Brouard R, et al. Receptor binding of oxytocin and vasopressin antagonists and inhibitory effects on isolated myometrium from preterm and term pregnant women. *Br J Obstet Gynaecol.* 1999 Oct;106(10):1047-53. X-1.
204. Akerman N, Saxena S, Wilson R, et al. Effect of intrathecal diamorphine on block height during spinal anaesthesia for Caesarean section with bupivacaine. *Br J Anaesth.* 2005 Jun;94(6):843-7. X-9.
205. Akerud A, Dubicke A, Sennstrom M, et al. Differences in heparan sulfate production in cervical fibroblast cultures from women undergoing term and preterm delivery. *Acta Obstet Gynecol Scand.* 2008;87(11):1220-8. X-1.
206. Akhtaruzzaman AK, Banik D, Akhtar MF, et al. Prolonged analgesia by adding midazolam and hyperbaric bupivacaine in subarachnoid block for lower uterine caesarian section. *Mymensingh Med J.* 2010 Oct;19(4):569-75. X-9.
207. Akin Y, Comert S, Turan C, et al. Macrosomic newborns: a 3-year review. *Turk J Pediatr.* 2010 Jul-Aug;52(4):378-83. X-1.
208. Akinola SE, Manne NC, Archibong EI, et al. Teenagers obstetric performance. *Saudi Med J.* 2001 Jul;22(7):580-4. X-1.
209. Akoury HA, Brodie G, Caddick R, et al. Active management of labor and operative delivery in nulliparous women. *Am J Obstet Gynecol.* 1988 Feb;158(2):255-8. X-1.
210. Akpala CO. An evaluation of the knowledge and practices of trained traditional birth attendants in Bodinga, Sokoto State, Nigeria. *J Trop Med Hyg.* 1994 Feb;97(1):46-50. X-1.
211. Akre O, Ekobom A, Hsieh CC, et al. Testicular nonseminoma and seminoma in relation to perinatal characteristics. *J Natl Cancer Inst.* 1996 Jul 3;88(13):883-9. X-1.
212. Akturk G, Kiral N, Barlak A, et al. The choice of anaesthetic technique for caesarean section does not affect plasma beta-endorphin levels in the neonate. *Eur J Anaesthesiol.* 1995 Sep;12(5):525-7. X-1.
213. Akwuruoha E, Kamanu C, Onwere S, et al. Grandmultiparity and pregnancy outcome in Aba, Nigeria: a case-control study. *Arch Gynecol Obstet.* 2011 Feb;283(2):167-72. X-1.

214. Akyol D, Mungan T, Unsal A, et al. Pre labour rupture of the membranes at term--no advantage of delaying induction for 24 hours. *Aust N Z J Obstet Gynaecol.* 1999 Aug;39(3):291-5. X-4e.
215. Al Bunyan M and Abo-Talib Z. Outcome of pregnancies in epileptic women: a study in Saudi Arabia. *Seizure.* 1999 Feb;8(1):26-9. X-1.
216. Al Duraihimi H, Ghamdi G, Moussa D, et al. Outcome of 234 pregnancies in 140 renal transplant recipients from five middle eastern countries. *Transplantation.* 2008 Mar 27;85(6):840-3. X-1.
217. Al Ramadhani S, Mohamed LA, Rocke DA, et al. Sternomental distance as the sole predictor of difficult laryngoscopy in obstetric anaesthesia. *Br J Anaesth.* 1996 Sep;77(3):312-6. X-1.
218. Al-Abdulhadi O, Biehl D, Ong B, et al. Hyperbaric spinal for elective Cesarean section--ropivacaine vs bupivacaine. *Middle East J Anesthesiol.* 2007 Jun;19(2):385-96. X-9.
219. Aladangady N, McHugh S, Aitchison TC, et al. Infants' blood volume in a controlled trial of placental transfusion at preterm delivery. *Pediatrics.* 2006 Jan;117(1):93-8. X-3, X-4e.
220. Alahuhta S, Kangas-Saarela T, Hollmen AI, et al. Visceral pain during caesarean section under spinal and epidural anaesthesia with bupivacaine. *Acta Anaesthesiol Scand.* 1990 Feb;34(2):95-8. X-9.
221. Alahuhta S, Rasanen J, Jouppila P, et al. The effects of epidural ropivacaine and bupivacaine for caesarean section on uteroplacental and fetal circulation. *Anesthesiology.* 1995 Jul;83(1):23-32. X-9.
222. Alahuhta S, Rasanen J, Jouppila R, et al. Effects of extradural bupivacaine with adrenaline for caesarean section on uteroplacental and fetal circulation. *Br J Anaesth.* 1991 Dec;67(6):678-82. X-1.
223. Alam M, Raza SJ, Sherali AR, et al. Neonatal complications in infants born to diabetic mothers. *J Coll Physicians Surg Pak.* 2006 Mar;16(3):212-5. X-1.
224. Alanis MC, Robinson CJ, Hulsey TC, et al. Early-onset severe preeclampsia: induction of labor vs elective cesarean delivery and neonatal outcomes. *Am J Obstet Gynecol.* 2008 Sep;199(3):262 e1-6. X-1.
225. Albers LL, Anderson D, Cragin L, et al. The relationship of ambulation in labor to operative delivery. *J Nurse Midwifery.* 1997 Jan-Feb;42(1):4-8. X-1.
226. Albers LL and Savitz DA. Hospital setting for birth and use of medical procedures in low-risk women. *J Nurse Midwifery.* 1991 Nov-Dec;36(6):327-33. X-1.
227. Albina ML, Colomina MT, Sanchez DJ, et al. Interactions of caffeine and restraint stress during pregnancy in mice. *Exp Biol Med (Maywood).* 2002 Oct;227(9):779-85. X-1.
228. Albrechtsen S, Rasmussen S, Reigstad H, et al. Evaluation of a protocol for selecting fetuses in breech presentation for vaginal delivery or cesarean section. *Am J Obstet Gynecol.* 1997 Sep;177(3):586-92. X-1.
229. Alcalay M, Hourvitz A, Reichman B, et al. Pre labour rupture of membranes at term: early induction of labour versus expectant management. *Eur J Obstet Gynecol Reprod Biol.* 1996 Dec 27;70(2):129-33. X-3, X-4e, X-5.
230. Alderson P. Coming home to an empty cot. *Nurs Times.* 1987 Aug 19-25;83(33):42-3. X-1.
231. Alekwe LO, Kuti O, Orji EO, et al. Comparison of ceftriaxone versus triple drug regimen in the prevention of cesarean section infectious morbidities. *J Matern Fetal Neonatal Med.* 2008 Sep;21(9):638-42. X-9.
232. Alessandri LM, Stanley FJ and Read AW. A case-control study of intrapartum stillbirths. *Br J Obstet Gynaecol.* 1992 Sep;99(9):719-23. X-1, X-2.
233. Alexander JM, Leveno KJ, Hauth J, et al. Fetal injury associated with cesarean delivery. *Obstet Gynecol.* 2006 Oct;108(4):885-90. X-1, X-2.
234. Alexander JM, Leveno KJ, Rouse D, et al. Cesarean delivery for the second twin. *Obstet Gynecol.* 2008 Oct;112(4):748-52. X-1.
235. Alexander JM, Sharma SK, McIntire DD, et al. Epidural analgesia lengthens the Friedman active phase of labor. *Obstet Gynecol.* 2002 Jul;100(1):46-50. X-1, X-2.
236. Alexander JM, Sharma SK, McIntire DD, et al. Intensity of labor pain and cesarean delivery. *Anesth Analg.* 2001 Jun;92(6):1524-8. X-1.
237. Alexander S, Boulvain M, Ceyssens G, et al. Repeat digital cervical assessment in pregnancy for identifying women at risk of preterm labour. *Cochrane Database of Systematic Reviews.* 2010(6). X-1, X-2.
238. Alexander S, Dodds L and Armson BA. Perinatal outcomes in women with asthma during pregnancy. *Obstet Gynecol.* 1998 Sep;92(3):435-40. X-1.
239. Alexandersson O, Bixo M and Hogberg U. Evidence-based changes in term breech delivery practice in Sweden. *Acta Obstet Gynecol Scand.* 2005 Jun;84(6):584-7. X-1.
240. Al-Fifi S, Al-Binali A, Al-Shahrani M, et al. Congenital anomalies and other perinatal outcomes in ICSI vs. naturally conceived pregnancies: a comparative study. *J Assist Reprod Genet.* 2009 Jul;26(7):377-81. X-1.

241. Alfircvic Z, Gyte GM and Dou L. Different classes of antibiotics given to women routinely for preventing infection at caesarean section. *Cochrane Database of Systematic Reviews*. 2010(10). X-1.
242. Alfircvic Z, Luckas M, Walkinshaw SA, et al. A randomised comparison between amniotic fluid index and maximum pool depth in the monitoring of post-term pregnancy. *Br J Obstet Gynaecol*. 1997 Feb;104(2):207-11. X-4e.
243. Alfircvic Z, Luckas M, Walkinshaw SA, et al. A randomized comparison between amniotic fluid index and maximum pool depth in the monitoring of post-term pregnancy... reprinted from the *British Journal of Obstetrics and Gynaecology*, February 1997, Vol 104, pp. 207-211, Copyright 1997 Blackwell Science, Oxford. *Neonatal Intensive Care*. 1997;10(4):30-34. X-4e, X-5.
244. Algovik M, Lagercrantz J, Westgren M, et al. No mutations found in candidate genes for dystocia. *Hum Reprod*. 1999 Oct;14(10):2451-4. X-1, X-2.
245. Alhaj AM, Radi EA and Adam I. Epidemiology of preterm birth in Omdurman Maternity hospital, Sudan. *J Matern Fetal Neonatal Med*. 2010 Feb;23(2):131-4. X-1.
246. Alhashemi JA, Alotaibi QA, Mashaat MS, et al. Intravenous acetaminophen vs oral ibuprofen in combination with morphine PCIA after Cesarean delivery. *Can J Anaesth*. 2006 Dec;53(12):1200-6. X-4b, X-4e.
247. Alhashemi JA, Crosby ET, Grodecki W, et al. Treatment of intrathecal morphine-induced pruritus following caesarean section. *Can J Anaesth*. 1997 Oct;44(10):1060-5. X-3, X-4b.
248. Ali AM and Abu-Heija AT. Obstetric and perinatal outcome of women para > or = 5 including one lower segment cesarean section. *J Obstet Gynaecol Res*. 2002 Jun;28(3):163-5. X-1.
249. Ali M, Ahmed KM and Kuroiwa C. Emergency obstetric care in Punjab, Pakistan: improvement needed. *Eur J Contracept Reprod Health Care*. 2008 Jun;13(2):201-7. X-1.
250. Ali M, Ayaz M, Rizwan H, et al. Emergency obstetric care availability, accessibility and utilization in eight districts in Pakistan's North West Frontier Province. *J Ayub Med Coll Abbottabad*. 2006 Oct-Dec;18(4):10-5. X-1.
251. Ali M, Hotta M, Kuroiwa C, et al. Emergency obstetric care in Pakistan: potential for reduced maternal mortality through improved basic EmOC facilities, services, and access. *Int J Gynaecol Obstet*. 2005 Oct;91(1):105-12. X-1.
252. Aliefendioglu D, Yurdakok M, Oran O, et al. Neonatal morbidity and mortality associated with maternal HELLP syndrome. *Turk J Pediatr*. 2000 Oct-Dec;42(4):308-11. X-1.
253. Al-Inany H, Youssef G, Abd ElMaguid A, et al. Value of subcutaneous drainage system in obese females undergoing cesarean section using pfannenstiell incision. *Gynecol Obstet Invest*. 2002;53(2):75-8. X-1.
254. Al-Jufairi ZA, Sandhu AK and Al-Durazi KA. Risk factors of uterine rupture. *Saudi Med J*. 2001 Aug;22(8):702-4. X-1.
255. Al-Kadri H, Sabr Y, Al-Saif S, et al. Failed individual and sequential instrumental vaginal delivery: contributing risk factors and maternal-neonatal complications. *Acta Obstet Gynecol Scand*. 2003 Jul;82(7):642-8. X-1.
256. Allahbadia GN and Vaidya PR. Squatting position for delivery. *J Indian Med Assoc*. 1993 Jan;91(1):13-6. X-4e, X-5.
257. Allaire AD, Fisch J and McMahon MJ. Subcutaneous drain vs. suture in obese women undergoing cesarean delivery. A prospective, randomized trial. *J Reprod Med*. 2000 Apr;45(4):327-31. X-3, X-4b, X-5.
258. Allam J, Malhotra S, Hemingway C, et al. Epidural lidocaine-bicarbonate-adrenaline vs levobupivacaine for emergency Caesarean section: a randomised controlled trial. *Anaesthesia*. 2008 Mar;63(3):243-9. X-4e, X-5.
259. Allegretti J. Delicate balance: the emerging issue of maternal-fetal conflict. *America (NY)*. 1991 Mar 2;164(8):238-9,249-50. X-1.
260. Allen JE. C-sections do reduce newborns' herpes risk: a major study finds that a woman's chance of infecting her baby depends on how doctors and nurses manage the delivery. *Los Angeles Times -- Southern California Edition (Front Page)*. 2003:F3-F3. X-1.
261. Allen RW, James MF and Uys PC. Attenuation of the pressor response to tracheal intubation in hypertensive proteinuric pregnant patients by lignocaine, alfentanil and magnesium sulphate. *Br J Anaesth*. 1991 Feb;66(2):216-23. X-3, X-4b, X-4e.
262. Allen TK, George RB, White WD, et al. A double-blind, placebo-controlled trial of four fixed rate infusion regimens of phenylephrine for hemodynamic support during spinal anesthesia for cesarean delivery. *Anesth Analg*. 2010 Nov;111(5):1221-9. X-9.
263. Allen VM, Jilwah N, Joseph KS, et al. The influence of hospital closures in Nova Scotia on perinatal outcomes. *J Obstet Gynaecol Can*. 2004 Dec;26(12):1077-85. X-1.
264. Allen VM, O'Connell CM and Baskett TF. Cumulative economic implications of initial method of delivery. *Obstet Gynecol*. 2006 Sep;108(3 Pt 1):549-55. X-1.
265. Allen VM, O'Connell CM, Farrell SA, et al. Economic implications of method of delivery. *Am J Obstet Gynecol*. 2005 Jul;193(1):192-7. X-1.

266. Allott HA and Palmer CR. Sweeping the membranes: a valid procedure in stimulating the onset of labour? *Br J Obstet Gynaecol.* 1993 Oct;100(10):898-903. X-4e, X-5.
267. Almeida C, Coutinho E, Moreira D, et al. Myasthenia gravis and pregnancy: anaesthetic management--a series of cases. *Eur J Anaesthesiol.* 2010 Nov;27(11):985-90. X-1.
268. Almeida ML, Santana PA, Guimaraes AM, et al. Asthma and pregnancy: repercussions for neonates. *J Bras Pneumol.* 2010 Jun;36(3):293-300. X-1.
269. Almstrom H, Axelsson O, Cnattingius S, et al. Comparison of umbilical-artery velocimetry and cardiotocography for surveillance of small-for-gestational-age fetuses. *Lancet.* 1992 Oct 17;340(8825):936-40. X-4e.
270. Almstrom H, Ekman G and Granstrom L. Preinductive cervical ripening with PgE2 gel in term pregnant women with ultrasonically diagnosed intra-uterine growth-retarded fetuses. *Acta Obstet Gynecol Scand.* 1991;70(7-8):555-9. X-1, X-4d, X-4e.
271. Almstrom H, Granstrom L and Ekman G. Serial antenatal monitoring compared with labor induction in post-term pregnancies. *Acta Obstet Gynecol Scand.* 1995 Sep;74(8):599-603. X-1.
272. Al-Mufti R, McCarthy A and Fisk NM. Survey of obstetricians' personal preference and discretionary practice. *Eur J Obstet Gynecol Reprod Biol.* 1997 May;73(1):1-4. X-1.
273. Al-Mulhim AA, Abu-Heija A, Al-Jamma F, et al. Pre-eclampsia: maternal risk factors and perinatal outcome. *Fetal Diagn Ther.* 2003 Jul-Aug;18(4):275-80. X-1.
274. Alper BS. Evidence-based medicine. Oral misoprostol and vaginal dinoprostone have similar efficacy and safety. *Clinical Advisor for Nurse Practitioners.* 2006;9(10):123-123. X-4d.
275. Alper BS. Evidence-based medicine. Prenatal steroids reduce severity of neonatal lung disease but increase rate of cesarean delivery. *Clinical Advisor for Nurse Practitioners.* 2007;10(1):128-128. X-4e.
276. Alpini D, Corti A, Brusa E, et al. Septal deviation in newborn infants. *Int J Pediatr Otorhinolaryngol.* 1986 Apr;11(2):103-7. X-3.
277. Al-Saleh E, Nandakumaran M, Al-Harmi J, et al. Maternal-fetal status of copper, iron, molybdenum, selenium, and zinc in obese pregnant women in late gestation. *Biol Trace Elem Res.* 2006 Nov;113(2):113-23. X-1.
278. Al-Saleh E, Nandakumaran M, Al-Rashdan I, et al. Maternal-foetal status of copper, iron, molybdenum, selenium and zinc in obese gestational diabetic pregnancies. *Acta Diabetol.* 2007 Sep;44(3):106-13. X-1.
279. Al-Saleh E, Nandakumaran M, Al-Shammari M, et al. Assessment of maternal-fetal status of some essential trace elements in pregnant women in late gestation: relationship with birth weight and placental weight. *J Matern Fetal Neonatal Med.* 2004 Jul;16(1):9-14. X-1.
280. Al-Saleh E, Nandakumaran M, Al-Shammari M, et al. Maternal-fetal status of copper, iron, molybdenum, selenium and zinc in patients with gestational diabetes. *J Matern Fetal Neonatal Med.* 2004 Jul;16(1):15-21. X-1.
281. Al-Saleh E, Nandakumaran M, Al-Shammari M, et al. Maternal-fetal status of copper, iron, molybdenum, selenium and zinc in insulin-dependent diabetic pregnancies. *Arch Gynecol Obstet.* 2005 Mar;271(3):212-7. X-1.
282. Althabe O, Labarrere C and Telenta M. Maternal vascular lesions in placenta of small-for-gestational-age infants. *Placenta.* 1985 May-Jun;6(3):265-76. X-1.
283. Althaus JE, Petersen S, Driggers R, et al. Cephalopelvic disproportion is associated with an altered uterine contraction shape in the active phase of labor. *Am J Obstet Gynecol.* 2006 Sep;195(3):739-42. X-1.
284. Althaus JE, Petersen SM, Fox HE, et al. Can electronic fetal monitoring identify preterm neonates with cerebral white matter injury? *Obstet Gynecol.* 2005 Mar;105(3):458-65. X-1.
285. Altieri C, Maruotti G, Natale C, et al. In vitro survival of *Listeria monocytogenes* in human amniotic fluid. *Zentralbl Hyg Umweltmed.* 1999 Sep;202(5):377-82. X-1.
286. Alur P, Kodiyanplakkal P, Del Rosario A, et al. Epidemiology of infants of diabetic mothers in indigent Micronesian population-Guam experience. *Pac Health Dialog.* 2002 Sep;9(2):219-21. X-1.
287. Alvarez M, Lockwood CJ, Ghidini A, et al. Prophylactic and emergent arterial catheterization for selective embolization in obstetric hemorrhage. *Am J Perinatol.* 1992 Sep-Nov;9(5-6):441-4. X-1.
288. Alves B and Sheikh A. Investigating the relationship between affluence and elective caesarean sections. *BJOG.* 2005 Jul;112(7):994-6. X-1.
289. Alvino G, Cozzi V, Radaelli T, et al. Maternal and fetal fatty acid profile in normal and intrauterine growth restriction pregnancies with and without preeclampsia. *Pediatr Res.* 2008 Dec;64(6):615-20. X-1.
290. Al-Waili NS. Efficacy and safety of repeated postoperative administration of intramuscular diclofenac sodium in the treatment of post-cesarean section pain: a double-blind study. *Arch Med Res.* 2001 Mar-Apr;32(2):148-54. X-9.

291. Al-Waili NS and Saloom KY. Effects of topical honey on post-operative wound infections due to gram positive and gram negative bacteria following caesarean sections and hysterectomies. *Eur J Med Res.* 1999 Mar 26;4(3):126-30. X-9.
292. Aly H, Hammad T, Nada A, et al. Maternal obesity, associated complications and risk of prematurity. *J Perinatol.* 2010 Jul;30(7):447-51. X-1.
293. Al-Zirqi I, Stray-Pedersen B, Forsen L, et al. Uterine rupture after previous caesarean section. *BJOG.* 2010 Jun;117(7):809-20. X-1.
294. Amano K, Saito K, Shoda T, et al. Elective induction of labor at 39 weeks of gestation: a prospective randomized trial. *J Obstet Gynaecol Res.* 1999 Feb;25(1):33-7. X-4e, X-5.
295. Amato MP, Portaccio E, Ghezzi A, et al. Pregnancy and fetal outcomes after interferon-beta exposure in multiple sclerosis. *Neurology.* 2010 Nov 16;75(20):1794-802. X-1.
296. Ambrose FP. A retrospective study of the effect of postoperative indomethacin rectal suppositories on the need for narcotic analgesia in patients who had a cesarean delivery while they were under regional anesthesia. *Am J Obstet Gynecol.* 2001 Jun;184(7):1544-7; discussion 1547-8. X-1.
297. Amrus CM, Choi TS, Weintraub DH, et al. Studies on the prevention of respiratory distress syndrome of infants due to hyaline membrane disease with plasminogen. *Semin Thromb Hemost.* 1975 Jul;2(1):42-51. X-4e.
298. Ameh CA, Bishop S, Kongnyuy E, et al. Challenges to the provision of emergency obstetric care in Iraq. *Matern Child Health J.* 2011 Jan;15(1):4-11. X-1.
299. Amer-Wahlin I, Hellsten C, Noren H, et al. Cardiotocography only versus cardiotocography plus ST analysis of fetal electrocardiogram for intrapartum fetal monitoring: a Swedish randomised controlled trial. *Lancet.* 2001 Aug 18;358(9281):534-8. X-3, X-4, X-5.
300. Amin AF, Mohammed MS, Sayed GH, et al. Prophylactic transcervical amnioinfusion in laboring women with oligohydramnios. *Int J Gynaecol Obstet.* 2003 May;81(2):183-9. X-4e.
301. Amin-Hanjani S, Corcoran J and Chatwani A. Cold therapy in the management of postoperative cesarean section pain. *Am J Obstet Gynecol.* 1992 Jul;167(1):108-9. X-9.
302. Amini SB, Catalano PM and Mann LI. Births to unmarried mothers: trends and obstetric outcomes. *Womens Health Issues.* 1996 Sep-Oct;6(5):264-72. X-1.
303. Amir AliAkbari S, Dabiri F, Bakhshori Z, et al. Effects of increased intravenous hydration on the outcome of labor in nulliparous women at Shariati Hospital in Bandar Abbas, 2003. *SBMU Faculty of Nursing & Midwifery Quarterly.* 2004;14(46):49-49. X-7.
304. Amoa AB, Klufio CA, Arua S, et al. A case-control study of primary caesarean section at the Port Moresby General Hospital, Papua New Guinea, to identify epidemiological predictors of abdominal delivery. *P N G Med J.* 1997 Sep-Dec;40(3-4):119-26. X-1.
305. Amon E, Lipshitz J, Sibai BM, et al. Quantitative analysis of amniotic fluid phospholipids in diabetic pregnant women. *Obstet Gynecol.* 1986 Sep;68(3):373-8. X-1.
306. Amon E, Shyken JM and Sibai BM. How small is too small and how early is too early? A survey of American obstetricians specializing in high-risk pregnancies. *Am J Perinatol.* 1992 Jan;9(1):17-21. X-1.
307. Ananth CV, Joseph Ks K and Smulian JC. Trends in twin neonatal mortality rates in the United States, 1989 through 1999: influence of birth registration and obstetric intervention. *Am J Obstet Gynecol.* 2004 May;190(5):1313-21. X-1.
308. Anate M and Akeredolu O. Pregnancy outcome in elderly primigravidae at University of Ilorin Teaching Hospital, Nigeria. *East Afr Med J.* 1996 Aug;73(8):548-51. X-1.
309. Ande AB, Ezeanochie MC and Olagbuji BN. Induction of labour: determinants and implications of failure to keep an initial appointment in a developing country. *J Obstet Gynaecol.* 2010 May;30(4):367-9. X-1.
310. Anderberg E, Kallen K and Berntorp K. The impact of gestational diabetes mellitus on pregnancy outcome comparing different cut-off criteria for abnormal glucose tolerance. *Acta Obstet Gynecol Scand.* 2010 Dec;89(12):1532-7. X-1.
311. Andersch B, Svensson A and Hansson L. Characteristics of hypertension in pregnancy. A retrospective study of 261 consecutive cases. *Acta Obstet Gynecol Scand Suppl.* 1984;118:33-8. X-1.
312. Andersen AS, Berthelsen JG and Bergholt T. Venous thromboembolism in pregnancy: prophylaxis and treatment with low molecular weight heparin. *Acta Obstet Gynecol Scand.* 2010;89(1):15-21. X-1.
313. Andersen O and Kuhl C. Adipocyte insulin receptor binding and lipogenesis at term in normal pregnancy. *Eur J Clin Invest.* 1988 Dec;18(6):575-81. X-1.
314. Andersen WA and Harbert GM, Jr. Conservative management of pre-eclamptic and eclamptic patients: a re-evaluation. *Am J Obstet Gynecol.* 1977 Oct 1;129(3):260-7. X-1.

315. Anderson GM and Lomas J. Explaining variations in cesarean section rates: patients, facilities or policies? *Can Med Assoc J.* 1985 Feb 1;132(3):253-6, 259. X-1, X-3, X-4e, X-5.
316. Anderson L, Martin W, Higgins C, et al. The effect of progesterone on myometrial contractility, potassium channels, and tocolytic efficacy. *Reprod Sci.* 2009 Nov;16(11):1052-61. X-1.
317. Anderson T. Cesarean section for non-medical reasons at term. *Pract Midwife.* 2006 Sep;9(8):34-5. X-1.
318. Andersson T, Lorentzen B, Hogdahl H, et al. Thrombin-inhibitor complexes in the blood during and after delivery. *Thromb Res.* 1996 Apr 15;82(2):109-17. X-1.
319. Andolf E, Thorsell M and Kallen K. Cesarean delivery and risk for postoperative adhesions and intestinal obstruction: a nested case-control study of the Swedish Medical Birth Registry. *Am J Obstet Gynecol.* 2010 Oct;203(4):406 e1-6. X-1.
320. Andreasson B, Bock JE and Larsen J. Induction of labor. A double-blind randomized controlled study of prostaglandin E2 vaginal suppositories compared with intranasal oxytocin and with sequential treatment. *Acta Obstet Gynecol Scand.* 1985;64(2):157-61. X-4d.
321. Andres RL, Day MC and Larrabee K. Recent cocaine use is not associated with fetal acidemia or other manifestations of intrapartum fetal distress. *Am J Perinatol.* 2000;17(2):63-7. X-1.
322. Andrews WW, Hauth JC, Cliver SP, et al. Randomized clinical trial of extended spectrum antibiotic prophylaxis with coverage for *Ureaplasma urealyticum* to reduce post-cesarean delivery endometritis. *Obstet Gynecol.* 2003 Jun;101(6):1183-9. X-9.
323. Andrews WW, Ramin SM, Maberry MC, et al. Effect of type of anesthesia on blood loss at elective repeat cesarean section. *Am J Perinatol.* 1992 May;9(3):197-200. X-9.
324. Andrist LC. The implications of objectification theory for women's health: menstrual suppression and "maternal request" cesarean delivery. *Health Care Women Int.* 2008 May;29(5):551-65. X-1, X-2.
325. Aneiros F, Vazquez M, Valino C, et al. Does epidural versus combined spinal-epidural analgesia prolong labor and increase the risk of instrumental and cesarean delivery in nulliparous women? *J Clin Anesth.* 2009 Mar;21(2):94-7. X-1.
326. Angeja AC, Washington AE, Vargas JE, et al. Chilean women's preferences regarding mode of delivery: which do they prefer and why? *BJOG.* 2006 Nov;113(11):1253-8. X-1.
327. Angle P, Thompson D, Halpern S, et al. Second stage pushing correlates with headache after unintentional dural puncture in parturients. *Can J Anaesth.* 1999 Sep;46(9):861-6. X-1.
328. Angle PJ, Halpern SH, Leighton BL, et al. A randomized controlled trial examining the effect of naproxen on analgesia during the second day after cesarean delivery. *Anesth Analg.* 2002 Sep;95(3):741-5, table of contents. X-9.
329. Annapoorna V, Arulkumaran S, Anandakumar C, et al. External cephalic version at term with tocolysis and vibroacoustic stimulation. *Int J Gynaecol Obstet.* 1997 Oct;59(1):13-8. X-1.
330. Anoon SS, Rizk DE and Ezimokhai M. Obstetric outcome of excessively overgrown fetuses (> or = 5000 g): a case-control study. *J Perinat Med.* 2003;31(4):295-301. X-1.
331. Anorlu RI, Orakwe CO, Abudu OO, et al. Uses and misuse of blood transfusion in obstetrics in Lagos, Nigeria. *West Afr J Med.* 2003 Jun;22(2):124-7. X-1.
332. Ansaloni L, Brundisini R, Morino G, et al. Prospective, randomized, comparative study of Misgav Ladach versus traditional cesarean section at Nazareth Hospital, Kenya. *World J Surg.* 2001 Sep;25(9):1164-72. X-9.
333. Ansari S, Azarkeivan A and Tabaroki A. Pregnancy in patients treated for beta thalassemia major in two centers (Ali Asghar Children's Hospital and Thalassemia Clinic): outcome for mothers and newborn infants. *Pediatr Hematol Oncol.* 2006 Jan-Feb;23(1):33-7. X-1.
334. Anteby EY, Kruchkovich J, Kapustian V, et al. Short-term effects of closure versus non-closure of the visceral and parietal peritoneum at cesarean section: a prospective randomized study. *J Obstet Gynaecol Res.* 2009 Dec;35(6):1026-30. X-9.
335. Anteby SO, Birkenfeld A and Weinstein D. Post cesarean section urinary tract infections, risk factors and prophylactic antibiotic treatment. *Clin Exp Obstet Gynecol.* 1984;11(4):161-4. X-1.
336. Anwar I, Sami M, Akhtar N, et al. Inequity in maternal health-care services: evidence from home-based skilled-birth-attendant programmes in Bangladesh. *Bull World Health Organ.* 2008 Apr;86(4):252-9. X-1.
337. Anwari JS, Ahmed F and Mustafa T. An audit of acute pain service in Central, Saudi Arabia. *Saudi Med J.* 2005 Feb;26(2):298-305. X-1.
338. Anwari JS, Butt A and Alkhunein S. PCA after subarachnoid block for cesarean section. *Middle East J Anesthesiol.* 2004 Jun;17(5):913-26. X-1.
339. Aouad MT, Siddik SS, Jalbout MI, et al. Does pregnancy protect against intrathecal lidocaine-induced transient neurologic symptoms? *Anesth Analg.* 2001 Feb;92(2):401-4. X-3, X-4b.
340. Apantaku O, Chandrasekaran I and Bentick B. Obstetric outcome of singleton pregnancies

- achieved with in vitro fertilisation and intracytoplasmic sperm injection: experience from a district general hospital. *J Obstet Gynaecol.* 2008 May;28(4):398-402. X-1.
341. Appleton B, Targett C, Rasmussen M, et al. Knowledge and attitudes about vaginal birth after Caesarean section in Australian hospitals. VBAC Study Group. *Vaginal Birth After Caesarean. Aust N Z J Obstet Gynaecol.* 2000 May;40(2):195-9. X-1.
342. , 342. Appleton B, Targett C, Rasmussen M, et al. Vaginal birth after Caesarean section: an Australian multicentre study. VBAC Study Group. *Aust N Z J Obstet Gynaecol.* 2000 Feb;40(1):87-91. X-1.
343. Apuzzio JJ, Ganesh VV, Pelosi MA, et al. The effect of prophylactic antibiotics on risk factors for endomyometritis in adolescent patients undergoing cesarean section. *J Adolesc Health Care.* 1984 Jul;5(3):163-6. X-9.
344. Apuzzio JJ, Kaminski Z, Gamesh V, et al. Comparative clinical evaluation of ticarcillin plus clavulanic acid versus clindamycin plus gentamicin in treatment of post-cesarean endomyometritis. *Am J Med.* 1985 Nov 29;79(5B):164-7. X-9.
345. Apuzzio JJ, Reyelt C, Pelosi M, et al. Prophylactic antibiotics for cesarean section: comparison of high- and low-risk patients for endomyometritis. *Obstet Gynecol.* 1982 Jun;59(6):693-8. X-9.
346. Arai YC, Kato N, Matsura M, et al. Transcutaneous electrical nerve stimulation at the PC-5 and PC-6 acupoints reduced the severity of hypotension after spinal anaesthesia in patients undergoing Caesarean section. *Br J Anaesth.* 2008 Jan;100(1):78-81. X-9.
347. Arai YC, Ogata J, Fukunaga K, et al. The effect of intrathecal fentanyl added to hyperbaric bupivacaine on maternal respiratory function during Cesarean section. *Acta Anaesthesiol Scand.* 2006 Mar;50(3):364-7. X-9.
348. Arakawa M. Does pregnancy increase the efficacy of lumbar epidural anesthesia? *Int J Obstet Anesth.* 2004 Apr;13(2):86-90. X-1.
349. Arakawa M and Ohe Y. The relationship between the efficacy of epidural anesthesia and the concentration of lidocaine in cerebrospinal fluid. *Med Sci Monit.* 2009 Mar;15(3):CR95-100. X-9.
350. Archibong EI. Biophysical profile score in late pregnancy and timing of delivery. *Int J Gynaecol Obstet.* 1999 Feb;64(2):129-33. X-1.
351. Arjun G. Caesarean section: evaluation, guidelines and recommendations. *Indian J Med Ethics.* 2008 Jul-Sep;5(3):117-20. X-1, X-2.
352. Armstrong C and Damlo S. Practice guideline briefs. *American Family Physician.* 2007;76(3):444. X-1.
353. Arora R, Swain S, Agrawal A, et al. Impact of mode of delivery on maternal mortality in eclampsia. *J Indian Med Assoc.* 1997 Apr;95(4):103-4, 106. X-1.
354. Arpino C, Brescianini S, Ticconi C, et al. Does cesarean section prevent mortality and cerebral ultrasound abnormalities in preterm newborns? *J Matern Fetal Neonatal Med.* 2007 Feb;20(2):151-9. X-1.
355. Arrieta A. Health reform and cesarean sections in the private sector: The experience of Peru. *Health Policy.* 2011 Feb;99(2):124-30. X-1, X-9.
356. Artal R, Catanzaro RB, Gavard JA, et al. A lifestyle intervention of weight-gain restriction: diet and exercise in obese women with gestational diabetes mellitus. *Appl Physiol Nutr Metab.* 2007 Jun;32(3):596-601. X-1.
357. Arthur D and Payne D. Maternal request for an elective caesarean section. *New Zealand College of Midwives Journal.* 2005;33:17-20. X-1.
358. Arulkumaran S, Adaikan PG, Anandakumar C, et al. Comparative study of a two dose schedule of PGE2 3 mg pessary and 1700 micrograms film for induction of labour in nulliparae with poor cervical score. *Prostaglandins Leukot Essent Fatty Acids.* 1989 Oct;38(1):37-41. X-4d.
359. Arulkumaran S, Gibb DM, Ingemarsson I, et al. Uterine activity during spontaneous labour after previous lower-segment caesarean section. *Br J Obstet Gynaecol.* 1989 Aug;96(8):933-8. X-1.
360. Arvela P, Jouppila R, Kauppila A, et al. Placental transfer and hormonal effects of metoclopramide. *Eur J Clin Pharmacol.* 1983;24(3):345-8. X-1.
361. Asakura H, Nakai A, Ishikawa G, et al. Prediction of uterine dehiscence by measuring lower uterine segment thickness prior to the onset of labor: evaluation by transvaginal ultrasonography. *J Nippon Med Sch.* 2000 Oct;67(5):352-6. X-1.
362. Asantila R, Eklund P and Rosenberg PH. Epidural analgesia with 4 mg of morphine following caesarean section: effect of injected volume. *Acta Anaesthesiol Scand.* 1993 Nov;37(8):764-7. X-9.
363. Asbee SM, Jenkins TR, Butler JR, et al. Preventing excessive weight gain during pregnancy through dietary and lifestyle counseling: a randomized controlled trial. *Obstet Gynecol.* 2009 Feb;113(2 Pt 1):305-12. X-4e, X-5.
364. Ashfaq F and Shah AA. Effect of amnioinfusion for meconium stained amniotic fluid on perinatal outcome. *J Pak Med Assoc.* 2004 Jun;54(6):322-5. X-1, X-4e, X-5.
365. Ashrafunnessa, Khatun SS, Chowdhury SA, et al. Induction of labor by intracervical prostaglandin gel and oxytocin infusion in

- primigravid women with unfavorable cervix. *Bangladesh Med Res Counc Bull.* 1997 Dec;23(3):66-71. X-4d, X-5.
366. Ashton WB, James MF, Janicki P, et al. Attenuation of the pressor response to tracheal intubation by magnesium sulphate with and without alfentanil in hypertensive proteinuric patients undergoing caesarean section. *Br J Anaesth.* 1991 Dec;67(6):741-7. X-9.
367. Aslam MF, Gilmour K and Fawdry RD. Who wants a caesarean section? A study of women's personal experience of vaginal and caesarean delivery. *J Obstet Gynaecol.* 2003 Jul;23(4):364-6. X-1.
368. Assimakopoulos E, Zafrakas M, Garmiris P, et al. Nuchal cord detected by ultrasound at term is associated with mode of delivery and perinatal outcome. *Eur J Obstet Gynecol Reprod Biol.* 2005 Dec 1;123(2):188-92. X-1.
369. Atalla RK, Thompson JR, Oppenheimer CA, et al. Reactive thrombocytosis after caesarean section and vaginal delivery: implications for maternal thromboembolism and its prevention. *BJOG.* 2000 Mar;107(3):411-4. X-1.
370. Athukorala C, Rumbold AR, Willson KJ, et al. The risk of adverse pregnancy outcomes in women who are overweight or obese. *BMC Pregnancy Childbirth.* 2010;10:56. X-1.
371. Atkinson MW, Guinn D, Owen J, et al. Does magnesium sulfate affect the length of labor induction in women with pregnancy-associated hypertension? *Am J Obstet Gynecol.* 1995 Oct;173(4):1219-22. X-3, X-4d, X-4e, X-5.
372. Atkinson MW, Owen J, Wren A, et al. The effect of manual removal of the placenta on post-caesarean endometritis. *Obstet Gynecol.* 1996 Jan;87(1):99-102. X-9.
373. Atkinson RE. An antacid comparison trial. *J Int Med Res.* 1978;6 Suppl 1:77-82. X-4e.
374. Atkinson SJ and Farias MF. Perceptions of risk during pregnancy amongst urban women in northeast Brazil. *Soc Sci Med.* 1995 Dec;41(11):1577-86. X-1.
375. Atrash HK, Hogue CJ and Becerra JW. Birthweight-specific infant mortality risk in cesarean section. *Am J Prev Med.* 1991 Jul-Aug;7(4):227-31. X-1.
376. Atterbury JL, Groome LJ and Hoff C. Blood pressure changes in normotensive women readmitted in the postpartum period with severe preeclampsia/eclampsia. *J Matern Fetal Med.* 1996 Jul-Aug;5(4):201-5. X-1.
377. Attilakos G, Psaroudakis D, Ash J, et al. Carbetocin versus oxytocin for the prevention of postpartum haemorrhage following caesarean section: the results of a double-blind randomised trial. *BJOG.* 2010 Jul;117(8):929-36. X-9.
378. Attilakos G, Sibanda T, Winter C, et al. A randomised controlled trial of a new handheld vacuum extraction device. *BJOG.* 2005 Nov;112(11):1510-5. X-4e.
379. Aucott SW, Williams TG, Hertz RH, et al. Rigorous management of insulin-dependent diabetes mellitus during pregnancy. *Acta Diabetol.* 1994 Sep;31(3):126-9. X-1.
380. Auerbach KG. The role of the nurse in support of breast feeding. *J Adv Nurs.* 1979 May;4(3):263-85. X-1, X-2.
381. Aurelius G and Ryde-Blomqvist E. Pregnancy and delivery among immigrants. *Scand J Soc Med.* 1978;6(1):43-8. X-1.
382. Avery MD, Carr CA and Burkhardt P. Vaginal birth after cesarean section: a pilot study of outcomes in women receiving midwifery care. *J Midwifery Womens Health.* 2004 Mar-Apr;49(2):113-7. X-1.
383. Avidan MS, Groves P, Blott M, et al. Low complication rate associated with cesarean section under spinal anesthesia for HIV-1-infected women on antiretroviral therapy. *Anesthesiology.* 2002 Aug;97(2):320-4. X-1.
384. Avila WS, Amaral FM, Ramires JA, et al. Influence of pregnancy on clinical course and fetal outcome of women with hypertrophic cardiomyopathy. *Arq Bras Cardiol.* 2007 Apr;88(4):480-5. X-1.
385. Awari BH, Al-Habdan I, Sadat-Ali M, et al. Birth associated trauma. *Saudi Med J.* 2003 Jun;24(6):672-4. X-1.
386. Awoyinka BS, Ayinde OA and Omigbodun AO. Acceptability of caesarean delivery to antenatal patients in a tertiary health facility in south-west Nigeria. *J Obstet Gynaecol.* 2006 Apr;26(3):208-10. X-1.
387. Axelsen SM, Bek KM and Petersen LK. Urodynamic and ultrasound characteristics of incontinence after radical hysterectomy. *Neurourol Urodyn.* 2007;26(6):794-9. X-1.
388. Axemo P, Rwamushaija E, Pettersson M, et al. Amniotic fluid antibacterial activity and nutritional parameters in term Mozambican and Swedish pregnant women. *Gynecol Obstet Invest.* 1996;42(1):24-7. X-1.
389. Aya AG, Mangin R, Vialles N, et al. Patients with severe preeclampsia experience less hypotension during spinal anesthesia for elective cesarean delivery than healthy parturients: a prospective cohort comparison. *Anesth Analg.* 2003 Sep;97(3):867-72. X-1.
390. Aya AG, Vialles N, Tanoubi I, et al. Spinal anesthesia-induced hypotension: a risk comparison between patients with severe preeclampsia and healthy women undergoing preterm cesarean delivery. *Anesth Analg.* 2005 Sep;101(3):869-75. table of contents. X-1.
391. Ayangade O. Antibiotic prophylaxis in high-risk obstetrics. *J Natl Med Assoc.* 1977 Nov;69(11):793-5. X-1.
392. Ayangade O. Long vs short-course antibiotic prophylaxis in cesarean section: a comparative clinical study. *J Natl Med Assoc.* 1979 Jan;71(1):71-3. X-9.

393. Ayar A, Celik H, Ozcelik O, et al. Homocysteine-induced enhancement of spontaneous contractions of myometrium isolated from pregnant women. *Acta Obstet Gynecol Scand.* 2003 Sep;82(9):789-93. X-1.
394. Ayaz A, Shaukat S, Farooq MU, et al. Induction of labor: a comparative study of intravaginal misoprostol and dinoprostone. *Taiwan J Obstet Gynecol.* 2010 Jun;49(2):151-5. X-1.
395. Aydin C, Baloglu A, Cetinkaya B, et al. Cardiac troponin levels in pregnant women with severe pre-eclampsia. *J Obstet Gynaecol.* 2009 Oct;29(7):621-3. X-1.
396. Aydin GB, Coskun F, Sahin A, et al. Influence of sevoflurane and desflurane on neurological and adaptive capacity scores in newborns. *Saudi Med J.* 2008 Jun;29(6):841-6. X-3, X-4b, X-4e, X-5.
397. Aydin Y, Atis A, Ocer F, et al. Association of cervical infection of Chlamydia trachomatis, Ureaplasma urealyticum and Mycoplasma hominis with peritoneum colonisation in pregnancy. *J Obstet Gynaecol.* 2010;30(8):809-12. X-1.
398. Ayers JW and Morley GW. Surgical incision for cesarean section. *Obstet Gynecol.* 1987 Nov;70(5):706-8. X-9.
399. Ayers S, Collenette A, Hollis B, et al. Feasibility study of a Latest Date of Delivery (LDD) system of managing pregnancy. *J Psychosom Obstet Gynaecol.* 2005 Sep;26(3):167-71. X-1.
400. Ayorinde BT, Buczkowski P, Brown J, et al. Evaluation of pre-emptive intramuscular phenylephrine and ephedrine for reduction of spinal anaesthesia-induced hypotension during Caesarean section. *Br J Anaesth.* 2001 Mar;86(3):372-6. X-9.
401. Ayres-de-Campos D, Costa-Santos C and Bernardes J. Prediction of neonatal state by computer analysis of fetal heart rate tracings: the antepartum arm of the SisPorto multicentre validation study. *Eur J Obstet Gynecol Reprod Biol.* 2005 Jan 10;118(1):52-60. X-1.
402. Aziken M, Omo-Aghoja L and Okonofua F. Perceptions and attitudes of pregnant women towards caesarean section in urban Nigeria. *Acta Obstet Gynecol Scand.* 2007;86(1):42-7. X-1.
403. Azizi F, Sadeghipour H, Siahkolah B, et al. Intellectual development of children born of mothers who fasted in Ramadan during pregnancy. *Int J Vitam Nutr Res.* 2004 Sep;74(5):374-80. X-1.
404. Azria E, Kane A, Tsatsaris V, et al. Term labor management and outcomes in treated HIV-infected women without contraindications to vaginal delivery and matched controls. *Int J Gynaecol Obstet.* 2010 Nov;111(2):161-4. X-1.
405. Azzopardi T, Van Essen P, Cundy PJ, et al. Late diagnosis of developmental dysplasia of the hip: an analysis of risk factors. *J Pediatr Orthop B.* 2011 Jan;20(1):1-7. X-1.
406. Baaj JM, Alsatli RA, Majaj HA, et al. Efficacy of ultrasound-guided transversus abdominis plane (TAP) block for postcesarean section delivery analgesia--a double-blind, placebo-controlled, randomized study. *Middle East J Anesthesiol.* 2010 Oct;20(6):821-6. X-9.
407. Ba'aqeel HS. Cesarean delivery rates in Saudi Arabia: a ten-year review. *Ann Saudi Med.* 2009 May-Jun;29(3):179-83. X-1.
408. Babawale MO, Lovat S, Mayhew TM, et al. Effects of gestational diabetes on junctional adhesion molecules in human term placental vasculature. *Diabetologia.* 2000 Sep;43(9):1185-96. X-1.
409. Babay ZA, Al-Nuaim LA, Addar MH, et al. Undiagnosed term breech: management and outcome. *Saudi Med J.* 2000 May;21(5):478-81. X-1.
410. Babski-Reeves KL and Tran GM. Efficacy of an assistive intervention for abdominal surgery patients in postoperative care. *Disabil Rehabil Assist Technol.* 2006 Jun;1(3):191-7. X-1.
411. Bach V, Carl P, Ravlo O, et al. A randomized comparison between midazolam and thiopental for elective cesarean section anesthesia: III. Placental transfer and elimination in neonates. *Anesth Analg.* 1989 Mar;68(3):238-42. X-1.
412. Bachmann-Mennenga B, Veit G, Biscopling J, et al. Epidural ropivacaine 1% with and without sufentanil addition for Caesarean section. *Acta Anaesthesiol Scand.* 2005 Apr;49(4):525-31. X-9.
413. Bachmann-Mennenga B, Veit G, Steinicke B, et al. Efficacy of sufentanil addition to ropivacaine epidural anaesthesia for Caesarean section. *Acta Anaesthesiol Scand.* 2005 Apr;49(4):532-7. X-9.
414. Backe SK, Kocarev M, Wilson RC, et al. Effect of maternal facial oxygen on neonatal behavioural scores during elective Caesarean section with spinal anaesthesia. *Eur J Anaesthesiol.* 2007 Jan;24(1):66-70. X-9.
415. Backe SK, Sheikh Z, Wilson R, et al. Combined epidural/spinal anaesthesia: needle-through-needle or separate spaces? *Eur J Anaesthesiol.* 2004 Nov;21(11):854-7. X-3, X-4b, X-5.
416. Backos M, Rai R, Baxter N, et al. Pregnancy complications in women with recurrent miscarriage associated with antiphospholipid antibodies treated with low dose aspirin and heparin. *Br J Obstet Gynaecol.* 1999 Feb;106(2):102-7. X-1.
417. Badawi N, Kurinczuk JJ, Keogh JM, et al. Intrapartum risk factors for newborn encephalopathy: the Western Australian case-control study. *BMJ.* 1998 Dec 5;317(7172):1554-8. X-1.

418. Badawy AM, Khiary M, Sherif LS, et al. Low-molecular weight heparin in patients with recurrent early miscarriages of unknown aetiology. *J Obstet Gynaecol*. 2008 Apr;28(3):280-4. X-4e.
419. Bader AM, Tsen LC, Camann WR, et al. Clinical effects and maternal and fetal plasma concentrations of 0.5% epidural levobupivacaine versus bupivacaine for cesarean delivery. *Anesthesiology*. 1999 Jun;90(6):1596-601. X-9.
420. Bader D, Riskin A, Paz E, et al. Breathing patterns in term infants delivered by caesarean section. *Acta Paediatr*. 2004 Sep;93(9):1216-20. X-1.
421. Baek C and Rutenberg N. Implementing programs for the prevention of mother-to-child HIV transmission in resource-constrained settings: Horizons studies, 1999-2007. *Public Health Rep*. 2010 Mar-Apr;125(2):293-304. X-1, X-2.
422. Bagratee JS, Moodley J, Kleinschmidt I, et al. A randomised controlled trial of antibiotic prophylaxis in elective caesarean delivery. *BJOG*. 2001 Feb;108(2):143-8. X-9.
423. Bahar AM, Archibong EI, Zaki ZM, et al. Induction of labour using low and high dose regimens of prostaglandin E2 vaginal tablets. *East Afr Med J*. 2003 Jan;80(1):51-5. X-1.
424. Bahl R, Strachan B and Murphy DJ. Outcome of subsequent pregnancy three years after previous operative delivery in the second stage of labour: cohort study. *BMJ*. 2004 Feb 7;328(7435):311. X-1.
425. Bahmanyar S, Montgomery SM, Weiss RJ, et al. Maternal smoking during pregnancy, other prenatal and perinatal factors, and the risk of Legg-Calve-Perthes disease. *Pediatrics*. 2008 Aug;122(2):e459-64. X-1.
426. Baicker K, Buckles KS and Chandra A. Geographic variation in the appropriate use of cesarean delivery. *Health Aff (Millwood)*. 2006 Sep-Oct;25(5):w355-67. X-1, X-2.
427. Bailey P, de Bocolletti E, Barrios G, et al. Monitoring utilization and need for obstetric care in the highlands of Guatemala. *Int J Gynaecol Obstet*. 2005 May;89(2):209-17. X-1.
428. Bailey PE and Paxton A. Program note. Using UN process indicators to assess needs in emergency obstetric services. *Int J Gynaecol Obstet*. 2002 Mar;76(3):299-305; discussion 306. X-1, X-2, X-3, X-4e, X-5.
429. Bailit JL, Landon MB, Lai Y, et al. Maternal-Fetal Medicine Units Network cesarean registry: impact of shift change on cesarean complications. *Am J Obstet Gynecol*. 2008 Feb;198(2):173 e1-5. X-1.
430. Bailit JL, Landon MB, Thom E, et al. The MFMU Cesarean Registry: impact of time of day on cesarean complications. *Am J Obstet Gynecol*. 2006 Oct;195(4):1132-7. X-1.
431. Bailit JL, Love TE and Dawson NV. Quality of obstetric care and risk-adjusted primary cesarean delivery rates. *Am J Obstet Gynecol*. 2006 Feb;194(2):402-7. X-1.
432. Bailit JL, Schulkin J and Dawson NV. Risk-adjusted cesarean rates: what risk factors for cesarean delivery are important to practicing obstetricians? *J Reprod Med*. 2007 Mar;52(3):194-8. X-1.
433. Baka NE, Bayoumeu F, Boutroy MJ, et al. Colostrum morphine concentrations during postcesarean intravenous patient-controlled analgesia. *Anesth Analg*. 2002 Jan;94(1):184-7, table of contents. X-1.
434. Baker C, Luce J, Chenoweth C, et al. Comparison of case-finding methodologies for endometritis after cesarean section. *Am J Infect Control*. 1995 Feb;23(1):27-33. X-1.
435. Baker PN and Johnson IR. A study of the effect of rotational forceps delivery on fetal acid-base balance. *Acta Obstet Gynecol Scand*. 1994 Nov;73(10):787-9. X-1.
436. Baker SG and Lindeman KS. The paired availability design: a proposal for evaluating epidural analgesia during labor. *Stat Med*. 1994 Nov 15;13(21):2269-78. X-1, X-2.
437. Bakhamees H and Hegazy E. Does epidural increase the incidence of cesarean delivery or instrumental labor in Saudi populations? *Middle East J Anesthesiol*. 2007 Oct;19(3):693-704. X-1, X-4e, X-5.
438. Bakke OM, Haram K, Lygre T, et al. Comparison of the placental transfer of thiopental and diazepam in caesarean section. *Eur J Clin Pharmacol*. 1981;21(3):221-7. X-1.
439. Bakker JJ, Verhoeven CJ, Janssen PF, et al. Outcomes after internal versus external tocodynamometry for monitoring labor. *N Engl J Med*. 2010 Jan 28;362(4):306-13. X-5.
440. Baksu A, Kalan A, Ozkan A, et al. The effect of placental removal method and site of uterine repair on postcesarean endometritis and operative blood loss. *Acta Obstet Gynecol Scand*. 2005 Mar;84(3):266-9. X-9.
441. Balaji P, Dhillon P and Russell IF. Low-dose epidural top up for emergency caesarean delivery: a randomised comparison of levobupivacaine versus lidocaine/epinephrine/fentanyl. *Int J Obstet Anesth*. 2009 Oct;18(4):335-41. X-9.
442. Balani J, Hyer SL, Rodin DA, et al. Pregnancy outcomes in women with gestational diabetes treated with metformin or insulin: a case-control study. *Diabet Med*. 2009 Aug;26(8):798-802. X-1.
443. Balchin I, Whittaker JC, Lamont RF, et al. Timing of planned cesarean delivery by racial group. *Obstet Gynecol*. 2008 Mar;111(3):659-66. X-1.
444. Balcombe LJ. Consent to medical treatment: the law and ethics. *Trans Med Soc Lond*. 1993;110:34-5. X-1.

445. Baldwin LM, Hart LG, Lloyd M, et al. Defensive medicine and obstetrics. *JAMA*. 1995 Nov 22-29;274(20):1606-10. X-1.
446. Balki M, Dhumne S, Kasodekar S, et al. Oxytocin-ergometrine co-administration does not reduce blood loss at caesarean delivery for labour arrest. *BJOG*. 2008 Apr;115(5):579-84. X-9.
447. Balki M, Dhumne S, Kasodekar S, et al. Blood transfusion for primary postpartum hemorrhage: a tertiary care hospital review. *J Obstet Gynaecol Can*. 2008 Nov;30(11):1002-7. X-1.
448. Balki M, Kasodekar S, Dhumne S, et al. Prophylactic [corrected] granisetron does not prevent postdelivery nausea and vomiting during elective cesarean delivery under spinal anesthesia. *Anesth Analg*. 2007 Mar;104(3):679-83. X-9.
449. Balki M, Ronayne M, Davies S, et al. Minimum oxytocin dose requirement after cesarean delivery for labor arrest. *Obstet Gynecol*. 2006 Jan;107(1):45-50. X-9.
450. Bamigboye AA and Justus HG. Ropivacaine abdominal wound infiltration and peritoneal spraying at cesarean delivery for preemptive analgesia. *Int J Gynaecol Obstet*. 2008 Aug;102(2):160-4. X-9.
451. Bandi E, Weeks S and Carli F. Spinal block levels and cardiovascular changes during post-Cesarean transport. *Can J Anaesth*. 1999 Aug;46(8):736-40. X-1.
452. Banerjee M, Bhattacharya A, Hughes SM, et al. Efficacy of insulin lispro in pregnancies complicated with pregestational diabetes mellitus. *Practical Diabetes International*. 2009;26(9):366-370. X-1.
453. Baniyas BB, Nolan TE, Devoe LD, et al. Maternal coagulation inhibitors and the effects of cesarean delivery. *J Reprod Med*. 1992 Aug;37(8):741-4. X-1.
454. Banks E, Meirik O, Farley T, et al. Female genital mutilation and obstetric outcome: WHO collaborative prospective study in six African countries. *Lancet*. 2006 Jun 3;367(9525):1835-41. X-1.
455. Banks S and Pavy T. A portable, disposable device for patient-controlled epidural analgesia following Caesarean section: evaluation by patients and nurses. *Aust N Z J Obstet Gynaecol*. 2001 Nov;41(4):372-5. X-1.
456. Bano F, Haider S, Aftab S, et al. Comparison of 25-gauge, Quincke and Whitacre needles for postdural puncture headache in obstetric patients. *J Coll Physicians Surg Pak*. 2004 Nov;14(11):647-50. X-3, X-4b, X-5.
457. Bano F, Sabbar S, Zafar S, et al. Intrathecal fentanyl as adjunct to hyperbaric bupivacaine in spinal anesthesia for caesarean section. *J Coll Physicians Surg Pak*. 2006 Feb;16(2):87-90. X-9.
458. Bar J, Dvir A, Hod M, et al. Brachial plexus injury and obstetrical risk factors. *Int J Gynaecol Obstet*. 2001 Apr;73(1):21-5. X-1.
459. Barak S, Oettinger-Barak O, Machtei EE, et al. Evidence of periopathogenic microorganisms in placentas of women with preeclampsia. *J Periodontol*. 2007 Apr;78(4):670-6. X-1.
460. Baraka A, Jabbour S, Tabboush Z, et al. Onset of vecuronium neuromuscular block is more rapid in patients undergoing caesarean section. *Can J Anaesth*. 1992 Feb;39(2):135-8. X-1.
461. Baraka A, Khoury PJ, Siddik SS, et al. Efficacy of the self-inflating bulb in differentiating esophageal from tracheal intubation in the parturient undergoing cesarean section. *Anesth Analg*. 1997 Mar;84(3):533-7. X-9.
462. Baraka A, Louis F, Noueihid R, et al. Awareness following different techniques of general anaesthesia for caesarean section. *Br J Anaesth*. 1989 Jun;62(6):645-8. X-9.
463. Baraka A, Noueihid R and Hajj S. Intrathecal injection of morphine for obstetric analgesia. *Anesthesiology*. 1981 Feb;54(2):136-40. X-1.
464. Baraka A, Saab M, Salem MR, et al. Control of gastric acidity by glycopyrrolate premedication in the parturient. *Anesth Analg*. 1977 Sep-Oct;56(5):642-5. X-9.
465. Baraka A, Siddik S and Assaf B. Supplementation of general anaesthesia with tramadol or fentanyl in parturients undergoing elective caesarean section. *Can J Anaesth*. 1998 Jul;45(7):631-4. X-9.
466. Baraka AS, Hanna MT, Jabbour SI, et al. Preoxygenation of pregnant and nonpregnant women in the head-up versus supine position. *Anesth Analg*. 1992 Nov;75(5):757-9. X-1.
467. Baraka AS, Sayyid SS and Assaf BA. Thiopental-rocuronium versus ketamine-rocuronium for rapid-sequence intubation in parturients undergoing caesarean section. *Anesth Analg*. 1997 May;84(5):1104-7. X-9.
468. Barakat MN, Youssef RM and Al-Lawati JA. Pregnancy outcomes of diabetic women: charting Oman's progress towards the goals of the Saint Vincent Declaration. *Ann Saudi Med*. 2010 Jul-Aug;30(4):265-70. X-1.
469. Barbera AF, Pombar X, Perugino G, et al. A new method to assess fetal head descent in labor with transperineal ultrasound. *Ultrasound Obstet Gynecol*. 2009 Mar;33(3):313-9. X-1.
470. Barki PA. The midwife and moral dilemma. *Midwifery Today Childbirth Educ*. 1997 Spring(41):57-8. X-1.
471. Barnardo PD and Jenkins JG. Failed tracheal intubation in obstetrics: a 6-year review in a UK region. *Anaesthesia*. 2000 Jul;55(7):690-4. X-1.
472. Barnea ER, Lavy G, Fakh H, et al. The role of ACTH in placental steroidogenesis. *Placenta*. 1986 Jul-Aug;7(4):307-13. X-1.

473. Barnhart BJ, Carlson CV and Reynolds JW. Adrenal cortical function in the postmature fetus and newborn infant. *Pediatr Res.* 1980 Dec;14(12):1367-9. X-1.
474. Barnhart KT, Sammel MD, Gracia CR, et al. Risk factors for ectopic pregnancy in women with symptomatic first-trimester pregnancies. *Fertil Steril.* 2006 Jul;86(1):36-43. X-1.
475. Barnsley JM, Vayda E, Lomas J, et al. Cesarean section in Ontario: practice patterns and responses to hypothetical cases. *Can J Surg.* 1990 Apr;33(2):128-32. X-1.
476. Baron C, Morgan MA and Garite TJ. The impact of amniotic fluid volume assessed intrapartum on perinatal outcome. *Am J Obstet Gynecol.* 1995 Jul;173(1):167-74. X-1.
477. Baron CM, Girling LG, Mathieson AL, et al. Obstetrical and neonatal outcomes in obese parturients. *J Matern Fetal Neonatal Med.* 2010 Aug;23(8):906-13. X-1.
478. Barrett HL, Morris J and McElduff A. Watchful waiting: a management protocol for maternal glycaemia in the peripartum period. *Aust N Z J Obstet Gynaecol.* 2009 Apr;49(2):162-7. X-1.
479. Barrilleaux PS, Bofill JA, Terrone DA, et al. Cervical ripening and induction of labor with misoprostol, dinoprostone gel, and a Foley catheter: a randomized trial of 3 techniques. *Am J Obstet Gynecol.* 2002 Jun;186(6):1124-9. X-4d, X-5.
480. Barros FC, Vaughan JP, Victora CG, et al. Epidemic of caesarean sections in Brazil. *Lancet.* 1991 Jul 20;338(8760):167-9. X-1.
481. Barros FC and Victora CG. Maternal-child health in Pelotas, Rio Grande do Sul State, Brazil: major conclusions from comparisons of the 1982, 1993, and 2004 birth cohorts. *Cad Saude Publica.* 2008;24 Suppl 3:S461-7. X-1.
482. Bartha JL, Comino-Delgado R, Garcia-Benasach F, et al. Oral misoprostol and intracervical dinoprostone for cervical ripening and labor induction: a randomized comparison. *Obstet Gynecol.* 2000 Sep;96(3):465-9. X-4d.
483. Bartha JL, Romero-Carmona R, Martinez-Del-Fresno P, et al. Bishop score and transvaginal ultrasound for preinduction cervical assessment: a randomized clinical trial. *Ultrasound Obstet Gynecol.* 2005 Feb;25(2):155-9. X-4d, X-4e.
484. Barton M. More than just pain relief: a study of postpartum, post-caesarean pain management. *Aust Coll Midwives Inc J.* 1996 Jun;9(2):14-9. X-3, X-4b, X-5.
485. Barwolff S, Sohr D, Geffers C, et al. Reduction of surgical site infections after Caesarean delivery using surveillance. *J Hosp Infect.* 2006 Oct;64(2):156-61. X-1.
486. Basha SL, Rochon ML, Quinones JN, et al. Randomized controlled trial of wound complication rates of subcuticular suture vs staples for skin closure at cesarean delivery. *Am J Obstet Gynecol.* 2010 Sep;203(3):285 e1-8. X-9.
487. Bashiri A, Burstein E, Bar-David J, et al. Face and brow presentation: independent risk factors. *J Matern Fetal Neonatal Med.* 2008 Jun;21(6):357-60. X-1.
488. Baskett TF, Allen VM, O'Connell CM, et al. Predictors of respiratory depression at birth in the term infant. *BJOG.* 2006 Jul;113(7):769-74. X-1.
489. Bassan H, Feldman HA, Limperopoulos C, et al. Periventricular hemorrhagic infarction: risk factors and neonatal outcome. *Pediatr Neurol.* 2006 Aug;35(2):85-92. X-1.
490. Basson E, Odendaal HJ and Grove D. Oxytocin use in South Africa--a review. *S Afr Med J.* 2004 Oct;94(10):839-45. X-1.
491. Bastani F, Hidarnia A, Montgomery KS, et al. Does relaxation education in anxious primigravid Iranian women influence adverse pregnancy outcomes?: a randomized controlled trial. *J Perinat Neonatal Nurs.* 2006 Apr-Jun;20(2):138-46. X-6.
492. Baston H, Rijnders M, Green JM, et al. Looking back on birth three years later: factors associated with a negative appraisal in England and in the Netherlands. *Journal of Reproductive & Infant Psychology.* 2008;26(4):323-339. X-1.
493. Bateman C. Rendering unto Caesar? *S Afr Med J.* 2004 Oct;94(10):800-2. X-1, X-2.
494. Battaglia C, Artini PG, Ballestri M, et al. Hemodynamic, hematological and hemorrheological evaluation of post-term pregnancy. *Acta Obstet Gynecol Scand.* 1995 May;74(5):336-40. X-1.
495. Bauchat JR, Higgins N, Wojciechowski KG, et al. Low-dose ketamine with multimodal postcesarean delivery analgesia: a randomized controlled trial. *Int J Obstet Anesth.* 2011 Jan;20(1):3-9. X-9.
496. Bauer M, Fast C, Haas J, et al. Cystic periventricular leukomalacia in preterm infants: an analysis of obstetric risk factors. *Early Hum Dev.* 2009 Mar;85(3):163-9. X-1.
497. Baumert M, Brozek G, Paprotny M, et al. Epidemiology of peri/intraventricular haemorrhage in newborns at term. *J Physiol Pharmacol.* 2008 Sep;59 Suppl 4:67-75. X-1.
498. Bawdon RE and Davis LL. Postcesarean section plasma fibronectin levels. *Gynecol Obstet Invest.* 1988;25(1):38-41. X-1.
499. Baytur YB, Deveci A, Uyar Y, et al. Mode of delivery and pelvic floor muscle strength and sexual function after childbirth. *Int J Gynaecol Obstet.* 2005 Mar;88(3):276-80. X-1.
500. Baytur YB, Serter S, Tarhan S, et al. Pelvic floor function and anatomy after childbirth. *J Reprod Med.* 2007 Jul;52(7):604-10. X-1.
501. Bazowska G and Jendryczko A. Concentration of malondialdehyde (MDA) in amniotic fluid and maternal and cord serum in cases of

- intrauterine growth retardation. *Zentralbl Gynakol.* 1994;116(6):329-30. X-1.
502. Beake S, Rose V, Bick D, et al. A qualitative study of the experiences and expectations of women receiving in-patient postnatal care in one English maternity unit. *BMC Pregnancy Childbirth.* 2010;10:70. X-1.
503. Beall MH, Spong CY and Ross MG. A randomized controlled trial of prophylactic maneuvers to reduce head-to-body delivery time in patients at risk for shoulder dystocia. *Obstet Gynecol.* 2003 Jul;102(1):31-5. X-4e, X-5.
504. Beck P and Lilling MI. Induction of labor with intravenous prostaglandin. *Am J Obstet Gynecol.* 1976 Jul 1;125(5):648-54. X-1.
505. Becker S, Solomayer E, Dogan C, et al. Meconium-stained amniotic fluid--perinatal outcome and obstetrical management in a low-risk suburban population. *Eur J Obstet Gynecol Reprod Biol.* 2007 May;132(1):46-50. X-1.
506. Becroft DM, Thompson JM and Mitchell EA. Pulmonary interstitial hemosiderin in infancy: a common consequence of normal labor. *Pediatr Dev Pathol.* 2005 Jul-Aug;8(4):448-52. X-1.
507. Beeby D, MacIntosh KC, Bailey M, et al. Postoperative analgesia for Caesarean section using epidural methadone. *Anaesthesia.* 1984 Jan;39(1):61-3. X-9.
508. Beech BAL. Breech births: Imperial College 10th October, 1998. *AIMS Journal.* 1998;10(3):24-24. X-2.
509. Behague DP. Beyond the simple economics of cesarean section birthing: women's resistance to social inequality. *Cult Med Psychiatry.* 2002 Dec;26(4):473-507. X-1.
510. Behague DP, Victora CG and Barros FC. Consumer demand for caesarean sections in Brazil: informed decision making, patient choice, or social inequality? A population based birth cohort study linking ethnographic and epidemiological methods. *BMJ.* 2002 Apr 20;324(7343):942-5. X-1.
511. Beigi A, Kabiri M and Zarrinkoub F. Cervical ripening with oral misoprostol at term. *Int J Gynaecol Obstet.* 2003 Dec;83(3):251-5. X-4d.
512. Beilin Y, Bodian CA, Haddad EM, et al. Practice patterns of anesthesiologists regarding situations in obstetric anesthesia where clinical management is controversial. *Anesth Analg.* 1996 Oct;83(4):735-41. X-1.
513. Beilin Y, Guinn NR, Bernstein HH, et al. Local anesthetics and mode of delivery: bupivacaine versus ropivacaine versus levobupivacaine. *Anesth Analg.* 2007 Sep;105(3):756-63. X-5.
514. Beilin Y, Mungall D, Hossain S, et al. Labor pain at the time of epidural analgesia and mode of delivery in nulliparous women presenting for an induction of labor. *Obstet Gynecol.* 2009 Oct;114(4):764-9. X-1.
515. Beinder E, Mohaupt MG, Schlembach D, et al. Nitric oxide synthase activity and Doppler parameters in the fetoplacental and uteroplacental circulation in preeclampsia. *Hypertens Pregnancy.* 1999;18(2):115-27. X-1.
516. Beine K, Fullerton J, Palinkas L, et al. Conceptions of prenatal care among Somali women in San Diego. *J Nurse Midwifery.* 1995 Jul-Aug;40(4):376-81. X-1.
517. Bekku S, Mitsuda N, Ogita K, et al. High incidence of respiratory distress syndrome (RDS) in infants born to mothers with placenta previa. *J Matern Fetal Med.* 2000 Mar-Apr;9(2):110-3. X-1.
518. Belavy D, Cowlishaw PJ, Howes M, et al. Ultrasound-guided transversus abdominis plane block for analgesia after Caesarean delivery. *Br J Anaesth.* 2009 Nov;103(5):726-30. X-9.
519. Belci D, Kos M, Zoricic D, et al. Comparative study of the "Misgav Ladach" and traditional Pfannenstiel surgical techniques for cesarean section. *Minerva Ginecol.* 2007 Jun;59(3):231-40. X-9.
520. Belfrage P, Fernstrom I and Hallenberg G. Routine or selective ultrasound examinations in early pregnancy. *Obstet Gynecol.* 1987 May;69(5):747-50. X-1, X-4e, X-5.
521. Belfrage P and Gjessing L. The term breech presentation. A retrospective study with regard to the planned mode of delivery. *Acta Obstet Gynecol Scand.* 2002 Jun;81(6):544-50. X-1.
522. Belkin A, Levy A and Sheiner E. Perinatal outcomes and complications of pregnancy in women with immune thrombocytopenic purpura. *J Matern Fetal Neonatal Med.* 2009 Nov;22(11):1081-5. X-1.
523. Bell JS, Campbell DM, Graham WJ, et al. Can obstetric complications explain the high levels of obstetric interventions and maternity service use among older women? A retrospective analysis of routinely collected data. *BJOG.* 2001 Sep;108(9):910-8. X-1.
524. Bellomo G, Narducci PL, Rondoni F, et al. Prognostic value of 24-hour blood pressure in pregnancy. *JAMA.* 1999 Oct 20;282(15):1447-52. X-1.
525. Belzarena SD. Evaluation of intravenous tenoxicam for postoperative cesarean delivery pain relief. Preliminary report. *Reg Anesth.* 1994 Nov-Dec;19(6):408-11. X-9.
526. Ben Slama C, Nsiri B, Bouguerra R, et al. Diabetic pregnancy in over 35 years old women. *Ann Ist Super Sanita.* 1997;33(3):313-6. X-1.
527. Benachi A, Chailley-Heu B, Barlier-Mur AM, et al. Expression of surfactant proteins and thyroid transcription factor 1 in an ovine model of congenital diaphragmatic hernia. *J Pediatr Surg.* 2002 Oct;37(10):1393-8. X-1.

528. Ben-Ami I, Schneider D, Svirsky R, et al. Safety of late second-trimester pregnancy termination by laminaria dilatation and evacuation in patients with previous multiple cesarean sections. *Am J Obstet Gynecol.* 2009 Aug;201(2):154 e1-5. X-1.
529. Benaron HB and Tucker BE. The effect of factors beyond clinical control and obstetric management of mature infant survival at the Chicago Maternity Center from 1959 to 1963. *Am J Obstet Gynecol.* 1971 Aug 15;110(8):1119-24. X-1.
530. Benaron HW and Tucker BE. The effect of obstetric management and factors beyond clinical control on maternal mortality rates at the Chicago Maternity Center from 1959 to 1963. *Am J Obstet Gynecol.* 1971 Aug 15;110(8):1113-8. X-1.
531. Ben-Aroya Z, Hallak M, Segal D, et al. Ripening of the uterine cervix in a post-cesarean parturient: prostaglandin E2 versus Foley catheter. *J Matern Fetal Neonatal Med.* 2002 Jul;12(1):42-5. X-1.
532. Ben-Aroya Z, Yochai D, Silberstein T, et al. Oxytocin use in grand-multiparous patients: safety and complications. *J Matern Fetal Med.* 2001 Oct;10(5):328-31. X-1.
533. Ben-Chetrit E, Ben-Chetrit A and Berkun Y. Pregnancy outcomes in women with familial Mediterranean fever receiving colchicine: is amniocentesis justified? *Arthritis Care Res (Hoboken).* 2010 Feb;62(2):143-8. X-1.
534. Ben-David B, Miller G, Gavriel R, et al. Low-dose bupivacaine-fentanyl spinal anesthesia for cesarean delivery. *Reg Anesth Pain Med.* 2000 May-Jun;25(3):235-9. X-9.
535. Bendon RW, Faye-Petersen O, Pavlova Z, et al. Fetal membrane histology in preterm premature rupture of membranes: comparison to controls, and between antibiotic and placebo treatment. The National Institute of Child Health and Human Development Maternal Fetal Medicine Units Network, Bethesda, MD, USA. *Pediatr Dev Pathol.* 1999 Nov-Dec;2(6):552-8. X-1.
536. Benedetto C, Marozio L, Prandi G, et al. Short-term maternal and neonatal outcomes by mode of delivery. A case-controlled study. *Eur J Obstet Gynecol Reprod Biol.* 2007 Nov;135(1):35-40. X-1.
537. Benedetto MT, De Cicco F, Rossiello F, et al. Oxytocin receptor in human fetal membranes at term and during labor. *J Steroid Biochem.* 1990 Feb;35(2):205-8. X-1.
538. Bengtson MB, Solberg IC, Aamodt G, et al. Relationships between inflammatory bowel disease and perinatal factors: both maternal and paternal disease are related to preterm birth of offspring. *Inflamm Bowel Dis.* 2010 May;16(5):847-55. X-1.
539. Benhamou D, Labaille T, Bonhomme L, et al. Alkalinization of epidural 0.5% bupivacaine for cesarean section. *Reg Anesth.* 1989 Sep-Oct;14(5):240-3. X-9.
540. Benhamou D, Thorin D, Brichant JF, et al. Intrathecal clonidine and fentanyl with hyperbaric bupivacaine improves analgesia during cesarean section. *Anesth Analg.* 1998 Sep;87(3):609-13. X-9.
541. Ben-Haroush A, Bardin R, Erman A, et al. Beta2-microglobulin and hypertensive complications in pregnant women at risk. *Clin Nephrol.* 2002 Dec;58(6):411-6. X-1.
542. Ben-Haroush A, Glickman H, Yogev Y, et al. Induction of labor in pregnancies with suspected large-for-gestational-age fetuses and unfavorable cervix. *Eur J Obstet Gynecol Reprod Biol.* 2004 Oct 15;116(2):182-5. X-1.
543. Ben-Haroush A, Perri T, Bar J, et al. Mode of delivery following successful external cephalic version. *Am J Perinatol.* 2002 Oct;19(7):355-60. X-1.
544. Ben-Haroush A, Yogev Y, Bar J, et al. Indicated labor induction with vaginal prostaglandin E2 increases the risk of cesarean section even in multiparous women with no previous cesarean section. *J Perinat Med.* 2004;32(1):31-6. X-1.
545. Ben-Haroush A, Yogev Y, Glickman H, et al. Mode of delivery in pregnancies with premature rupture of membranes at or before term following induction of labor with vaginal prostaglandin E2. *Am J Perinatol.* 2004 Jul;21(5):263-8. X-1.
546. Ben-Haroush A, Yogev Y, Glickman H, et al. Mode of delivery in pregnant women with hypertensive disorders and unfavorable cervix following induction of labor with vaginal application of prostaglandin E. *Acta Obstet Gynecol Scand.* 2005 Jul;84(7):665-71. X-1.
547. Benigno BB, Ford LC, Lawrence WD, et al. A double-blind, controlled comparison of piperacillin and cefoxitin in the prevention of postoperative infection in patients undergoing cesarean section. *Surg Gynecol Obstet.* 1986 Jan;162(1):1-7. X-9.
548. Benlabeled M, Dreizzen E, Ecoffey C, et al. Neonatal patterns of breathing after cesarean section with or without epidural fentanyl. *Anesthesiology.* 1990 Dec;73(6):1110-3. X-9.
549. Bennedsen BE, Mortensen PB, Olesen AV, et al. Obstetric complications in women with schizophrenia. *Schizophr Res.* 2001 Mar 1;47(2-3):167-75. X-1.
550. Bennett B. Pregnant women and the duty to rescue: a feminist response to the fetal rights debate. *Law Context.* 1991;9:70-91. X-1.
551. Bennett KA, Butt K, Crane JM, et al. A masked randomized comparison of oral and vaginal administration of misoprostol for labor induction. *Obstet Gynecol.* 1998 Oct;92(4 Pt 1):481-6. X-4d.
552. Bennett KA, Butt K, Crane JM, et al. A masked randomized comparison of oral and

- vaginal administration of misoprostol for labor induction. *Obstet Gynecol.* 1998 Oct;92(4 Pt 1):481-6. X-4d.
553. Bennett P, Slater D, Berger L, et al. The expression of phospholipase A2 and lipocortins (annexins) I, II and V in human fetal membranes and placenta in association with labour. *Prostaglandins.* 1994 Aug;48(2):81-90. X-1.
554. Bennett PR, Rose MP, Myatt L, et al. Preterm labor: stimulation of arachidonic acid metabolism in human amnion cells by bacterial products. *Am J Obstet Gynecol.* 1987 Mar;156(3):649-55. X-1.
555. Ben-Rafael Z, Seidman DS, Recabi K, et al. Uterine anomalies. A retrospective, matched-control study. *J Reprod Med.* 1991 Oct;36(10):723-7. X-1.
556. Benrubi GI, Young M and Nuss RC. Intrapartum outcome of term pregnancy after cervical cryotherapy. *J Reprod Med.* 1984 Apr;29(4):251-4. X-1.
557. Bensal A, Weintraub AY, Levy A, et al. The significance of peripartum fever in women undergoing vaginal deliveries. *Am J Perinatol.* 2008 Oct;25(9):567-72. X-1.
558. Ben-Shlomo I, Alcalay M, Lipitz S, et al. Twin pregnancies complicated by the death of one fetus. *J Reprod Med.* 1995 Jun;40(6):458-62. X-1.
559. Benson CB, Chow JS, Chang-Lee W, et al. Outcome of pregnancies in women with uterine leiomyomas identified by sonography in the first trimester. *J Clin Ultrasound.* 2001 Jun;29(5):261-4. X-1.
560. Berends N, Teunkens A, Vandermeersch E, et al. A randomized trial comparing low-dose combined spinal-epidural anesthesia and conventional epidural anesthesia for cesarean section in severe preeclampsia. *Acta Anaesthesiol Belg.* 2005;56(2):155-62. X-9.
561. Berenson AB, Hammill HA, Martens MG, et al. Bacteriologic findings of post-cesarean endometritis in adolescents. *Obstet Gynecol.* 1990 Apr;75(4):627-9. X-1.
562. Berenson AB, Wiemann CM, Wilkinson GS, et al. Perinatal morbidity associated with violence experienced by pregnant women. *Am J Obstet Gynecol.* 1994 Jun;170(6):1760-6; discussion 1766-9. X-1.
563. Berg G, Andersson RG and Ryden G. Beta-adrenergic receptors in human myometrium during pregnancy: changes in the number of receptors after beta-mimetic treatment. *Am J Obstet Gynecol.* 1985 Feb 1;151(3):392-6. X-1.
564. Berg M, Adlerberth A, Sultan B, et al. Early random capillary glucose level screening and multidisciplinary antenatal teamwork to improve outcome in gestational diabetes mellitus. *Acta Obstet Gynecol Scand.* 2007;86(3):283-90. X-1.
565. Berg S, Engman A, Holmgren S, et al. Increased plasma hyaluronan in severe pre-eclampsia and eclampsia. *Scand J Clin Lab Invest.* 2001 Apr;61(2):131-7. X-1.
566. Bergenstrom A and Sherr L. HIV testing and prevention issues for women attending termination assessment clinics. *Br J Fam Plann.* 1999 Apr;25(1):3-8. X-1.
567. Berger N, Vaillancourt C and Boksa P. Interactive effects of anoxia and general anesthesia during birth on the degree of CNS and systemic hypoxia produced in neonatal rats. *Exp Brain Res.* 2000 Apr;131(4):524-31. X-1.
568. Berger R, Sawodny E, Bachmann G, et al. The prognostic value of magnetic resonance imaging for the management of breech delivery. *Eur J Obstet Gynecol Reprod Biol.* 1994 Jun 15;55(2):97-103. X-1.
569. Bergeron V. The ethics of cesarean section on maternal request: a feminist critique of the American College of Obstetricians and Gynecologists' position on patient-choice surgery. *Bioethics.* 2007 Nov;21(9):478-87. X-1, X-2.
570. Bergholt T, Ostberg B, Legarth J, et al. Danish obstetricians' personal preference and general attitude to elective cesarean section on maternal request: a nation-wide postal survey. *Acta Obstet Gynecol Scand.* 2004 Mar;83(3):262-6. X-1.
571. Berglund S, Grunewald C, Pettersson H, et al. Risk factors for asphyxia associated with substandard care during labor. *Acta Obstet Gynecol Scand.* 2010;89(1):39-48. X-1.
572. Bergsjö P, Bakketeig LS and Eikhom SN. Case-control analysis of post-term induction of labor. *Acta Obstet Gynecol Scand.* 1982;61(4):317-24. X-1.
573. Bergstrom H and Bernstein K. Psychic reactions after analgesia with nitrous oxide for caesarean section. *Lancet.* 1968 Sep 7;2(7567):541-2. X-1, X-9.
574. Bergstrom M, Kieler H and Waldenstrom U. Psychoprophylaxis during labor: associations with labor-related outcomes and experience of childbirth. *Acta Obstet Gynecol Scand.* 2010 Jun;89(6):794-800. X-1.
575. Berkeley AS, Freedman KS, Hirsch JC, et al. Randomized, comparative trial of imipenem/cilastatin and moxalactam in the treatment of serious obstetric and gynecologic infections. *Surg Gynecol Obstet.* 1986 Mar;162(3):204-8. X-4e.
576. Berkeley AS, Hirsch JC, Freedman KS, et al. Cefotaxime for cesarean section prophylaxis in labor. Intravenous administration vs. lavage. *J Reprod Med.* 1990 Mar;35(3):214-8. X-9.
577. Berkman H. A discussion of medical malpractice and cesarean section. *Spec Law Dig Health Care Law.* 1993 Apr(170):9-30. X-1.

578. Berkovitch M, Pastuszak A, Gazarian M, et al. Safety of the new quinolones in pregnancy. *Obstet Gynecol.* 1994 Oct;84(4):535-8. X-1.
579. Berkowitz RL, Lesser ML, McFarland JG, et al. Antepartum treatment without early cordocentesis for standard-risk alloimmune thrombocytopenia: a randomized controlled trial. *Obstet Gynecol.* 2007 Aug;110(2 Pt 1):249-55. X-1.
580. Berkus MD, Ramamurthy RS, O'Connor PS, et al. Cohort study of Silastic obstetric vacuum cup deliveries: II. Unsuccessful vacuum extraction. *Obstet Gynecol.* 1986 Nov;68(5):662-6. X-1.
581. Bermeo ME, Fomin VP, Ventolini G, et al. Magnesium sulfate induces translocation of protein kinase C isoenzymes alpha and delta in myometrial cells from pregnant women. *Am J Obstet Gynecol.* 2004 Feb;190(2):522-7. X-1.
582. Bernard JM, Le Roux D and Frouin J. Ropivacaine and fentanyl concentrations in patient-controlled epidural analgesia during labor: a volume-range study. *Anesth Analg.* 2003 Dec;97(6):1800-7. X-4e, X-5.
583. Berne C, Wibell L and Lindmark G. Ten-year experience of insulin treatment in gestational diabetes. *Acta Paediatr Scand Suppl.* 1985;320:85-93. X-1.
584. Bernstein P. Prostaglandin E2 gel for cervical ripening and labour induction: a multicentre placebo-controlled trial. *CMAJ.* 1991 Nov 15;145(10):1249-54. X-4d, X-5.
585. Bettes BA, Coleman VH, Zinberg S, et al. Cesarean delivery on maternal request: obstetrician-gynecologists' knowledge, perception, and practice patterns. *Obstet Gynecol.* 2007 Jan;109(1):57-66. X-1.
586. Beverly HM and Clark KM. Is there a difference in fetal oxygenation when varying amounts of oxygen are delivered to the mother during elective cesarean section under spinal or epidural anesthesia?... State of the Science Oral and Poster Sessions: part 2. *AANA Journal.* 2006;74(6):463-464. X-4b.
587. Bevier WC, Fischer R and Jovanovic L. Treatment of women with an abnormal glucose challenge test (but a normal oral glucose tolerance test) decreases the prevalence of macrosomia. *Am J Perinatol.* 1999;16(6):269-75. X-1.
588. Bhagwanjee S, Rocke DA, Rout CC, et al. Prevention of hypotension following spinal anaesthesia for elective caesarean section by wrapping of the legs. *Br J Anaesth.* 1990 Dec;65(6):819-22. X-9.
589. Bhalla AK, Sarala G and Dhaliwal L. Pregnancy following infertility. *Aust N Z J Obstet Gynaecol.* 1992 Aug;32(3):249-51. X-1.
590. Bhatta MP, Stringer JS, Phanuphak P, et al. Mother-to-child HIV transmission prevention in Thailand: physician zidovudine use and willingness to provide care. *Int J STD AIDS.* 2003 Jun;14(6):404-10. X-1.
591. Bhattacharjee N, Ganguly RP and Saha SP. Misoprostol for termination of mid-trimester post-Caesarean pregnancy. *Aust N Z J Obstet Gynaecol.* 2007 Feb;47(1):23-5. X-1.
592. Bhattacharya N. Placental umbilical cord blood transfusion: a new method of treatment of patients with diabetes and microalbuminuria in the background of anemia. *Clin Exp Obstet Gynecol.* 2006;33(3):164-8. X-1.
593. Bhattacharya N. Transient spontaneous engraftment of CD34 hematopoietic cord blood stem cells as seen in peripheral blood: treatment of leprosy patients with anemia by placental umbilical cord whole blood transfusion. *Clin Exp Obstet Gynecol.* 2006;33(3):159-63. X-1.
594. Bhattacharya S, Porter M, Harrild K, et al. Absence of conception after caesarean section: voluntary or involuntary? *BJOG.* 2006 Mar;113(3):268-75. X-1.
595. Bhattarai B, Bhat SY and Upadya M. Comparison of bolus phenylephrine, ephedrine and mephentermine for maintenance of arterial pressure during spinal anesthesia in cesarean section. *JNMA J Nepal Med Assoc.* 2010 Jan-Mar;49(177):23-8. X-9.
596. Bhutta ZA, Darmstadt GL, Haws RA, et al. Delivering interventions to reduce the global burden of stillbirths. *Neonatal Intensive Care.* 2009;22(7):39-43. X-1, X-2.
597. Biale Y, Brawer-Ostrovsky Y and Insler V. Fetal heart rate tracings in fetuses with congenital malformations. *J Reprod Med.* 1985 Jan;30(1):43-7. X-1.
598. Bianco A, Stone J, Lynch L, et al. Pregnancy outcome at age 40 and older. *Obstet Gynecol.* 1996 Jun;87(6):917-22. X-1.
599. Bick DE and MacArthur C. Attendance, content and relevance of the six week postnatal examination. *Midwifery.* 1995 Jun;11(2):69-73. X-1.
600. Bider D, Blankstein J and Tur-Kaspa I. Fertility in anovulatory patients after primary cesarean section. *J Reprod Med.* 1998 Oct;43(10):869-71. X-1.
601. Biderman-Madar T, Sheiner E, Levy A, et al. Uterine leiomyoma among women who conceived following fertility treatment. *Arch Gynecol Obstet.* 2005 Sep;272(3):218-22. X-1.
602. Biggio JR, Jr., Wenstrom KD, Dubard MB, et al. Hydramnios prediction of adverse perinatal outcome. *Obstet Gynecol.* 1999 Nov;94(5 Pt 1):773-7. X-1.
603. Bignardi T and Condous G. Transrectal ultrasound-guided surgical evacuation of Cesarean scar ectopic pregnancy. *Ultrasound Obstet Gynecol.* 2010 Apr;35(4):481-5. X-1.
604. Bilder D, Pinborough-Zimmerman J, Miller J, et al. Prenatal, perinatal, and neonatal factors

- associated with autism spectrum disorders. *Pediatrics*. 2009 May;123(5):1293-300. X-1.
605. Bilgin T, Kadioglu M, Yildirim V, et al. A randomized trial of intracervical prostaglandin gel and intravenous oxytocin in prelabor rupture of membranes with unripe cervix at term. *Clin Exp Obstet Gynecol*. 1998;25(1-2):46-8. X-3, X-4e, X-5.
606. Bimbashi A, Ndoni E, Dokle A, et al. Care during the third stage of labour: obstetricians views and practice in an Albanian maternity hospital. *BMC Pregnancy Childbirth*. 2010;10:4. X-1.
607. Binder T, Hajek Z, Zoban P, et al. Conducting labor in women with previous caesarean section in a low gestational week. A prospective case-controlled study. *Gynecol Obstet Invest*. 2008;66(3):197-202. X-1.
608. Binsted RJ. Epidural morphine after caesarean section. *Anaesth Intensive Care*. 1983 May;11(2):130-4. X-9.
609. Bique C, Bugalho A and Bergstrom S. Labor induction by vaginal misoprostol in grand multiparous women. *Acta Obstet Gynecol Scand*. 1999 Mar;78(3):198-201. X-1.
610. Birch L and Culshaw A. Drug error in maternity care: a multiprofessional issue. *British Journal of Midwifery*. 2003;11(3):173-175. X-1.
611. Birnkrant DJ, Picone C, Markowitz W, et al. Association of transient tachypnea of the newborn and childhood asthma. *Pediatr Pulmonol*. 2006 Oct;41(10):978-84. X-1.
612. Biswas R, Sawhney H, Dass R, et al. Histopathological study of placental bed biopsy in placenta previa. *Acta Obstet Gynecol Scand*. 1999 Mar;78(3):173-9. X-1.
613. Bivins HA, Jr., Cope DA, Newman RB, et al. Randomized trial of intraumbilical vein oxytocin in midtrimester pregnancy losses. *Am J Obstet Gynecol*. 1993 Oct;169(4):1070-3. X-3, X-4e, X-5.
614. Bjelic-Radisic V, Pristauz G, Haas J, et al. Neonatal outcome of second twins depending on presentation and mode of delivery. *Twin Res Hum Genet*. 2007 Jun;10(3):521-7. X-1.
615. Bjercke S, Dale PO, Tanbo T, et al. Impact of insulin resistance on pregnancy complications and outcome in women with polycystic ovary syndrome. *Gynecol Obstet Invest*. 2002;54(2):94-8. X-1.
616. Bjorklund K, Kimaro M, Urassa E, et al. Introduction of the Misgav Ladach caesarean section at an African tertiary centre: a randomised controlled trial. *BJOG*. 2000 Feb;107(2):209-16. X-9.
617. Bjornestad E, Iversen OE and Raeder J. Wrapping of the legs versus phenylephrine for reducing hypotension in parturients having epidural anaesthesia for caesarean section: a prospective, randomized and double-blind study. *Eur J Anaesthesiol*. 2009 Oct;26(10):842-6. X-9.
618. Bjornestad E, Iversen OL and Raeder J. Similar onset time of 2-chloroprocaine and lidocaine + epinephrine for epidural anesthesia for elective Cesarean section. *Acta Anaesthesiol Scand*. 2006 Mar;50(3):358-63. X-9.
619. Bjornestad E, Smedvig JP, Bjerkeim T, et al. Epidural ropivacaine 7.5 mg/ml for elective Caesarean section: a double-blind comparison of efficacy and tolerability with bupivacaine 5 mg/ml. *Acta Anaesthesiol Scand*. 1999 Jul;43(6):603-8. X-9.
620. Bjornsdottir S, Cnattingius S, Brandt L, et al. Addison's disease in women is a risk factor for an adverse pregnancy outcome. *J Clin Endocrinol Metab*. 2010 Dec;95(12):5249-57. X-1.
621. Bjune K, Stubhaug A, Dodgson MS, et al. Additive analgesic effect of codeine and paracetamol can be detected in strong, but not moderate, pain after Caesarean section. Baseline pain-intensity is a determinant of assay-sensitivity in a postoperative analgesic trial. *Acta Anaesthesiol Scand*. 1996 Apr;40(4):399-407. X-9.
622. Black SB, Shinefield HR, France EK, et al. Effectiveness of influenza vaccine during pregnancy in preventing hospitalizations and outpatient visits for respiratory illness in pregnant women and their infants. *Am J Perinatol*. 2004 Aug;21(6):333-9. X-1.
623. Blair M and Eliadi C. Preventing premature birth disparities. *Minority Nurse*. 2009:30-32. X-1, X-4e.
624. Blanchette HA, Nayak S and Erasmus S. Comparison of the safety and efficacy of intravaginal misoprostol (prostaglandin E1) with those of dinoprostone (prostaglandin E2) for cervical ripening and induction of labor in a community hospital. *Am J Obstet Gynecol*. 1999 Jun;180(6 Pt 1):1551-9. X-1.
625. Blanco JD, Collins M, Willis D, et al. Prostaglandin E2 gel induction of patients with a prior low transverse cesarean section. *Am J Perinatol*. 1992 Mar;9(2):80-3. X-1.
626. Blanco JD, Gibbs RS, Duff P, et al. Randomized comparison of ceftazidime versus clindamycin-tobramycin in the treatment of obstetrical and gynecological infections. *Antimicrob Agents Chemother*. 1983 Oct;24(4):500-4. X-3, X-4e.
627. Bland BA, Lawes EG, Duncan PW, et al. Comparison of midazolam and thiopental for rapid sequence anesthetic induction for elective cesarean section. *Anesth Analg*. 1987 Nov;66(11):1165-8. X-9.
628. Bland RD, Albertine KH, Carlton DP, et al. Chronic lung injury in preterm lambs: abnormalities of the pulmonary circulation and

- lung fluid balance. *Pediatr Res*. 2000 Jul;48(1):64-74. X-1.
629. Blegen MA, Reiter RC, Goode CJ, et al. Outcomes of hospital-based managed care: a multivariate analysis of cost and quality. *Obstet Gynecol*. 1995 Nov;86(5):809-14. X-1.
630. Blickenstaff DC. Defining the boundaries of personal privacy: is there a paternal interest in compelling therapeutic fetal surgery? *Northwest Univ Law Rev*. 1994 Spring;88(3):1157-99. X-1, X-2.
631. Blickstein I, Goldman RD and Kupferminc M. Delivery of breech first twins: a multicenter retrospective study. *Obstet Gynecol*. 2000 Jan;95(1):37-42. X-1.
632. Blitt CD, Petty WC, Alberternst EE, et al. Correlation of plasma cholinesterase activity and duration of action of succinylcholine during pregnancy. *Anesth Analg*. 1977 Jan-Feb;56(1):78-83. X-1.
633. Bloch-Salisbury E, Hall MH, Sharma P, et al. Heritability of apnea of prematurity: a retrospective twin study. *Pediatrics*. 2010 Oct;126(4):e779-87. X-1.
634. Blom EA, Jansen PW, Verhulst FC, et al. Perinatal complications increase the risk of postpartum depression. The Generation R Study. *BJOG*. 2010 Oct;117(11):1390-8. X-1.
635. Blondel B, Macfarlane A, Gissler M, et al. Preterm birth and multiple pregnancy in European countries participating in the PERISTAT project. *BJOG*. 2006 May;113(5):528-35. X-1.
636. Blondel B, Zein A, Ghosn N, et al. Collecting population-based perinatal data efficiently: the example of the Lebanese National Perinatal Survey. *Paediatr Perinat Epidemiol*. 2006 Sep;20(5):416-24. X-1.
637. Bloom SL, Leveno KJ, Spong CY, et al. Decision-to-incision times and maternal and infant outcomes. *Obstet Gynecol*. 2006 Jul;108(1):6-11. X-1.
638. Blum M. Is the elderly primipara really at high risk? *J Perinat Med*. 1979;7(2):108-12. X-1.
639. Blumenthal NJ, Merrell DA and Langer O. Obstetrics in the very young black South African teenager. *S Afr Med J*. 1982 Apr 3;61(14):518-20. X-1.
640. Blumgart CH, Ryall D, Dennison B, et al. Mechanism of extension of spinal anaesthesia by extradural injection of local anaesthetic. *Br J Anaesth*. 1992 Nov;69(5):457-60. X-9.
641. Bobadilla JL and Walker GJ. Early neonatal mortality and cesarean delivery in Mexico City. *Am J Obstet Gynecol*. 1991 Jan;164(1 Pt 1):22-8. X-1.
642. Boccolini CS, Carvalho ML, Oliveira MI, et al. Factors associated with breastfeeding in the first hour of life. *Rev Saude Publica*. 2011 Feb;45(1):69-78. X-1.
643. Boda D, Muranyi L and Eck E. Experiments on placental circulation and transplacental transfer in exteriorized fetuses in hypoxia and after asphyxia in guinea pigs. *Z Geburtshilfe Perinatol*. 1976 Apr;180(2):112-6. X-1, X-3.
644. Bodelon C, Bernabe-Ortiz A, Schiff MA, et al. Factors associated with peripartum hysterectomy. *Obstet Gynecol*. 2009 Jul;114(1):115-23. X-1.
645. Bodmer B, Benjamin A, McLean FH, et al. Has use of cesarean section reduced the risks of delivery in the preterm breech presentation? *Am J Obstet Gynecol*. 1986 Feb;154(2):244-50. X-1.
646. Bodner-Adler B, Bodner K, Kaider A, et al. Risk factors for third-degree perineal tears in vaginal delivery, with an analysis of episiotomy types. *J Reprod Med*. 2001 Aug;46(8):752-6. X-1.
647. Bodner-Adler B, Bodner K, Pateisky N, et al. Influence of labor induction on obstetric outcomes in patients with prolonged pregnancy: a comparison between elective labor induction and spontaneous onset of labor beyond term. *Wien Klin Wochenschr*. 2005 Apr;117(7-8):287-92. X-1.
648. Boer K, Nellen JF, Patel D, et al. The AmRo study: pregnancy outcome in HIV-1-infected women under effective highly active antiretroviral therapy and a policy of vaginal delivery. *BJOG*. 2007 Feb;114(2):148-55. X-1.
649. Boers KE, Vijgen SM, Bijlenga D, et al. Induction versus expectant monitoring for intrauterine growth restriction at term: randomised equivalence trial (DIGITAT). *BMJ*. 2010;341:c7087. X-4e.
650. Bofill JA, Rust OA, Perry KG, et al. Operative vaginal delivery: a survey of fellows of ACOG. *Obstet Gynecol*. 1996 Dec;88(6):1007-10. X-1.
651. Bofill JA, Vincent RD, Ross EL, et al. Nulliparous active labor, epidural analgesia, and cesarean delivery for dystocia. *Am J Obstet Gynecol*. 1997 Dec;177(6):1465-70. X-4e, X-5.
652. Bogg L, Huang K, Long Q, et al. Dramatic increase of Cesarean deliveries in the midst of health reforms in rural China. *Soc Sci Med*. 2010 May;70(10):1544-9. X-1.
653. Bogod DG, Rosen M and Rees GA. Maximum FIO2 during caesarean section. *Br J Anaesth*. 1988 Sep;61(3):255-62. X-9.
654. Bohra U, Donnelly J, O'Connell MP, et al. Active management of labour revisited: the first 1000 primiparous labours in 2000. *J Obstet Gynaecol*. 2003 Mar;23(2):118-20. X-1.
655. Boldt T, Luukkainen P, Fyhrquist F, et al. Birth stress increases adrenomedullin in the newborn. *Acta Paediatr*. 1998 Jan;87(1):93-4. X-1.
656. Bolnick JM, Velazquez MD, Gonzalez JL, et al. Randomized trial between two active labor management protocols in the presence of an

- unfavorable cervix. *Am J Obstet Gynecol.* 2004 Jan;190(1):124-8. X-4d.
657. Bonakdar MI, Eckhous AW, Bacher BJ, et al. Major gynecologic and obstetric surgery in Jehovah's Witnesses. *Obstet Gynecol.* 1982 Nov;60(5):587-90. X-1.
658. Bondok WM, El-Shehry SH and Fadlallah SM. Trend in cesarean section rate. *Saudi Med J.* 2011 Jan;32(1):41-5. X-1.
659. Bonebrake RG, Towers CV, Rumney PJ, et al. Is fluorescence polarization reliable and cost efficient in a fetal lung maturity cascade? *Am J Obstet Gynecol.* 1997 Oct;177(4):835-41. X-1, X-3, X-4e.
660. Bonito M, Gulemi L, Basili R, et al. Myomectomy during the first and second trimester of pregnancy. *Clin Exp Obstet Gynecol.* 2007;34(3):149-50. X-1, X-2.
661. Bonomo M, Corica D, Mion E, et al. Evaluating the therapeutic approach in pregnancies complicated by borderline glucose intolerance: a randomized clinical trial. *Diabet Med.* 2005 Nov;22(11):1536-41. X-4e, X-5.
662. Bonomo M, Gandini ML, Farina A, et al. Should we treat minor degrees of glucose intolerance in pregnancy? *Ann Ist Super Sanita.* 1997;33(3):393-7. X-1.
663. Boo NY and Lye MS. Factors associated with clinically significant perinatal asphyxia in the Malaysian neonates: a case-control study. *J Trop Pediatr.* 1992 Dec;38(6):284-9. X-1.
664. Booth VJ, Nelson KB, Dambrosia JM, et al. What factors influence whether placentas are submitted for pathologic examination? *Am J Obstet Gynecol.* 1997 Mar;176(3):567-71. X-1.
665. Boothby R, Benrubi G and Ferrell E. Comparison of intravenous cefoxitin prophylaxis with intraoperative cefoxitin irrigation for the prevention of post-cesarean-section endometritis. *J Reprod Med.* 1984 Nov;29(11):830-2. X-9.
666. Borekci B, Aksoy H, Toker A, et al. Placental tissue cyclo-oxygenase 1 and 2 in pre-eclamptic and normal pregnancy. *Int J Gynaecol Obstet.* 2006 Nov;95(2):127-31. X-1.
667. Borello-France D, Burgio KL, Richter HE, et al. Fecal and urinary incontinence in primiparous women. *Obstet Gynecol.* 2006 Oct;108(4):863-72. X-1.
668. Borghi J, Bastus S, Belizan M, et al. Costs of publicly provided maternity services in Rosario, Argentina. *Salud Publica Mex.* 2003 Jan-Feb;45(1):27-34. X-1.
669. Borruto F, Treisser A and Comparetto C. Utilization of carbetocin for prevention of postpartum hemorrhage after cesarean section: a randomized clinical trial. *Arch Gynecol Obstet.* 2009 Nov;280(5):707-12. X-9.
670. Bosch FX, Munoz N, de Sanjose S, et al. Risk factors for cervical cancer in Colombia and Spain. *Int J Cancer.* 1992 Nov 11;52(5):750-8. X-1.
671. Bost BW. Cesarean delivery on demand: what will it cost? *Am J Obstet Gynecol.* 2003 Jun;188(6):1418-21; discussion 1421-3. X-1.
672. Bott J. Clinical. HIV screening issues for midwives. *British Journal of Midwifery.* 2000;8(2):72-78. X-1, X-2.
673. Boucher M, Horbay GL, Griffin P, et al. Double-blind, randomized comparison of the effect of carbetocin and oxytocin on intraoperative blood loss and uterine tone of patients undergoing cesarean section. *J Perinatol.* 1998 May-Jun;18(3):202-7. X-9.
674. Boulvain M, Perneger TV, Othenin-Girard V, et al. Home-based versus hospital-based postnatal care: a randomised trial. *BJOG.* 2004 Aug;111(8):807-13. X-3, X-4e.
675. Bourgeois FJ, Harbert GM, Jr., Andersen WA, et al. Early versus late tocolytic treatment for preterm premature membrane rupture. *Am J Obstet Gynecol.* 1988 Sep;159(3):742-8. X-4e, X-5.
676. Bourgeois FJ, Pinkerton JA, Andersen W, et al. Antibiotic irrigation prophylaxis in the high-risk cesarean section patient. *Am J Obstet Gynecol.* 1985 Sep 15;153(2):197-201. X-9.
677. Bourjeily G, Raker CA, Chalhoub M, et al. Pregnancy and fetal outcomes of symptoms of sleep-disordered breathing. *Eur Respir J.* 2010 Oct;36(4):849-55. X-1.
678. Bourlert A. Diclofenac intramuscular single dose to decrease pain in post operative Caesarean section: a double blind randomized controlled trial. *J Med Assoc Thai.* 2005 Jan;88(1):15-9. X-9.
679. Bourne TM, deMelo AE, Bastianpillai BA, et al. A survey of how British obstetric anaesthetists test regional anaesthesia before caesarean section. *Anaesthesia.* 1997 Sep;52(9):901-3. X-1.
680. Bouvet L, Da-Col X, Chassard D, et al. ED and ED of intrathecal levobupivacaine with opioids for Caesarean delivery. *Br J Anaesth.* 2011 Feb;106(2):215-20. X-9.
681. Bouvier-Colle MH, Ould El Joud D, Varnoux N, et al. Evaluation of the quality of care for severe obstetrical haemorrhage in three French regions. *BJOG.* 2001 Sep;108(9):898-903. X-1.
682. Bouvier-Colle MH, Varnoux N, Salanave B, et al. Case-control study of risk factors for obstetric patients' admission to intensive care units. *Eur J Obstet Gynecol Reprod Biol.* 1997 Aug;74(2):173-7. X-1.
683. Bowden AP, Barrett JH, Fallow W, et al. Women with inflammatory polyarthritis have babies of lower birth weight. *J Rheumatol.* 2001 Feb;28(2):355-9. X-1.
684. Bowes WA, Jr. and Bowes C. Current role of the midforceps operation. *Clin Obstet Gynecol.* 1980 Jun;23(2):549-57. X-1, X-2.

685. Boyer SG and Boyer KM. Update on TORCH infections in the newborn infant. *Newborn & Infant Nursing Reviews*. 2004;4(1):70-80. X-1, X-2.
686. Boyle JG and Gabbe SG. T and J vertical extensions in low transverse cesarean births. *Obstet Gynecol*. 1996 Feb;87(2):238-43. X-1.
687. Boyle RK. Herpes simplex labialis after epidural or parenteral morphine: a randomized prospective trial in an Australian obstetric population. *Anaesth Intensive Care*. 1995 Aug;23(4):433-7. X-9.
688. Bozkaya H, Mocan H, Usluca H, et al. A retrospective analysis of adolescent pregnancies. *Gynecol Obstet Invest*. 1996;42(3):146-50. X-4d.
689. Bozkurt N, Kurdoglu M, Kurdoglu Z, et al. Postoperative pain control after cesarean section: can diclofenac sodium be used instead of meperidine? *J Matern Fetal Neonatal Med*. 2009 Dec;22(12):1144-50. X-9.
690. Brabin L, Verhoeff FH, Kazembe P, et al. Improving antenatal care for pregnant adolescents in southern Malawi. *Acta Obstet Gynecol Scand*. 1998 Apr;77(4):402-9. X-1.
691. Brace V, Kernaghan D and Penney G. Learning from adverse clinical outcomes: major obstetric haemorrhage in Scotland, 2003-05. *BJOG*. 2007 Nov;114(11):1388-96. X-1.
692. Bracero LA. Ampicillin/sulbactam versus cefotetan for the prevention of infection following cesarean delivery in high-risk patients: a randomized double-blind trial. *Gynecol Obstet Invest*. 1997;44(1):21-5. X-9.
693. Bracero LA, Evanco J and Byrne DW. Doppler velocimetry discordancy of the uterine arteries in pregnancies complicated by diabetes. *J Ultrasound Med*. 1997 Jun;16(6):387-93. X-1.
694. Bracero LA, Morgan S and Byrne DW. Comparison of visual and computerized interpretation of nonstress test results in a randomized controlled trial. *Am J Obstet Gynecol*. 1999 Nov;181(5 Pt 1):1254-8. X-4e.
695. Bracken JN, Dryfhout VL, Goldenhar LM, et al. Preferences and concerns for delivery: an antepartum survey. *Int Urogynecol J Pelvic Floor Dysfunct*. 2008 Nov;19(11):1527-31. X-1.
696. Bradley LA, Canick JA, Palomaki GE, et al. Undetectable maternal serum unconjugated estriol levels in the second trimester: risk of perinatal complications associated with placental sulfatase deficiency. *Am J Obstet Gynecol*. 1997 Mar;176(3):531-5. X-1.
697. Braekke K, Harsem NK and Staff AC. Oxidative stress and antioxidant status in fetal circulation in preeclampsia. *Pediatr Res*. 2006 Nov;60(5):560-4. X-1.
698. Braekke K, Holthe MR, Harsem NK, et al. Calprotectin, a marker of inflammation, is elevated in the maternal but not in the fetal circulation in preeclampsia. *Am J Obstet Gynecol*. 2005 Jul;193(1):227-33. X-1.
699. Braekke K, Ueland PM, Harsem NK, et al. Homocysteine, cysteine, and related metabolites in maternal and fetal plasma in preeclampsia. *Pediatr Res*. 2007 Sep;62(3):319-24. X-1.
700. Braekke K, Ueland PM, Harsem NK, et al. Asymmetric dimethylarginine in the maternal and fetal circulation in preeclampsia. *Pediatr Res*. 2009 Oct;66(4):411-5. X-1.
701. Braga Ade F, Braga FS, Poterio GM, et al. Sufentanil added to hyperbaric bupivacaine for subarachnoid block in Caesarean section. *Eur J Anaesthesiol*. 2003 Aug;20(8):631-5. X-9.
702. Braga Ade F, Frias JA, Braga FS, et al. Epidural block for cesarean section: a comparative study between 0.5% racemic Bupivacaine (S50-R50) and 0.5% enantiomeric excess Bupivacaine (S75-R25) associated with Sufentanil. *Rev Bras Anesthesiol*. 2009 May-Jun;59(3):261-72. X-9.
703. Braga Ade F, Frias JA, Braga FS, et al. Spinal block with 10 mg of hyperbaric bupivacaine associated with 5 microg of sufentanil for cesarean section. Study of different volumes. *Rev Bras Anesthesiol*. 2010 Apr;60(2):121-9, 69-73. X-9.
704. Bragg F, Cromwell DA, Edozien LC, et al. Variation in rates of caesarean section among English NHS trusts after accounting for maternal and clinical risk: cross sectional study. *BMJ*. 2010;341:c5065. X-1.
705. Brahams D. Pregnancy following sterilisation: two cases fail. *Lancet*. 1987 Mar 14;1(8533):638. X-1, X-2.
706. Brahams D. Caesarean sections by court order. *Lancet*. 1996 Sep 21;348(9030):770. X-1, X-2.
707. Braig S, Luton D, Sibony O, et al. Acyclovir prophylaxis in late pregnancy prevents recurrent genital herpes and viral shedding. *Eur J Obstet Gynecol Reprod Biol*. 2001 May;96(1):55-8. X-3, X-4e, X-5.
708. Bramer S, van Wijk FH, Mol BW, et al. Risk indicators for neonatal early-onset GBS-related disease. A case-control study. *J Perinat Med*. 1997;25(6):469-75. X-1.
709. Brancato RM, Church S and Stone PW. In the media: a meta-analysis of passive descent versus immediate pushing in nulliparous women with epidural analgesia in the second stage of labor... Reprinted from *Journal of Obstetric, Gynecologic and Neonatal Nursing*, 2008, Volume 37, p. 4-12 with permission from Blackwell Publishing, Oxford, UK. *Academic Nurse*. 2008;25(1):18-18. X-1.
710. Brar HS, Do YS, Tam HB, et al. Uteroplacental unit as a source of elevated circulating prorenin levels in normal pregnancy. *Am J Obstet Gynecol*. 1986 Dec;155(6):1223-6. X-1.

711. Brar HS, Platt LD and Paul RH. Fetal umbilical blood flow velocity waveforms using Doppler ultrasonography in patients with late decelerations. *Obstet Gynecol.* 1989 Mar;73(3 Pt 1):363-6. X-1.
712. Brashear WT, Zuspan KJ, Lazebnik N, et al. Effect of ranitidine on bupivacaine disposition. *Anesth Analg.* 1991 Mar;72(3):369-76. X-9.
713. Braveman P, Egerter S, Edmonston F, et al. Racial/ethnic differences in the likelihood of cesarean delivery, California. *Am J Public Health.* 1995 May;85(5):625-30. X-1.
714. Bray JK, Fernando R, Patel NP, et al. Suprasternal Doppler estimation of cardiac output: standard versus sequential combined spinal epidural anesthesia for cesarean delivery. *Anesth Analg.* 2006 Oct;103(4):959-64. X-9.
715. Breart G, Mlika-Cabane N, Kaminski M, et al. Evaluation of different policies for the management of labour. *Early Hum Dev.* 1992 Jun-Jul;29(1-3):309-12. X-1.
716. Bredfeldt RC, Thomas JM and Massie M. Pregnancy care in family practice: medical student perspectives on specialty and residency selection. *Fam Med.* 1994 Mar;26(3):145-8. X-1.
717. Breen TW and Janzen JA. Epidural fentanyl and caesarean section: when should fentanyl be given? *Can J Anaesth.* 1992 Apr;39(4):317-22. X-9.
718. Bremerich DH, Fetsch N, Zwissler BC, et al. Comparison of intrathecal bupivacaine and levobupivacaine combined with opioids for Caesarean section. *Curr Med Res Opin.* 2007 Dec;23(12):3047-54. X-9.
719. Bremerich DH, Schlosser RL, L'Allemand N, et al. Mepivacaine for spinal anesthesia in parturients undergoing elective cesarean delivery: maternal and neonatal plasma concentrations and neonatal outcome. *Zentralbl Gynakol.* 2003 Dec;125(12):518-21. X-1.
720. Bremme K and Eneroth P. Fetal sex dependent hormone levels in early pregnant women with elevated maternal serum alpha-fetoprotein. *Int J Gynaecol Obstet.* 1983 Dec;21(6):451-7. X-1.
721. Brenck F, Hartmann B, Jost A, et al. Examining the influence of maternal bradycardia on neonatal outcome using automated data collection. *Int J Obstet Anesth.* 2007 Jul;16(3):208-13. X-1.
722. Brennan DJ, Robson MS, Murphy M, et al. Comparative analysis of international cesarean delivery rates using 10-group classification identifies significant variation in spontaneous labor. *Am J Obstet Gynecol.* 2009 Sep;201(3):308 e1-8. X-1.
723. Brennecke SP, Gude NM, Di Iulio JL, et al. Reduction of placental nitric oxide synthase activity in pre-eclampsia. *Clin Sci (Lond).* 1997 Jul;93(1):51-5. X-1.
724. Brewster LM, Taherzadeh Z, Volger S, et al. Ethnic differences in resistance artery contractility of normotensive pregnant women. *Am J Physiol Heart Circ Physiol.* 2010 Aug;299(2):H431-6. X-1.
725. Breymann C, Zimmermann R, Huch R, et al. Use of recombinant human erythropoietin in combination with parenteral iron in the treatment of postpartum anaemia. *Eur J Clin Invest.* 1996 Feb;26(2):123-30. X-4e.
726. Brian DAJI and Agbai AO. Pattern of twin births in Nigerian Igbo women. *West Afr J Med.* 1994 Oct-Dec;13(4):234-6. X-1.
727. Briana DD, Boutsikou M, Baka S, et al. Omentin-1 and vaspin are present in the fetus and neonate, and perinatal concentrations are similar in normal and growth-restricted pregnancies. *Metabolism.* 2011 Apr;60(4):486-90. X-1.
728. Bricker L, Peden H, Tomlinson AJ, et al. Titrated low-dose vaginal and/or oral misoprostol to induce labour for prelabour membrane rupture: a randomised trial. *BJOG.* 2008 Nov;115(12):1503-11. X-4d, X-4e.
729. Bridgeman J. Medical treatment: the mother's rights. *Family Law.* 1993 Sep;23:534-5. X-1.
730. Briery CM, Rose CH, Hudson WT, et al. Planned vs emergent cesarean hysterectomy. *Am J Obstet Gynecol.* 2007 Aug;197(2):154 e1-5. X-1.
731. Briggs GG, Ambrose P and Nageotte MP. Gentamicin dosing in postpartum women with endometritis. *Am J Obstet Gynecol.* 1989 Feb;160(2):309-13. X-3, X-4e, X-5.
732. Briggs ND. Outcome of labour in occipitoposterior positions in an African population. *Br J Obstet Gynaecol.* 1989 Oct;96(10):1234-6. X-1.
733. Brill Y, Kingdom J, Thomas J, et al. The management of VBAC at term: a survey of Canadian obstetricians. *J Obstet Gynaecol Can.* 2003 Apr;25(4):300-10. X-1.
734. Brink S. C-sections rise but may not be the kindest cut. *US News World Rep.* 2000 Sep 4;129(9):63. X-1.
735. Brinton LA, Reeves WC, Brenes MM, et al. Parity as a risk factor for cervical cancer. *Am J Epidemiol.* 1989 Sep;130(3):486-96. X-1.
736. Britton JR. Postpartum early hospital discharge and follow-up practices in Canada and the United States. *Birth.* 1998 Sep;25(3):161-8. X-1.
737. Brizzi A, Greco F, Malvasi A, et al. Comparison of sequential combined spinal-epidural anesthesia and spinal anesthesia for cesarean section. *Minerva Anesthesiol.* 2005 Nov;71(11):701-9. X-9.
738. Broberger U, Hansson U, Lagercrantz H, et al. Sympatho-adrenal activity and metabolic adjustment during the first 12 hours after birth

- in infants of diabetic mothers. *Acta Paediatr Scand*. 1984 Sep;73(5):620-5. X-1.
739. Brocklehurst P. Future research needs for venous thrombo-embolic disease in obstetrics and gynaecology. *Baillieres Clin Obstet Gynaecol*. 1997 Sep;11(3):601-10. X-1, X-2.
740. Brocklehurst P, Kinghorn G, Carney O, et al. A randomised placebo controlled trial of suppressive acyclovir in late pregnancy in women with recurrent genital herpes infection. *Br J Obstet Gynaecol*. 1998 Mar;105(3):275-80. X-5.
741. Brocks V, Philipsen T and Secher NJ. A randomized trial of external cephalic version with tocolysis in late pregnancy. *Br J Obstet Gynaecol*. 1984 Jul;91(7):653-6. X-4e.
742. Brock-Utne JG. Reversal of neuromuscular blockade by glycopyrrolate and neostigmine. A study of the effects on lower oesophageal sphincter tone. *Anaesthesia*. 1979 Jul-Aug;34(7):620-3. X-9.
743. Brock-Utne JG, Buley RJ, Downing JW, et al. Advantages of left over right lateral tilt for caesarean section. *S Afr Med J*. 1978 Sep 16;54(12):489-92. X-9.
744. Brock-Utne JG, Rout C, Moodley J, et al. Influence of preoperative gastric aspiration on the volume and pH of gastric contents in obstetric patients undergoing caesarean section. *Br J Anaesth*. 1989 Apr;62(4):397-401. X-9.
745. Brodzski J, Morsing E, Malcus P, et al. Early intervention in management of very preterm growth-restricted fetuses: 2-year outcome of infants delivered on fetal indication before 30 gestational weeks. *Ultrasound Obstet Gynecol*. 2009 Sep;34(3):288-96. X-1.
746. Brook MG, Taylor GP, Dale A, et al. Management of HIV and pregnancy in England's North Thames Region 1999: a survey of practice in 21 hospitals. *HIV Med*. 2000 Jul;1(3):143-7; discussion 148. X-1.
747. Brooks GZ, Donchin Y, Collins JG, et al. Epidural morphine does not affect the duration of action of epidural 2-chloroprocaine following Caesarean section. *Can Anaesth Soc J*. 1983 Nov;30(6):598-602. X-9.
748. Brooten D, Knapp H, Borucki L, et al. Early discharge and home care after unplanned cesarean birth: nursing care time. *J Obstet Gynecol Neonatal Nurs*. 1996 Sep;25(7):595-600. X-1.
749. Brooten D, Naylor M, Brown L, et al. Profile of postdischarge rehospitalizations and acute care visits for seven patient groups. *Public Health Nurs*. 1996 Apr;13(2):128-34. X-1.
750. Brooten D, Roncoli M, Finkler S, et al. A randomized trial of early hospital discharge and home follow-up of women having cesarean birth. *Obstet Gynecol*. 1994 Nov;84(5):832-8. X-9.
751. Brose WG and Cohen SE. Oxyhemoglobin saturation following cesarean section in patients receiving epidural morphine, PCA, or im meperidine analgesia. *Anesthesiology*. 1989 Jun;70(6):948-53. X-9.
752. Brown CE, Stettler RW, Twickler D, et al. Puerperal septic pelvic thrombophlebitis: incidence and response to heparin therapy. *Am J Obstet Gynecol*. 1999 Jul;181(1):143-8. X-1.
753. Brown E, Carroll J, Fogarty C, et al. "They get a C-section...they gonna die": Somali women's fears of obstetrical interventions in the United States. *J Transcult Nurs*. 2010 Jul;21(3):220-7. X-1.
754. Brown HS, 3rd. Physician demand for leisure: implications for cesarean section rates. *J Health Econ*. 1996 Apr;15(2):233-42. X-1.
755. Brown HS, 3rd. Lawsuit activity, defensive medicine, and small area variation: the case of Cesarean sections revisited. *Health Econ Policy Law*. 2007 Jul;2(Pt 3):285-96. X-1.
756. Brown L. Clinical audit. The tide has turned: audit of water birth. *British Journal of Midwifery*. 1998;6(4):236-243. X-1.
757. Brown TR, Ehrlich CE, Stehman FB, et al. A clinical evaluation of chlorhexidine gluconate spray as compared with iodophor scrub for preoperative skin preparation. *Surg Gynecol Obstet*. 1984 Apr;158(4):363-6. X-3, X-4e, X-5.
758. Brown ZA, Wald A, Morrow RA, et al. Effect of serologic status and cesarean delivery on transmission rates of herpes simplex virus from mother to infant. *JAMA*. 2003 Jan 8;289(2):203-9. X-1.
759. Brownridge P and Frewin DB. A comparative study of techniques of postoperative analgesia following caesarean section and lower abdominal surgery. *Anaesth Intensive Care*. 1985 May;13(2):123-30. X-9.
760. Brozanski BS, Jones JG, Krohn MA, et al. Effect of a screening-based prevention policy on prevalence of early-onset group B streptococcal sepsis. *Obstet Gynecol*. 2000 Apr;95(4):496-501. X-1.
761. Brubaker K and Garite TJ. The lambda fetal heart rate pattern: an assessment of its significance in the intrapartum period. *Obstet Gynecol*. 1988 Dec;72(6):881-5. X-1.
762. Brucato A, Doria A, Frassi M, et al. Pregnancy outcome in 100 women with autoimmune diseases and anti-Ro/SSA antibodies: a prospective controlled study. *Lupus*. 2002;11(11):716-21. X-1.
763. Brucker MC. Clinical update. GENESIS. 1999(2):2. X-2.
764. Brunetti P, Puxeddu A, Calabrese G, et al. Therapeutical application of artificial beta-cell in surgery and obstetrics. *Horm Metab Res Suppl*. 1979(8):162-5. X-1, X-2.
765. Brunner L and Hickey ME. Disease management: Lovelace Health Systems

- episodes of care--a case study. *Best Pract Benchmarking Healthc.* 1997 Nov-Dec;2(6):254-7. X-1, X-2.
766. Brunvand L, Shah SS, Bergstrom S, et al. Vitamin D deficiency in pregnancy is not associated with obstructed labor. A study among Pakistani women in Karachi. *Acta Obstet Gynecol Scand.* 1998 Mar;77(3):303-6. X-1.
767. Brusati V, Jozwik M, Teng C, et al. Fetal and maternal non-glucose carbohydrates and polyols concentrations in normal human pregnancies at term. *Pediatr Res.* 2005 Oct;58(4):700-4. X-1.
768. Brusse I, Duvekot J, Jongerling J, et al. Impaired maternal cognitive functioning after pregnancies complicated by severe pre-eclampsia: a pilot case-control study. *Acta Obstet Gynecol Scand.* 2008;87(4):408-12. X-1.
769. Bryant-Greenwood GD and Yamamoto SY. Control of peripartal collagenolysis in the human chorion-decidua. *Am J Obstet Gynecol.* 1995 Jan;172(1 Pt 1):63-70. X-1.
770. Bryanton J, Gagnon AJ, Johnston C, et al. Predictors of women's perceptions of the childbirth experience. *J Obstet Gynecol Neonatal Nurs.* 2008 Jan-Feb;37(1):24-34. X-1.
771. Bryson GL, Macneil R, Jeyaraj LM, et al. Small dose spinal bupivacaine for Cesarean delivery does not reduce hypotension but accelerates motor recovery. *Can J Anaesth.* 2007 Jul;54(7):531-7. X-9.
772. Bsat FA and Warsof S. Extraovular and intraovular uterine contraction monitoring. A comparison. *J Reprod Med.* 1992 Sep;37(9):813-6. X-4, X-4e, X-5.
773. Buccellato CA, Stika CS and Frederiksen MC. A randomized trial of misoprostol versus extra-amniotic sodium chloride infusion with oxytocin for induction of labor. *Am J Obstet Gynecol.* 2000 May;182(5):1039-44. X-4d.
774. Buchanan SL, Crowther CA, Levett KM, et al. Planned early birth versus expectant management for women with preterm prelabour rupture of membranes prior to 37 weeks' gestation for improving pregnancy outcome. *Cochrane Database of Systematic Reviews.* 2010(3). X-1.
775. Buchmiller TL, Shaw KS, Chopourian HL, et al. Effect of transamniotic administration of epidermal growth factor on fetal rabbit small intestinal nutrient transport and disaccharidase development. *J Pediatr Surg.* 1993 Oct;28(10):1239-44. X-1.
776. Buckett WM, Chian RC, Holzer H, et al. Obstetric outcomes and congenital abnormalities after in vitro maturation, in vitro fertilization, and intracytoplasmic sperm injection. *Obstet Gynecol.* 2007 Oct;110(4):885-91. X-1.
777. Bucknell S and Sikorski K. Putting patient-controlled analgesia to the test. *MCN Am J Matern Child Nurs.* 1989 Jan-Feb;14(1):37-40. X-1, X-3, X-4e.
778. Buekens P, Curtis S and Alayon S. Demographic and Health Surveys: caesarean section rates in sub-Saharan Africa. *BMJ.* 2003 Jan 18;326(7381):136. X-1, X-2.
779. Bugg GJ, Atwal GS and Maresh M. Grandmultiparae in a modern setting. *BJOG.* 2002 Mar;109(3):249-53. X-1.
780. Buggy DJ, Hall NA, Shah J, et al. Motor block during patient-controlled epidural analgesia with ropivacaine or ropivacaine/fentanyl after intrathecal bupivacaine for caesarean section. *Br J Anaesth.* 2000 Sep;85(3):468-70. X-9.
781. Buhimschi CS, Buhimschi IA, Malinow AM, et al. Uterine contractility in women whose fetus is delivered in the occipitoposterior position. *Am J Obstet Gynecol.* 2003 Mar;188(3):734-9. X-1.
782. Buhimschi CS, Buhimschi IA, Patel S, et al. Rupture of the uterine scar during term labour: contractility or biochemistry? *BJOG.* 2005 Jan;112(1):38-42. X-1.
783. Buhimschi CS, Buhimschi IA, Yu C, et al. The effect of dystocia and previous caesarean uterine scar on the tensile properties of the lower uterine segment. *Am J Obstet Gynecol.* 2006 Mar;194(3):873-83. X-1.
784. Buhimschi CS, Buhimschi IA, Zhao G, et al. Biomechanical properties of the lower uterine segment above and below the reflection of the urinary bladder flap. *Obstet Gynecol.* 2007 Mar;109(3):691-700. X-9.
785. Buhimschi IA, Buhimschi CS, Pupkin M, et al. Beneficial impact of term labor: nonenzymatic antioxidant reserve in the human fetus. *Am J Obstet Gynecol.* 2003 Jul;189(1):181-8. X-1.
786. Bujold E. Evaluating professional society guidelines on vaginal birth after cesarean. *Semin Perinatol.* 2010 Oct;34(5):314-7. X-1.
787. Bujold E, Blackwell SC and Gauthier RJ. Cervical ripening with transcervical foley catheter and the risk of uterine rupture. *Obstet Gynecol.* 2004 Jan;103(1):18-23. X-1.
788. Bujold E and Gauthier RJ. Risk of uterine rupture associated with an interdelivery interval between 18 and 24 months. *Obstet Gynecol.* 2010 May;115(5):1003-6. X-1.
789. Bujold E, Goyet M, Marcoux S, et al. The role of uterine closure in the risk of uterine rupture. *Obstet Gynecol.* 2010 Jul;116(1):43-50. X-1.
790. Buka SL, Goldstein JM, Spartos E, et al. The retrospective measurement of prenatal and perinatal events: accuracy of maternal recall. *Schizophr Res.* 2004 Dec 1;71(2-3):417-26. X-1.
791. Bukar M, Kwari DY, Moruppa JY, et al. Anaesthesia for caesarean delivery: choice of technique among antenatal attendees in North-

- eastern Nigeria. *J Obstet Gynaecol.* 2010;30(8):822-5. X-1, X-9.
792. Buley RJ, Downing W, Brock-Utne JG, et al. Right versus left lateral tilt for Caesarean section. *Br J Anaesth.* 1977 Oct;49(10):1009-15. X-1.
793. Bulik CM, Sullivan PF, Fear JL, et al. Fertility and reproduction in women with anorexia nervosa: a controlled study. *J Clin Psychiatry.* 1999 Feb;60(2):130-5; quiz 135-7. X-1.
794. Bulkman N, Lyrenas S, Hallberg G, et al. Umbilical cord blood sampling--a tool for delivery quality control? *Acta Obstet Gynecol Scand.* 1997 May;76(5):419-22. X-1.
795. Bullarbo M, Norstrom A, Andersch B, et al. Isosorbide mononitrate induces increased cervical expression of cyclooxygenase-2, but not of cyclooxygenase-1, at term. *Eur J Obstet Gynecol Reprod Biol.* 2007 Feb;130(2):160-4. X-9.
796. Bungum TJ, Peaslee DL, Jackson AW, et al. Exercise during pregnancy and type of delivery in nulliparae. *J Obstet Gynecol Neonatal Nurs.* 2000 May-Jun;29(3):258-64. X-1.
797. Bunin GR, Buckley JD, Boesel CP, et al. Risk factors for astrocytic glioma and primitive neuroectodermal tumor of the brain in young children: a report from the Children's Cancer Group. *Cancer Epidemiol Biomarkers Prev.* 1994 Apr-May;3(3):197-204. X-1.
798. Bunting P and McConachie I. Ilioinguinal nerve blockade for analgesia after caesarean section. *Br J Anaesth.* 1988 Dec;61(6):773-5. X-1, X-9.
799. Burdan F. Formation of the knee joint after prenatal propylphenazone (isopropylantipyrine) administration. *Cells Tissues Organs.* 2002;171(2-3):145-51. X-1.
800. Burgess GE, 3rd. Antacids for obstetric patients. *Am J Obstet Gynecol.* 1975 Nov 15;123(6):577-9. X-1.
801. Burgio KL, Borello-France D, Richter HE, et al. Risk factors for fecal and urinary incontinence after childbirth: the childbirth and pelvic symptoms study. *Am J Gastroenterol.* 2007 Sep;102(9):1998-2004. X-1.
802. Burgos H, Hsi BL, Yeh CJ, et al. Plasminogen binding by human amniochorion. A possible factor in premature rupture of membranes. *Am J Obstet Gynecol.* 1982 Aug 15;143(8):958-63. X-1.
803. Burke MS, Porreco RP, Day D, et al. Intrauterine resuscitation with tocolysis. An alternate month clinical trial. *J Perinatol.* 1989 Sep;9(3):296-300. X-1.
804. Burns CM, Rutherford MA, Boardman JP, et al. Patterns of cerebral injury and neurodevelopmental outcomes after symptomatic neonatal hypoglycemia. *Pediatrics.* 2008 Jul;122(1):65-74. X-1.
805. Burns E, Zobbi V, Panzeri D, et al. Aromatherapy in childbirth: a pilot randomised controlled trial. *BJOG.* 2007 Jul;114(7):838-44. X-4e, X-5.
806. Burns LR, Chilingirian JA and Wholey DR. The effect of physician practice organization on efficient utilization of hospital resources. *Health Serv Res.* 1994 Dec;29(5):583-603. X-1.
807. Burrows J. The parturient woman: can there be room for more than 'one person with full and equal rights inside a single human skin'? *J Adv Nurs.* 2001 Mar;33(5):689-95. X-1, X-2.
808. Burrows RF, Gan ET, Gallus AS, et al. A randomised double-blind placebo controlled trial of low molecular weight heparin as prophylaxis in preventing venous thrombotic events after caesarean section: a pilot study. *BJOG.* 2001 Aug;108(8):835-9. X-9.
809. Burrows WR, Gingo AJ, Jr., Rose SM, et al. Safety and efficacy of early postoperative solid food consumption after cesarean section. *J Reprod Med.* 1995 Jun;40(6):463-7. X-9.
810. Burt RD, Vaughan TL and Daling JR. Evaluating the risks of cesarean section: low Apgar score in repeat C-section and vaginal deliveries. *Am J Public Health.* 1988 Oct;78(10):1312-4. X-1.
811. Buser D, Mora G and Arias F. A randomized comparison between misoprostol and dinoprostone for cervical ripening and labor induction in patients with unfavorable cervixes. *Obstet Gynecol.* 1997 Apr;89(4):581-5. X-4d.
812. Bush DJ, Lyons G and MacDonald R. Diclofenac for analgesia after caesarean section. *Anaesthesia.* 1992 Dec;47(12):1075-7. X-9.
813. Bush MC, Patel S, Lapinski RH, et al. Perinatal outcomes in inflammatory bowel disease. *J Matern Fetal Neonatal Med.* 2004 Apr;15(4):237-41. X-1.
814. Busowski JD, Chez RA and Goldfain VM. The effect of a resident night team on cesarean delivery. *Am J Perinatol.* 1997 Apr;14(4):177-80. X-1.
815. Butler HM, Laver JC, Shulman A, et al. The use of phenanthroline metal chelates for the control of topical infections due to bacteria, fungi and protozoa. *Med J Aust.* 1970 Aug 15;2(7):309-14. X-4e.
816. Butler J, Abrams B, Parker J, et al. Supportive nurse-midwife care is associated with a reduced incidence of cesarean section. *Am J Obstet Gynecol.* 1993 May;168(5):1407-13. X-1.
817. Butt KD, Bennett KA, Crane JM, et al. Randomized comparison of oral misoprostol and oxytocin for labor induction in term prelabor membrane rupture. *Obstet Gynecol.* 1999 Dec;94(6):994-9. X-4d.
818. Butt KD, Bennett KA, Crane JM, et al. Randomized comparison of oral misoprostol and oxytocin for labor induction in term

- prelabor membrane rupture. *Obstet Gynecol.* 1999 Dec;94(6):994-9. X-4d.
819. Buttino LT, Jr. and Garite TJ. Intracervical prostaglandin in postdate pregnancy. A randomized trial. *J Reprod Med.* 1990 Feb;35(2):155-8. X-4d, X-4e, X-5.
820. Butts S, Sammel M, Hummel A, et al. Risk factors and clinical features of recurrent ectopic pregnancy: a case control study. *Fertil Steril.* 2003 Dec;80(6):1340-4. X-1.
821. Butwick A and Carvalho B. The effect of colloid and crystalloid preloading on thromboelastography prior to Cesarean delivery. *Can J Anaesth.* 2007 Mar;54(3):190-5. X-9.
822. Butwick AJ, Coleman L, Cohen SE, et al. Minimum effective bolus dose of oxytocin during elective Cesarean delivery. *Br J Anaesth.* 2010 Mar;104(3):338-43. X-9.
823. Butwick AJ, Lipman SS and Carvalho B. Intraoperative forced air-warming during cesarean delivery under spinal anesthesia does not prevent maternal hypothermia. *Anesth Analg.* 2007 Nov;105(5):1413-9, table of contents. X-9.
824. Buyukbayrak EE, Kaymaz O, Kars B, et al. Cesarean delivery or vaginal birth: preference of Turkish pregnant women and influencing factors. *J Obstet Gynaecol.* 2010 Feb;30(2):155-8. X-1.
825. Bylsma-Howell M, Riggs KW, McMorland GH, et al. Placental transport of metoclopramide: assessment of maternal and neonatal effects. *Can Anaesth Soc J.* 1983 Sep;30(5):487-92. X-9.
826. Byrne JP, Crowther CA and Moss JR. A randomised controlled trial comparing birthing centre care with delivery suite care in Adelaide, Australia. *Aust N Z J Obstet Gynaecol.* 2000 Aug;40(3):268-74. X-5.
827. Cabero L, Cerqueira MJ, del Solar J, et al. Long-term hospitalization and beta-mimetic therapy in the treatment of intrauterine growth retardation of unknown etiology. *J Perinat Med.* 1988;16(5-6):453-8. X-4e, X-5.
828. Cade L and Ashley J. Towards optimal analgesia after caesarean section: comparison of epidural and intravenous patient-controlled opioid analgesia. *Anaesth Intensive Care.* 1993 Oct;21(5):696-9. X-9.
829. Cade L and Ashley J. Towards optimal analgesia after caesarean section: comparison of epidural and intravenous patient-controlled opioid analgesia. *Anaesth Intensive Care.* 1993 Aug;21(4):416-9. X-9.
830. Cade L, Ashley J and Ross AW. Comparison of epidural and intravenous opioid analgesia after elective caesarean section. *Anaesth Intensive Care.* 1992 Feb;20(1):41-5. X-9.
831. Cahill AG, Odibo AO, Allsworth JE, et al. Frequent epidural dosing as a marker for impending uterine rupture in patients who attempt vaginal birth after cesarean delivery. *Am J Obstet Gynecol.* 2010 Apr;202(4):355 e1-5. X-1.
832. Cahill AG, Stamilio DM, Odibo AO, et al. Racial disparity in the success and complications of vaginal birth after cesarean delivery. *Obstet Gynecol.* 2008 Mar;111(3):654-8. X-1.
833. Cahill AG, Stout MJ, Stamilio DM, et al. Risk factors for bladder injury in patients with a prior hysterotomy. *Obstet Gynecol.* 2008 Jul;112(1):116-20. X-1.
834. Cahill AG, Tuuli M, Odibo AO, et al. Vaginal birth after caesarean for women with three or more prior caesareans: assessing safety and success. *BJOG.* 2010 Mar;117(4):422-7. X-1.
835. Cahill DJ, Clark HS and Martin DH. Cervical ripening: the comparative effectiveness of Lamical and prostaglandin E2 tablets. *Ir J Med Sci.* 1988 Apr;157(4):113-4. X-4d, X-5.
836. Cahill RJ, Tan S, Dougan G, et al. Universal DNA primers amplify bacterial DNA from human fetal membranes and link *Fusobacterium nucleatum* with prolonged preterm membrane rupture. *Mol Hum Reprod.* 2005 Oct;11(10):761-6. X-1.
837. Calder AA, Bonnar J, Sheppard B, et al. Letter: Prostaglandins and pre-eclampsia. *Lancet.* 1974 Jul 6;2(7871):49. X-1, X-4e.
838. Calder AA, Embrey MP and Tait T. Ripening of the cervix with extra-amniotic prostaglandin E2 in viscous gel before induction of labour. *Br J Obstet Gynaecol.* 1977 Apr;84(4):264-8. X-1, X-4d.
839. Calder AA, Ounsted MK, Moar VA, et al. Increased bilirubin levels in neonates after induction of labour by intravenous prostaglandin E2 or oxytocin. *Lancet.* 1974 Dec 7;2(7893):1339-42. X-1.
840. Calhoun BC, Edgeworth D and Brehm W. External cephalic version at a military teaching hospital: predictors of success. *Aust N Z J Obstet Gynaecol.* 1995 Aug;35(3):277-9. X-1.
841. Caliskan E, Bodur H, Ozeren S, et al. Misoprostol 50 microg sublingually versus vaginally for labor induction at term: a randomized study. *Gynecol Obstet Invest.* 2005;59(3):155-61. X-4d.
842. Caliskan E, Cakiroglu Y, Corakci A, et al. Reduction in caesarean delivery with fetal heart rate monitoring and intermittent pulse oximetry after induction of labour with misoprostol. *J Matern Fetal Neonatal Med.* 2009 May;22(5):445-51. X-4e.
843. Caliskan E, Ozdamar D, Doger E, et al. Prospective case control comparison of fetal intrapartum oxygen saturations during epidural analgesia. *Int J Obstet Anesth.* 2010 Jan;19(1):77-81. X-1.
844. Callahan C, Chescheir N and Steiner BD. Safety and efficacy of attempted vaginal birth after cesarean beyond the estimated date of

- delivery. *J Reprod Med*. 1999 Jul;44(7):606-10. X-1.
845. Camann W, Trunfio GV, Kluger R, et al. Automated ST-segment analysis during cesarean delivery: effects of ECG filtering modality. *J Clin Anesth*. 1996 Nov;8(7):564-7. X-1.
846. Camann WR, Hartigan PM, Gilbertson LI, et al. Chloroprocaine antagonism of epidural opioid analgesia: a receptor-specific phenomenon? *Anesthesiology*. 1990 Nov;73(5):860-3. X-9.
847. Camann WR, Hurley RH, Gilbertson LI, et al. Epidural nalbuphine for analgesia following cesarean delivery: dose-response and effect of local anaesthetic choice. *Can J Anaesth*. 1991 Sep;38(6):728-32. X-9.
848. Camann WR, Loferski BL, Fanciullo GJ, et al. Does epidural administration of butorphanol offer any clinical advantage over the intravenous route? A double-blind, placebo-controlled trial. *Anesthesiology*. 1992 Feb;76(2):216-20. X-9.
849. Cammu H and Van Eeckhout E. A randomised controlled trial of early versus delayed use of amniotomy and oxytocin infusion in nulliparous labour. *Br J Obstet Gynaecol*. 1996 Apr;103(4):313-8. X-5.
850. Cammu H, Verlaenen H and Perde MP. Premature rupture of membranes at term in nulliparous women: a hazard? *Obstet Gynecol*. 1990 Oct;76(4):671-4. X-1.
851. Camorcia M and Capogna G. Sensory assessment of epidural block for Caesarean section: a systematic comparison of pinprick, cold and touch sensation. *Eur J Anaesthesiol*. 2006 Jul;23(7):611-7. X-1.
852. Camorcia M, Capogna G and Columb MO. Estimation of the minimum motor blocking potency ratio for intrathecal bupivacaine and lidocaine. *Int J Obstet Anesth*. 2008 Jul;17(3):223-7. X-9.
853. Camorcia M, Capogna G, Lyons G, et al. Epidural test dose with levobupivacaine and ropivacaine: determination of ED(50) motor block after spinal administration. *Br J Anaesth*. 2004 Jun;92(6):850-3. X-9.
854. Camorcia M, Capogna G, Lyons G, et al. The relative motor blocking potencies of intrathecal ropivacaine: effects of concentration. *Anesth Analg*. 2004 Jun;98(6):1779-82, table of contents. X-9.
855. Campbell DC, Banner R, Crone LA, et al. Addition of epinephrine to intrathecal bupivacaine and sufentanil for ambulatory labor analgesia. *Anesthesiology*. 1997 Mar;86(3):525-31. X-4e.
856. Campbell DC, Douglas MJ, Pavy TJ, et al. Comparison of the 25-gauge Whitacre with the 24-gauge Sprotte spinal needle for elective caesarean section: cost implications. *Can J Anaesth*. 1993 Dec;40(12):1131-5. X-9.
857. Campero L, Garcia C, Diaz C, et al. "Alone, I wouldn't have known what to do": a qualitative study on social support during labor and delivery in Mexico. *Soc Sci Med*. 1998 Aug;47(3):395-403. X-1.
858. Campero L, Hernandez B, Osborne J, et al. Support from a prenatal instructor during childbirth is associated with reduced rates of caesarean section in a Mexican study. *Midwifery*. 2004 Dec;20(4):312-23. X-1.
859. Canales ES, Garrido JT, Zarate A, et al. Effect of ergonovine on prolactin secretion and milk let-down. *Obstet Gynecol*. 1976 Aug;48(2):228-9. X-1.
860. Canobbio MM, Morris CD, Graham TP, et al. Pregnancy outcomes after atrial repair for transposition of the great arteries. *Am J Cardiol*. 2006 Sep 1;98(5):668-72. X-1.
861. Capik LK. Health beliefs of childbearing women: the choice of epidurals for pain management. *Journal of Perinatal Education*. 1998;7(3):7-17. X-1.
862. Capogna G and Celleno D. IV clonidine for post-extradural shivering in parturients: a preliminary study. *Br J Anaesth*. 1993 Aug;71(2):294-5. X.
863. Capogna G, Celleno D, Costantino P, et al. Alkalinization improves the quality of lidocaine-fentanyl epidural anaesthesia for caesarean section. *Can J Anaesth*. 1993 May;40(5 Pt 1):425-30. X-9.
864. Capogna G, Celleno D and Tomassetti M. Maternal analgesia and neonatal effects of epidural sufentanil for caesarean section. *Reg Anesth*. 1989 Nov-Dec;14(6):282-7. X-9.
865. Capogna G, Celleno D, Varrassi G, et al. Epidural mepivacaine for caesarean section: effects of a pH-adjusted solution. *J Clin Anesth*. 1991 May-Jun;3(3):211-4; discussion 214-5. X-9.
866. Capogna G, Celleno D, Zangrillo A, et al. Addition of clonidine to epidural morphine enhances postoperative analgesia after caesarean delivery. *Reg Anesth*. 1995 Jan-Feb;20(1):57-61. X-9.
867. Carayol M, Blondel B, Zeitlin J, et al. Changes in the rates of caesarean delivery before labour for breech presentation at term in France: 1972-2003. *Eur J Obstet Gynecol Reprod Biol*. 2007 May;132(1):20-6. X-1.
868. Carbonne B, Langer B, Goffinet F, et al. Multicenter study on the clinical value of fetal pulse oximetry. II. Compared predictive values of pulse oximetry and fetal blood analysis. The French Study Group on Fetal Pulse Oximetry. *Am J Obstet Gynecol*. 1997 Sep;177(3):593-8. X-1.
869. Cardoso MM, Carvalho JC, Amaro AR, et al. Small doses of intrathecal morphine combined with systemic diclofenac for postoperative pain control after caesarean delivery. *Anesth Analg*. 1998 Mar;86(3):538-41. X-9.

870. Cardozo L, Fysh J and Pearce JM. Prolonged pregnancy: the management debate. *Br Med J (Clin Res Ed)*. 1986 Oct 25;293(6554):1059-63. X-4e.
871. Cardozo L and Pearce JM. Oxytocin in active-phase abnormalities of labor: a randomized study. *Obstet Gynecol*. 1990 Feb;75(2):152-7. X-5.
872. Cardy AH, Barker S, Chesney D, et al. Pedigree analysis and epidemiological features of idiopathic congenital talipes equinovarus in the United Kingdom: a case-control study. *BMC Musculoskelet Disord*. 2007;8:62. X-1.
873. Carey TS, Weis K and Homer C. Prepaid versus traditional Medicaid plans: lack of effect on pregnancy outcomes and prenatal care. *Health Serv Res*. 1991 Jun;26(2):165-81. X-1.
874. Carlan SJ, Bouldin S, Blust D, et al. Safety and efficacy of misoprostol orally and vaginally: a randomized trial. *Obstet Gynecol*. 2001 Jul;98(1):107-12. X-4d.
875. Carlan SJ, Bouldin S and O'Brien WF. Extemporaneous preparation of misoprostol gel for cervical ripening: a randomized trial. *Obstet Gynecol*. 1997 Dec;90(6):911-5. X-4d.
876. Carlan SJ, Danna P, Durkee D, et al. Randomized study of pre-induction cervical ripening with sequential use of intravaginal prostaglandin E2 gel. *Obstet Gynecol*. 1995 Apr;85(4):608-13. X-4d.
877. Carlan SJ, O'Brien WF and Logan S. Serial intravaginal prostaglandin E2 gel cervical ripening in preterm pregnancies. *Prostaglandins*. 1996 Sep;52(3):237-46. X-1.
878. Carley ME, Turner RJ, Scott DE, et al. Obstetric history in women with surgically corrected adult urinary incontinence or pelvic organ prolapse. *J Am Assoc Gynecol Laparosc*. 1999 Feb;6(1):85-9. X-1.
879. Carlock LL, Cowan LA, Oneda S, et al. A comparison of effects on reproduction and neonatal development in cynomolgus monkeys given human soluble IL-4R and mice given murine soluble IL-4R. *Regul Toxicol Pharmacol*. 2009 Apr;53(3):226-34. X-1.
880. Carlomagno G, Candussi G, Zavino S, et al. Postmaturity: how far is it a clinical entity in its own right? *Clin Exp Obstet Gynecol*. 1996;23(1):41-7. X-1.
881. Carlson B. Changing medical evidence brings shift in C-section stance. *Manag Care*. 2003 Jan;12(1):32-3. X-1, X-2.
882. Carlson C and Duff P. Antibiotic prophylaxis for cesarean delivery: is an extended-spectrum agent necessary? *Obstet Gynecol*. 1990 Sep;76(3 Pt 1):343-6. X-9.
883. Carlsson C, Nybell-Lindahl G and Ingemarsson I. Extradural block in patients who have previously undergone cesarean section. *Br J Anaesth*. 1980 Aug;52(8):827-30. X-1, X-4b.
884. Carlsson Wallin M, Ekstrom P, Marsal K, et al. Apgar score and perinatal death after one previous caesarean delivery. *BJOG*. 2010 Aug;117(9):1088-97. X-1.
885. Carmichael FJ, Rolbin SH and Hew EM. Epidural morphine for analgesia after caesarean section. *Can Anaesth Soc J*. 1982 Jul;29(4):359-63. X-9.
886. Caron A and Neuhauser D. The effect of public accountability on hospital performance: trends in rates for cesarean sections and vaginal births after cesarean section in Cleveland, Ohio. *Qual Manag Health Care*. 1999 Winter;7(2):1-10. X-1.
887. Carpenter MW, Corrado F and Sung J. Lethal fetal renal anomalies and obstetric outcome. *Eur J Obstet Gynecol Reprod Biol*. 2000 Apr;89(2):149-52. X-1.
888. Carpenter MW, Soule D, Yates WT, et al. Practice environment is associated with obstetric decision making regarding abnormal labor. *Obstet Gynecol*. 1987 Oct;70(4):657-62. X-1.
889. Carr CA, Burkhardt P and Avery M. Vaginal birth after cesarean birth: a national survey of U.S. midwifery practice. *J Midwifery Womens Health*. 2002 Sep-Oct;47(5):347-52. X-1.
890. Carr DB, Larson AM, Schmucker BC, et al. Maternal hemodynamics and pregnancy outcome in women with prior orthotopic liver transplantation. *Liver Transpl*. 2000 Mar;6(2):213-21. X-1.
891. Carr MH, Towers CV, Eastenson AR, et al. Prolonged bedrest during pregnancy: does the risk of deep vein thrombosis warrant the use of routine heparin prophylaxis? *J Matern Fetal Med*. 1997 Sep-Oct;6(5):264-7. X-1.
892. Carta G, Iovenitti P and Falciglia K. Recurrent miscarriage associated with antiphospholipid antibodies: prophylactic treatment with low-dose aspirin and fish oil derivatives. *Clin Exp Obstet Gynecol*. 2005;32(1):49-51. X-1, X-3, X-4e, X-5.
893. Carta Q, Meriggi E, Trossarelli GF, et al. Continuous subcutaneous insulin infusion versus intensive conventional insulin therapy in type I and type II diabetic pregnancy. *Diabete Metab*. 1986 Jun;12(3):121-9. X-1.
894. Cartwright DP, Dann WL and Hutchinson A. Placental transfer of alfentanil at caesarean section. *Eur J Anaesthesiol*. 1989 Mar;6(2):103-9. X-9.
895. Caruana R, Niculescu RS, Rao RB, et al. Machine learning for sub-population assessment: evaluating the C-section rate of different physician practices. *Proc AMIA Symp*. 2002:126-30. X-1.
896. Caruana R, Niculescu RS, Rao RB, et al. Evaluating the C-section rate of different physician practices: using machine learning to model standard practice. *AMIA Annu Symp Proc*. 2003:135-9. X-1.

897. Caruso A, De Santis L, Carducci B, et al. The use of prostaglandin E2 for cervical ripening in patients requiring induction of labour. *J Int Med Res.* 1997 May-Jun;25(3):159-66. X-1.
898. Carvalho B, Chu L, Fuller A, et al. Valdecocixib for postoperative pain management after cesarean delivery: a randomized, double-blind, placebo-controlled study. *Anesth Analg.* 2006 Sep;103(3):664-70. X-9.
899. Carvalho B, Clark DJ and Angst MS. Local and systemic release of cytokines, nerve growth factor, prostaglandin E2, and substance P in incisional wounds and serum following cesarean delivery. *J Pain.* 2008 Jul;9(7):650-7. X-1.
900. Carvalho B, Clark DJ, Yeomans DC, et al. Continuous subcutaneous instillation of bupivacaine compared to saline reduces interleukin 10 and increases substance P in surgical wounds after cesarean delivery. *Anesth Analg.* 2010 Dec;111(6):1452-9. X-9.
901. Carvalho B, Cohen SE, Giarrusso K, et al. "Ultra-light" patient-controlled epidural analgesia during labor: effects of varying regimens on analgesia and physician workload. *Int J Obstet Anesth.* 2005 Jul;14(3):223-9. X-5.
902. Carvalho B, Cohen SE, Lipman SS, et al. Patient preferences for anesthesia outcomes associated with cesarean delivery. *Anesth Analg.* 2005 Oct;101(4):1182-7, table of contents. X-1.
903. Carvalho B, Collins J, Drover DR, et al. ED(50) and ED(95) of intrathecal bupivacaine in morbidly obese patients undergoing cesarean delivery. *Anesthesiology.* 2011 Mar;114(3):529-35. X-9.
904. Carvalho B, Durbin M, Drover DR, et al. The ED50 and ED95 of intrathecal isobaric bupivacaine with opioids for cesarean delivery. *Anesthesiology.* 2005 Sep;103(3):606-12. X-9.
905. Carvalho B, Mercier FJ, Riley ET, et al. Hetastarch co-loading is as effective as pre-loading for the prevention of hypotension following spinal anesthesia for cesarean delivery. *Int J Obstet Anesth.* 2009 Apr;18(2):150-5. X-9.
906. Carvalho B, Riley E, Cohen SE, et al. Single-dose, sustained-release epidural morphine in the management of postoperative pain after elective cesarean delivery: results of a multicenter randomized controlled study. *Anesth Analg.* 2005 Apr;100(4):1150-8. X-9.
907. Carvalho B, Roland LM, Chu LF, et al. Single-dose, extended-release epidural morphine (DepoDur) compared to conventional epidural morphine for post-cesarean pain. *Anesth Analg.* 2007 Jul;105(1):176-83. X-9.
908. Carvalho B, Saxena A, Butwick A, et al. Vaginal twin delivery: a survey and review of location, anesthesia coverage and interventions. *Int J Obstet Anesth.* 2008 Jul;17(3):212-6. X-1.
909. Carvalho JC, Balki M, Kingdom J, et al. Oxytocin requirements at elective cesarean delivery: a dose-finding study. *Obstet Gynecol.* 2004 Nov;104(5 Pt 1):1005-10. X-9.
910. Cary AJ. Intervention rates in spontaneous term labour in low risk nulliparous women. *Aust N Z J Obstet Gynaecol.* 1990 Feb;30(1):46-51. X-1.
911. Casanegra P, Aviles G, Maturana G, et al. Cardiovascular management of pregnant women with a heart valve prosthesis. *Am J Cardiol.* 1975 Nov;36(6):802-6. X-1.
912. Casanova BF, Sammel MD and Macones GA. Cocaine use during pregnancy and the failure of vaginal birth after cesarean. *J Reprod Med.* 2005 Sep;50(9):663-8. X-1.
913. Casele HL and Grobman WA. Management of thromboprophylaxis during pregnancy among specialists in maternal-fetal medicine. *J Reprod Med.* 2007 Dec;52(12):1085-9. X-1.
914. Casey BM, Lucas MJ, McIntire DD, et al. Pregnancy outcomes in women with gestational diabetes compared with the general obstetric population. *Obstet Gynecol.* 1997 Dec;90(6):869-73. X-1.
915. Casey C, Kehoe J and Mylotte MJ. Vaginal prostaglandins for the ripe cervix. *Int J Gynaecol Obstet.* 1994 Jan;44(1):21-6. X-4d.
916. Casey WF, Smith CE, Katz JM, et al. Intravenous meperidine for control of shivering during caesarean section under epidural anaesthesia. *Can J Anaesth.* 1988 Mar;35(2):128-33. X-9.
917. Caspi B, Ben-Arie A, Appelman Z, et al. Aspiration of simple pelvic cysts during pregnancy. *Gynecol Obstet Invest.* 2000;49(2):102-5. X-1.
918. Caspi E and Lifshitz Y. Delivery at 40 years of age and over. *Isr J Med Sci.* 1979 May;15(5):418-21. X-1.
919. Caspi E, Schreyer P, Weinraub Z, et al. Dexamethasone for prevention of respiratory distress syndrome: multiple perinatal factors. *Obstet Gynecol.* 1981 Jan;57(1):41-7. X-1, X-4e.
920. Caspi E, Solomon F, Langer R, et al. Isolation of Mycoplasma from the placenta after cesarean section. *Obstet Gynecol.* 1976 Dec;48(6):682-4. X-1.
921. Cassell KA, O'Connell C M and Baskett TF. The origins and outcomes of triplet and quadruplet pregnancies in Nova Scotia: 1980 to 2001. *Am J Perinatol.* 2004 Nov;21(8):439-45. X-1.
922. Castaman G, Federici AB, Bernardi M, et al. Factor VIII and von Willebrand factor changes after desmopressin and during pregnancy in type 2M von Willebrand disease Vicenza: a prospective study comparing patients with single (R1205H) and double (R1205H-M740I) defect. *J Thromb Haemost.* 2006 Feb;4(2):357-60. X-1.

923. Catalano PM, Nizielski SE, Shao J, et al. Downregulated IRS-1 and PPARgamma in obese women with gestational diabetes: relationship to FFA during pregnancy. *Am J Physiol Endocrinol Metab.* 2002 Mar;282(3):E522-33. X-1.
924. Catalinotto E. Medically unnecessary Cesarean section. If it's unnecessary, why is it still performed? *Am J Nurs.* 2007 Jul;107(7):13. X-1, X-2.
925. Catanzarite VA. Prophylactic intramyometrial carboprost tromethamine does not substantially reduce blood loss relative to intramyometrial oxytocin at routine cesarean section. *Am J Perinatol.* 1990 Jan;7(1):39-42. X-9.
926. Catanzarite VA, Piacquadio KM, Stanco LM, et al. Preventing transmission of AIDS and hepatitis to obstetric-care providers. *Contemporary OB/GYN.* 1999;44(8):39. X-1, X-2.
927. Catlin AJ. When pregnant women and their physicians disagree on the need for cesarean section: no simple solution. *Adv Pract Nurs Q.* 1998 Fall;4(2):23-9. X-1, X-2.
928. Caughey AB, Shipp TD, Repke JT, et al. Trial of labor after cesarean delivery: the effect of previous vaginal delivery. *Am J Obstet Gynecol.* 1998 Oct;179(4):938-41. X-1.
929. Caughey AB, Shipp TD, Repke JT, et al. Rate of uterine rupture during a trial of labor in women with one or two prior cesarean deliveries. *Am J Obstet Gynecol.* 1999 Oct;181(4):872-6. X-1.
930. Caughey AB, Urato AC, Lee KA, et al. Time of delivery and neonatal morbidity and mortality. *Am J Obstet Gynecol.* 2008 Nov;199(5):496 e1-5. X-1.
931. Caukwell S, Joels LA, Kyle PM, et al. Women's attitudes towards management of breech presentation at term. *J Obstet Gynaecol.* 2002 Sep;22(5):486-8. X-1.
932. Cebekulu L and Buchmann EJ. Complications associated with cesarean section in the second stage of labor. *Int J Gynaecol Obstet.* 2006 Nov;95(2):110-4. X-1.
933. Cebesoy FB, Kutlar I, Dikensoy E, et al. Morgagni hydatids: a new factor in infertility? *Arch Gynecol Obstet.* 2010 Jun;281(6):1015-7. X-1.
934. Cecatti JG, Tedesco RP, Pires HM, et al. Effectiveness and safety of a new vaginal misoprostol product specifically labeled for cervical ripening and labor induction. *Acta Obstet Gynecol Scand.* 2006;85(6):706-11. X-4d.
935. Cederblad G, Niklasson A, Rydgren B, et al. Carnitine in maternal and neonatal plasma. *Acta Paediatr Scand.* 1985 Jul;74(4):500-4. X-1.
936. Celik C, Acar A, Cicek N, et al. Can myomectomy be performed during pregnancy? *Gynecol Obstet Invest.* 2002;53(2):79-83. X-1.
937. Celik C, Gezginc K, Altintepe L, et al. Results of the pregnancies with HELLP syndrome. *Ren Fail.* 2003 Jul;25(4):613-8. X-1.
938. Celik O, Hascalik S, Ozerol E, et al. Cerebrospinal fluid leptin levels in preeclampsia: relation to maternal serum leptin levels. *Acta Obstet Gynecol Scand.* 2004 Jun;83(6):519-23. X-1.
939. Celik O, Hascalik S, Turkoz Y, et al. Cerebrospinal fluid nitric oxide level changes in preeclampsia. *Eur J Obstet Gynecol Reprod Biol.* 2003 Dec 10;111(2):141-5. X-1.
940. Celleno D and Capogna G. Spinal buprenorphine for postoperative analgesia after cesarean section. *Acta Anaesthesiol Scand.* 1989 Apr;33(3):236-8. X-9.
941. Celleno D, Capogna G, Emanuelli M, et al. Which induction drug for cesarean section? A comparison of thiopental sodium, propofol, and midazolam. *J Clin Anesth.* 1993 Jul-Aug;5(4):284-8. X-9.
942. Celleno D, Capogna G, Sebastiani M, et al. Epidural analgesia during and after cesarean delivery. Comparison of five opioids. *Reg Anesth.* 1991 Mar-Apr;16(2):79-83. X-9.
943. Celleno D, Capogna G, Tomassetti M, et al. Neurobehavioural effects of propofol on the neonate following elective cesarean section. *Br J Anaesth.* 1989 Jun;62(6):649-54. X-9.
944. Cepeda EE, Lee MI and Mehdizadeh B. Decreased incidence of intraventricular hemorrhage in infants of opiate dependent mothers. *Acta Paediatr Scand.* 1987 Jan;76(1):16-8. X-1.
945. Cepicky P, Stembera Z, Zeman J, et al. When is it possible to meet the wish of a woman to terminate her labour by cesarean section? *Eur J Obstet Gynecol Reprod Biol.* 1991 Jan 30;38(2):109-12. X-1.
946. Cernadas M, Smulian JC, Giannina G, et al. Effects of placental delivery method and intraoperative glove changing on postcesarean febrile morbidity. *J Matern Fetal Med.* 1998 Mar-Apr;7(2):100-4. X-9.
947. Ceronio CC, Dorfling CS and Nolte AG. The experiences of parents where pregnancy ended in an unplanned cesarean section. *Curationis.* 1995 Dec;18(4):48-51. X-1.
948. Cerrato PL. New federal guidelines on group B strep. *Contemporary OB/GYN.* 2002;47(12):107. X-1, X-2.
949. Cesar JA, Matijasevich A, Santos IS, et al. The use of maternal and child health services in three population-based cohorts in Southern Brazil, 1982-2004. *Cad Saude Publica.* 2008;24 Suppl 3:S427-36. X-1.
950. Cesario SK. Re-evaluation of Friedman's labor graph phase II: determining the "normal" length of labor of women receiving epidural anesthesia. *Southern Online Journal of Nursing Research.* 2008;8(2):1p. X-1.

951. Cesur M, Alici HA, Erdem AF, et al. Spinal anesthesia with sequential administration of plain and hyperbaric bupivacaine provides satisfactory analgesia with hemodynamic stability in cesarean section. *Int J Obstet Anesth.* 2008 Jul;17(3):217-22. X-9.
952. Cesur M, Alici HA, Erdem AF, et al. Decreased incidence of headache after unintentional dural puncture in patients with cesarean delivery administered with postoperative epidural analgesia. *J Anesth.* 2009;23(1):31-5. X-1.
953. Cetin A and Cetin M. Superficial wound disruption after cesarean delivery: effect of the depth and closure of subcutaneous tissue. *Int J Gynaecol Obstet.* 1997 Apr;57(1):17-21. X-1.
954. Cetin I, Hirst K, Corbetta C, et al. Plasma and erythrocyte amino acids in mother and fetus. *Biol Neonate.* 1991;60(2):83-91. X-1.
955. Cha LYS, Lau TK, Chiu PY, et al. Levels of cord blood thyroid stimulating hormone after external cephalic version. *BJOG.* 2001 Oct;108(10):1076-80. X-1.
956. Chabrier S, Saliba E, Nguyen The Tich S, et al. Obstetrical and neonatal characteristics vary with birthweight in a cohort of 100 term newborns with symptomatic arterial ischemic stroke. *Eur J Paediatr Neurol.* 2010 May;14(3):206-13. X-1.
957. Chaillet N, Dube E, Dugas M, et al. Identifying barriers and facilitators towards implementing guidelines to reduce caesarean section rates in Quebec. *Bull World Health Organ.* 2007 Oct;85(10):791-7. X-1.
958. Chalk PA. Low dosage buccal oxytocin--a double blind trial in patients with a long induction labour interval. *J Obstet Gynaecol Br Commonw.* 1969 May;76(5):394-9. X-1.
959. Chalmers B, Kaczorowski J, Darling E, et al. Cesarean and vaginal birth in canadian women: a comparison of experiences. *Birth.* 2010 Mar;37(1):44-9. X-1.
960. Chalmers B, Kaczorowski J, Levitt C, et al. Use of routine interventions in vaginal labor and birth: findings from the Maternity Experiences Survey. *Birth.* 2009 Mar;36(1):13-25. X-1.
961. Chalmers B and Meyer D. What women say about their birth experiences: a cross-cultural study. *J Psychosom Obstet Gynaecol.* 1994 Dec;15(4):211-8. X-1.
962. Chalmers I, Zlosnik JE, Johns KA, et al. Obstetric practice and outcome of pregnancy in Cardiff residents 1965-73. *Br Med J.* 1976 Mar 27;1(6012):735-8. X-1.
963. Chalupczak P, Kolasinska-Kloch W, Jach R, et al. Pregnancy in patients with heart disease. *Clin Exp Obstet Gynecol.* 2004;31(4):271-3. X-1.
964. Cham M, Sundby J and Vangen S. Fetal outcome in severe maternal morbidity: too many stillbirths. *Acta Obstet Gynecol Scand.* 2009;88(3):343-9. X-1.
965. Chama CM and Morrumpa JY. The safety of elective caesarean section for the prevention of mother-to-child transmission of HIV-1. *J Obstet Gynaecol.* 2008 Feb;28(2):194-7. X-1.
966. Chamberlain A, White S, Bawdon R, et al. Pharmacokinetics of ampicillin and sulbactam in pregnancy. *Am J Obstet Gynecol.* 1993 Feb;168(2):667-73. X-9.
967. Chamberlain M, Karaminia A and Wilton D. Factors affecting pregnant women's participation in a multi-centre randomised controlled trial of fetal occipito-posterior position. *Birth Issues.* 2003;12(3/4):77-82. X-1.
968. Chambers WA, Mowbray A and Wilson J. Extradural morphine for the relief of pain following caesarean section. *Br J Anaesth.* 1983 Dec;55(12):1201-3. X-9.
969. Chambliss LR, Daly C, Medearis AL, et al. The role of selection bias in comparing cesarean birth rates between physician and midwifery management. *Obstet Gynecol.* 1992 Aug;80(2):161-5. X-1.
970. Chamchad D, Arkoosh VA, Horrow JC, et al. Using heart rate variability to stratify risk of obstetric patients undergoing spinal anesthesia. *Anesth Analg.* 2004 Dec;99(6):1818-21, table of contents. X-1.
971. Chammas MF, Nguyen TM, Vasavada RA, et al. Sequential use of Prepidil and extra-amniotic saline infusion for the induction of labor in nulliparous women with very low Bishop scores. *J Matern Fetal Med.* 2001 Jun;10(3):193-6. X-1.
972. Chan A, McCaul KA, Cundy PJ, et al. Perinatal risk factors for developmental dysplasia of the hip. *Arch Dis Child Fetal Neonatal Ed.* 1997 Mar;76(2):F94-100. X-1.
973. Chan A, Roder D and Macharper T. Obstetric profiles of immigrant women from non-English speaking countries in South Australia, 1981-1983. *Aust N Z J Obstet Gynaecol.* 1988 May;28(2):90-5. X-1.
974. Chan AC, Leung AK, Chin RK, et al. Single dose prophylactic antibiotics in caesarean sections. *Aust N Z J Obstet Gynaecol.* 1989 May;29(2):107-9. X-1, X-9.
975. Chan AM, Ng KF, Tong EW, et al. Control of shivering under regional anesthesia in obstetric patients with tramadol. *Can J Anaesth.* 1999 Mar;46(3):253-8. X-9.
976. Chan CC and To WW. Antepartum hemorrhage of unknown origin--what is its clinical significance? *Acta Obstet Gynecol Scand.* 1999 Mar;78(3):186-90. X-1.
977. Chan KK, Chan BC, Lam KF, et al. Iron supplement in pregnancy and development of gestational diabetes--a randomised placebo-controlled trial. *BJOG.* 2009 May;116(6):789-97; discussion 797-8. X-4e, X-5.

978. Chan LY, Leung TY, Fok WY, et al. High incidence of obstetric interventions after successful external cephalic version. *BJOG*. 2002 Jun;109(6):627-31. X-1.
979. Chan VW, Morley-Forster PK and Vosu HA. Temperature changes and shivering after epidural anesthesia for cesarean section. *Reg Anesth*. 1989 Jan-Feb;14(1):48-52. X-9.
980. Chan WS, Irwin MG, Tong WN, et al. Prevention of hypotension during spinal anaesthesia for caesarean section: ephedrine infusion versus fluid preload. *Anaesthesia*. 1997 Sep;52(9):908-13. X-9.
981. Chan YK and Ng KP. A survey of the current practice of obstetric anaesthesia and analgesia in Malaysia [correction of Malaysia]. *J Obstet Gynaecol Res*. 2000 Apr;26(2):137-40. X-1.
982. Chan YL, Wong KL, Lin CF, et al. Views of obstetric patients who refuse regional anesthesia in cesarean section. *Acta Anaesthesiol Sin*. 1998 Jun;36(2):99-102. X-1.
983. Chandis V and Williams T. The patient, the doctor, the fetus, and the court-compelled Cesarean: why courts should address the question through a bioethical lens. *Med Law*. 2006 Dec;25(4):729-46. X-1, X-2.
984. Chandler JM, Robie PW, Schoolar JC, et al. The effects of methadone on maternal-fetal interactions in the rat. *J Pharmacol Exp Ther*. 1975 Mar;192(3):549-54. X-1, X-3.
985. Chandra P, Schiavello HJ, Kluge JE, et al. Manual removal of the placenta and postcesarean endometritis. *J Reprod Med*. 2002 Feb;47(2):101-6. X-9.
986. Chandra PC, Schiavello HJ, Ravi B, et al. Pregnancy outcomes in urban teenagers. *Int J Gynaecol Obstet*. 2002 Nov;79(2):117-22. X-1.
987. Chang CH and Chang FM. Randomized comparison of misoprostol and dinoprostone for preinduction cervical ripening and labor induction. *J Formos Med Assoc*. 1997 May;96(5):366-9. X-4d, X-5.
988. Chang RK, Chen AY, Rodriguez S, et al. Changes in the newborn delivery practice and neonatal outcomes as financing changed in Los Angeles County and Orange County, California. *Manag Care Interface*. 2005 Oct;18(10):53-7, 62. X-1.
989. Chang SC and Chen CH. Effects of music therapy on women's physiologic measures, anxiety, and satisfaction during cesarean delivery. *Res Nurs Health*. 2005 Dec;28(6):453-61. X-9.
990. Chang WC, Chen SY, Huang SC, et al. Strategy of cervical myomectomy under laparoscopy. *Fertil Steril*. 2010 Dec;94(7):2710-5. X-1, X-4e.
991. Chanimov M, Gershfeld S, Cohen ML, et al. Fluid preload before spinal anaesthesia in Caesarean section: the effect on neonatal acid-base status. *Eur J Anaesthesiol*. 2006 Aug;23(8):676-9. X-9.
992. Chanprapaph P. Update in pre-eclampsia. *J Med Assoc Thai*. 2004 Oct;87 Suppl 3:S104-12. X-1.
993. Chanrachakul B, Hamontri S and Herabutya Y. A randomized comparison of postcesarean pain between closure and nonclosure of peritoneum. *Eur J Obstet Gynecol Reprod Biol*. 2002 Feb 10;101(1):31-5. X-9.
994. Chanrachakul B and Herabutya Y. Postterm with favorable cervix: is induction necessary? *Eur J Obstet Gynecol Reprod Biol*. 2003 Feb 10;106(2):154-7. X-4e, X-5.
995. Chanrachakul B, Herabutya Y and Panburana P. Active management of labor: is it suitable for a developing country? *Int J Gynaecol Obstet*. 2001 Mar;72(3):229-34. X-1.
996. Chanrachakul B, Herabutya Y and Punyavachira P. Randomized comparison of glyceryl trinitrate and prostaglandin E2 for cervical ripening at term. *Obstet Gynecol*. 2000 Oct;96(4):549-53. X-4d, X-5.
997. Chanrachakul B, Herabutya Y and Punyavachira P. Randomized trial of isosorbide mononitrate versus misoprostol for cervical ripening at term. *Int J Gynaecol Obstet*. 2002 Aug;78(2):139-45. X-4d.
998. Chanrachakul B, Herabutya Y and Udomsubpayakul U. Epidemic of cesarean section at the general, private and university hospitals in Thailand. *J Obstet Gynaecol Res*. 2000 Oct;26(5):357-61. X-1.
999. Chanrachakul B, Jaovisidha A, Herabutya Y, et al. External cephalic version: first report from Thailand. *J Med Assoc Thai*. 1999 Mar;82(3):224-8. X-1.
1000. Chanrachakul B, Matharoo-Ball B, Turner A, et al. Immunolocalization and protein expression of the alpha subunit of the large-conductance calcium-activated potassium channel in human myometrium. *Reproduction*. 2003 Jul;126(1):43-8. X-1.
1001. Chantarasorn V and Tannirandorn Y. A comparative study of early postoperative feeding versus conventional feeding for patients undergoing cesarean section; a randomized controlled trial. *J Med Assoc Thai*. 2006 Oct;89 Suppl 4:S11-6. X-9.
1002. Chantharojwong P. An efficacy study of ampicillin versus cefazolin prophylaxis in patients undergoing cesarean section. *J Med Assoc Thai*. 1993 Mar;76(3):165-70. X-1, X-4b.
1003. Chao AS, Huang JY, Lien R, et al. Pregnancy in women who undergo long-term hemodialysis. *Am J Obstet Gynecol*. 2002 Jul;187(1):152-6. X-1.
1004. Chapman DJ, Young S, Ferris AM, et al. Impact of breast pumping on lactogenesis stage II after cesarean delivery: a randomized

- clinical trial. *Pediatrics*. 2001 Jun;107(6):E94. X-9.
1005. Chapman SJ, Owen J and Hauth JC. One-versus two-layer closure of a low transverse cesarean: the next pregnancy. *Obstet Gynecol*. 1997 Jan;89(1):16-8. X-9.
1006. Chappuy H, Treluyer JM, Jullien V, et al. Maternal-fetal transfer and amniotic fluid accumulation of nucleoside analogue reverse transcriptase inhibitors in human immunodeficiency virus-infected pregnant women. *Antimicrob Agents Chemother*. 2004 Nov;48(11):4332-6. X-1.
1007. Charoenkwan K and Palapinyo C. Early solid food after cesarean section and postoperative ileus. *Int J Gynaecol Obstet*. 2005 Aug;90(2):144-5. X-9.
1008. Charuluxananan S, Kyokong O, Somboonviboon W, et al. Nalbuphine versus propofol for treatment of intrathecal morphine-induced pruritus after cesarean delivery. *Anesth Analg*. 2001 Jul;93(1):162-5. X-9.
1009. Charuluxananan S, Kyokong O, Somboonviboon W, et al. Nalbuphine versus ondansetron for prevention of intrathecal morphine-induced pruritus after cesarean delivery. *Anesth Analg*. 2003 Jun;96(6):1789-93, table of contents. X-9.
1010. Charuluxananan S, Somboonviboon W, Kyokong O, et al. Ondansetron for treatment of intrathecal morphine-induced pruritus after cesarean delivery. *Reg Anesth Pain Med*. 2000 Sep-Oct;25(5):535-9. X-9.
1011. Charuluxananan S, Thienthong S, Rungreungvanich M, et al. Cardiac arrest after spinal anesthesia in Thailand: a prospective multicenter registry of 40,271 anesthetics. *Anesth Analg*. 2008 Nov;107(5):1735-41. X-1.
1012. Chaturvedi S and Ranadive B. Are we really making motherhood safe? A study of provision of iron supplements and emergency obstetric care in rural Maharashtra. *Natl Med J India*. 2007 Nov-Dec;20(6):294-6. X-1.
1013. Chaudhary S, Farrukh R, Dar A, et al. Outcome of labour in nullipara at term with unengaged vertex. *J Ayub Med Coll Abbottabad*. 2009 Jul-Sep;21(3):131-4. X-1.
1014. Chaudhuri P, Banerjee GB and Mandal A. Rectally administered misoprostol versus intravenous oxytocin infusion during cesarean delivery to reduce intraoperative and postoperative blood loss. *Int J Gynaecol Obstet*. 2010 Apr;109(1):25-9. X-9.
1015. Chauhan SP, Doherty DD, Magann EF, et al. Amniotic fluid index vs single deepest pocket technique during modified biophysical profile: a randomized clinical trial. *Am J Obstet Gynecol*. 2004 Aug;191(2):661-7; discussion 667-8. X-5, X-6.
1016. Chauhan SP, Justice L, Sanderson M, et al. Primary cesarean delivery among uncomplicated term nulliparous parturients: the influence of group practice within a community hospital. *Am J Perinatol*. 2008 Feb;25(2):119-23. X-1.
1017. Chauhan SP, Magann EF, Bufin L, et al. Umbilical arterial pH < 7.00 in newborns delivered by nonelective cesarean delivery: risk factors and peripartum outcomes. *Am J Perinatol*. 2004 Jul;21(5):281-7. X-1.
1018. Chauhan SP, Rutherford SE, Hess LW, et al. Prophylactic intrapartum amnioinfusion for patients with oligohydramnios. A prospective randomized study. *J Reprod Med*. 1992 Sep;37(9):817-20. X-4e.
1019. Chauhan SP, Troyer LR, Hendrix NW, et al. Neonatal acidemia with trial of labor among parturients with prior cesarean delivery: a case-control study. *J Matern Fetal Med*. 2000 Sep-Oct;9(5):278-81. X-1.
1020. Chauhan SP, Washburne JF, Magann EF, et al. A randomized study to assess the efficacy of the amniotic fluid index as a fetal admission test. *Obstet Gynecol*. 1995 Jul;86(1):9-13. X-4, X-5.
1021. Chau-in W, Hintong T, Rodanant O, et al. Anesthesia-related complications of caesarean delivery in Thailand: 16,697 cases from the Thai Anaesthesia Incidents Study. *J Med Assoc Thai*. 2010 Nov;93(11):1274-83. X-1.
1022. Chayen MS, Rudick V and Borvine A. Pain control with epidural injection of morphine. *Anesthesiology*. 1980 Oct;53(4):338-9. X-1.
1023. Chazotte C, Madden R and Cohen WR. Labor patterns in women with previous cesareans. *Obstet Gynecol*. 1990 Mar;75(3 Pt 1):350-5. X-1.
1024. Che Yaakob CA, Dzarr AA, Ismail AA, et al. Anticoagulant therapy for deep vein thrombosis (DVT) in pregnancy. *Cochrane Database of Systematic Reviews*. 2010(6). X-1, X-2.
1025. Chelmos D, Andrew DE and Baker ER. Maternal cigarette smoking and placenta previa. *Obstet Gynecol*. 1996 May;87(5 Pt 1):703-6. X-1.
1026. Chelmos D, Huang E and Strohhahn K. Closure of the subcutaneous dead space and wound disruption after Cesarean delivery. *J Matern Fetal Neonatal Med*. 2002 Jun;11(6):403-8. X-9.
1027. Chelmos D, Kilpatrick SJ and Laros RK, Jr. Maternal and neonatal outcomes after prolonged latent phase. *Obstet Gynecol*. 1993 Apr;81(4):486-91. X-1.
1028. Chelmos D, Marder AL and Boggess KA. Controversies in ob/gyn. Should patients undergoing low-risk C/S receive antibiotic prophylaxis? *Contemporary OB/GYN*. 2006;51(8):57. X-1, X-2, X-3, X-4e, X-5.
1029. Chen BA, Reeves MF, Creinin MD, et al. Misoprostol for treatment of early pregnancy failure in women with previous uterine

- surgery. *Am J Obstet Gynecol.* 2008 Jun;198(6):626 e1-5. X-1.
1030. Chen BA, Reeves MF, Hayes JL, et al. Postplacental or delayed insertion of the levonorgestrel intrauterine device after vaginal delivery: a randomized controlled trial. *Obstet Gynecol.* 2010 Nov;116(5):1079-87. X-4e, X-5.
1031. Chen CP, Wang KG, Su TH, et al. Acute pancreatitis in pregnancy. *Acta Obstet Gynecol Scand.* 1995 Sep;74(8):607-10. X-1.
1032. Chen FP, Chang SD and Chu KK. Expectant management in severe preeclampsia: does magnesium sulfate prevent the development of eclampsia? *Acta Obstet Gynecol Scand.* 1995 Mar;74(3):181-5. X-4e.
1033. Chen HM, Chang FY and Hsu CT. Effect of acupressure on nausea, vomiting, anxiety and pain among post-cesarean section women in Taiwan. *Kaohsiung J Med Sci.* 2005 Aug;21(8):341-50. X-1.
1034. Chen LK, Hsu HW, Lin CJ, et al. Effects of epidural fentanyl on labor pain during the early period of the first stage of induced labor in nulliparous women. *J Formos Med Assoc.* 2000 Jul;99(7):549-53. X-4e, X-5.
1035. Chen LK, Huang CH, Jean WH, et al. Effective epidural blood patch volumes for postdural puncture headache in Taiwanese women. *J Formos Med Assoc.* 2007 Feb;106(2):134-40. X-4e, X-5.
1036. Chen X, Qian X, Fu F, et al. Intrathecal sufentanil decreases the median effective dose (ED50) of intrathecal hyperbaric ropivacaine for caesarean delivery. *Acta Anaesthesiol Scand.* 2010 Mar;54(3):284-90. X-9.
1037. Chen XZ, Chen H, Lou AF, et al. Dose-response study of spinal hyperbaric ropivacaine for cesarean section. *J Zhejiang Univ Sci B.* 2006 Dec;7(12):992-7. X-9.
1038. Cheng CR, Su TH, Hung YC, et al. A comparative study of the safety and efficacy of 0.5% levobupivacaine and 0.5% bupivacaine for epidural anesthesia in subjects undergoing elective caesarean section. *Acta Anaesthesiol Sin.* 2002 Mar;40(1):13-20. X-9.
1039. Cheng SY, Ming H and Lee JC. Titrated oral compared with vaginal misoprostol for labor induction: a randomized controlled trial. *Obstet Gynecol.* 2008 Jan;111(1):119-25. X-4d, X-5.
1040. Cheng YW, Chung JH, Kurbisch-Block I, et al. Gestational weight gain and gestational diabetes mellitus: perinatal outcomes. *Obstet Gynecol.* 2008 Nov;112(5):1015-22. X-1.
1041. Cheng YW, Esakoff TF, Block-Kurbisch I, et al. Screening or diagnostic: markedly elevated glucose loading test and perinatal outcomes. *J Matern Fetal Neonatal Med.* 2006 Nov;19(11):729-34. X-1.
1042. Cheng YW, Hopkins LM and Caughey AB. How long is too long: Does a prolonged second stage of labor in nulliparous women affect maternal and neonatal outcomes? *Am J Obstet Gynecol.* 2004 Sep;191(3):933-8. X-1.
1043. Cheng YW, Shaffer BL, Bryant AS, et al. Length of the first stage of labor and associated perinatal outcomes in nulliparous women. *Obstet Gynecol.* 2010 Nov;116(5):1127-35. X-1.
1044. Cheng YW, Shaffer BL and Caughey AB. Associated factors and outcomes of persistent occiput posterior position: A retrospective cohort study from 1976 to 2001. *J Matern Fetal Neonatal Med.* 2006 Sep;19(9):563-8. X-1.
1045. Cheng YW, Shaffer BL and Caughey AB. The association between persistent occiput posterior position and neonatal outcomes. *Obstet Gynecol.* 2006 Apr;107(4):837-44. X-1.
1046. Cheong YC, Abdullahi H, Lashen H, et al. Can formal education and training improve the outcome of instrumental delivery? *Eur J Obstet Gynecol Reprod Biol.* 2004 Apr 15;113(2):139-44. X-1.
1047. Cherian VT and Smith I. Prophylactic ondansetron does not improve patient satisfaction in women using PCA after Caesarean section. *Br J Anaesth.* 2001 Sep;87(3):502-4. X-9.
1048. Chertok IR, Shoham-Vardi I and Hallak M. Four-month breastfeeding duration in postcesarean women of different cultures in the Israeli Negev. *J Perinat Neonatal Nurs.* 2004 Apr-Jun;18(2):145-60. X-1.
1049. Chervenak FA and McCullough LB. Inadequacies with the ACOG and AAP statements on managing ethical conflict during the intrapartum period. *J Clin Ethics.* 1991 Spring;2(1):23-4. X-1.
1050. Chervenak FA and McCullough LB. An ethically justified algorithm for offering, recommending, and performing cesarean delivery and its application in managed care practice. *Obstet Gynecol.* 1996 Feb;87(2):302-5. X-1.
1051. Chervenak JL, Divon MY, Hirsch J, et al. Macrosomia in the postdate pregnancy: is routine ultrasonographic screening indicated? *Am J Obstet Gynecol.* 1989 Sep;161(3):753-6. X-1.
1052. Chestnut DH, Choi WW and Isbell TJ. Epidural hydromorphone for postcesarean analgesia. *Obstet Gynecol.* 1986 Jul;68(1):65-9. X-9.
1053. Chestnut DH, Dewan DM, Redick LF, et al. Anesthetic management for obstetric hysterectomy: a multi-institutional study. *Anesthesiology.* 1989 Apr;70(4):607-10. X-1.
1054. Chestnut DH, Laszewski LJ, Pollack KL, et al. Continuous epidural infusion of 0.0625% bupivacaine-0.0002% fentanyl during the second stage of labor. *Anesthesiology.* 1990 Apr;72(4):613-8. X-4e, X-5.
1055. Chestnut DH, McGrath JM, Vincent RD, Jr., et al. Does early administration of epidural

- analgesia affect obstetric outcome in nulliparous women who are in spontaneous labor? *Anesthesiology*. 1994 Jun;80(6):1201-8. X-4e, X-5.
1056. Chestnut DH, Vandewalker GE, Owen CL, et al. The influence of continuous epidural bupivacaine analgesia on the second stage of labor and method of delivery in nulliparous women. *Anesthesiology*. 1987 Jun;66(6):774-80. X-4e, X-5.
1057. Chestnut DH, Vincent RD, Jr., McGrath JM, et al. Does early administration of epidural analgesia affect obstetric outcome in nulliparous women who are receiving intravenous oxytocin? *Anesthesiology*. 1994 Jun;80(6):1193-200. X-5.
1058. Chetty VK. Stochastic technology, production organization and costs. *J Health Econ*. 1998 Apr;17(2):187-210. X-1.
1059. Cheung NF, Mander R, Cheng L, et al. 'Zuoyuezi' after caesarean in China: an interview survey. *Int J Nurs Stud*. 2006 Feb;43(2):193-202. X-1.
1060. Cheung VY, Constantinescu OC and Ahluwalia BS. Sonographic evaluation of the lower uterine segment in patients with previous cesarean delivery. *J Ultrasound Med*. 2004 Nov;23(11):1441-7. X-1.
1061. Chevalier N, Letur H, Lelannou D, et al. Materno-fetal cardiovascular complications in Turner syndrome after oocyte donation: insufficient prepregnancy screening and pregnancy follow-up are associated with poor outcome. *J Clin Endocrinol Metab*. 2011 Feb;96(2):E260-7. X-1.
1062. Chew FT, Drew JH, Oats JN, et al. Nonstressed antepartum cardiotocography in patients undergoing elective cesarean section--fetal outcome. *Am J Obstet Gynecol*. 1985 Feb 1;151(3):318-21. X-3, X-4e.
1063. Chhabra S and Bhandari V. Some medico-socio-demographic factors and intra-uterine growth retardation. *J Indian Med Assoc*. 1996 Apr;94(4):127-30. X-1.
1064. Chhabra S, Dargan R and Nasare M. Antepartum transabdominal amnioinfusion. *Int J Gynaecol Obstet*. 2007 May;97(2):95-9. X-1.
1065. Chi C, Shiltagh N, Kingman CE, et al. Identification and management of women with inherited bleeding disorders: a survey of obstetricians and gynaecologists in the United Kingdom. *Haemophilia*. 2006 Jul;12(4):405-12. X-1.
1066. Chia P, Raman S and Tham SW. The pregnancy outcome of acyanotic heart disease. *J Obstet Gynaecol Res*. 1998 Aug;24(4):267-73. X-1.
1067. Chia YT, Chua S, Thai AC, et al. Gestational diabetes: obstetric and neonatal outcome in 411 cases. *Singapore Med J*. 1996 Dec;37(6):591-4. X-1.
1068. Chia YT, Chua S, Thai AC, et al. Obstetric outcome of pregestational diabetic pregnancies. *Singapore Med J*. 1995 Oct;36(5):498-500. X-1.
1069. Chibber R and Al-Sibai MH. Pregnancy following infertility: a concern? *J Obstet Gynaecol*. 2007 Nov;27(8):806-9. X-1.
1070. Chibber RM, Khuranna A, al-Sibai MH, et al. Course and outcome of pregnancy in 54 persistently HIV-1-seronegative sex workers and their infants. *J Reprod Med*. 2002 Dec;47(12):1016-20. X-1.
1071. Chibber RM, Usmani MA and Al-Sibai MH. Should HEV infected mothers breast feed? *Arch Gynecol Obstet*. 2004 Jul;270(1):15-20. X-1.
1072. Chien LY and Ko YL. Fatigue during pregnancy predicts caesarean deliveries. *J Adv Nurs*. 2004 Mar;45(5):487-94. X-1.
1073. Chigbu B, Onwere S, Aluka C, et al. Factors influencing the use of episiotomy during vaginal delivery in South Eastern Nigeria. *East Afr Med J*. 2008 May;85(5):240-3. X-1.
1074. Chigbu CO, Ezenyeaku CC and Ezenkwele E. Obstetricians' opinions and attitudes toward maternal refusal of recommended cesarean delivery in Nigeria. *Int J Gynaecol Obstet*. 2009 Jun;105(3):248-51. X-1.
1075. Chigbu CO, Ezenyeaku CC and Ezenkwele EP. Obstetricians' attitudes to caesarean delivery on maternal request in Nigeria. *J Obstet Gynaecol*. 2010;30(8):813-7. X-1.
1076. Chigbu CO, Ezeome IV and Iloabachie GC. Cesarean section on request in a developing country. *Int J Gynaecol Obstet*. 2007 Jan;96(1):54-6. X-1.
1077. Chigbu CO and Iloabachie GC. The burden of caesarean section refusal in a developing country setting. *BJOG*. 2007 Oct;114(10):1261-5. X-1.
1078. Chin KJ and Yeo SW. Bispectral index values at sevoflurane concentrations of 1% and 1.5% in lower segment cesarean delivery. *Anesth Analg*. 2004 Apr;98(4):1140-4, table of contents. X-1.
1079. Chinayon P. Clinical management and outcome of eclampsia at Rajavithi Hospital. *J Med Assoc Thai*. 1998 Aug;81(8):579-85. X-1.
1080. Chipchase J, Peebles D and Rodeck C. Severe preeclampsia and cerebral blood volume response to postural change. *Obstet Gynecol*. 2003 Jan;101(1):86-92. X-1.
1081. Chit Ying L, Levy V, Oi Shan C, et al. A qualitative study of the perceptions of Hong Kong Chinese women during caesarean section under regional anaesthesia. *Midwifery*. 2001 Jun;17(2):115-22. X-1.
1082. Chittiphavorn S, Pinjaroen S, Suwanrath C, et al. Clinical practice guideline for caesarean section due to cephalopelvic disproportion. *J Med Assoc Thai*. 2006 Jun;89(6):735-40. X-1.

1083. Chivonivoni C, Ehlers VJ and Roos JH. Mothers' attitudes towards using services preventing mother-to-child HIV/AIDS transmission in Zimbabwe: an interview survey. *Int J Nurs Stud*. 2008 Nov;45(11):1618-24. X-1.
1084. Cho JH, Jun HS and Lee CN. Hemostatic suturing technique for uterine bleeding during cesarean delivery. *Obstet Gynecol*. 2000 Jul;96(1):129-131. X-1.
1085. Cho JY, Kim SJ, Cha KY, et al. Interrupted circular suture: bleeding control during cesarean delivery in placenta previa accreta. *Obstet Gynecol*. 1991 Nov;78(5 Pt 1):876-9. X-1.
1086. Choi DH, Ahn HJ and Kim JA. Combined low-dose spinal-epidural anesthesia versus single-shot spinal anesthesia for elective cesarean delivery. *Int J Obstet Anesth*. 2006 Jan;15(1):13-7. X-9.
1087. Choi DH, Ahn HJ and Kim MH. Bupivacaine-sparing effect of fentanyl in spinal anesthesia for cesarean delivery. *Reg Anesth Pain Med*. 2000 May-Jun;25(3):240-5. X-9.
1088. Choi DH, Park NK, Cho HS, et al. Effects of epidural injection on spinal block during combined spinal and epidural anesthesia for cesarean delivery. *Reg Anesth Pain Med*. 2000 Nov-Dec;25(6):591-5. X-9.
1089. Choi DM, Kliffer AP and Douglas MJ. Dextromethorphan and intrathecal morphine for analgesia after Caesarean section under spinal anaesthesia. *Br J Anaesth*. 2003 May;90(5):653-8. X-9.
1090. Choi HJ, Little MS, Garber SZ, et al. Pulse oximetry for monitoring during ward analgesia: epidural morphine versus parenteral narcotics. *J Clin Monit*. 1989 Apr;5(2):87-9. X-9.
1091. Choi SJ, Oh SY, Kim JH, et al. Increased expression of N-myc downstream-regulated gene 1 (NDRG1) in placentas from pregnancies complicated by intrauterine growth restriction or preeclampsia. *Am J Obstet Gynecol*. 2007 Jan;196(1):45 e1-7. X-1.
1092. Chongsuvivatwong V, Bachtiar H, Chowdhury ME, et al. Maternal and fetal mortality and complications associated with cesarean section deliveries in teaching hospitals in Asia. *J Obstet Gynaecol Res*. 2010 Feb;36(1):45-51. X-1.
1093. Choolani M and Ratnam SS. Maternal mortality: a global overview. *J Indian Med Assoc*. 1995 Feb;93(2):36-40. X-1, X-2.
1094. Chou MM and MacKenzie IZ. A prospective, double-blind, randomized comparison of prophylactic intramyometrial 15-methyl prostaglandin F2 alpha, 125 micrograms, and intravenous oxytocin, 20 units, for the control of blood loss at elective cesarean section. *Am J Obstet Gynecol*. 1994 Nov;171(5):1356-60. X-9.
1095. Chou YJ, Huang N, Lin IF, et al. Do physicians and their relatives have a decreased rate of cesarean section? A 4-year population-based study in Taiwan. *Birth*. 2006 Sep;33(3):195-202. X-1.
1096. Choudhury AP and Dawson AJ. Trends in indications for caesarean sections over 7 years in a Welsh district general hospital. *J Obstet Gynaecol*. 2009 Nov;29(8):714-7. X-1.
1097. Christelis N, Harrad J and Howell PR. A comparison of epidural ropivacaine 0.75% and bupivacaine 0.5% with fentanyl for elective cesarean section. *Int J Obstet Anesth*. 2005 Jul;14(3):212-8. X-9.
1098. Christensson K. Fathers can effectively achieve heat conservation in healthy newborn infants. *Acta Paediatr*. 1996 Nov;85(11):1354-60. X-9.
1099. Christie JM and Chen GW. Secondary hyperalgesia is not affected by wound infiltration with bupivacaine. *Can J Anaesth*. 1993 Nov;40(11):1034-7. X-9.
1100. Chu CC, Shu SS, Lin SM, et al. The effect of intrathecal bupivacaine with combined fentanyl in cesarean section. *Acta Anaesthesiol Sin*. 1995 Sep;33(3):149-54. X-9.
1101. Chu KH, Tai CJ, Hsu CS, et al. Women's preference for cesarean delivery and differences between Taiwanese women undergoing different modes of delivery. *BMC Health Serv Res*. 2010;10:138. X-1.
1102. Chua S, Arulkumaran S, Kurup A, et al. Does prostaglandin confer significant advantage over oxytocin infusion for nulliparas with pre-labor rupture of membranes at term? *Obstet Gynecol*. 1991 May;77(5):664-7. X-3, X-4e, X-5.
1103. Chua S, Arulkumaran S, Yap C, et al. Premature rupture of membranes in nulliparas at term with unfavorable cervixes: a double-blind randomized trial of prostaglandin and placebo. *Obstet Gynecol*. 1995 Oct;86(4 Pt 1):550-4. X-4d, X-4e.
1104. Chua S, Kurup A, Arulkumaran S, et al. Augmentation of labor: does internal tocography result in better obstetric outcome than external tocography? *Obstet Gynecol*. 1990 Aug;76(2):164-7. X-5.
1105. Chua S, Wilkins T, Sargent I, et al. Trophoblast deportation in pre-eclamptic pregnancy. *Br J Obstet Gynaecol*. 1991 Oct;98(10):973-9. X-1.
1106. Chumpathong S, Santawat U, Saunya P, et al. Comparison of different doses of epidural morphine for pain relief following cesarean section. *J Med Assoc Thai*. 2002 Sep;85 Suppl 3:S956-62. X-9.
1107. Chung CJ, Bae SH, Chae KY, et al. Spinal anaesthesia with 0.25% hyperbaric bupivacaine for Caesarean section: effects of volume. *Br J Anaesth*. 1996 Aug;77(2):145-9. X-9.

1108. Chung CJ, Choi SR, Yeo KH, et al. Hyperbaric spinal ropivacaine for cesarean delivery: a comparison to hyperbaric bupivacaine. *Anesth Analg*. 2001 Jul;93(1):157-61. X-9.
1109. Chung CJ, Kim JS, Park HS, et al. The efficacy of intrathecal neostigmine, intrathecal morphine, and their combination for post-cesarean section analgesia. *Anesth Analg*. 1998 Aug;87(2):341-6. X-9.
1110. Chung CJ, Yun SH, Hwang GB, et al. Intrathecal fentanyl added to hyperbaric ropivacaine for cesarean delivery. *Reg Anesth Pain Med*. 2002 Nov-Dec;27(6):600-3. X-9.
1111. Chung JH, Garite TJ, Kirk AM, et al. Intrinsic racial differences in the risk of cesarean delivery are not explained by differences in caregivers or hospital site of delivery. *Am J Obstet Gynecol*. 2006 May;194(5):1323-8. X-1.
1112. Chung JH, Sinatra RS, Sevarino FB, et al. Subarachnoid meperidine-morphine combination. An effective perioperative analgesic adjunct for cesarean delivery. *Reg Anesth*. 1997 Mar-Apr;22(2):119-24. X-9.
1113. Chung TK, Lau TK, Yip AS, et al. Antepartum depressive symptomatology is associated with adverse obstetric and neonatal outcomes. *Psychosom Med*. 2001 Sep-Oct;63(5):830-4. X-1.
1114. Cindoglu D and Sayan-Cengiz F. Medicalization discourse and modernity: contested meanings over childbirth in contemporary Turkey. *Health Care Women Int*. 2010 Mar;31(3):221-43. X-1.
1115. Cindrova-Davies T, Yung HW, Johns J, et al. Oxidative stress, gene expression, and protein changes induced in the human placenta during labor. *Am J Pathol*. 2007 Oct;171(4):1168-79. X-1.
1116. Cinque B, Montesanti MI, Parlati E, et al. Corpus luteum function during the early puerperium. *J Endocrinol Invest*. 1985 Feb;8(1):1-6. X-1.
1117. Cirpan T, Akercan F, Terek MC, et al. Evaluation of VEGF in placental bed biopsies from preeclamptic women by immunohistochemistry. *Clin Exp Obstet Gynecol*. 2007;34(4):228-31. X-1.
1118. Citkovitz C, Klimenko E, Bolyai M, et al. Effects of acupuncture during labor and delivery in a U.S. hospital setting: a case-control pilot study. *J Altern Complement Med*. 2009 May;15(5):501-5. X-1.
1119. Claris O, Picaud JC, Brazier JL, et al. Pharmacokinetics of cyclosporin A in 16 newborn infants of renal or cardiac transplant mothers. *Dev Pharmacol Ther*. 1993;20(3-4):180-5. X-1.
1120. Clark A, Carr D, Loyd G, et al. The influence of epidural analgesia on cesarean delivery rates: a randomized, prospective clinical trial. *Am J Obstet Gynecol*. 1998 Dec;179(6 Pt 1):1527-33. X-9.
1121. Clark M. Maternal exercise and caesarean section. *MIDIRS Midwifery Digest*. 2005;15(4):530-533. X-1, X-2, X-3, X-4, X-5.
1122. Clark SL, Belfort MA, Dildy GA, et al. Reducing obstetric litigation through alterations in practice patterns. *Obstet Gynecol*. 2008 Dec;112(6):1279-83. X-1.
1123. Clark SL, Belfort MA, Hankins GD, et al. Variation in the rates of operative delivery in the United States. *Am J Obstet Gynecol*. 2007 Jun;196(6):526 e1-5. X-1.
1124. Clark SL, Koonings PP and Phelan JP. Placenta previa/accreta and prior cesarean section. *Obstet Gynecol*. 1985 Jul;66(1):89-92. X-1.
1125. Clark SL, Miller DD, Belfort MA, et al. Neonatal and maternal outcomes associated with elective term delivery. *Am J Obstet Gynecol*. 2009 Feb;200(2):156 e1-4. X-1.
1126. Clark SL, Xu W, Porter TF, et al. Institutional influences on the primary cesarean section rate in Utah, 1992 to 1995. *Am J Obstet Gynecol*. 1998 Oct;179(4):841-5. X-1.
1127. Clark V, McGrady E, Sugden C, et al. Speed of onset of sensory block for elective extradural caesarean section: choice of agent and temperature of injectate. *Br J Anaesth*. 1994 Feb;72(2):221-3. X-9.
1128. Clark VA, Wardall GJ and McGrady EM. Blood ordering practices in obstetric units in the United Kingdom. *Anaesthesia*. 1993 Nov;48(11):998-1001. X-1.
1129. Cleary R, Beard RW, Chapple J, et al. The standard primipara as a basis for inter-unit comparisons of maternity care. *Br J Obstet Gynaecol*. 1996 Mar;103(3):223-9. X-1.
1130. Cleary-Goldman J, Bettes B, Robinson JN, et al. Postterm pregnancy: practice patterns of contemporary obstetricians and gynecologists. *Am J Perinatol*. 2006 Jan;23(1):15-20. X-1.
1131. Cleary-Goldman J, Cornelisse K, Simpson LL, et al. Previous cesarean delivery: understanding and satisfaction with mode of delivery in a subsequent pregnancy in patients participating in a formal vaginal birth after cesarean counseling program. *Am J Perinatol*. 2005 May;22(4):217-21. X-1.
1132. Cnattingius R, Hoglund B and Kieler H. Emergency cesarean delivery in induction of labor: an evaluation of risk factors. *Acta Obstet Gynecol Scand*. 2005 May;84(5):456-62. X-1.
1133. Cochlin DL. Effects of two ultrasound scanning regimens on the management of pregnancy. *Br J Obstet Gynaecol*. 1984 Sep;91(9):885-90. X-1.
1134. Cockell AP, Learmont JG, Smarason AK, et al. Human placental syncytiotrophoblast microvillous membranes impair maternal vascular endothelial function. *Br J Obstet Gynaecol*. 1997 Feb;104(2):235-40. X-1.

1135. Cockey CD. On the edge. Teen birthrate falls to record low. AWHONN Lifelines. 2002;6(4):307-307. X-1.
1136. Coetzee EJ, Dommissie J and Anthony J. A randomised controlled trial of intravenous magnesium sulphate versus placebo in the management of women with severe pre-eclampsia. *Br J Obstet Gynaecol*. 1998 Mar;105(3):300-3. X-4e.
1137. Coetzee EJ and Jackson WP. Pregnancy in insulin-dependent diabetics. A 5 1/2-year study at Groote Schuur Hospital. *S Afr Med J*. 1981 Aug 15;60(7):275-8. X-1.
1138. Coffin CS, Shaheen AA, Burak KW, et al. Pregnancy outcomes among liver transplant recipients in the United States: a nationwide case-control analysis. *Liver Transpl*. 2010 Jan;16(1):56-63. X-1.
1139. Cogliano MS, Graham AC and Clark VA. Supplementary oxygen administration for elective Caesarean section under spinal anaesthesia. *Anaesthesia*. 2002 Jan;57(1):66-9. X-9.
1140. Cohain JS. Connecting to birth. *Midwifery Today Int Midwife*. 2003 Fall(67):18-9. X-1.
1141. Cohain JS. Management or care: different outcomes. *Midwifery Today Int Midwife*. 2007 Summer(82):19-21. X-1, X-2.
1142. Cohain JS. Documented causes of unneCesareans. *Midwifery Today Int Midwife*. 2009 Winter(92):18-9, 63. X-1, X-2.
1143. Cohain JS. Nuchal cords are necklaces, not nooses. *Midwifery Today Int Midwife*. 2010 Spring(93):46-8, 67-8. X-1.
1144. Cohen HR, Green JR and Crombleholme WR. Peripartum cocaine use: estimating risk of adverse pregnancy outcome. *Int J Gynaecol Obstet*. 1991 May;35(1):51-4. X-1.
1145. Cohen JR. Patient satisfaction with the prenatal care provider and the risk of cesarean delivery. *Am J Obstet Gynecol*. 2005 Jun;192(6):2029-32; discussion 2032-4. X-1.
1146. Cohen NW and LaLeike S. What factors cause unnecessary cesareans? *Midwifery Today Childbirth Educ*. 1992 Autumn(23):16-7. X-1.
1147. Cohen S and Amar D. Epidural block for obstetrics: comparison of bolus injection of local anesthetic with gravity flow technique. *J Clin Anesth*. 1997 Dec;9(8):623-8. X-4e.
1148. Cohen S, Amar D, Pantuck CB, et al. Postcesarean delivery epidural patient-controlled analgesia. Fentanyl or sufentanil? *Anesthesiology*. 1993 Mar;78(3):486-91. X-9.
1149. Cohen S, Amar D, Pantuck CB, et al. Adverse effects of epidural 0.03% bupivacaine during analgesia after cesarean section. *Anesth Analg*. 1992 Nov;75(5):753-6. X-9.
1150. Cohen S, Amar D, Pantuck CB, et al. Epidural patient-controlled analgesia after cesarean section: buprenorphine-0.015% bupivacaine with epinephrine versus fentanyl-0.015% bupivacaine with and without epinephrine. *Anesth Analg*. 1992 Feb;74(2):226-30. X-9.
1151. Cohen S, Amar D, Pantuck EJ, et al. Decreased incidence of headache after accidental dural puncture in caesarean delivery patients receiving continuous postoperative intrathecal analgesia. *Acta Anaesthesiol Scand*. 1994 Oct;38(7):716-8. X-1.
1152. Cohen S, Lowenwirt I, Pantuck CB, et al. Bupivacaine 0.01% and/or epinephrine 0.5 microg/ml improve epidural fentanyl analgesia after cesarean section. *Anesthesiology*. 1998 Dec;89(6):1354-61. X-9.
1153. Cohen S, Pantuck CB, Amar D, et al. The primary action of epidural fentanyl after cesarean delivery is via a spinal mechanism. *Anesth Analg*. 2002 Mar;94(3):674-9; table of contents. X-9.
1154. Cohen SB, Goldenberg M, Rabinovici J, et al. Anti-cardiolipin antibodies in fetal blood and amniotic fluid derived from patients with the anti-phospholipid syndrome. *Hum Reprod*. 2000 May;15(5):1170-2. X-1.
1155. Cohen SE, Labaille T, Benhamou D, et al. Respiratory effects of epidural sufentanil after cesarean section. *Anesth Analg*. 1992 May;74(5):677-82. X-9.
1156. Cohen SE, Ratner EF, Kreitzman TR, et al. Nalbuphine is better than naloxone for treatment of side effects after epidural morphine. *Anesth Analg*. 1992 Nov;75(5):747-52. X-9.
1157. Cohen SE, Subak LL, Brose WG, et al. Analgesia after cesarean delivery: patient evaluations and costs of five opioid techniques. *Reg Anesth*. 1991 May-Jun;16(3):141-9. X-9.
1158. Cohen SE, Tan S and White PF. Sufentanil analgesia following cesarean section: epidural versus intravenous administration. *Anesthesiology*. 1988 Jan;68(1):129-34. X-9.
1159. Cohen SE and Woods WA. The role of epidural morphine in the postcesarean patient: efficacy and effects on bonding. *Anesthesiology*. 1983 Jun;58(6):500-4. X-9.
1160. Cohen SL. A function for estriol during human pregnancy--a hypothesis. *Clin Biochem*. 1985 Apr;18(2):85-7. X-1.
1161. Cole CP, McMorland GH, Axelson JE, et al. Epidural blockade for cesarean section comparing lidocaine hydrocarbonate and lidocaine hydrochloride. *Anesthesiology*. 1985 Mar;62(3):348-50. X-9.
1162. Cole RA, Howie PW and Macnaughton MC. Elective induction of labour. A randomised prospective trial. *Lancet*. 1975 Apr 5;1(7910):767-70. X-5.
1163. Coleman TL, Randall H, Graves W, et al. Vaginal birth after cesarean among women with gestational diabetes. *Am J Obstet Gynecol*. 2001 May;184(6):1104-7. X-1.
1164. Coleman VH, Erickson K, Schulkin J, et al. Vaginal birth after cesarean delivery: practice

- patterns of obstetrician-gynecologists. *J Reprod Med.* 2005 Apr;50(4):261-6. X-1.
1165. Coleman-Cowger VH, Erickson K, Spong CY, et al. Current practice of cesarean delivery on maternal request following the 2006 state-of-the-science conference. *J Reprod Med.* 2010 Jan-Feb;55(1-2):25-30. X-1.
1166. Colker R. Reply to Sarah Burns. *Harv Women's Law J.* 1990 Spring;13:207-14. X-1, X-2.
1167. Collard TD, Diallo H, Habinsky A, et al. Elective cesarean section: why women choose it and what nurses need to know. *Nurs Womens Health.* 2008 Dec;12(6):480-8. X-1, X-2.
1168. Collaris R and Tan PC. Oral nifedipine versus subcutaneous terbutaline tocolysis for external cephalic version: a double-blind randomised trial. *BJOG.* 2009 Jan;116(1):74-80; discussion 80-1. X-4e.
1169. Collea JV, Chein C and Quilligan EJ. The randomized management of term frank breech presentation: a study of 208 cases. *Am J Obstet Gynecol.* 1980 May 15;137(2):235-44. X-3, X-4c, X-5.
1170. Collea JV, Rabin SC, Weghorst GR, et al. The randomized management of term frank breech presentation: vaginal delivery vs. cesarean section. *Am J Obstet Gynecol.* 1978 May 15;131(2):186-95. X-4c, X-4b.
1171. Collea JV, Rabin SC, Weghorst GR, et al. The randomized management of term frank breech presentation: vaginal delivery vs. cesarean section. *Trans Pac Coast Obstet Gynecol Soc.* 1978;45:88-97. X-4c, X-4b.
1172. Colletto GM and Segre CA. Lack of effect of maternal body mass index on anthropometric characteristics of newborns in twin gestations. *Genet Mol Res.* 2005;4(1):47-54. X-1.
1173. Collier CB and Gatt SP. Epidural catheters for obstetrics. Terminal hole or lateral eyes? *Reg Anesth.* 1994 Nov-Dec;19(6):378-85. X-3, X-4e.
1174. Collin SM, Marshall T and Filippi V. Caesarean section and subsequent fertility in sub-Saharan Africa. *BJOG.* 2006 Mar;113(3):276-83. X-1.
1175. Collingham JP, Fuh KC, Caughey AB, et al. Oral misoprostol and vaginal isosorbide mononitrate for labor induction: a randomized controlled trial. *Obstet Gynecol.* 2010 Jul;116(1):121-6. X-4d, X-5.
1176. Collins S, Ellaway P, Harrington D, et al. The complications of external cephalic version: results from 805 consecutive attempts. *BJOG.* 2007 May;114(5):636-8. X-3, X-4c, X-4e, X-5.
1177. Colman RD, Frank M, Loughnan BA, et al. Use of i.m. ranitidine for the prophylaxis of aspiration pneumonitis in obstetrics. *Br J Anaesth.* 1988 Dec;61(6):720-9. X-9.
1178. Colon I, Clawson K, Hunter K, et al. Prospective randomized clinical trial of inpatient cervical ripening with stepwise oral misoprostol vs vaginal misoprostol. *Am J Obstet Gynecol.* 2005 Mar;192(3):747-52. X-4d.
1179. Combs CA, Murphy EL and Laros RK, Jr. Factors associated with hemorrhage in cesarean deliveries. *Obstet Gynecol.* 1991 Jan;77(1):77-82. X-1.
1180. Combs CA, Singh NB and Khoury JC. Elective induction versus spontaneous labor after sonographic diagnosis of fetal macrosomia. *Obstet Gynecol.* 1993 Apr;81(4):492-6. X-1.
1181. Comried LA. Cost analysis: initiation of HBMC and first CareMap. *Nurs Econ.* 1996 Jan-Feb;14(1):34-9. X-1.
1182. Congreve K, Gardner I, Laxton C, et al. Where is T5? A survey of anaesthetists. *Anaesthesia.* 2006 May;61(5):453-5. X-1.
1183. Connell H, Dalgleish JG and Downing JW. General anaesthesia in mothers with severe pre-eclampsia/eclampsia. *Br J Anaesth.* 1987 Nov;59(11):1375-80. X-1.
1184. Connelly NR, Dunn SM, Ingold V, et al. The use of fentanyl added to morphine-lidocaine-epinephrine spinal solution in patients undergoing cesarean section. *Anesth Analg.* 1994 May;78(5):918-20. X-9.
1185. Connelly NR, Parker RK, Pedersen T, et al. Diluent volume for epidural fentanyl and its effect on analgesia in early labor. *Anesth Analg.* 2003 Jun;96(6):1799-804, table of contents. X-1, X-4a, X-4e, X-5.
1186. Connolly C, McLeod GA and Wildsmith JA. Spinal anaesthesia for Caesarean section with bupivacaine 5 mg ml(-1) in glucose 8 or 80 mg ml(-1). *Br J Anaesth.* 2001 Jun;86(6):805-7. X-9.
1187. Connolly G, Kennelly S, Conroy R, et al. Teenage pregnancy in the Rotunda Hospital. *Ir Med J.* 1998 Dec;91(6):209-12. X-1.
1188. Connolly G, Naidoo C, Conroy RM, et al. A new predictor of cephalopelvic disproportion? *J Obstet Gynaecol.* 2003 Jan;23(1):27-9. X-1.
1189. Connolly G, Razak A, Conroy R, et al. A five year review of scar dehiscence in the Rotunda Hospital, Dublin. *Ir Med J.* 2001 Jun;94(6):176-8. X-1.
1190. Connolly T. Thromboembolism prophylaxis and cesarean section: a survey of general obstetricians. *South Med J.* 2003 Feb;96(2):146-8. X-1.
1191. Connolly TJ, Litman HJ, Tennstedt SL, et al. The effect of mode of delivery, parity, and birth weight on risk of urinary incontinence. *Int Urogynecol J Pelvic Floor Dysfunct.* 2007 Sep;18(9):1033-42. X-1.
1192. Conover WB and Moore TR. Comparison of irrigation and intravenous antibiotic prophylaxis at cesarean section. *Obstet Gynecol.* 1984 Jun;63(6):787-91. X-9.

1193. Constantine G, Beevers DG, Reynolds AL, et al. Nifedipine as a second line antihypertensive drug in pregnancy. *Br J Obstet Gynaecol.* 1987 Dec;94(12):1136-42. X-1.
1194. Contag SA, Clifton RG, Bloom SL, et al. Neonatal outcomes and operative vaginal delivery versus cesarean delivery. *Am J Perinatol.* 2010 Jun;27(6):493-9. X-4e, X-5.
1195. Contreras KR, Kominiarek MA and Zollinger TW. The impact of tobacco smoking on perinatal outcome among patients with gestational diabetes. *J Perinatol.* 2010 May;30(5):319-23. X-1.
1196. Contro E, Maroni E, Cera E, et al. Unilaterally increased uterine artery resistance, placental location and pregnancy outcome. *Eur J Obstet Gynecol Reprod Biol.* 2010 Dec;153(2):143-7. X-1.
1197. Conturso R, Valsecchi A and De Lalla F. Evaluation of mezlocillin versus placebo as a prophylactic agent in cesarean section. *Chemioterapia.* 1987 Jun;6(2 Suppl):611-3. X-4b.
1198. Conway DL, Adkins WB, Schroeder B, et al. Isolated oligohydramnios in the term pregnancy: is it a clinical entity? *J Matern Fetal Med.* 1998 Jul-Aug;7(4):197-200. X-1.
1199. Cook MB, Graubard BI, Rubertone MV, et al. Perinatal factors and the risk of testicular germ cell tumors. *Int J Cancer.* 2008 Jun 1;122(11):2600-6. X-1.
1200. Cook WP, Schultetus RR and Caton D. A comparison of d-tubocurarine pretreatment and no pretreatment in obstetric patients. *Anesth Analg.* 1987 Aug;66(8):756-60. X-9.
1201. Coombs DW, Danielson DR, Pageau MG, et al. Epidurally administered morphine for postcesarean analgesia. *Surg Gynecol Obstet.* 1982 Mar;154(3):385-8. X-9.
1202. Coonrod DV, Bay RC and Kishi GY. The epidemiology of labor induction: Arizona, 1997. *Am J Obstet Gynecol.* 2000 Jun;182(6):1355-62. X-1.
1203. Cooper DW, Carpenter M, Mowbray P, et al. Fetal and maternal effects of phenylephrine and ephedrine during spinal anesthesia for cesarean delivery. *Anesthesiology.* 2002 Dec;97(6):1582-90. X-9.
1204. Cooper DW, Garcia E, Mowbray P, et al. Patient-controlled epidural fentanyl following spinal fentanyl at Caesarean section. *Anaesthesia.* 2002 Mar;57(3):266-70. X-9.
1205. Cooper DW, Gibb SC, Meek T, et al. Effect of intravenous vasopressor on spread of spinal anaesthesia and fetal acid-base equilibrium. *Br J Anaesth.* 2007 May;98(5):649-56. X-9.
1206. Cooper DW, Jeyaraj L, Hynd R, et al. Evidence that intravenous vasopressors can affect rostral spread of spinal anesthesia in pregnancy. *Anesthesiology.* 2004 Jul;101(1):28-33. X-9.
1207. Cooper DW, Lindsay SL, Ryall DM, et al. Does intrathecal fentanyl produce acute cross-tolerance to i.v. morphine? *Br J Anaesth.* 1997 Mar;78(3):311-3. X-9.
1208. Cooper DW, Ryall DM and Desira WR. Extradural fentanyl for postoperative analgesia: predominant spinal or systemic action? *Br J Anaesth.* 1995 Feb;74(2):184-7. X-9.
1209. Cooper DW, Ryall DM, McHardy FE, et al. Patient-controlled extradural analgesia with bupivacaine, fentanyl, or a mixture of both, after Caesarean section. *Br J Anaesth.* 1996 May;76(5):611-5. X-9.
1210. Cooper DW, Saleh U, Taylor M, et al. Patient-controlled analgesia: epidural fentanyl and i.v. morphine compared after caesarean section. *Br J Anaesth.* 1999 Mar;82(3):366-70. X-9.
1211. Cooper ER, Nugent RP, Diaz C, et al. After AIDS clinical trial 076: the changing pattern of zidovudine use during pregnancy, and the subsequent reduction in the vertical transmission of human immunodeficiency virus in a cohort of infected women and their infants. Women and Infants Transmission Study Group. *J Infect Dis.* 1996 Dec;174(6):1207-11. X-1.
1212. Cooper GM, MacArthur C, Wilson MJ, et al. Satisfaction, control and pain relief: short- and long-term assessments in a randomised controlled trial of low-dose and traditional epidurals and a non-epidural comparison group. *Int J Obstet Anesth.* 2010 Jan;19(1):31-7. X-4e, X-5.
1213. Cooper JC, Sharkey AM, Charnock-Jones DS, et al. VEGF mRNA levels in placentae from pregnancies complicated by pre-eclampsia. *Br J Obstet Gynaecol.* 1996 Dec;103(12):1191-6. X-1.
1214. Cooper SC, Flaitz CM, Johnston DA, et al. A natural history of cleidocranial dysplasia. *Am J Med Genet.* 2001 Nov 15;104(1):1-6. X-1.
1215. Coppejans HC, Hendrickx E, Goossens J, et al. The sitting versus right lateral position during combined spinal-epidural anesthesia for cesarean delivery: block characteristics and severity of hypotension. *Anesth Analg.* 2006 Jan;102(1):243-7. X-9.
1216. Coppejans HC and Vercauteren MP. Low-dose combined spinal-epidural anesthesia for cesarean delivery: a comparison of three plain local anesthetics. *Acta Anaesthesiol Belg.* 2006;57(1):39-43. X-9.
1217. Cordeaux Y, Tattersall M, Charnock-Jones DS, et al. Effects of medroxyprogesterone acetate on gene expression in myometrial explants from pregnant women. *J Clin Endocrinol Metab.* 2010 Dec;95(12):E437-47. X-1.
1218. Cordero L, Nankervis CA, Gardner D, et al. The effects of indomethacin tocolysis on the postnatal response of the ductus arteriosus to

- indomethacin in extremely low birth weight infants. *J Perinatol.* 2007 Jan;27(1):22-7. X-1.
1219. Corke BC, Datta S, Ostheimer GW, et al. Spinal anaesthesia for Caesarean section. The influence of hypotension on neonatal outcome. *Anaesthesia.* 1982 Jun;37(6):658-62. X-1.
1220. Cornes H, Bartolo DC and Stirrat GM. Changes in anal canal sensation after childbirth. *Br J Surg.* 1991 Jan;78(1):74-7. X-1.
1221. Cornet D, Antoine JM, Casanova S, et al. Obstetric evolution of pregnancies obtained from donated oocytes. *Fetal Diagn Ther.* 1992;7(1):31-5. X-1.
1222. Coronado GD, Marshall LM and Schwartz SM. Complications in pregnancy, labor, and delivery with uterine leiomyomas: a population-based study. *Obstet Gynecol.* 2000 May;95(5):764-9. X-1.
1223. Corrado F, Benedetto AD, Cannata ML, et al. A single abnormal value of the glucose tolerance test is related to increased adverse perinatal outcome. *J Matern Fetal Neonatal Med.* 2009 Jul;22(7):597-601. X-1.
1224. Correia-Pinto J, Reis JL, Hutchins GM, et al. In utero meconium exposure increases spinal cord necrosis in a rat model of myelomeningocele. *J Pediatr Surg.* 2002 Mar;37(3):488-92. X-1.
1225. Corriveau S, Rousseau E, Berthiaume M, et al. Lipoxygenase and cyclooxygenase inhibitors reveal a complementary role of arachidonic acid derivatives in pregnant human myometrium. *Am J Obstet Gynecol.* 2010 Sep;203(3):266 e1-7. X-1.
1226. Costakos DT, Love LA and Kirby RS. The computerized perinatal database: are the data reliable? *Am J Perinatol.* 1998 Jul;15(7):453-9. X-1.
1227. Costello JF, Moore AR, Wieczorek PM, et al. The transversus abdominis plane block, when used as part of a multimodal regimen inclusive of intrathecal morphine, does not improve analgesia after cesarean delivery. *Reg Anesth Pain Med.* 2009 Nov-Dec;34(6):586-9. X-9.
1228. Cotter AM and O'Sullivan MJ. Update on managing HIV in pregnancy. *Contemporary OB/GYN.* 2004;49(11):57. X-4b.
1229. Cotzias CS, Paterson-Brown S and Fisk NM. Obstetricians say yes to maternal request for elective caesarean section: a survey of current opinion. *Eur J Obstet Gynecol Reprod Biol.* 2001 Jul;97(1):15-6. X-1.
1230. Coulter CH and Lehrfeld R. When push comes to shove: implementing VBAC practice guidelines. *Physician Exec.* 1995 Jun;21(6):30-5. X-1.
1231. Courtney MA, Bader AM, Hartwell B, et al. Perioperative analgesia with subarachnoid sufentanil administration. *Reg Anesth.* 1992 Sep-Oct;17(5):274-8. X-9.
1232. Coutinho IC, Ramos de Amorim MM, Katz L, et al. Uterine exteriorization compared with in situ repair at cesarean delivery: a randomized controlled trial. *Obstet Gynecol.* 2008 Mar;111(3):639-47. X-9.
1233. Coutinho PR, Cecatti JG, Surita FG, et al. Factors associated with low birth weight in a historical series of deliveries in Campinas, Brazil. *Rev Assoc Med Bras.* 2009 Nov-Dec;55(6):692-9. X-1.
1234. Couto RC, Pedrosa TM, Nogueira JM, et al. Post-discharge surveillance and infection rates in obstetric patients. *Int J Gynaecol Obstet.* 1998 Jun;61(3):227-31. X-1.
1235. Cowan CM, Kendall JB, Barclay PM, et al. Comparison of intrathecal fentanyl and diamorphine in addition to bupivacaine for caesarean section under spinal anaesthesia. *Br J Anaesth.* 2002 Sep;89(3):452-8. X-9.
1236. Cowley E, Thompson JP, Sharpe P, et al. Effects of pre-eclampsia on maternal plasma, cerebrospinal fluid, and umbilical cord urotensin II concentrations: a pilot study. *Br J Anaesth.* 2005 Oct;95(4):495-9. X-1.
1237. Crane JM, Delaney T, Butt KD, et al. Predictors of successful labor induction with oral or vaginal misoprostol. *J Matern Fetal Neonatal Med.* 2004 May;15(5):319-23. X-1.
1238. Crane JM and Hutchens D. Use of transvaginal ultrasonography to predict preterm birth in women with a history of preterm birth. *Ultrasound Obstet Gynecol.* 2008 Oct;32(5):640-5. X-1.
1239. Crane SS, Wojtowycz MA, Dye TD, et al. Association between pre-pregnancy obesity and the risk of cesarean delivery. *Obstet Gynecol.* 1997 Feb;89(2):213-6. X-1.
1240. Cranley MS, Hedahl K and Pegg SH. Women's perception of vaginal and cesarean deliveries. *Nursing Research.* 1983;32(1):10-15. X-1, X-3, X-4e, X-5.
1241. Craver Pryor E, Mertz HL, Beaver BW, et al. Intrapartum predictors of uterine rupture. *Am J Perinatol.* 2007 May;24(5):317-21. X-1.
1242. Crawford JS. Premedication for elective Caesarean section. *Anaesthesia.* 1979 Oct;34(9):892-7. X-9.
1243. Crawford JS. Experiences with epidural morphine in obstetrics. *Anaesthesia.* 1981 Feb;36(2):207-9. X-1, X-3, X-4b, X-5.
1244. Crawford JS, Lewis M and Davies P. Maternal and neonatal responses related to the volatile agent used to maintain anaesthesia at caesarean section. *Br J Anaesth.* 1985 May;57(5):482-7. X-9.
1245. Crawford ME, Carl P, Bach V, et al. A randomized comparison between midazolam and thiopental for elective cesarean section anaesthesia. I. Mothers. *Anesth Analg.* 1989 Mar;68(3):229-33. X-9.
1246. Creatsas G, Pavlatos M, Lolis D, et al. Ampicillin and gentamicin in the treatment of

- fetal intrauterine infections. *J Perinat Med*. 1980;8(1):13-8. X-1.
1247. Creedy DK and Noy DL. Postdischarge surveillance after cesarean section. *Birth*. 2001 Dec;28(4):264-9. X-1.
1248. Critchlow CW, Leet TL, Benedetti TJ, et al. Risk factors and infant outcomes associated with umbilical cord prolapse: a population-based case-control study among births in Washington State. *Am J Obstet Gynecol*. 1994 Feb;170(2):613-8. X-1.
1249. Crochetiere CT, Trepanier CA and Cote JJ. Epidural anaesthesia for caesarean section: comparison of two injection techniques. *Can J Anaesth*. 1989 Mar;36(2):133-6. X-9.
1250. Crombleholme WR, Green JR, Ohm-Smith M, et al. Cesarean section prophylaxis: comparison of two doses with three doses of mezlocillin. *Am J Reprod Immunol Microbiol*. 1987 Mar;13(3):71-5. X-9.
1251. Crombleholme WR, Green JR, Ohm-Smith M, et al. Prophylaxis in caesarean section with cefmetazole and cefoxitin. *J Antimicrob Chemother*. 1989 Apr;23 Suppl D:97-104. X-9.
1252. Cromi A, Ghezzi F, Di Naro E, et al. Blunt expansion of the low transverse uterine incision at cesarean delivery: a randomized comparison of 2 techniques. *Am J Obstet Gynecol*. 2008 Sep;199(3):292 e1-6. X-9.
1253. Crone LA, Conly JM, Storgard C, et al. Herpes labialis in parturients receiving epidural morphine following cesarean section. *Anesthesiology*. 1990 Aug;73(2):208-13. X-9.
1254. Cronje HS and van der Westhuizen A. Coupling of uterine contractions during labor: a pilot study. *Int J Gynaecol Obstet*. 1988 Aug;27(1):69-72. X-1.
1255. Cronk M. What happened to the midwife in the case of the woman forced to have a caesarean. *Nurs Times*. 1998 May 20-26;94(20):18. X-1, X-2, X-4e.
1256. Crosby E, Sandler A, Finucane B, et al. Comparison of epidural anaesthesia with ropivacaine 0.5% and bupivacaine 0.5% for caesarean section. *Can J Anaesth*. 1998 Nov;45(11):1066-71. X-9.
1257. Crosby ET, Bryson GL, Elliott RD, et al. Epidural sufentanil does not attenuate the central haemodynamic effects of caesarean section performed under epidural anaesthesia. *Can J Anaesth*. 1994 Mar;41(3):192-7. X-9.
1258. Crosby ET and Elliott RD. Anaesthesia for caesarean section in a parturient with quintuplet gestation, pulmonary oedema and thrombocytopenia. *Can J Anaesth*. 1988 Jul;35(4):417-21. X-1, X-2.
1259. Crosby ET and Halpern SH. Supplemental maternal oxygen therapy during caesarean section under epidural anaesthesia: a comparison of nasal prongs and facemask. *Can J Anaesth*. 1992 Apr;39(4):313-6. X-9.
1260. Crosby ET, Halpern SH and Rolbin SH. Epidural anaesthesia and herpes genitalis. *Infection Control Canada*. 1990;5(1):10-13. X-1.
1261. Cross LL, Meythaler JM, Tuel SM, et al. Pregnancy, labor and delivery post spinal cord injury. *Paraplegia*. 1992 Dec;30(12):890-902. X-1, X-2.
1262. Croughan-Minihan MS, Petitti DB, Gordis L, et al. Morbidity among breech infants according to method of delivery. *Obstet Gynecol*. 1990 May;75(5):821-5. X-1.
1263. Crovella S, Bernardon M, Braidia L, et al. Italian multicentric pilot study on MBL2 genetic polymorphisms in HIV positive pregnant women and their children. *J Matern Fetal Neonatal Med*. 2005 Apr;17(4):253-6. X-1.
1264. Crowhurst JA and Rosen M. General anaesthesia for caesarean section in severe pre-eclampsia. Comparison of the renal and hepatic effects of enflurane and halothane. *Br J Anaesth*. 1984 Jun;56(6):587-97. X-9.
1265. Crowther CA. Management and pregnancy outcome in eclampsia at Harare Maternity Hospital. *Cent Afr J Med*. 1985 Jun;31(6):107-9. X-1, X-4e, X-5.
1266. Crowther CA. Caesarean delivery for the second twin. *Cochrane Database of Systematic Reviews*. 1996(1). X-1, X-2.
1267. Crowther CA, Hiller JE, Moss JR, et al. Effect of treatment of gestational diabetes mellitus on pregnancy outcomes. *N Engl J Med*. 2005 Jun 16;352(24):2477-86. X-4e.
1268. Crowther ME. Perinatal death: worse obstetric and neonatal outcome in a subsequent pregnancy. *J R Army Med Corps*. 1995 Jun;141(2):92-7. X-1.
1269. Cruickshank ME, Flannelly G, Campbell DM, et al. Fertility and pregnancy outcome following large loop excision of the cervical transformation zone. *Br J Obstet Gynaecol*. 1995 Jun;102(6):467-70. X-1.
1270. Cruz ML, Cardoso CA, Joao EC, et al. Pregnancy in HIV vertically infected adolescents and young women: a new generation of HIV-exposed infants. *AIDS*. 2010 Nov 13;24(17):2727-31. X-1.
1271. Cruz-Martinez R, Figueras F, Hernandez-Andrade E, et al. Fetal brain Doppler to predict caesarean delivery for nonreassuring fetal status in term small-for-gestational-age fetuses. *Obstet Gynecol*. 2011 Mar;117(3):618-26. X-1.
1272. Csitari IK, Pasztuhov A and Laszlo A. The reliability of fetal pulse oximetry: the effect of fetal oxygen saturation below 30% on perinatal outcome. *Eur J Obstet Gynecol Reprod Biol*. 2008 Feb;136(2):160-4. X-1.
1273. Cui T, Liu Y, Men X, et al. Bile acid transport correlative protein mRNA expression profile in human placenta with intrahepatic cholestasis of

- pregnancy. *Saudi Med J*. 2009 Nov;30(11):1406-10. X-1.
1274. Culebras X, Gaggero G, Zatloukal J, et al. Advantages of intrathecal nalbuphine, compared with intrathecal morphine, after cesarean delivery: an evaluation of postoperative analgesia and adverse effects. *Anesth Analg*. 2000 Sep;91(3):601-5. X-9.
1275. Culver J, Strauss RA, Brody S, et al. A randomized trial comparing vaginal misoprostol versus Foley catheter with concurrent oxytocin for labor induction in nulliparous women. *Am J Perinatol*. 2004 Apr;21(3):139-46. X-4d.
1276. Cummiskey KC and Dawood MY. Induction of labor with pulsatile oxytocin. *Am J Obstet Gynecol*. 1990 Dec;163(6 Pt 1):1868-74. X-4d, X-5.
1277. Cummiskey KC, Gall SA and Dawood MY. Pulsatile administration of oxytocin for augmentation of labor. *Obstet Gynecol*. 1989 Dec;74(6):869-72. X-4d, X-4e.
1278. Cundy T, Slee F, Gamble G, et al. Hypertensive disorders of pregnancy in women with Type 1 and Type 2 diabetes. *Diabet Med*. 2002 Jun;19(6):482-9. X-1.
1279. Cunningham FG, Cox K, Hauth JC, et al. Oral prostaglandin E2 for labor induction in high-risk pregnancy. *Am J Obstet Gynecol*. 1976 Aug 1;125(7):881-8. X-1, X-3, X-4d, X-4e, X-5.
1280. Cunningham FG, Gilstrap LC, 3rd and Kappus SS. Cefamandole for treatment of obstetrical and gynecological infections. *Scand J Infect Dis Suppl*. 1980;suppl 25:75-82. X-1.
1281. Cunningham FG, Hauth JC, Strong JD, et al. Infectious morbidity following cesarean section. Comparison of two treatment regimens. *Obstet Gynecol*. 1978 Dec;52(6):656-61. X-9.
1282. Cunningham ITS, Cushen AM, Healy S, et al. An audit of thromboprophylaxis provision in obstetrics and gynaecology. *Health Bulletin*. 1998;56(2):561-564. X-1.
1283. Curet LB and Gauger LJ. Cervical ripening with intravaginal prostaglandin E2 gel. *Int J Gynaecol Obstet*. 1989 Mar;28(3):221-8. X-4d.
1284. Currier JS, Tosteson TD and Platt R. Cefazolin compared with cefoxitin for cesarean section prophylaxis: the use of a two-stage study design. *J Clin Epidemiol*. 1993 Jul;46(7):625-30. X-1.
1285. Curtin SC and Martin JA. Births: preliminary data for 1999. *Natl Vital Stat Rep*. 2000 Aug 8;48(14):1-20. X-1.
1286. Curtis SL, Marsden-Williams J, Sullivan C, et al. Current trends in the management of heart disease in pregnancy. *Int J Cardiol*. 2009 Mar 20;133(1):62-9. X-1.
1287. Cuttini M, Habiba M, Nilstun T, et al. Patient refusal of emergency cesarean delivery: a study of obstetricians' attitudes in Europe. *Obstet Gynecol*. 2006 Nov;108(5):1121-9. X-1.
1288. Cypryk K, Sobczak M, Pertynska-Marczewska M, et al. Pregnancy complications and perinatal outcome in diabetic women treated with Humalog (insulin lispro) or regular human insulin during pregnancy. *Med Sci Monit*. 2004 Feb;10(2):PI29-32. X-1, X-4e.
1289. da Graca Krupa F, Cecatti JG, de Castro Surita FG, et al. Misoprostol versus expectant management in premature rupture of membranes at term. *BJOG*. 2005 Sep;112(9):1284-90. X-4e.
1290. Dabelea V, Schultze PM and McDuffie RS, Jr. Intrauterine balloon tamponade in the management of postpartum hemorrhage. *Am J Perinatol*. 2007 Jun;24(6):359-64. X-1.
1291. Dadkhah F, Kashanian M and Eliasi G. A comparison between the pregnancy outcome in women both with or without threatened abortion. *Early Hum Dev*. 2010 Mar;86(3):193-6. X-1.
1292. Dafallah SE and Elhag SM. The role of external cephalic version on the presentation at delivery. *Saudi Med J*. 2004 Mar;25(3):386-8. X-4c, X-4e, X-5.
1293. Dahl J, Myhr KM, Daltveit AK, et al. Planned vaginal births in women with multiple sclerosis: delivery and birth outcome. *Acta Neurol Scand Suppl*. 2006;183:51-4. X-1.
1294. Dahlgren G, Granath F, Wessel H, et al. Prediction of hypotension during spinal anesthesia for Cesarean section and its relation to the effect of crystalloid or colloid preload. *Int J Obstet Anesth*. 2007 Apr;16(2):128-34. X-9.
1295. Dahlgren G, Hultstrand C, Jakobsson J, et al. Intrathecal sufentanil, fentanyl, or placebo added to bupivacaine for cesarean section. *Anesth Analg*. 1997 Dec;85(6):1288-93. X-9.
1296. Dahlquist GG, Patterson C and Soltesz G. Perinatal risk factors for childhood type 1 diabetes in Europe. The EURODIAB Substudy 2 Study Group. *Diabetes Care*. 1999 Oct;22(10):1698-702. X-1.
1297. Dalby PL, Ramanathan S, Rudy TE, et al. Plasma and saliva substance P levels: the effects of acute pain in pregnant and non-pregnant women. *Pain*. 1997 Feb;69(3):263-7. X-1.
1298. Dale E, Mullinax KM and Bryan DH. Exercise during pregnancy: effects on the fetus. *Can J Appl Sport Sci*. 1982 Jun;7(2):98-103. X-1.
1299. Daley MD, Sandler AN, Turner KE, et al. A comparison of epidural and intramuscular morphine in patients following cesarean section. *Anesthesiology*. 1990 Feb;72(2):289-94. X-9.
1300. Dallenbach P, Boulvain M, Viardot C, et al. Oral misoprostol or vaginal dinoprostone for labor induction: a randomized controlled trial.

- Am J Obstet Gynecol. 2003 Jan;188(1):162-7. X-4d.
1301. Dalrymple A, Mahn K, Poston L, et al. Mechanical stretch regulates TRPC expression and calcium entry in human myometrial smooth muscle cells. *Mol Hum Reprod*. 2007 Mar;13(3):171-9. X-1.
1302. Dalrymple JL, Gilbert WM, Leiserowitz GS, et al. Pregnancy-associated cervical cancer: obstetric outcomes. *J Matern Fetal Neonatal Med*. 2005 Apr;17(4):269-76. X-1.
1303. Daltveit AK, Vollset SE, Skjaerven R, et al. Impact of multiple births and elective deliveries on the trends in low birth weight in Norway, 1967-1995. *Am J Epidemiol*. 1999 Jun 15;149(12):1128-33. X-1.
1304. Danelli G, Fanelli G, Berti M, et al. Spinal ropivacaine or bupivacaine for cesarean delivery: a prospective, randomized, double-blind comparison. *Reg Anesth Pain Med*. 2004 May-Jun;29(3):221-6. X-9.
1305. Danelli G, Zangrillo A, Nucera D, et al. The minimum effective dose of 0.5% hyperbaric spinal bupivacaine for cesarean section. *Minerva Anestesiol*. 2001 Jul-Aug;67(7-8):573-7. X-9.
1306. Danerek M, Marsal K, Cuttini M, et al. Attitudes of midwives in Sweden toward a woman's refusal of an emergency cesarean section or a cesarean section on request. *Birth*. 2011 Mar;38(1):71-9. X-1.
1307. Daneshmand SS, Chmait RH, Moore TR, et al. Preterm premature rupture of membranes: vascular endothelial growth factor and its association with histologic chorioamnionitis. *Am J Obstet Gynecol*. 2002 Nov;187(5):1131-6. X-1.
1308. D'Angelo LJ and Sokol RJ. Short- versus long-course prophylactic antibiotic treatment in Cesarean section patients. *Obstet Gynecol*. 1980 May;55(5):583-6. X-9.
1309. D'Angelo R, Berkebile BL and Gerancher JC. Prospective examination of epidural catheter insertion. *Anesthesiology*. 1996 Jan;84(1):88-93. X-4e, X-5.
1310. Dani C, Reali MF, Bertini G, et al. Risk factors for the development of respiratory distress syndrome and transient tachypnoea in newborn infants. Italian Group of Neonatal Pneumology. *Eur Respir J*. 1999 Jul;14(1):155-9. X-1.
1311. Dani C, Reali MF, Oliveto R, et al. Short-term outcome of newborn infants born by a modified procedure of cesarean section. A prospective randomized study. *Acta Obstet Gynecol Scand*. 1998 Oct;77(9):929-31. X-9.
1312. Daniel L. Consortium aims to raise standard of health care in Malawi. *British Journal of Midwifery*. 2006;14(5):259-259. X-1.
1313. Daniel L. Trauma surgeons to teach life-saving procedures to Somali health workers. *British Journal of Midwifery*. 2010;18(5):319-319. X-1.
1314. Daniel Y, Ochshorn Y, Fait G, et al. Analysis of 104 twin pregnancies conceived with assisted reproductive technologies and 193 spontaneously conceived twin pregnancies. *Fertil Steril*. 2000 Oct;74(4):683-9. X-1.
1315. Daniels JA. Court-ordered cesareans: a growing concern for indigent women. *Clgh Rev*. 1988 Feb;21(9):1064-71. X-1.
1316. Daniel-Spiegel E, Weiner Z, Ben-Shlomo I, et al. For how long should oxytocin be continued during induction of labour? *BJOG*. 2004 Apr;111(4):331-4. X-4d.
1317. Danielsson AJ and Nachemson AL. Childbearing, curve progression, and sexual function in women 22 years after treatment for adolescent idiopathic scoliosis: a case-control study. *Spine (Phila Pa 1976)*. 2001 Jul 1;26(13):1449-56. X-1.
1318. Danishevski K, Balabanova D, McKee M, et al. Delivering babies in a time of transition in Tula, Russia. *Health Policy Plan*. 2006 May;21(3):195-205. X-1.
1319. Dann WL, Hutchinson A and Cartwright DP. Maternal and neonatal responses to alfentanil administered before induction of general anaesthesia for caesarean section. *Br J Anaesth*. 1987 Nov;59(11):1392-6. X-9.
1320. Danon D, Ben-Haroush A, Yogev Y, et al. Prostaglandin E2 induction of labor for isolated oligohydramnios in women with unfavorable cervix at term. *Fetal Diagn Ther*. 2007;22(1):75-9. X-1.
1321. Dansereau J, Joshi AK, Helewa ME, et al. Double-blind comparison of carbetocin versus oxytocin in prevention of uterine atony after cesarean section. *Am J Obstet Gynecol*. 1999 Mar;180(3 Pt 1):670-6. X-9.
1322. Danzer BI, Birnbach DJ, Stein DJ, et al. Does metoclopramide supplement postoperative analgesia using patient-controlled analgesia with morphine in patients undergoing elective cesarean delivery? *Reg Anesth*. 1997 Sep-Oct;22(5):424-7. X-9.
1323. Daponte A, Guidozi F, Moiscu D, et al. Management of diabetic pregnant patients in a tertiary center in the developing world. *Int J Gynaecol Obstet*. 1999 Feb;64(2):141-6. X-1.
1324. Dare FO and Oboro VO. Risk factors of placenta accreta in Ile-Ife, Nigeria. *Niger Postgrad Med J*. 2003 Mar;10(1):42-5. X-1.
1325. Darj E and Nordstrom ML. The Misgav Ladach method for cesarean section compared to the Pfannenstiel method. *Acta Obstet Gynecol Scand*. 1999 Jan;78(1):37-41. X-9.
1326. Darlow BA, Mogridge N, Horwood LJ, et al. Admission of all gestations to a regional neonatal unit versus controls: neonatal morbidity. *J Paediatr Child Health*. 2009 Apr;45(4):181-6. X-1.

1327. Darroca RJ, Buttino L, Jr., Miller J, et al. Prostaglandin E2 gel for cervical ripening in patients with an indication for delivery. *Obstet Gynecol.* 1996 Feb;87(2):228-30. X-4d.
1328. Das AK, Jana N, Dasgupta S, et al. Intrapartum transcervical amnioinfusion for meconium-stained amniotic fluid. *Int J Gynaecol Obstet.* 2007 Jun;97(3):182-6. X-1.
1329. Das BN and Biswas AK. Ligation of internal iliac arteries in pelvic haemorrhage. *J Obstet Gynaecol Res.* 1998 Aug;24(4):251-4. X-1.
1330. das Neves JF, Monteiro GA, de Almeida JR, et al. Phenylephrine for blood pressure control in elective cesarean section: therapeutic versus prophylactic doses. *Rev Bras Anesthesiol.* 2010 Jul-Aug;60(4):391-8. X-9.
1331. Dashe JS, Nathan L, McIntire DD, et al. Correlation between amniotic fluid glucose concentration and amniotic fluid volume in pregnancy complicated by diabetes. *Am J Obstet Gynecol.* 2000 Apr;182(4):901-4. X-1.
1332. Dashow EE, Read JA and Coleman FH. Randomized comparison of five irrigation solutions at cesarean section. *Obstet Gynecol.* 1986 Oct;68(4):473-8. X-9.
1333. Daskalakis GJ, Mesogitis SA, Papantoniou NE, et al. Misoprostol for second trimester pregnancy termination in women with prior cesarean section. *BJOG.* 2005 Jan;112(1):97-9. X-1.
1334. Datta S, Camann W, Bader A, et al. Clinical effects and maternal and fetal plasma concentrations of epidural ropivacaine versus bupivacaine for cesarean section. *Anesthesiology.* 1995 Jun;82(6):1346-52. X-9.
1335. Datta S, Kitzmiller JL, Naulty JS, et al. Acid-base status of diabetic mothers and their infants following spinal anesthesia for cesarean section. *Anesth Analg.* 1982 Aug;61(8):662-5. X-1.
1336. Datta S, Murphy MT, Carr DB, et al. Maternal and fetal plasma atrial natriuretic peptide concentrations during elective cesarean section. *Acta Anaesthesiol Scand.* 1991 Feb;35(2):93-6. X-1.
1337. Davey DA and Macnab M. Oral and intravaginal prostaglandin E2 for cervical ripening and induction of labour. *S Afr Med J.* 1979 May 19;55(21):837-42. X-3, X-4d, X-4e, X-5.
1338. David M, Gross MM, Wiemer A, et al. Prior cesarean section--an acceptable risk for vaginal delivery at free-standing midwife-led birth centers? Results of the analysis of vaginal birth after cesarean section (VBAC) in German birth centers. *Eur J Obstet Gynecol Reprod Biol.* 2009 Feb;142(2):106-10. X-1.
1339. David M, Halle H, Lichtenegger W, et al. Nitroglycerin to facilitate fetal extraction during cesarean delivery. *Obstet Gynecol.* 1998 Jan;91(1):119-24. X-9.
1340. David S, Mamelle N and Riviere O. Estimation of an expected caesarean section rate taking into account the case mix of a maternity hospital. Analysis from the AUDIPOG Sentinelle Network (France). *Obstetricians of AUDIPOG. Association of Users of Computerised Files in Perinatology, Obstetrics and Gynaecology. BJOG.* 2001 Sep;108(9):919-26. X-1.
1341. Davies GA, Hahn PM and McGrath MM. Vaginal birth after cesarean. Physicians' perceptions and practice. *J Reprod Med.* 1996 Jul;41(7):515-20. X-1.
1342. Davies HA, Dalton KJ, Clark JD, et al. Computerized and telemetric management of diabetic pregnancy in Cambridge. *J Perinat Med.* 1988;16(4):381-9. X-1.
1343. Davies J, Hey E, Reid W, et al. Prospective regional study of planned home births. Home Birth Study Steering Group. *BMJ.* 1996 Nov 23;313(7068):1302-6. X-1.
1344. Davies JR. Ineffective transcutaneous nerve stimulation following epidural anaesthesia. *Anaesthesia.* 1982 Apr;37(4):453-4. X-9.
1345. Davies P and French GW. A randomised trial comparing 5 mL/kg and 10 mL/kg of pentastarch as a volume preload before spinal anaesthesia for elective caesarean section. *Int J Obstet Anesth.* 2006 Oct;15(4):279-83. X-9.
1346. Davies SJ, Paech MJ, Welch H, et al. Maternal experience during epidural or combined spinal-epidural anesthesia for cesarean section: a prospective, randomized trial. *Anesth Analg.* 1997 Sep;85(3):607-13. X-9.
1347. Davis B, Bond D, Howat P, et al. Maternal and neonatal outcomes following diabetes in pregnancy in Far North Queensland, Australia. *Aust N Z J Obstet Gynaecol.* 2009 Aug;49(4):393-9. X-1.
1348. Davis CD. Forced fetal protection creates legal, moral dilemmas. *Healthtexas.* 1990 Jun;46(1):18-9. X-1.
1349. Davis KM, Esposito MA and Meyer BA. Oral analgesia compared with intravenous patient-controlled analgesia for pain after cesarean delivery: a randomized controlled trial. *Am J Obstet Gynecol.* 2006 Apr;194(4):967-71. X-9.
1350. Davis LG, Riedmann GL, Sapiro M, et al. Cesarean section rates in low-risk private patients managed by certified nurse-midwives and obstetricians. *J Nurse Midwifery.* 1994 Mar-Apr;39(2):91-7. X-1.
1351. Davis-Floyd R. La partera profesional: articulating identity and cultural space for a new kind of midwife in Mexico. *Med Anthropol.* 2001;20(2-3):185-243. X-1, X-2.
1352. Davis-Floyd RE. The role of obstetrical rituals in the resolution of cultural anomaly. *Soc Sci Med.* 1990;31(2):175-89. X-1, X-2.
1353. Daviss BA, Johnson KC and Lalonde AB. Evolving evidence since the term breech trial: Canadian response, European dissent, and

- potential solutions. *J Obstet Gynaecol Can.* 2010 Mar;32(3):217-24. X-1.
1354. Dawson A, Cohen D, Candelier C, et al. Domiciliary midwifery support in high-risk pregnancy incorporating telephonic fetal heart rate monitoring: a health technology randomized assessment. *J Telemed Telecare.* 1999;5(4):220-30. X-4e.
1355. Dawson TB. Re Baby R: a comment on fetal apprehension. *Can J Women Law.* 1990;4(1):265-75. X-1.
1356. Dawson TB. A feminist response to 'Unborn child abuse: contemplating legal solution. *Can J Fam Law.* 1991 Spring;9(2):157-76. X-1, X-2.
1357. De A, Bagga R and Gopalan S. The routine use of oxytocin after oral misoprostol for labour induction in women with an unfavourable cervix is not of benefit. *Aust N Z J Obstet Gynaecol.* 2006 Aug;46(4):323-9. X-4d.
1358. de Almeida MF, Guinsburg R, da Costa JO, et al. Non-urgent caesarean delivery increases the need for ventilation at birth in term newborn infants. *Arch Dis Child Fetal Neonatal Ed.* 2010 Sep;95(5):F326-30. X-1.
1359. de Almeida MF, Guinsburg R, da Costa JO, et al. Resuscitative procedures at birth in late preterm infants. *J Perinatol.* 2007 Dec;27(12):761-5. X-1.
1360. de Aquino MM and Cecatti JG. Misoprostol versus oxytocin for labor induction in term and post-term pregnancy: randomized controlled trial. *Sao Paulo Med J.* 2003 May 5;121(3):102-6. X-4d.
1361. de Boer CN and Thornton JG. Prophylactic short course rectal metronidazole for cesarean section. A double-blind controlled trial of a simple low cost regimen. *Int J Gynaecol Obstet.* 1989 Feb;28(2):103-7. X-9.
1362. De Catte L, De Wolf D, Smitz J, et al. Fetal hypothyroidism as a complication of amiodarone treatment for persistent fetal supraventricular tachycardia. *Prenat Diagn.* 1994 Aug;14(8):762-5. X-1, X-2.
1363. de Heus R, Mulder EJ, Derks JB, et al. A prospective randomized trial of acute tocolysis in term labour with atosiban or ritodrine. *Eur J Obstet Gynecol Reprod Biol.* 2008 Aug;139(2):139-45. X-4e, X-5.
1364. de Jong P. Trial of labor following cesarean section--a study of 212 patients. *Int J Gynaecol Obstet.* 1987 Oct;25(5):405-11. X-1, X-4b, X-5.
1365. de la Torre S, Gilson GJ, Flores S, et al. Is high-dose misoprostol able to lower the incidence of cesarean section? A randomized controlled trial. *J Matern Fetal Med.* 2001 Apr;10(2):85-90. X-4d, X-5.
1366. de Leon-Casasola OA, Lema MJ, Emrich L, et al. Continuous 2-chloroprocaine infusion versus intermittent bolus injections of bupivacaine or 2-chloroprocaine for epidural anesthesia in cesarean delivery. *Reg Anesth.* 1991 May-Jun;16(3):154-60. X-9.
1367. De Meeus JB, D'Halluin G, Bascou V, et al. Prophylactic intrapartum amnioinfusion: a controlled retrospective study of 135 cases. *Eur J Obstet Gynecol Reprod Biol.* 1997 Apr;72(2):141-8. X-1.
1368. de Muylder X and de Wals P. Poor acceptance of caesarean section in Zimbabwe. *Trop Geogr Med.* 1989 Jul;41(3):230-3. X-1.
1369. De Simone CA, Leighton BL and Norris MC. Spinal anesthesia for cesarean delivery. A comparison of two doses of hyperbaric bupivacaine. *Reg Anesth.* 1995 Mar-Apr;20(2):90-4. X-9.
1370. De Sutter P, Bontinck J, Schutysers V, et al. First-trimester bleeding and pregnancy outcome in singletons after assisted reproduction. *Hum Reprod.* 2006 Jul;21(7):1907-11. X-1.
1371. De Sutter P, Veldeman L, Kok P, et al. Comparison of outcome of pregnancy after intra-uterine insemination (IUI) and IVF. *Hum Reprod.* 2005 Jun;20(6):1642-6. X-1.
1372. de Veciana M, Major CA, Morgan MA, et al. Postprandial versus preprandial blood glucose monitoring in women with gestational diabetes mellitus requiring insulin therapy. *N Engl J Med.* 1995 Nov 9;333(19):1237-41. X-3, X-4e.
1373. de Zegher F, Vanderschueren-Lodeweyckx M, Spitz B, et al. Perinatal growth hormone (GH) physiology: effect of GH-releasing factor on maternal and fetal secretion of pituitary and placental GH. *J Clin Endocrinol Metab.* 1990 Aug;71(2):520-2. X-9.
1374. Deaver JE and Cohen WR. An approach to the prediction of neonatal Erb palsy. *J Perinat Med.* 2009;37(2):150-5. X-1.
1375. Debby A, Golan A, Sagiv R, et al. Midtrimester abortion in patients with a previous uterine scar. *Eur J Obstet Gynecol Reprod Biol.* 2003 Aug 15;109(2):177-80. X-1.
1376. Debby A, Rotmensch S, Girtler O, et al. Clinical significance of the floating fetal head in nulliparous women in labor. *J Reprod Med.* 2003 Jan;48(1):37-40. X-1.
1377. Debillon T, Gras-Leguen C, Veriellie V, et al. Intrauterine infection induces programmed cell death in rabbit periventricular white matter. *Pediatr Res.* 2000 Jun;47(6):736-42. X-1.
1378. Debley JS, Smith JM, Redding GJ, et al. Childhood asthma hospitalization risk after cesarean delivery in former term and premature infants. *Ann Allergy Asthma Immunol.* 2005 Feb;94(2):228-33. X-1.
1379. Decca L, Daldoss C, Fratelli N, et al. Labor course and delivery in epidural analgesia: a case-control study. *J Matern Fetal Neonatal Med.* 2004 Aug;16(2):115-8. X-1.
1380. Declercq E, Barger M, Cabral HJ, et al. Maternal outcomes associated with planned primary cesarean births compared with

- planned vaginal births. *Obstet Gynecol.* 2007 Mar;109(3):669-77. X-1.
1381. Declercq E and Chalmers B. Mothers' reports of their maternity experiences in the USA and Canada. *Journal of Reproductive & Infant Psychology.* 2008;26(4):295-308. X-1.
1382. Dede FS, Guney Y, Dede H, et al. Lipid peroxidation and antioxidant activity in patients in labor with nonreassuring fetal status. *Eur J Obstet Gynecol Reprod Biol.* 2006 Jan 1;124(1):27-31. X-1.
1383. Dede FS, Haberal A, Dede H, et al. Misoprostol for cervical ripening and labor induction in pregnancies with oligohydramnios. *Gynecol Obstet Invest.* 2004;57(3):139-43. X-1.
1384. Dedes I and Ziogas V. Circular isthmic-cervical sutures can be an alternative method to control peripartum haemorrhage during caesarean section for placenta praevia accreta. *Arch Gynecol Obstet.* 2008 Dec;278(6):555-7. X-1.
1385. Deering MA, Heller J, McGaha K, et al. Patients presenting with birth plans in a military tertiary care hospital: a descriptive study of plans and outcomes. *Mil Med.* 2006 Aug;171(8):778-80. X-1.
1386. Deering SH, Carlson N, Stitely M, et al. Perineal body length and lacerations at delivery. *J Reprod Med.* 2004 Apr;49(4):306-10. X-1.
1387. Deering SH, Zaret J, McGaha K, et al. Patients presenting with birth plans: a case-control study of delivery outcomes. *J Reprod Med.* 2007 Oct;52(10):884-7. X-1.
1388. DeFranco EA, Rampersad R, Atkins KL, et al. Do vaginal birth after cesarean outcomes differ based on hospital setting? *Am J Obstet Gynecol.* 2007 Oct;197(4):400 e1-6. X-1.
1389. Degirmen N, Ozerdogan N, Sayiner D, et al. Effectiveness of foot and hand massage in postcesarean pain control in a group of Turkish pregnant women. *Appl Nurs Res.* 2010 Aug;23(3):153-8. X-9.
1390. Dehbashi S, Honarvar M and Fardi FH. Manual removal or spontaneous placental delivery and postcesarean endometritis and bleeding. *Int J Gynaecol Obstet.* 2004 Jul;86(1):12-5. X-9.
1391. Dekker GA, Chan A, Luke CG, et al. Risk of uterine rupture in Australian women attempting vaginal birth after one prior caesarean section: a retrospective population-based cohort study. *BJOG.* 2010 Oct;117(11):1358-65. X-1.
1392. Del Rosario GR, Lewis T, Irons B, et al. Assessment of risk factors for stillbirth among pregnant women in Jamaica. *J Obstet Gynaecol.* 2004 Oct;24(7):750-5. X-1.
1393. Del Valle GO, Combs P, Qualls C, et al. Does closure of Camper fascia reduce the incidence of post-cesarean superficial wound disruption? *Obstet Gynecol.* 1992 Dec;80(6):1013-6. X-9.
1394. Delaney S, Shaffer BL, Cheng YW, et al. Labor induction with a Foley balloon inflated to 30 mL compared with 60 mL: a randomized controlled trial. *Obstet Gynecol.* 2010 Jun;115(6):1239-45. X-4d, X-5.
1395. Delaney T and Young DC. Trial of labour compared to elective Caesarean in twin gestations with a previous Caesarean delivery. *J Obstet Gynaecol Can.* 2003 Apr;25(4):289-92. X-1.
1396. Dell'Anna E, Chen Y, Loidl F, et al. Short-term effects of perinatal asphyxia studied with Fos-immunocytochemistry and in vivo microdialysis in the rat. *Exp Neurol.* 1995 Feb;131(2):279-87. X-1.
1397. Demeter A, Sziller I, Csapo Z, et al. Outcome of pregnancies after cold-knife conization of the uterine cervix during pregnancy. *Eur J Gynaecol Oncol.* 2002;23(3):207-10. X-1.
1398. Demiraran Y, Ozdemir I, Kocaman B, et al. Intrathecal sufentanil (1.5 microg) added to hyperbaric bupivacaine (0.5%) for elective cesarean section provides adequate analgesia without need for pruritus therapy. *J Anesth.* 2006;20(4):274-8. X-9.
1399. Demirci F, Ozden S, Alpaz Z, et al. The effects of vaginal delivery and cesarean section on bladder neck mobility and stress urinary incontinence. *Int Urogynecol J Pelvic Floor Dysfunct.* 2001;12(2):129-33. X-1.
1400. Demissie K, Breckenridge MB and Rhoads GG. Infant and maternal outcomes in the pregnancies of asthmatic women. *Am J Respir Crit Care Med.* 1998 Oct;158(4):1091-5. X-1.
1401. DeMott RK and Sandmire HF. The Green Bay cesarean section study. I. The physician factor as a determinant of cesarean birth rates. *Am J Obstet Gynecol.* 1990 Jun;162(6):1593-9; discussion 1599-602. X-1.
1402. Dempsey MA, Breathnach FM, Geary M, et al. Congenital anomalies: Impact of prenatal diagnosis on mode of delivery. *Ir Med J.* 2010 Mar;103(3):88-9. X-1.
1403. Dencker A, Berg M, Bergqvist L, et al. Early versus delayed oxytocin augmentation in nulliparous women with prolonged labour--a randomised controlled trial. *BJOG.* 2009 Mar;116(4):530-6. X-5.
1404. Deneux-Tharoux C, Carmona E, Bouvier-Colle MH, et al. Postpartum maternal mortality and cesarean delivery. *Obstet Gynecol.* 2006 Sep;108(3 Pt 1):541-8. X-1.
1405. Denguezli W, Hemdane S, Faleh R, et al. Prevalence and risk factors of cesarean section in a population of Tunisian diabetic pregnant women. *Tunis Med.* 2007 Nov;85(11):935-40. X-1.
1406. Denguezli W, Trimech A, Haddad A, et al. Efficacy and safety of six hourly vaginal misoprostol versus intracervical dinoprostone:

- a randomized controlled trial. *Arch Gynecol Obstet.* 2007 Aug;276(2):119-24. X-4d.
1407. Denk CE, Kruse LK and Jain NJ. Surveillance of cesarean section deliveries, New Jersey, 1999-2004. *Birth.* 2006 Sep;33(3):203-9. X-1.
1408. Dennehy KC, Rosaeg OP, Cicutti NJ, et al. Oxytocin injection after caesarean delivery: intravenous or intramyometrial? *Can J Anaesth.* 1998 Jul;45(7):635-9. X-9.
1409. Dennis AR, Leeson-Payne CG and Hobbs GJ. Analgesia after caesarean section. The use of rectal diclofenac as an adjunct to spinal morphine. *Anaesthesia.* 1995 Apr;50(4):297-9. X-9.
1410. DePalma RT, Cunningham FG, Leveno KJ, et al. Continuing investigation of women at high risk for infection following cesarean delivery. Three-dose perioperative antimicrobial therapy. *Obstet Gynecol.* 1982 Jul;60(1):53-9. X-1.
1411. Dermitzaki E, Staikou C, Petropoulos G, et al. A randomized study of maternal serum cytokine levels following cesarean section under general or neuraxial anesthesia. *Int J Obstet Anesth.* 2009 Jan;18(1):33-7. X-9.
1412. Desai S, Lim Y, Tan CH, et al. A randomised controlled trial of hyperbaric bupivacaine with opioids, injected as either a mixture or sequentially, for spinal anaesthesia for caesarean section. *Anaesth Intensive Care.* 2010 Mar;38(2):280-4. X-9.
1413. Desalu I and Afolabi BB. Urgency of surgery and presence of maternal disease influence the choice of anaesthesia for Caesarean section at LUTH. *Niger Postgrad Med J.* 2007 Jun;14(2):114-7. X-1.
1414. Desalu I and Kushimo OT. Is ephedrine infusion more effective at preventing hypotension than traditional prehydration during spinal anaesthesia for caesarean section in African parturients? *Int J Obstet Anesth.* 2005 Oct;14(4):294-9. X-9.
1415. DeStephano CC, Flynn PM and Brost BC. Somali prenatal education video use in a United States obstetric clinic: a formative evaluation of acceptability. *Patient Educ Couns.* 2010 Oct;81(1):137-41. X-1.
1416. Deter RL, Harrist RB, Hadlock FP, et al. Fetal head and abdominal circumferences: I. Evaluation of measurement errors. *J Clin Ultrasound.* 1982 Oct;10(8):357-63. X-1.
1417. Devcic A, Sprung J, Patel S, et al. PDPH in obstetric anesthesia: comparison of 24-gauge Sprotte and 25-gauge Quincke needles and effect of subarachnoid administration of fentanyl. *Reg Anesth.* 1993 Jul-Aug;18(4):222-5. X-9.
1418. Devoe LD, Croom CS, Youssef AA, et al. The prediction of "controlled" uterine rupture by the use of intrauterine pressure catheters. *Obstet Gynecol.* 1992 Oct;80(4):626-9. X-1.
1419. Dewan DM, Floyd HM, Thistlewood JM, et al. Sodium citrate pretreatment in elective cesarean section patients. *Anesth Analg.* 1985 Jan;64(1):34-7. X-9.
1420. Dhar RS, Nagpal J, Bhargava V, et al. Quality of care, maternal attitude and common physician practices across the socio-economic spectrum: a community survey. *Arch Gynecol Obstet.* 2010 Sep;282(3):245-54. X-1.
1421. Dhar RS, Nagpal J, Sinha S, et al. Direct cost of maternity-care services in South Delhi: a community survey. *J Health Popul Nutr.* 2009 Jun;27(3):368-78. X-1.
1422. Dharan VB, Srinivas SK, Parry S, et al. Pregestational diabetes: a risk factor for vaginal birth after cesarean section failure? *Am J Perinatol.* 2010 Mar;27(3):265-70. X-1.
1423. Dhont M, De Sutter P, Ruysinck G, et al. Perinatal outcome of pregnancies after assisted reproduction: a case-control study. *Am J Obstet Gynecol.* 1999 Sep;181(3):688-95. X-1.
1424. Di Cianni G, Benzi L, Bottone P, et al. Neonatal outcome and obstetric complications in women with gestational diabetes: effects of maternal body mass index. *Int J Obes Relat Metab Disord.* 1996 May;20(5):445-9. X-1.
1425. Di Cianni G, Benzi L, Casadidio I, et al. Screening of gestational diabetes in Tuscany: results in 2000 cases. *Ann Ist Super Sanita.* 1997;33(3):389-91. X-1.
1426. Di Iulio JL, Gude NM, King RG, et al. Human placental nitric oxide synthase activity is not altered in diabetes. *Clin Sci (Lond).* 1999 Jul;97(1):123-8. X-1.
1427. Di Lieto A, Giani U, Campanile M, et al. Prenatal telemedicine: clinical experience with conventional and computerised antepartum telecardiotocography. *Eur J Obstet Gynecol Reprod Biol.* 2002 Jul 10;103(2):114-8. X-1.
1428. Di Orio V. To hell and back. *Midwifery Today Childbirth Educ.* 1994 Autumn(31):54. X-1.
1429. Di Somma AV. In re A.C. *Issues Law Med.* 1988 Fall;4(2):249-52. X-1.
1430. Diaferia A, Nicastrì PL, Tartagni M, et al. Ursodeoxycholic acid therapy in pregnant women with cholestasis. *Int J Gynaecol Obstet.* 1996 Feb;52(2):133-40. X-3, X-4e.
1431. Diamond MP, Entman SS, Salyer SL, et al. Increased risk of endometritis and wound infection after cesarean section in insulin-dependent diabetic women. *Am J Obstet Gynecol.* 1986 Aug;155(2):297-300. X-1.
1432. Diani F, Zanconato G, Foschi F, et al. Management of the pregnant immigrant woman in the decade 1992-2001. *J Obstet Gynaecol.* 2003 Nov;23(6):615-7. X-1.
1433. Diaz SD, Jones JE, Seryakov M, et al. Uterine rupture and dehiscence: ten-year review and case-control study. *South Med J.* 2002 Apr;95(4):431-5. X-1.
1434. Dick W, Traub E, Kraus H, et al. General anaesthesia versus epidural anaesthesia for

- primary caesarean section--a comparative study. *Eur J Anaesthesiol.* 1992 Jan;9(1):15-21. X-1.
1435. Dickason LA and Dinsmoor MJ. Red blood cell transfusion and cesarean section. *Am J Obstet Gynecol.* 1992 Aug;167(2):327-30; discussion 330-2. X-1.
1436. Dicker D, Yeshaya A, Feldberg D, et al. Pregnancy outcome in maturity onset diabetes at young age (MODY). *Aust N Z J Obstet Gynaecol.* 1988 May;28(2):103-6. X-1.
1437. Dickinson JE, Godfrey M, Evans SF, et al. Factors influencing the selection of analgesia in spontaneously labouring nulliparous women at term. *Aust N Z J Obstet Gynaecol.* 1997 Aug;37(3):289-93. X-1.
1438. Dickinson JE, Paech MJ, McDonald SJ, et al. The impact of intrapartum analgesia on labour and delivery outcomes in nulliparous women. *Aust N Z J Obstet Gynaecol.* 2002 Feb;42(1):59-66. X-4e, X-5.
1439. Dickson MA and Jenkins J. Extension of epidural blockade for emergency caesarean section. Assessment of a bolus dose of bupivacaine 0.5% 10 ml following an infusion of 0.1% for analgesia in labour. *Anaesthesia.* 1994 Jul;49(7):636-8. X-1.
1440. Diejomaoh MF, Al-Shamali IA, Al-Kandari F, et al. The reproductive performance of women at 40 years and over. *Eur J Obstet Gynecol Reprod Biol.* 2006 May 1;126(1):33-8. X-1.
1441. Diejomaoh MF, Gupta M, Farhat R, et al. Intrapartum performance of patients presenting with diabetes mellitus in pregnancy. *Med Princ Pract.* 2009;18(3):233-8. X-1.
1442. DiGiuseppe DL, Aron DC, Payne SM, et al. Risk adjusting cesarean delivery rates: a comparison of hospital profiles based on medical record and birth certificate data. *Health Serv Res.* 2001 Oct;36(5):959-77. X-1.
1443. Dijkman A, Huisman CM, Smit M, et al. Cardiac arrest in pregnancy: increasing use of perimortem caesarean section due to emergency skills training? *BJOG.* 2010 Feb;117(3):282-7. X-1.
1444. Dilbaz B, Ozturkoglu E, Dilbaz S, et al. Risk factors and perinatal outcomes associated with umbilical cord prolapse. *Arch Gynecol Obstet.* 2006 May;274(2):104-7. X-1.
1445. Dildy GA. The future of intrapartum fetal pulse oximetry. *Curr Opin Obstet Gynecol.* 2001 Apr;13(2):133-6. X-1, X-2.
1446. Dillon WP, Seigel MS, Lele AS, et al. Evaluation of cefoxitin prophylaxis for cesarean section. *Int J Gynaecol Obstet.* 1981 Apr;19(2):133-9. X-9.
1447. Dimond B. Legal issues. Refusal overruled. *Mod Midwife.* 1996 Dec;6(12):20-2. X-1.
1448. Dimond B. Compulsory caesarean: the ruling of the Court of Appeal. *Mod Midwife.* 1997 Aug;7(8):20-2. X-1.
1449. Dimond B. The rights of the fetus against the mother. *Br J Nurs.* 1997 Jan 9-22;6(1):5. X-1.
1450. Dimond B. Legal aspects of consent 11: compulsory Caesarean sections. *Br J Nurs.* 2001 Aug 9-Sep 12;10(15):1002-4. X-1, X-2.
1451. Dinsbeer H, Tuttle A, Haas A, et al. How do you prevent c-sections? *Midwifery Today Int Midwife.* 2001 Spring(57):8, 69. X-1, X-2, X-3, X-4e, X-5.
1452. Dinsmoor MJ and Gibbs RS. Previous intra-amniotic infection as a risk factor for subsequent peripartur uterine infections. *Obstet Gynecol.* 1989 Sep;74(3 Pt 1):299-301. X-1.
1453. DiPiazza D, Richter HE, Chapman V, et al. Risk factors for anal sphincter tear in multiparas. *Obstet Gynecol.* 2006 Jun;107(6):1233-7. X-1.
1454. Diro M, Adra A, Gilles JM, et al. A double-blind randomized trial of two dose regimens of misoprostol for cervical ripening and labor induction. *J Matern Fetal Med.* 1999 May-Jun;8(3):114-8. X-4d.
1455. Diro M and Beydoun SN. Segmental epidural analgesia in labor: a matched control study. *J Natl Med Assoc.* 1985 Jul;77(7):569-73. X-1, X-4e, X-5.
1456. Disney JA. The context of women's childbirth decisions regarding vaginal birth after cesarean section. 1998;Ph.D.:190 p. X-1.
1457. Dissanayake VH, Samarasinghe HD, Morgan L, et al. Morbidity and mortality associated with pre-eclampsia at two tertiary care hospitals in Sri Lanka. *J Obstet Gynaecol Res.* 2007 Feb;33(1):56-62. X-1.
1458. Dixon JB, Dixon ME and O'Brien PE. Pregnancy after Lap-Band surgery: management of the band to achieve healthy weight outcomes. *Obes Surg.* 2001 Feb;11(1):59-65. X-1.
1459. diZerega G, Yonekura L, Roy S, et al. A comparison of clindamycin-gentamicin and penicillin-gentamicin in the treatment of post-cesarean section endomyometritis. *Am J Obstet Gynecol.* 1979 Jun 1;134(3):238-42. X-9.
1460. Dodd J, Pearce E and Crowther C. Women's experiences and preferences following Caesarean birth. *Aust N Z J Obstet Gynaecol.* 2004 Dec;44(6):521-4. X-1.
1461. Dodd JM, Crowther CA, Haslam RR, et al. Timing of birth for women with a twin pregnancy at term: a randomised controlled trial. *BMC Pregnancy Childbirth.* 2010;10:68. X-9.
1462. Dodd JM, Crowther CA, Hiller JE, et al. Birth after caesarean study--planned vaginal birth or planned elective repeat caesarean for women at term with a single previous caesarean birth: protocol for a patient preference study and randomised trial. *BMC Pregnancy Childbirth.* 2007;7:17. X-1, X-3, X-4d, X-5.

1463. Dodd JM, Crowther CA and Robinson JS. Morning compared with evening induction of labor: a nested randomized controlled trial. A nested randomized controlled trial. *Obstet Gynecol.* 2006 Aug;108(2):350-60. X-4d, X-5.
1464. Dodd JM, Crowther CA and Robinson JS. Oral misoprostol for induction of labour at term: randomised controlled trial. *BMJ.* 2006 Mar 4;332(7540):509-13. X-4d.
1465. Doganay M, Tonguc EA and Var T. Effects of method of uterine repair on surgical outcome of cesarean delivery. *Int J Gynaecol Obstet.* 2010 Nov;111(2):175-8. X-9.
1466. Doh AS. A clinical study of caesarean section at the University Teaching Hospital (C.H.U.) Yaounde (1982-1989). *Cent Afr J Med.* 1991 Oct;37(10):326-8. X-1.
1467. Doi T, Sugimoto K and Puri P. Prenatal retinoic acid up-regulates pulmonary gene expression of COUP-TFII, FOG2, and GATA4 in pulmonary hypoplasia. *J Pediatr Surg.* 2009 Oct;44(10):1933-7. X-1.
1468. Dolkart L, Harter M and Snyder M. Four-dimensional ultrasonographic guidance for invasive obstetric procedures. *J Ultrasound Med.* 2005 Sep;24(9):1261-6. X-1.
1469. Dombrowski MP and Schatz M. Asthma in pregnancy. *Clin Obstet Gynecol.* 2010 Jun;53(2):301-10. X-1, X-2.
1470. Dombrowski MP, Schatz M, Wise R, et al. Asthma during pregnancy. *Obstet Gynecol.* 2004 Jan;103(1):5-12. X-1.
1471. Dominguez KL, Lindegren ML, D'Almada PJ, et al. Increasing trend of Cesarean deliveries in HIV-infected women in the United States from 1994 to 2000. *J Acquir Immune Defic Syndr.* 2003 Jun 1;33(2):232-8. X-1.
1472. Dommergues M, Mahieu-Caputo D, Mandelbrot L, et al. Delivery of uncomplicated triplet pregnancies: is the vaginal route safer? A case-control study. *Am J Obstet Gynecol.* 1995 Feb;172(2 Pt 1):513-7. X-1.
1473. Donahue D, Brooten D, Roncoli M, et al. Acute care visits and rehospitalization in women and infants after cesarean birth. *J Perinatol.* 1994 Jan-Feb;14(1):36-40. X-9.
1474. Donati S, Grandolfo ME and Andreozzi S. Do Italian mothers prefer cesarean delivery? *Birth.* 2003 Jun;30(2):89-93. X-1.
1475. Donchin Y, Davidson JT and Magora F. Epidural morphine for the control of pain after cesarean section. *Isr J Med Sci.* 1981 May;17(5):331-4. X-9.
1476. Dong YL, Fang L, Kondapaka S, et al. Involvement of calcitonin gene-related peptide in the modulation of human myometrial contractility during pregnancy. *J Clin Invest.* 1999 Sep;104(5):559-65. X-1.
1477. Dongol AS, Shrestha A and Chawla CD. Post partum haemorrhage: prevalence, morbidity and management pattern in Dhulikhel Hospital. *Kathmandu Univ Med J (KUMJ).* 2010 Apr-Jun;8(30):212-5. X-1.
1478. Donker RB, Molema G, Faas MM, et al. Absence of in vivo generalized pro-inflammatory endothelial activation in severe, early-onset preeclampsia. *J Soc Gynecol Investig.* 2005 Oct;12(7):518-28. X-1.
1479. Donnenfeld AE, Otis C and Weiner S. Antibiotic prophylaxis in cesarean section. Comparison of intrauterine lavage and intravenous administration. *J Reprod Med.* 1986 Jan;31(1):15-8. X-9.
1480. Donoval BA, Passaro DJ and Klausner JD. The public health imperative for a neonatal herpes simplex virus infection surveillance system. *Sex Transm Dis.* 2006 Mar;33(3):170-4. X-1, X-2.
1481. Donovan EF, Lannon C, Bailit J, et al. A statewide initiative to reduce inappropriate scheduled births at 36(0/7)-38(6/7) weeks' gestation. *Am J Obstet Gynecol.* 2010 Mar;202(3):243 e1-8. X-4e, X-3, X-4b.
1482. Donowitz LG and Wenzel RP. Endometritis following cesarean section. A controlled study of the increased duration of hospital stay and direct cost of hospitalization. *Am J Obstet Gynecol.* 1980 Jun 15;137(4):467-9. X-1.
1483. Dorea JG, Cruz-Granja AC, Lacayo-Romero ML, et al. Perinatal metabolism of dichlorodiphenyldichloroethylene in Nicaraguan mothers. *Environ Res.* 2001 Jul;86(3):229-37. X-1.
1484. Dorenbaum A, Cunningham CK, Gelber RD, et al. Two-dose intrapartum/newborn nevirapine and standard antiretroviral therapy to reduce perinatal HIV transmission: a randomized trial. *JAMA.* 2002 Jul 10;288(2):189-98. X-4e, X-5.
1485. Doret M, Touzet S, Bourdy S, et al. Vaginal birth after two previous c-sections: obstetricians-gynaecologists opinions and practice patterns. *J Matern Fetal Neonatal Med.* 2010 Dec;23(12):1487-92. X-1.
1486. d'Orsi E, Carvalho MS and Cruz OG. Similarity between neonatal profile and socioeconomic index: a spatial approach. *Cad Saude Publica.* 2005 May-Jun;21(3):786-94. X-1.
1487. D'Orsi E, Chor D, Giffin K, et al. Factors associated with cesarean sections in a public hospital in Rio de Janeiro, Brazil. *Cad Saude Publica.* 2006 Oct;22(10):2067-78. X-1.
1488. d'Orsi E, Chor D, Giffin K, et al. Factors associated with vaginal birth after cesarean in a maternity hospital of Rio de Janeiro. *Eur J Obstet Gynecol Reprod Biol.* 2001 Aug;97(2):152-7. X-1.
1489. Dottrens M, Rifat K and Morel DR. Comparison of extradural administration of sufentanil, morphine and sufentanil-morphine combination after cesarean section. *Br J Anaesth.* 1992 Jul;69(1):9-12. X-9.

1490. Doucette RC, Sharp HT and Alder SC. Challenging generally accepted contraindications to vaginal hysterectomy. *Am J Obstet Gynecol.* 2001 Jun;184(7):1386-9; discussion 1390-1. X-1.
1491. Dougherty CJ. The right to begin life with sound body and mind: fetal patients and conflicts with their mothers. *Univ Detroit Law Rev.* 1985 Fall;63(1-2):89-117. X-1, X-4e.
1492. Dougherty TB, Baysinger CL, Henenberger JC, et al. Epidural hydromorphone with and without epinephrine for post-operative analgesia after cesarean delivery. *Anesth Analg.* 1989 Mar;68(3):318-22. X-9.
1493. Douglas MJ, McMorland GH and Janzen JA. Influence of bupivacaine as an adjuvant to epidural morphine for analgesia after cesarean section. *Anesth Analg.* 1988 Dec;67(12):1138-41. X-9.
1494. Downing JW, Brock-Utne JG, Barclay A, et al. WY 16225 (dezocine), a new synthetic opiate agonist-antagonist and potent analgesic: comparison with morphine for relief of pain after lower abdominal surgery. *Br J Anaesth.* 1981 Jan;53(1):59-64. X-3.
1495. Downing JW, Buley RJ, Brock-Utne JG, et al. Etomidate for induction of anaesthesia at caesarean section: comparison with thiopentone. *Br J Anaesth.* 1979 Feb;51(2):135-40. X-9.
1496. Downing JW, Coleman AJ, Mahomedy MC, et al. Lateral table tilt for Caesarean section. *Anaesthesia.* 1974 Nov;29(6):696-703. X-4b.
1497. Downing JW, Houlton PC and Barclay A. Extradural analgesia for caesarean section: a comparison with general anaesthesia. *Br J Anaesth.* 1979 Apr;51(4):367-74. X-1.
1498. Downing JW, Leary WP and White ES. Buprenorphine: a new potent long-acting synthetic analgesic. Comparison with morphine. *Br J Anaesth.* 1977 Mar;49(3):251-5. X-9.
1499. Downing JW, Mahomedy MC, Coleman AJ, et al. Anaesthetic induction for Caesarean section. Althesin versus thiopentone. *Anaesthesia.* 1974 Nov;29(6):689-95. X-4b.
1500. Downing JW, Mahomedy MC, Jeal DE, et al. Anaesthesia for Caesarean section with ketamine. *Anaesthesia.* 1976 Sep;31(7):883-92. X-1.
1501. Dowswell T and Mousa HA. Planned home versus hospital care for preterm prelabour rupture of the membranes (PPROM) prior to 37 weeks' gestation. *Cochrane Database of Systematic Reviews.* 2010(4). X-1, X-2.
1502. Draisci G, Frassanito L, Pinto R, et al. Safety and effectiveness of coadministration of intrathecal sufentanil and morphine in hyperbaric bupivacaine-based spinal anesthesia for cesarean section. *J Opioid Manag.* 2009 Jul-Aug;5(4):197-202. X-9.
1503. Draisci G, Valente A, Suppa E, et al. Remifentanil for cesarean section under general anesthesia: effects on maternal stress hormone secretion and neonatal well-being: a randomized trial. *Int J Obstet Anesth.* 2008 Apr;17(2):130-6. X-9.
1504. Draper D, McGregor J, Hall J, et al. Elevated protease activities in human amnion and chorion correlate with preterm premature rupture of membranes. *Am J Obstet Gynecol.* 1995 Nov;173(5):1506-12. X-1.
1505. Draper H. Women, forced caesareans and antenatal responsibilities. *J Med Ethics.* 1996 Dec;22(6):327-33. X-1, X-2.
1506. Dresner M and Pinder A. Anaesthesia for caesarean section in women with complex cardiac disease: 34 cases using the Braun Spinocath spinal catheter. *Int J Obstet Anesth.* 2009 Apr;18(2):131-6. X-1.
1507. Drigotas EE. Forced cesarean sections: do the ends justify the means? *North Carol Law Rev.* 1991 Nov;70(1):297-321. X-1.
1508. Driver RP, Jr., D'Angelo R and Eisenach JC. Bolus metoclopramide does not enhance morphine analgesia after cesarean section. *Anesth Analg.* 1996 May;82(5):1033-5. X-9.
1509. Drury MI. Diabetes mellitus and pregnancy--the nine month experiment. *Postgrad Med J.* 1979;55 Suppl 2:36-9. X-1.
1510. Drury MI, Greene AT and Stronge JM. Pregnancy complicated by clinical diabetes mellitus. A study of 600 pregnancies. *Obstet Gynecol.* 1977 May;49(5):519-22. X-1.
1511. Druzin ML. Packing of lower uterine segment for control of postcesarean bleeding in instances of placenta previa. *Surg Gynecol Obstet.* 1989 Dec;169(6):543-5. X-1.
1512. Druzin ML and El-Sayed YY. Cesarean delivery on maternal request: wise use of finite resources? A view from the trenches. *Semin Perinatol.* 2006 Oct;30(5):305-8. X-1.
1513. Druzin ML, Lockshin M, Edersheim TG, et al. Second-trimester fetal monitoring and preterm delivery in pregnancies with systemic lupus erythematosus and/or circulating anticoagulant. *Am J Obstet Gynecol.* 1987 Dec;157(6):1503-10. X-1.
1514. D'Souza SW, Rivlin E, Cadman J, et al. Children conceived by in vitro fertilisation after fresh embryo transfer. *Arch Dis Child Fetal Neonatal Ed.* 1997 Mar;76(2):F70-4. X-1.
1515. Duale C, Frey C, Bolandard F, et al. Epidural versus intrathecal morphine for postoperative analgesia after Caesarean section. *Br J Anaesth.* 2003 Nov;91(5):690-4. X-9.
1516. Ducarme G, Revaux A, Rodrigues A, et al. Obstetric outcome following laparoscopic adjustable gastric banding. *Int J Gynaecol Obstet.* 2007 Sep;98(3):244-7. X-1.
1517. Duenhoelter JH, Wells CE, Reisch JS, et al. A paired controlled study of vaginal and

- abdominal delivery of the low birth weight breech fetus. *Obstet Gynecol.* 1979 Sep;54(3):310-3. X-1.
1518. Duff P, Huff RW and Gibbs RS. Management of premature rupture of membranes and unfavorable cervix in term pregnancy. *Obstet Gynecol.* 1984 May;63(5):697-702. X-4e.
1519. Duff P and Keiser JF. A comparative study of two antibiotic regimens for the treatment of operative site infections. *Am J Obstet Gynecol.* 1982 Apr 15;142(8):996-1003. X-9.
1520. Duff P and Park RC. Antibiotic prophylaxis for cesarean section in a military population. *Mil Med.* 1980 Jun;145(6):377-81. X-4b.
1521. Duff P, Robertson AW and Read JA. Single-dose cefazolin versus cefonicid for antibiotic prophylaxis in cesarean delivery. *Obstet Gynecol.* 1987 Nov;70(5):718-21. X-9.
1522. Duff P, Smith PN and Keiser JF. Antibiotic prophylaxis in low-risk cesarean section. *J Reprod Med.* 1982 Mar;27(3):133-8. X-9.
1523. Dufour P, Vinatier D, Vanderstichele S, et al. Intravenous nitroglycerin for internal podalic version of the second twin in transverse lie. *Obstet Gynecol.* 1998 Sep;92(3):416-9. X-1.
1524. Dugowson CE and Holland SK. Physicians as patients--the use of obstetric technology in physician families. *West J Med.* 1987 Apr;146(4):494-6. X-1.
1525. Duignan NM, Andrews J and Williams JD. Pharmacological studies with lincomycin in late pregnancy. *Br Med J.* 1973 Jul 14;3(5871):75-8. X-1.
1526. Dumas AM, Girard R, Ayzac L, et al. Maternal infection rates after cesarean delivery by Pfannenstiel or Joel-Cohen incision: a multicenter surveillance study. *Eur J Obstet Gynecol Reprod Biol.* 2009 Dec;147(2):139-43. X-1.
1527. Duncan JR, Garland M, Myers MM, et al. Prenatal nicotine-exposure alters fetal autonomic activity and medullary neurotransmitter receptors: implications for sudden infant death syndrome. *J Appl Physiol.* 2009 Nov;107(5):1579-90. X-1.
1528. Duncan PW, Lawes EG, Bland B, et al. Fresh gas flow requirements using the ADE anaesthetic system during late pregnancy. *Br J Anaesth.* 1987 Mar;59(3):360-3. X-9.
1529. Dundee JW, Howe JP, Moore J, et al. Effect of cimetidine on gastric pH in women undergoing elective Caesarean section [proceedings]. *Br J Clin Pharmacol.* 1979 Oct;8(4):391P-392P. X-3, X-4b.
1530. Dundek LH. Establishment of a Somali doula program at a large metropolitan hospital. *J Perinat Neonatal Nurs.* 2006 Apr-Jun;20(2):128-37. X-1.
1531. Dunn DT, Simonds RJ, Bulterys M, et al. Interventions to prevent vertical transmission of HIV-1: effect on viral detection rate in early infant samples. *AIDS.* 2000 Jul 7;14(10):1421-8. X-1.
1532. Dunn PA. Differences in maternal and fetal stress response of women who received moderate or low dose oxytocin for induction of labor. 1998;Ph.D.:180 p. X-4d.
1533. Dunne FP, Brydon P, Smith T, et al. Pre-conception diabetes care in insulin-dependent diabetes mellitus. *QJM.* 1999 Mar;92(3):175-6. X-1.
1534. Dupuis O, Silveira R, Dupont C, et al. Comparison of "instrument-associated" and "spontaneous" obstetric depressed skull fractures in a cohort of 68 neonates. *Am J Obstet Gynecol.* 2005 Jan;192(1):165-70. X-1.
1535. Durnwald CP, Rouse DJ, Leveno KJ, et al. The Maternal-Fetal Medicine Units Cesarean Registry: safety and efficacy of a trial of labor in preterm pregnancy after a prior cesarean delivery. *Am J Obstet Gynecol.* 2006 Oct;195(4):1119-26. X-1.
1536. Durodola A, Kuti O, Orji EO, et al. Rate of increase in oxytocin dose on the outcome of labor induction. *Int J Gynaecol Obstet.* 2005 Aug;90(2):107-11. X-1.
1537. Dutton DA, Moir DD, Howie HB, et al. Choice of local anaesthetic drug for extradural caesarean section. Comparison of 0.5% and 0.75% bupivacaine and 1.5% etidocaine. *Br J Anaesth.* 1984 Dec;56(12):1361-8. X-9.
1538. Dweck MF, Lynch CM and Spellacy WN. Use of methergine for the prevention of postoperative endometritis in non-elective cesarean section patients. *Infect Dis Obstet Gynecol.* 2000;8(3-4):151-4. X-9.
1539. Dwyer R, Fee JP and Moore J. Uptake of halothane and isoflurane by mother and baby during caesarean section. *Br J Anaesth.* 1995 Apr;74(4):379-83. X-9.
1540. Dyer C. Colleges say no to forced caesarean sections. *BMJ.* 1994 Jan 22;308(6923):224. X-1, X-2.
1541. Dyer C. Woman can challenge hospital over forced caesarean. *BMJ.* 1997 Jul 12;315(7100):78. X-1, X-2.
1542. Dyer C. Judge misled over call for caesarean operation. *BMJ.* 1998 Feb 21;316(7131):574. X-1.
1543. Dyer C. Trusts face damages after forcing women to have ceasareans. *BMJ.* 1998 May 16;316(7143):1480. X-1.
1544. Dyer RA, Els I, Farbas J, et al. Prospective, randomized trial comparing general with spinal anesthesia for cesarean delivery in preeclamptic patients with a nonreassuring fetal heart trace. *Anesthesiology.* 2003 Sep;99(3):561-9; discussion 5A-6A. X-3, X-4b, X-5.
1545. Dyer RA, Farina Z, Joubert IA, et al. Crystalloid preload versus rapid crystalloid administration after induction of spinal anaesthesia (coload) for elective caesarean

- section. *Anaesth Intensive Care*. 2004 Jun;32(3):351-7. X-9.
1546. Dyer RA, Reed AR, van Dyk D, et al. Hemodynamic effects of ephedrine, phenylephrine, and the coadministration of phenylephrine with oxytocin during spinal anesthesia for elective cesarean delivery. *Anesthesiology*. 2009 Oct;111(4):753-65. X-9.
1547. Dykowsky MD and Ainslie G. Routine antenatal ultrasonography in a base population. *Mil Med*. 1990 Nov;155(11):549-51. X-1.
1548. Dyson DC, Ferguson JE, 2nd and Hensleigh P. Antepartum external cephalic version under tocolysis. *Obstet Gynecol*. 1986 Jan;67(1):63-8. X-1.
1549. Dyson DC, Miller PD and Armstrong MA. Management of prolonged pregnancy: induction of labor versus antepartum fetal testing. *Am J Obstet Gynecol*. 1987 Apr;156(4):928-34. X-4e.
1550. East CE, Chan FY, Brennecke SP, et al. Women's evaluations of their experience in a multicenter randomized controlled trial of intrapartum fetal pulse oximetry (The FOREMOST Trial). *Birth*. 2006 Jun;33(2):101-9. X-1, X-3, X-5.
1551. East CE, Gascoigne MB, Doran CM, et al. A cost-effectiveness analysis of the intrapartum fetal pulse oximetry multicentre randomised controlled trial (the FOREMOST trial). *BJOG*. 2006 Sep;113(9):1080-7. X-1, X-3, X-4e, X-5.
1552. East N, Dube J and Perreault EL. Postpartum pain relief: a randomized comparison of self-administered medication and standard administration. *J Obstet Gynaecol Can*. 2007 Dec;29(12):975-81. X-4e, X-5.
1553. Ebeigbe PN and Gharoro EP. Obstetric complications, intervention rates and maternofetal outcome in teenage nullipara in Benin City, Nigeria. *Trop Doct*. 2007 Apr;37(2):79-83. X-1.
1554. Eberle RL, Norris MC, Eberle AM, et al. The effect of maternal position on fetal heart rate during epidural or intrathecal labor analgesia. *Am J Obstet Gynecol*. 1998 Jul;179(1):150-5. X-4e.
1555. Ebneshahidi A and Mohseni M. The effect of patient-selected music on early postoperative pain, anxiety, and hemodynamic profile in cesarean section surgery. *J Altern Complement Med*. 2008 Sep;14(7):827-31. X-9.
1556. Echt M, Begneaud W and Montgomery D. Effect of epidural analgesia on the primary cesarean section and forceps delivery rates. *J Reprod Med*. 2000 Jul;45(7):557-61. X-1.
1557. Ecker JL. Once a pregnancy, always a cesarean? Rationale and feasibility of a randomized controlled trial. *Am J Obstet Gynecol*. 2004 Feb;190(2):314-8. X-1, X-2.
1558. Eckerlund I and Gerdttham UG. Econometric analysis of variation in cesarean section rates. A cross-sectional study of 59 obstetrical departments in Sweden. *Int J Technol Assess Health Care*. 1998 Fall;14(4):774-87. X-1.
1559. Eddleman KA, Lockwood CJ, Berkowitz GS, et al. Clinical significance and sonographic diagnosis of velamentous umbilical cord insertion. *Am J Perinatol*. 1992 Mar;9(2):123-6. X-1.
1560. Eden KB, Dolan JG, Perrin NA, et al. Patients were more consistent in randomized trial at prioritizing childbirth preferences using graphic-numeric than verbal formats. *J Clin Epidemiol*. 2009 Apr;62(4):415-424 e3. X-3, X-4b, X-4e.
1561. Eden RD, Seifert LS, Winegar A, et al. Perinatal characteristics of uncomplicated postdate pregnancies. *Obstet Gynecol*. 1987 Mar;69(3 Pt 1):296-9. X-1.
1562. Eder M, Farina N, Sanabria RR, et al. Normal ocular flora in newborns delivered in two hospital centers in Argentina and Paraguay. *Graefes Arch Clin Exp Ophthalmol*. 2005 Nov;243(11):1098-107. X-1.
1563. Edgar JD, Wilson DC, McMillan SA, et al. Predictive value of soluble immunological mediators in neonatal infection. *Clin Sci (Lond)*. 1994 Aug;87(2):165-71. X-1.
1564. Edirne T, Can M, Kulusari A, et al. Trends, characteristics, and outcomes of adolescent pregnancy in eastern Turkey. *Int J Gynaecol Obstet*. 2010 Aug;110(2):105-8. X-1.
1565. Edmunds J. 7 steps toward cesarean prevention. *Midwifery Today Int Midwife*. 2001 Spring(57):31-3. X-1, X-2, X-3, X-4e, X-5.
1566. Edwards C and Witter FR. Preeclampsia, labor duration and mode of delivery. *Int J Gynaecol Obstet*. 1997 Apr;57(1):39-42. X-1.
1567. Edwards LE, Dickes WF, Alton IR, et al. Pregnancy in the massively obese: course, outcome, and obesity prognosis of the infant. *Am J Obstet Gynecol*. 1978 Jul 1;131(5):479-83. X-1.
1568. Edwards MS. Mifepristone: cervical ripening and induction of labor. *Clin Obstet Gynecol*. 1996 Jun;39(2):469-73. X-1, X-2.
1569. Edwards RK and Duff P. Single additional dose postpartum therapy for women with chorioamnionitis. *Obstet Gynecol*. 2003 Nov;102(5 Pt 1):957-61. X-4e.
1570. Edwards RK, Madani K and Duff P. Is perioperative hypothermia a risk factor for post-Cesarean infection? *Infect Dis Obstet Gynecol*. 2003;11(2):75-80. X-1.
1571. Effer SB, Moutquin JM, Farine D, et al. Neonatal survival rates in 860 singleton live births at 24 and 25 weeks gestational age. A Canadian multicentre study. *BJOG*. 2002 Jul;109(7):740-5. X-1.
1572. Eftekhari N, Doroodian M and Lashkarizadeh R. The effect of sublingual misoprostol versus intravenous oxytocin in reducing bleeding after

- caesarean section. *J Obstet Gynaecol.* 2009 Oct;29(7):633-6. X-9.
1573. Egerman RS, Ramsey RD, Kao LW, et al. Perinatal outcomes in pregnancies managed with antenatal insulin glargine. *Am J Perinatol.* 2009 Sep;26(8):591-5. X-1.
1574. Egge T, Schauburger C and Schaper A. Dysfunctional labor after external cephalic version. *Obstet Gynecol.* 1994 May;83(5 Pt 1):771-3. X-1.
1575. Eggleston MK, Jr., Wax JR, Philput C, et al. Use of surgical pass trays to reduce intraoperative glove perforations. *J Matern Fetal Med.* 1997 Jul-Aug;6(4):245-7. X-9.
1576. Eglinton GS, Phelan JP, Yeh S, et al. Outcome of a trial of labor after prior cesarean delivery. *J Reprod Med.* 1984 Jan;29(1):3-8. X-1.
1577. Ego A, Subtil D, Grange G, et al. Should parity be d in customised fetal weight standards for identifying small-for-gestational-age babies? Results from a French multicentre study. *BJOG.* 2008 Sep;115(10):1256-64. X-1.
1578. Ehigiegba AE, Ande AB and Ojobo SI. Myomectomy during cesarean section. *Int J Gynaecol Obstet.* 2001 Oct;75(1):21-5. X-1.
1579. Ehrenberg HM, Dierker L, Milluzzi C, et al. Prevalence of maternal obesity in an urban center. *Am J Obstet Gynecol.* 2002 Nov;187(5):1189-93. X-1.
1580. Ehrenreich N. The colonization of the womb. *Duke Law J.* 1993 Dec;43(3):492-587. X-1, X-2, X-3, X-4e, X-5.
1581. Eisenach JC, D'Angelo R, Taylor C, et al. An isobolographic study of epidural clonidine and fentanyl after cesarean section. *Anesth Analg.* 1994 Aug;79(2):285-90. X-9.
1582. Eisenach JC, Grice SC and Dewan DM. Patient-controlled analgesia following cesarean section: a comparison with epidural and intramuscular narcotics. *Anesthesiology.* 1988 Mar;68(3):444-8. X-1, X-9.
1583. Eisenach JC, Schlairet TJ, Dobson CE, 2nd, et al. Effect of prior anesthetic solution on epidural morphine analgesia. *Anesth Analg.* 1991 Aug;73(2):119-23. X-1, X-3, X-4b, X-5.
1584. Eisenach JC, Thomas JA, Rauck RL, et al. Cystatin C in cerebrospinal fluid is not a diagnostic test for pain in humans. *Pain.* 2004 Feb;107(3):207-12. X-1.
1585. Eisenach JC, Tuttle R and Stein A. Is ST segment depression of the electrocardiogram during cesarean section merely due to cardiac sympathetic block? *Anesth Analg.* 1994 Feb;78(2):287-92. X-1.
1586. Eisler G, Hjertberg R and Lagercrantz H. Randomised controlled trial of effect of terbutaline before elective caesarean section on postnatal respiration and glucose homeostasis. *Arch Dis Child Fetal Neonatal Ed.* 1999 Mar;80(2):F88-92. X-9.
1587. Ekblad U, Erkkola R and Pirhonen J. Comparison of intravaginal and two intracervical prostaglandin E2 gels in pre-induction of labour. *Ann Chir Gynaecol Suppl.* 1994;208:64-7. X-4d, X-5.
1588. Ekblad U, Erkkola R, Uotila P, et al. Ritodrine infusion at term: effects on maternal and fetal prostacyclin, thromboxane and prostaglandin precursor fatty acids. *Gynecol Obstet Invest.* 1988;25(2):106-12. X-9.
1589. Ekblad U and Grenman S. Maternal weight, weight gain during pregnancy and pregnancy outcome. *Int J Gynaecol Obstet.* 1992 Dec;39(4):277-83. X-1.
1590. Ekblad U, Grenman S and Kaila T. The effect of a short-term ritodrine treatment on the concentration of beta-adrenergic receptors in human myometrium. *Ann Chir Gynaecol Suppl.* 1987;202:29-31. X-1.
1591. Ekerhovd E, Bullarbo M, Andersch B, et al. Vaginal administration of the nitric oxide donor isosorbide mononitrate for cervical ripening at term: a randomized controlled study. *Am J Obstet Gynecol.* 2003 Dec;189(6):1692-7. X-9.
1592. Ekman G, Granstrom L and Ulmsten U. Induction of labor with intravenous oxytocin or vaginal PGE2 suppositories. A randomized study. *Acta Obstet Gynecol Scand.* 1986;65(8):857-9. X-4d.
1593. Ekman G, Ulmsten U and Wingerup L. Intracervical application of PGE2-gel combined with early intravenous infusion of oxytocin for induction of term labor in women with unripe cervix. *Arch Gynecol.* 1983;234(1):61-5. X-1, X-4d.
1594. Ekman-Ordeberg G, Uldbjerg N and Ulmsten U. Comparison of intravenous oxytocin and vaginal prostaglandin E2 gel in women with unripe cervix and premature rupture of the membranes. *Obstet Gynecol.* 1985 Sep;66(3):307-10. X-4d, X-4e.
1595. Ekstrom A, Altman D, Wiklund I, et al. Planned cesarean section versus planned vaginal delivery: comparison of lower urinary tract symptoms. *Int Urogynecol J Pelvic Floor Dysfunct.* 2008 Apr;19(4):459-65. X-1.
1596. Ekwempu CC and Lawande RV. Postoperative morbidity of eclamptic patients delivered by cesarean section. *Int J Gynaecol Obstet.* 1980;18(6):468-9. X-1.
1597. El Khwad M, Stetzer B, Moore RM, et al. Term human fetal membranes have a weak zone overlying the lower uterine pole and cervix before onset of labor. *Biol Reprod.* 2005 Mar;72(3):720-6. X-1.
1598. El Maradny E, Kanayama N, Kobayashi H, et al. The role of hyaluronic acid as a mediator and regulator of cervical ripening. *Hum Reprod.* 1997 May;12(5):1080-8. X-1.
1599. el-Ashnehi MS, Ibrahim ME, el-Tamamy H, et al. Pregnancy outcome after female infertility in Kuwait. Comparison of medical and surgical

- treatment. *Acta Obstet Gynecol Scand.* 1990;69(5):389-92. X-1.
1600. El-Baradie SM, Mahmoud M and Makhoulf HH. Elevated serum levels of interleukin-15, interleukin-16, and human chorionic gonadotropin in women with preeclampsia. *J Obstet Gynaecol Can.* 2009 Feb;31(2):142-8. X-1.
1601. Eldenburg L and Waller WS. Decision-case mix model for analyzing variation in cesarean rates. *Med Decis Making.* 2001 May-Jun;21(3):170-9. X-1.
1602. Elhakim M, Abd El-Megid W, Metry A, et al. Analgesic and antacid properties of i.m. tramadol given before Caesarean section under general anaesthesia. *Br J Anaesth.* 2005 Dec;95(6):811-5. X-9.
1603. Elhakim M, Fathy A, Amine H, et al. Effect of i.v. tenoxicam during caesarean delivery on platelet activity. *Acta Anaesthesiol Scand.* 2000 May;44(5):555-9. X-9.
1604. Elhakim M and Nafie M. I.v. tenoxicam for analgesia during caesarean section. *Br J Anaesth.* 1995 Jun;74(6):643-6. X-9.
1605. El-Kak F, Chaaya M, Campbell O, et al. Patterns of antenatal care in low-versus high-risk pregnancies in Lebanon. *East Mediterr Health J.* 2004 May;10(3):268-76. X-1.
1606. Elkins TE, Brown D, Barclay M, et al. Maternal-fetal conflict: a study of physician concerns in court-ordered cesarean sections. *J Clin Ethics.* 1990 Winter;1(4):316-9. X-1.
1607. Eller DP and VanDorsten JP. Route of delivery for the breech presentation: a conundrum. *Am J Obstet Gynecol.* 1995 Aug;173(2):393-6; discussion 396-8. X-1, X-2.
1608. Ellestad SC, Swamy GK, Sinclair T, et al. Preterm premature rupture of membrane management--inpatient versus outpatient: a retrospective review. *Am J Perinatol.* 2008 Jan;25(1):69-73. X-1.
1609. Elliott CL, Brennan JE and Calder AA. The effects of mifepristone on cervical ripening and labor induction in primigravidae. *Obstet Gynecol.* 1998 Nov;92(5):804-9. X-4d.
1610. Elliott JP and Flaherty JF. Comparison of lavage or intravenous antibiotics at cesarean section. *Obstet Gynecol.* 1986 Jan;67(1):29-32. X-9.
1611. Elliott JP, Freeman RK and Dorchester W. Short versus long course of prophylactic antibiotics. *Am J Obstet Gynecol.* 1982 Aug 1;143(7):740-4. X-9.
1612. Elliott JP, Russell MM and Dickason LA. The labor-adjusted cesarean section rate--a more informative method than the cesarean section "rate" for assessing a practitioner's labor and delivery skills. *Am J Obstet Gynecol.* 1997 Jul;177(1):139-43. X-1.
1613. Ellison J, Thomson AJ, Conkie JA, et al. Thromboprophylaxis following caesarean section--a comparison of the antithrombotic properties of three low molecular weight heparins--dalteparin, enoxaparin and tinzaparin. *Thromb Haemost.* 2001 Dec;86(6):1374-8. X-9.
1614. el-Mardi AA, el-Qarmalawi MA, Siddik M, et al. A comparison of single prostaglandin E2 vaginal tablet with prostaglandin E2 vaginal pessaries for induction of labor at term. *Int J Gynaecol Obstet.* 1991 Jul;35(3):221-4. X-4d.
1615. Elnour AA, El Mugammar IT, Jaber T, et al. Pharmaceutical care of patients with gestational diabetes mellitus. *J Eval Clin Pract.* 2008 Feb;14(1):131-40. X-4e, X-5.
1616. Elphick MC, Filshie GM and Hull D. The passage of fat emulsion across the human placenta. *Br J Obstet Gynaecol.* 1978 Aug;85(8):610-8. X-9.
1617. el-Qarmalawi AM, Elmardi AA, Saddik M, et al. A comparative randomized study of oral prostaglandin E2 (PGE2) tablets and intravenous oxytocin in induction of labor in patients with premature rupture of membranes before 37 weeks of pregnancy. *Int J Gynaecol Obstet.* 1990 Oct;33(2):115-9. X-4d, X-4e.
1618. el-Qarmalawi AM, Morsy AH, al-Fadly A, et al. Labetalol vs. methyldopa in the treatment of pregnancy-induced hypertension. *Int J Gynaecol Obstet.* 1995 May;49(2):125-30. X-3, X-4e, X-5.
1619. El-Sayed YY, Watkins MM, Fix M, et al. Perinatal outcomes after successful and failed trials of labor after cesarean delivery. *Am J Obstet Gynecol.* 2007 Jun;196(6):583 e1-5; discussion 583 e5. X-1.
1620. El-Sherbiny MT, El-Gharieb IH and Gewely HA. Vaginal misoprostol for induction of labor: 25 vs. 50 microg dose regimen. *Int J Gynaecol Obstet.* 2001 Jan;72(1):25-30. X-4d, X-5.
1621. Elson JA and Paech MJ. EMLA cream prior to insertion of elective epidurals. *Anaesth Intensive Care.* 1995 Jun;23(3):339-41. X-9.
1622. El-Tahan MR, Warda OM, Diab DG, et al. A randomized study of the effects of perioperative i.v. lidocaine on hemodynamic and hormonal responses for cesarean section. *J Anesth.* 2009;23(2):215-21. X-9.
1623. El-Tahan MR, Warda OM, Yasseen AM, et al. A randomized study of the effects of preoperative ketorolac on general anaesthesia for caesarean section. *Int J Obstet Anesth.* 2007 Jul;16(3):214-20. X-9.
1624. Emanuelli M, Giannubilo SR, Landi B, et al. Placental overexpression of transforming growth factor-beta3 in the HELLP syndrome. *Gynecol Obstet Invest.* 2008;65(1):1-5. X-1.
1625. Emanuelli M, Sartini D, Rossi V, et al. Alpha-hemoglobin-stabilizing protein (AHSP) in hemolysis, elevated liver enzyme, and low platelet (HELLP) syndrome, intrauterine growth restriction (IUGR) and fetal death. *Cell*

- Stress Chaperones. 2008 Spring;13(1):67-71. X-1.
1626. Emmer PM, Joosten I, Schut MH, et al. Shift in expression of HLA-G mRNA spliceforms in pregnancies complicated by preeclampsia. *J Soc Gynecol Investig.* 2004 May;11(4):220-6. X-1.
1627. Emmett CL, Murphy DJ, Patel RR, et al. Decision-making about mode of delivery after previous caesarean section: development and piloting of two computer-based decision aids. *Health Expect.* 2007 Jun;10(2):161-72. X-1.
1628. Emmett CL, Shaw AR, Montgomery AA, et al. Women's experience of decision making about mode of delivery after a previous caesarean section: the role of health professionals and information about health risks. *BJOG.* 2006 Dec;113(12):1438-45. X-1.
1629. Eneh AU, Fiebai PO, Anya SE, et al. Perinatal outcome among elderly nulliparae at the University of Port Harcourt Teaching Hospital. *Niger J Med.* 2004 Jan-Mar;13(1):44-7. X-1.
1630. Engelhardt S, Zieger W, Kassubek J, et al. Tocolytic therapy with fenoterol induces selective down-regulation of beta-adrenergic receptors in human myometrium. *J Clin Endocrinol Metab.* 1997 Apr;82(4):1235-42. X-1.
1631. Eniola AO, Bako AU and Selo-Ojeme DO. Risk factors for placenta praevia in southern Nigeria. *East Afr Med J.* 2002 Oct;79(10):535-8. X-1.
1632. Ennen CS, Bofill JA, Magann EF, et al. Risk factors for cesarean delivery in preterm, term and post-term patients undergoing induction of labor with an unfavorable cervix. *Gynecol Obstet Invest.* 2009;67(2):113-7. X-1, X-4e, X-5.
1633. Enriquez R, Griffin MR, Carroll KN, et al. Effect of maternal asthma and asthma control on pregnancy and perinatal outcomes. *J Allergy Clin Immunol.* 2007 Sep;120(3):625-30. X-1.
1634. Entrekin K, Work B and Owen J. Does a high carbohydrate preparatory diet affect the 3-hour oral glucose tolerance test in pregnancy? *J Matern Fetal Med.* 1998 Mar-Apr;7(2):68-71. X-1, X-4e, X-5.
1635. Epstein AJ and Nicholson S. The formation and evolution of physician treatment styles: an application to cesarean sections. *J Health Econ.* 2009 Dec;28(6):1126-40. X-1.
1636. Erata YE, Kilic B, Guclu S, et al. Risk factors for pelvic surgery. *Arch Gynecol Obstet.* 2002 Nov;267(1):14-8. X-1.
1637. Erb L, Hill G and Houston D. A survey of parents' attitudes toward their cesarean births in Manitoba hospitals. *Birth.* 1983 Summer;10(2):85-92. X-1, X-9.
1638. Erdemoglu M, Kale A, Kuyumcuoglu U, et al. Umbilical cord prolapse in the southeast region of Turkey: evaluation of 79 cases. *Clin Exp Obstet Gynecol.* 2010;37(2):141-3. X-1.
1639. Erez O, Dukler D, Novack L, et al. Trial of labor and vaginal birth after cesarean section in patients with uterine Mullerian anomalies: a population-based study. *Am J Obstet Gynecol.* 2007 Jun;196(6):537 e1-11. X-1.
1640. Erez-Weiss I, Erez O, Shoham-Vardi I, et al. The association between maternal obesity, glucose intolerance and hypertensive disorders of pregnancy in nondiabetic pregnant women. *Hypertens Pregnancy.* 2005;24(2):125-36. X-1.
1641. Eriksen NL and Buttino L, Jr. Vaginal birth after cesarean: a comparison of maternal and neonatal morbidity to elective repeat cesarean section. *Am J Perinatol.* 1989 Oct;6(4):375-9. X-1.
1642. Eriksen NL, Hostetter M and Parisi VM. Prophylactic amnioinfusion in pregnancies complicated by thick meconium. *Am J Obstet Gynecol.* 1994 Oct;171(4):1026-30. X-4e, X-5.
1643. Eriksson SL, Frykholm P, Stenlund PM, et al. A comparison of three doses of sufentanil in combination with bupivacaine-adrenaline in continuous epidural analgesia during labour. *Acta Anaesthesiol Scand.* 2000 Sep;44(8):919-23. X-4d.
1644. Erkkola R, Lammintausta R and Liukko P. Maternal and fetal plasma renin activity during ritodrine infusion to the mother. *Biol Neonate.* 1979;35(5-6):268-72. X-1.
1645. Eroglu D, Lembet A, Ozdemir FN, et al. Pregnancy during hemodialysis: perinatal outcome in our cases. *Transplant Proc.* 2004 Jan-Feb;36(1):53-5. X-1.
1646. Eroglu D, Oktem M, Yanik F, et al. Labor induction at term: a comparison of the effects of 50 microg and 25 microg vaginal misoprostol. *Clin Exp Obstet Gynecol.* 2007;34(2):102-5. X-4d.
1647. Ersdal HL, Verkuyl DA, Bjorklund K, et al. Symphysiotomy in Zimbabwe; postoperative outcome, width of the symphysis joint, and knowledge, attitudes and practice among doctors and midwives. *PLoS One.* 2008;3(10):e3317. X-1.
1648. Ertan AK, He JP, Tanriverdi HA, et al. Comparison of perinatal outcome in fetuses with reverse or absent enddiastolic flow in the umbilical artery and/or fetal descending aorta. *J Perinat Med.* 2003;31(4):307-12. X-1.
1649. Ertunc D, Tok E, Dilek U, et al. The effect of carbohydrate intolerance on neonatal birth weight in pregnant women without gestational diabetes mellitus. *Ann Saudi Med.* 2004 Jul-Aug;24(4):280-3. X-1.
1650. Esakoff TF, Caughey AB, Block-Kurbisch I, et al. Perinatal outcomes in patients with gestational diabetes mellitus by race/ethnicity. *J Matern Fetal Neonatal Med.* 2011 Mar;24(3):422-6. X-1.

1651. Escudero F and Contreras H. A comparative trial of labor induction with misoprostol versus oxytocin. *Int J Gynaecol Obstet.* 1997 May;57(2):139-43. X-4d.
1652. Escumalha M, Gouveia C, Cunha M, et al. Neonatal morbidity and outcome of live born premature babies after attempted illegal abortion with misoprostol. *Pediatr Nurs.* 2005 May-Jun;31(3):228-31. X-1.
1653. Eskandar O and Shet D. Risk factors for 3rd and 4th degree perineal tear. *J Obstet Gynaecol.* 2009 Feb;29(2):119-22. X-1.
1654. Eslamian L, Marsoosi V and Pakneeyat Y. Increased intravenous fluid intake and the course of labor in nulliparous women. *Int J Gynaecol Obstet.* 2006 May;93(2):102-5. X-5.
1655. Esmooglu A, Ulgey A, Akin A, et al. Comparison between dexmedetomidine and midazolam for sedation of eclampsia patients in the intensive care unit. *J Crit Care.* 2009 Dec;24(4):551-5. X-9.
1656. Espinoza LG. Dissecting women, dissecting law: the court-ordering of caesarean section operations and the failure of informed consent to protect women of color. *Natl Black Law J.* 1994;13:211-37. X-1.
1657. Esposito MA, Menihan CA and Malee MP. Association of interpregnancy interval with uterine scar failure in labor: a case-control study. *Am J Obstet Gynecol.* 2000 Nov;183(5):1180-3. X-1.
1658. Essel JK and Opai-Tetteh ET. Macrosomia--maternal and fetal risk factors. *S Afr Med J.* 1995 Jan;85(1):43-6. X-1.
1659. Essen B, Johnsdotter S, Hovellius B, et al. Qualitative study of pregnancy and childbirth experiences in Somali women resident in Sweden. *BJOG.* 2000 Dec;107(12):1507-12. X-1.
1660. Estrade S, Schmitz T, Cabrol D, et al. History of cesarean before 32 weeks' gestation and trial of labor: what is the risk of uterine rupture? *Acta Obstet Gynecol Scand.* 2009;88(2):149-53. X-1.
1661. Etchin A, Perl A, Bider D, et al. Prevention of a side effect of epidural morphine by epidural steroid administration in cesarean section. *Gynecol Obstet Invest.* 1990;29(4):305-6. X-9.
1662. Euliano TY, Marossero D, Nguyen MT, et al. Spatiotemporal electrohysterography patterns in normal and arrested labor. *Am J Obstet Gynecol.* 2009 Jan;200(1):54 e1-7. X-1.
1663. Eure CR, Lindsay MK and Graves WL. Risk of adverse pregnancy outcomes in young adolescent parturients in an inner-city hospital. *Am J Obstet Gynecol.* 2002 May;186(5):918-20. X-1.
1664. Evaldson GR, Frederici H, Jullig C, et al. Hospital-associated infections in obstetrics and gynecology. Effects of surveillance. *Acta Obstet Gynecol Scand.* 1992 Jan;71(1):54-8. X-1.
1665. Evans LC and Combs CA. Increased maternal morbidity after cesarean delivery before 28 weeks of gestation. *Int J Gynaecol Obstet.* 1993 Mar;40(3):227-33. X-1.
1666. Evensen A. Topics in maternity care. Use of amniotomy in spontaneous labor. *Evidence-Based Practice.* 2008;11(4):8, 2p. X-1.
1667. Evensen A and Dresang L. Topics in maternity care. Safety of term external cephalic version. *Evidence-Based Practice.* 2008;11(1):9-10. X-1.
1668. Evers IM, de Valk HW and Visser GH. Risk of complications of pregnancy in women with type 1 diabetes: nationwide prospective study in the Netherlands. *BMJ.* 2004 Apr 17;328(7445):915. X-1.
1669. Evron S, Glezerman M, Sadan O, et al. Remifentanyl: a novel systemic analgesic for labor pain. *Anesth Analg.* 2005 Jan;100(1):233-8. X-4e.
1670. Evron S, Samueloff A, Sadovsky E, et al. The effect of phenoxybenzamine on postoperative urinary complications during extradural morphine analgesia. *Eur J Anaesthesiol.* 1984 Mar;1(1):45-54. X-3, X-4b.
1671. Evron S, Schenker JG, Olshwang D, et al. Postoperative analgesia by percutaneous electrical stimulation in gynecology and obstetrics. *Eur J Obstet Gynecol Reprod Biol.* 1981 Nov;12(5):305-13. X-1.
1672. Ewart MC, Yau G, Gin T, et al. A comparison of the effects of omeprazole and ranitidine on gastric secretion in women undergoing elective caesarean section. *Anaesthesia.* 1990 Jul;45(7):527-30. X-9.
1673. Ewert K, Powers B, Robertson S, et al. Controlled-release misoprostol vaginal insert in parous women for labor induction: a randomized controlled trial. *Obstet Gynecol.* 2006 Nov;108(5):1130-7. X-4d.
1674. Exacoustos C and Rosati P. Ultrasound diagnosis of uterine myomas and complications in pregnancy. *Obstet Gynecol.* 1993 Jul;82(1):97-101. X-1.
1675. Eyster KM, Teixeira F, Zakar T, et al. Protein kinase-C stimulatory activity in human amnion cytosol. *J Clin Endocrinol Metab.* 1993 Feb;76(2):424-8. X-1.
1676. Ezechi OC, Kalu BK, Njokanma FO, et al. Uterine incision closure at caesarean section: a randomised comparative study of intraperitoneal closure and closure after temporary exteriorisation. *West Afr J Med.* 2005 Jan-Mar;24(1):41-3. X-9.
1677. Ezechi OC, Ndububa VI, Loto OM, et al. Pregnancy, obstetric and neonatal outcome after assisted reproduction in Nigerians. *J Matern Fetal Neonatal Med.* 2008 Apr;21(4):261-6. X-1.
1678. Ezimokhai M, Joseph A and Bradley-Watson P. Audit of pregnancies complicated by diabetes from one center five years apart with

- selective versus universal screening. *Ann N Y Acad Sci.* 2006 Nov;1084:132-40. X-1, X-4d.
1679. Ezimokhai M, Rizk DE and Thomas L. Abnormal vascular coiling of the umbilical cord in gestational diabetes mellitus. *Arch Physiol Biochem.* 2001 Jul;109(3):209-14. X-1.
1680. Ezra Y, Shveiky D, Ophir E, et al. Intensive management and early delivery reduce antenatal mortality in monoamniotic twin pregnancies. *Acta Obstet Gynecol Scand.* 2005 May;84(5):432-5. X-1.
1681. Faas-Fehervary P, Schwarz K, Bauer L, et al. Caesarean section on demand: influence of personal birth experience and working environment on attitude of German gynaecologists. *Eur J Obstet Gynecol Reprod Biol.* 2005 Oct 1;122(2):162-6. X-1.
1682. Faber-Nijholt R, Huisjes HJ, Touwen BC, et al. Neurological follow-up of 281 children born in breech presentation: a controlled study. *Br Med J (Clin Res Ed).* 1983 Jan 1;286(6358):9-12. X-1.
1683. Faccenda KA, Simpson AM, Henderson DJ, et al. A comparison of levobupivacaine 0.5% and racemic bupivacaine 0.5% for extradural anesthesia for caesarean section. *Reg Anaesth Pain Med.* 2003 Sep-Oct;28(5):394-400. X-9.
1684. Facchinetti F, De Pietri R, Giunchi M, et al. Use of meclofenamic acid in gynecology and obstetrics: effects on postsurgical stress. *Clin J Pain.* 1991;7 Suppl 1:S60-3. X-1.
1685. Facchinetti F, Venturini P, Verocchi G, et al. Comparison of two preparations of dinoprostone for pre-induction of labour in nulliparous women with very unfavourable cervical condition: a randomised clinical trial. *Eur J Obstet Gynecol Reprod Biol.* 2005 Apr 1;119(2):189-93. X-4d.
1686. Fadda GM, Cherchi PL, D'Antona D, et al. Umbilical artery pulsatility index in pregnancies complicated by insulin-dependent diabetes mellitus without hypertension. *Gynecol Obstet Invest.* 2001;51(3):173-7. X-1.
1687. Fadel HE and Hammond SD. Diabetes mellitus and pregnancy: management and results. *J Reprod Med.* 1982 Feb;27(2):56-66. X-1, X-2.
1688. Fahdhy M and Chongsuvivatwong V. Evaluation of World Health Organization partograph implementation by midwives for maternity home birth in Medan, Indonesia. *Midwifery.* 2005 Dec;21(4):301-10. X-1.
1689. Fait G, Daniel Y, Lessing JB, et al. Can labor with breech presentation be induced? *Gynecol Obstet Invest.* 1998;46(3):181-6. X-1.
1690. Fakeye O. The incidence, sociobiological factors and obstetric complications associated with large infants at Ilorin, Nigeria. *Int J Gynaecol Obstet.* 1988 Dec;27(3):343-7. X-1.
1691. Falhammar H, Davis B, Bond D, et al. Maternal and neonatal outcomes in the Torres Strait Islands with a sixfold increase in type 2 diabetes in pregnancy over six years. *Aust N Z J Obstet Gynaecol.* 2010 Apr;50(2):120-6. X-1.
1692. Fallis WM, Hamelin K, Symonds J, et al. Maternal and newborn outcomes related to maternal warming during cesarean delivery. *J Obstet Gynecol Neonatal Nurs.* 2006 May-Jun;35(3):324-31. X-9.
1693. Fan SZ, Susetio L, Wang YP, et al. Low dose of intrathecal hyperbaric bupivacaine combined with epidural lidocaine for cesarean section--a balance block technique. *Anesth Analg.* 1994 Mar;78(3):474-7. X-9.
1694. Fanaroff AA, Wright LL, Stevenson DK, et al. Very-low-birth-weight outcomes of the National Institute of Child Health and Human Development Neonatal Research Network, May 1991 through December 1992. *Am J Obstet Gynecol.* 1995 Nov;173(5):1423-31. X-1.
1695. Fanning RA, Briggs LP and Carey MF. Epidural analgesia practices for labour: results of a 2005 national survey in Ireland. *Eur J Anaesthesiol.* 2009 Mar;26(3):235-44. X-1.
1696. Fanshawe MP. A comparison of patient controlled epidural pethidine versus single dose epidural morphine for analgesia after caesarean section. *Anaesth Intensive Care.* 1999 Dec;27(6):610-4. X-9.
1697. Fantini MP, Stivanello E, Frammartino B, et al. Risk adjustment for inter-hospital comparison of primary cesarean section rates: need, validity and parsimony. *BMC Health Serv Res.* 2006;6:100. X-1.
1698. Farah LA, Sanchez-Ramos L, Rosa C, et al. Randomized trial of two doses of the prostaglandin E1 analog misoprostol for labor induction. *Am J Obstet Gynecol.* 1997 Aug;177(2):364-9; discussion 369-71. X-3.
1699. Faro S, Martens M, Hammill H, et al. Ticarcillin/clavulanic acid versus clindamycin and gentamicin in the treatment of post-cesarean endometritis following antibiotic prophylaxis. *Obstet Gynecol.* 1989 May;73(5 Pt 1):808-12. X-9.
1700. Faro S, Martens M, Phillips LE, et al. Ticarcillin disodium/clavulanate potassium versus clindamycin/gentamicin in the treatment of postpartum endometritis. *J Reprod Med.* 1988 Jun;33(6 Suppl):603-6. X-9.
1701. Faro S, Martens MG, Hammill HA, et al. Antibiotic prophylaxis: is there a difference? *Am J Obstet Gynecol.* 1990 Apr;162(4):900-7; discussion 907-9. X-9.
1702. Faro S, Sanders CV and Aldridge KE. Use of single-agent antimicrobial therapy in the treatment of polymicrobial female pelvic infections. *Obstet Gynecol.* 1982 Aug;60(2):232-6. X-1.
1703. Farr SL, Jamieson DJ, Rivera HV, et al. Risk factors for cesarean delivery among Puerto Rican women. *Obstet Gynecol.* 2007 Jun;109(6):1351-7. X-1.

1704. Farrar D, Tuffnell D, Airey R, et al. Care during the third stage of labour: a postal survey of UK midwives and obstetricians. *BMC Pregnancy Childbirth*. 2010;10:23. X-1.
1705. Farrell SA, Baskett TF and Farrell KD. The choice of elective cesarean delivery in obstetrics: a voluntary survey of Canadian health care professionals. *Int Urogynecol J Pelvic Floor Dysfunct*. 2005 Sep-Oct;16(5):378-83. X-1.
1706. Farshchi A and Ghiasi G. Comparison the analgesic effects of single dose administration of tramadol or piroxicam on postoperative pain after cesarean delivery. *Acta Med Iran*. 2010 May-Jun;48(3):148-53. X-9.
1707. Fasciolo A, Pedretti L, Alessandri F, et al. Intrauterine infusion of levobupivacaine vs. placebo associated to wound [sic] infiltration in elective caesarean delivery. *Internet Journal of Anesthesiology*. 2009;20(2):14-14. X-9.
1708. Fassett MJ, Dhillon SH and Williams TR. Effects on perinatal outcome of treating women with 1 elevated glucose tolerance test value. *Am J Obstet Gynecol*. 2007 Jun;196(6):597 e1-4; discussion 597 e4. X-1.
1709. Fassoulaki A, Gatzou V, Petropoulos G, et al. Spread of subarachnoid block, intraoperative local anaesthetic requirements and postoperative analgesic requirements in Caesarean section and total abdominal hysterectomy. *Br J Anaesth*. 2004 Nov;93(5):678-82. X-9.
1710. Fassoulaki A, Staikou C, Melemini A, et al. Anaesthesia preference, neuraxial vs general, and outcome after caesarean section. *J Obstet Gynaecol*. 2010;30(8):818-21. X-9.
1711. Fasubaa OB, Ezechi OC, Orji EO, et al. Delivery of the impacted head of the fetus at caesarean section after prolonged obstructed labour: a randomised comparative study of two methods. *J Obstet Gynaecol*. 2002 Jul;22(4):375-8. X-1.
1712. Fasubaa OB, Ogunniyi SO, Dare FO, et al. Uncomplicated Caesarean section: is prolonged hospital stay necessary? *East Afr Med J*. 2000 Aug;77(8):448-51. X-1.
1713. Fatoye FO, Adeyemi AB and Oladimeji BY. Emotional distress and its correlates among Nigerian women in late pregnancy. *J Obstet Gynaecol*. 2004 Aug;24(5):504-9. X-1.
1714. Fatoye FO, Oladimeji BY and Adeyemi AB. Difficult delivery and some selected factors as predictors of early postpartum psychological symptoms among Nigerian women. *J Psychosom Res*. 2006 Mar;60(3):299-301. X-1.
1715. Fausett MB, Barth WH, Jr., Yoder BA, et al. Oxytocin labor stimulation of twin gestations: effective and efficient. *Obstet Gynecol*. 1997 Aug;90(2):202-4. X-1.
1716. Fauveau V. Program Note: Using UN process indicators to assess needs in emergency obstetric services: Gabon, Guinea-Bissau, and The Gambia. *Int J Gynaecol Obstet*. 2007 Mar;96(3):233-40. X-1.
1717. Fawcett J. Needs of cesarean birth parents. *JOGN Nurs*. 1981 Sep-Oct;10(5):372-6. X-9.
1718. Fawcett J, Aber C and Weiss M. Teaching, practice, and research: an integrative approach benefiting students and faculty. *J Prof Nurs*. 2003 Jan-Feb;19(1):17-21. X-1.
1719. Fawcett J and Burritt J. An exploratory study of antenatal preparation for cesarean birth. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*. 1985;14(3):224-230. X-9.
1720. Fawcett J and Knauth D. The factor structure of the perception of birth scale. *Nurs Res*. 1996 Mar-Apr;45(2):83-6. X-1.
1721. Fawcett J, Pollio N and Tully A. Women's perceptions of cesarean and vaginal delivery: another look. *Res Nurs Health*. 1992 Dec;15(6):439-46. X-1.
1722. Fawcett J, Pollio N and Tully A. Women's perceptions of cesarean and vaginal delivery: another look. *Res Nurs Health*. 1992 Dec;15(6):439-46. X-1.
1723. Fawcett J, Tulman L and Spedden J. Responses to vaginal birth after cesarean section. *J Obstet Gynecol Neonatal Nurs*. 1994 Mar-Apr;23(3):253-9. X-1.
1724. Fawzy M and Abdel-Hady el S. Midtrimester abortion using vaginal misoprostol for women with three or more prior cesarean deliveries. *Int J Gynaecol Obstet*. 2010 Jul;110(1):50-2. X-1.
1725. Faydaci F and Gunaydin B. Different preloading protocols with constant ephedrine infusion in the prevention of hypotension for elective cesarean section under spinal anesthesia. *Acta Anaesthesiol Belg*. 2011;62(1):5-10. X-9.
1726. Faye A, Pornprasert S, Mary JY, et al. Characterization of the main placental cytokine profiles from HIV-1-infected pregnant women treated with anti-retroviral drugs in France. *Clin Exp Immunol*. 2007 Sep;149(3):430-9. X-1.
1727. Fayed HM, Abid SF and Stevens B. Risk factors in extreme grand multiparity. *Int J Gynaecol Obstet*. 1993 Apr;41(1):17-22. X-1.
1728. Fedele D and Lapolla A. A protocol of screening of gestational diabetes mellitus. *Ann Ist Super Sanita*. 1997;33(3):383-7. X-4e.
1729. Feingold M, Cetrulo C, Peters M, et al. Mode of delivery in multiple birth of higher order. *Acta Genet Med Gemellol (Roma)*. 1988;37(1):105-9. X-1.
1730. Feinmann J. How to limit caesareans on demand--too NICE to push? *Lancet*. 2002 Mar 2;359(9308):774. X-1, X-2.
1731. Feinstein U, Sheiner E, Levy A, et al. Risk factors for arrest of descent during the second stage of labor. *Int J Gynaecol Obstet*. 2002 Apr;77(1):7-14. X-1.

1732. Feldberg D, Dicker D, Samuel N, et al. Intrapartum management of insulin-dependent diabetes mellitus (IDDM) gestants. A comparative study of constant intravenous insulin infusion and continuous subcutaneous insulin infusion pump (CSII). *Acta Obstet Gynecol Scand.* 1988;67(4):333-8. X-4e.
1733. Feldman DM, Borgida AF, Trymbulak WP, et al. Clinical implications of velamentous cord insertion in triplet gestations. *Am J Obstet Gynecol.* 2002 Apr;186(4):809-11. X-1.
1734. Fenton PM. Blood transfusion for Caesarean section in Malawi. A study of requirements, amount given and effect on mortality. *Anaesthesia.* 1999 Nov;54(11):1055-8. X-1.
1735. Fenton PM, Whitty CJ and Reynolds F. Caesarean section in Malawi: prospective study of early maternal and perinatal mortality. *BMJ.* 2003 Sep 13;327(7415):587. X-1.
1736. Fenwick J, Gamble J and Hauck Y. Believing in birth--choosing VBAC: the childbirth expectations of a self-selected cohort of Australian women. *J Clin Nurs.* 2007 Aug;16(8):1561-70. X-1.
1737. Fenwick J, Staff L, Gamble J, et al. Why do women request caesarean section in a normal, healthy first pregnancy? *Midwifery.* 2010 Aug;26(4):394-400. X-1.
1738. Fenwick S, Holloway I and Alexander J. Achieving normality: the key to status passage to motherhood after a caesarean section. *Midwifery.* 2009 Oct;25(5):554-63. X-1.
1739. Ferara S. Every birth is unique for the mother, but for the hospital is it worth the price to use custom packs instead of basic packs? *Hosp Mater Manage.* 1996 Apr;21(4):14-5. X-1.
1740. Ferchland A, Rettkowski O, Ponick K, et al. Effects of uremic plasma on alpha- and beta-adrenoceptor subtypes. *Nephron.* 1998 Sep;80(1):46-50. X-1.
1741. Ferguson JE, 2nd, Head BH, Frank FH, et al. Misoprostol versus low-dose oxytocin for cervical ripening: a prospective, randomized, double-masked trial. *Am J Obstet Gynecol.* 2002 Aug;187(2):273-9; discussion 279-80. X-4d.
1742. Ferguson JE, 2nd, Ueland FR, Stevenson DK, et al. Oxytocin-induced labor characteristics and uterine activity after preinduction cervical priming with prostaglandin E2 intracervical gel. *Obstet Gynecol.* 1988 Nov;72(5):739-45. X-1.
1743. Fernandez CO, Bloom SL, Smulian JC, et al. A randomized placebo-controlled evaluation of terbutaline for external cephalic version. *Obstet Gynecol.* 1997 Nov;90(5):775-9. X-4e.
1744. Fernando R and Jones HM. Comparison of plain and alkalized local anaesthetic mixtures of lignocaine and bupivacaine for elective extradural caesarean section. *Br J Anaesth.* 1991 Dec;67(6):699-703. X-9.
1745. Ferrari AG, Frigerio LG, Candotti G, et al. Can Joel-Cohen incision and single layer reconstruction reduce cesarean section morbidity? *Int J Gynaecol Obstet.* 2001 Feb;72(2):135-43. X-9.
1746. Ferrazzani S, De Santis L, Carducci B, et al. Prostaglandin: cervical ripening in hypertensive pregnancies. *Acta Obstet Gynecol Scand.* 2003 Jun;82(6):510-5. X-1.
1747. Ferre F, Breuiller M and Cedard L. Effects of prostaglandins on cyclic nucleotide phosphodiesterase activity in the human term placenta. *Prostaglandins.* 1982 May;23(5):675-93. X-1.
1748. Ferre F, Uzan M, Janssens Y, et al. Oral administration of micronized natural progesterone in late human pregnancy. Effects on progesterone and estrogen concentrations in the plasma, placenta, and myometrium. *Am J Obstet Gynecol.* 1984 Jan 1;148(1):26-34. X-1.
1749. Ferre F, Uzan M, Jolivet A, et al. Influence of the oral administration of micronized progesterone on plasma and tissue levels of steroids in human pregnancy. *Acta Physiol Hung.* 1985;65(4):443-51. X-1.
1750. Ferrero S and Bentivoglio G. Post-operative complications after caesarean section in HIV-infected women. *Arch Gynecol Obstet.* 2003 Oct;268(4):268-73. X-1.
1751. Ferrero S, Pretta S, Nicoletti A, et al. Myasthenia gravis: management issues during pregnancy. *Eur J Obstet Gynecol Reprod Biol.* 2005 Aug 1;121(2):129-38. X-1, X-2.
1752. Festin MR, Laopaiboon M, Pattanittum P, et al. Caesarean section in four South East Asian countries: reasons for, rates, associated care practices and health outcomes. *BMC Pregnancy Childbirth.* 2009;9:17. X-1.
1753. Figueras-Aloy J, Jordin Y, Rodragez-Miguel JM, et al. Expired nitric oxide in the newborn with high risk of perinatal infection. *Am J Perinatol.* 2003 Apr;20(3):137-45. X-1.
1754. Filiz TM, Uludag C, Cinar N, et al. Risk factors for urinary incontinence in Turkish women. A cross-sectional study. *Saudi Med J.* 2006 Nov;27(11):1688-92. X-4e.
1755. Filler L, Shipley CF, 3rd, Dennis EJ, 3rd, et al. Postcesarean endometritis: a brief review and comparison of three antibiotic regimens. *J S C Med Assoc.* 1992 Jun;88(6):291-5. X-1.
1756. Filos KS, Goudas LC, Patroni O, et al. Intrathecal clonidine as a sole analgesic for pain relief after caesarean section. *Anesthesiology.* 1992 Aug;77(2):267-74. X-9.
1757. Filos KS, Goudas LC, Patroni O, et al. Hemodynamic and analgesic profile after intrathecal clonidine in humans. A dose-response study. *Anesthesiology.* 1994 Sep;81(3):591-601; discussion 27A-28A. X-9.
1758. Finegold H, Mandell G, Vallejo M, et al. Does spinal anesthesia cause hearing loss in the

- obstetric population? *Anesth Analg*. 2002 Jul;95(1):198-203, table of contents. X-9.
1759. Finer JJ. Toward guidelines for compelling cesarean surgery: of rights, responsibility, and decisional authenticity. *Minn Law Rev*. 1991 Dec;76(2):239-94. X-1, X-8.
1760. Finkler MD and Wirtschafter DD. Why pay extra for cesarean-section deliveries? *Inquiry*. 1993 Summer;30(2):208-15. X-1, X-2.
1761. Finkler MD and Wirtschafter DD. One health maintenance organization's experience: obstetric costs depend more on staffing patterns than on mode of delivery. *J Perinatol*. 1997 Mar-Apr;17(2):148-55. X-1.
1762. Finsen V, Storeheier AH and Aasland OG. Cesarean section: Norwegian women do as obstetricians do--not as obstetricians say. *Birth*. 2008 Jun;35(2):117-20. X-1.
1763. Finster M, Pedersen H, Strobel AF, et al. Obstetric anesthesia. *Minerva Anesthesiol*. 1992 Oct;58(10):853-6. X-1, X-4e.
1764. Fiore S, Newell ML and Thorne C. Higher rates of post-partum complications in HIV-infected than in uninfected women irrespective of mode of delivery. *AIDS*. 2004 Apr 9;18(6):933-8. X-1.
1765. Firouznia K, Ghanaati H, Sanaati M, et al. Pregnancy after uterine artery embolization for symptomatic fibroids: a series of 15 pregnancies. *AJR Am J Roentgenol*. 2009 Jun;192(6):1588-92. X-1.
1766. Fiscella K, Meldrum S and Franks P. Post partum discharge against medical advice: who leaves and does it matter? *Matern Child Health J*. 2007 Sep;11(5):431-6. X-1.
1767. Fiscer C. A healthy baby isn't all that matters. *Midwifery Today Int Midwife*. 2008 Autumn(87):16-9. X-1, X-2, X-3, X-4e, X-5.
1768. Fischer A, LaCoursiere DY, Barnard P, et al. Differences between hospitals in cesarean rates for term primigravidas with cephalic presentation. *Obstet Gynecol*. 2005 Apr;105(4):816-21. X-1.
1769. Fisher JT, Mortola JP, Smith B, et al. Neonatal pattern of breathing following cesarean section: epidural versus general anesthesia. *Anesthesiology*. 1983 Nov;59(5):385-9. X-9.
1770. Fisher JT, Mortola JP, Smith JB, et al. Respiration in newborns: development of the control of breathing. *Am Rev Respir Dis*. 1982 Jun;125(6):650-7. X-1.
1771. Fitzsimmons J, Nyberg DA, Cyr DR, et al. Perinatal management of gastroschisis. *Obstet Gynecol*. 1988 Jun;71(6 Pt 1):910-3. X-1.
1772. Flaherty JF, Boswell GW, Winkel CA, et al. Pharmacokinetics of cefoxitin in patients at term gestation: lavage versus intravenous administration. *Am J Obstet Gynecol*. 1983 Aug 1;146(7):760-6. X-9.
1773. Flamm B. Cesarean delivery 1970-1995: where have we been and where are we going? *International Journal of Childbirth Education*. 1994;9(4):6-7. X-4b.
1774. Flamm BL, Anton D, Goings JR, et al. Prostaglandin E2 for cervical ripening: a multicenter study of patients with prior cesarean delivery. *Am J Perinatol*. 1997 Mar;14(3):157-60. X-1.
1775. Flamm BL and Geiger AM. Vaginal birth after cesarean delivery: an admission scoring system. *Obstet Gynecol*. 1997 Dec;90(6):907-10. X-1.
1776. Flamm BL and Goings JR. Vaginal birth after cesarean section: is suspected fetal macrosomia a contraindication? *Obstet Gynecol*. 1989 Nov;74(5):694-7. X-1.
1777. Flamm BL, Goings JR, Fuelberth NJ, et al. Oxytocin during labor after previous cesarean section: results of a multicenter study. *Obstet Gynecol*. 1987 Nov;70(5):709-12. X-1.
1778. Flamm BL, Goings JR, Liu Y, et al. Elective repeat cesarean delivery versus trial of labor: a prospective multicenter study. *Obstet Gynecol*. 1994 Jun;83(6):927-32. X-1.
1779. Flamm BL, Newman LA, Thomas SJ, et al. Vaginal birth after cesarean delivery: results of a 5-year multicenter collaborative study. *Obstet Gynecol*. 1990 Nov;76(5 Pt 1):750-4. X-1.
1780. Fleissig A. Are women given enough information by staff during labour and delivery? *Midwifery*. 1993 Jun;9(2):70-5. X-1.
1781. Fleissig A. Prevalence of procedures in childbirth. *BMJ*. 1993 Feb 20;306(6876):494-5. X-1, X-3, X-4e, X-5.
1782. Florio P, Benedetto C, Luisi S, et al. Activin A, inhibin A, inhibin B and parturition: changes of maternal and cord serum levels according to the mode of delivery. *Br J Obstet Gynaecol*. 1999 Oct;106(10):1061-5. X-1.
1783. Flynn RJ, Moore J, Collier PS, et al. Effect of intravenous cimetidine on lignocaine disposition during extradural caesarean section. *Anaesthesia*. 1989 Sep;44(9):739-41. X-9.
1784. Flynn RJ, Moore J, Collier PS, et al. Single dose oral H2-antagonists do not affect plasma lidocaine levels in the parturient. *Acta Anaesthesiol Scand*. 1989 Oct;33(7):593-6. X-9.
1785. Flynn RJ, Moore J, Collier PS, et al. Does pretreatment with cimetidine and ranitidine affect the disposition of bupivacaine? *Br J Anaesth*. 1989 Jan;62(1):87-91. X-9.
1786. Fogel ST, Shyken JM, Leighton BL, et al. Epidural labor analgesia and the incidence of cesarean delivery for dystocia. *Anesth Analg*. 1998 Jul;87(1):119-23. X-1.
1787. Fogelson NS, Menard MK, Hulsey T, et al. Neonatal impact of elective repeat cesarean delivery at term: a comment on patient choice cesarean delivery. *Am J Obstet Gynecol*. 2005 May;192(5):1433-6. X-1.

1788. Folgero T, Lindal S and Oian P. Skeletal muscle ultrastructure in normal pregnancy and preeclampsia. *Gynecol Obstet Invest.* 2000;49(2):88-92. X-1.
1789. Fong J, Gurewitsch ED, Press RA, et al. Prevention of maternal hypotension by epidural administration of ephedrine sulfate during lumbar epidural anesthesia for cesarean section. *Am J Obstet Gynecol.* 1996 Oct;175(4 Pt 1):985-90. X-9.
1790. Fong J, Mack PF and Gurewitsch ED. The effect of lumbar epidural anesthesia on maternal middle cerebral artery blood flow in normal pregnancy: a prospective, randomized, double-blind comparison study. *Am J Obstet Gynecol.* 1998 Nov;179(5):1237-40. X-9.
1791. Fonseca SN, Sofia MH, Quintana S, et al. Successful control program to implement the appropriate antibiotic prophylaxis for Cesarean section. *Rev Inst Med Trop Sao Paulo.* 2008 Mar-Apr;50(2):79-82. X-1.
1792. Fontaine P and Adam P. Intrathecal narcotics are associated with prolonged second-stage labor and increased oxytocin use. *J Fam Pract.* 2000 Jun;49(6):515-20. X-1.
1793. Fontein Y. The comparison of birth outcomes and birth experiences of low-risk women in different sized midwifery practices in the Netherlands. *Women Birth.* 2010 Sep;23(3):103-10. X-1.
1794. Foote AJ. External cephalic version from 34 weeks under tocolysis: factors influencing success. *J Obstet Gynaecol (Tokyo 1995).* 1995 Apr;21(2):127-32. X-1.
1795. Ford LC. Cost of antibiotic prophylaxis in cesarean section. *Drug Intell Clin Pharm.* 1986 Jul-Aug;20(7-8):592-3. X-9.
1796. Forsgren L, Sidenvall R, Blomquist HK, et al. Pre- and perinatal factors in febrile convulsions. *Acta Paediatr Scand.* 1991 Feb;80(2):218-25. X-1.
1797. Fortunato SJ, Menon R and Lombardi SJ. Interleukin-10 and transforming growth factor-beta inhibit amniochorion tumor necrosis factor-alpha production by contrasting mechanisms of action: therapeutic implications in prematurity. *Am J Obstet Gynecol.* 1997 Oct;177(4):803-9. X-1.
1798. Fortunato SJ, Menon RP, Swan KF, et al. Inflammatory cytokine (interleukins 1, 6 and 8 and tumor necrosis factor-alpha) release from cultured human fetal membranes in response to endotoxic lipopolysaccharide mirrors amniotic fluid concentrations. *Am J Obstet Gynecol.* 1996 Jun;174(6):1855-61; discussion 1861-2. X-1.
1799. Fossa SD, Magelssen H, Melve K, et al. Parenthood in survivors after adulthood cancer and perinatal health in their offspring: a preliminary report. *J Natl Cancer Inst Monogr.* 2005(34):77-82. X-1.
1800. Foster WH, Mjekevu T, Olsen G, et al. Low spinal anaesthesia combined with local anaesthesia for caesarean section--an evaluation. *S Afr Med J.* 1983 Jan 1;63(1):17-20. X-9.
1801. Fournier P, Dumont A, Tourigny C, et al. Improved access to comprehensive emergency obstetric care and its effect on institutional maternal mortality in rural Mali. *Bull World Health Organ.* 2009 Jan;87(1):30-8. X.
1802. Fovargue S and Miola J. Policing pregnancy: implications of the Attorney-General's Reference (No. 3 of 1994). *Med Law Rev.* 1998 Autumn;6(3):265-96. X-1, X-2.
1803. Fox S. All-Wales clinical pathway for normal labour: a way to reducing unnecessary intervention? *RCM Midwives.* 2004 May;7(5):216-9. X-1.
1804. Frambach T, Muller T, Freund S, et al. Self-limitation of intravenous tocolysis with beta2-adrenergic agonists is mediated through receptor G protein uncoupling. *J Clin Endocrinol Metab.* 2005 May;90(5):2882-7. X-1.
1805. Franchi M, Ghezzi F, Raio L, et al. Joel-Cohen or Pfannenstiel incision at cesarean delivery: does it make a difference? *Acta Obstet Gynecol Scand.* 2002 Nov;81(11):1040-6. X-1.
1806. Francois S and Dresang L. Herpes prophylaxis during pregnancy. *Evidence-Based Practice.* 2009;12(1):11-12.
1807. Fraser J. Last word. The villains of the piece. *Pract Midwife.* 2006 Jun;9(6):46. X-1, X-2, X-4e, X-5.
1808. Fraser J and Bale B. Women should not be able to opt for a caesarean. *Nurs Times.* 1999 Oct 20-26;95(42):34. X-1, X-2.
1809. Fraser W, Maunsell E, Hodnett E, et al. Randomized controlled trial of a prenatal vaginal birth after cesarean section education and support program. *Childbirth Alternatives Post-Cesarean Study Group. Am J Obstet Gynecol.* 1997 Feb;176(2):419-25. X-4e.
1810. Fraser W, Usher RH, McLean FH, et al. Temporal variation in rates of cesarean section for dystocia: does "convenience" play a role? *Am J Obstet Gynecol.* 1987 Feb;156(2):300-4. X-1.
1811. Fraser WD, Hofmeyr J, Lede R, et al. Amnioinfusion for the prevention of the meconium aspiration syndrome. *N Engl J Med.* 2005 Sep 1;353(9):909-17. X-4e.
1812. Fraser WD, Marcoux S, Krauss I, et al. Multicenter, randomized, controlled trial of delayed pushing for nulliparous women in the second stage of labor with continuous epidural analgesia. The PEOPLE (Pushing Early or Pushing Late with Epidural) Study Group. *Am J Obstet Gynecol.* 2000 May;182(5):1165-72. X-4e.
1813. Fraser WD, Marcoux S, Moutquin JM, et al. Effect of early amniotomy on the risk of

- dystocia in nulliparous women. The Canadian Early Amniotomy Study Group. *N Engl J Med*. 1993 Apr 22;328(16):1145-9. X.
1814. Fraser WD, Sauve R, Parboosingh IJ, et al. A randomized controlled trial of early amniotomy. *Br J Obstet Gynaecol*. 1991 Jan;98(1):84-91. X-4a, X-4e, X-5.
1815. Fredman B, Shapiro A, Zohar E, et al. The analgesic efficacy of patient-controlled ropivacaine instillation after Cesarean delivery. *Anesth Analg*. 2000 Dec;91(6):1436-40. X-9.
1816. Freedman RA, Bauer KA, Neuberger DS, et al. Timing of postpartum enoxaparin administration and severe postpartum hemorrhage. *Blood Coagul Fibrinolysis*. 2008 Jan;19(1):55-9. X-1.
1817. Freeman K, Oakley L, Pollak A, et al. Association between congenital toxoplasmosis and preterm birth, low birthweight and small for gestational age birth. *BJOG*. 2005 Jan;112(1):31-7. X-1.
1818. Freeman RK, Garite TJ, Mondanlou H, et al. Postdate pregnancy: utilization of contraction stress testing for primary fetal surveillance. *Am J Obstet Gynecol*. 1981 May 15;140(2):128-35. X-1.
1819. Freitas PF, Drachler Mde L, Leite JC, et al. Inequalities in cesarean delivery rates by ethnicity and hospital accessibility in Brazil. *Int J Gynaecol Obstet*. 2009 Dec;107(3):198-201. X-1.
1820. French GW, White JB, Howell SJ, et al. Comparison of pentastarch and Hartmann's solution for volume preloading in spinal anaesthesia for elective caesarean section. *Br J Anaesth*. 1999 Sep;83(3):475-7. X-9.
1821. Frenckner BP, Lally PA, Hintz SR, et al. Prenatal diagnosis of congenital diaphragmatic hernia: how should the babies be delivered? *J Pediatr Surg*. 2007 Sep;42(9):1533-8. X-1.
1822. Freyschuss U, Gentz J, Noack G, et al. Circulatory adaptation in newborn infants of strictly controlled diabetic mothers. *Acta Paediatr Scand*. 1982 Mar;71(2):209-15. X-1.
1823. Friedman JE, Ishizuka T, Shao J, et al. Impaired glucose transport and insulin receptor tyrosine phosphorylation in skeletal muscle from obese women with gestational diabetes. *Diabetes*. 1999 Sep;48(9):1807-14. X-1.
1824. Fries KS. African American women & unplanned cesarean birth. *MCN Am J Matern Child Nurs*. 2010 Mar-Apr;35(2):110-5. X-1.
1825. Frishman GN, Schwartz T and Hogan JW. Closure of Pfannenstiel skin incisions. Staples vs. subcuticular suture. *J Reprod Med*. 1997 Oct;42(10):627-30. X-9.
1826. Fritel X, Rollot O, Gerardin P, et al. Chikungunya virus infection during pregnancy, Reunion, France, 2006. *Emerg Infect Dis*. 2010 Mar;16(3):418-25. X-1.
1827. Frohlich J. Obesity in pregnancy. *MIDIRS Midwifery Digest*. 2002;12(1):39-43. X-1, X-2.
1828. Frohn WE, Simmons S and Carlan SJ. Prostaglandin E2 gel versus misoprostol for cervical ripening in patients with premature rupture of membranes after 34 weeks. *Obstet Gynecol*. 2002 Feb;99(2):206-10. X-4e.
1829. Frolich MA. Role of the atrial natriuretic factor in obstetric spinal hypotension. *Anesthesiology*. 2001 Aug;95(2):371-6. X-1.
1830. Frolich MA, Burchfield DJ, Euliano TY, et al. A single dose of fentanyl and midazolam prior to Cesarean section have no adverse neonatal effects. *Can J Anaesth*. 2006 Jan;53(1):79-85. X-9.
1831. Frost J, Shaw A, Montgomery A, et al. Women's views on the use of decision aids for decision making about the method of delivery following a previous caesarean section: qualitative interview study. *BJOG*. 2009 Jun;116(7):896-905. X-1, X-4b.
1832. Fuglenes D, Oian P, Gyrd-Hansen D, et al. Norwegian obstetricians' opinions about cesarean section on maternal request: should women pay themselves? *Acta Obstet Gynecol Scand*. 2010 Dec;89(12):1582-8. X-1.
1833. Fujii Y and Numazaki M. Dose-range effects of propofol for reducing emetic symptoms during cesarean delivery. *Obstet Gynecol*. 2002 Jan;99(1):75-9. X-9.
1834. Fujii Y and Numazaki M. Randomized, double-blind comparison of subhypnotic-dose propofol alone and combined with dexamethasone for emesis in parturients undergoing cesarean delivery. *Clin Ther*. 2004 Aug;26(8):1286-91. X-9.
1835. Fujii Y, Saitoh Y, Tanaka H, et al. Granisetron/dexamethasone combination for reducing nausea and vomiting during and after spinal anesthesia for cesarean section. *Anesth Analg*. 1999 Jun;88(6):1346-50. X-9.
1836. Fujii Y, Tanaka H and Toyooka H. Granisetron prevents nausea and vomiting during spinal anaesthesia for caesarean section. *Acta Anaesthesiol Scand*. 1998 Mar;42(3):312-5. X-9.
1837. Fujii Y, Tanaka H and Toyooka H. Prevention of nausea and vomiting with granisetron, droperidol and metoclopramide during and after spinal anaesthesia for caesarean section: a randomized, double-blind, placebo-controlled trial. *Acta Anaesthesiol Scand*. 1998 Sep;42(8):921-5. X-9.
1838. Fullerton JT, Palinkas L and Cavero C. Nurse-midwifery services in one multi-ethnic, underserved community. *J Health Care Poor Underserved*. 1991 Fall;2(2):293-306. X-1.
1839. Fung BK. Continuous epidural analgesia for painless labor does not increase the incidence of cesarean delivery. *Acta Anaesthesiol Sin*. 2000 Jun;38(2):79-84. X-1.

1840. Fung BK, Gislefoss AJ and Ho ES. The sedative effect of intravenous injection of low dose midazolam during spinal anesthesia in cesarean section. *Ma Zui Xue Za Zhi*. 1992 Sep;30(3):159-62. X-9.
1841. Furuhashi N, Suzuki M, Kono H, et al. Clinical background of preeclampsia in Japanese women. *Clin Exp Hypertens B*. 1982;1(4):505-10. X-1.
1842. Fyneface-Ogan S, Mato CN and Anya SE. Epidural anesthesia: views and outcomes of women in labor in a Nigerian hospital. *Ann Afr Med*. 2009 Oct-Dec;8(4):250-6. X-1.
1843. Fyneface-Ogan S, Mato CN and Odagme MT. Post-dural puncture headache following caesarean section in Nigerian parturients: A comparison of two spinal needles. *Niger Postgrad Med J*. 2006 Sep;13(3):200-2. X-9.
1844. Fyneface-Ogan S and Uzoigwe SA. Caesarean section outcome in eclamptic patients: a comparison of infiltration and general anaesthesia. *West Afr J Med*. 2008 Oct;27(4):250-4. X-9.
1845. Gabriele R, Conte M, Izzo L, et al. Cesarean section and hernia repair: simultaneous approach. *J Obstet Gynaecol Res*. 2010 Oct;36(5):944-9. X-1, X-9.
1846. Gader AA, Haggaz AE and Adam I. Epidemiology of deep venous thrombosis during pregnancy and puerperium in Sudanese women. *Vasc Health Risk Manag*. 2009;5(1):85-7. X-1.
1847. Gaertner I, Burkhardt T and Beinder E. Scar appearance of different skin and subcutaneous tissue closure techniques in caesarean section: a randomized study. *Eur J Obstet Gynecol Reprod Biol*. 2008 May;138(1):29-33. X-9.
1848. Gaffud MP, Bansal P, Lawton C, et al. Surgical analgesia for cesarean delivery with epidural bupivacaine and fentanyl. *Anesthesiology*. 1986 Sep;65(3):331-4. X-4b.
1849. Gafni A, Goeree R, Myhr TL, et al. Induction of labour versus expectant management for prelabour rupture of the membranes at term: an economic evaluation. *TERMPROM Study Group. Term Prelabour Rupture of the Membranes. CMAJ*. 1997 Dec 1;157(11):1519-25. X-1.
1850. Gaggero G, Meyer O, Van Gessel E, et al. Alkalinization of lidocaine 2% does not influence the quality of epidural anaesthesia for elective caesarean section. *Can J Anaesth*. 1995 Dec;42(12):1080-4. X-9.
1851. Gagnon AJ, Meier KM and Waghorn K. Continuity of nursing care and its link to cesarean birth rate. *Birth*. 2007 Mar;34(1):26-31. X-1.
1852. Gagnon AJ and Waghorn K. Supportive care by maternity nurses: a work sampling study in an intrapartum unit. *Birth*. 1996 Mar;23(1):1-6. X-1, X-4e, X-5.
1853. Gagnon AJ and Waghorn K. One-to-one nurse labor support of nulliparous women stimulated with oxytocin. *J Obstet Gynecol Neonatal Nurs*. 1999 Jul-Aug;28(4):371-6. X-1.
1854. Gai MY, Wu LF, Su QF, et al. Clinical observation of blood loss reduced by tranexamic acid during and after caesarian section: a multi-center, randomized trial. *Eur J Obstet Gynecol Reprod Biol*. 2004 Feb 10;112(2):154-7. X-9.
1855. Gaitini L, Vaida S, Collins G, et al. Awareness detection during caesarean section under general anaesthesia using EEG spectrum analysis. *Can J Anaesth*. 1995 May;42(5 Pt 1):377-81. X-1.
1856. Gajewska M, Marianowski L, Wielgos M, et al. The occurrence of genital types of human papillomavirus in normal pregnancy and in pregnant women with pregestational insulin dependent diabetes mellitus. *Neuro Endocrinol Lett*. 2005 Dec;26(6):766-70. X-1.
1857. Gajewska M, Wielgos M, Kaminski P, et al. The occurrence of genital types of human papillomavirus in normal pregnancy and in pregnant renal transplant recipients. *Neuro Endocrinol Lett*. 2006 Aug;27(4):529-34. X-1.
1858. Gajraj NM, Sharma SK, Souter AJ, et al. A survey of obstetric patients who refuse regional anaesthesia. *Anaesthesia*. 1995 Aug;50(8):740-1. X-1.
1859. Galaal KA and Krolikowski A. A randomized controlled study of peritoneal closure at cesarean section. *Saudi Med J*. 2000 Aug;21(8):759-61. X-9.
1860. Galask RP, Benigno BB, Cunningham FG, et al. Results of a multicenter comparative study of single-dose cefotetan and multiple-dose cefoxitin as prophylaxis in patients undergoing cesarean section. *Am J Surg*. 1988 May 31;155(5A):86-90. X-9.
1861. Galask RP, Weiner C and Petzold CR. Comparison of single-dose cefmetazole and cefotetan prophylaxis in women undergoing primary caesarean section. *J Antimicrob Chemother*. 1989 Apr;23 Suppl D:105-8. X-9.
1862. Galazios G, Papazoglou D, Giagloglou K, et al. Interleukin-6 levels in umbilical artery serum in normal and abnormal pregnancies. *Int J Gynaecol Obstet*. 2002 Aug;78(2):147-51. X-1.
1863. Galbraith AA, Egerter SA, Marchi KS, et al. Newborn early discharge revisited: are California newborns receiving recommended postnatal services? *Pediatrics*. 2003 Feb;111(2):364-71. X-1.
1864. Gale R, Slater PE and Zalkinder-Luboshitz I. Neonatal advantage of epidural anesthesia in elective and emergency cesarean sections: a report of 531 cases. *Eur J Obstet Gynecol Reprod Biol*. 1986 Dec;23(5-6):369-77. X-1.

1865. Gall S. Therapeutic dilemmas in the treatment of pelvic infections. *J Reprod Med.* 1990 Nov;35(11 Suppl):1091-4. X-9.
1866. Gall SA. The efficacy of prophylactic antibiotics in cesarean section. *Am J Obstet Gynecol.* 1979 Jul 1;134(5):506-11. X-9.
1867. Gall SA and Hill GB. Single-dose versus multiple-dose piperacillin prophylaxis in primary cesarean operation. *Am J Obstet Gynecol.* 1987 Aug;157(2):502-6. X-9.
1868. Gallagher J. The fetus and the law--whose life is it anyway? *Ms.* 1984 Sep;13(3):62, 64, 66+. X-1.
1869. Gallagher J. Prenatal invasions and interventions: what's wrong with fetal rights? *Harv Women's Law J.* 1987 Spring;10:9-58. X-1.
1870. Gallery ED, Rowe J and Campbell S. Alteration of in vitro human decidual endothelial cell growth, endothelin-1 and prostaglandin secretion, by growth factors and intracellular calcium. *Prostaglandins Leukot Essent Fatty Acids.* 1996 Jun;54(6):411-8. X-1.
1871. Gallery ED, Rowe J, Campbell S, et al. Secretion of prostaglandins and endothelin-1 by decidual endothelial cells from normal and preeclamptic pregnancies: comparison with human umbilical vein endothelial cells. *Am J Obstet Gynecol.* 1995 Nov;173(5):1557-62. X-1.
1872. Gallery ED, Rowe J, Schrieber L, et al. Isolation and purification of microvascular endothelium from human decidual tissue in the late phase of pregnancy. *Am J Obstet Gynecol.* 1991 Jul;165(1):191-6. X-1.
1873. Galtier-Dereure F, Montpeyroux F, Boulot P, et al. Weight excess before pregnancy: complications and cost. *Int J Obes Relat Metab Disord.* 1995 Jul;19(7):443-8. X-1.
1874. Galvez M and Myles TD. Teenage pregnancy in the Texas Panhandle. *J Rural Health.* 2005 Summer;21(3):259-62. X-1.
1875. Gamble JA and Creedy DK. Women's preference for a cesarean section: incidence and associated factors. *Birth.* 2001 Jun;28(2):101-10. X-1.
1876. Gambling DR, Howell P, Huber C, et al. Epidural butorphanol does not reduce side effects from epidural morphine after cesarean birth. *Anesth Analg.* 1994 Jun;78(6):1099-104. X-9.
1877. Gambling DR, Mayson K, McMorland GH, et al. Predictability of spread of epidural anesthesia for cesarean section using incremental doses of lidocaine hydrocarbonate with epinephrine. *Reg Anesth.* 1989 May-Jun;14(3):133-7. X-1.
1878. Gambling DR, Sharma SK, White PF, et al. Use of sevoflurane during elective cesarean birth: a comparison with isoflurane and spinal anesthesia. *Anesth Analg.* 1995 Jul;81(1):90-5. X-9.
1879. Gandhi SG, Gilbert WM, McElvy SS, et al. Maternal and neonatal outcomes after attempted suicide. *Obstet Gynecol.* 2006 May;107(5):984-90. X-1.
1880. Ganesh V, Apuzzio JJ, Dispenziere B, et al. Single-dose trimethoprim-sulfamethoxazole prophylaxis for cesarean section. *Am J Obstet Gynecol.* 1986 May;154(5):1113-4. X-9.
1881. Ganzevoort W, Rep A, Bonsel GJ, et al. A randomised controlled trial comparing two temporising management strategies, one with and one without plasma volume expansion, for severe and early onset pre-eclampsia. *BJOG.* 2005 Oct;112(10):1358-68. X-4e, X-5.
1882. Gao L, Cong B, Zhang L, et al. Expression of the calcium-activated potassium channel in upper and lower segment human myometrium during pregnancy and parturition. *Reprod Biol Endocrinol.* 2009;7:27. X-1.
1883. Gao Y and Barclay L. Availability and quality of emergency obstetric care in Shanxi Province, China. *Int J Gynaecol Obstet.* 2010 Aug;110(2):181-5. X-1.
1884. Garbaciak JA, Jr., Richter M, Miller S, et al. Maternal weight and pregnancy complications. *Am J Obstet Gynecol.* 1985 May 15;152(2):238-45. X-1.
1885. Garbe E, Suling M, Kloss S, et al. Linkage of mother-baby pairs in the German Pharmacoepidemiological Research Database. *Pharmacoepidemiol Drug Saf.* 2011 Mar;20(3):258-64. X-1.
1886. Garbin O, Ohl J, Bettahar-Lebugle K, et al. Hysteroscopic metroplasty in diethylstilboestrol-exposed and hypoplastic uterus: a report on 24 cases. *Hum Reprod.* 1998 Oct;13(10):2751-5. X-1.
1887. Garcia-Patterson A, Corcoy R, Rigla M, et al. Does preconceptional counselling in diabetic women influence perinatal outcome? *Ann Ist Super Sanita.* 1997;33(3):333-6. X-1.
1888. Gardberg M, Stenwall O and Laakkonen E. Recurrent persistent occipito-posterior position in subsequent deliveries. *BJOG.* 2004 Feb;111(2):170-1. X-1.
1889. Gardberg M and Tuppurainen M. Dorsoposterior fetal position near term--a sonographic finding worth noting? *Acta Obstet Gynecol Scand.* 1995 May;74(5):402-3. X-1.
1890. Gardella C, Goltra LB, Laschansky E, et al. High-concentration supplemental perioperative oxygen to reduce the incidence of postcesarean surgical site infection: a randomized controlled trial. *Obstet Gynecol.* 2008 Sep;112(3):545-52. X-9.
1891. Gareen IF, Morgenstern H, Greenland S, et al. Explaining the association of maternal age with Cesarean delivery for nulliparous and parous women. *J Clin Epidemiol.* 2003 Nov;56(11):1100-10. X-1.
1892. Garel M, Lelong N and Kaminski M. Follow-up study of psychological consequences of

- caesarean childbirth. *Early Hum Dev.* 1988 Mar;16(2-3):271-82. X-1.
1893. Garel M, Lelong N, Marchand A, et al. Psychosocial consequences of caesarean childbirth: a four-year follow-up study. *Early Hum Dev.* 1990 Feb;21(2):105-14. X-1.
1894. Garenne M, Mbaye K, Bah MD, et al. Risk factors for maternal mortality: a case-control study in Dakar hospitals (Senegal). *Afr J Reprod Health.* 1997 Mar;1(1):14-24. X-1.
1895. Garite TJ, Freeman RK, Linzey EM, et al. Prospective randomized study of corticosteroids in the management of premature rupture of the membranes and the premature gestation. *Am J Obstet Gynecol.* 1981 Nov 1;141(5):508-15. X-4e.
1896. Garrett K, Butler A and Cohen WR. Cesarean delivery during second-stage labor: characteristics and diagnostic accuracy. *J Matern Fetal Neonatal Med.* 2005 Jan;17(1):49-53. X-1.
1897. Garry D, Figueroa R, Kalish RB, et al. Randomized controlled trial of vaginal misoprostol versus dinoprostone vaginal insert for labor induction. *J Matern Fetal Neonatal Med.* 2003 Apr;13(4):254-9. X-4d, X-5.
1898. Gartoulla P, Liabsuetrakul T and Pradhan N. Change in willingness to pay for normal delivery and caesarean section during pregnancy and after delivery in Kathmandu. *Trop Med Int Health.* 2010 Oct;15(10):1227-34. X-1.
1899. Garvey WT, Maianu L, Zhu JH, et al. Multiple defects in the adipocyte glucose transport system cause cellular insulin resistance in gestational diabetes. Heterogeneity in the number and a novel abnormality in subcellular localization of GLUT4 glucose transporters. *Diabetes.* 1993 Dec;42(12):1773-85. X-1.
1900. Garza M and Piver JS. Obese patients offer big liability risks. *OB-GYN Malpractice Prevention.* 2004;11(11):81-8, insert 1p. X-1.
1901. Gaspar D and Jordan J. Family medicine in a tertiary care hospital. Obstetrical outcomes and interventions. *Can Fam Physician.* 1995 Apr;41:601-7. X-1.
1902. Gass CW. It is the right of every anaesthetist to refuse to participate in a maternal-request caesarean section. *Int J Obstet Anesth.* 2006 Jan;15(1):33-5. X-1, X-2.
1903. Gates S, Brocklehurst P, Ayers S, et al. Thromboprophylaxis and pregnancy: two randomized controlled pilot trials that used low-molecular-weight heparin. *Am J Obstet Gynecol.* 2004 Oct;191(4):1296-303. X-4e, X-5.
1904. Gathwala G and Narayanan I. Cesarean section and delayed contact: effect on baby's behaviour. *Indian Pediatr.* 1990 Dec;27(12):1295-9. X-1.
1905. Gautier P, De Kock M, Huberty L, et al. Comparison of the effects of intrathecal ropivacaine, levobupivacaine, and bupivacaine for Caesarean section. *Br J Anaesth.* 2003 Nov;91(5):684-9. X-9.
1906. Gavin NI, Benedict MB and Adams EK. Health service use and outcomes among disabled Medicaid pregnant women. *Womens Health Issues.* 2006 Nov-Dec;16(6):313-22. X-1.
1907. Gaymer C, Whalley H, Achten J, et al. Midfoot plantar pressure significantly increases during late gestation. *Foot (Edinb).* 2009 Jun;19(2):114-6. X-1.
1908. Gazzolo D, Visser GH, Lituania M, et al. S100B protein cord blood levels and development of fetal behavioral states: a study in normal and small-for-dates fetuses. *J Matern Fetal Neonatal Med.* 2002 Jun;11(6):378-84. X-1.
1909. Geary M, Fanagan M and Boylan P. Maternal satisfaction with management in labour and preference for mode of delivery. *J Perinat Med.* 1997;25(5):433-9. X-1.
1910. Geddes SM, Thorburn J and Logan RW. Gastric emptying following caesarean section and the effect of epidural fentanyl. *Anaesthesia.* 1991 Dec;46(12):1016-8. X-9.
1911. Gedikbasi A, Akyol A, Bingol B, et al. Multiple repeated cesarean deliveries: operative complications in the fourth and fifth surgeries in urgent and elective cases. *Taiwan J Obstet Gynecol.* 2010 Dec;49(4):425-31. X-1, X-9.
1912. Geimonen E, Boylston E, Royek A, et al. Elevated connexin-43 expression in term human myometrium correlates with elevated c-Jun expression and is independent of myometrial estrogen receptors. *J Clin Endocrinol Metab.* 1998 Apr;83(4):1177-85. X-1.
1913. Geipel A, Ludwig M, Germer U, et al. Uterine artery Doppler velocimetry and the outcome of pregnancies resulting from ICSI. *Hum Reprod.* 2001 Jul;16(7):1397-402. X-1.
1914. Gelisen O, Caliskan E, Dilbaz S, et al. Induction of labor with three different techniques at 41 weeks of gestation or spontaneous follow-up until 42 weeks in women with definitely unfavorable cervical scores. *Eur J Obstet Gynecol Reprod Biol.* 2005 Jun 1;120(2):164-9. X-4d, X-4e.
1915. Gelson E, Gatzoulis M, Steer PJ, et al. Tetralogy of Fallot: maternal and neonatal outcomes. *BJOG.* 2008 Feb;115(3):398-402. X-1.
1916. Gemer O and Segal S. Incidence and contribution of predisposing factors to transverse lie presentation. *Int J Gynaecol Obstet.* 1994 Mar;44(3):219-21. X-1.
1917. Geng ZY, Wang DX and Wu XM. Minimum effective local anesthetic dose of intrathecal hyperbaric ropivacaine and bupivacaine for

- cesarean section. *Chin Med J (Engl)*. 2011 Feb;124(4):509-13. X-9.
1918. George PR, Dewart PJ and Elstein M. Short communication: the effect of mode of delivery on contractile function of placental arteries in vitro. *Placenta*. 1995 Dec;16(8):743-7. X-1.
1919. George RB, McKeen D, Chaplin AC, et al. Up-down determination of the ED(90) of oxytocin infusions for the prevention of postpartum uterine atony in parturients undergoing Cesarean delivery. *Can J Anaesth*. 2010 Jun;57(6):578-82. X-9.
1920. Georgiadis P, Xu H, Chua C, et al. Characterization of acute brain injuries and neurobehavioral profiles in a rabbit model of germinal matrix hemorrhage. *Stroke*. 2008 Dec;39(12):3378-88. X-1.
1921. Gerancher JC, Floyd H and Eisenach J. Determination of an effective dose of intrathecal morphine for pain relief after cesarean delivery. *Anesth Analg*. 1999 Feb;88(2):346-51. X-9.
1922. Gerhardstein LP, Allswede MT, Sloan CT, et al. Reduction in the rate of cesarean birth with active management of labor and intermediate-dose oxytocin. *J Reprod Med*. 1995 Jan;40(1):4-8. X-1.
1923. Gerstenfeld TS and Wing DA. Rectal misoprostol versus intravenous oxytocin for the prevention of postpartum hemorrhage after vaginal delivery. *Am J Obstet Gynecol*. 2001 Oct;185(4):878-82. X-4e.
1924. Gerten KA, Coonrod DV, Bay RC, et al. Cesarean delivery and respiratory distress syndrome: does labor make a difference? *Am J Obstet Gynecol*. 2005 Sep;193(3 Pt 2):1061-4. X-1.
1925. Ghetti C, Chan BK and Guise JM. Physicians' responses to patient-requested cesarean delivery. *Birth*. 2004 Dec;31(4):280-4. X-1.
1926. Ghezzi F, Massimo F, Raio L, et al. Extra-amniotic Foley catheter and prostaglandin E(2) gel for cervical ripening at term gestation. *Eur J Obstet Gynecol Reprod Biol*. 2001 Aug;97(2):183-7. X-1.
1927. Ghidini A, Spong CY, Korke V, et al. Randomized controlled trial of 50 and 100 mcg of misoprostol for induction of labor at term. *Arch Gynecol Obstet*. 2001 Aug;265(3):128-30. X-4d, X-5.
1928. Ghnnam WM, Helal AS, Fawzy M, et al. Paraumbilical hernia repair during cesarean delivery. *Ann Saudi Med*. 2009 Mar-Apr;29(2):115-8. X-1.
1929. Ghods AA, Soleimani M and Narimani M. Effect of postoperative supplemental oxygen on nausea and vomiting after cesarean birth. *J Perianesth Nurs*. 2005 Jun;20(3):200-5. X-1.
1930. Ghoreishi J. Indwelling urinary catheters in cesarean delivery. *Int J Gynaecol Obstet*. 2003 Dec;83(3):267-70. X-9.
1931. Ghosh GS and Gudmundsson S. Uterine and umbilical artery Doppler are comparable in predicting perinatal outcome of growth-restricted fetuses. *BJOG*. 2009 Feb;116(3):424-30. X-1.
1932. Giacalone PL, Daures JP, Vignal J, et al. Pfannenstiel versus Maylard incision for cesarean delivery: A randomized controlled trial. *Obstet Gynecol*. 2002 May;99(5 Pt 1):745-50. X-9.
1933. Giacalone PL, Targosz V, Laffargue F, et al. Cervical ripening with mifepristone before labor induction: a randomized study. *Obstet Gynecol*. 1998 Oct;92(4 Pt 1):487-92. X-4d, X-4e, X-5.
1934. Giannubilo SR, Dell'Uomo B and Tranquilli AL. Perinatal outcomes, blood pressure patterns and risk assessment of superimposed preeclampsia in mild chronic hypertensive pregnancy. *Eur J Obstet Gynecol Reprod Biol*. 2006 May 1;126(1):63-7. X-1.
1935. Giannubilo SR, Menegazzi M, Tedeschi E, et al. Doppler analysis and placental nitric oxide synthase expression during fetal growth restriction. *J Matern Fetal Neonatal Med*. 2008 Sep;21(9):617-22. X-1.
1936. Gibb DM, Cardozo LD, Studd JW, et al. Prolonged pregnancy: is induction of labour indicated? A prospective study. *Br J Obstet Gynaecol*. 1982 Apr;89(4):292-5. X-1.
1937. Gibb W, Riopel L, Collu R, et al. Cyclooxygenase products formed by primary cultures of cells from human chorion laeve: influence of steroids. *Can J Physiol Pharmacol*. 1988 Jun;66(6):788-93. X-1.
1938. Gibbs CP and Banner TC. Effectiveness of Bicitra as a preoperative antacid. *Anesthesiology*. 1984 Jul;61(1):97-9. X-1, X-9.
1939. Gibbs RS, Blanco JD, Castaneda YS, et al. A double-blind, randomized comparison of clindamycin-gentamicin versus cefamandole for treatment of post-cesarean section endomyometritis. *Am J Obstet Gynecol*. 1982 Oct 1;144(3):261-7. X-9.
1940. Gibbs RS, Blanco JD, Duff P, et al. A double-blind, randomized comparison of moxalactam versus clindamycin-gentamicin in treatment of endomyometritis after cesarean section delivery. *Am J Obstet Gynecol*. 1983 Aug 1;146(7):769-72. X-9.
1941. Gibbs RS, Blanco JD, Lipscomb KA, et al. Aztreonam versus gentamicin, each with clindamycin, in the treatment of endometritis. *Obstet Gynecol*. 1985 Jun;65(6):825-9. X-9.
1942. Gibbs RS, Blanco JD and St Clair PJ. A case-control study of wound abscess after cesarean delivery. *Obstet Gynecol*. 1983 Oct;62(4):498-501. X-1.
1943. Gibbs RS, Blanco JD, St Clair PJ, et al. Vaginal colonization with resistant aerobic bacteria after antibiotic therapy for

- endometritis. *Am J Obstet Gynecol.* 1982 Jan 15;142(2):130-4. X-1.
1944. Gibbs RS, DeCherney AH and Schwarz RH. Prophylactic antibiotics in cesarean section: a double-blind study. *Am J Obstet Gynecol.* 1972 Dec 15;114(8):1048-53. X-4b.
1945. Gibbs RS, Hunt JE and Schwarz RH. A follow-up study on prophylactic antibiotics in cesarean section. *Am J Obstet Gynecol.* 1973 Oct 1;117(3):419-22. X-4b.
1946. Gibbs RS, St Clair PJ, Castillo MS, et al. Bacteriologic effects of antibiotic prophylaxis in high-risk cesarean section. *Obstet Gynecol.* 1981 Mar;57(3):277-82. X-9.
1947. Gibbs RS and Weinstein AJ. Bacteriologic effects of prophylactic antibiotics in cesarean section. *Am J Obstet Gynecol.* 1976 Sep 15;126(2):226-9. X-1.
1948. Gifford DS, Morton SC, Fiske M, et al. Lack of progress in labor as a reason for cesarean. *Obstet Gynecol.* 2000 Apr;95(4):589-95. X-1.
1949. Gilbert W, Jandial D, Field N, et al. Birth outcomes in teenage pregnancies. *J Matern Fetal Neonatal Med.* 2004 Nov;16(5):265-70. X-1.
1950. Gilbert WM, Nesbitt TS and Danielsen B. Childbearing beyond age 40: pregnancy outcome in 24,032 cases. *Obstet Gynecol.* 1999 Jan;93(1):9-14. X-1.
1951. Giles ML, Garland SM, Grover SR, et al. Impact of an education campaign on management in pregnancy of women infected with a blood-borne virus. *Med J Aust.* 2006 Apr 17;184(8):389-92. X-1.
1952. Giles ML, McDonald AM, Elliott EJ, et al. Variable uptake of recommended interventions to reduce mother-to-child transmission of HIV in Australia, 1982-2005. *Med J Aust.* 2008 Aug 4;189(3):151-4. X-1.
1953. Gilkey L. Florida ranks 2nd nationally for C-sections. *Midwifery Today Int Midwife.* 2009 Winter(92):6. X-1, X-2, X-3, X-4e, X-5.
1954. Gillean JR, Coonrod DV, Russ R, et al. Big infants in the neonatal intensive care unit. *Am J Obstet Gynecol.* 2005 Jun;192(6):1948-53; discussion 1953-5. X-1.
1955. Gillessen-Kaesbach G, Robinson W, Lohmann D, et al. Genotype-phenotype correlation in a series of 167 deletion and non-deletion patients with Prader-Willi syndrome. *Hum Genet.* 1995 Dec;96(6):638-43. X-1.
1956. Gilliam M, Rosenberg D and Davis F. The likelihood of placenta previa with greater number of cesarean deliveries and higher parity. *Obstet Gynecol.* 2002 Jun;99(6):976-80. X-1.
1957. Gilson GJ, Izquierdo LA, Chatterjee MS, et al. Prevention of cesarean section. Does intracervical dinoprostone work? *West J Med.* 1993 Aug;159(2):149-52. X-4d.
1958. Gilson GJ, Kephart WH, Izquierdo LA, et al. Comparison of absorbable uterine staples and traditional hysterotomy during cesarean delivery. *Obstet Gynecol.* 1996 Mar;87(3):384-8. X-1.
1959. Gilson GJ, Russell DJ, Izquierdo LA, et al. A prospective randomized evaluation of a hygroscopic cervical dilator, Dilapan, in the preinduction ripening of patients undergoing induction of labor. *Am J Obstet Gynecol.* 1996 Jul;175(1):145-9. X-4d.
1960. Gimenez M, Conget I, Nicolau J, et al. Outcome of pregnancy in women with type 1 diabetes intensively treated with continuous subcutaneous insulin infusion or conventional therapy. A case-control study. *Acta Diabetol.* 2007 Mar;44(1):34-7. X-1.
1961. Gimovsky ML and Petrie RH. The intrapartum and neonatal performance of the low-birth-weight vaginal breech delivery. *J Reprod Med.* 1982 Aug;27(8):451-4. X-1, X-4c, X-5.
1962. Gimovsky ML, Petrie RH and Todd WM. Neonatal performance of the selected term vaginal breech delivery. *Obstet Gynecol.* 1980 Dec;56(6):687-91. X-1, X-4c.
1963. Gin T, Ewart MC, Yau G, et al. Effect of oral omeprazole on intragastric pH and volume in women undergoing elective cesarean section. *Br J Anaesth.* 1990 Nov;65(5):616-9. X-1.
1964. Gin T, Gregory MA and Oh TE. The haemodynamic effects of propofol and thiopentone for induction of cesarean section. *Anaesth Intensive Care.* 1990 May;18(2):175-9. X-1.
1965. Gin T, Kan AF, Lam KK, et al. Analgesia after cesarean section with intramuscular ketorolac or pethidine. *Anaesth Intensive Care.* 1993 Aug;21(4):420-3. X-9.
1966. Gin T, Ngan-Kee WD, Siu YK, et al. Alfentanil given immediately before the induction of anesthesia for elective cesarean delivery. *Anesth Analg.* 2000 May;90(5):1167-72. X-9.
1967. Ginosar Y, Mirikatani E, Drover DR, et al. ED50 and ED95 of intrathecal hyperbaric bupivacaine coadministered with opioids for cesarean delivery. *Anesthesiology.* 2004 Mar;100(3):676-82. X-9.
1968. Girard B, Vardon D, Creveuil C, et al. Discontinuation of oxytocin in the active phase of labor. *Acta Obstet Gynecol Scand.* 2009;88(2):172-7. X-1, X-4a.
1969. Girgin NK, Gurbet A, Turker G, et al. Intrathecal morphine in anesthesia for cesarean delivery: dose-response relationship for combinations of low-dose intrathecal morphine and spinal bupivacaine. *J Clin Anesth.* 2008 May;20(3):180-5. X-9.
1970. Givens VA, Lipscomb GH and Meyer NL. A randomized trial of postoperative wound irrigation with local anesthetic for pain after cesarean delivery. *Am J Obstet Gynecol.* 2002 Jun;186(6):1188-91. X-9.

1971. Gjerdingen DK and Froberg D. Predictors of health in new mothers. *Soc Sci Med*. 1991;33(12):1399-407. X-1.
1972. Glantz JC. Term labor induction compared with expectant management. *Obstet Gynecol*. 2010 Jan;115(1):70-6. X-1.
1973. Glantz JC. Rates of labor induction and primary cesarean delivery do not correlate with rates of adverse neonatal outcome in level I hospitals. *J Matern Fetal Neonatal Med*. 2011 Apr;24(4):636-42. X-1.
1974. Glasgow TS, Speakman M, Firth S, et al. Clinical and economic outcomes for term infants associated with increasing administration of antibiotics to their mothers. *Paediatr Perinat Epidemiol*. 2007 Jul;21(4):338-46. X-1.
1975. Glass BJ. A comparative analysis of the right of a pregnant woman to refuse medical treatment for herself and her viable fetus: the United States and United Kingdom. *Indiana Int Comp Law Rev*. 2001;11(2):507-41. X-1, X-2, X-4e, X-5.
1976. Glasson EJ, Bower C, Petterson B, et al. Perinatal factors and the development of autism: a population study. *Arch Gen Psychiatry*. 2004 Jun;61(6):618-27. X-1.
1977. Glazener CM, Herbison GP, MacArthur C, et al. New postnatal urinary incontinence: obstetric and other risk factors in primiparae. *BJOG*. 2006 Feb;113(2):208-17. X-1.
1978. Gleicher N, Weiner R and Vietzke M. The impact of abnormal autoimmune function on reproduction: maternal and fetal consequences. *J Autoimmun*. 2006 Nov;27(3):161-5. X-1.
1979. Glezerman M. Five years to the term breech trial: the rise and fall of a randomized controlled trial. *Am J Obstet Gynecol*. 2006 Jan;194(1):20-5. X-1.
1980. Gloeb DJ, O'Sullivan MJ and Efantis J. Human immunodeficiency virus infection in women. I. The effects of human immunodeficiency virus on pregnancy. *Am J Obstet Gynecol*. 1988 Sep;159(3):756-61. X-1.
1981. Glosten B, Sessler DI, Faure EA, et al. Central temperature changes are poorly perceived during epidural anesthesia. *Anesthesiology*. 1992 Jul;77(1):10-6. X-1.
1982. Gochnour G, Ratcliffe S and Stone MB. The UTAH VBAC Study. *Matern Child Health J*. 2005 Jun;9(2):181-8. X-1.
1983. Gocmen A, Gocmen M and Saraoglu M. Early post-operative feeding after caesarean delivery. *J Int Med Res*. 2002 Sep-Oct;30(5):506-11. X-9.
1984. Goedert JJ, Duliege AM, Amos CI, et al. High risk of HIV-1 infection for first-born twins. The International Registry of HIV-exposed Twins. *Lancet*. 1991 Dec 14;338(8781):1471-5. X-1.
1985. Goer H. Active management of labor: not the answer to dystocia. *Birth*. 1993 Jun;20(2):99-101. X-1, X-2.
1986. Goeree R, Hannah M and Hewson S. Cost-effectiveness of induction of labour versus serial antenatal monitoring in the Canadian Multicentre Postterm Pregnancy Trial. *CMAJ*. 1995 May 1;152(9):1445-50. X-1, X-3, X-4e, X-5.
1987. Goetzl L, Shipp TD, Cohen A, et al. Oxytocin dose and the risk of uterine rupture in trial of labor after cesarean. *Obstet Gynecol*. 2001 Mar;97(3):381-4. X-1.
1988. Goffinet F, Carayol M, Foidart JM, et al. Is planned vaginal delivery for breech presentation at term still an option? Results of an observational prospective survey in France and Belgium. *Am J Obstet Gynecol*. 2006 Apr;194(4):1002-11. X-1.
1989. Goffinet F, Fraser W, Marcoux S, et al. Early amniotomy increases the frequency of fetal heart rate abnormalities. Amniotomy Study Group. *Br J Obstet Gynaecol*. 1997 May;104(5):548-53. X-1, X-4e, X-5.
1990. Goffman D, Madden RC, Harrison EA, et al. Predictors of maternal mortality and near-miss maternal morbidity. *J Perinatol*. 2007 Oct;27(10):597-601. X-1.
1991. Gofton EN, Capewell V, Natale R, et al. Obstetrical intervention rates and maternal and neonatal outcomes of women with gestational hypertension. *Am J Obstet Gynecol*. 2001 Oct;185(4):798-803. X-1.
1992. Gogarten W, Struemper D, Gramke HF, et al. Assessment of volume preload on uteroplacental blood flow during epidural anaesthesia for Caesarean section. *Eur J Anaesthesiol*. 2005 May;22(5):359-62. X-1.
1993. Gogarten W, Van de Velde M, Soetens F, et al. A multicentre trial comparing different concentrations of ropivacaine plus sufentanil with bupivacaine plus sufentanil for patient-controlled epidural analgesia in labour. *Eur J Anaesthesiol*. 2004 Jan;21(1):38-45. X-4e, X-5.
1994. Goh JL, Evans SF and Pavy TJ. Patient-controlled epidural analgesia following caesarean delivery: a comparison of pethidine and fentanyl. *Anaesth Intensive Care*. 1996 Feb;24(1):45-50. X-9.
1995. Gojnic M, Jeremic K, Boskovic V, et al. Perinatal outcome in multiple pregnancies--spontaneous gestation versus. *Clin Exp Obstet Gynecol*. 2005;32(1):65-7. X-1.
1996. Gojnic M, Likic I, Pervulov M, et al. The significance of Doppler flow in early detection of uterine sarcoma in older primigravida pregnancies. *Eur J Gynaecol Oncol*. 2005;26(3):291-3. X-1.
1997. Gojnic M, Pervulov M, Petkovic S, et al. Acceleration of fetal maturation by oxytocin-produced uterine contraction in pregnancies

- complicated with gestational diabetes mellitus: a preliminary report. *J Matern Fetal Neonatal Med.* 2004 Aug;16(2):111-4. X-1.
1998. Gojnic M, Pervulov M, Petkovic S, et al. The importance of Doppler ultrasound in delivery planning. *Clin Exp Obstet Gynecol.* 2004;31(4):282-4. X-1, X-3, X-4e, X-5.
1999. Gol M, Baloglu A, Aydin C, et al. Does manual removal of the placenta affect operative blood loss during cesarean section? *Eur J Obstet Gynecol Reprod Biol.* 2004 Jan 15;112(1):57-60. X-9.
2000. Goldberg J, Gopal M, Singhal R, et al. Nighttime call in house vs. out of house: a comparison of obstetric procedure rates. *J Reprod Med.* 2004 Mar;49(3):143-7. X-1.
2001. Goldberg RP, Kwon C, Gandhi S, et al. Urinary incontinence among mothers of multiples: the protective effect of cesarean delivery. *Am J Obstet Gynecol.* 2003 Jun;188(6):1447-50; discussion 1450-3. X-1.
2002. Goldberg S. Medical choices during pregnancy: whose decision is it anyway? *Rutgers Law Rev.* 1989 Winter;41(2):591-623. X-1.
2003. Goldberger SB, Rosen DJ, Michaeli G, et al. The use of PGE2 for induction of labor in parturients with a previous cesarean section scar. *Acta Obstet Gynecol Scand.* 1989;68(6):523-6. X-1, X-4b, X-4d, X-5.
2004. Goldblatt AD. Commentary: no more jurisdiction over Jehovah. *J Law Med Ethics.* 1999 Summer;27(2):190-3. X-1, X-2.
2005. Goldbort JG. Women's lived experience of their unexpected birthing process. *MCN Am J Matern Child Nurs.* 2009 Jan-Feb;34(1):57-62. X-1.
2006. Goldman G, Pineault R, Bilodeau H, et al. Effects of patient, physician and hospital characteristics on the likelihood of vaginal birth after previous cesarean section in Quebec. *CMAJ.* 1990 Nov 15;143(10):1017-24. X-1.
2007. Goldman G, Pineault R, Potvin L, et al. Factors influencing the practice of vaginal birth after cesarean section. *Am J Public Health.* 1993 Aug;83(8):1104-8. X-1.
2008. Goldman GA, Kaplan B, Neri A, et al. The grand multipara. *Eur J Obstet Gynecol Reprod Biol.* 1995 Aug;61(2):105-9. X-1.
2009. Goldman JA, Dicker D, Feldberg D, et al. Pregnancy outcome in patients with insulin-dependent diabetes mellitus with preconceptional diabetic control: a comparative study. *Am J Obstet Gynecol.* 1986 Aug;155(2):293-7. X-1.
2010. Goldman M, Kitzmiller JL, Abrams B, et al. Obstetric complications with GDM. Effects of maternal weight. *Diabetes.* 1991 Dec;40 Suppl 2:79-82. X-1.
2011. Goldner WL, Brown RB, Lundy LE, et al. Nosocomial infections in an obstetric and gynecologic hospital. *J Reprod Med.* 1980 Oct;25(4):145-9. X-1.
2012. Gomes UA, Silva AA, Bettiol H, et al. Risk factors for the increasing caesarean section rate in Southeast Brazil: a comparison of two birth cohorts, 1978-1979 and 1994. *Int J Epidemiol.* 1999 Aug;28(4):687-94. X-1.
2013. Gomez OL and Carrasquilla G. Factors associated with unjustified Cesarean section in four hospitals in Cali, Colombia. *Int J Qual Health Care.* 1999 Oct;11(5):385-9. X-1.
2014. Gonen O, Rosen DJ, Dolfin Z, et al. Induction of labor versus expectant management in macrosomia: a randomized study. *Obstet Gynecol.* 1997 Jun;89(6):913-7.
2015. Gonen R, Samberg I, Levinski R, et al. Effect of irrigation or intravenous antibiotic prophylaxis on infectious morbidity at cesarean section. *Obstet Gynecol.* 1986 Apr;67(4):545-8. X-9.
2016. Goni S, Sawhney H and Gopalan S. Oxytocin induction of labor: a comparison of 20- and 60-min dose increment levels. *Int J Gynaecol Obstet.* 1995 Jan;48(1):31-6. X-4d.
2017. Gonik B. Single- versus three-dose cefotaxime prophylaxis for cesarean section. *Obstet Gynecol.* 1985 Feb;65(2):189-93. X-9.
2018. Gonik B, Cotton D, Spillman T, et al. Peripartum colloid osmotic pressure changes: effects of controlled fluid management. *Am J Obstet Gynecol.* 1985 Mar 15;151(6):812-5. X-9.
2019. Gonik B, Feldman S, Pickering LK, et al. Pharmacokinetics of cefoperazone in the parturient. *Antimicrob Agents Chemother.* 1986 Dec;30(6):874-6. X-1.
2020. Gonzales GF and Salirrosas A. Pulse oxygen saturation and neurologic assessment in human neonates after vaginal and cesarean delivery. *Int J Gynaecol Obstet.* 1998 Oct;63(1):63-6. X-1.
2021. Gonzalez Viejo I, Ferrer Novella C, Pueyo Subias M, et al. Hemorrhagic retinopathy in newborns: frequency, form of presentation, associated factors and significance. *Eur J Ophthalmol.* 1995 Oct-Dec;5(4):247-50. X-1.
2022. Gonzalez-Gonzalez NL, Ramirez O, Mozas J, et al. Factors influencing pregnancy outcome in women with type 2 versus type 1 diabetes mellitus. *Acta Obstet Gynecol Scand.* 2008;87(1):43-9. X-1.
2023. Gonzalez-Perez GJ, Vega-Lopez MG, Cabrera-Pivaral C, et al. Cesarean sections in Mexico: are there too many? *Health Policy Plan.* 2001 Mar;16(1):62-7. X-1.
2024. Gonzalez-Quintero VH, Istwan NB, Rhea DJ, et al. The impact of glycemic control on neonatal outcome in singleton pregnancies complicated by gestational diabetes. *Diabetes Care.* 2007 Mar;30(3):467-70. X-1.
2025. Good MM, Solt I, Acuna JG, et al. Methamphetamine use during pregnancy:

- maternal and neonatal implications. *Obstet Gynecol.* 2010 Aug;116(2 Pt 1):330-4. X-1.
2026. Goodall KE, McVittie C and Magill M. Birth choice following primary Caesarean section: mothers' perceptions of the influence of health professionals on decision-making. *Journal of Reproductive & Infant Psychology.* 2009;27(1):4-14. X-1.
2027. Goode CJ. Impact of a CareMap and case management on patient satisfaction and staff satisfaction, collaboration, and autonomy. *Nurs Econ.* 1995 Nov-Dec;13(6):337-48, 361. X-1.
2028. Gopalani S, Bennett K and Critchlow C. Factors predictive of failed operative vaginal delivery. *Am J Obstet Gynecol.* 2004 Sep;191(3):896-902. X-1.
2029. Gordon AJ and Calder AA. Oestradiol applied locally to ripen the unfavourable cervix. *Lancet.* 1977 Dec 24-31;2(8052-8053):1319-21. X-1, X-4d.
2030. Gordon NP, Walton D, McAdam E, et al. Effects of providing hospital-based doulas in health maintenance organization hospitals. *Obstet Gynecol.* 1999 Mar;93(3):422-6. X-5.
2031. Gordon SC, Gaines SK and Hauber RP. Self-administered versus nurse-administered epidural analgesia after cesarean section. *J Obstet Gynecol Neonatal Nurs.* 1994 Feb;23(2):99-103. X.
2032. Gordon SF and Russell J. A randomized controlled study comparing ceftizoxime, cefamandole, and cefoxitin in obstetric and gynaecological surgery: a preliminary report. *J Antimicrob Chemother.* 1982 Nov;10 Suppl C:289-92. X-3, X-4e.
2033. Gordon-Wright AP and Elder MG. Effect of prostaglandin E2 and its metabolites on lower segment myometrium in vitro. *Eur J Obstet Gynecol Reprod Biol.* 1980 Jun;10(5):297-302. X-1.
2034. Goring-Morris J and Russell IF. A randomised comparison of 0.5% bupivacaine with a lidocaine/epinephrine/fentanyl mixture for epidural top-up for emergency caesarean section after "low dose" epidural for labour. *Int J Obstet Anesth.* 2006 Apr;15(2):109-14. X-9.
2035. Gorodeski IG, Bahari CM, Holzinger M, et al. Placenta previa with focal accretion. *Isr J Med Sci.* 1982 Feb;18(2):277-80. X-1.
2036. Gorton H, Lyons G and Manraj P. Preparation for regional anaesthesia induces changes in thrombelastography. *Br J Anaesth.* 2000 Mar;84(3):403-4. X-1.
2037. Gossman GL, Joesch JM and Tanfer K. Trends in maternal request cesarean delivery from 1991 to 2004. *Obstet Gynecol.* 2006 Dec;108(6):1506-16. X-1.
2038. Gotoh H, Masuzaki H, Yoshida A, et al. Predicting incomplete uterine rupture with vaginal sonography during the late second trimester in women with prior cesarean. *Obstet Gynecol.* 2000 Apr;95(4):596-600. X-1.
2039. Gottlieb SE and Barrett DE. Effects of unanticipated cesarean section on mothers, infants, and their interaction in the first month of life. *J Dev Behav Pediatr.* 1986 Jun;7(3):180-5. X-1.
2040. Gottschall DS, Borgida AF, Mihalek JJ, et al. A randomized clinical trial comparing misoprostol with prostaglandin E2 gel for preinduction cervical ripening. *Am J Obstet Gynecol.* 1997 Nov;177(5):1067-70. X-4d, X-5.
2041. Gouchon S, Gregori D, Picotto A, et al. Skin-to-skin contact after cesarean delivery: an experimental study. *Nurs Res.* 2010 Mar-Apr;59(2):78-84. X-9.
2042. Goudie TA, Winter AW and Ferguson DJ. Lower limb compression using inflatable splints to prevent hypotension during spinal anaesthesia for caesarean section. *Acta Anaesthesiol Scand.* 1988 Oct;32(7):541-4. X-1.
2043. Goyert GL, Bottoms SF, Treadwell MC, et al. The physician factor in cesarean birth rates. *N Engl J Med.* 1989 Mar 16;320(11):706-9. X-1.
2044. Grable IA, Garcia PM, Perry D, et al. Group B Streptococcus and preterm premature rupture of membranes: a randomized, double-blind clinical trial of antepartum ampicillin. *Am J Obstet Gynecol.* 1996 Oct;175(4 Pt 1):1036-42. X-4e, X-5.
2045. Grace PJ and McLaughlin M. When consent isn't informed enough: what's the nurse's role when a patient has given consent but doesn't fully understand the risks? *Am J Nurs.* 2005 Apr;105(4):79-84. X-1, X-2.
2046. Graham C and Goldstein A. Epidural analgesia and cardiac output in severe pre-eclampsia. *Anaesthesia.* 1980 Jul 7;35(7):709-12. X-1.
2047. Graham CW, Sutton L and Cozen HJ. Directional spinals in obstetric analgesia. *Anaesthesia.* 1978 Feb;33(2):192-5. X-1.
2048. Graham EM, Holcroft CJ and Blakemore KJ. Evidence of intrapartum hypoxia-ischemia is not present in the majority of cases of neonatal seizures. *J Matern Fetal Neonatal Med.* 2002 Aug;12(2):123-6. X-1.
2049. Graham EM, Holcroft CJ, Rai KK, et al. Neonatal cerebral white matter injury in preterm infants is associated with culture positive infections and only rarely with metabolic acidosis. *Am J Obstet Gynecol.* 2004 Oct;191(4):1305-10. X-1.
2050. Graham JM, Blanco JD, Oshiro BT, et al. Single-dose ampicillin prophylaxis does not eradicate enterococcus from the lower genital tract. *Obstet Gynecol.* 1993 Jan;81(1):115-7. X-9.
2051. Graham WJ, Hundley V, McCheyne AL, et al. An investigation of women's involvement in the decision to deliver by caesarean section. *Br J Obstet Gynaecol.* 1999 Mar;106(3):213-20. X-1.

2052. Gramellini D, Fieni S, Kaihura C, et al. Transabdominal antepartum amnioinfusion. *Int J Gynaecol Obstet*. 2003 Nov;83(2):171-8. X-1.
2053. Granger KA and Farquharson RG. Obstetric outcome in antiphospholipid syndrome. *Lupus*. 1997;6(6):509-13. X-1.
2054. Granot M, Lowenstein L, Yarnitsky D, et al. Postcesarean section pain prediction by preoperative experimental pain assessment. *Anesthesiology*. 2003 Jun;98(6):1422-6. X-1.
2055. Granovsky-Grisaru S, Shaya M and Diamant YZ. The management of labor in women with more than one uterine scar: is a repeat cesarean section really the only "safe" option? *J Perinat Med*. 1994;22(1):13-7. X-1.
2056. Grant GJ, Ramanathan S and Turndorf H. The maternal hemodynamic effects of bupivacaine-epinephrine mixture used for obstetrical anesthesia. *Acta Anaesthesiol Scand*. 1990 Oct;34(7):543-7. X-1.
2057. Grant GJ, Susser L, Cascio M, et al. Hemodynamic effects of intrathecal fentanyl in nonlaboring term parturients. *J Clin Anesth*. 1996 Mar;8(2):99-103. X-9.
2058. Grant I. Forced obstetrical intervention: a charter analysis. *Univ Tor Law J*. 1989;39(3):217-57. X-1, X-2.
2059. Grant JM, Serle E, Mahmood T, et al. Management of prelabour rupture of the membranes in term primigravidae: report of a randomized prospective trial. *Br J Obstet Gynaecol*. 1992 Jul;99(7):557-62. X-4e.
2060. Grant R, Sueda A and Kaneshiro B. Expert opinion vs. patient perception of obstetrical outcomes in laboring women with birth plans. *J Reprod Med*. 2010 Jan-Feb;55(1-2):31-5. X-1.
2061. Grass JA, Sakima NT, Schmidt R, et al. A randomized, double-blind, dose-response comparison of epidural fentanyl versus sufentanil analgesia after cesarean section. *Anesth Analg*. 1997 Aug;85(2):365-71. X-9.
2062. Grau T, Leipold RW, Conradi R, et al. Ultrasound imaging facilitates localization of the epidural space during combined spinal and epidural anesthesia. *Reg Anesth Pain Med*. 2001 Jan-Feb;26(1):64-7. X-9.
2063. Grau T, Leipold RW, Conradi R, et al. Efficacy of ultrasound imaging in obstetric epidural anesthesia. *J Clin Anesth*. 2002 May;14(3):169-75. X-1.
2064. Grau T, Leipold RW, Fatehi S, et al. Real-time ultrasonic observation of combined spinal-epidural anaesthesia. *Eur J Anaesthesiol*. 2004 Jan;21(1):25-31. X-9.
2065. Green JM and Baston HA. Have women become more willing to accept obstetric interventions and does this relate to mode of birth? Data from a prospective study. *Birth*. 2007 Mar;34(1):6-13. X-1.
2066. Greenberg BL, Semba RD, Vink PE, et al. Vitamin A deficiency and maternal-infant transmissions of HIV in two metropolitan areas in the United States. *AIDS*. 1997 Mar;11(3):325-32. X-1.
2067. Greenberg MB, Cheng YW, Sullivan M, et al. Does length of labor vary by maternal age? *Am J Obstet Gynecol*. 2007 Oct;197(4):428 e1-7. X-1.
2068. Greene PG, Zeichner A, Roberts NL, et al. Preparation for cesarean delivery: a multicomponent analysis of treatment outcome. *J Consult Clin Psychol*. 1989 Aug;57(4):484-7. X-3, X-4b, X-5.
2069. Greenland S and Neutra R. Control of confounding in the assessment of medical technology. *Int J Epidemiol*. 1980 Dec;9(4):361-7. X-1, X-2.
2070. Greenland S, Neutra R and Staisch KJ. Re: "The relation of electronic fetal monitoring patterns to infant outcome measures in a random sample of term size infants born to high risk mothers". *Am J Epidemiol*. 1983 May;117(5):637-9. X-1, X-2.
2071. Greenough A and Lagercrantz H. Catecholamine abnormalities in transient tachypnoea of the premature newborn. *J Perinat Med*. 1992;20(3):223-6. X-1.
2072. Greenwood J. Caesarean sections--are rates too high? *Midwife Health Visit Community Nurse*. 1983 Sep;19(9):367. X-1.
2073. Greer BE, Easterling TR, McLennan DA, et al. Fetal and maternal considerations in the management of stage I-B cervical cancer during pregnancy. *Gynecol Oncol*. 1989 Jul;34(1):61-5. X-1.
2074. Gregory KD, Korst LM, Gornbein JA, et al. Using administrative data to identify indications for elective primary cesarean delivery. *Health Serv Res*. 2002 Oct;37(5):1387-401. X-1.
2075. Gregory MA, Gin T, Yau G, et al. Propofol infusion anaesthesia for caesarean section. *Can J Anaesth*. 1990 Jul;37(5):514-20. X-9.
2076. Gregory R, Scott AR, Mohajer M, et al. Diabetic pregnancy 1977-1990: have we reached a plateau? *J R Coll Physicians Lond*. 1992 Apr;26(2):162-6. X-1.
2077. Greybush M, Singleton C, Atlas RO, et al. Preinduction cervical ripening techniques compared. *J Reprod Med*. 2001 Jan;46(1):11-7. X-4d, X-5.
2078. Gribble RK and Meier PR. Effect of epidural analgesia on the primary cesarean rate. *Obstet Gynecol*. 1991 Aug;78(2):231-4. X-1, X-4e, X-5.
2079. Griffin ME, Coffey M, Johnson H, et al. Universal vs. risk factor-based screening for gestational diabetes mellitus: detection rates, gestation at diagnosis and outcome. *Diabet Med*. 2000 Jan;17(1):26-32. X-4e, X-5.

2080. Griffin RP and Reynolds F. Extradural anaesthesia for caesarean section: a double-blind comparison of 0.5% ropivacaine with 0.5% bupivacaine. *Br J Anaesth*. 1995 May;74(5):512-6. X-9.
2081. Griffiths MI, Felts JH, James FM, et al. Successful control of pheochromocytoma in pregnancy. *JAMA*. 1974 Jul 22;229(4):437-9. X-1.
2082. Griffith P. Midwives' attitudes: promoting normal birth. *Aust J Adv Nurs*. 1988 Mar-May;5(3):33-9. X-1.
2083. Griffiths AN, Avasarala S and Wiener JJ. A prospective observational study of emergency caesarean section rates and the effect of the labour ward experience. *J Obstet Gynaecol*. 2005 Oct;25(7):666-8. X-1.
2084. Griffiths J, Demianczuk N, Cordoviz M, et al. Surgical site infection following elective Caesarian section: a case-control study of postdischarge surveillance. *J Obstet Gynaecol Can*. 2005 Apr;27(4):340-4. X-1.
2085. Grignaffini A, Cavatorta E, Petrelli M, et al. Fetal distress: role of cardiotocography. *Clin Exp Obstet Gynecol*. 1994;21(1):49-56. X-1.
2086. Grignaffini A, Soncini E, Ronzoni E, et al. Meconium-stained amniotic fluid and fetal oxygen saturation measured by pulse oximetry during labour. *Acta Biomed*. 2004;75 Suppl 1:45-52. X-1.
2087. Grimpel YI, Kivity V, Cohen A, et al. Effects of calcium, magnesium, low-dose aspirin and low-molecular-weight heparin on the release of PP13 from placental explants. *Placenta*. 2011 Feb;32 Suppl:S55-64. X-1.
2088. Grobman WA, Feinglass J and Murthy S. Are the Agency for Healthcare Research and Quality obstetric trauma indicators valid measures of hospital safety? *Am J Obstet Gynecol*. 2006 Sep;195(3):868-74. X-1.
2089. Grobman WA, Lai Y, Landon MB, et al. Development of a nomogram for prediction of vaginal birth after cesarean delivery. *Obstet Gynecol*. 2007 Apr;109(4):806-12. X-1.
2090. Grobman WA, Lai Y, Landon MB, et al. Does information available at admission for delivery improve prediction of vaginal birth after cesarean? *Am J Perinatol*. 2009 Nov;26(10):693-701. X-1.
2091. Groom KM, Paterson-Brown S and Fisk NM. Temporal and geographical variation in UK obstetricians' personal preference regarding mode of delivery. *Eur J Obstet Gynecol Reprod Biol*. 2002 Jan 10;100(2):185-8. X-1.
2092. Grosch-Woerner I, Puch K, Maier RF, et al. Increased rate of prematurity associated with antenatal antiretroviral therapy in a German/Austrian cohort of HIV-1-infected women. *HIV Med*. 2008 Jan;9(1):6-13. X-1.
2093. Grosch-Woerner I, Schafer A, Obladen M, et al. An effective and safe protocol involving zidovudine and caesarean section to reduce vertical transmission of HIV-1 infection. *AIDS*. 2000 Dec 22;14(18):2903-11. X-1.
2094. Gross J, Andersson K, Chen Y, et al. Effect of perinatal asphyxia on tyrosine hydroxylase and D2 and D1 dopamine receptor mRNA levels expressed during early postnatal development in rat brain. *Brain Res Mol Brain Res*. 2005 Apr 4;134(2):275-81. X-1.
2095. Grossetti E, Carles G, El Guindi W, et al. Selective prophylactic transfusion in sickle cell disease. *Acta Obstet Gynecol Scand*. 2009;88(10):1090-4. X-1.
2096. Grossmann-Kendall F, Filippi V, De Koninck M, et al. Giving birth in maternity hospitals in Benin: testimonies of women. *Reprod Health Matters*. 2001 Nov;9(18):90-8. X-1.
2097. Grubb A. Treatment without consent (pregnancy): adult -- Tameside and Glossop Acute Services Trust v. C.H. Med Law Rev. 1996 Summer;4(2):193-8. X-1, X-2.
2098. Grubb A. Competent adult (pregnant woman): forced treatment and Mental Health Act -- St. George's Healthcare N.H.S. Trust v. S; R. v. Collins and others, ex parte S. *Med Law Rev*. 1998 Autumn;6(3):356-63. X-1, X-2.
2099. Grubb DK, Kjos SL and Paul RH. Latent labor with an unknown uterine scar. *Obstet Gynecol*. 1996 Sep;88(3):351-5. X-4b.
2100. Gruendhammer M, Brezinka C and Lechleitner M. The number of abnormal plasma glucose values in the oral glucose tolerance test and the fetomaternal outcome of pregnancy. *Eur J Obstet Gynecol Reprod Biol*. 2003 Jun 10;108(2):131-6. X-1.
2101. Grundsell HS, Rizk DE and Kumar RM. Randomized study of non-closure of peritoneum in lower segment cesarean section. *Acta Obstet Gynecol Scand*. 1998 Jan;77(1):110-5. X-9.
2102. Grundy H, Anderson RL, Filly RA, et al. Gastroschisis: prenatal diagnosis and management. *Fetal Ther*. 1987;2(3):144-7. X-1.
2103. Grunebaum AN, Minkoff H, Schwarz RH, et al. The relationship of maternal antibody levels to post-cesarean section endometritis. *Am J Obstet Gynecol*. 1983 Dec 15;147(8):919-22. X-1.
2104. Grytten J, Skau I and Sorensen R. Do expert patients get better treatment than others? Agency discrimination and statistical discrimination in obstetrics. *J Health Econ*. 2011 Jan;30(1):163-80. X-1.
2105. Guarino N, Teramoto H, Shima H, et al. Effect of mechanical ventilation on the pulmonary expression and production of elastin in nitrofen-induced diaphragmatic hernia in rats. *J Pediatr Surg*. 2002 Sep;37(9):1253-7. X-1.
2106. Guay J, Gaudreault P, Boulanger A, et al. Lidocaine hydrocarbonate and lidocaine hydrochloride for cesarean section: transplacental passage and neonatal effects.

- Acta Anaesthesiol Scand. 1992 Oct;36(7):722-7. X-9.
2107. Gude NM, Stebbing PN, Wang L, et al. Relative abundance of placental pro-atrial natriuretic factor mRNA in normal pregnancy and pre-eclampsia. *Gynecol Obstet Invest.* 2000;49(2):114-8. X-1.
2108. Gudmundsson S, Lindblad A and Marsal K. Cord blood gases and absence of end-diastolic blood velocities in the umbilical artery. *Early Hum Dev.* 1990 Dec;24(3):231-7. X-1.
2109. Guedj P, Eldor J and Stark M. Immediate postoperative oral hydration after caesarean section. *Asia Oceania J Obstet Gynaecol.* 1991 Jun;17(2):125-9. X-9.
2110. Guendelman S, Pearl M, Graham S, et al. Maternity leave in the ninth month of pregnancy and birth outcomes among working women. *Womens Health Issues.* 2009 Jan-Feb;19(1):30-7. X-1.
2111. Guest ML and Stamp GE. South Australian rural women's views of their pregnancy, birthing and postnatal care. *Rural Remote Health.* 2009 Jul-Sep;9(3):1101. X-1.
2112. Guidetti DA, Divon MY and Langer O. Postdate fetal surveillance: is 41 weeks too early? *Am J Obstet Gynecol.* 1989 Jul;161(1):91-3. X-1, X-4e, X-5.
2113. Guillemette J and Fraser WD. Differences between obstetricians in caesarean section rates and the management of labour. *Br J Obstet Gynaecol.* 1992 Feb;99(2):105-8. X-1.
2114. Guillemin J. Increasing incidence and medical 'necessity' babies by Cesarean: who chooses, who controls? *Hastings Cent Rep.* 1981 Jun;11(3):15-8. X-1.
2115. Guillon A, Leyre S, Remerand F, et al. Modification of Tp-e and QTc intervals during caesarean section under spinal anaesthesia. *Anaesthesia.* 2010 Apr;65(4):337-42. X-9.
2116. Guinn DA, Davies JK, Jones RO, et al. Labor induction in women with an unfavorable Bishop score: randomized controlled trial of intrauterine Foley catheter with concurrent oxytocin infusion versus Foley catheter with extra-amniotic saline infusion with concurrent oxytocin infusion. *Am J Obstet Gynecol.* 2004 Jul;191(1):225-9. X-4d.
2117. Guinn DA, Goepfert AR, Christine M, et al. Extra-amniotic saline, laminaria, or prostaglandin E(2) gel for labor induction with unfavorable cervix: a randomized controlled trial. *Obstet Gynecol.* 2000 Jul;96(1):106-12. X-4d.
2118. Guittier MJ, Pichon M, Dong H, et al. Moxibustion for breech version: a randomized controlled trial. *Obstet Gynecol.* 2009 Nov;114(5):1034-40. X-4c, X-5.
2119. Gulhas N, Erdil FA, Sagir O, et al. Lornoxicam and ondansetron for the prevention of intrathecal fentanyl-induced pruritus. *J Anesth.* 2007;21(2):159-63. X-9.
2120. Guller S, Kong L, Wozniak R, et al. Reduction of extracellular matrix protein expression in human amnion epithelial cells by glucocorticoids: a potential role in preterm rupture of the fetal membranes. *J Clin Endocrinol Metab.* 1995 Jul;80(7):2244-50. X-1.
2121. Gulmezoglu AM, Langer A, Piaggio G, et al. Cluster randomised trial of an active, multifaceted educational intervention based on the WHO Reproductive Health Library to improve obstetric practices. *BJOG.* 2007 Jan;114(1):16-23. X-4e, X-5.
2122. Gulmezoglu AM, Villar J, Ngoc NT, et al. WHO multicentre randomised trial of misoprostol in the management of the third stage of labour. *Lancet.* 2001 Sep 1;358(9283):689-95. X-4e, X-5.
2123. Gunalp S and Bildirici I. The effect of vaginal pH on the efficacy of vaginal misoprostol for induction of labor. *Acta Obstet Gynecol Scand.* 2000 Apr;79(4):283-5. X-1.
2124. Gunaratne PS, Wijeyaratne CN, Chandrasiri P, et al. An outbreak of *Aspergillus meningitis* following spinal anaesthesia for caesarean section in Sri Lanka: a post-tsunami effect? *Ceylon Med J.* 2006 Dec;51(4):137-42. X-1.
2125. Gunaydin B and Tan ED. Intrathecal hyperbaric or isobaric bupivacaine and ropivacaine with fentanyl for elective caesarean section. *J Matern Fetal Neonatal Med.* 2010 Dec;23(12):1481-6. X-9.
2126. Gundogan F, Bianchi DW, Scherjon SA, et al. Placental pathology in egg donor pregnancies. *Fertil Steril.* 2010 Feb;93(2):397-404. X-1.
2127. Gungorduk K, Ascioglu O, Celikkol O, et al. Does saline irrigation reduce the wound infection in caesarean delivery? *J Obstet Gynaecol.* 2010;30(7):662-6. X-9.
2128. Gungorduk K, Ascioglu O, Celikkol O, et al. Use of additional oxytocin to reduce blood loss at elective caesarean section: A randomised control trial. *Aust N Z J Obstet Gynaecol.* 2010 Feb;50(1):36-9. X-9.
2129. Gungorduk K, Ascioglu O, Celikkol O, et al. Iatrogenic bladder injuries during caesarean delivery: a case control study. *J Obstet Gynaecol.* 2010;30(7):667-70. X-1, X-9.
2130. Gungorduk K, Yildirim G and Ark C. Is routine cervical dilatation necessary during elective caesarean section? A randomised controlled trial. *Aust N Z J Obstet Gynaecol.* 2009 Jun;49(3):263-7. X-9.
2131. Gungorduk K, Yildirim G, Dugan N, et al. Peripartum hysterectomy in Turkey: a case-control study. *J Obstet Gynaecol.* 2009 Nov;29(8):722-8. X-1.
2132. Gungorduk K, Yildirim G, Gungorduk O, et al. Sustained-release dinoprostone vaginal pessary with concurrent high-dose oxytocin infusion compared to sustained-release dinoprostone vaginal pessary followed 6 h later by high-dose

- oxytocin infusion for labor induction in women at term with unfavorable cervix: a randomized controlled trial. *Gynecol Obstet Invest.* 2011;71(1):32-40. X-4d.
2133. Gunnervik C, Josefsson A, Sydsjo A, et al. Attitudes towards mode of birth among Swedish midwives. *Midwifery.* 2010 Feb;26(1):38-44. X-1.
2134. Gunnervik C, Sydsjo G, Sydsjo A, et al. Attitudes towards cesarean section in a nationwide sample of obstetricians and gynecologists. *Acta Obstet Gynecol Scand.* 2008;87(4):438-44. X-1.
2135. Gunther A, Smith SJ, Maynard PV, et al. A case-control study of congenital hip dislocation. *Public Health.* 1993 Jan;107(1):9-18. X-1.
2136. Gunton JE, McElduff A, Sulway M, et al. Outcome of pregnancies complicated by pre-gestational diabetes mellitus. *Aust N Z J Obstet Gynaecol.* 2000 Feb;40(1):38-43. X-1.
2137. Gunusen I, Karaman S, Ertugrul V, et al. Effects of fluid preload (crystalloid or colloid) compared with crystalloid co-load plus ephedrine infusion on hypotension and neonatal outcome during spinal anaesthesia for caesarean delivery. *Anaesth Intensive Care.* 2010 Jul;38(4):647-53. X-9.
2138. Guo Y, Liu J, Meng L, et al. Survey of HBsAg-positive pregnant women and their infants regarding measures to prevent maternal-infantile transmission. *BMC Infect Dis.* 2010;10:26. X-1.
2139. Gupta A, Lokhandwala YY, Satoskar PR, et al. Balloon mitral valvotomy in pregnancy: maternal and fetal outcomes. *J Am Coll Surg.* 1998 Oct;187(4):409-15. X-1.
2140. Gupta I, Mahajan U, Lata P, et al. Copper intrauterine contraceptive device insertion 6 weeks after caesarean section. *Indian J Med Res.* 1985 Sep;82:214-6. X-1, X-4e.
2141. Gupta I, Mahajan U and Sawhney H. Concurrent copper T insertion with medical termination of pregnancy in women with previous caesarean section delivery. *Indian J Med Res.* 1988 May;87:450-2. X-1, X-3.
2142. Gupta N, Sood M and Nagesh S. Patterns of various modes of delivery in relation to presence of different risk factors in term pregnant mothers--a case-control study. *J Indian Med Assoc.* 1997 Dec;95(12):603-5. X-1.
2143. Gupta P, Elmardi A, Bathula U, et al. Induction of labour in women with one previous caesarean section. *J Obstet Gynaecol.* 2011;31(2):131-3. X-1.
2144. Gurbuz A, Karateke A, Yilmaz U, et al. The role of perinatal and intrapartum risk factors in the etiology of cerebral palsy in term deliveries in a Turkish population. *J Matern Fetal Neonatal Med.* 2006 Mar;19(3):147-55. X-1.
2145. Gutsche BB. Prophylactic ephedrine preceding spinal analgesia for cesarean section. *Anesthesiology.* 1976 Oct;45(4):462-5. X-9.
2146. Guzin K, Tomruk S, Tuncay YA, et al. The relation of increased uterine artery blood flow resistance and impaired trophoblast invasion in pre-eclamptic pregnancies. *Arch Gynecol Obstet.* 2005 Oct;272(4):283-8. X-1.
2147. Gyamfi C, Juhasz G, Gyamfi P, et al. Increased success of trial of labor after previous vaginal birth after cesarean. *Obstet Gynecol.* 2004 Oct;104(4):715-9. X-1.
2148. Gyr TN, Malek A, Mathez-Loic F, et al. Permeation of human chorioamniotic membranes by *Escherichia coli* in vitro. *Am J Obstet Gynecol.* 1994 Jan;170(1 Pt 1):223-7. X-1.
2149. Haas AV. Homebirth after cesarean: the myth & the reality. *Midwifery Today Int Midwife.* 2008 Summer(86):44-7, 68-9. X-1, X-2.
2150. Haas DM and Ayres AW. Laceration injury at cesarean section. *J Matern Fetal Neonatal Med.* 2002 Mar;11(3):196-8. X-1.
2151. Haas DM and Contreras K. Vaginal preparation with antiseptic solution before cesarean section for preventing postoperative infections. *Cochrane Database of Systematic Reviews.* 2010(3). X-1, X-2.
2152. Haas DM, Pazouki F, Smith RR, et al. Vaginal cleansing before cesarean delivery to reduce postoperative infectious morbidity: a randomized, controlled trial. *Am J Obstet Gynecol.* 2010 Mar;202(3):310 e1-6. X-9.
2153. Haas JS, Udvarhelyi S and Epstein AM. The effect of health coverage for uninsured pregnant women on maternal health and the use of cesarean section. *JAMA.* 1993 Jul 7;270(1):61-4. X-5.
2154. Habek D, Habek JC, Barbir A, et al. Fetal grasping of the umbilical cord and perinatal outcome. *Arch Gynecol Obstet.* 2003 Oct;268(4):274-7. X-1.
2155. Habek D, Hodek B, Herman R, et al. Fetal biophysical profile and cerebro-umbilical ratio in assessment of perinatal outcome in growth-restricted fetuses. *Fetal Diagn Ther.* 2003 Jan-Feb;18(1):12-6. X-1.
2156. Haberman S, Bracero LA and Byrne DW. Spectral Doppler index mapping of the umbilicoplacental circulation and pregnancy outcome. *Gynecol Obstet Invest.* 2004;58(1):1-7. X-1.
2157. Habib AS, Itchon-Ramos N, Phillips-Bute BG, et al. Transcutaneous acupoint electrical stimulation with the ReliefBand for the prevention of nausea and vomiting during and after cesarean delivery under spinal anesthesia. *Anesth Analg.* 2006 Feb;102(2):581-4. X-9.
2158. Habib SM, Emam SS and Saber AS. Outpatient cervical ripening with nitric oxide donor isosorbide mononitrate prior to

- induction of labor. *Int J Gynaecol Obstet.* 2008 Apr;101(1):57-61. X-4d, X-5.
2159. Habiba M, Kaminski M, Da Fre M, et al. Caesarean section on request: a comparison of obstetricians' attitudes in eight European countries. *BJOG.* 2006 Jun;113(6):647-56. X-1.
2160. Hackethal A, Brueggmann D, Oehmke F, et al. Uterine compression U-sutures in primary postpartum hemorrhage after Cesarean section: fertility preservation with a simple and effective technique. *Hum Reprod.* 2008 Jan;23(1):74-9. X-1.
2161. Hadeed AJ and Siegel SR. Maternal cocaine use during pregnancy: effect on the newborn infant. *Pediatrics.* 1989 Aug;84(2):205-10. X-1.
2162. Hadfield L and Thomson R. The making of modern motherhood. *Pract Midwife.* 2009 Jul-Aug;12(7):30-2. X-1, X-2, X-3, X-4e, X-5.
2163. Haeri AD. Comparison of transverse and vertical skin incisions for Cesarean section. *S Afr Med J.* 1976 Jan 10;50(2):33-4. X-3, X-4b, X-5.
2164. Haeri S, Guichard I, Baker AM, et al. The effect of teenage maternal obesity on perinatal outcomes. *Obstet Gynecol.* 2009 Feb;113(2 Pt 1):300-4. X-1.
2165. Haeri S, Masouem S, Baker AM, et al. The effect of excess weight gain in teenage pregnancies. *Am J Perinatol.* 2010 Jan;27(1):15-8. X-1.
2166. Hagberg C, Ezri T and Abouleish E. Etiology and incidence of endotracheal intubation following spinal anesthesia for cesarean section. *Isr Med Assoc J.* 2001 Sep;3(9):653-6. X-1.
2167. Hage ML, Helms MJ, Dudley A, et al. Acute childbirth morbidity: its measurement using hospital charges. *Am J Obstet Gynecol.* 1992 Jun;166(6 Pt 1):1853-9; discussion 1859-62. X-1.
2168. Hager WD and Pauly TH. Fetal tachycardia as an indicator of maternal and neonatal morbidity. *Obstet Gynecol.* 1985 Aug;66(2):191-4. X-1.
2169. Hager WD, Rapp RP, Billeter M, et al. Choice of antibiotic in nonelective cesarean section. *Antimicrob Agents Chemother.* 1991 Sep;35(9):1782-4. X-9.
2170. Hager WD, Schuchat A, Gibbs R, et al. Prevention of perinatal group B streptococcal infection: current controversies. *Obstet Gynecol.* 2000 Jul;96(1):141-5. X-1, X-2.
2171. Hager WD and Williamson MM. Effects of antibiotic prophylaxis on women undergoing nonelective cesarean section in a community hospital. *J Reprod Med.* 1983 Oct;28(10):687-90. X-9.
2172. Hagglund L, Christensen KK, Christensen P, et al. Reduced rate of postoperative infections in emergency cesarean section after two doses of cefuroxim perioperatively. A placebo-controlled study. *Acta Obstet Gynecol Scand.* 1989;68(3):201-4. X-9.
2173. Hagnevik K, Irestedt L, Lundell B, et al. Cardiac function and sympathoadrenal activity in the newborn after cesarean section under spinal and epidural anesthesia. *Acta Anaesthesiol Scand.* 1988 Apr;32(3):234-8. X-1.
2174. Hahn RG and Resby M. Volume kinetics of Ringer's solution and dextran 3% during induction of spinal anaesthesia for caesarean section. *Can J Anaesth.* 1998 May;45(5 Pt 1):443-51. X-1.
2175. Haines CJ, Rogers MS and Leung DH. Neonatal outcome and its relationship with maternal age. *Aust N Z J Obstet Gynaecol.* 1991 Aug;31(3):209-12. X-1.
2176. Hakansson S, Axemo P, Bremme K, et al. Group B streptococcal carriage in Sweden: a national study on risk factors for mother and infant colonisation. *Acta Obstet Gynecol Scand.* 2008;87(1):50-8. X-1.
2177. Hakansson S and Kallen K. Cesarean section increases the risk of hospital care in childhood for asthma and gastroenteritis. *Clin Exp Allergy.* 2003 Jun;33(6):757-64. X-1.
2178. Halaska MJ, Pentheroudakis G, Strnad P, et al. Presentation, management and outcome of 32 patients with pregnancy-associated breast cancer: a matched controlled study. *Breast J.* 2009 Sep-Oct;15(5):461-7. X-1.
2179. Halder A. A new uterine suture technique to control PPH in congenitally malformed uterus during caesarean section. *J Obstet Gynaecol.* 2009 Jul;29(5):402-4. X-1.
2180. Hales KA, Morgan MA and Thurnau GR. Influence of labor and route of delivery on the frequency of respiratory morbidity in term neonates. *Int J Gynaecol Obstet.* 1993 Oct;43(1):35-40. X-1.
2181. Halevy S, Liu-Barnett M, Ross PL, et al. Serum thyroid hormones changes in patients undergoing Cesarean section under general or regional anaesthesia. *Br J Anaesth.* 1978 Oct;50(10):1053-7. X-1.
2182. Haley J, Tuffnell DJ and Johnson N. Randomised controlled trial of cardiotocography versus umbilical artery Doppler in the management of small for gestational age fetuses. *Br J Obstet Gynaecol.* 1997 Apr;104(4):431-5. X-4e.
2183. Hall DC and Kaufmann DA. Effects of aerobic and strength conditioning on pregnancy outcomes. *Am J Obstet Gynecol.* 1987 Nov;157(5):1199-203. X-1.
2184. Hall DR, Odendaal HJ, Kirsten GF, et al. Expectant management of early onset, severe pre-eclampsia: perinatal outcome. *BJOG.* 2000 Oct;107(10):1258-64. X-1.
2185. Hall DR, Odendaal HJ and Smith M. Is the prophylactic administration of magnesium

- sulphate in women with pre-eclampsia indicated prior to labour? *BJOG*. 2000 Jul;107(7):903-8. X-1.
2186. Hall DR, Odendaal HJ, Steyn DW, et al. Expectant management of early onset, severe pre-eclampsia: maternal outcome. *BJOG*. 2000 Oct;107(10):1252-7. X-1.
2187. Hall JE, Ng WS and Smith S. Blood loss during first trimester termination of pregnancy: comparison of two anaesthetic techniques. *Br J Anaesth*. 1997 Feb;78(2):172-4. X-3, X-4e, X-5.
2188. Hall ML and Alexander CH. Fetal monitoring in a community hospital: analysis of health maintenance organization, fee-for-service, and clinic populations. *Am J Obstet Gynecol*. 1982 Jun 1;143(3):277-85. X-1.
2189. Hall PA, Bennett A, Wilkes MP, et al. Spinal anaesthesia for caesarean section: comparison of infusions of phenylephrine and ephedrine. *Br J Anaesth*. 1994 Oct;73(4):471-4. X-9.
2190. Hall R, Duarte-Gardea M and Harlass F. Oral versus vaginal misoprostol for labor induction. *Obstet Gynecol*. 2002 Jun;99(6):1044-8. X-4d.
2191. Hallak M and Bottoms SF. Induction of labor in patients with term premature rupture of membranes. Effect on perinatal outcome. *Fetal Diagn Ther*. 1999 May-Jun;14(3):138-42. X-1.
2192. Hallstrom M, Eerola E, Vuento R, et al. Effects of mode of delivery and necrotising enterocolitis on the intestinal microflora in preterm infants. *Eur J Clin Microbiol Infect Dis*. 2004 Jun;23(6):463-70. X-1.
2193. Hallworth SP, Fernando R, Bell R, et al. Comparison of intrathecal and epidural diamorphine for elective caesarean section using a combined spinal-epidural technique. *Br J Anaesth*. 1999 Feb;82(2):228-32. X-9.
2194. Hallworth SP, Fernando R, Columb MO, et al. The effect of posture and baricity on the spread of intrathecal bupivacaine for elective cesarean delivery. *Anesth Analg*. 2005 Apr;100(4):1159-65. X-9.
2195. Halonen P, Sarvela J, Saisto T, et al. Patient-controlled epidural technique improves analgesia for labor but increases cesarean delivery rate compared with the intermittent bolus technique. *Acta Anaesthesiol Scand*. 2004 Jul;48(6):732-7. X-4e, X-5.
2196. Halonen PM, Paatero H, Hovorka J, et al. Comparison of two fentanyl doses to improve epidural anaesthesia with 0.5% bupivacaine for caesarean section. *Acta Anaesthesiol Scand*. 1993 Nov;37(8):774-9. X-9.
2197. Halperin ME, Moore DC and Hannah WJ. Classical versus low-segment transverse incision for preterm caesarean section: maternal complications and outcome of subsequent pregnancies. *Br J Obstet Gynaecol*. 1988 Oct;95(10):990-6. X-1.
2198. Halperin R, Zimmerman A, Langer R, et al. Laminaria dilatation and evacuation for pregnancies with mid-trimester premature rupture of membranes: a retrospective cohort study. *Eur J Obstet Gynecol Reprod Biol*. 2002 Jan 10;100(2):181-4. X-1.
2199. Halpern S, Glanc P, Myhr T, et al. Uterine and umbilical blood flow velocity during epidural anaesthesia for caesarean section. *Can J Anaesth*. 1994 Nov;41(11):1057-62. X-1.
2200. Halpern SH, Arellano R, Preston R, et al. Epidural morphine vs hydromorphone in post-caesarean section patients. *Can J Anaesth*. 1996 Jun;43(6):595-8. X-9.
2201. Halpern SH, Breen TW, Campbell DC, et al. A multicenter, randomized, controlled trial comparing bupivacaine with ropivacaine for labor analgesia. *Anesthesiology*. 2003 Jun;98(6):1431-5. X-4e.
2202. Halpern SH and Crosby ET. Supplemental oxygen during caesarean section under epidural anaesthesia: nasal prongs vs face mask. *Can J Anaesth*. 1990 May;37(4 Pt 2):S137. X-4b.
2203. Halpern SH, Muir H, Breen TW, et al. A multicenter randomized controlled trial comparing patient-controlled epidural with intravenous analgesia for pain relief in labor. *Anesth Analg*. 2004 Nov;99(5):1532-8; table of contents. X-4e, X-5, X-6.
2204. Halvorsen L, Nerum H, Sorlie T, et al. Does counsellor's attitude influence change in a request for a caesarean in women with fear of birth? *Midwifery*. 2010 Feb;26(1):45-52. X-1.
2205. Hamar BD, Saber SB, Cackovic M, et al. Ultrasound evaluation of the uterine scar after cesarean delivery: a randomized controlled trial of one- and two-layer closure. *Obstet Gynecol*. 2007 Oct;110(4):808-13. X-9.
2206. Hamar BD and Stiller RJ. Ultrasound clinics. Does U/S have a role in assessing uterine patency? *Contemporary OB/GYN*. 2006;51(5):76. X-1, X-2.
2207. Hamdan M, Sidhu K, Sabir N, et al. Serial membrane sweeping at term in planned vaginal birth after cesarean: a randomized controlled trial. *Obstet Gynecol*. 2009 Oct;114(4):745-51. X-1, X-4b, X-5.
2208. Hamdorf-Torrens J. A story of homebirth after cesarean. *Midwifery Today Int Midwife*. 2010 Autumn(95):30-1, 66. X-4e, X-5.
2209. Hameed N and Ali MA. Maternal blood loss by expansion of uterine incision at caesarean section--a comparison between sharp and blunt techniques. *J Ayub Med Coll Abbottabad*. 2004 Jul-Sep;16(3):47-50. X-1.
2210. Hamilton BE, Martin JA and Sutton PD. Births: preliminary data for 2002. *Natl Vital Stat Rep*. 2003 Jun 25;51(11):1-20. X-1, X-2.
2211. Hamilton BE, Martin JA and Sutton PD. Births: preliminary data for 2003. *Natl Vital Stat Rep*. 2004 Nov 23;53(9):1-17. X-1, X-2.

2212. Hamilton BE, Martin JA and Ventura SJ. Births: preliminary data for 2005. *Natl Vital Stat Rep.* 2006 Dec 28;55(11):1-18. X-1, X-2.
2213. Hamilton EF, Bujold E, McNamara H, et al. Dystocia among women with symptomatic uterine rupture. *Am J Obstet Gynecol.* 2001 Mar;184(4):620-4. X-1.
2214. Hamilton RA and Dornan JC. Neural tube defects--prenatal diagnosis and management. *Ulster Med J.* 1992 Oct;61(2):127-33. X-1, X-4e, X-5.
2215. Hamilton WF, Robertson GS and Campbell D. Changes in serum uric acid concentrations after caesarean section using methoxyflurane. *Br J Anaesth.* 1975 Apr;47(4):508-11. X-1.
2216. Hammar M, Bostrom K and Borgvall B. Comparison between the influence of methylethylgometrine and oxytocin on the incidence of retained placenta in the third stage of labour. *Gynecol Obstet Invest.* 1990;30(2):91-3. X-1.
2217. Hamrick SE, Olshan AF, Neglia JP, et al. Association of pregnancy history and birth characteristics with neuroblastoma: a report from the Children's Cancer Group and the Pediatric Oncology Group. *Paediatr Perinat Epidemiol.* 2001 Oct;15(4):328-37. X-1.
2218. Han DW, Hong SW, Kwon JY, et al. Epidural ondansetron is more effective to prevent postoperative pruritus and nausea than intravenous ondansetron in elective cesarean delivery. *Acta Obstet Gynecol Scand.* 2007;86(6):683-7. X-1.
2219. Han TH, Brimacombe J, Lee EJ, et al. The laryngeal mask airway is effective (and probably safe) in selected healthy parturients for elective Cesarean section: a prospective study of 1067 cases. *Can J Anaesth.* 2001 Dec;48(11):1117-21. X-9.
2220. Hancock SF. The role of the judge in medical treatment decisions. *Albany Law Rev.* 1994;57(3):647-54. X-1, X-2.
2221. Handa VL, Harvey L, Fox HE, et al. Parity and route of delivery: does cesarean delivery reduce bladder symptoms later in life? *Am J Obstet Gynecol.* 2004 Aug;191(2):463-9. X-1.
2222. Haney EI, Reiter JA, MacGregor SN, et al. Optional vaginal delivery rate. An informative indicator of intrapartum care. *J Reprod Med.* 1999 Oct;44(10):842-8. X-1.
2223. Hangsleben K, Jones M, Lia-Hoagberg B, et al. Medicaid and non-Medicaid prenatal care by nurse-midwives. Comparison of risk, time, care coordination, and reimbursement. *J Nurse-Midwifery.* 1995 Jul-Aug;40(4):320-7. X-1.
2224. Hanigsberg JE. Power and procreation: state interference in pregnancy. *Ottawa Law Rev.* 1991;23(1):35-70. X-1, X-2.
2225. Hankins GD, Hammond TL, Snyder RR, et al. Transverse lie. *Am J Perinatol.* 1990 Jan;7(1):66-70. X-1.
2226. Hankins GD, Rowe J, Quirk JG, Jr., et al. Significance of brown and/or green amniotic fluid at the time of second trimester genetic amniocentesis. *Obstet Gynecol.* 1984 Sep;64(3):353-8. X-1.
2227. Hannah ME, Hannah WJ, Hellmann J, et al. Induction of labor as compared with serial antenatal monitoring in post-term pregnancy. A randomized controlled trial. The Canadian Multicenter Post-term Pregnancy Trial Group. *N Engl J Med.* 1992 Jun 11;326(24):1587-92. X-1, X-4e, X-5.
2228. Hannah ME, Hannah WJ, Hewson SA, et al. Planned caesarean section versus planned vaginal birth for breech presentation at term: a randomised multicentre trial. Term Breech Trial Collaborative Group. *Lancet.* 2000 Oct 21;356(9239):1375-83. X-4c.
2229. Hannah ME, Hannah WJ, Hodnett ED, et al. Outcomes at 3 months after planned cesarean vs planned vaginal delivery for breech presentation at term: the international randomized Term Breech Trial. *JAMA.* 2002 Apr 10;287(14):1822-31. X-4c, X-3.
2230. Hannah ME, Hodnett ED, Willan A, et al. Prelabor rupture of the membranes at term: expectant management at home or in hospital? The TermPROM Study Group. *Obstet Gynecol.* 2000 Oct;96(4):533-8. X-1, X-2.
2231. Hannah ME, Huh C, Hewson SA, et al. Postterm pregnancy: putting the merits of a policy of induction of labor into perspective. *Birth.* 1996 Mar;23(1):13-9. X-1.
2232. Hannah ME, Ohlsson A, Farine D, et al. Induction of labor compared with expectant management for prelabor rupture of the membranes at term. TERMPROM Study Group. *N Engl J Med.* 1996 Apr 18;334(16):1005-10. X-4d, X-4e.
2233. Hannah ME, Whyte H, Hannah WJ, et al. Maternal outcomes at 2 years after planned cesarean section versus planned vaginal birth for breech presentation at term: the international randomized Term Breech Trial. *Am J Obstet Gynecol.* 2004 Sep;191(3):917-27. X-1.
2234. Hannke-Lohmann A, Pildner von Steinburg S, Dehne K, et al. Downregulation of a mitogen-activated protein kinase signaling pathway in the placentas of women with preeclampsia. *Obstet Gynecol.* 2000 Oct;96(4):582-7. X-1.
2235. Hansen AR, Allred EN and Leviton A. Predictors of ventriculoperitoneal shunt among babies with intraventricular hemorrhage. *J Child Neurol.* 1997 Sep;12(6):381-6. X-1.
2236. Hansen V, Maigaard S, Allen J, et al. Effects of vasoactive intestinal polypeptide and substance P on human intramyometrial arteries and stem villous arteries in term pregnancy. *Placenta.* 1988 Sep-Oct;9(5):501-6. X-1.
2237. Hanson U and Persson B. Outcome of pregnancies complicated by type 1 insulin-

- dependent diabetes in Sweden: acute pregnancy complications, neonatal mortality and morbidity. *Am J Perinatol.* 1993 Jul;10(4):330-3. X-1.
2238. Hanson U, Persson B and Stangenberg M. Factors influencing neonatal morbidity in diabetic pregnancy. *Diabetes Res.* 1986 Feb;3(2):71-6. X-1.
2239. Hanss R, Bein B, Francksen H, et al. Heart rate variability-guided prophylactic treatment of severe hypotension after subarachnoid block for elective cesarean delivery. *Anesthesiology.* 2006 Apr;104(4):635-43. X-9.
2240. Hanss R, Bein B, Ledowski T, et al. Heart rate variability predicts severe hypotension after spinal anesthesia for elective cesarean delivery. *Anesthesiology.* 2005 Jun;102(6):1086-93. X-1.
2241. Hanss R, Ohnesorge H, Kaufmann M, et al. Changes in heart rate variability may reflect sympatholysis during spinal anaesthesia. *Acta Anaesthesiol Scand.* 2007 Nov;51(10):1297-304. X-1.
2242. Hantoushzadeh S, Rajabzadeh A, Saadati A, et al. Caesarean or normal vaginal delivery: overview of physicians' self-preference and suggestion to patients. *Arch Gynecol Obstet.* 2009 Jul;280(1):33-7. X-1.
2243. Hanzal E, Kainz C, Hoffmann G, et al. An analysis of the prediction of cephalopelvic disproportion. *Arch Gynecol Obstet.* 1993;253(4):161-6. X-1.
2244. Harger JH, Hsing AW, Tuomala RE, et al. Risk factors for preterm premature rupture of fetal membranes: a multicenter case-control study. *Am J Obstet Gynecol.* 1990 Jul;163(1 Pt 1):130-7. X-1.
2245. Harjulehto-Mervaala T, Hovi T, Aro T, et al. Oral poliovirus vaccination and pregnancy complications. *Acta Obstet Gynecol Scand.* 1995 Apr;74(4):262-5. X-1.
2246. Harlass FE and Duff P. The duration of labor in primiparas undergoing vaginal birth after cesarean delivery. *Obstet Gynecol.* 1990 Jan;75(1):45-7. X-1.
2247. Harle T, Brun JL and Leng JJ. Induction of labor in twin pregnancy after 36 weeks does not increase maternal-fetal morbidity. *Int J Gynaecol Obstet.* 2002 Apr;77(1):15-21. X-1.
2248. Harlev A, Levy A, Zaulan Y, et al. Idiopathic bleeding during the second half of pregnancy as a risk factor for adverse perinatal outcome. *J Matern Fetal Neonatal Med.* 2008 May;21(5):331-5. X-1.
2249. Harmon D, Ryan M, Kelly A, et al. Acupressure and prevention of nausea and vomiting during and after spinal anaesthesia for caesarean section. *Br J Anaesth.* 2000 Apr;84(4):463-7. X-9.
2250. Harnett MJ, O'Rourke N, Walsh M, et al. Transdermal scopolamine for prevention of intrathecal morphine-induced nausea and vomiting after cesarean delivery. *Anesth Analg.* 2007 Sep;105(3):764-9. X-9.
2251. Harper DM, Johnson CA, Harper WH, et al. Prenatal predictors of cesarean section due to labor arrest. *Arch Gynecol Obstet.* 1995;256(2):67-74. X-1.
2252. Harrigill KM, Miller HS and Haynes DE. The effect of intraabdominal irrigation at cesarean delivery on maternal morbidity: a randomized trial. *Obstet Gynecol.* 2003 Jan;101(1):80-5. X-9.
2253. Harrington LC, Miller DA, McClain CJ, et al. Vaginal birth after cesarean in a hospital-based birth center staffed by certified nurse-midwives. *J Nurse Midwifery.* 1997 Jul-Aug;42(4):304-7. X-1, X-4b.
2254. Harris DT. Experience in autologous and allogeneic cord blood banking. *J Hematother.* 1996 Apr;5(2):123-8. X-1.
2255. Harris JK. Self-care is possible after cesarean delivery. *Nurs Clin North Am.* 1980 Mar;15(1):191-204. X-1.
2256. Harris SJ, Farren MD, Janssen PA, et al. Single room maternity care: perinatal outcomes, economic costs, and physician preferences. *J Obstet Gynaecol Can.* 2004 Jul;26(7):633-40. X-1.
2257. Harrison DM, Sinatra R, Morgese L, et al. Epidural narcotic and patient-controlled analgesia for post-cesarean section pain relief. *Anesthesiology.* 1988 Mar;68(3):454-7. X-9.
2258. Harrison MR, Bressack MA, Churg AM, et al. Correction of congenital diaphragmatic hernia in utero. II. Simulated correction permits fetal lung growth with survival at birth. *Surgery.* 1980 Aug;88(2):260-8. X-4e.
2259. Harrison V and Peat G. Red blood cell magnesium and hypoxic-ischaemic encephalopathy. *Early Hum Dev.* 1997 Feb 20;47(3):287-96. X-1, X-4e.
2260. Harsem NK, Staff AC, He L, et al. The decidual suction method: a new way of collecting decidual tissue for functional and morphological studies. *Acta Obstet Gynecol Scand.* 2004 Aug;83(8):724-30. X-1.
2261. Hart LG, Dobie SA, Baldwin LM, et al. Rural and urban differences in physician resource use for low-risk obstetrics. *Health Serv Res.* 1996 Oct;31(4):429-52. X-1.
2262. Hart MK, Lee KY, Hart RF, et al. Application of attribute control charts to risk-adjusted data for monitoring and improving health care performance. *Qual Manag Health Care.* 2003 Jan-Mar;12(1):5-19. X-1.
2263. Harten JM, Boyne I, Hannah P, et al. Effects of a height and weight adjusted dose of local anaesthetic for spinal anaesthesia for elective Caesarean section. *Anaesthesia.* 2005 Apr;60(4):348-53. X-9.
2264. Hartert RA, Jr., Benrubi G, Thompson RJ, et al. Cefonicid vs. cefoxitin for cesarean section

- prophylaxis. *J Reprod Med.* 1987 Dec;32(12):907-10. X-9.
2265. Bruggemann OM, Parpinelli MA, Osis MJ, et al. Support to woman by a companion of her choice during childbirth: a randomized controlled trial. *Reprod Health.* 2007;4:5. X-5, X-6.
2266. Has R, Batukan C, Ermis H, et al. Comparison of 25 and 50 microg vaginally administered misoprostol for preinduction of cervical ripening and labor induction. *Gynecol Obstet Invest.* 2002;53(1):16-21. X-4d.
2267. Hasegawa J, Matsuoka R, Ichizuka K, et al. Cord insertion into the lower third of the uterus in the first trimester is associated with placental and umbilical cord abnormalities. *Ultrasound Obstet Gynecol.* 2006 Aug;28(2):183-6. X-1.
2268. Hasegawa M, Fujisawa H, Hayashi Y, et al. Autologous amnion graft for repair of myelomeningocele: technical note and clinical implication. *J Clin Neurosci.* 2004 May;11(4):408-11. X-1.
2269. Hatjis CG, Kofinas AD, Greelish JP, et al. Interrelationship between atrial natriuretic factor concentrations and acute volume expansion in pregnant and nonpregnant women. *Am J Obstet Gynecol.* 1990 Jul;163(1 Pt 1):45-50. X-1.
2270. Hauch MA, Gaiser RR, Hartwell BL, et al. Maternal and fetal colloid osmotic pressure following fluid expansion during cesarean section. *Crit Care Med.* 1995 Mar;23(3):510-4. X-1.
2271. Hauch MA, Hartwell BL, Hunt CO, et al. Comparative effects of subarachnoid hyperbaric bupivacaine and tetracaine-procaine for cesarean delivery. *Reg Anesth.* 1990 Mar-Apr;15(2):81-5. X-1, X-3, X-4b.
2272. Hauck YL, Fenwick J, Dhaliwal SS, et al. A Western Australian survey of breastfeeding initiation, prevalence and early cessation patterns. *Matern Child Health J.* 2011 Feb;15(2):260-8. X-1.
2273. Haugen F, Ranheim T, Harsem NK, et al. Increased plasma levels of adipokines in preeclampsia: relationship to placenta and adipose tissue gene expression. *Am J Physiol Endocrinol Metab.* 2006 Feb;290(2):E326-33. X-9.
2274. Haukkamaa M, Nilsson CG and Luukkainen T. Screening, management, and outcome of pregnancy in diabetic mothers. *Obstet Gynecol.* 1980 May;55(5):596-602. X-1.
2275. Hauth JC, Ewell MG, Levine RJ, et al. Pregnancy outcomes in healthy nulliparas who developed hypertension. Calcium for Preeclampsia Prevention Study Group. *Obstet Gynecol.* 2000 Jan;95(1):24-8. X-3, X-4e, X-5.
2276. Hauth JC, Owen J and Davis RO. Transverse uterine incision closure: one versus two layers. *Am J Obstet Gynecol.* 1992 Oct;167(4 Pt 1):1108-11. X-3, X-4b, X-5.
2277. Haverkamp AD, Orleans M, Langendoerfer S, et al. A controlled trial of the differential effects of intrapartum fetal monitoring. *Am J Obstet Gynecol.* 1979 Jun 15;134(4):399-412. X-4e, X-5.
2278. Haverkamp AD, Thompson HE, McFee JG, et al. The evaluation of continuous fetal heart rate monitoring in high-risk pregnancy. *Am J Obstet Gynecol.* 1976 Jun 1;125(3):310-20. X-4e, X-5.
2279. Hawkins JL, Hess KR, Kubicek MA, et al. A reevaluation of the association between instrument delivery and epidural analgesia. *Reg Anesth.* 1995 Jan-Feb;20(1):50-6. X-1.
2280. Hawkins JL, Johnson TD, Kubicek MA, et al. Vecuronium for rapid-sequence intubation for cesarean section. *Anesth Analg.* 1990 Aug;71(2):185-90. X-1.
2281. Hawkins JL, Koonin LM, Palmer SK, et al. Anesthesia-related deaths during obstetric delivery in the United States, 1979-1990. *Anesthesiology.* 1997 Feb;86(2):277-84. X-1, X-4e.

2282. Hawkins TL, Lange IR and Gibson PS. Compliance with a perinatal prophylaxis policy for prevention of venous thromboembolism after caesarean section. *J Obstet Gynaecol Can.* 2008 Dec;30(12):1110-7. X-1.
2283. Hawrylyshyn PA, Bernstein P and Papsin FR. Short-term antibiotic prophylaxis in high-risk patients following cesarean section. *Am J Obstet Gynecol.* 1983 Feb 1;145(3):285-9. X-3, X-4b.
2284. Hay DA, Gleeson C, Davies C, et al. What information should the multiple birth family receive before, during and after the birth? *Acta Genet Med Gemellol (Roma).* 1990;39(2):259-69. X-1.
2285. Hayashi M, Hoshimoto K, Komine F, et al. Macrophage colony-stimulating factor levels in amniotic fluid before and after the onset of labor do not differ in normal pregnancies. *Am J Reprod Immunol.* 2004 May;51(5):329-35. X-1, X-4e.
2286. Hayashi M, Hoshimoto K and Ohkura T. Changes in blood macrophage colony-stimulating factor levels after cesarean section in normotensive pregnancy and preeclampsia. *Am J Med Sci.* 2002 Jul;324(1):5-9. X-9.
2287. Hayashi M, Sohma R, Sumioka Y, et al. Granulocyte-macrophage colony-stimulating factor levels in amniotic fluid before the onset of labor and during labor do not differ in normal pregnancies. *Am J Reprod Immunol.* 2006 Jan;55(1):69-75. X-1, X-4e.
2288. Hayman RG, Sattar N, Warren AY, et al. Relationship between myometrial resistance artery behavior and circulating lipid composition. *Am J Obstet Gynecol.* 1999 Feb;180(2 Pt 1):381-6. X-1.
2289. Haynes SR, Davidson I, Allsop JR, et al. Comparison of epidural methadone with epidural diamorphine for analgesia following caesarean section. *Acta Anaesthesiol Scand.* 1993 May;37(4):375-80. X-9.
2290. Haywood JL, Goldenberg RL, Bronstein J, et al. Comparison of perceived and actual rates of survival and freedom from handicap in premature infants. *Am J Obstet Gynecol.* 1994 Aug;171(2):432-9. X-1.
2291. Head BB, Owen J, Vincent RD, Jr., et al. A randomized trial of intrapartum analgesia in women with severe preeclampsia. *Obstet Gynecol.* 2002 Mar;99(3):452-7. X-4e, X-5.
2292. Healy AJ, Malone FD, Sullivan LM, et al. Early access to prenatal care: implications for racial disparity in perinatal mortality. *Obstet Gynecol.* 2006 Mar;107(3):625-31. X-1.
2293. Heathcote R, Baird R, Ackland R, et al. Caesarean section surgical site surveillance in a private healthcare setting: a collaboration with the Victorian Hospital Acquired Infection Surveillance System (VICNISS) Coordinating Centre. *Healthcare Infection.* 2008;13(3):83-87. X-1.
2294. Hebisch G, Graaug AA, Neumaier-Wagner PM, et al. The relationship between cervical dilatation, interleukin-6 and interleukin-8 during term labor. *Acta Obstet Gynecol Scand.* 2001 Sep;80(9):840-8. X-9.
2295. Hecht JL, Onderdonk A, Delaney M, et al. Characterization of chorioamnionitis in 2nd-trimester C-section placentas and correlation with microorganism recovery from subamniotic tissues. *Pediatr Dev Pathol.* 2008 Jan-Feb;11(1):15-22. X-1, X-9.
2296. Heck KE, Schoendorf KC, Chavez GF, et al. Does postpartum length of stay affect breastfeeding duration? A population-based study. *Birth.* 2003 Sep;30(3):153-9. X-1.
2297. Heckbert SR, Stephens CR and Daling JR. Diabetes in pregnancy: maternal and infant outcome. *Paediatr Perinat Epidemiol.* 1988 Oct;2(4):314-26. X-1, X-4e, X-5.
2298. Heddleston LN and Watson WJ. Vaginal birth after cesarean section in a small hospital. *Mil Med.* 1991 May;156(5):239-40. X-1.
2299. Heese Hde V, Davey DA, Rorke M, et al. Effect of maternal anaesthesia on oxygenation and acid-base status of the newborn infant. *S Afr Med J.* 1973 Oct 27;47(42):1991-9. X-3, X-4b, X-5.
2300. Hefni MA and Lewis GA. Induction of labour with vaginal prostaglandin E2 pessaries. *Br J Obstet Gynaecol.* 1980 Mar;87(3):199-202. X-1.
2301. Hehre FW. Continuous lumbar peridural anesthesia in obstetrics. V. Double-blind comparison of 2 percent lidocaine and 2 percent prilocaine. *Anesth Analg.* 1969 Mar-Apr;48(2):177-80. X-1, X-4e, X-5.
2302. Heiberg E, Skurtveit S, Helsing E, et al. Women's experiences of giving birth in Northwest Russia in 2000 and 2002 and in Northern Norway 2000. *Acta Obstet Gynecol Scand.* 2007;86(3):373-5. X-1.
2303. Heikkila A, Tuomisto T, Hakkinen SK, et al. Tumor suppressor and growth regulatory genes are overexpressed in severe early-onset preeclampsia--an array study on case-specific human preeclamptic placental tissue. *Acta Obstet Gynecol Scand.* 2005 Jul;84(7):679-89. X-1.
2304. Heilbrun ME, Nygaard IE, Lockhart ME, et al. Correlation between levator ani muscle injuries on magnetic resonance imaging and fecal incontinence, pelvic organ prolapse, and urinary incontinence in primiparous women. *Am J Obstet Gynecol.* 2010 May;202(5):488 e1-6. X-1.

2305. Heilmann L, Rath W, Pollow K, et al. The rheological changes after cesarean section: The influence of low molecular weight or unfractionated heparin on the rheological properties of blood. *Clin Hemorheol Microcirc.* 2007;37(3):211-8. X-1, X-9.
2306. Heimstad R, Skogvoll E, Mattsson LA, et al. Induction of labor or serial antenatal fetal monitoring in postterm pregnancy: a randomized controlled trial. *Obstet Gynecol.* 2007 Mar;109(3):609-17. X-4e.
2307. Heinberg EM, Wood RA and Chambers RB. Elective induction of labor in multiparous women. Does it increase the risk of cesarean section? *J Reprod Med.* 2002 May;47(5):399-403. X-1.
2308. Heineck I, Ferreira MB and Schenkel EP. Prescribing practice for antibiotic prophylaxis for cesarean section in a teaching hospital in Brazil. *Am J Infect Control.* 2002 Oct;30(6):341-5. X-9.
2309. Heinen L, Peterson E, Pion K, et al. Quality evaluation in a managed care system: comparative data to assess health plan performance. *Manag Care Q.* 1993 Winter;1(1):62-76. X-5.
2310. Helbo-Hansen S, Bang U, Garcia RS, et al. Subarachnoid versus epidural bupivacaine 0.5% for cesarean section. *Acta Anaesthesiol Scand.* 1988 Aug;32(6):473-6. X-9.
2311. Helfand M, Marton K and Ueland K. Factors involved in the interpretation of fetal monitor tracings. *Am J Obstet Gynecol.* 1985 Mar 15;151(6):737-44. X-1.
2312. Helfand M and Zimmer-Gembeck MJ. Practice variation and the risk of low birth weight in a public prenatal care program. *Med Care.* 1997 Jan;35(1):16-31. X-1.
2313. Hellwig JP. Morning sickness treatments. *Nursing for Women's Health.* 2010;14(6):447-453. X-4e.
2314. Helm DA, Keegan KA, Jr. and Porto M. Hyperstimulation contraction stress tests: an evaluation of outcome by test pattern. *Am J Perinatol.* 1991 Sep;8(5):304-7. X-1.
2315. Helmer H, Hackl T, Schneeberger C, et al. Oxytocin and vasopressin 1a receptor gene expression in the cycling or pregnant human uterus. *Am J Obstet Gynecol.* 1998 Dec;179(6 Pt 1):1572-8. X-1.
2316. Helmerhorst FM, Perquin DAM, Donker D, et al. Perinatal outcome of singletons and twins after assisted conception: a systematic review of controlled studies... reprinted from *BMJ* 2004;328:261. *Neonatal Intensive Care.* 2005;18(7):30-34. X-4e.
2317. Heluin G and Papiernik E. Spontaneous or systematically induced labor for the termination of twin pregnancies. *Acta Genet Med Gemellol (Roma).* 1981;30(4):285-8. X-1.
2318. Heluin G, Papiernik E, Berardi JC, et al. Delivery of twin pregnancy. *Acta Genet Med Gemellol (Roma).* 1979;28(4):361-2. X-4e.
2319. Hemlin J and Moller B. Extraamniotic saline infusion is promising in preparing the cervix for induction of labor. *Acta Obstet Gynecol Scand.* 1998 Jan;77(1):45-9. X-4d.
2320. Hemminki E. Effects of cesarean section on fertility and abortions. *J Reprod Med.* 1986 Jul;31(7):620-4. X-1.
2321. Hemminki E. Long term maternal health effects of caesarean section. *J Epidemiol Community Health.* 1991 Mar;45(1):24-8. X-1.
2322. Hemminki E, Graubard BI, Hoffman HJ, et al. Cesarean section and subsequent fertility: results from the 1982 National Survey of Family Growth. *Fertil Steril.* 1985 Apr;43(4):520-8. X-1.
2323. Hemminki E, Heikkila K, Sevon T, et al. Special features of health services and register based trials - experiences from a randomized trial of childbirth classes. *BMC Health Serv Res.* 2008;8:126. X-1.
2324. Hemminki E, Klemetti R and Gissler M. Cesarean section rates among health professionals in Finland, 1990-2006. *Acta Obstet Gynecol Scand.* 2009;88(10):1138-44. X-1.
2325. Hemminki E and Merilainen J. Long-term effects of cesarean sections: ectopic pregnancies and placental problems. *Am J Obstet Gynecol.* 1996 May;174(5):1569-74. X-1.
2326. Hemminki E and Rimpela U. A randomized comparison of routine versus selective iron supplementation during pregnancy. *J Am Coll Nutr.* 1991 Feb;10(1):3-10. X-4e, X-5.
2327. Hemminki E and Simukka R. The timing of hospital admission and progress of labour. *Eur J Obstet Gynecol Reprod Biol.* 1986 Jun;22(1-2):85-94. X-1.
2328. Hemminki E, Virta A and Koponen P. A trial on continuous human support during labor; Feasibility, interventions and mothers' satisfaction. *J Psychosom Obstet Gynaecol.* 1990;11:239-250. .
2329. Hemsell DL, Cunningham FG, DePalma RT, et al. Cefotaxime sodium therapy for endomyometritis following cesarean section: dose-finding and comparative studies. *Obstet Gynecol.* 1983 Oct;62(4):489-97. X-9.
2330. Hemsell DL, Cunningham FG, Nolan CM, et al. Clinical experience with cefotaxime in obstetric and gynecologic infections. *Rev Infect Dis.* 1982 Sep-Oct;4 Suppl:S432-8. X-9.
2331. Henderson SK, Matthew EB, Cohen H, et al. Epidural hydromorphone: a double-blind comparison with intramuscular hydromorphone for postcesarean section analgesia. *Anesthesiology.* 1987 Jun;66(6):825-30. X-4e.

2332. Hendler I, Schatz M, Momirova V, et al. Association of obesity with pulmonary and nonpulmonary complications of pregnancy in asthmatic women. *Obstet Gynecol.* 2006 Jul;108(1):77-82. X-1, X-4e.
2333. Hendricks SK, Ross B, Colvard MA, et al. Amyl nitrite: use as a smooth muscle relaxant in difficult preterm cesarean section. *Am J Perinatol.* 1992 Jul;9(4):289-92. X-1.
2334. Hendrickx AG, Cukierski M, Prahallada S, et al. Evaluation of benedictin embryotoxicity in nonhuman primates: II. Double-blind study in term cynomolgus monkeys. *Teratology.* 1985 Oct;32(2):191-4. X-1.
2335. Henne MB, Zhang M, Paroski S, et al. Comparison of obstetric outcomes in recipients of donor oocytes vs. women of advanced maternal age with autologous oocytes. *J Reprod Med.* 2007 Jul;52(7):585-90. X-1.
2336. Hennebry MC, Stocks GM, Belavadi P, et al. Effect of i.v. phenylephrine or ephedrine on the ED50 of intrathecal bupivacaine with fentanyl for caesarean section. *Br J Anaesth.* 2009 Jun;102(6):806-11. X-9.
2337. Hennessy A, Thornton CE, Makris A, et al. A randomised comparison of hydralazine and mini-bolus diazoxide for hypertensive emergencies in pregnancy: the PIVOT trial. *Aust N Z J Obstet Gynaecol.* 2007 Aug;47(4):279-85. X.
2338. Henriksen TB, Sperling L, Hedegaard M, et al. Cesarean section in twin pregnancies in two Danish counties with different cesarean section rates. *Acta Obstet Gynecol Scand.* 1994 Feb;73(2):123-8. X-1.
2339. Henry GP and Miller WA. Early amniocentesis. *J Reprod Med.* 1992 May;37(5):396-402. X-1.
2340. Henry GR. A controlled trial of surgical induction of labour and amniocentesis in the management of prolonged pregnancy. *J Obstet Gynaecol Br Commonw.* 1969 Sep;76(9):795-8. X-4d, X-4e.
2341. Henry JA, Baker RW and Yanowitz TD. The in utero passage of meconium by very low birth weight infants: a marker for adverse outcomes. *J Perinatol.* 2006 Feb;26(2):125-9. X-1.
2342. Henry OA, Guaran RL, Petterson CD, et al. Obstetric and birthweight differences between Vietnam-born and Australian-born women. *Med J Aust.* 1992 Mar 2;156(5):321-4. X-1.
2343. Herabutya Y, Chanarachakul B and Punyavachira P. Induction of labor with vaginal misoprostol for second trimester termination of pregnancy in the scarred uterus. *Int J Gynaecol Obstet.* 2003 Dec;83(3):293-7. X-1.
2344. Herabutya Y and P OP. The use of low dose 1.5 mg prostaglandin E2 gel for cervical ripening and induction of labor at term with unfavorable cervix. *J Med Assoc Thai.* 1995 Nov;78(11):590-5. X-1.
2345. Herabutya Y, P OP and Pokpirom J. A comparison of intravaginal misoprostol and intracervical prostaglandin E2 gel for ripening of unfavorable cervix and labor induction. *J Obstet Gynaecol Res.* 1997 Aug;23(4):369-74. X-1.
2346. Herabutya Y, Suchatwatnachai C and P OP. Comparison of intravenous oxytocin with and without vaginal prostaglandin E2 gel in term pregnancy with premature rupture of membranes and unfavorable cervix. *J Med Assoc Thai.* 1991 Feb;74(2):92-6. X-3, X-4d, X-4e, X-5.
2347. Heradien MJ, Goosen A, Crotti L, et al. Does pregnancy increase cardiac risk for LQT1 patients with the KCNQ1-A341V mutation? *J Am Coll Cardiol.* 2006 Oct 3;48(7):1410-5. X-1.
2348. Herbert WN. Cesarean delivery by patient choice: where do things stand? *Obstet Gynecol Surv.* 2007 Mar;62(3):153-4. X-1, X-2.
2349. Herbst A and Ingemarsson I. Intermittent versus continuous electronic monitoring in labour: a randomised study. *Br J Obstet Gynaecol.* 1994 Aug;101(8):663-8. X-4e, X-5.
2350. Herbst A and Kallen K. Influence of mode of delivery on neonatal mortality in the second twin, at and before term. *BJOG.* 2008 Nov;115(12):1512-7. X-1.
2351. Herbstman CH, Jaffee JB, Tuman KJ, et al. An in vivo evaluation of four spinal needles used for the combined spinal-epidural technique. *Anesth Analg.* 1998 Mar;86(3):520-2. X-3, X-4e.
2352. Heres MH, Pel M, Elferink-Stinkens PM, et al. The Dutch obstetric intervention study--variations in practice patterns. *Int J Gynaecol Obstet.* 1995 Aug;50(2):145-50. X-1, X-4e, X-5.
2353. Herm FB, Killguss H and Stewart AG. Osteomalacia in Hazara District, Pakistan. *Trop Doct.* 2005 Jan;35(1):8-10. X-1.
2354. Herman G, Cohen AW, Talbot GH, et al. Cefoxitin versus clindamycin and gentamicin in the treatment of postcesarean section infections. *Obstet Gynecol.* 1986 Mar;67(3):371-6. X-9.
2355. Herman NL, Calicott R, Van Decar TK, et al. Determination of the dose-response relationship for intrathecal sufentanil in laboring patients. *Anesth Analg.* 1997 Jun;84(6):1256-61. X-4e, X-5.
2356. Hermus MA, Verhoeven CJ, Mol BW, et al. Comparison of induction of labour and expectant management in postterm pregnancy: a matched cohort study. *J Midwifery Womens Health.* 2009 Sep-Oct;54(5):351-6. X-1.
2357. Hernandez-Diaz S, Van Marter LJ, Werler MM, et al. Risk factors for persistent

pulmonary hypertension of the newborn.
Pediatrics. 2007 Aug;120(2):e272-82. X-1.

2358. Herrel N, Olevitch L, DuBois DK, et al. Somali refugee women speak out about their needs for care during pregnancy and delivery. *J Midwifery Womens Health*. 2004 Jul-Aug;49(4):345-9. X-1.
2359. Herrero-Mercado M, Waliszewski SM, Valencia-Quintana R, et al. Organochlorine pesticide levels in adipose tissue of pregnant women in Veracruz, Mexico. *Bull Environ Contam Toxicol*. 2010 Jun;84(6):652-6. X-1.
2360. Herring J. Caesarean sections, phobias and foetal rights. *Camb Law J*. 1997 Nov;36(3):509-11. X-1, X-2, X-3, X-4, X-5.
2361. Herse F, Dechend R, Harsem NK, et al. Dysregulation of the circulating and tissue-based renin-angiotensin system in preeclampsia. *Hypertension*. 2007 Mar;49(3):604-11. X-1.
2362. Hershey DW and Quilligan EJ. Extraabdominal uterine exteriorization at cesarean section. *Obstet Gynecol*. 1978 Aug;52(2):189-92. X-9.
2363. Hershkovitz R, Kingdom JC, Geary M, et al. Fetal cerebral blood flow redistribution in late gestation: identification of compromise in small fetuses with normal umbilical artery Doppler. *Ultrasound Obstet Gynecol*. 2000 Mar;15(3):209-12. X-1.
2364. Herson VC, Block C, McLaughlin JC, et al. Placental blood sampling: an aid to the diagnosis of neonatal sepsis. *J Perinatol*. 1998 Mar-Apr;18(2):135-7. X-1.
2365. Hess PE, Snowman CE, Hahn CJ, et al. Chloroprocaine may not affect epidural morphine for postcesarean delivery analgesia. *J Clin Anesth*. 2006 Feb;18(1):29-33. X-9.
2366. Hew EM, Rolbin SH, Cole AF, et al. Obstetrical anaesthesia practice in the University of Toronto affiliated hospitals and some randomly selected community hospitals. *Can Anaesth Soc J*. 1981 Mar;28(2):158-66. X-1.
2367. Hewer N, Boschma G and Hall WA. Elective caesarean section as a transformative technological process: players, power and context. *J Adv Nurs*. 2009 Aug;65(8):1762-71. X-1.
2368. Hewson B. Ethical triumph, or surgical rape? *Solicit J*. 1993 Nov 26;137(45):1182-3. X-1.
2369. Hewson B. An upside-down world? *Mod Midwife*. 1997 May;7(5):18-9. X-1.
2370. Hewson B. Whose body is it, anyway? *Nurs Stand*. 1997 May 21;11(35):18. X-1, X-2.
2371. Hibbard JU, Gilbert S, Landon MB, et al. Trial of labor or repeat cesarean delivery in women with morbid obesity and previous cesarean delivery. *Obstet Gynecol*. 2006 Jul;108(1):125-33. X-1.
2372. Hibbard JU, Shashoua A, Adamczyk C, et al. Cervical ripening with prostaglandin gel and hygroscopic dilators. *Infect Dis Obstet Gynecol*. 1998;6(1):18-24. X-4d, X-5.

2373. Hickman ME, Rench MA, Ferrieri P, et al. Changing epidemiology of group B streptococcal colonization. *Pediatrics*. 1999 Aug;104(2 Pt 1):203-9. X-1.
2374. Hidalgo LA, Chedraui PA and Chavez MJ. Obstetrical and neonatal outcome in young adolescents of low socio-economic status: a case control study. *Arch Gynecol Obstet*. 2005 Mar;271(3):207-11. X-1.
2375. Hidar S, Jennane TM, Bouguizane S, et al. The effect of placental removal method at cesarean delivery on perioperative hemorrhage: a randomized clinical trial ISRCTN 49779257. *Eur J Obstet Gynecol Reprod Biol*. 2004 Dec 1;117(2):179-82. X-9.
2376. Higgins JR, Papayianni A, Brady HR, et al. Circulating vascular cell adhesion molecule-1 in pre-eclampsia, gestational hypertension, and normal pregnancy: evidence of selective dysregulation of vascular cell adhesion molecule-1 homeostasis in pre-eclampsia. *Am J Obstet Gynecol*. 1998 Aug;179(2):464-9. X-1.
2377. Higgins JR, Walshe JJ, Darling MR, et al. Hemostasis in the uteroplacental and peripheral circulations in normotensive and pre-eclamptic pregnancies. *Am J Obstet Gynecol*. 1998 Aug;179(2):520-6. X-1.
2378. Higuchi M, Hirano H and Maki M. Effect of human epidermal growth factor on lung surfactant production in fetal rabbit. *Tohoku J Exp Med*. 1989 Sep;159(1):15-22. X-1, X-2.
2379. Hiilesmaa V, Suhonen L and Teramo K. Glycaemic control is associated with pre-eclampsia but not with pregnancy-induced hypertension in women with type I diabetes mellitus. *Diabetologia*. 2000 Dec;43(12):1534-9. X-1.
2380. Hiilesmaa VK, Bardy A and Teramo K. Obstetric outcome in women with epilepsy. *Am J Obstet Gynecol*. 1985 Jul 1;152(5):499-504. X-1.
2381. Hildingsson I. How much influence do women in Sweden have on caesarean section? A follow-up study of women's preferences in early pregnancy. *Midwifery*. 2008 Mar;24(1):46-54. X-1.
2382. Hildingsson I, Radestad I and Lindgren H. Birth preferences that deviate from the norm in Sweden: planned home birth versus planned cesarean section. *Birth*. 2010 Dec;37(4):288-95. X-1.
2383. Hill JA, Devoe LD and Bryans CI, Jr. Frequency of asymptomatic bacteriuria in preeclampsia. *Obstet Gynecol*. 1986 Apr;67(4):529-32. X-1.
2384. Hill JB, Thigpen BD, Bofill JA, et al. A randomized clinical trial comparing vaginal misoprostol versus cervical Foley plus oral misoprostol for cervical ripening and labor induction. *Am J Perinatol*. 2009 Jan;26(1):33-8. X-4d.
2385. Hill NC, Hill JG, Sargent JM, et al. Effect of low dose heparin on blood loss at caesarean section. *Br Med J (Clin Res Ed)*. 1988 May 28;296(6635):1505-6. X-1.
2386. Hillan EM. Maternal-infant attachment following caesarean delivery. *Journal of Clinical Nursing*. 1992;1(1):33-37. X-1.
2387. Hillemanns P, Hasbargen U, Strauss A, et al. Maternal and neonatal morbidity of emergency caesarean sections with a decision-to-delivery interval under 30 minutes: evidence from 10 years. *Arch Gynecol Obstet*. 2003 Aug;268(3):136-41. X-1.
2388. Hilliard GD and Harris RE. Utilization of antibiotics for prevention of symptomatic postpartum infections. *Obstet Gynecol*. 1977 Sep;50(3):285-7. X-1.
2389. Hillier S, Watts DH, Lee MF, et al. Etiology and treatment of post-cesarean-section endometritis after cephalosporin prophylaxis. *J Reprod Med*. 1990 Mar;35(3 Suppl):322-8. X-9.
2390. Hilton J, Allan B, Swaby C, et al. Intravenous nitroglycerin for external cephalic version: a randomized controlled trial. *Obstet Gynecol*. 2009 Sep;114(3):560-7. X-4e.
2391. Hin LY, Lau TK, Rogers M, et al. Antepartum and intrapartum prediction of cesarean need: risk scoring in singleton pregnancies. *Obstet Gynecol*. 1997 Aug;90(2):183-6. X-1, X-4e, X-5.
2392. Hincz P, Borowski D, Krekora M, et al. Maternal obesity as a perinatal risk factor. *Ginekol Pol*. 2009 May;80(5):334-7. X-1.
2393. Hindawi I. Value and pregnancy outcome of external cephalic version. *East Mediterr Health J*. 2005 Jul;11(4):633-9. X-1.
2394. Hingson R, Gould JB, Morelock S, et al. Maternal cigarette smoking, psychoactive substance use, and infant Apgar scores. *Am J Obstet Gynecol*. 1982 Dec 15;144(8):959-66. X-1.
2395. Hirabayashi Y, Saitoh K, Fukuda H, et al. Visceral pain during caesarean section: effect of varying dose of spinal amethocaine. *Br J Anaesth*. 1995 Sep;75(3):266-8. X-9.
2396. Hiramatsu Y, Masuyama H, Mizutani Y, et al. Heavy-for-date infants: their backgrounds and relationship with gestational diabetes. *J Obstet Gynaecol Res*. 2000 Jun;26(3):193-8. X-1.
2397. Hirose M, Hara Y, Hosokawa T, et al. The effect of postoperative analgesia with continuous epidural bupivacaine after cesarean section on the amount of breast feeding and infant weight gain. *Anesth Analg*. 1996 Jun;82(6):1166-9. X-9.
2398. Hirose M, Hosokawa T and Tanaka Y. Extradural buprenorphine suppresses breast feeding after caesarean section. *Br J Anaesth*. 1997 Jul;79(1):120-1. X-1.

2399. Hirota Y, Sakai M and Nakabayashi M. Changes in plasma coagulation markers with prophylactic treatment of low molecular weight heparin after cesarean section. *Semin Thromb Hemost.* 2005 Jun;31(3):253-60. X-1.
2400. Hirsch SS. A family-centered cesarean birth. *Midwifery Today Int Midwife.* 2010 Autumn(95):38-9, 67. X-1, X-2.
2401. Hitschold TP. Doppler flow velocity waveforms of the umbilical arteries correlate with intravillous blood volume. *Am J Obstet Gynecol.* 1998 Aug;179(2):540-3. X-1, X-3, X-4e, X-5.
2402. Hizkiyahu R, Levy A and Sheiner E. Pregnancy outcome of patients with schizophrenia. *Am J Perinatol.* 2010 Jan;27(1):19-23. X-1.
2403. Hjelm Cluff A, Malmstrom A, Tingaker B, et al. Normal labor associated with changes in uterine heparan sulfate proteoglycan expression and localization. *Acta Obstet Gynecol Scand.* 2005 Mar;84(3):217-24. X-1.
2404. Hjertberg R, Faxelius G and Belfrage P. Comparison of outcome of labetalol or hydralazine therapy during hypertension in pregnancy in very low birth weight infants. *Acta Obstet Gynecol Scand.* 1993 Nov;72(8):611-5. X-3, X-4e, X-5.
2405. Hjertberg R, Hammarstrom M, Moberger B, et al. Premature rupture of the membranes (PROM) at term in nulliparous women with a ripe cervix. A randomized trial of 12 or 24 hours of expectant management. *Acta Obstet Gynecol Scand.* 1996 Jan;75(1):48-53. X-4e.
2406. Ho CM, Hseu SS, Tsai SK, et al. Effect of P-6 acupressure on prevention of nausea and vomiting after epidural morphine for post-cesarean section pain relief. *Acta Anaesthesiol Scand.* 1996 Mar;40(3):372-5. X-4e.
2407. Ho CM, Tsai HJ, Chan KH, et al. P6 acupressure does not prevent emesis during spinal anesthesia for cesarean delivery. *Anesth Analg.* 2006 Mar;102(3):900-3. X-4b.
2408. Ho Yuen B, Phillips WD, Cannon W, et al. Prolactin, estradiol, and thyroid hormones in umbilical cord blood of neonates with and without hyaline membrane disease: a study of 405 neonates from midpregnancy to term. *Am J Obstet Gynecol.* 1982 Mar 15;142(6 Pt 1):698-703. X-1.
2409. Hobel CJ, Parvez H, Parvez S, et al. Enzymes for epinephrine synthesis and metabolism in the myometrium, endometrium, red blood cells, and plasma of pregnant human subjects. *Am J Obstet Gynecol.* 1981 Dec 15;141(8):1009-18. X-1.
2410. Hobson JA, Slade P, Wrench IJ, et al. Preoperative anxiety and postoperative satisfaction in women undergoing elective caesarean section. *Int J Obstet Anesth.* 2006 Jan;15(1):18-23. X-1, X-9.
2411. Hod M, Bar J, Peled Y, et al. Antepartum management protocol. Timing and mode of delivery in gestational diabetes. *Diabetes Care.* 1998 Aug;21 Suppl 2:B113-7. X-1, X-4e, X-5.
2412. Hodgkinson R, Glassenberg R, Joyce TH, 3rd, et al. Comparison of cimetidine (Tagamet) with antacid for safety and effectiveness in reducing gastric acidity before elective cesarean section. *Anesthesiology.* 1983 Aug;59(2):86-90. X-9.
2413. Hodjati H and Kazerooni T. Location of the appendix in the gravid patient: a re-evaluation of the established concept. *Int J Gynaecol Obstet.* 2003 Jun;81(3):245-7. X-1.
2414. Hodnett ED, Gates S, Hofmeyr GJ, et al. Continuous support for women during childbirth. *Cochrane Database Syst Rev.* 2011;2:CD003766. X-1, X-2, X-3, X-4, X-5.
2415. Hodnett ED, Hannah ME, Hewson S, et al. Mothers' views of their childbirth experiences 2 years after planned Caesarean versus planned vaginal birth for breech presentation at term, in the international randomized Term Breech Trial. *J Obstet Gynaecol Can.* 2005 Mar;27(3):224-31. X-1.
2416. Hodnett ED and Osborn RW. Effects of continuous intrapartum professional support on childbirth outcomes. *Res Nurs Health.* 1989 Oct;12(5):289-97. X-4e, X-5.
2417. Hodnett ED and Osborn RW. A randomized trial of the effects of monitrice support during labor: mothers' views two to four weeks postpartum. *Birth.* 1989 Dec;16(4):177-83; discussion 183-4. X-4e, X-5.
2418. Hoffman DI, Abboud TK, Haase HR, et al. Plasma beta-endorphin concentrations prior to and during pregnancy, in labor, and after delivery. *Am J Obstet Gynecol.* 1984 Nov 1;150(5 Pt 1):492-6. X-1.
2419. Hofmeyr GJ. Effect of external cephalic version in late pregnancy on breech presentation and caesarean section rate: a controlled trial. *Br J Obstet Gynaecol.* 1983 May;90(5):392-9. X-3, X-4c, X-4d, X-5.
2420. Hofmeyr GJ. Amnioinfusion for potential or suspected umbilical cord compression in labour. *Cochrane Database of Systematic Reviews.* 1998(1). X-1, X-2.
2421. Hofmeyr GJ. Amnioinfusion for preterm rupture of membranes. *Cochrane Database of Systematic Reviews.* 1998(1). X-1, X-2.
2422. Hofmeyr GJ, Alfirevic Z, Matonhodze B, et al. Titrated oral misoprostol solution for induction of labour: a multi-centre, randomised trial. *BJOG.* 2001 Sep;108(9):952-9. X-4d.
2423. Hofmeyr GJ and Kulier R. External cephalic version for breech presentation at term. *Cochrane Database of Systematic Reviews.* 1996(1). X-1, X-2.
2424. Hofmeyr GJ and Kulier R. Operative versus conservative management for 'fetal distress' in

- labour. *Cochrane Database of Systematic Reviews*. 1998(2). X-1, X-2.
2425. Hofmeyr GJ and Shweni PM. Symphysiotomy for fetopelvic disproportion. *Cochrane Database of Systematic Reviews*. 2010(10). X-1, X-2.
2426. Hogberg U, Lynoe N and Wulff M. Cesarean by choice? Empirical study of public attitudes. *Acta Obstet Gynecol Scand*. 2008;87(12):1301-8. X-1.
2427. Hogg B, Hauth JC, Caritis SN, et al. Safety of labor epidural anesthesia for women with severe hypertensive disease. *National Institute of Child Health and Human Development Maternal-Fetal Medicine Units Network*. *Am J Obstet Gynecol*. 1999 Nov;181(5 Pt 1):1096-101. X-1.
2428. Hogle KL, Kilburn L, Hewson S, et al. Impact of the international term breech trial on clinical practice and concerns: a survey of centre collaborators. *J Obstet Gynaecol Can*. 2003 Jan;25(1):14-6. X-1.
2429. Hohlagschwandtner M, Chalubinski K, Nather A, et al. Continuous vs interrupted sutures for single-layer closure of uterine incision at cesarean section. *Arch Gynecol Obstet*. 2003 Apr;268(1):26-8. X-1.
2430. Hohlagschwandtner M, Ruecklinger E, Husslein P, et al. Is the formation of a bladder flap at cesarean necessary? A randomized trial. *Obstet Gynecol*. 2001 Dec;98(6):1089-92. X-9.
2431. Hohlfeld P. Cesarean section on request: a case for common sense. *Gynakol Geburtshilfliche Rundsch*. 2002;42(1):19-21. X-1, X-2.
2432. Hojberg KE, Aagaard J, Laursen H, et al. Closure versus non-closure of peritoneum at cesarean section--evaluation of pain. A randomized study. *Acta Obstet Gynecol Scand*. 1998 Aug;77(7):741-5. X-9.
2433. Holdcroft A, Morgan M, Gordon H, et al. Althesin as an induction agent for Caesarean section. *Br J Anaesth*. 1975 Nov;47(11):1213-7. X-9.
2434. Holdcroft A, Robinson MJ, Gordon H, et al. Comparison of effect of two induction doses of methohexitone on infants delivered by elective caesarean section. *Br Med J*. 1974 Jun 1;2(5917):472-5. X-1.
2435. Holden KR, Titus MO and Van Tassel P. Cranial magnetic resonance imaging examination of normal term neonates: a pilot study. *J Child Neurol*. 1999 Nov;14(11):708-10. X-1.
2436. Holdsworth JD. Relationship between stomach contents and analgesia in labour. *Br J Anaesth*. 1978 Nov;50(11):1145-8. X-1.
2437. Holdsworth-Carson SJ, Permezel M, Riley C, et al. Peroxisome proliferator-activated receptors and retinoid X receptor-alpha in term human gestational tissues: tissue specific and labour-associated changes. *Placenta*. 2009 Feb;30(2):176-86. X-1.
2438. Holland ML and Holland ES. Survey of Connecticut Nurse-Midwives. *J Midwifery Womens Health*. 2007 Mar-Apr;52(2):106-15. X-1.
2439. Hollander P and Maeder EC, Jr. Diabetes in pregnancy. No longer a barrier to successful outcome. *Postgrad Med*. 1985 Feb 1;77(2):137-41, 144-6. X-1, X-2.
2440. Hollinger JL. Transcutaneous electrical nerve stimulation after cesarean birth. *Phys Ther*. 1986 Jan;66(1):36-8. X-1.
2441. Hollmen AI, Eskelinen P, Tolonen U, et al. Effects of anaesthesia for caesarean section on the computerized EEG of the neonate. *Eur J Anaesthesiol*. 1985 Mar;2(1):39-51. X-1.
2442. Hollmen AI, Jouppila R, Albright GA, et al. Intervillous blood flow during caesarean section with prophylactic ephedrine and epidural anaesthesia. *Acta Anaesthesiol Scand*. 1984 Aug;28(4):396-400. X-1.
2443. Holmes P, Oppenheimer LW, Gravelle A, et al. The effect of variable heart rate decelerations on intraventricular hemorrhage and other perinatal outcomes in preterm infants. *J Matern Fetal Med*. 2001 Aug;10(4):264-8. X-1.
2444. Holmes R, Montemagno R, Jones J, et al. Fetal and maternal plasma insulin-like growth factors and binding proteins in pregnancies with appropriate or retarded fetal growth. *Early Hum Dev*. 1997 Jul 24;49(1):7-17. X-1.
2445. Holmlund U, Wahamaa H, Bachmayer N, et al. The novel inflammatory cytokine high mobility group box protein 1 (HMGB1) is expressed by human term placenta. *Immunology*. 2007 Nov;122(3):430-7. X-1.
2446. Holub Z, Lukac J, Kliment L, et al. Pregnancy outcomes and deliveries following laparoscopic transection of uterine vessels: a pilot study. *Eur J Obstet Gynecol Reprod Biol*. 2006 Apr 1;125(2):165-70. X-1.
2447. Holub Z, Mara M, Kuzel D, et al. Pregnancy outcomes after uterine artery occlusion: prospective multicentric study. *Fertil Steril*. 2008 Nov;90(5):1886-91. X-1, X-4e, X-5.
2448. Holzer D. Honouring traditional midwifery, valuing the knowledge: a Mexico conference. *International Midwifery*. 2004;17(2):18-19. X-1, X-2.
2449. Homer CS, Davis GK and Brodie PM. What do women feel about community-based antenatal care? *Aust N Z J Public Health*. 2000 Dec;24(6):590-5. X-4e, X-5.
2450. Homer CS, Davis GK, Cooke M, et al. Women's experiences of continuity of midwifery care in a randomised controlled trial in Australia. *Midwifery*. 2002 Jun;18(2):102-12. X-4e, X-5.
2451. Homer CS, Kurinczuk JJ, Spark P, et al. A novel use of a classification system to audit severe maternal morbidity. *Midwifery*. 2010 Oct;26(5):532-6. X-1.

2452. Homer CS, Matha DV, Jordan LG, et al. Community-based continuity of midwifery care versus standard hospital care: a cost analysis. *Aust Health Rev.* 2001;24(1):85-93. X-1.
2453. Homko CJ, Sivan E, Nyirjesy P, et al. The interrelationship between ethnicity and gestational diabetes in fetal macrosomia. *Diabetes Care.* 1995 Nov;18(11):1442-5. X-1.
2454. Homko CJ, Sivan E and Reece EA. The impact of self-monitoring of blood glucose on self-efficacy and pregnancy outcomes in women with diet-controlled gestational diabetes. *Diabetes Educ.* 2002 May-Jun;28(3):435-43. X-4e.
2455. Honarmand A and Safavi MR. Prediction of difficult laryngoscopy in obstetric patients scheduled for Caesarean delivery. *Eur J Anaesthesiol.* 2008 Sep;25(9):714-20. X-1.
2456. Hong JY, Jee YS, Jeong HJ, et al. Effects of epidural fentanyl on speed and quality of block for emergency cesarean section in extending continuous epidural labor analgesia using ropivacaine and fentanyl. *J Korean Med Sci.* 2010 Feb;25(2):287-92. X-9.
2457. Hong JY and Lee IH. Comparison of the effects of intrathecal morphine and pethidine on shivering after Caesarean delivery under combined-spinal epidural anaesthesia. *Anaesthesia.* 2005 Dec;60(12):1168-72. X-9.
2458. Hong JY, Park JW and Oh JI. Comparison of preoperative gastric contents and serum gastrin concentrations in pregnant and nonpregnant women. *J Clin Anesth.* 2005 Sep;17(6):451-5. X-1.
2459. Hong X. Factors related to the high cesarean section rate and their effects on the "price transparency policy" in Beijing, China. *Tohoku J Exp Med.* 2007 Jul;212(3):283-98. X-1.
2460. Hongo T, Kitamura A, Yokozuka M, et al. An epidural initial dose is unnecessary in combined spinal epidural anesthesia for Caesarean section. *J Nippon Med Sch.* 2006 Apr;73(2):70-4. X-9.
2461. Hood DD and Dewan DM. Anesthetic and obstetric outcome in morbidly obese parturients. *Anesthesiology.* 1993 Dec;79(6):1210-8. X-1.
2462. Hood DD, Dewan DM, James FM, 3rd, et al. The use of nitroglycerin in preventing the hypertensive response to tracheal intubation in severe preeclampsia. *Anesthesiology.* 1985 Sep;63(3):329-32. X-9.
2463. Hooi LS, Rozina G, Shaariah MY, et al. Pregnancy in patients with renal transplants in Malaysia. *Med J Malaysia.* 2003 Mar;58(1):27-36. X-1.
2464. Hopkins K. Are Brazilian women really choosing to deliver by cesarean? *Soc Sci Med.* 2000 Sep;51(5):725-40. X-1.
2465. Hopkins L and Smaill FM. Antibiotic prophylaxis regimens and drugs for cesarean section. *Cochrane Database of Systematic Reviews.* 1999(2). X-1, X-2.
2466. Hopkins LM, Caughey AB, Brown JS, et al. Concordance of chart abstraction and patient recall of intrapartum variables up to 53 years later. *Am J Obstet Gynecol.* 2007 Mar;196(3):233 e1-6. X-1.
2467. Hopkinson JM, Samaan AK, Russell IF, et al. A comparative multicentre trial of spinal needles for caesarean section. *Anaesthesia.* 1997 Oct;52(10):1005-11. X-9.
2468. Hopp H, Vollert W, Ragoesch V, et al. Indication and results of insulin therapy for gestational diabetes mellitus. *J Perinat Med.* 1996;24(5):521-30. X-4e, X-5.
2469. Horn EP, Schroeder F, Gottschalk A, et al. Active warming during cesarean delivery. *Anesth Analg.* 2002 Feb;94(2):409-14, table of contents. X-9.
2470. Hornick HL. Mama vs. fetus. *Med Trial Tech Q.* 1993;39(4):536-69. X-1.
2471. Horstman DJ, Riley ET and Carvalho B. A randomized trial of maximum cephalad sensory blockade with single-shot spinal compared with combined spinal-epidural techniques for cesarean delivery. *Anesth Analg.* 2009 Jan;108(1):240-5. X-9.
2472. Horta ML and Horta BL. Inhibition of epidural morphine-induced pruritus by intravenous droperidol. *Reg Anesth.* 1993 Mar-Apr;18(2):118-20. X-9.
2473. Horta ML, Morejon LC, da Cruz AW, et al. Study of the prophylactic effect of droperidol, alizapride, propofol and promethazine on spinal morphine-induced pruritus. *Br J Anaesth.* 2006 Jun;96(6):796-800. X-9.
2474. Horta ML, Ramos L, Goncalves Zda R, et al. Inhibition of epidural morphine-induced pruritus by intravenous droperidol. The effect of increasing the doses of morphine and of droperidol. *Reg Anesth.* 1996 Jul-Aug;21(4):312-7. X-9.
2475. Horta ML, Ramos L and Goncalves ZR. The inhibition of epidural morphine-induced pruritus by epidural droperidol. *Anesth Analg.* 2000 Mar;90(3):638-41. X-9.
2476. Hoskins IA, Ordorica SA, Frieden FJ, et al. Performance of cesarean section using absorbable staples. *Surg Gynecol Obstet.* 1991 Feb;172(2):108-12. X-9.
2477. Hossain N, Khan N and Sultana SS. Abruptio placenta and adverse pregnancy outcome. *J Pak Med Assoc.* 2010 Jun;60(6):443-6. X-1.
2478. Hossein-Nezhad A, Maghbooli Z, Vassigh AR, et al. Prevalence of gestational diabetes mellitus and pregnancy outcomes in Iranian women. *Taiwan J Obstet Gynecol.* 2007 Sep;46(3):236-41. X-1.
2479. Hou S. Pregnancy and birth control in CAPD patients. *Adv Perit Dial.* 1993;9:173-6. X-1.

2480. Houghton DJ. Use of lorazepam as a premedicant for caesarean section. An evaluation of its effects on the mother and the neonate. *Br J Anaesth.* 1983 Aug;55(8):767-71. X-9.
2481. Houlton PC, Downing JW, Buley RJ, et al. Anaesthetic induction of caesarean section with thiopentone, methohexitone and ketamine. *S Afr Med J.* 1978 Nov 11;54(20):818-20. X-1, X-3, X-4b.
2482. Hounshell JB and Schrager S. Topics in maternity care. Evidence-based uses of amnioinfusion. *Evidence-Based Practice.* 2007;10(9):8-9. X-1.
2483. Hounton S, Chapman G, Menten J, et al. Accessibility and utilisation of delivery care within a Skilled Care Initiative in rural Burkina Faso. *Trop Med Int Health.* 2008 Jul;13 Suppl 1:44-52. X-1.
2484. Hourvitz A, Alcalay M, Korach J, et al. A prospective study of high- versus low-dose oxytocin for induction of labor. *Acta Obstet Gynecol Scand.* 1996 Aug;75(7):636-41. X-4d.
2485. Houston MC and Raynor BD. Postoperative morbidity in the morbidly obese parturient woman: supraumbilical and low transverse abdominal approaches. *Am J Obstet Gynecol.* 2000 May;182(5):1033-5. X-1.
2486. How HY, Harris BJ, Pietrantonio M, et al. Is vaginal delivery preferable to elective cesarean delivery in fetuses with a known ventral wall defect? *Am J Obstet Gynecol.* 2000 Jun;182(6):1527-34. X-1.
2487. How HY, Hughes SA, Vogel RL, et al. Oral terbutaline in the outpatient management of preterm labor. *Am J Obstet Gynecol.* 1995 Nov;173(5):1518-22. X-4e.
2488. How HY, Leaseburge L, Khoury JC, et al. A comparison of various routes and dosages of misoprostol for cervical ripening and the induction of labor. *Am J Obstet Gynecol.* 2001 Oct;185(4):911-5. X-4d.
2489. Howard CR, Howard FM, Lanphear B, et al. Randomized clinical trial of pacifier use and bottle-feeding or cupfeeding and their effect on breastfeeding. *Pediatrics.* 2003 Mar;111(3):511-8. X-3, X-4e.
2490. Howard RJ, Tuck SM and Pearson TC. Pregnancy in sickle cell disease in the UK: results of a multicentre survey of the effect of prophylactic blood transfusion on maternal and fetal outcome. *Br J Obstet Gynaecol.* 1995 Dec;102(12):947-51. X-1.
2491. Howden NL, Weber AM and Meyn LA. Episiotomy use among residents and faculty compared with private practitioners. *Obstet Gynecol.* 2004 Jan;103(1):114-8. X-1.
2492. Howe RS, Sayegh RA, Durinzi KL, et al. Perinatal outcome of singleton pregnancies conceived by in vitro fertilization: a controlled study. *J Perinatol.* 1990 Sep;10(3):261-6. X-1.
2493. Howell EM, Dubay L, Kenney G, et al. The impact of Medicaid managed care on pregnant women in Ohio: a cohort analysis. *Health Serv Res.* 2004 Aug;39(4 Pt 1):825-46. X-4b, X-4e.
2494. Howell P, Davies W, Wrigley M, et al. Comparison of four local extradural anaesthetic solutions for elective caesarean section. *Br J Anaesth.* 1990 Nov;65(5):648-53. X-9.
2495. Howell PR, Gambling DR, Pavy T, et al. Patient-controlled analgesia following caesarean section under general anaesthesia: a comparison of fentanyl with morphine. *Can J Anaesth.* 1995 Jan;42(1):41-5. X-9.
2496. Howorka K, Pumprla J, Gabriel M, et al. Normalization of pregnancy outcome in pregestational diabetes through functional insulin treatment and modular out-patient education adapted for pregnancy. *Diabet Med.* 2001 Dec;18(12):965-72. X-1.
2497. Hoy J, Venn A, Halliday J, et al. Perinatal and obstetric outcomes of donor insemination using cryopreserved semen in Victoria, Australia. *Hum Reprod.* 1999 Jul;14(7):1760-4. X-1.
2498. Hsu CD, Meaddough E, Basherra H, et al. Increased apoptosis in human amnion is associated with labor at term. *Am J Reprod Immunol.* 2000 May;43(5):255-8. X-1.
2499. Hsu HW, Cheng YJ, Chen LK, et al. Differential analgesic effect of tenoxicam on the wound pain and uterine cramping pain after caesarean section. *Clin J Pain.* 2003 Jan-Feb;19(1):55-8. X-9.
2500. Hsu KH, Liao PJ and Hwang CJ. Factors affecting Taiwanese women's choice of Cesarean section. *Soc Sci Med.* 2008 Jan;66(1):201-9. X-1.
2501. Huam SH, Lim JM and Raman S. Single-dose antibiotic prophylaxis in women undergoing elective caesarean section. *Med J Malaysia.* 1997 Mar;52(1):3-7. X-9.
2502. Huang CJ, Fan YC and Tsai PS. Differential impacts of modes of anaesthesia on the risk of stroke among preeclamptic women who undergo Cesarean delivery: a population-based study. *Br J Anaesth.* 2010 Dec;105(6):818-26. X-1.
2503. Huang YC, Tsai SK, Huang CH, et al. Intravenous tenoxicam reduces uterine cramps after Cesarean delivery. *Can J Anaesth.* 2002 Apr;49(4):384-7. X-9.
2504. Huddle K, England M and Nagar A. Outcome of pregnancy in diabetic women in Soweto, South Africa 1983-1992. *Diabet Med.* 1993 Apr;10(3):290-4. X-1.
2505. Huddle KR. Audit of the outcome of pregnancy in diabetic women in Soweto, South Africa, 1992 - 2002. *S Afr Med J.* 2005 Oct;95(10):789-94. X-1.

2506. Huddle KR, Myer IG, Diamond TH, et al. Diabetes in pregnancy. The use of home blood glucose monitoring and intensive monitoring to ensure favourable perinatal outcome. *S Afr Med J*. 1987 Apr 4;71(7):429-31. X-1.
2507. Hudic I, Fatusic Z, Sinanovic O, et al. Etiological risk factors for brachial plexus palsy. *J Matern Fetal Neonatal Med*. 2006 Oct;19(10):655-61. X-1.
2508. Hueston WJ. Site-to-site variation in the factors affecting cesarean section rates. *Arch Fam Med*. 1995 Apr;4(4):346-51. X-1.
2509. Hueston WJ, Applegate JA, Mansfield CJ, et al. Practice variations between family physicians and obstetricians in the management of low-risk pregnancies. *J Fam Pract*. 1995 Apr;40(4):345-51. X-1.
2510. Hueston WJ and Lewis-Stevenson S. Provider distribution and variations in statewide cesarean section rates. *J Community Health*. 2001 Feb;26(1):1-10. X-1.
2511. Hueston WJ, McClaflin RR and Claire E. Variations in cesarean delivery for fetal distress. *J Fam Pract*. 1996 Nov;43(5):461-7. X-1.
2512. Hueston WJ and Sutton A. Managed care market share and cesarean section rates in the United States: is there a link? *Am J Manag Care*. 2000 Nov;6(11):1202-8. X-1.
2513. Huffnagle HJ, Norris MC, Leighton BL, et al. Ilioinguinal iliohypogastric nerve blocks--before or after cesarean delivery under spinal anesthesia? *Anesth Analg*. 1996 Jan;82(1):8-12. X-9.
2514. Hug I, Chattopadhyay C, Mitra GR, et al. Maternal expectations and birth-related experiences: a survey of pregnant women of mixed parity from Calcutta, India. *Int J Obstet Anesth*. 2008 Apr;17(2):112-7. X-1.
2515. Hughes JC and Harmer M. A new gas jet method for the assessment of sensory block after spinal anaesthesia. *Anaesthesia*. 1998 Feb;53(2):197-200. X-1.
2516. Hughey MJ. Routine ultrasound for detection and management of the small-for-gestational-age fetus. *Obstet Gynecol*. 1984 Jul;64(1):101-7. X-1.
2517. Hughey MJ, LaPata RE, McElin TW, et al. The effect of fetal monitoring on the incidence of cesarean section. *Obstet Gynecol*. 1977 May;49(5):513-8. X-1.
2518. Hughey MJ, McElin TW and Young T. Maternal and fetal outcome of Lamaze-prepared patients. *Obstet Gynecol*. 1978 Jun;51(6):643-7. X-1.
2519. Hui CK, Huang CH, Lin CJ, et al. A randomised double-blind controlled study evaluating the hypothermic effect of 150 microg morphine during spinal anaesthesia for Caesarean section. *Anaesthesia*. 2006 Jan;61(1):29-31. X-9.
2520. Huissoud C, Dupont C, Canoui-Poitaine F, et al. Decision-to-delivery interval for emergency caesareans in the Aurore perinatal network. *Eur J Obstet Gynecol Reprod Biol*. 2010 Apr;149(2):159-64. X-1.
2521. Hullfish KL, Fenner DE, Sorser SA, et al. Postpartum depression, urge urinary incontinence, and overactive bladder syndrome: is there an association? *Int Urogynecol J Pelvic Floor Dysfunct*. 2007 Oct;18(10):1121-6. X-1.
2522. Hultman CM, Sparen P and Cnattingius S. Perinatal risk factors for infantile autism. *Epidemiology*. 2002 Jul;13(4):417-23. X-1.
2523. Hung S, Morrison DR, Whittington LA, et al. Prepartum work, job characteristics, and risk of cesarean delivery. *Birth*. 2002 Mar;29(1):10-7. X-1.
2524. Hung TH, Chen SF, Liou JD, et al. Bax, Bak and mitochondrial oxidants are involved in hypoxia-reoxygenation-induced apoptosis in human placenta. *Placenta*. 2008 Jul;29(7):565-83. X-1.
2525. Hunger C, Kulker R, Kitundu H, et al. Assessing unmet obstetric need in Mtwara Region, Tanzania. *Trop Med Int Health*. 2007 Oct;12(10):1239-47. X-1.
2526. Hunt CO, Naulty JS, Bader AM, et al. Perioperative analgesia with subarachnoid fentanyl-bupivacaine for cesarean delivery. *Anesthesiology*. 1989 Oct;71(4):535-40. X-9.
2527. Hunter DJ, Enkin MW, Sargeant EJ, et al. The outcome of prolonged labor as defined by partography and the use of oxytocin: a descriptive study. *Am J Obstet Gynecol*. 1983 Jan 15;145(2):189-92. X-1.
2528. Hunter IW, Cato E and Ritchie JW. Induction of labor using high-dose or low-dose prostaglandin vaginal pessaries. *Obstet Gynecol*. 1984 Mar;63(3):418-20. X-4d.
2529. Huntoon M, Eisenach JC and Boese P. Epidural clonidine after cesarean section. Appropriate dose and effect of prior local anesthetic. *Anesthesiology*. 1992 Feb;76(2):187-93. X-9.
2530. Huovinen K, Lehtovirta P, Forss M, et al. Changes in placental intervillous blood flow measured by the 133xenon method during lumbar epidural block for elective caesarean section. *Acta Anaesthesiol Scand*. 1979 Dec;23(6):529-33. X-9.
2531. Huria A, Gupta P, Kumar D, et al. Vitamin C and vitamin E supplementation in pregnant women at risk for pre eclampsia: a randomized controlled trial. *Internet Journal of Health*. 2010;10(2):10p. X-1.
2532. Husain F, Busby C, Shaw S, et al. Use of anaesthetic rooms in obstetric anaesthesia; a postal survey of obstetric anaesthetists and departments in the United Kingdom. *Int J Obstet Anesth*. 2005 Jan;14(1):14-21. X-1.

2533. Husaini SW and Russell IF. Intrathecal diamorphine compared with morphine for postoperative analgesia after caesarean section under spinal anaesthesia. *Br J Anaesth.* 1998 Aug;81(2):135-9. X-9.
2534. Husemeyer RP and Davenport HT. Prophylaxis for Mendelson's syndrome before elective caesarean section. A comparison of cimetidine and magnesium trisilicate mixture regimens. *Br J Obstet Gynaecol.* 1980 Jul;87(7):565-70. X-9.
2535. Huskins WC, Ba-Thike K, Festin MR, et al. An international survey of practice variation in the use of antibiotic prophylaxis in cesarean section. *Int J Gynaecol Obstet.* 2001 May;73(2):141-5. X-1.
2536. Hutchings G, Gevaert T, Deprest J, et al. The effect of extracellular adenosine triphosphate on the spontaneous contractility of human myometrial strips. *Eur J Obstet Gynecol Reprod Biol.* 2009 Apr;143(2):79-83. X-1.
2537. Hutchins CJ. Delivery of the growth-retarded infant. *Obstet Gynecol.* 1980 Dec;56(6):683-6. X-1.
2538. Hutchon DJ, Geirsson R and Patel NB. A double-blind controlled trial of PGE2 gel in cervical ripening. *Int J Gynaecol Obstet.* 1980 May-Jun;17(6):604-7. X-4d.
2539. Hutton EK, Hannah ME and Barrett J. Use of external cephalic version for breech pregnancy and mode of delivery for breech and twin pregnancy: a survey of Canadian practitioners. *J Obstet Gynaecol Can.* 2002 Oct;24(10):804-10. X-1.
2540. Hutton EK, Hannah ME, Ross SJ, et al. The Early External Cephalic Version (ECV) 2 Trial: an international multicentre randomised controlled trial of timing of ECV for breech pregnancies. *BJOG.* 2011 Apr;118(5):564-77. X-4c.
2541. Hutton EK, Kaufman K, Hodnett E, et al. External cephalic version beginning at 34 weeks' gestation versus 37 weeks' gestation: a randomized multicenter trial. *Am J Obstet Gynecol.* 2003 Jul;189(1):245-54. X-4c, X-4e.
2542. Hvidman L, Foldspang A, Mommsen S, et al. Postpartum urinary incontinence. *Acta Obstet Gynecol Scand.* 2003 Jun;82(6):556-63. X-1.
2543. Hwang JJ, Ho ST, Wang JJ, et al. The incidence of post dural puncture headache in Taiwanese patients undergoing cesarean section. *Acta Anaesthesiol Sin.* 1997 Mar;35(1):1-6. X-1.
2544. Hwang JL, Lin YH and Tsai YL. In vitro maturation and fertilization of immature oocytes: a comparative study of fertilization techniques. *J Assist Reprod Genet.* 2000 Jan;17(1):39-43. X-1, X-3, X-4b.
2545. Hwu YM, Chen CP, Chen HS, et al. Parallel vertical compression sutures: a technique to control bleeding from placenta praevia or accreta during caesarean section. *BJOG.* 2005 Oct;112(10):1420-3. X-1.
2546. Hyams R. Who gets to choose? Responses to the foetal/maternal conflict. *E Law.* 1995 Dec;2(3):E7. X-1, X-2.
2547. Hye MA, Masud KM, Banik D, et al. Intrathecal neostigmine for postoperative analgesia in caesarean section. *Mymensingh Med J.* 2010 Oct;19(4):586-93. X-9.
2548. Ibara S, Tokunaga M, Ikenoue T, et al. Histologic observation of the ductus arteriosus in premature infants with intrauterine growth retardation. *J Perinatol.* 1994 Sep-Oct;14(5):411-6. X-1.
2549. Idogun ES, Imarengiaye CO and Momoh SM. Extracellular calcium and magnesium in preeclampsia and eclampsia. *Afr J Reprod Health.* 2007 Aug;11(2):89-94. X-1.
2550. Idris I, Srinivasan R, Simm A, et al. Maternal hypothyroidism in early and late gestation: effects on neonatal and obstetric outcome. *Clin Endocrinol (Oxf).* 2005 Nov;63(5):560-5. X-1.
2551. Idris N, Wong SF, Thomae M, et al. Influence of polyhydramnios on perinatal outcome in pregestational diabetic pregnancies. *Ultrasound Obstet Gynecol.* 2010 Sep;36(3):338-43. X-1.
2552. Iffy L, Bilenki I, Apuzzio JJ, et al. The role of obstetric factors in perinatal mortality trends. *Int J Gynaecol Obstet.* 1986 Apr;24(2):85-95. X-1.
2553. Ifnan F and Jameel MB. Ripening of cervix for induction of labour by hydrostatic sweeping of membrane versus Foley's catheter ballooning alone. *J Coll Physicians Surg Pak.* 2006 May;16(5):347-50. X-4d, X-5.
2554. Iglesias S, Burn R and Saunders LD. Reducing the cesarean section rate in a rural community hospital. *CMAJ.* 1991 Dec 1;145(11):1459-64. X-1.
2555. Igwegbe AO and Ilika AL. Knowledge and perceptions of HIV/AIDS and mother to child transmission among antenatal mothers at Nnamdi Azikiwe University Teaching hospital, Nnewi. *Niger J Clin Pract.* 2005 Dec;8(2):97-101. X-1.
2556. Iijima S, Arai H, Ozawa Y, et al. Clinical patterns in extremely preterm (22 to 24 weeks of gestation) infants in relation to survival time and prognosis. *Am J Perinatol.* 2009 Jun;26(6):399-406. X-1.
2557. Ikeako LC and Nwajiaku L. Grandmultiparity: experience at Awka, Nigeria. *Niger J Clin Pract.* 2010 Sep;13(3):301-5. X-1.
2558. Ikemoto LC. Furthering the inquiry: race, class, and culture in the forced medical treatment of pregnant women. *Tenn Law Rev.* 1992 Spring;59(3):487-517. X-1, X-2.
2559. Ikenoue T, Iito J, Matsuda Y, et al. Effects of ranitidine on maternal gastric juice and neonates when administered prior to caesarean section. *Aliment Pharmacol Ther.* 1991 Jun;5(3):315-8. X-1.

2560. Illia R, Solana C, Oliveri P, et al. Evidence of fetal pulmonary aspiration of intra-amniotic administered surfactant in animal experiment. *J Perinat Med.* 2004;32(4):354-8. X-1.
2561. Imajima T, Shono T, Kai H, et al. The biological effect of phthalate esters on transabdominal migration of the testis in fetal rats in comparison with the antiandrogen flutamide. *Pediatr Surg Int.* 2001 Mar;17(2-3):164-6. X-1.
2562. Imarengiaye CO and Ande AB. Risk factors for blood transfusion during c-section in a tertiary hospital in Nigeria. *Med Sci Monit.* 2006 Jun;12(6):CR269-72. X-1.
2563. Imarengiaye CO and Edomwonyi NP. Evaluation of 25-gauge Quincke and 24-gauge Gertie Marx needles for spinal anaesthesia for caesarean section. *East Afr Med J.* 2002 Jul;79(7):379-81. X-9.
2564. Imig JR and Perkins RP. Extraperitoneal cesarean section: a new need for old skills. A preliminary report. *Am J Obstet Gynecol.* 1976 May 1;125(1):51-4. X-9.
2565. Impey L, MacQuillan K and Robson M. Epidural analgesia need not increase operative delivery rates. *Am J Obstet Gynecol.* 2000 Feb;182(2):358-63. X-1.
2566. Impey L and Pandit M. Tocolysis for repeat external cephalic version in breech presentation at term: a randomised, double-blinded, placebo-controlled trial. *BJOG.* 2005 May;112(5):627-31. X-4c.
2567. Impey L, Reynolds M, MacQuillan K, et al. Admission cardiotocography: a randomised controlled trial. *Lancet.* 2003 Feb 8;361(9356):465-70. X-4e, X-5.
2568. Inglis A, Daniel M and McGrady E. Maternal position during induction of spinal anaesthesia for caesarean section. A comparison of right lateral and sitting positions. *Anaesthesia.* 1995 Apr;50(4):363-5. X-9.
2569. Inthawiwat S, Rattanachaiyanont M, Leerasing P, et al. Increasing trend of illicit drug abuse in Thai parturient at Siriraj Hospital. *J Med Assoc Thai.* 2002 Oct;85(10):1081-8. X-1.
2570. Ioscovich A, Elstein Y, Halpern S, et al. Anesthesia for obstetric patients with Gaucher disease: survey and review. *Int J Obstet Anesth.* 2004 Oct;13(4):244-50. X-1.
2571. Irion O and Boulvain M. Induction of labour for suspected fetal macrosomia. *Cochrane Database of Systematic Reviews.* 1998(2). X-1, X-2.
2572. Irion O, Luzuy F and Beguin F. Nonclosure of the visceral and parietal peritoneum at caesarean section: a randomised controlled trial. *Br J Obstet Gynaecol.* 1996 Jul;103(7):690-4. X-9.
2573. Irion O, Pedrazzoli J and Mermillod B. A randomized trial comparing vaginal and cervical prostaglandin gel for cervical ripening and labor induction. *Obstet Gynecol.* 1998 Jan;91(1):65-71. X-4e.
2574. Irwin S and Jordan B. Knowledge, practice, and power: court-ordered cesarean sections. *Med Anthropol Q.* 1987 Sep;1(3):319-34. X-1, X-2, X-9.
2575. Isaacs JD, Magann EF, Martin RW, et al. Obstetric challenges of massive obesity complicating pregnancy. *J Perinatol.* 1994 Jan-Feb;14(1):10-4. X-1.
2576. Ishii S and Endo M. Blunt-edged, notched scalpel for cesarean incision. *Obstet Gynecol.* 1999 Sep;94(3):469-70. X-1.
2577. Islam MT, Hossain MM, Islam MA, et al. Improvement of coverage and utilization of EmOC services in southwestern Bangladesh. *Int J Gynaecol Obstet.* 2005 Dec;91(3):298-305; discussion 283-4. X-1.
2578. Ismail MA, Nelson KE, Larson P, et al. Selective effect of cefoxitin prophylaxis on post-cesarean-section microbial flora. *J Reprod Med.* 1990 Feb;35(2):168-74. X-9.
2579. Ithnin F, Lim Y, Sia AT, et al. Combined spinal epidural causes higher level of block than equivalent single-shot spinal anesthesia in elective cesarean patients. *Anesth Analg.* 2006 Feb;102(2):577-80. X-9.
2580. Itoo BA, Al-Hawsawi ZM and Khan AH. Hypoxic ischemic encephalopathy. Incidence and risk factors in North Western Saudi Arabia. *Saudi Med J.* 2003 Feb;24(2):147-53. X-1.
2581. Itskovitz J, Paldi E and Katz M. The effect of prophylactic antibiotics on febrile morbidity following cesarean section. *Obstet Gynecol.* 1979 Feb;53(2):162-5. X-9.
2582. Ittichaikulthol W, Sriswasdi S, Prachanpanich N, et al. Bispectral index in assessment of 3% and 4.5% desflurane in 50% N2O for caesarean section. *J Med Assoc Thai.* 2007 Aug;90(8):1546-50. X-9.
2583. Iwama H, Ohmizo H, Furuta S, et al. Spinal anesthesia hypotension in elective cesarean section in parturients wearing extra-strong compression stockings. *Arch Gynecol Obstet.* 2002 Dec;267(2):85-9. X-1.
2584. Iwata A, Murayama Y, Itakura A, et al. Limitations of internal iliac artery ligation for the reduction of intraoperative hemorrhage during cesarean hysterectomy in cases of placenta previa accreta. *J Obstet Gynaecol Res.* 2010 Apr;36(2):254-9. X-1.
2585. Jackson DJ, Lang JM, Ecker J, et al. Impact of collaborative management and early admission in labor on method of delivery. *J Obstet Gynecol Neonatal Nurs.* 2003 Mar-Apr;32(2):147-57; discussion 158-60. X-1.
2586. Jackson GM, Sharp HT and Varner MW. Cervical ripening before induction of labor: a randomized trial of prostaglandin E2 gel versus low-dose oxytocin. *Am J Obstet Gynecol.* 1994 Oct;171(4):1092-6. X-4d.

2587. Jackson KW, Jr., Allbert JR, Schemmer GK, et al. A randomized controlled trial comparing oxytocin administration before and after placental delivery in the prevention of postpartum hemorrhage. *Am J Obstet Gynecol.* 2001 Oct;185(4):873-7. X-3, X-4a, X-4e.
2588. Jackson R, Reid JA and Thorburn J. Volume preloading is not essential to prevent spinal-induced hypotension at caesarean section. *Br J Anaesth.* 1995 Sep;75(3):262-5. X-9.
2589. Jacob J and Pfenninger J. Cesarean deliveries: when is a pediatrician necessary? *Obstet Gynecol.* 1997 Feb;89(2):217-20. X-1.
2590. Jacobsen AF, Skjeldestad FE and Sandset PM. Ante- and postnatal risk factors of venous thrombosis: a hospital-based case-control study. *J Thromb Haemost.* 2008 Jun;6(6):905-12. X-1.
2591. Jacobsen AF, Skjeldestad FE and Sandset PM. Incidence and risk patterns of venous thromboembolism in pregnancy and puerperium--a register-based case-control study. *Am J Obstet Gynecol.* 2008 Feb;198(2):233 e1-7. X-1.
2592. Jacobsen BS, Munro BH and Brooten DA. Comparison of original and revised scoring systems for the Multiple Affect Adjective Check List. *Nurs Res.* 1996 Jan-Feb;45(1):57-60. X-1.
2593. Jacobson GF, Ramos GA, Ching JY, et al. Comparison of glyburide and insulin for the management of gestational diabetes in a large managed care organization. *Am J Obstet Gynecol.* 2005 Jul;193(1):118-24. X-1.
2594. Jacobson JD and Cousins L. A population-based study of maternal and perinatal outcome in patients with gestational diabetes. *Am J Obstet Gynecol.* 1989 Oct;161(4):981-6. X-1.
2595. Jacquemyn Y, Ahankour F and Martens G. Flemish obstetricians' personal preference regarding mode of delivery and attitude towards caesarean section on demand. *Eur J Obstet Gynecol Reprod Biol.* 2003 Dec 10;111(2):164-6. X-1.
2596. Jaffe R, Altaras M, Cohen I, et al. Single-dose mezlocillin prophylaxis in emergency cesarean section. *Clin Ther.* 1985;7(4):507-11. X-9.
2597. Jaffe R, Altaras M, Loebel R, et al. Single-versus multiple-dose mezlocillin prophylaxis in emergency cesarean section. *Chemotherapy.* 1986;32(2):173-7. X-9.
2598. Jaffe R, Loebel R, Altaras M, et al. Perioperative mezlocillin prophylaxis in cesarean section. *Clin Ther.* 1984;6(4):467-74. X-9.
2599. Jagani N, Schulman H, Fleischer A, et al. Role of prostaglandin-induced cervical changes in labor induction. *Obstet Gynecol.* 1984 Feb;63(2):225-9. X-4d.
2600. Jahromi BN and Daneshvar A. Pregnancy outcome of parturients below 16 years of age. *Saudi Med J.* 2005 Sep;26(9):1417-9. X-1.
2601. Jahromi BN and Husseini Z. Pregnancy outcome at maternal age 40 and older. *Taiwan J Obstet Gynecol.* 2008 Sep;47(3):318-21. X-1.
2602. Jain K, Grover VK, Mahajan R, et al. Effect of varying doses of fentanyl with low dose spinal bupivacaine for caesarean delivery in patients with pregnancy-induced hypertension. *Int J Obstet Anesth.* 2004 Oct;13(4):215-20. X-9.
2603. Jain L, Ferre C and Vidyasagar D. Cesarean delivery of the breech very-low-birth-weight infant: does it make a difference? *J Matern Fetal Med.* 1998 Jan-Feb;7(1):28-31. X-1.
2604. Jain S, Arya VK, Gopalan S, et al. Analgesic efficacy of intramuscular opioids versus epidural analgesia in labor. *Int J Gynaecol Obstet.* 2003 Oct;83(1):19-27. X-4e.
2605. Jain S, Mulligama C, Tagwira V, et al. Labour outcome of women with successful external cephalic version: a prospective study. *J Obstet Gynaecol.* 2010 Jan;30(1):13-6. X-1.
2606. Jakobi P, Weiner Z, Solt I, et al. Oral analgesia in the treatment of post-cesarean pain. *Eur J Obstet Gynecol Reprod Biol.* 2000 Nov;93(1):61-4. X-1.
2607. Jakobi P, Weissman A, Sigler E, et al. Post-cesarean section febrile morbidity. Antibiotic prophylaxis in low-risk patients. *J Reprod Med.* 1994 Sep;39(9):707-10. X-9.
2608. Jakobi P, Weissman A, Zimmer EZ, et al. Single-dose cefazolin prophylaxis for cesarean section. *Am J Obstet Gynecol.* 1988 May;158(5):1049-52. X-9.
2609. Jamal A, Choobak N and Tabassomi F. Intrapartum maternal glucose infusion and fetal acid-base status. *Int J Gynaecol Obstet.* 2007 Jun;97(3):187-9. X-4e.
2610. Jamal A and Kalantari R. High and low dose oxytocin in augmentation of labor. *Int J Gynaecol Obstet.* 2004 Oct;87(1):6-8. X-4d, X-4e, X-5.
2611. James C, George SS, Gaunekar N, et al. Management of prolonged pregnancy: a randomized trial of induction of labour and antepartum foetal monitoring. *Natl Med J India.* 2001 Sep-Oct;14(5):270-3. X-4e, X-5.
2612. James KS, McGrady E and Patrick A. Combined spinal-extradural anaesthesia for preterm and term caesarean section: is there a difference in local anaesthetic requirements? *Br J Anaesth.* 1997 May;78(5):498-501. X-1.
2613. James KS, Stott SM, McGrady EM, et al. Spinal anaesthesia for Caesarean section: effect of Sprotte needle orientation. *Br J Anaesth.* 1996 Aug;77(2):150-2. X-9.
2614. James M, Hunt K, Burr R, et al. A decision analytical cost analysis of offering ECV in a UK district general hospital. *BMC Health Serv Res.* 2001;1(1):6. X-1.

2615. James MF. Use of magnesium sulphate in the anaesthetic management of pheochromocytoma: a review of 17 anaesthetics. *Br J Anaesth*. 1989 Jun;62(6):616-23. X-1.
2616. James MF, Cork RC and Dennett JE. Succinylcholine pretreatment with magnesium sulfate. *Anesth Analg*. 1986 Apr;65(4):373-6. X-3, X-4e, X-5.
2617. Jamisse L, Songane F, Libombo A, et al. Reducing maternal mortality in Mozambique: challenges, failures, successes and lessons learned. *Int J Gynaecol Obstet*. 2004 May;85(2):203-12. X-1.
2618. Jan GS, Tong WN, Chan AM, et al. Recovery from mivacurium block with or without anticholinesterase following continuous infusion in obstetric patients. *Anaesth Intensive Care*. 1996 Oct;24(5):585-9. X-3, X-4e, X-5.
2619. Jana N, Vasishta K, Saha SC, et al. Effect of bronchial asthma on the course of pregnancy, labour and perinatal outcome. *J Obstet Gynaecol (Tokyo)* 1995. 1995 Jun;21(3):227-32. X-1.
2620. Janakiraman V, Ecker J and Kaimal AJ. Comparing the second stage in induced and spontaneous labor. *Obstet Gynecol*. 2010 Sep;116(3):606-11. X-1.
2621. Jang HC, Cho NH, Min YK, et al. Increased macrosomia and perinatal morbidity independent of maternal obesity and advanced age in Korean women with GDM. *Diabetes Care*. 1997 Oct;20(10):1582-8. X-1.
2622. Jannet D, Carbonne B, Sebban E, et al. Nicardipine versus metoprolol in the treatment of hypertension during pregnancy: a randomized comparative trial. *Obstet Gynecol*. 1994 Sep;84(3):354-9. X-4e, X-5.
2623. Janowitz B, Higgins JE, Clopton DC, et al. Access to postpartum sterilization in southeast Brazil. *Med Care*. 1982 May;20(5):526-34. X-1.
2624. Janssen PA, Ryan EM, Etches DJ, et al. Outcomes of planned hospital birth attended by midwives compared with physicians in British Columbia. *Birth*. 2007 Jun;34(2):140-7. X-1.
2625. Jansson T, Scholtbach V and Powell TL. Placental transport of leucine and lysine is reduced in intrauterine growth restriction. *Pediatr Res*. 1998 Oct;44(4):532-7. X-1.
2626. Jaques AM, Amor DJ, Baker HW, et al. Adverse obstetric and perinatal outcomes in subfertile women conceiving without assisted reproductive technologies. *Fertil Steril*. 2010 Dec;94(7):2674-9. X-1.
2627. Jardim O, Sobral E, Branco EC, et al. Delivery in diabetic pregnancy. *Ann Ist Super Sanita*. 1997;33(3):329-32. X-1.
2628. Jarvenpaa J, Vuoristo JT, Santaniemi M, et al. Adiponectin induced placental cell apoptosis could be mediated via the ADIPOR1-receptor in pre-eclampsia with IUGR. *J Perinat Med*. 2009;37(3):257-62. X-1.
2629. Jauniaux E and Burton GJ. Villous histomorphometry and placental bed biopsy investigation in Type I diabetic pregnancies. *Placenta*. 2006 Apr-May;27(4-5):468-74. X-1.
2630. Jauniaux E, Moscoso JG, Vanesse M, et al. Perfusion fixation for placental morphologic investigation. *Hum Pathol*. 1991 May;22(5):442-9. X-1.
2631. Jauniaux E, Ramsay B, Peellaerts C, et al. Perinatal features of pregnancies complicated by nuchal cord. *Am J Perinatol*. 1995 Jul;12(4):255-8. X-1.
2632. Javed I, Bhutta S and Shoaib T. Role of partogram in preventing prolonged labour. *J Pak Med Assoc*. 2007 Aug;57(8):408-11. X-1, X-4, X-5.
2633. Jeffcoate TN, Miller J, Roos RF, et al. Puerperal thromboembolism in relation to the inhibition of lactation by oestrogen therapy. *Br Med J*. 1968 Oct 5;4(5622):19-25. X-1.
2634. Jehan I, McClure EM, Salat S, et al. Stillbirths in an urban community in Pakistan. *Am J Obstet Gynecol*. 2007 Sep;197(3):257 e1-8. X-1.
2635. Jelsema RD, Wittingen JA and Vander Kolk KJ. Continuous, nonlocking, single-layer repair of the low transverse uterine incision. *J Reprod Med*. 1993 May;38(5):393-6. X-1.
2636. Jenkins JG and Khan MM. Anaesthesia for Caesarean section: a survey in a UK region from 1992 to 2002. *Anaesthesia*. 2003 Nov;58(11):1114-8. X-1.
2637. Jenkins TM, Mackey SF, Benzoni EM, et al. Non-obstetric surgery during gestation: risk factors for lower birthweight. *Aust N Z J Obstet Gynaecol*. 2003 Feb;43(1):27-31. X-1.
2638. Jensen DM, Damm P, Moelsted-Pedersen L, et al. Outcomes in type I diabetic pregnancies: a nationwide, population-based study. *Diabetes Care*. 2004 Dec;27(12):2819-23. X-1.
2639. Jensen DM, Korsholm L, Ovesen P, et al. Adverse pregnancy outcome in women with mild glucose intolerance: is there a clinically meaningful threshold value for glucose? *Acta Obstet Gynecol Scand*. 2008;87(1):59-62. X-1.
2640. Jensen DM, Sorensen B, Feilberg-Jorgensen N, et al. Maternal and perinatal outcomes in 143 Danish women with gestational diabetes mellitus and 143 controls with a similar risk profile. *Diabet Med*. 2000 Apr;17(4):281-6. X-1.
2641. Jensen K. Evidence supports the obvious. *Midwifery Today Int Midwife*. 2004 Autumn(71):23. X-1, X-2, X-3, X-4, X-5.

2642. Jeon Y, Hwang J, Kang J, et al. Effects of epidural naloxone on pruritus induced by epidural morphine: a randomized controlled trial. *Int J Obstet Anesth*. 2005 Jan;14(1):22-5. X-3, X-4b, X-4e.
2643. Jerbi M, Hidar S, Zardi H, et al. Previous cesarean scar exploration following vaginal delivery and hemorrhagic morbidity. *Int J Gynaecol Obstet*. 2006 Feb;92(2):135-6. X-4b, X-4e.
2644. Jervell J, Moe N, Skjaeraasen J, et al. Diabetes mellitus and pregnancy--management and results at Rikshospitalet, Oslo, 1970-1977. *Diabetologia*. 1979 Mar;16(3):151-5. X-1.
2645. Jiang CJ, Liu CC, Wu TJ, et al. Mini-dose intrathecal morphine for post-cesarean section analgesia. *Ma Zui Xue Za Zhi*. 1991 Dec;29(4):683-9. X-9.
2646. Jimenez E, Marin ML, Martin R, et al. Is meconium from healthy newborns actually sterile? *Res Microbiol*. 2008 Apr;159(3):187-93. X-1.
2647. Jimenez Torres M, Campoy Folgoso C, Canabate Reche F, et al. Organochlorine pesticides in serum and adipose tissue of pregnant women in Southern Spain giving birth by cesarean section. *Sci Total Environ*. 2006 Dec 15;372(1):32-8. X-9.
2648. Jin Z, Guan X, Gao H, et al. The change in sex hormone binding globulin and the influence by gestational diabetes mellitus in fetal period. *Gynecol Endocrinol*. 2009 Oct;25(10):647-52. X-1.
2649. Jingheng H, Yindi X, Yongxin J, et al. Evaluation of a health education programme in China to increase breast-feeding rates. *Health Promotion International*. 1994;9(2):95-98. X-1.
2650. Jirecek S, Tringler B, Knofler M, et al. Redistribution of corticotropin-releasing hormone receptor R2 using fluorescence immunohistochemistry in fetal membranes of women delivering preterm or at term. *Wien Klin Wochenschr*. 2002 Dec 30;114(23-24):1008-12. X-1, X-3, X-4b, X-4e, X-5.
2651. Jirsova S, Mardesic T, Muller P, et al. Multi-fetal pregnancy reduction does not influence perinatal results in twin pregnancies. *Twin Res*. 2001 Dec;4(6):422-5. X-1.
2652. Jivraj S, Anstie B, Cheong YC, et al. Obstetric and neonatal outcome in women with a history of recurrent miscarriage: a cohort study. *Hum Reprod*. 2001 Jan;16(1):102-106. X-1.
2653. Jivraj S, Nazzal Z, Davies P, et al. Obstetric outcome of teenage pregnancies from 2002 to 2008: the Sheffield experience. *J Obstet Gynaecol*. 2010 Apr;30(3):253-6. X-1.
2654. Johannesen P, Pedersen EB and Rasmussen AB. Arginine vasopressin in amniotic fluid, arterial and venous cord plasma and maternal venous plasma. *Gynecol Obstet Invest*. 1985;19(4):192-5. X-1.
2655. Johanson RB, El-Timini S, Rigby C, et al. Caesarean section by choice could fulfil the inverse care law. *Eur J Obstet Gynecol Reprod Biol*. 2001 Jul;97(1):20-2. X-1, X-2.
2656. Johansson M, Radestad I, Rubertsson C, et al. Few fathers-to-be prefer caesarean section for the birth of their baby. *BJOG*. 2010 May;117(6):761-4. X-1.
2657. Johns K, Olynik C, Mase R, et al. Gestational diabetes mellitus outcome in 394 patients. *J Obstet Gynaecol Can*. 2006 Feb;28(2):122-7. X-1.
2658. Johnsen D. A new threat to pregnant women's autonomy. *Hastings Cent Rep*. 1987 Aug-Sep;17(4):33-40. X-2.
2659. Johnson A, Young D and Reilly J. Caesarean section surgical site infection surveillance. *J Hosp Infect*. 2006 Sep;64(1):30-5. X-1.
2660. Johnson C, Oriol N, Feinstein D, et al. Onset of action between bupivacaine 0.5% and bupivacaine 0.5% plus fentanyl 75 mcg. *J Clin Anesth*. 1989;1(6):440-3. X-9.
2661. Johnson C, Ransil BJ and Oriol N. Comparison of onset time between 0.5% bupivacaine and 3% 2-chloroprocaine with and without 75 micrograms fentanyl. *Reg Anesth*. 1991 Jul-Aug;16(4):228-31. X-1, X-2.
2662. Johnson D and Jin Y. Low-volume obstetrics. Characteristics of family physicians' practices in Alberta. *Can Fam Physician*. 2002 Jul;48:1208-15. X-1.
2663. Johnson EB, Reed SD, Hitti J, et al. Increased risk of adverse pregnancy outcome among Somali immigrants in Washington state. *Am J Obstet Gynecol*. 2005 Aug;193(2):475-82. X-1.
2664. Johnson JM. Minnesota's "crack baby" law: weapon of war or link in a chain? *Law Inequal*. 1990 Jul;8(3):485-531. X-1.
2665. Johnson JM, Lange IR, Harman CR, et al. Biophysical profile scoring in the management of the diabetic pregnancy. *Obstet Gynecol*. 1988 Dec;72(6):841-6. X-1.
2666. Johnson KC and Daviss BA. Outcomes of planned home births with certified professional midwives: large prospective study in North America. *BMJ*. 2005 Jun 18;330(7505):1416. X-1.
2667. Johnson N and Ansell D. Variation in caesarean and instrumental delivery rates in New Zealand hospitals. *Aust N Z J Obstet Gynaecol*. 1995 Feb;35(1):6-11. X-1.
2668. Johnson N, Lilford R, Guthrie K, et al. Randomised trial comparing a policy of early with selective amniotomy in uncomplicated labour at term. *Br J Obstet Gynaecol*. 1997 Mar;104(3):340-6. X-5.
2669. Johnson RF, Mitchell CM, Giles WB, et al. The in vivo control of prostaglandin H synthase-2 messenger ribonucleic acid expression in the human amnion at parturition.

- J Clin Endocrinol Metab. 2002 Jun;87(6):2816-23. X-1.
2670. Johnson RF, Mitchell CM, Giles WB, et al. The control of prostaglandin endoperoxide H-Synthase-2 expression in the human chorion laeve at term. J Soc Gynecol Investig. 2003 May;10(4):222-30. X-1.
2671. Johnson SA. Ethical dilemma: a patient refuses a life-saving cesarean. MCN Am J Matern Child Nurs. 1992 May-Jun;17(3):121-5. X-1, X-2.
2672. Johnson SR, Kolberg BH, Varner MW, et al. Maternal obesity and pregnancy. Surg Gynecol Obstet. 1987 May;164(5):431-7. X-1.
2673. Johnston JR, McCaughey W, Moore J, et al. Cimetidine as an oral antacid before elective Caesarean section. Anaesthesia. 1982 Jan;37(1):26-32. X-9.
2674. Johnston JR, Moore J, McCaughey W, et al. Use of cimetidine as an oral antacid in obstetric anesthesia. Anesth Analg. 1983 Aug;62(8):720-6. X-1.
2675. Johnstone FD, Prescott R, Hoskins P, et al. The effect of introduction of umbilical Doppler recordings to obstetric practice. Br J Obstet Gynaecol. 1993 Aug;100(8):733-41. X-4e.
2676. Johnstone FD, Steel JM, Haddad NG, et al. Doppler umbilical artery flow velocity waveforms in diabetic pregnancy. Br J Obstet Gynaecol. 1992 Feb;99(2):135-40. X-1.
2677. Jolly J, Walker J and Bhabra K. Subsequent obstetric performance related to primary mode of delivery. Br J Obstet Gynaecol. 1999 Mar;106(3):227-32. X-1, X-3, X-4e, X-5.
2678. Jones GD and Poston L. The role of endogenous nitric oxide synthesis in contractility of term or preterm human myometrium. Br J Obstet Gynaecol. 1997 Feb;104(2):241-5. X-1.
2679. Jones MM, Longmire S, Cotton DB, et al. Influence of crystalloid versus colloid infusion on peripartum colloid osmotic pressure changes. Obstet Gynecol. 1986 Nov;68(5):659-61. X-9.
2680. Jonsson ER, Elfaghi I, Rydhstrom H, et al. Modified Ritgen's maneuver for anal sphincter injury at delivery: a randomized controlled trial. Obstet Gynecol. 2008 Aug;112(2 Pt 1):212-7. X-4e, X-5.
2681. Jonsson M, Hanson U, Lidell C, et al. ST depression at caesarean section and the relation to oxytocin dose. A randomised controlled trial. BJOG. 2010 Jan;117(1):76-83. X-9.
2682. Jordan HS, Straus JH and Bailit MH. Reporting and using health plan performance information in Massachusetts. Jt Comm J Qual Improv. 1995 Apr;21(4):167-77. X-1.
2683. Jordan JM and Gaspar D. Family practice obstetrics in a teaching hospital. Does a tertiary care environment make a difference? Can Fam Physician. 1995 Apr;41:610-5. X-1.
2684. Jordan S, Emery S, Bradshaw C, et al. The impact of intrapartum analgesia on infant feeding. BJOG. 2005 Jul;112(7):927-34. X-1.

2685. Joseph GF, Jr., Stedman CM and Robichaux AG. Vaginal birth after cesarean section: the impact of patient resistance to a trial of labor. *Am J Obstet Gynecol.* 1991 Jun;164(6 Pt 1):1441-4; discussion 1444-7. X-1.
2686. Joseph KS, Dodds L, Allen AC, et al. Socioeconomic status and receipt of obstetric services in Canada. *Obstet Gynecol.* 2006 Mar;107(3):641-50. X-1.
2687. Joseph KS, Young DC, Dodds L, et al. Changes in maternal characteristics and obstetric practice and recent increases in primary cesarean delivery. *Obstet Gynecol.* 2003 Oct;102(4):791-800. X-1.
2688. Joshi VM, Otv SR, Majumder R, et al. Internal iliac artery ligation for arresting postpartum haemorrhage. *BJOG.* 2007 Mar;114(3):356-61. X-1.
2689. Jouppila P, Kuikka J, Jouppila R, et al. Effect of induction of general anesthesia for cesarean section on intervillous blood flow. *Acta Obstet Gynecol Scand.* 1979;58(3):249-53. X-1.
2690. Jouppila R, Jouppila P, Kuikka J, et al. Placental blood flow during caesarean section under lumbar extradural analgesia. *Br J Anaesth.* 1978 Mar;50(3):275-9. X-1.
2691. Jouppila R, Kauppila A, Tuimala R, et al. Maternal, fetal and neonatal effects of beta-adrenergic stimulation in connection with cesarean section. *Acta Obstet Gynecol Scand.* 1980;59(6):489-93. X-1.
2692. Jovanovic L. The role of continuous glucose monitoring in gestational diabetes mellitus. *Diabetes Technol Ther.* 2000;2 Suppl 1:S67-71. X-1, X-2.
2693. Jovanovic-Peterson L, Bevier W and Peterson CM. The Santa Barbara County Health Care Services program: birth weight change concomitant with screening for and treatment of glucose-intolerance of pregnancy: a potential cost-effective intervention? *Am J Perinatol.* 1997 Apr;14(4):221-8. X-4e, X-5.
2694. Ju H, Chadha Y, Donovan T, et al. Fetal macrosomia and pregnancy outcomes. *Aust N Z J Obstet Gynaecol.* 2009 Oct;49(5):504-9. X-1.
2695. Ju H, Rumbold AR, Willson KJ, et al. Borderline gestational diabetes mellitus and pregnancy outcomes. *BMC Pregnancy Childbirth.* 2008;8:31. X-4e, X-5.
2696. Juarez I, Silva-Gomez AB, Peralta F, et al. Anoxia at birth induced hyperresponsiveness to amphetamine and stress in postpubertal rats. *Brain Res.* 2003 Dec 5;992(2):281-7. X-1.
2697. Judson KMM. The normal majority: a critical analysis of childbearing practice and the professional status and contribution of nurse midwives in California. 1995;PH.D.:188 p. X-1.
2698. Jundt K, Scheer I, Schiessl B, et al. Incontinence, bladder neck mobility, and sphincter ruptures in primiparous women. *Eur J Med Res.* 2010 Jun 28;15(6):246-52. X-1.
2699. Juneja MM, Ackerman WE, 3rd and Bellinger K. Epidural morphine pruritus reduction with hydroxyzine in parturients. *J Ky Med Assoc.* 1991 Jul;89(7):319-21. X-9.
2700. Kaandorp G, Bosch JL, Duvekot JJ, et al. The effectiveness and cost-effectiveness of Breech Version Acumoxa compared to standard care to correct breech presentation... 13th Annual Symposium on Complementary Health Care, 12th-14th December, 2006, University of Exeter, UK. Focus on Alternative & Complementary Therapies. 2006;11:5-5. X-4c.
2701. Kabir AA, Pridjian G, Steinmann WC, et al. Racial differences in cesareans: an analysis of U.S. 2001 National Inpatient Sample Data. *Obstet Gynecol.* 2005 Apr;105(4):710-8. X-1.
2702. Kabir AA, Steinmann WC, Myers L, et al. Unnecessary cesarean delivery in Louisiana: an analysis of birth certificate data. *Am J Obstet Gynecol.* 2004 Jan;190(1):10-9; discussion 3A. X-1.
2703. Kacmar J, Bhimani L, Boyd M, et al. Route of delivery as a risk factor for emergent peripartum hysterectomy: a case-control study. *Obstet Gynecol.* 2003 Jul;102(1):141-5. X-1.
2704. Kadanali S, Kucukozkan T, Zor N, et al. Comparison of labor induction with misoprostol vs. oxytocin/prostaglandin E2 in term pregnancy. *Int J Gynaecol Obstet.* 1996 Nov;55(2):99-104. X-4d.
2705. Kadar N, Tapp A and Wong A. The influence of nipple stimulation at term on the duration of pregnancy. *J Perinatol.* 1990 Jun;10(2):164-6. X-4e, X-5.
2706. Kadiki OA, Reddy MR, Sahli MA, et al. Outcome of pregnant diabetic patients in Benghazi (Libya) from 1984 to 1991. *Diabetes Res Clin Pract.* 1993 Jul;21(1):39-42. X-1.
2707. Kadir RA, Khan A, Wilcock F, et al. Is inferior dissection of the rectus sheath necessary during Pfannenstiel incision for lower segment Caesarean section? A randomised controlled trial. *Eur J Obstet Gynecol Reprod Biol.* 2006 Sep-Oct;128(1-2):262-6. X-9.
2708. Kaemmerer H, Bauer U, Stein JI, et al. Pregnancy in congenital cardiac disease: an increasing challenge for cardiologists and obstetricians -- a prospective multicenter study. *Z Kardiol.* 2003 Jan;92(1):16-23. X-1.
2709. Kaestner R, Dubay L and Kenney G. Managed care and infant health: an evaluation of Medicaid in the US. *Soc Sci Med.* 2005 Apr;60(8):1815-33. X-1, X-4e, X-5.
2710. Kafali H, Duvan CI, Gozdemir E, et al. Influence of gum chewing on postoperative bowel activity after cesarean section. *Gynecol Obstet Invest.* 2010;69(2):84-7. X-9.

2711. Kafle SK. Intrathecal meperidine for elective caesarean section: a comparison with lidocaine. *Can J Anaesth.* 1993 Aug;40(8):718-21. X-9.
2712. Kaimal AJ, Zlatnik MG, Cheng YW, et al. Effect of a change in policy regarding the timing of prophylactic antibiotics on the rate of postcesarean delivery surgical-site infections. *Am J Obstet Gynecol.* 2008 Sep;199(3):310 e1-5. X-1.
2713. Kakuya F, Shirai M, Takase M, et al. Relationship between erythropoietin levels both in cord serum and amniotic fluid at birth and abnormal fetal heart rate records. *Pediatr Int.* 2002 Aug;44(4):414-9. X-1.
2714. Kale A, Kuyumcuoglu U and Guzel A. Is pregnancy over 45 with very high parity related with adverse maternal and fetal outcomes? *Clin Exp Obstet Gynecol.* 2009;36(2):120-2. X-1.
2715. Kalhan SC, D'Angelo LJ, Savin SM, et al. Glucose production in pregnant women at term gestation. Sources of glucose for human fetus. *J Clin Invest.* 1979 Mar;63(3):388-94. X-1.
2716. Kalish RB, McCullough LB and Chervenak FA. Decision-making about caesarean delivery. *Lancet.* 2006 Mar 18;367(9514):883-5. X-1, X-2.
2717. Kallen B. Case control study of hypospadias, based on registry information. *Teratology.* 1988 Jul;38(1):45-50. X-1.
2718. Kallen B, Finnstrom O, Nygren KG, et al. In vitro fertilisation in Sweden: obstetric characteristics, maternal morbidity and mortality. *BJOG.* 2005 Nov;112(11):1529-35. X-1.
2719. Kamal P, Dixon-Woods M, Kurinczuk JJ, et al. Factors influencing repeat caesarean section: qualitative exploratory study of obstetricians' and midwives' accounts. *BJOG.* 2005 Aug;112(8):1054-60. X-1.
2720. Kamata S, Hasegawa T, Ishikawa S, et al. Prenatal diagnosis of congenital diaphragmatic hernia and perinatal care: assessment of lung hypoplasia. *Early Hum Dev.* 1992 Jun-Jul;29(1-3):375-9. X-1.
2721. Kampe S, Tausch B, Paul M, et al. Epidural block with ropivacaine and bupivacaine for elective caesarean section: maternal cardiovascular parameters, comfort and neonatal well-being. *Curr Med Res Opin.* 2004 Jan;20(1):7-12. X-9.
2722. Kampikaho A and Irwig LM. Risk factors for maternal mortality in five Kampala hospitals, 1980-1986. *Int J Epidemiol.* 1990 Dec;19(4):1116-8. X-1.
2723. Kan RE, Hughes SC, Rosen MA, et al. Intravenous remifentanyl: placental transfer, maternal and neonatal effects. *Anesthesiology.* 1998 Jun;88(6):1467-74. X-1, X-9.
2724. Kanazi GE, Aouad MT, Abdallah FW, et al. The analgesic efficacy of subarachnoid morphine in comparison with ultrasound-guided transversus abdominis plane block after cesarean delivery: a randomized controlled trial. *Anesth Analg.* 2010 Aug;111(2):475-81. X-9.
2725. Kang FC, Tsai YC, Chang PJ, et al. Subarachnoid fentanyl with diluted small-dose bupivacaine for cesarean section delivery. *Acta Anaesthesiol Sin.* 1998 Dec;36(4):207-14. X-9.
2726. Kang YG, Abouleish E and Caritis S. Prophylactic intravenous ephedrine infusion during spinal anesthesia for cesarean section. *Anesth Analg.* 1982 Oct;61(10):839-42. X-9.
2727. Kangas-Saarela T, Hollmen AI, Tolonen U, et al. Does ephedrine influence newborn neurobehavioural responses and spectral EEG when used to prevent maternal hypotension during caesarean section? *Acta Anaesthesiol Scand.* 1990 Jan;34(1):8-16. X-1, X-9.
2728. Kansal A, Mohta M, Sethi AK, et al. Randomised trial of intravenous infusion of ephedrine or mephentermine for management of hypotension during spinal anaesthesia for Caesarean section. *Anaesthesia.* 2005 Jan;60(1):28-34. X-9.
2729. Kanto J, Erkkola R, Aaltonen L, et al. Epidural morphine as postoperative analgesic following cesarean section under epidural analgesia. *Int J Clin Pharmacol Ther Toxicol.* 1985 Jan;23(1):43-4. X-9.
2730. Kanto J and Scheinin M. Biochemical assessment of preoperative stress: a study with diazepam and measurement of monoamine metabolites and catecholamines in cerebrospinal fluid and plasma. *Br J Anaesth.* 1991 May;66(5):587-90. X-9.
2731. Kanto J and Scheinin M. Diazepam and atropine as premedicants: no discrimination by monoamine metabolite and catecholamine measurements in cerebrospinal fluid and plasma. *Acta Anaesthesiol Scand.* 1992 Jan;36(1):80-3. X-9.
2732. Kantor T, Cavaliere MB, Hopper M, et al. A double-blind parallel comparison of ketoprofen, codeine, and placebo in patients with moderate to severe postpartum pain. *J Clin Pharmacol.* 1984 May-Jun;24(5-6):228-34. X-3, X-4e.
2733. Kappel B, Eriksen G, Hansen KB, et al. Short stature in Scandinavian women. An obstetrical risk factor. *Acta Obstet Gynecol Scand.* 1987;66(2):153-8. X-1.
2734. Karaer A, Avsar FA and Batioglu S. Risk factors for ectopic pregnancy: a case-control study. *Aust N Z J Obstet Gynaecol.* 2006 Dec;46(6):521-7. X-1.

2735. Karaman S, Akercan F, Akarsu T, et al. Comparison of the maternal and neonatal effects of epidural block and of combined spinal-epidural block for Cesarean section. *Eur J Obstet Gynecol Reprod Biol.* 2005 Jul 1;121(1):18-23. X-9.
2736. Karaman S, Akercan F, Aldemir O, et al. The maternal and neonatal effects of the volatile anaesthetic agents desflurane and sevoflurane in caesarean section: a prospective, randomized clinical study. *J Int Med Res.* 2006 Mar-Apr;34(2):183-92. X-9.
2737. Karaman S, Kocabas S, Uyar M, et al. The effects of sufentanil or morphine added to hyperbaric bupivacaine in spinal anaesthesia for caesarean section. *Eur J Anaesthesiol.* 2006 Apr;23(4):285-91. X-9.
2738. Karambelkar DJ and Ramanathan S. 2-Chloroprocaine antagonism of epidural morphine analgesia. *Acta Anaesthesiol Scand.* 1997 Jun;41(6):774-8. X-9.
2739. Karcaaltincaba D, Akdag D, Kandemir O, et al. Is there any relation between development of persistent non-reassuring fetal heart rate pattern and acutely increased uterine artery vascular flow resistance during dinoprostone use in prolonged pregnancies? *Acta Obstet Gynecol Scand.* 2009;88(8):894-900. X-1.
2740. Karhunen M, Koskela O, Teisala K, et al. Prophylaxis and treatment of anaerobic infections following caesarean section with tinidazole. *Chemotherapy.* 1985;31(3):228-36. X-1, X-9.
2741. Kariminia A, Saunders DM and Chamberlain M. Risk factors for strong regret and subsequent IVF request after having tubal ligation. *Aust N Z J Obstet Gynaecol.* 2002 Nov;42(5):526-9. X-1.
2742. Karinen J, Makarainen L, Alahuhta S, et al. Single bolus compared with a fractionated dose injection technique of bupivacaine for extradural Caesarean section: effect on uteroplacental and fetal haemodynamic state. *Br J Anaesth.* 1996 Aug;77(2):140-4. X-9.
2743. Karinen J, Rasanen J, Alahuhta S, et al. Effect of crystalloid and colloid preloading on uteroplacental and maternal haemodynamic state during spinal anaesthesia for caesarean section. *Br J Anaesth.* 1995 Nov;75(5):531-5. X-9.
2744. Karinen J, Rasanen J, Paavilainen T, et al. Uteroplacental and fetal haemodynamics and cardiac function of the fetus and newborn after crystalloid and colloid preloading for extradural caesarean section anaesthesia. *Br J Anaesth.* 1994 Dec;73(6):751-7. X-9.
2745. Kariniemi V and Aula P. Heart rate patterns in trisomic fetuses. *J Perinat Med.* 1982;10(5):242-6. X-1.
2746. Karjane NW, Brock EL and Walsh SW. Induction of labor using a foley balloon, with and without extra-amniotic saline infusion. *Obstet Gynecol.* 2006 Feb;107(2 Pt 1):234-9. X-4d.
2747. Karkanis SG, Caloia D, Salenieks ME, et al. Randomized controlled trial of rectal misoprostol versus oxytocin in third stage management. *J Obstet Gynaecol Can.* 2002 Feb;24(2):149-54. X-3, X-4e, X-5.
2748. Karlstrom A, Engstrom-Olofsson R, Nystedt A, et al. Swedish caregivers' attitudes towards caesarean section on maternal request. *Women Birth.* 2009 Jun;22(2):57-63. X-1.
2749. Karmon A, Levy A, Holcberg G, et al. Decreased perinatal mortality among women with diet-controlled gestational diabetes mellitus. *Int J Gynaecol Obstet.* 2009 Mar;104(3):199-202. X-1.
2750. Karpel JP and Wait JL. Asthma in women, part 1: clinical course and outcome in pregnancy: what to expect when asthma control is good -- and when it isn't. *Journal of Critical Illness.* 1999;14(11):599-606. X-1, X-2.
2751. Karsdorp VH, Dekker GA, Bast A, et al. Maternal and fetal plasma concentrations of endothelin, lipidhydroperoxides, glutathione peroxidase and fibronectin in relation to abnormal umbilical artery velocimetry. *Eur J Obstet Gynecol Reprod Biol.* 1998 Sep;80(1):39-44. X-1.
2752. Karsdorp VH, van Vugt JM, Jakobs C, et al. Amino acids, glucose and lactate concentrations in umbilical cord blood in relation to umbilical artery flow patterns. *Eur J Obstet Gynecol Reprod Biol.* 1994 Nov;57(2):117-22. X-1.
2753. Karsdorp VH, van Vugt JM, van Geijn HP, et al. Clinical significance of absent or reversed end diastolic velocity waveforms in umbilical artery. *Lancet.* 1994 Dec 17;344(8938):1664-8. X-1.
2754. Karuparthi VR, Downing JW, Husain FJ, et al. Incidence of venous air embolism during cesarean section is unchanged by the use of a 5 to 10 degree head-up tilt. *Anesth Analg.* 1989 Nov;69(5):620-3. X-9.
2755. Kasai KE, Nomura RM, Benute GR, et al. Women's opinions about mode of birth in Brazil: a qualitative study in a public teaching hospital. *Midwifery.* 2010 Jun;26(3):319-26. X-1.
2756. Kashanian M, Akbarian A, Baradaran H, et al. Effect of membrane sweeping at term pregnancy on duration of pregnancy and labor induction: a randomized trial. *Gynecol Obstet Invest.* 2006;62(1):41-4. X-4d, X-5.
2757. Kashanian M, Akbarian AR, Baradaran H, et al. Pregnancy outcome following a previous spontaneous abortion (miscarriage). *Gynecol Obstet Invest.* 2006;61(3):167-70. X-1.

2758. Kashanian M, Akbarian AR and Fekrat M. Cervical ripening and induction of labor with intravaginal misoprostol and Foley catheter cervical traction. *Int J Gynaecol Obstet.* 2006 Jan;92(1):79-80. X-4d.
2759. Kashanian M, Fekrat M, Naghghash S, et al. Evaluation of the effect of extra-amniotic normal saline infusion alone or in combination with dexamethasone for the induction of labor. *J Obstet Gynaecol Res.* 2008 Feb;34(1):47-50. X-4d.
2760. Kashanian M, Fekrat M, Zarrin Z, et al. A comparison between the effect of oxytocin only and oxytocin plus propranolol on the labor (a double blind randomized trial). *J Obstet Gynaecol Res.* 2008 Jun;34(3):354-8. X-4d.
2761. Kashanian M, Javadi F and Haghighi MM. Effect of continuous support during labor on duration of labor and rate of cesarean delivery. *Int J Gynaecol Obstet.* 2010 Jun;109(3):198-200. X-6.
2762. Kassanos D, Botsis D, Rizos D, et al. Tissue polypeptide specific antigen (TPS) throughout normal pregnancy. *Anticancer Res.* 2000 May-Jun;20(3B):2129-31. X-1.
2763. Kassis A, Mazor M, Leiberman JR, et al. Management of post-date pregnancy: a case control study. *Isr J Med Sci.* 1991 Feb;27(2):82-6. X-1.
2764. Kasule J, Chimpira TH and Brown IM. Controlled trial of external cephalic version. *Br J Obstet Gynaecol.* 1985 Jan;92(1):14-8. X-4e, X-4c.
2765. Katafigioti A, Paraskeva A, Petropoulos G, et al. Pregnancy at term does not alter the responses to a mechanical and an electrical stimulus after skin EMLA application. *Middle East J Anesthesiol.* 2009 Jun;20(2):251-5. X-1.
2766. Kattwinkel J, Robinson M, Bloom BT, et al. Technique for intrapartum administration of surfactant without requirement for an endotracheal tube. *J Perinatol.* 2004 Jun;24(6):360-5. X-1.
2767. Katz O, Levy A, Wiznitzer A, et al. Pregnancy and perinatal outcome in epileptic women: a population-based study. *J Matern Fetal Neonatal Med.* 2006 Jan;19(1):21-5. X-1.
2768. Katz Z, Yemini M, Lancet M, et al. Non-aggressive management of post-date pregnancies. *Eur J Obstet Gynecol Reprod Biol.* 1983 Jun;15(2):71-9. X-4d, X-4e, X-5.
2769. Kaufman KE, Bailit JL and Grobman W. Elective induction: an analysis of economic and health consequences. *Am J Obstet Gynecol.* 2002 Oct;187(4):858-63. X-1.
2770. Kaufmann T and Liu D. Should cesareans be performed only on the basis of medical need? *Nurs Times.* 2001 Sep 20-26;97(38):17. X-1, X-2, X-3, X-4, X-5.
2771. Kaul B, Vallejo MC, Ramanathan S, et al. Induction of labor with oxytocin increases cesarean section rate as compared with oxytocin for augmentation of spontaneous labor in nulliparous parturients controlled for lumbar epidural analgesia. *J Clin Anesth.* 2004 Sep;16(6):411-4. X-1.
2772. Kauppila O, Gronroos M, Aro P, et al. Management of low birth weight breech delivery: should cesarean section be routine? *Obstet Gynecol.* 1981 Mar;57(3):289-94. X-1.
2773. Kavak ZN, Basgul A and Ceyhan N. Short-term outcome of newborn infants: spinal versus general anesthesia for elective cesarean section. A prospective randomized study. *Eur J Obstet Gynecol Reprod Biol.* 2001 Dec 10;100(1):50-4. X-9.
2774. Kavee EH, Bernstein J, Zakowski MI, et al. The hypothermic action of epidural and subarachnoid morphine in parturients. *Reg Anesth.* 1991 Nov-Dec;16(6):325-8. X-1.
2775. Kawamata K, Neki R, Yamanaka K, et al. Risks and pregnancy outcome in women with prosthetic mechanical heart valve replacement. *Circ J.* 2007 Feb;71(2):211-3. X-1.
2776. Kaya FN, Sahin S, Owen MD, et al. Epidural neostigmine produces analgesia but also sedation in women after cesarean delivery. *Anesthesiology.* 2004 Feb;100(2):381-5. X-9.
2777. Kaya T, Buyukkokcak U, Basar H, et al. Comparison of epidural ropivacaine 0.2% and ropivacaine 0.2% in combination with sufentanil 0.75 microg mL⁻¹ for postcaesarean analgesia. *Agri.* 2008 Oct;20(4):30-7. X-9.
2778. Kaya T, Cetin A, Cetin M, et al. Effects of endothelin-1 and calcium channel blockers on contractions in human myometrium. A study on myometrial strips from normal and diabetic pregnant women. *J Reprod Med.* 1999 Feb;44(2):115-21. X-1.
2779. Kayabasoglu F, Guzin K, Aydogdu S, et al. Emergency peripartum hysterectomy in a tertiary Istanbul hospital. *Arch Gynecol Obstet.* 2008 Sep;278(3):251-6. X-1.
2780. Kaye D. Risk factors for preterm premature rupture of membranes at Mulago Hospital, Kampala. *East Afr Med J.* 2001 Feb;78(2):65-9. X-1.
2781. Kaye D. Antenatal and intrapartum risk factors for birth asphyxia among emergency obstetric referrals in Mulago Hospital, Kampala, Uganda. *East Afr Med J.* 2003 Mar;80(3):140-3. X-1.
2782. Kaye SA, Robison LL, Smithson WA, et al. Maternal reproductive history and birth characteristics in childhood acute lymphoblastic leukemia. *Cancer.* 1991 Sep 15;68(6):1351-5. X-1.

2783. Kayihura V, Osman NB, Bugalho A, et al. Choice of antibiotics for infection prophylaxis in emergency cesarean sections in low-income countries: a cost-benefit study in Mozambique. *Acta Obstet Gynecol Scand.* 2003 Jul;82(7):636-41. X-9.
2784. Kaymak O, Ustunyurt E, Okay RE, et al. Myomectomy during cesarean section. *Int J Gynaecol Obstet.* 2005 May;89(2):90-3. X-1.
2785. Kazandjian VA, Chaulk CP, Ogunbo S, et al. Does a Cesarean section delivery always cost more than a vaginal delivery? *J Eval Clin Pract.* 2007 Feb;13(1):16-20. X-1.
2786. Kazandjian VA and Summer SJ. Evaluating the appropriateness of care: a study of cesarean section rates. *QRB Qual Rev Bull.* 1989 Jul;15(7):206-14. X-1.
2787. Kazzi GM, Bottoms SF and Rosen MG. Efficacy and safety of *Laminaria digitata* for preinduction ripening of the cervix. *Obstet Gynecol.* 1982 Oct;60(4):440-3. X-1.
2788. Keane D and James D. Prophylactic antibiotics at caesarean section do not reduce costs. *Health Trends.* 1993;25(3):84-7. X-1.
2789. Keane HE and Thornton JG. A trial of cetrimide/chlorhexidine or tap water for perineal cleaning. *British Journal of Midwifery.* 1998;6(1):34-37. X-4e.
2790. Keelan JA, Zhou RL and Mitchell MD. Activin A exerts both pro- and anti-inflammatory effects on human term gestational tissues. *Placenta.* 2000 Jan;21(1):38-43. X-1.
2791. Keeler EB and Brodie M. Economic incentives in the choice between vaginal delivery and cesarean section. *Milbank Q.* 1993;71(3):365-404. X-1.
2792. Keeler EB and Fok T. Equalizing physician fees had little effect on cesarean rates. *Med Care Res Rev.* 1996 Dec;53(4):465-71. X-9.
2793. Keeri-Szanto M. The mode of action of promethazine in potentiating narcotic drugs. *Br J Anaesth.* 1974 Dec;46(12):918-24. X-9.
2794. Keeton K, Zikmund-Fisher BJ, Ubel PA, et al. The accuracy of predicting parity as a prerequisite for cesarean delivery on maternal request. *Obstet Gynecol.* 2008 Aug;112(2 Pt 1):285-9. X-1.
2795. Keijzer G, Lemay G, Toms C, et al. Tricks of the trade. *Midwifery Today.* 2005(76):7-7. X-2.
2796. Keirse MJ and de Koning Gans HJ. Randomized comparison of the effects of endocervical and vaginal prostaglandin E2 gel in women with various degrees of cervical ripeness. Dutch Collaborative Prostaglandin Trialists' Group. *Am J Obstet Gynecol.* 1995 Dec;173(6):1859-64. X-4d, X-4e, X-5.
2797. Keirse MJN. The Term Breech Trial and its aftermath. *Birth Issues.* 2007;15(3-4):114-118. X-1.
2798. Keith RD, Beckley S, Garibaldi JM, et al. A multicentre comparative study of 17 experts and an intelligent computer system for managing labour using the cardiotocogram. *Br J Obstet Gynaecol.* 1995 Sep;102(9):688-700. X-1.
2799. Kellum RB, Roberts WE, Harris JB, et al. Effect of intrauterine antibiotic lavage after cesarean birth on postoperative morbidity. *J Reprod Med.* 1985 Jul;30(7):527-9. X-9.
2800. Kelly K. Childbirth: what it's really like. *American Baby.* 2003;65(11):122. X-1.
2801. Kelly KM, Madden DA, Arcarese JS, et al. The utilization and efficacy of pelvimetry. *Am J Roentgenol Radium Ther Nucl Med.* 1975 Sep;125(1):66-74. X-1.
2802. Kelly MC, Carabine UA and Mirakhor RK. Intrathecal diamorphine for analgesia after caesarean section. A dose finding study and assessment of side-effects. *Anaesthesia.* 1998 Mar;53(3):231-7. X-9.
2803. Kelly MC, Fitzpatrick KT and Hill DA. Respiratory effects of spinal anaesthesia for caesarean section. *Anaesthesia.* 1996 Dec;51(12):1120-2. X-1.
2804. Kelly RW, Leask R and Calder AA. Choriodecidual production of interleukin-8 and mechanism of parturition. *Lancet.* 1992 Mar 28;339(8796):776-7. X-1.
2805. Kelly VM, Nelson LM and Chakravarty EF. Obstetric outcomes in women with multiple sclerosis and epilepsy. *Neurology.* 2009 Dec 1;73(22):1831-6. X-1.
2806. Kelso IM, Parsons RJ, Lawrence GF, et al. An assessment of continuous fetal heart rate monitoring in labor. A randomized trial. *Am J Obstet Gynecol.* 1978 Jul 1;131(5):526-32. X-4e, X-5.
2807. Kemp B, Rath W, Winkler M, et al. Is cervical dilatation during parturition at term associated with apoptosis? *J Perinat Med.* 2005;33(2):137-43. X-1.
2808. Kendell RE, McInnery K, Juszcak E, et al. Obstetric complications and schizophrenia. Two case-control studies based on structured obstetric records. *Br J Psychiatry.* 2000 Jun;176:516-22. X-1.
2809. Kendrick WD, Woods AM, Daly MY, et al. Naloxone versus nalbuphine infusion for prophylaxis of epidural morphine-induced pruritus. *Anesth Analg.* 1996 Mar;82(3):641-7. X-9.
2810. Kenepp NB, Kumar S, Shelley WC, et al. Fetal and neonatal hazards of maternal hydration with 5% dextrose before caesarean section. *Lancet.* 1982 May 22;1(8282):1150-2. X-9.
2811. Kennaway DJ, Goble FC and Stamp GE. Factors influencing the development of melatonin rhythmicity in humans. *J Clin Endocrinol Metab.* 1996 Apr;81(4):1525-32. X-1.

2812. Kennedy I. Consent: adult, refusal of consent, capacity: Re M.B. (Medical Treatment). *Med Law Rev.* 1997 Autumn;5(3):317-25. X-1, X-2.
2813. Kennedy JH, Stewart P, Barlow DH, et al. Induction of labour: a comparison of a single prostaglandin E2 vaginal tablet with amniotomy and intravenous oxytocin. *Br J Obstet Gynaecol.* 1982 Sep;89(9):704-7. X-4d.
2814. Kenton K, Brincat C, Mutone M, et al. Repeat cesarean section and primary elective cesarean section: recently trained obstetrician-gynecologist practice patterns and opinions. *Am J Obstet Gynecol.* 2005 Jun;192(6):1872-5; discussion 1875-6. X-1.
2815. Kenyon AP, Piercy CN, Girling J, et al. Obstetric cholestasis, outcome with active management: a series of 70 cases. *BJOG.* 2002 Mar;109(3):282-8. X-1.
2816. Keogh E, Hughes S, Ellery D, et al. Psychosocial influences on women's experience of planned elective cesarean section. *Psychosom Med.* 2006 Jan-Feb;68(1):167-74. X-1.
2817. Kernaghan D, Penney GC and Pearson DWM. Pregnancy-related care and outcomes for women with Type 1 diabetes in Scotland: a five-year population-based audit cycle. *Clinical Governance: An International Journal.* 2006;11(2):114-127. X-1.
2818. Kerr-Wilson RH and McNally S. Bladder drainage for caesarean section under epidural analgesia. *Br J Obstet Gynaecol.* 1986 Jan;93(1):28-30. X-9.
2819. Kershaw K, Jolly J, Bhabra K, et al. Randomised controlled trial of community debriefing following operative delivery. *BJOG.* 2005 Nov;112(11):1504-9. X-3, X-4e.
2820. Kessler I, Lancet M, Borenstein R, et al. The obstetrical management of patients with immunologic thrombocytopenic purpura. *Int J Gynaecol Obstet.* 1982 Feb;20(1):23-8. X-1.
2821. Kessler I, Lancet M, Borenstein R, et al. The problem of the older primipara. *Obstet Gynecol.* 1980 Aug;56(2):165-9. X-1.
2822. Kessler I, Shoham Z, Lancet M, et al. Complications associated with genital colonization in pregnancies with and without cerclage. *Int J Gynaecol Obstet.* 1988 Dec;27(3):359-63. X-1.
2823. Kestila KK, Ekblad UU and Ronnema T. Continuous glucose monitoring versus self-monitoring of blood glucose in the treatment of gestational diabetes mellitus. *Diabetes Res Clin Pract.* 2007 Aug;77(2):174-9. X-4e, X-5.
2824. Kestin IG, Madden AP, Mulvein JT, et al. Comparison of incremental spinal anaesthesia using a 32-gauge catheter with extradural anaesthesia for elective caesarean section. *Br J Anaesth.* 1991 Feb;66(2):232-6. X-9.
2825. Ketler SK. The rebirth of informed consent: a cultural analysis of the Informed Consent Doctrine after *Schreiber v. Physicians Insurance Co. of Wisconsin*. *Northwest Univ Law Rev.* 2001 Spring;95(3):1029-56. X-1, X-2.
2826. Khan A and Zaman S. Costs of vaginal delivery and Caesarean section at a tertiary level public hospital in Islamabad, Pakistan. *BMC Pregnancy Childbirth.* 2010;10:2. X-1.
2827. Khan KS, Hashmi FA and Rizvi JH. Are non-diabetic women with abnormal glucose screening test at increased risk of pre-eclampsia, macrosomia and caesarian birth? *J Pak Med Assoc.* 1995 Jul;45(7):176-9. X-1.
2828. Khan KS, Khan BF, Rasul S, et al. The safety of epidural analgesia in labour and its effect on delivery--a case control study in Pakistani women. *J Pak Med Assoc.* 1993 Jun;43(6):115-7. X-1.
2829. Khan R, Burgoyne L, O'Connell M, et al. Antenatal management of the expectant mother and extreme preterm infant at the limits of viability. *Ir Med J.* 2010 Oct;103(9):266-9. X-1.
2830. Khan ZH, Zanjani AP, Makarem J, et al. Antishivering effects of two different doses of intrathecal meperidine in caesarean section: a prospective randomised blinded study. *Eur J Anaesthesiol.* 2011 Mar;28(3):202-6. X-9.
2831. Khandelwal M, Lynch L, Lockwood CJ, et al. Maternal serum levels of alpha-fetoprotein and fetal fibronectin as markers of labor in the third trimester. *Am J Perinatol.* 1995 May;12(3):161-3. X-1.
2832. Khang YH, Yun SC, Jo MW, et al. Public release of institutional Cesarean section rates in South Korea: which women were aware of the information? *Health Policy.* 2008 Apr;86(1):10-6. X-1.
2833. Khatree MH and Mokgokong ET. The significance of meconium staining of the liquor amnii during labour. *S Afr Med J.* 1979 Dec 15;56(25):1099-101. X-1.
2834. Khatun N, Latif SA and Uddin MM. Pregnancy associated complications of mothers with gestational diabetes mellitus. *Mymensingh Med J.* 2005 Jul;14(2):196-8. X-1.
2835. Khaw KS, Ngan Kee WD, Chu CY, et al. Effects of different inspired oxygen fractions on lipid peroxidation during general anaesthesia for elective Caesarean section. *Br J Anaesth.* 2010 Sep;105(3):355-60. X-9.
2836. Khaw KS, Ngan Kee WD, Lee A, et al. Supplementary oxygen for elective Caesarean section under spinal anaesthesia: useful in prolonged uterine incision-to-delivery interval? *Br J Anaesth.* 2004 Apr;92(4):518-22. X-9.
2837. Khaw KS, Ngan Kee WD, Wong EL, et al. Spinal ropivacaine for caesarean section: a

- dose-finding study. *Anesthesiology*. 2001 Dec;95(6):1346-50. X-9.
2838. Khaw KS, Ngan Kee WD, Wong M, et al. Spinal ropivacaine for cesarean delivery: a comparison of hyperbaric and plain solutions. *Anesth Analg*. 2002 Mar;94(3):680-5; table of contents. X-9.
2839. Khaw KS, Wang CC, Ngan Kee WD, et al. Effects of high inspired oxygen fraction during elective caesarean section under spinal anaesthesia on maternal and fetal oxygenation and lipid peroxidation. *Br J Anaesth*. 2002 Jan;88(1):18-23. X-9.
2840. Khaw KS, Wang CC, Ngan Kee WD, et al. Supplementary oxygen for emergency Caesarean section under regional anaesthesia. *Br J Anaesth*. 2009 Jan;102(1):90-6. X-9.
2841. Khawaja M, Choueiry N and Jurdi R. Hospital-based caesarean section in the Arab region: an overview. *East Mediterr Health J*. 2009 Mar-Apr;15(2):458-69. X-1.
2842. Khawaja NP, Yousaf T and Tayyeb R. Analysis of caesarean delivery at a tertiary care hospital in Pakistan. *J Obstet Gynaecol*. 2004 Feb;24(2):139-41. X-1.
2843. Khonjandi M, Tsai M and Tyson JE. Gestational diabetes: the dilemma of delivery. *Obstet Gynecol*. 1974 Jan;43(1):1-6. X-1.
2844. Khor LJ, Jeskins G, Cooper GM, et al. National obstetric anaesthetic practice in the UK 1997/1998. *Anaesthesia*. 2000 Dec;55(12):1168-72. X-1.
2845. Khosla AH, Sangwan K and Ahuja SD. Prophylactic amnioinfusion during labor complicated by meconium. *Aust N Z J Obstet Gynaecol*. 1997 Aug;37(3):294-6. X-1.
2846. Khunpradit S, Patumanond J and Tawichasri C. Risk indicators for cesarean section due to cephalopelvic disproportion in Lamphun hospital. *J Med Assoc Thai*. 2005 Oct;88 Suppl 2:S63-8. X-1.
2847. Khunpradit S, Patumanond J and Tawichasri C. Validation of risk scoring scheme for cesarean delivery due to cephalopelvic disproportion in Lamphun Hospital. *J Med Assoc Thai*. 2006 Oct;89 Suppl 4:S163-8. X-1.
2848. Khunpradit S, Patumanond J and Tawichasri C. Development of risk scoring scheme for prediction of cesarean delivery due to cephalopelvic disproportion in Lamphun Hospital, Thailand. *J Obstet Gynaecol Res*. 2007 Aug;33(4):445-51. X-1.
2849. Khunpradit S, Tavender E, Lumbiganon P, et al. Non-clinical interventions for reducing unnecessary caesarean section (Review). *Cochrane Database of Systematic Reviews*. [Review]. 2011 2011(6). X-1, X-2.
2850. Kianmanesh Rad NA, Vandenbussche FP, Le Cessie S, et al. A risk model approach to the prediction of fetal acidemia. *J Perinat Med*. 1998;26(4):270-7. X-1.
2851. Kidd LC, Patel NB and Smith R. Non-stress antenatal cardiotocography--a prospective randomized clinical trial. *Br J Obstet Gynaecol*. 1985 Nov;92(11):1156-9. X-1, X-4e.
2852. Kieback DG, Zahradnik HP, Quaas L, et al. Clinical evaluation of endocervical prostaglandin E2-triacetin-gel for preinduction cervical softening in pregnant women at term. *Prostaglandins*. 1986 Jul;32(1):81-5. X-4d, X-5.
2853. Kiely JL. Mode of delivery and neonatal death in 17,587 infants presenting by the breech. *Br J Obstet Gynaecol*. 1991 Sep;98(9):898-904. X-1.
2854. Kikutani T, Oshima M, Sugimoto K, et al. Effects of intravenous infusion rate of oxytocin on thoracic epidural pressure in parturients undergoing elective cesarean section. *J Nippon Med Sch*. 2003 Dec;70(6):475-9. X-9.
2855. Kikutani T and Shimada Y. Effects of methylergometrine and oxytocin on thoracic epidural pressure during cesarean section. *J Obstet Gynaecol Res*. 2003 Jun;29(3):180-5. X-9.
2856. Kilarski WM, Fu X, Roomans GM, et al. In vitro effect of Hepes buffer on maintaining the number of gap junction plaques in human myometrium at term. *Folia Histochem Cytobiol*. 1995;33(3):151-5. X-1.
2857. Kilby MD, Afford S, Li XF, et al. Localisation of hepatocyte growth factor and its receptor (c-met) protein and mRNA in human term placenta. *Growth Factors*. 1996;13(1-2):133-9. X-1.
2858. Kilby MD, Neary RH, Mackness MI, et al. Fetal and maternal lipoprotein metabolism in human pregnancy complicated by type I diabetes mellitus. *J Clin Endocrinol Metab*. 1998 May;83(5):1736-41. X-1, X-3, X-4b.
2859. Killie MK, Kjeldsen-Kragh J, Husebekk A, et al. Cost-effectiveness of antenatal screening for neonatal alloimmune thrombocytopenia. *BJOG*. 2007 May;114(5):588-95. X-1.
2860. Kim C, Brawarsky P, Jackson RA, et al. Changes in health status experienced by women with gestational diabetes and pregnancy-induced hypertensive disorders. *J Womens Health (Larchmt)*. 2005 Oct;14(8):729-36. X-1.
2861. Kim JH, Min KT, Ahn EK, et al. The infusion rate of mivacurium or atracurium for cesarean section compared with gynecological procedures. *Yonsei Med J*. 1999 Aug;40(4):371-6. X-1.
2862. Kim LH, Cheng YW, Delaney S, et al. Is preeclampsia associated with an increased risk of cesarean delivery if labor is induced? *J Matern Fetal Neonatal Med*. 2010 May;23(5):383-8. X-1.

2863. Kimberlin DF, Hauth JC, Goldenberg RL, et al. The effect of maternal magnesium sulfate treatment on neonatal morbidity in < or = 1000-gram infants. *Am J Perinatol.* 1998;15(11):635-41. X-1.
2864. Kimberlin DF, Hauth JC, Owen J, et al. Indicated versus spontaneous preterm delivery: An evaluation of neonatal morbidity among infants weighing <=1000 grams at birth. *Am J Obstet Gynecol.* 1999 Mar;180(3 Pt 1):683-9. X-1.
2865. King D. Birth and delivery rates for 2004. *International Journal of Childbirth Education.* 2006;21(4):30-31. X-1.
2866. King DE and Lahiri K. Socioeconomic factors and the odds of vaginal birth after cesarean delivery. *JAMA.* 1994 Aug 17;272(7):524-9. X-1.
2867. King H, Ashley S, Brathwaite D, et al. Adequacy of general anesthesia for cesarean section. *Anesth Analg.* 1993 Jul;77(1):84-8. X-1, X-9.
2868. King HH, Tettambel MA, Lockwood MD, et al. Osteopathic manipulative treatment in prenatal care: a retrospective case control design study. *J Am Osteopath Assoc.* 2003 Dec;103(12):577-82. X-1.
2869. King HK, Wood L, Steffens Z, et al. Spinal anesthesia for cesarean section: isobaric versus hyperbaric solution. *Acta Anaesthesiol Sin.* 1999 Jun;37(2):61-4. X-9.
2870. King JF. Guest commentary. The Term Breech Trial. *Birth Issues.* 2000;9(4):113-113. X-1.
2871. King KJ, Douglas MJ, Unger W, et al. Five unit bolus oxytocin at cesarean delivery in women at risk of atony: a randomized, double-blind, controlled trial. *Anesth Analg.* 2010 Dec;111(6):1460-6. X-9.
2872. King MJ, Bowden MI and Cooper GM. Epidural fentanyl and 0.5% bupivacaine for elective cesarean section. *Anaesthesia.* 1990 Apr;45(4):285-8. X-9.
2873. King TA, Jackson GL, Josey AS, et al. The effect of profound umbilical artery acidemia in term neonates admitted to a newborn nursery. *J Pediatr.* 1998 Apr;132(4):624-9. X-1.
2874. Kingdom JC, McQueen J, Connell JM, et al. Fetal angiotensin II levels and vascular (type I) angiotensin receptors in pregnancies complicated by intrauterine growth retardation. *Br J Obstet Gynaecol.* 1993 May;100(5):476-82. X-1.
2875. Kingdon C and Lavender T. Cochrane reviews with no trials: pointless or pragmatic? *British Journal of Midwifery.* 2008;16(1):8-11. X-1, X-2.
2876. Kingdon C, Neilson J, Singleton V, et al. Choice and birth method: mixed-method study of caesarean delivery for maternal request. *BJOG.* 2009 Jun;116(7):886-95. X-1.
2877. Kinsella SM, Walton B, Sashidharan R, et al. Category-1 caesarean section: a survey of anaesthetic and peri-operative management in the UK. *Anaesthesia.* 2010 Apr;65(4):362-8. X-1.
2878. Kinsley M. Planning for baby's birth day. *Nursing Spectrum -- New York & New Jersey Edition.* 2007;19A(9):NJ/NY4-5. X-1, X-2.
2879. Kiondo P, Wandabwa J and Doyle P. Risk factors for placenta praevia presenting with severe vaginal bleeding in Mulago hospital, Kampala, Uganda. *Afr Health Sci.* 2008 Mar;8(1):44-9. X-1.
2880. Kiran TS, Chui YK, Bethel J, et al. Is gestational age an independent variable affecting uterine scar rupture rates? *Eur J Obstet Gynecol Reprod Biol.* 2006 May 1;126(1):68-71. X-1.
2881. Kirby AE. Classification of advanced practice nursing functions using the Nursing Intervention Classification taxonomy. 1996;PH.D.:237 p. X-1, X-2.
2882. Kirkinen P, Jouppila P and Herva R. Fatal fetal abnormalities. Route of delivery and effect of the development of antepartum diagnostics in the last 13 years. *J Reprod Med.* 1992 Jul;37(7):645-8. X-1.
2883. Kirkman S. The burden of proof. *Pract Midwife.* 2004 Jun;7(6):4-5. X-1, X-2, X-3, X-4, X-5.
2884. Kirz DS, Dorchester W and Freeman RK. Advanced maternal age: the mature gravida. *Am J Obstet Gynecol.* 1985 May 1;152(1):7-12. X-1.
2885. Kitzinger S, Green JM, Chalmers B, et al. Why do women go along with this stuff? *Birth.* 2006 Jun;33(2):154-8. X-1, X-2.
2886. Kitzmiller JL, Elixhauser A, Carr S, et al. Assessment of costs and benefits of management of gestational diabetes mellitus. *Diabetes Care.* 1998 Aug;21 Suppl 2:B123-30. X-1.
2887. Kjaer K, Comerford M, Kondilis L, et al. Oral sodium citrate increases nausea amongst elective Cesarean delivery patients. *Can J Anaesth.* 2006 Aug;53(8):776-80. X-9.
2888. Kjaer K, Hagen C, Sando SH, et al. Infertility and pregnancy outcome in an unselected group of women with insulin-dependent diabetes mellitus. *Am J Obstet Gynecol.* 1992 May;166(5):1412-8. X-1.
2889. Kjaergaard H, Olsen J, Ottesen B, et al. Incidence and outcomes of dystocia in the active phase of labor in term nulliparous women with spontaneous labor onset. *Acta Obstet Gynecol Scand.* 2009;88(4):402-7. X-1.
2890. Kjaergaard H, Olsen J, Ottesen B, et al. Obstetric risk indicators for labour dystocia in nulliparous women: a multi-centre cohort study. *BMC Pregnancy Childbirth.* 2008;8:45. X-1.

2891. Kjeldsen-Kragh J, Killie MK, Tomter G, et al. A screening and intervention program aimed to reduce mortality and serious morbidity associated with severe neonatal alloimmune thrombocytopenia. *Blood*. 2007 Aug 1;110(3):833-9. X-1.
2892. Kjos SL, Berkowitz KM and Kung B. Prospective delivery of reliably dated term infants of diabetic mothers without determination of fetal lung maturity: comparison to historical control. *J Matern Fetal Neonatal Med*. 2002 Dec;12(6):433-7. X-1.
2893. Kjos SL, Henry OA, Montoro M, et al. Insulin-requiring diabetes in pregnancy: a randomized trial of active induction of labor and expectant management. *Am J Obstet Gynecol*. 1993 Sep;169(3):611-5. X-4e.
2894. Kjos SL, Schaefer-Graf U, Sardesi S, et al. A randomized controlled trial using glycemic plus fetal ultrasound parameters versus glycemic parameters to determine insulin therapy in gestational diabetes with fasting hyperglycemia. *Diabetes Care*. 2001 Nov;24(11):1904-10. X-4b, X-4e, X-5.
2895. Klamt JG, Garcia LV and Prado WA. Analgesic and adverse effects of a low dose of intrathecally administered hyperbaric neostigmine alone or combined with morphine in patients submitted to spinal anaesthesia: pilot studies. *Anaesthesia*. 1999 Jan;54(1):27-31. X-1, X-9.
2896. Klaus MH, Kennell JH, Robertson SS, et al. Effects of social support during parturition on maternal and infant morbidity. *Br Med J (Clin Res Ed)*. 1986 Sep 6;293(6547):585-7. X-6.
2897. Klauser CK, Christensen EE, Chauhan SP, et al. Use of fetal pulse oximetry among high-risk women in labor: a randomized clinical trial. *Am J Obstet Gynecol*. 2005 Jun;192(6):1810-7; discussion 1817-9. X-4e.
2898. Klebe JG, Espersen T and Allen J. Diabetes mellitus and pregnancy. A seven-year material of pregnant diabetics, where control during pregnancy was based on a centralized ambulant regime. *Acta Obstet Gynecol Scand*. 1986;65(3):235-40. X-1.
2899. Kleiblova P, Dostalova I, Bartlova M, et al. Expression of adipokines and estrogen receptors in adipose tissue and placenta of patients with gestational diabetes mellitus. *Mol Cell Endocrinol*. 2010 Jan 15;314(1):150-6. X-9.
2900. Klein AH, Hobel CJ, Sack J, et al. Effect of intraamniotic fluid thyroxine injection on fetal serum and amniotic fluid iodothyronine concentrations. *J Clin Endocrinol Metab*. 1978 Nov;47(5):1034-7. X-1, X-9.
2901. Klein B, Faridi A, Amo-Takyi BK, et al. Neonatal platelet activation in preeclampsia. *Clin Appl Thromb Hemost*. 2001 Jan;7(1):29-32. X-1.
2902. Klein CJ, Dyck PJ, Friedenberg SM, et al. Inflammation and neuropathic attacks in hereditary brachial plexus neuropathy. *J Neurol Neurosurg Psychiatry*. 2002 Jul;73(1):45-50. X-1.
2903. Klein M. The active management of labor: whose agenda? *Birth*. 1993 Jun;20(2):97-9. X-1, X-2.
2904. Klein M, Papageorgiou A, Westreich R, et al. Care in a birth room versus a conventional setting: a controlled trial. *Can Med Assoc J*. 1984 Dec 15;131(12):1461-6. X-1, X-4e, X-5.
2905. Klein MC, Gauthier RJ, Robbins JM, et al. Relationship of episiotomy to perineal trauma and morbidity, sexual dysfunction, and pelvic floor relaxation. *Am J Obstet Gynecol*. 1994 Sep;171(3):591-8. X-1, X-3, X-4e, X-5.
2906. Klein MC, Grzybowski S, Harris S, et al. Epidural analgesia use as a marker for physician approach to birth: implications for maternal and newborn outcomes. *Birth*. 2001 Dec;28(4):243-8. X-1.
2907. Klein MC, Kaczorowski J, Firoz T, et al. A comparison of urinary and sexual outcomes in women experiencing vaginal and Caesarean births. *J Obstet Gynaecol Can*. 2005 Apr;27(4):332-9. X-1.
2908. Klein MC, Kaczorowski J, Hall WA, et al. The attitudes of Canadian maternity care practitioners towards labour and birth: many differences but important similarities. *J Obstet Gynaecol Can*. 2009 Sep;31(9):827-40. X-1.
2909. Klein MC, Kaczorowski J, Robbins JM, et al. Physicians' beliefs and behaviour during a randomized controlled trial of episiotomy: consequences for women in their care. *CMAJ*. 1995 Sep 15;153(6):769-79. X-1.
2910. Klein MC, Kelly A, Kaczorowski J, et al. The effect of family physician timing of maternal admission on procedures in labour and maternal and infant morbidity. *J Obstet Gynaecol Can*. 2004 Jul;26(7):641-5. X-1.
2911. Klein MC, Sakala C, Simkin P, et al. Why do women go along with this stuff? *Birth*. 2006 Sep;33(3):245-50. X-1, X-2, X-3, X-4e, X-5.
2912. Klein VR and McDowl J. Should pregnant women be able to choose elective cesarean as a birth option? *MCN Am J Matern Child Nurs*. 2010 Sep-Oct;35(5):252-3. X-1, X-2.
2913. Klerman LV, Ramey SL, Goldenberg RL, et al. A randomized trial of augmented prenatal care for multiple-risk, Medicaid-eligible African American women. *Am J Public Health*. 2001 Jan;91(1):105-11. X-4e, X-5.
2914. Kline GA and Edwards A. Antepartum and intra-partum insulin management of type 1 and type 2 diabetic women: Impact on clinically significant neonatal hypoglycemia. *Diabetes Res Clin Pract*. 2007 Aug;77(2):223-30. X-1.
2915. Klonoff-Cohen HS, Srinivasan IP and Edelstein SL. Prenatal and intrapartum events

- and sudden infant death syndrome. *Paediatr Perinat Epidemiol.* 2002 Jan;16(1):82-9. X-1.
2916. Klufio CA, Amo A, Kariwiga G, et al. A case-control study of meconium staining of amniotic fluid in labour at Port Moresby General Hospital to determine associated risk factors and perinatal outcome. *P N G Med J.* 1996 Dec;39(4):297-309. X-1.
2917. Kmietowicz Z. NICE advises against caesarean section on demand. *BMJ.* 2004 May 1;328(7447):1031. X-1, X-2.
2918. Knauth DR, Barbosa RM and Hopkins K. Between personal wishes and medical "prescription": mode of delivery and postpartum sterilisation among women with HIV in Brazil. *Reprod Health Matters.* 2003 Nov;11(22):113-21. X-1.
2919. Knight M. Antenatal pulmonary embolism: risk factors, management and outcomes. *BJOG.* 2008 Mar;115(4):453-61. X-1.
2920. Knight M, Kurinczuk JJ, Spark P, et al. Cesarean delivery and peripartum hysterectomy. *Obstet Gynecol.* 2008 Jan;111(1):97-105. X-1.
2921. Knight M, Nelson-Piercy C, Kurinczuk JJ, et al. A prospective national study of acute fatty liver of pregnancy in the UK. *Gut.* 2008 Jul;57(7):951-6. X-1.
2922. Knight M, Tuffnell D, Brocklehurst P, et al. Incidence and risk factors for amniotic-fluid embolism. *Obstet Gynecol.* 2010 May;115(5):910-7. X-1.
2923. Knight RL, Rice GE and Permezel M. Are alterations in plasma protease concentrations during labor associated with poor obstetric outcomes? *Am J Obstet Gynecol.* 2005 Jul;193(1):283-8. X-1.
2924. Knox EG. Control of haemolytic disease of the newborn. *Br J Prev Soc Med.* 1976 Sep;30(3):163-9. X-1, X-3, X-4e, X-5.
2925. Ko JS, Kim CS, Cho HS, et al. A randomized trial of crystalloid versus colloid solution for prevention of hypotension during spinal or low-dose combined spinal-epidural anesthesia for elective cesarean delivery. *Int J Obstet Anesth.* 2007 Jan;16(1):8-12. X-1, X-9.
2926. Ko PC, Liang CC, Chang SD, et al. A randomized controlled trial of antenatal pelvic floor exercises to prevent and treat urinary incontinence. *Int Urogynecol J Pelvic Floor Dysfunct.* 2011 Jan;22(1):17-22. X-4e.
2927. Kobayashi H, Sun GW and Terao T. Urinary trypsin inhibitor down-regulates hyaluronic acid fragment-induced prostanoid release in cultured human amnion cells by inhibiting cyclo-oxygenase-2 expression. *Mol Hum Reprod.* 1999 Jul;5(7):662-7. X-1.
2928. Kocarev M, Watkins E, McLure H, et al. Sensory testing of spinal anaesthesia for caesarean section: differential block and variability. *Int J Obstet Anesth.* 2010 Jul;19(3):261-5. X-1, X-9.
2929. Kocher M, Krcova V, Cerna M, et al. Retrieval Gunther Tulip Vena Cava Filter in the prevention of pulmonary embolism in patients with acute deep venous thrombosis in perinatal period. *Eur J Radiol.* 2009 Apr;70(1):165-9. X-1.
2930. Kocylowski RD, Dubiel M, Gudmundsson S, et al. Biochemical tissue-specific injury markers of the heart and brain in postpartum cord blood. *Am J Obstet Gynecol.* 2009 Mar;200(3):273 e1-273 e25. X-1.
2931. Koelewijn JM, de Haas M, Vrijkotte TG, et al. Risk factors for RhD immunisation despite antenatal and postnatal anti-D prophylaxis. *BJOG.* 2009 Sep;116(10):1307-14. X-1.
2932. Koelewijn JM, Vrijkotte TG, de Haas M, et al. Risk factors for the presence of non-rhesus D red blood cell antibodies in pregnancy. *BJOG.* 2009 Apr;116(5):655-64. X-1.
2933. Koerber JP, Roberts GE, Whitaker R, et al. Variation in rapid sequence induction techniques: current practice in Wales. *Anaesthesia.* 2009 Jan;64(1):54-9. X-1.
2934. Köhler F, Sorensen JF and Helbo-Hansen HS. Effect of delayed supine positioning after induction of spinal anaesthesia for caesarean section. *Acta Anaesthesiol Scand.* 2002 Apr;46(4):441-6. X-9.
2935. Koifman A, Levy A, Zaulan Y, et al. The clinical significance of bleeding during the second trimester of pregnancy. *Arch Gynecol Obstet.* 2008 Jul;278(1):47-51. X-1.
2936. Koigi-Kamau R, Leting PK and Kiarie JN. Perceptions and practices of vaginal birth after Caesarean section among privately practicing obstetricians in Kenya. *East Afr Med J.* 2005 Dec;82(12):631-6. X-1.
2937. Koike T, Minakami H, Kosuge S, et al. Uterine leiomyoma in pregnancy: its influence on obstetric performance. *J Obstet Gynaecol Res.* 1999 Oct;25(5):309-13. X-1.
2938. Kok J, Tan KH, Koh S, et al. Antenatal use of a novel vaginal birth training device by term primiparous women in Singapore. *Singapore Med J.* 2004 Jul;45(7):318-23. X-1.
2939. Kok M, Bais JM, van Lith JM, et al. Nifedipine as a uterine relaxant for external cephalic version: a randomized controlled trial. *Obstet Gynecol.* 2008 Aug;112(2 Pt 1):271-6. X-4e.
2940. Kok M, Gravendeel L, Opmeer BC, et al. Expectant parents' preferences for mode of delivery and trade-offs of outcomes for breech presentation. *Patient Educ Couns.* 2008 Aug;72(2):305-10. X-1.
2941. Koken G, Cosar E, Sahin FK, et al. Attitudes towards mode of delivery and cesarean on demand in Turkey. *Int J Gynaecol Obstet.* 2007 Dec;99(3):233-5. X-1.
2942. Koklanaris N, Bonnanno C, Seubert D, et al. Does raising the glucose challenge test threshold impact birthweight in Asian

- gravidas? *J Perinat Med.* 2007;35(2):100-3. X-1.
2943. Kol IO, Kaygusuz K, Gursoy S, et al. The effects of intravenous ephedrine during spinal anesthesia for cesarean delivery: a randomized controlled trial. *J Korean Med Sci.* 2009 Oct;24(5):883-8. X-9.
2944. Kolas T, Oian P and Skjeldestad FE. Risks for peroperative excessive blood loss in cesarean delivery. *Acta Obstet Gynecol Scand.* 2010 May;89(5):658-63. X-1, X-9.
2945. Kolas T, Saugstad OD, Daltveit AK, et al. Planned cesarean versus planned vaginal delivery at term: comparison of newborn infant outcomes. *Am J Obstet Gynecol.* 2006 Dec;195(6):1538-43. X-1.
2946. Kolatat T, Somboonnanonda A, Lertakyamane J, et al. Effects of general and regional anesthesia on the neonate (a prospective, randomized trial). *J Med Assoc Thai.* 1999 Jan;82(1):40-5. X-9.
2947. Kolawole IK and Fawole AA. Postoperative pain management following caesarean section in University of Ilorin Teaching Hospital (UITH), Ilorin, Nigeria. *West Afr J Med.* 2003 Dec;22(4):305-9. X-1, X-9.
2948. Kolder VE, Gallagher J and Parsons MT. Court-ordered obstetrical interventions. *N Engl J Med.* 1987 May 7;316(19):1192-6. X-1.
2949. Kolderup L, McLean L, Grullon K, et al. Misoprostol is more efficacious for labor induction than prostaglandin E2, but is it associated with more risk? *Am J Obstet Gynecol.* 1999 Jun;180(6 Pt 1):1543-50. X-4d.
2950. Kolderup LB, Laros RK, Jr. and Musci TJ. Incidence of persistent birth injury in macrosomic infants: association with mode of delivery. *Am J Obstet Gynecol.* 1997 Jul;177(1):37-41. X-1.
2951. Kolip P. Attitudes to cesarean delivery: the view of cesarean section mothers. *Gesundheitswesen.* 2008 Aug-Sep;70(8-9):e22-8. X-1.
2952. Kollee LA, Cuttini M, Delmas D, et al. Obstetric interventions for babies born before 28 weeks of gestation in Europe: results of the MOSAIC study. *BJOG.* 2009 Oct;116(11):1481-91. X-1.
2953. Kominiarek MA, Angelopoulos SM, Shapiro NL, et al. Low-molecular-weight heparin in pregnancy: peripartum bleeding complications. *J Perinatol.* 2007 Jun;27(6):329-34. X-1.
2954. Komoto Y, Shimoya K, Shimizu T, et al. Prospective study of non-closure or closure of the peritoneum at cesarean delivery in 124 women: Impact of prior peritoneal closure at primary cesarean on the interval time between first cesarean section and the next pregnancy and significant adhesion at second cesarean. *J Obstet Gynaecol Res.* 2006 Aug;32(4):396-402. X-9.
2955. Kongnyuy EJ, Leigh B and van den Broek N. Effect of audit and feedback on the availability, utilisation and quality of emergency obstetric care in three districts in Malawi. *Women Birth.* 2008 Dec;21(4):149-55. X-1, X-3, X-4e, X-5.
2956. Kongnyuy EJ, Mlava G and van den Broek N. A criterion based audit of the management of obstructed labour in Malawi. *Arch Gynecol Obstet.* 2009 May;279(5):649-54. X-1, X-3, X-4e, X-5.
2957. Kongnyuy EJ, Mlava G and van den Broek N. Facility-based maternal death review in three districts in the central region of Malawi: an analysis of causes and characteristics of maternal deaths. *Womens Health Issues.* 2009 Jan-Feb;19(1):14-20. X-1.
2958. Kongnyuy EJ, Nana PN, Fomulu N, et al. Adverse perinatal outcomes of adolescent pregnancies in Cameroon. *Matern Child Health J.* 2008 Mar;12(2):149-54. X-1.
2959. Konje JC, Palmer A, Watson A, et al. Early teenage pregnancies in Hull. *Br J Obstet Gynaecol.* 1992 Dec;99(12):969-73. X-1.
2960. Kono H, Lin YC, Yamaguchi M, et al. Effects of progesterone and gossypol on monoamine oxidase activity in human term placental explant. *Tohoku J Exp Med.* 1991 Jan;163(1):39-45. X-1.
2961. Koopmans CM, Bijlenga D, Aarnoudse JG, et al. Induction of labour versus expectant monitoring in women with pregnancy induced hypertension or mild preeclampsia at term: the HYPITAT trial. *BMC Pregnancy Childbirth.* 2007;7:14. X-4e, X-5.
2962. Kopic D, Sedensky M and Owen M. The impact of a teaching program on obstetric anesthesia practices in Croatia. *Int J Obstet Anesth.* 2009 Jan;18(1):4-9. X-1.
2963. Kornelsen J and Grzybowski S. Safety and community: the maternity care needs of rural parturient women. *J Obstet Gynaecol Can.* 2005 Jun;27(6):554-61. X-1.
2964. Kornelsen J, Grzybowski S and Iglesias S. Is rural maternity care sustainable without general practitioner surgeons? *Can J Rural Med.* 2006 Summer;11(3):218-20. X-1, X-2.
2965. Kornelsen J, Hutton E and Munro S. Influences on decision making among primiparous women choosing elective caesarean section in the absence of medical indications: findings from a qualitative investigation. *J Obstet Gynaecol Can.* 2010 Oct;32(10):962-9. X-1.
2966. Koroukian SM, Bush D and Rimm AA. Comparison of cesarean section rates in fee-for-service versus managed care patients in the Ohio Medicaid population, 1992-1997. *Am J Manag Care.* 2001 Feb;7(2):134-42. X-1.

2967. Koroukian SM, Trisel B and Rimm AA. Estimating the proportion of unnecessary Cesarean sections in Ohio using birth certificate data. *J Clin Epidemiol*. 1998 Dec;51(12):1327-34. X-1.
2968. Koszalka MF, Jr., Haverkamp AD, Orleans M, et al. The effects of internal electronic fetal heart rate monitoring on maternal and infant infections in high-risk pregnancies. *J Reprod Med*. 1982 Oct;27(10):661-5. X-4e.
2969. Kotake Y, Matsumoto M, Morisaki H, et al. Combination of intrathecal and intravenous fentanyl for cesarean delivery. *J Anesth*. 2003;17(4):277-80. X-9.
2970. Kotani N, Kushikata T, Hashimoto H, et al. Rebound perioperative hyperkalemia in six patients after cessation of ritodrine for premature labor. *Anesth Analg*. 2001 Sep;93(3):709-11. X-1.
2971. Kotelko DM, Rottman RL, Wright WC, et al. Transdermal scopolamine decreases nausea and vomiting following cesarean section in patients receiving epidural morphine. *Anesthesiology*. 1989 Nov;71(5):675-8. X-1, X-9.
2972. Kovavisarach E and Atthakorn M. Early versus delayed oral feeding after cesarean delivery. *Int J Gynaecol Obstet*. 2005 Jul;90(1):31-4. X-9.
2973. Kovavisarach E, Chairaj S, Tosang K, et al. Outcome of teenage pregnancy in Rajavithi Hospital. *J Med Assoc Thai*. 2010 Jan;93(1):1-8. X-1.
2974. Kovavisarach E and Jirasettasiri P. Randomised controlled trial of perineal shaving versus hair cutting in parturients on admission in labor. *J Med Assoc Thai*. 2005 Sep;88(9):1167-71. X-4e, X-5.
2975. Kovavisarach E and Sringsamvong W. Enema versus no-enema in pregnant women on admission in labor: a randomized controlled trial. *J Med Assoc Thai*. 2005 Dec;88(12):1763-7. X-4e, X-5.
2976. Kovavisarach E and Vanitchanon P. Perforation in single- and double-gloving methods for cesarean section. *Int J Gynaecol Obstet*. 1999 Dec;67(3):157-61. X-9.
2977. Kowalewski M, Mujinja P and Jahn A. Can mothers afford maternal health care costs? User costs of maternity services in rural Tanzania. *Afr J Reprod Health*. 2002 Apr;6(1):65-73. X-1.
2978. Kowalska A, Niemiec T, El Midaoui A, et al. Effect of antiretroviral therapy on pregnancy outcome in HIV-1 positive women. *Med Wieku Rozwoj*. 2003 Oct-Dec;7(4 Pt 1):459-68. X-1, X-4e.
2979. Kozak LJ and Weeks JD. U.S. trends in obstetric procedures, 1990-2000. *Birth*. 2002 Sep;29(3):157-61. X-1.
2980. Kozinszky Z, Orvos H, Zoboki T, et al. Risk factors for cesarean section of primiparous women aged over 35 years. *Acta Obstet Gynecol Scand*. 2002 Apr;81(4):313-6. X-1.
2981. Kozinszky Z, Zadori J, Orvos H, et al. Obstetric and neonatal risk of pregnancies after assisted reproductive technology: a matched control study. *Acta Obstet Gynecol Scand*. 2003 Sep;82(9):850-6. X-1.
2982. Kozinszky Z, Zadori J, Orvos H, et al. Risk of cesarean section in singleton pregnancies after assisted reproductive techniques. *J Reprod Med*. 2003 Mar;48(3):160-4. X-1.
2983. Kramer RL, Gilson GJ, Morrison DS, et al. A randomized trial of misoprostol and oxytocin for induction of labor: safety and efficacy. *Obstet Gynecol*. 1997 Mar;89(3):387-91. X-4d.
2984. Kramer RL, Van Someren JK, Qualls CR, et al. Postoperative management of cesarean patients: the effect of immediate feeding on the incidence of ileus. *Obstet Gynecol*. 1996 Jul;88(1):29-32. X-9.
2985. Kraus PA and Hassan S. The young 'elderly' primipara revisited. *Aust N Z J Obstet Gynaecol*. 2001 Nov;41(4):450-2. X-1.
2986. Krauss DJ. Regulating women's bodies: the adverse effect of fetal rights theory on childbirth decisions and women of color. *Harv Civ Rights-Civil Lib Law Rev*. 1991;26(2):523-47. X-1, X-2.
2987. Kravitz RL, Krackhardt D, Melnikow J, et al. Networked for change? Identifying obstetric opinion leaders and assessing their opinions on caesarean delivery. *Soc Sci Med*. 2003 Dec;57(12):2423-34. X-1.
2988. Krebs L and Langhoff-Roos J. Breech delivery at term in Denmark, 1982-92: a population-based case-control study. *Paediatr Perinat Epidemiol*. 1999 Oct;13(4):431-41. X-1.
2989. Krebs L, Langhoff-Roos J and Bodker B. Are intrapartum and neonatal deaths in breech delivery at term potentially avoidable?--a blinded controlled audit. *J Perinat Med*. 2002;30(3):220-4. X-1.
2990. Krebs L, Topp M and Langhoff-Roos J. The relation of breech presentation at term to cerebral palsy. *Br J Obstet Gynaecol*. 1999 Sep;106(9):943-7. X-1.
2991. Kreutner AK, Del Bene VE, Delamar D, et al. Perioperative cephalosporin prophylaxis in cesarean section: effect on endometritis in the high-risk patient. *Am J Obstet Gynecol*. 1979 Aug 15;134(8):925-35. X-9.
2992. Kreutner AK, del Bene VE, Delamar D, et al. Perioperative antibiotic prophylaxis is cesarean section. *Obstet Gynecol*. 1978 Sep;52(3):279-84. X-9.
2993. Krishnan L, Gunasekaran N and Bhaskaranand N. Anesthesia for caesarean section and immediate neonatal outcome. *Indian J Pediatr*. 1995 Mar-Apr;62(2):219-23. X-1, X-9.

2994. Krishnan L, Gunasekaran N and Bhaskaranand N. Neonatal effects of anesthesia for caesarean section. *Indian J Pediatr.* 1995 Jan-Feb;62(1):109-13. X-1.
2995. Krissel J, Dick WF, Leyser KH, et al. Thiopentone, thiopentone/ketamine, and ketamine for induction of anaesthesia in caesarean section. *Eur J Anaesthesiol.* 1994 Mar;11(2):115-22. X-9.
2996. Kristensen GB, Beiter EC and Mather O. Single-dose cefuroxime prophylaxis in non-elective caesarean section. *Acta Obstet Gynecol Scand.* 1990;69(6):497-500. X-9.
2997. Kristoffersen M, Sande HA and Sande OS. Ripening of the cervix with prostaglandin E2-gel. A randomized study with a new ready-to-use compound of triacetin-prostaglandin-E2-gel. *Int J Gynaecol Obstet.* 1986 Aug;24(4):297-300. X-4d, X-5.
2998. Kritchevsky SB, Braun BI, Gross PA, et al. Definition and adjustment of Cesarean section rates and assessments of hospital performance. *Int J Qual Health Care.* 1999 Aug;11(4):283-91. X-1.
2999. Krohn MA and Hitti J. Characteristics of women with clinical intra-amniotic infection who deliver preterm compared with term. *Am J Epidemiol.* 1998 Jan 15;147(2):111-6. X-1.
3000. Kroll L, Twohey L, Daubeney PE, et al. Risk factors at delivery and the need for skilled resuscitation. *Eur J Obstet Gynecol Reprod Biol.* 1994 Jun 30;55(3):175-7. X-1.
3001. Krukowski JA, Hood DD, Eisenach JC, et al. Intrathecal neostigmine for post-caesarean section analgesia: dose response. *Anesth Analg.* 1997 Jun;84(6):1269-75. X-9.
3002. Ksykiewicz-Dorota A and Adamska-Kuzmicka I. Method of Patient Classification System in obstetric staff scheduling. III. Demand for direct nursing in the delivery room among mothers who deliver by Caesarean section. *Ann Univ Mariae Curie Sklodowska Med.* 2001;56:307-11. X-1.
3003. Kucukguclu S, Unlugenc H, Gunenc F, et al. The influence of epidural volume extension on spinal block with hyperbaric or plain bupivacaine for Caesarean delivery. *Eur J Anaesthesiol.* 2008 Apr;25(4):307-13. X-9.
3004. Kuhn L, Stein ZA, Thomas PA, et al. Maternal-infant HIV transmission and circumstances of delivery. *Am J Public Health.* 1994 Jul;84(7):1110-5. X-1.
3005. Kuhnert BR, Zuspan KJ, Kuhnert PM, et al. Lack of influence of cimetidine on bupivacaine levels during parturition. *Anesth Analg.* 1987 Oct;66(10):986-90. X-9.
3006. Kuitunen M, Kukkonen K, Juntunen-Backman K, et al. Probiotics prevent IgE-associated allergy until age 5 years in caesarean-delivered children but not in the total cohort. *J Allergy Clin Immunol.* 2009 Feb;123(2):335-41. X-1.
3007. Kukul K and Demirok H. Effects of epidural anesthesia on labor progress. *Pain Manag Nurs.* 2008 Mar;9(1):10-6. X-1.
3008. Kulas T, Habek D, Karsa M, et al. Modified Misgav Ladach method for cesarean section: clinical experience. *Gynecol Obstet Invest.* 2008;65(4):222-6. X-1.
3009. Kulier R, Gulmezoglu AM, Hofmeyr GJ, et al. Betamimetics in fetal distress: randomised controlled trial. *J Perinat Med.* 1997;25(1):97-100. X-9.
3010. Kulkarni R, Soucie JM, Lusher J, et al. Sites of initial bleeding episodes, mode of delivery and age of diagnosis in babies with haemophilia diagnosed before the age of 2 years: a report from The Centers for Disease Control and Prevention's (CDC) Universal Data Collection (UDC) project. *Haemophilia.* 2009 Nov;15(6):1281-90. X-1.
3011. Kumar A, Bala I, Bhukal I, et al. Spinal anaesthesia with lidocaine 2% for caesarean section. *Can J Anaesth.* 1992 Nov;39(9):915-9. X-9.
3012. Kumar A, Meena M, Begum N, et al. Latent celiac disease in reproductive performance of women. *Fertil Steril.* 2011 Mar 1;95(3):922-7. X-1.
3013. Kumar N, Batra YK, Bala I, et al. Nifedipine attenuates the hypertensive response to tracheal intubation in pregnancy-induced hypertension. *Can J Anaesth.* 1993 Apr;40(4):329-33. X-9.
3014. Kumar RM and Khuranna A. Pregnancy outcome in women with beta-thalassemia major and HIV infection. *Eur J Obstet Gynecol Reprod Biol.* 1998 Apr;77(2):163-9. X-1.
3015. Kumari AS. Pregnancy outcome in women with morbid obesity. *Int J Gynaecol Obstet.* 2001 May;73(2):101-7. X-1.
3016. Kumari S, Sharma M, Yadav M, et al. Trends in neonatal outcome with low Apgar scores. *Indian J Pediatr.* 1993 May-Jun;60(3):415-22. X-1.
3017. Kundodyiwa TW, Alfirevic Z and Weeks AD. Low-dose oral misoprostol for induction of labor: a systematic review. *Obstet Gynecol.* 2009 Feb;113(2 Pt 1):374-83. X-1, X-2.
3018. Kundra P, Khanna S, Habeebullah S, et al. Manual displacement of the uterus during Caesarean section. *Anaesthesia.* 2007 May;62(5):460-5. X-9.
3019. Kunt C, Kanat-Pektas M, Gungor AN, et al. Randomized trial of vaginal prostaglandin E2 versus oxytocin for labor induction in term premature rupture of membranes. *Taiwan J Obstet Gynecol.* 2010 Mar;49(1):57-61. X-4d, X-5.
3020. Kuntz TB, Christensen RD, Stegner J, et al. Fas and Fas ligand expression in maternal blood and in umbilical cord blood in preeclampsia. *Pediatr Res.* 2001 Dec;50(6):743-9. X-1.

3021. Kuo HH, Yang JM and Wang KG. Preeclampsia in multiple pregnancy. *Zhonghua Yi Xue Za Zhi (Taipei)*. 1995 May;55(5):392-6. X-1.
3022. Kuo SC, Lin KC, Hsu CH, et al. Evaluation of the effects of a birth plan on Taiwanese women's childbirth experiences, control and expectations fulfilment: a randomised controlled trial. *Int J Nurs Stud*. 2010 Jul;47(7):806-14. X-4a, X-5.
3023. Kupek E. Beyond logistic regression: structural equations modelling for binary variables and its application to investigating unobserved confounders. *BMC Med Res Methodol*. 2006;6:13. X-1.
3024. Kupfermanc MJ, Tamura RK, Wigton TR, et al. Placenta accreta is associated with elevated maternal serum alpha-fetoprotein. *Obstet Gynecol*. 1993 Aug;82(2):266-9. X-1.
3025. Kuppuvelumani P, Jaradi H and Delilkan A. Abdominal nerve blockade for postoperative analgesia after caesarean section. *Asia Oceania J Obstet Gynaecol*. 1993 Jun;19(2):165-9. X-9.
3026. Kurahashi N, Kasai S, Shibata T, et al. Parental and neonatal risk factors for cryptorchidism. *Med Sci Monit*. 2005 Jun;11(6):CR274-283. X-1.
3027. Kurdi AM, Mesleh RA, Al-Hakeem MM, et al. Multiple pregnancy and preterm labor. *Saudi Med J*. 2004 May;25(5):632-7. X-1.
3028. Kurki T, Laatikainen T, Salminen-Lappalainen K, et al. Maternal plasma corticotrophin-releasing hormone--elevated in preterm labour but unaffected by indomethacin or nylidrin. *Br J Obstet Gynaecol*. 1991 Jul;98(7):685-91. X-1.
3029. Kurkinen-Raty M, Koivisto M and Jouppila P. Preterm delivery for maternal or fetal indications: maternal morbidity, neonatal outcome and late sequelae in infants. *BJOG*. 2000 May;107(5):648-55. X-1.
3030. Kutteh WH. Antiphospholipid antibody-associated recurrent pregnancy loss: treatment with heparin and low-dose aspirin is superior to low-dose aspirin alone. *Am J Obstet Gynecol*. 1996 May;174(5):1584-9. X-4e, X-5.
3031. Kvale JK. Maternal and neonatal outcomes associated with selected intrapartum interventions. 1994;PH.D.:222 p. X-1.
3032. Kvetny J and Poulsen HF. Incidence of gestational hypertension in gestational diabetes mellitus. *Arch Gynecol Obstet*. 2003 Jan;267(3):153-7. X-1.
3033. Kwawukume EY. Caesarean myomectomy. *Afr J Reprod Health*. 2002 Dec;6(3):38-43. X-1.
3034. Kwee A, Bots ML, Visser GH, et al. Uterine rupture and its complications in the Netherlands: a prospective study. *Eur J Obstet Gynecol Reprod Biol*. 2006 Sep-Oct;128(1-2):257-61. X-1.
3035. Kwee A, Bots ML, Visser GH, et al. Obstetric management and outcome of pregnancy in women with a history of caesarean section in the Netherlands. *Eur J Obstet Gynecol Reprod Biol*. 2007 Jun;132(2):171-6. X-1.
3036. Kwee A, Cohlen BJ, Kanhai HH, et al. Caesarean section on request: a survey in The Netherlands. *Eur J Obstet Gynecol Reprod Biol*. 2004 Apr 15;113(2):186-90. X-1.
3037. Kwon JS, Davies GA and Mackenzie VP. A comparison of oral and vaginal misoprostol for induction of labour at term: a randomised trial. *BJOG*. 2001 Jan;108(1):23-6. X-4d.
3038. Kyokong O, Charuluxananan S, Pothimamaka S, et al. Hypotension in spinal anesthesia for cesarean section: a comparison of 0.5% hyperbaric bupivacaine and 5% hyperbaric lidocaine. *J Med Assoc Thai*. 2001 Jun;84 Suppl 1:S256-62. X-9.
3039. Laatikainen T and Ikonen E. Fetal prognosis in obstetric hepatitis. *Ann Chir Gynaecol Fenn*. 1975;64(3):155-64. X-1.
3040. Ladfors L, Mattsson LA, Eriksson M, et al. A randomised trial of two expectant managements of prelabour rupture of the membranes at 34 to 42 weeks. *Br J Obstet Gynaecol*. 1996 Aug;103(8):755-62. X-4e.
3041. Ladfors L, Tessin I, Mattsson LA, et al. Risk factors for neonatal sepsis in offspring of women with prelabor rupture of the membranes at 34-42 weeks. *J Perinat Med*. 1998;26(2):94-101. X-1, X-4e.
3042. Lafayette RA, Malik T, Druzin M, et al. The dynamics of glomerular filtration after Caesarean section. *J Am Soc Nephrol*. 1999 Jul;10(7):1561-5. X-1.
3043. Lagrew DC, Jr. and Adashek JA. Lowering the cesarean section rate in a private hospital: comparison of individual physicians' rates, risk factors, and outcomes. *Am J Obstet Gynecol*. 1998 Jun;178(6):1207-14. X-1.
3044. Lagrew DC, Bush MC, McKeown AM, et al. Emergent (crash) cesarean delivery: indications and outcomes. *Am J Obstet Gynecol*. 2006 Jun;194(6):1638-43; discussion 1643. X-1.
3045. Lagrew DC, Jr., Morgan MA, Nakamoto K, et al. Advanced maternal age: perinatal outcome when controlling for physician selection. *J Perinatol*. 1996 Jul-Aug;16(4):256-60. X-1.
3046. Lai ML, Lin KC, Li HY, et al. Effects of delayed pushing during the second stage of labor on postpartum fatigue and birth outcomes in nulliparous women. *J Nurs Res*. 2009 Mar;17(1):62-72. X-1.
3047. Laishley RS and Morgan BM. A single dose epidural technique for caesarean section. A comparison between 0.5% bupivacaine plain and 0.5% bupivacaine with adrenaline. *Anaesthesia*. 1988 Feb;43(2):100-3. X-9.

3048. Laishley RS, Morgan BM and Reynolds F. Effect of adrenaline on extradural anaesthesia and plasma bupivacaine concentrations during caesarean section. *Br J Anaesth*. 1988 Feb;60(2):180-6. X-9.
3049. Lal K and Tsomo P. Comparative study of single layer and conventional closure of uterine incision in cesarean section. *Int J Gynaecol Obstet*. 1988 Dec;27(3):349-52. X-9.
3050. Lam DT, Ngan Kee WD and Khaw KS. Extension of epidural blockade in labour for emergency Caesarean section using 2% lidocaine with epinephrine and fentanyl, with or without alkalinisation. *Anaesthesia*. 2001 Aug;56(8):790-4. X-9.
3051. Lam FY, Broome IJ and Matthews PJ. A comparison of postoperative analgesia following spinal or epidural anaesthesia for caesarean section. *Anaesthesia*. 1994 Jan;49(1):65-7. X-9.
3052. Lambalk CB and van Hooff M. Natural versus induced twinning and pregnancy outcome: a Dutch nationwide survey of primiparous dizygotic twin deliveries. *Fertil Steril*. 2001 Apr;75(4):731-6. X-1.
3053. Lambert JS, Nogueira SA, Abreu T, et al. A pilot study to evaluate the safety and feasibility of the administration of AZT/3TC fixed dose combination to HIV infected pregnant women and their infants in Rio de Janeiro, Brazil. *Sex Transm Infect*. 2003 Dec;79(6):448-52. X-1.
3054. Lamont RF, Morgan DJ, Logue M, et al. A prospective randomised trial to compare the efficacy and safety of hemabate and syntometrine for the prevention of primary postpartum haemorrhage. *Prostaglandins Other Lipid Mediat*. 2001 Oct;66(3):203-10. X-1, X-2, X-3, X-4e, X-5.
3055. Lamont RF, Pinney D, Rodgers P, et al. Continuous versus intermittent epidural analgesia. A randomised trial to observe obstetric outcome. *Anaesthesia*. 1989 Nov;44(11):893-6. X-4e.
3056. Lamont RF, Taylor-Robinson D, Newman M, et al. Spontaneous early preterm labour associated with abnormal genital bacterial colonization. *Br J Obstet Gynaecol*. 1986 Aug;93(8):804-10. X-1.
3057. Lanari M, Adorni F, Silvestri M, et al. The multicenter Italian birth cohort study on incidence and determinants of lower respiratory tract infection hospitalization in infants at 33 weeks GA or more: preliminary results. *Early Hum Dev*. 2011 Mar;87 Suppl 1:S43-6. X-4e.
3058. Land R, Parry E, Rane A, et al. Personal preferences of obstetricians towards childbirth. *Aust N Z J Obstet Gynaecol*. 2001 Aug;41(3):249-52. X-1.
3059. Landau R, Kraft JC, Flint LY, et al. An experimental paradigm for the prediction of Post-Operative Pain (PPOP). *J Vis Exp*. 2010(35). X-1, X-2.
3060. Landau R, Schiffer E, Morales M, et al. The dose-sparing effect of clonidine added to ropivacaine for labor epidural analgesia. *Anesth Analg*. 2002 Sep;95(3):728-34, table of contents. X-4e, X-5.
3061. Landon MB and Gabbe SG. Antepartum fetal surveillance in gestational diabetes mellitus. *Diabetes*. 1985 Jun;34 Suppl 2:50-4. X-1.
3062. Landon MB and Gabbe SG. Glucose monitoring and insulin administration in the pregnant diabetic patient. *Clin Obstet Gynecol*. 1985 Sep;28(3):496-506. X-1, X-2.
3063. Landon MB, Gabbe SG and Sachs L. Management of diabetes mellitus and pregnancy: a survey of obstetricians and maternal-fetal specialists. *Obstet Gynecol*. 1990 Apr;75(4):635-40. X-1.
3064. Landon MB, Hauth JC, Leveno KJ, et al. Maternal and perinatal outcomes associated with a trial of labor after prior cesarean delivery. *N Engl J Med*. 2004 Dec 16;351(25):2581-9. X-1.
3065. Landon MB, Leindecker S, Spong CY, et al. The MFMU Cesarean Registry: factors affecting the success of trial of labor after previous cesarean delivery. *Am J Obstet Gynecol*. 2005 Sep;193(3 Pt 2):1016-23. X-1.
3066. Landon MB, Spong CY, Thom E, et al. A multicenter, randomized trial of treatment for mild gestational diabetes. *N Engl J Med*. 2009 Oct 1;361(14):1339-48. X-1.
3067. Landon MB, Spong CY, Thom E, et al. Risk of uterine rupture with a trial of labor in women with multiple and single prior cesarean delivery. *Obstet Gynecol*. 2006 Jul;108(1):12-20. X-1.
3068. Landon MJ, Creagh-Barry P, McArthur S, et al. Influence of vitamin B12 status on the inactivation of methionine synthase by nitrous oxide. *Br J Anaesth*. 1992 Jul;69(1):81-6. X-1.
3069. Landry DP, Bennett FM and Oriol NE. Analysis of heart rate dynamics as a measure of autonomic tone in obstetrical patients undergoing epidural or spinal anesthesia. *Reg Anesth*. 1994 May-Jun;19(3):189-95. X-1.
3070. Lane S, Evans P, Arfeen Z, et al. A comparison of intrathecal fentanyl and diamorphine as adjuncts in spinal anaesthesia for Caesarean section. *Anaesthesia*. 2005 May;60(5):453-7. X-9.
3071. Lang CT and King JC. Maternal mortality in the United States. *Best Pract Res Clin Obstet Gynaecol*. 2008 Jun;22(3):517-31. X-1, X-2.
3072. Lange AP, Secher NJ, Nielsen FH, et al. Stimulation of labor in cases of premature rupture of the membranes at or near term. A consecutive randomized study of prostaglandin E2-tablets and intravenous oxytocin. *Acta Obstet Gynecol Scand*. 1981;60(2):207-10. X-4e.

3073. Lange IR, Collister C, Johnson J, et al. The effect of vaginal prostaglandin E2 pessaries on induction of labor. *Am J Obstet Gynecol.* 1984 Mar 1;148(5):621-5. X-4d, X-4e, X-5.
3074. Langenveld J, Buttinger A, van der Post J, et al. Recurrence risk and prediction of a delivery under 34 weeks of gestation after a history of a severe hypertensive disorder. *BJOG.* 2011 Apr;118(5):589-95. X-1.
3075. Langer A, Campero L, Garcia C, et al. Effects of psychosocial support during labour and childbirth on breastfeeding, medical interventions, and mothers' wellbeing in a Mexican public hospital: a randomised clinical trial. *Br J Obstet Gynaecol.* 1998 Oct;105(10):1056-63. X-5.
3076. Langer M, Czermak B and Ringler M. Couple relationship, birth preparation and pregnancy outcome: a prospective controlled study. *J Perinat Med.* 1990;18(3):201-8. X-1, X-4e, X-5.
3077. Langer O and Mazze R. The relationship between large-for-gestational-age infants and glycemic control in women with gestational diabetes. *Am J Obstet Gynecol.* 1988 Dec;159(6):1478-83. X-1.
3078. Langer O, Rodriguez DA, Xenakis EM, et al. Intensified versus conventional management of gestational diabetes. *Am J Obstet Gynecol.* 1994 Apr;170(4):1036-46; discussion 1046-7. X-1.
3079. Langer O, Yogev Y, Xenakis EM, et al. Overweight and obese in gestational diabetes: the impact on pregnancy outcome. *Am J Obstet Gynecol.* 2005 Jun;192(6):1768-76. X-1.
3080. Langesaeter E, Rosseland LA and Stubhaug A. Continuous invasive blood pressure and cardiac output monitoring during cesarean delivery: a randomized, double-blind comparison of low-dose versus high-dose spinal anesthesia with intravenous phenylephrine or placebo infusion. *Anesthesiology.* 2008 Nov;109(5):856-63. X-9.
3081. Langesaeter E, Rosseland LA and Stubhaug A. Haemodynamic effects of repeated doses of oxytocin during Caesarean delivery in healthy parturients. *Br J Anaesth.* 2009 Aug;103(2):260-2. X-1.
3082. Langhoff-Roos J and Lindmark G. Obstetric interventions and perinatal asphyxia in growth retarded term infants. *Acta Obstet Gynecol Scand Suppl.* 1997;165:39-43. X-1.
3083. Langslow A. The dangers of refusing a blood transfusion. *Aust Nurs J.* 1998 May;5(10):38-9. X-1.
3084. Lao TT, Halpern SH, Crosby ET, et al. Uterine incision and maternal blood loss in preterm caesarean section. *Arch Gynecol Obstet.* 1993;252(3):113-7. X-1.
3085. Lao TT and Ho LF. Obstetric outcome of teenage pregnancies. *Hum Reprod.* 1998 Nov;13(11):3228-32. X-1.
3086. Lao TT and Huengsborg M. Labour and delivery in mothers with asthma. *Eur J Obstet Gynecol Reprod Biol.* 1990 May-Jun;35(2-3):183-90. X-1.
3087. Lapaire O, Irion O, Koch-Holch A, et al. Increased peri- and post-elective cesarean section morbidity in women infected with human immunodeficiency virus-1: a case-controlled multicenter study. *Arch Gynecol Obstet.* 2006 Jun;274(3):165-9. X-1.
3088. Lapaire O, Schneider MC, Stotz M, et al. Oral misoprostol vs. intravenous oxytocin in reducing blood loss after emergency cesarean delivery. *Int J Gynaecol Obstet.* 2006 Oct;95(1):2-7. X-3, X-4e.
3089. Lapolla A, Dalfrà MG, Bonomo M, et al. Gestational diabetes mellitus in Italy: a multicenter study. *Eur J Obstet Gynecol Reprod Biol.* 2009 Aug;145(2):149-53. X-1.
3090. Lapolla A, Marangon M, Dalfrà MG, et al. Pregnancy outcome in morbidly obese women before and after laparoscopic gastric banding. *Obes Surg.* 2010 Sep;20(9):1251-7. X-1.
3091. LaPorta RF, Arthur GR and Datta S. Phenylephrine in treating maternal hypotension due to spinal anaesthesia for caesarean delivery: effects on neonatal catecholamine concentrations, acid base status and Apgar scores. *Acta Anaesthesiol Scand.* 1995 Oct;39(7):901-5. X-9.
3092. LaPorta-Krum L, Mueller A, Jorg M, et al. Effects of Pregnancy and Delivery on Pelvic Floor Muscles: MRI Comparisons of Vaginal and Caesarean Birth Versus Nulliparous Controls. *Journal of Women's Health Physical Therapy.* 2011 2011 Jan-Apr;35(1):20-20. X-1.
3093. Lappas M, Permezel M and Rice GE. Leptin and adiponectin stimulate the release of proinflammatory cytokines and prostaglandins from human placenta and maternal adipose tissue via nuclear factor-kappaB, peroxisomal proliferator-activated receptor-gamma and extracellularly regulated kinase 1/2. *Endocrinology.* 2005 Aug;146(8):3334-42. X-1.
3094. Lappas M, Yee K, Permezel M, et al. Release and regulation of leptin, resistin and adiponectin from human placenta, fetal membranes, and maternal adipose tissue and skeletal muscle from normal and gestational diabetes mellitus-complicated pregnancies. *J Endocrinol.* 2005 Sep;186(3):457-65. X-1.
3095. Larmon JE, Magann EF, Dickerson GA, et al. Outpatient cervical ripening with prostaglandin E2 and estradiol. *J Matern Fetal Neonatal Med.* 2002 Feb;11(2):113-7. X-4d, X-5.

3096. LaRosa JA, Saywell RM, Jr., Zollinger TW, et al. The incidence of adynamic ileus in postcesarean patients. Patient-controlled analgesia versus intramuscular analgesia. *J Reprod Med.* 1993 Apr;38(4):293-300. X-1.
3097. Larque E, Demmelair H, Berger B, et al. In vivo investigation of the placental transfer of (13)C-labeled fatty acids in humans. *J Lipid Res.* 2003 Jan;44(1):49-55. X-1.
3098. Larson JD, Rayburn WF, Crosby S, et al. Multiple nuchal cord entanglements and intrapartum complications. *Am J Obstet Gynecol.* 1995 Oct;173(4):1228-31. X-1.
3099. Larsson C, Kallen K and Andolf E. Cesarean section and risk of pelvic organ prolapse: a nested case-control study. *Am J Obstet Gynecol.* 2009 Mar;200(3):243 e1-4. X-1.
3100. LaSala AP and Berkeley AS. Primary cesarean section and subsequent fertility. *Am J Obstet Gynecol.* 1987 Aug;157(2):379-83. X-1.
3101. Lashen H, Fear K and Sturdee D. Trends in the management of the breech presentation at term; experience in a District General hospital over a 10-year period. *Acta Obstet Gynecol Scand.* 2002 Dec;81(12):1116-22. X-1.
3102. Lasley DS, Eblen A, Yancey MK, et al. The effect of placental removal method on the incidence of postcesarean infections. *Am J Obstet Gynecol.* 1997 Jun;176(6):1250-4. X-9.
3103. Latham SR and Norwitz ER. Ethics and "cesarean delivery on maternal demand". *Semin Perinatol.* 2009 Dec;33(6):405-9. X-1, X-2.
3104. Latta IP and Waldron BA. Anaesthesia for Caesarean section. Analysis of blood concentrations of halothane using 0.2% or 0.65% halothane with 50% nitrous oxide in oxygen. *Br J Anaesth.* 1977 Apr;49(4):371-8. X-9.
3105. Lattuada D, Colleoni F, Martinelli A, et al. Higher mitochondrial DNA content in human IUGR placenta. *Placenta.* 2008 Dec;29(12):1029-33. X-1.
3106. Lau LC, Adaikan PG, Arulkumaran S, et al. Oxytocics reverse the tocolytic effect of glyceryl trinitrate on the human uterus. *BJOG.* 2001 Feb;108(2):164-8. X-1.
3107. Lau TK, Wong SH and Li CY. A study of patients' acceptance towards vaginal birth after caesarean section. *Aust N Z J Obstet Gynaecol.* 1996 May;36(2):155-8. X-1.
3108. Laudenbach V, Mercier FJ, Roze JC, et al. Anaesthesia mode for caesarean section and mortality in very preterm infants: an epidemiologic study in the EPIPAGE cohort. *Int J Obstet Anesth.* 2009 Apr;18(2):142-9. X-1.
3109. Laughon SK, Wolfe HM and Visco AG. Prior cesarean and the risk for placenta previa on second-trimester ultrasonography. *Obstet Gynecol.* 2005 May;105(5 Pt 1):962-5. X-1.
3110. Lavand'homme PM, Roelants F, Waterloos H, et al. An evaluation of the postoperative antihyperalgesic and analgesic effects of intrathecal clonidine administered during elective cesarean delivery. *Anesth Analg.* 2008 Sep;107(3):948-55. X-9.
3111. Lavand'homme PM, Roelants F, Waterloos H, et al. Postoperative analgesic effects of continuous wound infiltration with diclofenac after elective cesarean delivery. *Anesthesiology.* 2007 Jun;106(6):1220-5. X-9.
3112. Lavender T and Kingdon C. Primigravid women's views of being approached to participate in a hypothetical term cephalic trial of planned vaginal birth versus planned cesarean birth. *Birth.* 2009 Sep;36(3):213-9. X-1.
3113. Lavender T, Kingdon C, Hart A, et al. Birth method: trial and error? *Pract Midwife.* 2006 Oct;9(9):12-6. X-1, X-4b.
3114. Lavender T, Kingdon C, Hart A, et al. Could a randomised trial answer the controversy relating to elective caesarean section? National survey of consultant obstetricians and heads of midwifery. *BMJ.* 2005 Sep 3;331(7515):490-1. X-1.
3115. Lavender T and Walkinshaw S. Open dialogue. A conflict of outcomes. *British Journal of Midwifery.* 1998;6(4):209-209. X-2.
3116. Lavender T, Wallymahmed AH and Walkinshaw SA. Managing labor using partograms with different action lines: a prospective study of women's views. *Birth.* 1999 Jun;26(2):89-96. X-1, X-4e, X-5.
3117. Lavery JP, Huang KC, Koontz WL, et al. Mezlocillin prophylaxis against infection after cesarean section: a comparison of techniques. *South Med J.* 1986 Oct;79(10):1248-51. X-9.
3118. Lavery JP, Marcell CC and Walker R. An association between ureaplasma urealyticum and endomyometritis after cesarean section. *J Ky Med Assoc.* 1985 Jul;83(7):359-62. X-3, X-4e.
3119. Lavies NG, Meiklejohn BH, May AE, et al. Hypertensive and catecholamine response to tracheal intubation in patients with pregnancy-induced hypertension. *Br J Anaesth.* 1989 Oct;63(4):429-34. X-1.
3120. Lavin JP, Jr., Lovelace DR, Miodovnik M, et al. Clinical experience with one hundred seven diabetic pregnancies. *Am J Obstet Gynecol.* 1983 Dec 1;147(7):742-52. X-1.
3121. Law AC, Lam KK and Irwin MG. The effect of right versus left lateral decubitus positions on induction of spinal anesthesia for cesarean delivery. *Anesth Analg.* 2003 Dec;97(6):1795-9. X-9.

3122. Law LW, Pang MW, Chung TK, et al. Randomised trial of assigned mode of delivery after a previous cesarean section--impact on maternal psychological dynamics. *J Matern Fetal Neonatal Med.* 2010 Oct;23(10):1106-13. X-5.
3123. Law YY and Lam KY. A randomized controlled trial comparing midwife-managed care and obstetrician-managed care for women assessed to be at low risk in the initial intrapartum period. *J Obstet Gynaecol Res.* 1999 Apr;25(2):107-12. X-4e, X-5.
3124. Lawes EG, Duncan PW, Bland B, et al. The cricoid yoke--a device for providing consistent and reproducible cricoid pressure. *Br J Anaesth.* 1986 Aug;58(8):925-31. X-9.
3125. Lawes EG, Newman B, Campbell MJ, et al. Maternal inspired oxygen concentration and neonatal status for caesarean section under general anaesthesia. Comparison of effects of 33% or 50% oxygen in nitrous oxide. *Br J Anaesth.* 1988 Sep;61(3):250-4. X-9.
3126. Lawhorn CD, McNitt JD, Fibuch EE, et al. Epidural morphine with butorphanol for postoperative analgesia after cesarean delivery. *Anesth Analg.* 1991 Jan;72(1):53-7. X-9.
3127. Lawoyin TO. A prospective study on some factors which influence the delivery of large babies. *J Trop Med Hyg.* 1993 Dec;96(6):352-6. X-1.
3128. Lawrie TA, de Jager M and Hofmeyr GJ. High cesarean section rates for pregnant medical practitioners in South Africa. *Int J Gynaecol Obstet.* 2001 Jan;72(1):71-3. X-1, X-4e, X-5.
3129. Lawrie TA, Hofmeyr GJ, De Jager M, et al. A double-blind randomised placebo controlled trial of postnatal norethisterone enanthate: the effect on postnatal depression and serum hormones. *Br J Obstet Gynaecol.* 1998 Oct;105(10):1082-90. X-3, X-4e.
3130. Laye MR and Dellinger EH. Timing of scheduled cesarean delivery in patients on a teaching versus private service: adherence to American College of Obstetricians and Gynecologists guidelines and neonatal outcomes. *Am J Obstet Gynecol.* 2006 Aug;195(2):577-82; discussion 582-4. X-1.
3131. Lazar P, Gueguen S, Dreyfus J, et al. Multicentred controlled trial of cervical cerclage in women at moderate risk of preterm delivery. *Br J Obstet Gynaecol.* 1984 Aug;91(8):731-5. X-4e, X-5.
3132. Lazer S, Biale Y, Mazor M, et al. Complications associated with the macrosomic fetus. *J Reprod Med.* 1986 Jun;31(6):501-5. X-1.
3133. Lazor LZ, Philipson EH, Ingardia CJ, et al. A randomized comparison of 15- and 40-minute dosing protocols for labor augmentation and induction. *Obstet Gynecol.* 1993 Dec;82(6):1009-12. X-5.
3134. Le Guen H, Roy D, Branger B, et al. Comparison of fentanyl and sufentanil in combination with bupivacaine for patient-controlled epidural analgesia during labor. *J Clin Anesth.* 2001 Mar;13(2):98-102. X-4e, X-5.
3135. Le Ray C, Carayol M, Breart G, et al. Elective induction of labor: failure to follow guidelines and risk of cesarean delivery. *Acta Obstet Gynecol Scand.* 2007;86(6):657-65. X-1.
3136. Le Ray C, Serres P, Schmitz T, et al. Manual rotation in occiput posterior or transverse positions: risk factors and consequences on the cesarean delivery rate. *Obstet Gynecol.* 2007 Oct;110(4):873-9. X-1.
3137. le Roux PA, Olarogun JO, Penny J, et al. Oral and vaginal misoprostol compared with dinoprostone for induction of labor: a randomized controlled trial. *Obstet Gynecol.* 2002 Feb;99(2):201-5. X-4d, X-5.
3138. Leach CL, Fuhrman BP, Morin FC, 3rd, et al. Perfluorocarbon-associated gas exchange (partial liquid ventilation) in respiratory distress syndrome: a prospective, randomized, controlled study. *Crit Care Med.* 1993 Sep;21(9):1270-8. X-3, X-4, X-5.
3139. Leach JD. C-sections, breastfeeding and bugs for your baby: what the doctor probably won't tell you. *Midwifery Today Int Midwife.* 2006 Autumn(79):12-3. X-1, X-2.
3140. Leach L and Sproule V. Meeting the challenge of cesarean births. *JOGN Nurs.* 1984 May-Jun;13(3):191-5. X-1, X-2.
3141. Learmont JG and Poston L. Nitric oxide is involved in flow-induced dilation of isolated human small fetoplacental arteries. *Am J Obstet Gynecol.* 1996 Feb;174(2):583-8. X-1.
3142. Leavine BA. Court-ordered cesareans: can a pregnant woman refuse? *Houst Law Rev.* 1992 Spring;29(1):185-218. X-1.
3143. Leavitt BG, Huff DL, Bell LA, et al. Placental drainage of fetal blood at cesarean delivery and fetomaternal transfusion: a randomized controlled trial. *Obstet Gynecol.* 2007 Sep;110(3):608-11. X-9.
3144. Lebel DE, Levy A, Holcberg G, et al. Symphysiolysis as an independent risk factor for cesarean delivery. *J Matern Fetal Neonatal Med.* 2010 May;23(5):417-20. X-1.
3145. Leclair MD, El-Ghoneimi A, Audry G, et al. The outcome of prenatally diagnosed renal tumors. *J Urol.* 2005 Jan;173(1):186-9. X-1.
3146. Ledger WJ. Hospital infections: gynecologic, obstetric, and perinatal infections. *Ann Intern Med.* 1978 Nov;89(5 Pt 2 Suppl):774-6. X-1, X-2.
3147. Ledowski T, Paech MJ, Browning R, et al. An observational study of skin conductance monitoring as a means of predicting hypotension from spinal anaesthesia for caesarean delivery. *Int J Obstet Anesth.* 2010 Jul;19(3):282-6. X-1.

3148. Lee A, McKeown D and Wilson J. Evaluation of the efficacy of elastic compression stockings in prevention of hypotension during epidural anaesthesia for elective caesarean section. *Acta Anaesthesiol Scand*. 1987 Apr;31(3):193-5. X-3, X-4b.
3149. Lee AH, Fung WK and Fu B. Analyzing hospital length of stay: mean or median regression? *Med Care*. 2003 May;41(5):681-6. X-1.
3150. Lee B. Normal birth--is it possible in the 21st century? *RCM Midwives*. 2004 Sep;7(9):396-8. X-1, X-2, X-3, X-4e, X-5.
3151. Lee BB, Ngan Kee WD, Ng FF, et al. Epidural infusions of ropivacaine and bupivacaine for labor analgesia: a randomized, double-blind study of obstetric outcome. *Anesth Analg*. 2004 Apr;98(4):1145-52, table of contents. X-4e, X-5.
3152. Lee CH, Huang N, Chang HJ, et al. The immediate effects of the severe acute respiratory syndrome (SARS) epidemic on childbirth in Taiwan. *BMC Public Health*. 2005 Apr 4;5:30. X-1.
3153. Lee DH and Kwon IC. Magnesium sulphate has beneficial effects as an adjuvant during general anaesthesia for Caesarean section. *Br J Anaesth*. 2009 Dec;103(6):861-6. X-9.
3154. Lee G. Worst case scenario. Supporting women who refuse a caesarean section. *Pract Midwife*. 1998 Jul-Aug;1(7-8):28-9. X-1, X-2, X-3, X-4e, X-5.
3155. Lee J, Croen LA, Backstrand KH, et al. Maternal and infant characteristics associated with perinatal arterial stroke in the infant. *JAMA*. 2005 Feb 9;293(6):723-9. X-1.
3156. Lee KA and Gay CL. Sleep in late pregnancy predicts length of labor and type of delivery. *Am J Obstet Gynecol*. 2004 Dec;191(6):2041-6. X-1.
3157. Lee KY and McGreevey C. Using comparison charts to assess performance measurement data. *Jt Comm J Qual Improv*. 2002 Mar;28(3):129-38. X-1.
3158. Lee LH, Irwin MG, Lim J, et al. The effect of celecoxib on intrathecal morphine-induced pruritus in patients undergoing Caesarean section. *Anaesthesia*. 2004 Sep;59(9):876-80. X-9.
3159. Lee LY, Holroyd E and Ng CY. Exploring factors influencing Chinese women's decision to have elective caesarean surgery. *Midwifery*. 2001 Dec;17(4):314-22. X-1.
3160. Lee MJ, Conner EL, Charafeddine L, et al. A critical birth weight and other determinants of survival for infants with severe intrauterine growth restriction. *Ann N Y Acad Sci*. 2001 Sep;943:326-39. X-1.
3161. Lee SD, Lo KJ, Tsai YT, et al. Role of caesarean section in prevention of mother-infant transmission of hepatitis B virus. *Lancet*. 1988 Oct 8;2(8615):833-4. X-1.
3162. Lee SI, Khang YH and Lee MS. Women's attitudes toward mode of delivery in South Korea--a society with high cesarean section rates. *Birth*. 2004 Jun;31(2):108-16. X-1.
3163. Lee SS and Lao TT. Cord blood thyrotrophin and foetal presentation at delivery in singleton pregnancies. *Gynecol Obstet Invest*. 1997;43(2):94-7. X-1.
3164. LeFevre ML, Bain RP, Ewigman BG, et al. A randomized trial of prenatal ultrasonographic screening: impact on maternal management and outcome. *RADIUS (Routine Antenatal Diagnostic Imaging with Ultrasound) Study Group*. *Am J Obstet Gynecol*. 1993 Sep;169(3):483-9. X-5.
3165. Legarth J, Guldbaek E and Scher NJ. The efficiency of prostaglandin E2 vaginal suppositories versus intracervical prostaglandin gel for induction of labor in patients with unfavorable inducibility prospects. *Eur J Obstet Gynecol Reprod Biol*. 1988 Feb;27(2):93-8. X-4d, X-5.
3166. Lehavi A, Abecasis P, Weissman A, et al. Subarachnoid block with hyperbaric bupivacaine and morphine may shorten PACU stay after cesarean delivery. *J Perianesth Nurs*. 2010 Dec;25(6):371-9. X-9.
3167. Lehmann S, Bordahl PE, Rasmussen SA, et al. Norwegian midwives and doctors have increased cesarean section rates. *Acta Obstet Gynecol Scand*. 2007;86(9):1087-9. X-1.
3168. Leigh B, Mwale TG, Lazaro D, et al. Emergency obstetric care: how do we stand in Malawi? *Int J Gynaecol Obstet*. 2008 Apr;101(1):107-11. X-1.
3169. Leighton BL, Halpern SH and Wilson DB. Lumbar sympathetic blocks speed early and second stage induced labor in nulliparous women. *Anesthesiology*. 1999 Apr;90(4):1039-46. X-4d.
3170. Leiserowitz GS, Xing G, Cress R, et al. Adnexal masses in pregnancy: how often are they malignant? *Gynecol Oncol*. 2006 May;101(2):315-21. X-1.
3171. Lejeune VN, Chaplet VM, Carbonne B, et al. Precarity and pregnancy in Paris. *Eur J Obstet Gynecol Reprod Biol*. 1999 Mar;83(1):27-30. X-1.
3172. Lelaidier C, Baton C, Benifla JL, et al. Mifepristone for labour induction after previous caesarean section. *Br J Obstet Gynaecol*. 1994 Jun;101(6):501-3. X-4b, X-4e.
3173. Lenaway DD. Evaluation of a public-private certified nurse-midwife maternity program for indigent women. 1995;PH.D.:77 p. X-1.
3174. Lenihan JP, Jr. Relationship of antepartum pelvic examinations to premature rupture of the membranes. *Obstet Gynecol*. 1984 Jan;63(1):33-7. X-1.

3175. Lenke RR and Hatch EI, Jr. Fetal gastroschisis: a preliminary report advocating the use of cesarean section. *Obstet Gynecol.* 1986 Mar;67(3):395-8. X-1.
3176. Lennox CE and Kwast BE. The partograph in community obstetrics. *Trop Doct.* 1995 Apr;25(2):56-63. X-2.
3177. Lennox CE, Kwast BE and Farley TM. Breech labor on the WHO partograph. *Int J Gynaecol Obstet.* 1998 Aug;62(2):117-27. X-4c.
3178. Lennox-King SM, O'Farrell SM, Bettelheim KA, et al. *Escherichia coli* isolated from babies delivered by cesarean section and their environment. *Infection.* 1976;4(3):139-45. X-1.
3179. Leo S, Sng BL, Lim Y, et al. A randomized comparison of low doses of hyperbaric bupivacaine in combined spinal-epidural anesthesia for cesarean delivery. *Anesth Analg.* 2009 Nov;109(5):1600-5. X-9.
3180. Leone T, Padmadas SS and Matthews Z. Community factors affecting rising cesarean section rates in developing countries: an analysis of six countries. *Soc Sci Med.* 2008 Oct;67(8):1236-46. X-1.
3181. Lepercq J, Le Meaux JP, Agman A, et al. Factors associated with cesarean delivery in nulliparous women with type 1 diabetes. *Obstet Gynecol.* 2010 May;115(5):1014-20. X-1.
3182. Lepisto A, Sarna S, Tiitinen A, et al. Female fertility and childbirth after ileal pouch-anal anastomosis for ulcerative colitis. *Br J Surg.* 2007 Apr;94(4):478-82. X-1.
3183. Leppaniemi AK. Obstetrics and the general surgeon. *Surg Gynecol Obstet.* 1993 Apr;176(4):365-7. X-1.
3184. Leppert PC, Namerow PB and Barker D. Pregnancy outcomes among adolescent and older women receiving comprehensive prenatal care. *J Adolesc Health Care.* 1986 Mar;7(2):112-7. X-1.
3185. Lerchl A and Reinhard SC. Where are the Sunday babies? II. Declining weekend birth rates in Switzerland. *Naturwissenschaften.* 2008 Feb;95(2):161-4. X-1.
3186. Leroy F, Puissant F, Barlow P, et al. Guidelines for the prevention of multiple pregnancy in treatment by in vitro fertilization. *Acta Genet Med Gemellol (Roma).* 1990;39(3):371-8. X-1.
3187. Lertakyamanee J, Chinachoti T, Tritrakarn T, et al. Comparison of general and regional anesthesia for cesarean section: success rate, blood loss and satisfaction from a randomized trial. *J Med Assoc Thai.* 1999 Jul;82(7):672-80. X-9.
3188. Lescale KB, Inglis SR, Eddleman KA, et al. Conflicts between physicians and patients in non-elective cesarean delivery: incidence and the adequacy of informed consent. *Am J Perinatol.* 1996 Apr;13(3):171-6. X-1.
3189. Lesser P, Bembridge M, Lyons G, et al. An evaluation of a 30-gauge needle for spinal anaesthesia for caesarean section. *Anaesthesia.* 1990 Sep;45(9):767-8. X-1.
3190. Leszczynska-Gorzela B, Kaminski K, Szymula D, et al. Serum level of endothelin-1 and -2 in pregnancies complicated by EPH gestosis. *Gynecol Obstet Invest.* 1997;43(1):37-40. X-1.
3191. Leung AS, Farmer RM, Leung EK, et al. Risk factors associated with uterine rupture during trial of labor after cesarean delivery: a case-control study. *Am J Obstet Gynecol.* 1993 May;168(5):1358-63. X-1.
3192. Leung DT, Henning PA, Wagner EC, et al. Inadequacy of plasma acyclovir levels at delivery in patients with genital herpes receiving oral acyclovir suppressive therapy in late pregnancy. *J Obstet Gynaecol Can.* 2009 Dec;31(12):1137-43. X-1.
3193. Leung GM, Lam TH, Thach TQ, et al. Rates of cesarean births in Hong Kong: 1987-1999. *Birth.* 2001 Sep;28(3):166-72. X-1.
3194. Leung PS, Tsai SJ, Wallukat G, et al. The upregulation of angiotensin II receptor AT(1) in human preeclamptic placenta. *Mol Cell Endocrinol.* 2001 Nov 26;184(1-2):95-102. X-1.
3195. Leung TY, Lau TK, Lo KW, et al. A survey of pregnant women's attitude towards breech delivery and external cephalic version. *Aust N Z J Obstet Gynaecol.* 2000 Aug;40(3):253-9. X-1.
3196. Leushuis E, Tromp M, Ravelli AC, et al. Indicators for intervention during the expulsive second-stage arrest of labour. *BJOG.* 2009 Dec;116(13):1773-81. X-1.
3197. Leveno KJ, Alexander JM, McIntire DD, et al. Does magnesium sulfate given for prevention of eclampsia affect the outcome of labor? *Am J Obstet Gynecol.* 1998 Apr;178(4):707-12. X-4e, X-5.
3198. Leveno KJ, Cunningham FG, Nelson S, et al. A prospective comparison of selective and universal electronic fetal monitoring in 34,995 pregnancies. *N Engl J Med.* 1986 Sep 4;315(10):615-9. X-1.
3199. Leveno KJ, Quirk JG, Jr., Cunningham FG, et al. Perioperative antimicrobials at cesarean section: lavage versus three intravenous doses. *Am J Obstet Gynecol.* 1984 Jun 15;149(4):463-4. X-3, X-4b.
3200. Levey KA, Arslan AA and Funai EF. Extra-amniotic saline infusion increases cesarean risk versus other induction methods and spontaneous labor. *Am J Perinatol.* 2006 Oct;23(7):435-8. X-1.
3201. Levin DK, Gorchels C and Andersen R. Reduction of post-cesarean section infectious morbidity by means of antibiotic irrigation. *Am J Obstet Gynecol.* 1983 Oct 1;147(3):273-7. X-9.

3202. Levine AB, Kuhlman K and Bonn J. Placenta accreta: comparison of cases managed with and without pelvic artery balloon catheters. *J Matern Fetal Med.* 1999 Jul-Aug;8(4):173-6. X-1.
3203. Levine C. A verdict against doctors in a Jehovah's Witness case. *Hastings Cent Rep.* 1984 Jun;14(3):2-3. X-1.
3204. Levine D, Callen PW, Pender SG, et al. Chorioamniotic separation after second-trimester genetic amniocentesis: importance and frequency. *Radiology.* 1998 Oct;209(1):175-81. X-1.
3205. Levine EM. The constitutionality of court-ordered cesarean surgery: a threshold question. *Albany Law J Sci Technol.* 1994;4(2):229-309. X-1, X-2.
3206. Levine RJ, Ewell MG, Hauth JC, et al. Should the definition of preeclampsia a rise in diastolic blood pressure of ≥ 15 mm Hg to a level < 90 mm Hg in association with proteinuria? *Am J Obstet Gynecol.* 2000 Oct;183(4):787-92. X-1.
3207. Levy A, Fraser D, Katz M, et al. Maternal anemia during pregnancy is an independent risk factor for low birthweight and preterm delivery. *Eur J Obstet Gynecol Reprod Biol.* 2005 Oct 1;122(2):182-6. X-1.
3208. Levy A, Wiznitzer A, Holcberg G, et al. Family history of diabetes mellitus as an independent risk factor for macrosomia and cesarean delivery. *J Matern Fetal Neonatal Med.* 2010 Feb;23(2):148-52. X-1.
3209. Levy DR. The maternal-fetal conflict: the right of a woman to refuse a Cesarean section versus the state's interest in saving the life of the fetus. *Spec Law Dig Health Care Law.* 2007 May(337):9-36. X-1, X-2, X-3, X-4, X-5.
3210. Levy JK. Jehovah's Witnesses, pregnancy, and blood transfusions: a paradigm for the autonomy rights of all pregnant women. *J Law Med Ethics.* 1999 Summer;27(2):171-89. X-1, X-2, X-3, X-4, X-5.
3211. Levy R, Ferber A, Ben-Arie A, et al. A randomised comparison of early versus late amniotomy following cervical ripening with a Foley catheter. *BJOG.* 2002 Feb;109(2):168-72. X-4d.
3212. Levy R, Vaisbuch E, Furman B, et al. Induction of labor with oral misoprostol for premature rupture of membranes at term in women with unfavorable cervix: a randomized, double-blind, placebo-controlled trial. *J Perinat Med.* 2007;35(2):126-9. X-4d, X-4e, X-5.
3213. Lew E, Yeo SW and Thomas E. Combined spinal-epidural anesthesia using epidural volume extension leads to faster motor recovery after elective cesarean delivery: a prospective, randomized, double-blind study. *Anesth Analg.* 2004 Mar;98(3):810-4, table of contents. X-9.
3214. Lewis D, Tolosa JE, Kaufmann M, et al. Elective cesarean delivery and long-term motor function or ambulation status in infants with meningocele. *Obstet Gynecol.* 2004 Mar;103(3):469-73. X-1.
3215. Lewis DF, Otterson WN and Dunnihoo DR. Antibiotic prophylactic uterine lavage in cesarean section: a double-blind comparison of saline, ticarcillin, and cefoxitin irrigation in indigent patients. *South Med J.* 1990 Mar;83(3):274-6. X-9.
3216. Lewis M and Crawford JS. Can one risk fasting the obstetric patient for less than 4 hours? *Br J Anaesth.* 1987 Mar;59(3):312-4. X-1.
3217. Lewis NL, Ritchie EL, Downer JP, et al. Left lateral vs. supine, wedged position for development of block after combined spinal-epidural anaesthesia for Caesarean section. *Anaesthesia.* 2004 Sep;59(9):894-8. X-9.
3218. Li H, Du J, Jin L, et al. Myomectomy during cesarean section. *Acta Obstet Gynecol Scand.* 2009;88(2):183-6. X-1.
3219. Li M, Zou L and Zhu J. Study on modification of the Misgav Ladach method for cesarean section. *J Tongji Med Univ.* 2001;21(1):75-7. X-9.
3220. Li T, Rhoads GG, Smulian J, et al. Physician cesarean delivery rates and risk-adjusted perinatal outcomes. *Obstet Gynecol.* 2003 Jun;101(6):1204-12. X-1.
3221. Li TC, MacLeod I, Singhal V, et al. The obstetric and neonatal outcome of pregnancy in women with a previous history of infertility: a prospective study. *Br J Obstet Gynaecol.* 1991 Nov;98(11):1087-92. X-1.
3222. Liabsuetrakul T, Chongsuivatwong V, Lumbiganon P, et al. Obstetricians' attitudes, subjective norms, perceived controls, and intentions on antibiotic prophylaxis in caesarean section. *Soc Sci Med.* 2003 Nov;57(9):1665-74. X-1.
3223. Liabsuetrakul T and Islam M. Evidence on antibiotic prophylaxis for cesarean section alone is not sufficient to change the practices of doctors in a teaching hospital. *J Obstet Gynaecol Res.* 2005 Jun;31(3):202-9. X-1.
3224. Liabsuetrakul T, Lumbiganon P and Chongsuivatwong V. Prophylactic antibiotic prescription for cesarean section. *Int J Qual Health Care.* 2002 Dec;14(6):503-8. X-1.
3225. Liabsuetrakul T, Lumbiganon P, Chongsuivatwong V, et al. Current status of prophylactic use of antimicrobial agents for cesarean section in Thailand. *J Obstet Gynaecol Res.* 2002 Oct;28(5):262-8. X-1.
3226. Liabsuetrakul T, Peeyananjarassri K, Tasse S, et al. Emergency obstetric care in the southernmost provinces of Thailand. *Int J Qual Health Care.* 2007 Aug;19(4):250-6. X-1.

3227. Liamputtong P and Watson LF. The meanings and experiences of cesarean birth among Cambodian, Lao and Vietnamese immigrant women in Australia. *Women Health*. 2006;43(3):63-82. X-1.
3228. Liao W, Xie J, Zhong J, et al. Therapeutic effect of human umbilical cord multipotent mesenchymal stromal cells in a rat model of stroke. *Transplantation*. 2009 Feb 15;87(3):350-9. X-1.
3229. Libombo A, Folgosa E and Bergstrom S. A case-control study on post-caesarean endometritis-myoeritis in Mozambique. *Gynecol Obstet Invest*. 1995;39(3):180-5. X-1.
3230. Lie B and Juul J. Effect of epidural vs. general anesthesia on breastfeeding. *Acta Obstet Gynecol Scand*. 1988;67(3):207-9. X-1.
3231. Lieberman E, Cohen A, Lang J, et al. Maternal intrapartum temperature elevation as a risk factor for cesarean delivery and assisted vaginal delivery. *Am J Public Health*. 1999 Apr;89(4):506-10. X-1.
3232. Lieberman E, Lang JM, Cohen A, et al. Association of epidural analgesia with cesarean delivery in nulliparas. *Obstet Gynecol*. 1996 Dec;88(6):993-1000. X-1.
3233. Lieberman E, Lang JM, Cohen AP, et al. The association of fetal sex with the rate of cesarean section. *Am J Obstet Gynecol*. 1997 Mar;176(3):667-71. X-1.
3234. Liebman-Cohen EH. The effects of a nursing case management model on patient length of stay and variables related to cost of care delivery within an acute care setting. 1990;ED.D.:210 p. X-1.
3235. Lien JM, Morgan MA, Garite TJ, et al. Antepartum cervical ripening: applying prostaglandin E2 gel in conjunction with scheduled nonstress tests in postdate pregnancies. *Am J Obstet Gynecol*. 1998 Aug;179(2):453-8. X-1.
3236. Liepert DJ, Douglas MJ, McMorland GH, et al. Comparison of lidocaine CO2, two per cent lidocaine hydrochloride and pH adjusted lidocaine hydrochloride for cesarean section anesthesia. *Can J Anaesth*. 1990 Apr;37(3):333-6. X-9.
3237. Lilliecreutz C, Sydsjo G and Josefsson A. Obstetric and perinatal outcomes among women with blood- and injection phobia during pregnancy. *J Affect Disord*. 2011 Mar;129(1-3):289-95. X-1.
3238. Lim FT, van Winsen L, Willemze R, et al. Influence of delivery on numbers of leukocytes, leukocyte subpopulations, and hematopoietic progenitor cells in human umbilical cord blood. *Blood Cells*. 1994;20(2-3):547-58; discussion 558-9. X-1.
3239. Lim NL, Lo WK, Chong JL, et al. Single dose diclofenac suppository reduces post-Cesarean PCEA requirements. *Can J Anaesth*. 2001 Apr;48(4):383-6. X-9.
3240. Lim SK and Elegbe EO. The use of single dose of sodium citrate as a prophylaxis against acid aspiration syndrome in obstetric patients undergoing caesarean section. *Med J Malaysia*. 1991 Dec;46(4):349-55. X-1.
3241. Lim Y, Jha S, Sia AT, et al. Morphine for post-caesarean section analgesia: intrathecal, epidural or intravenous? *Singapore Med J*. 2005 Aug;46(8):392-6. X-1.
3242. Lim Y, Teoh W and Sia AT. Combined spinal epidural does not cause a higher sensory block than single shot spinal technique for cesarean delivery in laboring women. *Anesth Analg*. 2006 Dec;103(6):1540-2. X-9.
3243. Lin A, Kupferminc M and Dooley SL. A randomized trial of extra-amniotic saline infusion versus laminaria for cervical ripening. *Obstet Gynecol*. 1995 Oct;86(4 Pt 1):545-9. X-4d, X-5.
3244. Lin BC, Lin PC, Lai YY, et al. The maternal and fetal effects of the addition of sufentanil to 0.5% spinal bupivacaine for cesarean delivery. *Acta Anaesthesiol Sin*. 1998 Sep;36(3):143-8. X-9.
3245. Lin C, Wang S, Hsu Y, et al. Risk for respiratory distress syndrome in preterm infants born to mothers complicated by placenta previa. *Early Hum Dev*. 2001 Jan;60(3):215-24. X-1.
3246. Lin CH, Kuo SC, Lin KC, et al. Evaluating effects of a prenatal breastfeeding education programme on women with caesarean delivery in Taiwan. *J Clin Nurs*. 2008 Nov;17(21):2838-45. X-1.
3247. Lin CH, Lin SY, Yang YH, et al. Extremely preterm cesarean delivery "en caul". *Taiwan J Obstet Gynecol*. 2010 Sep;49(3):254-9. X-1, X-9.
3248. Lin CJ, Huang CL, Hsu HW, et al. Prophylaxis against acid aspiration in regional anesthesia for elective cesarean section: a comparison between oral single-dose ranitidine, famotidine and omeprazole assessed with fiberoptic gastric aspiration. *Acta Anaesthesiol Sin*. 1996 Dec;34(4):179-84. X-9.
3249. Lin CS, Lin TY, Huang CH, et al. Prevention of hypotension after spinal anesthesia for cesarean section: dextran 40 versus lactated Ringer's solution. *Acta Anaesthesiol Sin*. 1999 Jun;37(2):55-9. X-9.
3250. Lin HC, Sheen TC, Tang CH, et al. Association between maternal age and the likelihood of a cesarean section: a population-based multivariate logistic regression analysis. *Acta Obstet Gynecol Scand*. 2004 Dec;83(12):1178-83. X-1.
3251. Lin HC and Xirasagar S. Institutional factors in cesarean delivery rates: policy and research implications. *Obstet Gynecol*. 2004 Jan;103(1):128-36. X-1.

3252. Lin HC, Xirasagar S and Tung YC. Impact of a cultural belief about ghost month on delivery mode in Taiwan. *J Epidemiol Community Health*. 2006 Jun;60(6):522-6. X-1.
3253. Lin JY, Lee WL, Wang PH, et al. Uterine artery occlusion and myomectomy for treatment of pregnant women with uterine leiomyomas who are undergoing cesarean section. *J Obstet Gynaecol Res*. 2010 Apr;36(2):284-90. X-1.
3254. Lin MG, Reid KJ, Treaster MR, et al. Transcervical Foley catheter with and without extraamniotic saline infusion for labor induction: a randomized controlled trial. *Obstet Gynecol*. 2007 Sep;110(3):558-65. X-4d, X-5.
3255. Lind B and Hoel TM. Alleviation of labor pain in Norway. An interview investigation in 1969 and 1986. *Acta Obstet Gynecol Scand*. 1989;68(2):125-9. X-1.
3256. Lindblad A, Bernow J, Vernersson E, et al. Effects of extradural anaesthesia on human fetal blood flow in utero. Comparison of three local anaesthetic solutions. *Br J Anaesth*. 1987 Oct;59(10):1265-72. X-9.
3257. Lindgren HE, Radestad IJ, Christensson K, et al. Outcome of planned home births compared to hospital births in Sweden between 1992 and 2004. A population-based register study. *Acta Obstet Gynecol Scand*. 2008;87(7):751-9. X-1.
3258. Lindholm ES, Norman M, Kilander CP, et al. Weight control program for obese pregnant women. *Acta Obstet Gynecol Scand*. 2010 Jun;89(6):840-3. X-1, X-3, X-4e.
3259. Lindoff C, Rybo G and Astedt B. Treatment with tranexamic acid during pregnancy, and the risk of thrombo-embolic complications. *Thromb Haemost*. 1993 Aug 2;70(2):238-40. X-1.
3260. Lindow SW, Hendricks MS, Thompson JW, et al. Effects of morphine administration on the fetal production of oxytocin in labour. *Clin Sci (Lond)*. 1998 Jul;95(1):91-5. X-1.
3261. Lindsay MK, Graves W and Klein L. The relationship of one abnormal glucose tolerance test value and pregnancy complications. *Obstet Gynecol*. 1989 Jan;73(1):103-6. X-1.
3262. Linhart Y, Bashiri A, Maymon E, et al. Congenital anomalies are an independent risk factor for neonatal morbidity and perinatal mortality in preterm birth. *Eur J Obstet Gynecol Reprod Biol*. 2000 May;90(1):43-9. X-1.
3263. Linton A and Peterson MR. Effect of managed care enrollment on primary and repeat cesarean rates among U.S. Department of Defense health care beneficiaries in military and civilian hospitals worldwide, 1999-2002. *Birth*. 2004 Dec;31(4):254-64. X-1.
3264. Lirk P, Kleber N, Mitterschiffthaler G, et al. Pulmonary effects of bupivacaine, ropivacaine, and levobupivacaine in parturients undergoing spinal anaesthesia for elective cesarean delivery: a randomised controlled study. *Int J Obstet Anesth*. 2010 Jul;19(3):287-92. X-9.
3265. Lishner M, Zemlickis D, Degendorfer P, et al. Maternal and foetal outcome following Hodgkin's disease in pregnancy. *Br J Cancer*. 1992 Jan;65(1):114-7. X-1.
3266. Litchfield JS, Pronk CR, Nezat GG, et al. Efficacy of prophylactic administration of intramuscular promethazine in a parturient population scheduled for cesarean section with intrathecal analgesia. *AANA Journal*. 2007;75(5):369-369. X-4b.
3267. Lithgow DM and Blecher J. A controlled trial of glifanan and omnopon in postoperative pain. *S Afr Med J*. 1971 Feb 20;45(8):203-5. X-4e.
3268. Little MP, Jarvelin MR, Neasham DE, et al. Factors associated with fall in neonatal intubation rates in the United Kingdom--prospective study. *BJOG*. 2007 Feb;114(2):156-64. X-1.
3269. Liu A, Wen SW, Bottomley J, et al. Utilization of health care services of pregnant women complicated by preeclampsia in Ontario. *Hypertens Pregnancy*. 2009 Feb;28(1):76-84. X-1.
3270. Liu LL, Clemens CJ, Shay DK, et al. The safety of newborn early discharge. The Washington State experience. *JAMA*. 1997 Jul 23-30;278(4):293-8. X-1.
3271. Liu S, Wen SW, Demissie K, et al. Maternal asthma and pregnancy outcomes: a retrospective cohort study. *Am J Obstet Gynecol*. 2001 Jan;184(2):90-6. X-1.
3272. Liu T, Liu Q, Wang YX, et al. Use of amniocytes for prenatal diagnosis of 22q11.2 microdeletion syndrome: a feasibility study. *Chin Med J (Engl)*. 2010 Feb 20;123(4):438-42. X-1.
3273. Liu WH and Luxton MC. The effect of prophylactic fentanyl on shivering in elective caesarean section under epidural analgesia. *Anaesthesia*. 1991 May;46(5):344-8. X-9.
3274. Liu WM, Wang PH, Tang WL, et al. Uterine artery ligation for treatment of pregnant women with uterine leiomyomas who are undergoing cesarean section. *Fertil Steril*. 2006 Aug;86(2):423-8. X-1.
3275. Liu YF, Chen KB, Lin HL, et al. Comparison of the effect of epidural and intravenous patient-controlled analgesia on bowel activity after cesarean section: a retrospective study of 726 Chinese patients. *Acta Anaesthesiol Taiwan*. 2009 Mar;47(1):22-7. X-1.
3276. Lloyd H, Munby J and Brown SP. Medical treatment--refusal of medical treatment--adult-refusal on religious grounds: Re S (refusal of medical treatment). *New Law J*. 1992 Oct 23;142(6573):1450-1. X-1.
3277. Lo JC. Patients' attitudes vs. physicians' determination: implications for cesarean sections. *Soc Sci Med*. 2003 Jul;57(1):91-6. X-1.

3278. Lo JY, Alexander JM, McIntire DD, et al. Ruptured membranes at term: randomized, double-blind trial of oral misoprostol for labor induction. *Obstet Gynecol.* 2003 Apr;101(4):685-9. X-4d, X-4e, X-5.
3279. Lo KW and Rogers M. A controlled trial of amnioinfusion: the prevention of meconium aspiration in labour. *Aust N Z J Obstet Gynaecol.* 1993 Feb;33(1):51-4. X-1, X-4e.
3280. Lo T, Candido G and Janssen P. Diastasis of the Recti abdominis in pregnancy: risk factors and treatment. *Physiotherapy Canada.* 1999 Winter;51(1):32. X-1.
3281. Localio AR, Lawthers AG, Bengtson JM, et al. Relationship between malpractice claims and cesarean delivery. *JAMA.* 1993 Jan 20;269(3):366-73. X-1.
3282. Locatelli A, Incerti M, Paterlini G, et al. Antepartum and intrapartum risk factors for neonatal encephalopathy at term. *Am J Perinatol.* 2010 Sep;27(8):649-54. X-1.
3283. Locatelli A, Regalia AL, Ghidini A, et al. Risks of induction of labour in women with a uterine scar from previous low transverse caesarean section. *BJOG.* 2004 Dec;111(12):1394-9. X-1.
3284. Locke NJ. Mother v. her unborn child: where should Texas draw the line? *Houst Law Rev.* 1987 May;24(3):549-76. X-1.
3285. Lockington PF and Fa'aea P. Subcutaneous naloxone for the prevention of intrathecal morphine induced pruritus in elective Caesarean delivery. *Anaesthesia.* 2007 Jul;62(7):672-6. X-9.
3286. Locks Gde F, Almeida MC and Pereira AA. Use of the ultrasound to determine the level of lumbar puncture in pregnant women. *Rev Bras Anesthesiol.* 2010 Feb;60(1):13-9. X-1.
3287. Locksmith GJ, Gei AF, Rowe TF, et al. Teaching the Laufe-Piper forceps technique at cesarean delivery. *J Reprod Med.* 2001 May;46(5):457-61. X-1.
3288. Lockwood GF and Newman RL. Estriol determination in random urine samples. *Obstet Gynecol.* 1974 Mar;43(3):343-6. X-1, X-3, X-4e.
3289. Lodhi SK, Khanum Z and Watoo TH. Placenta previa: the role of ultrasound in assessment during third trimester. *J Pak Med Assoc.* 2004 Feb;54(2):81-3. X-1.
3290. Loftus JR, Holbrook RH and Cohen SE. Fetal heart rate after epidural lidocaine and bupivacaine for elective cesarean section. *Anesthesiology.* 1991 Sep;75(3):406-12. X-9.
3291. Loidl CF, Herrera-Marschitz M, Andersson K, et al. Long-term effects of perinatal asphyxia on basal ganglia neurotransmitter systems studied with microdialysis in rat. *Neurosci Lett.* 1994 Jul 4;175(1-2):9-12. X-1.
3292. Loke GP, Chan EH and Sia AT. The effect of 10 degrees head-up tilt in the right lateral position on the systemic blood pressure after subarachnoid block for Caesarean section. *Anaesthesia.* 2002 Feb;57(2):169-72. X-9.
3293. Lokugamage AU, Paine M, Bassaw-Balroop K, et al. Active management of the third stage at caesarean section: a randomised controlled trial of misoprostol versus syntocinon. *Aust N Z J Obstet Gynaecol.* 2001 Nov;41(4):411-4. X-9.
3294. Lomas J, Enkin M, Anderson GM, et al. Opinion leaders vs audit and feedback to implement practice guidelines. Delivery after previous cesarean section. *JAMA.* 1991 May 1;265(17):2202-7. X-4b, X-4e, X-5.
3295. Lone F, Sultan AH, Thakar R, et al. Risk factors and management patterns for emergency obstetric hysterectomy over 2 decades. *Int J Gynaecol Obstet.* 2010 Apr;109(1):12-5. X-1.
3296. Long J and Yue Y. Patient controlled intravenous analgesia with tramadol for labor pain relief. *Chin Med J (Engl).* 2003 Nov;116(11):1752-5. X-4e, X-5.
3297. Long Q, Zhang Y, Raven J, et al. Giving birth at a health-care facility in rural China: is it affordable for the poor? *Bull World Health Organ.* 2011 Feb 1;89(2):144-52. X-1.
3298. Long WH, Rudd EG and Dillon MB. Intrauterine irrigation with cefamandole nafate solution at cesarean section: a preliminary report. *Am J Obstet Gynecol.* 1980 Dec 1;138(7 Pt 1):755-8. X-9.
3299. Longaker MT, Golbus MS, Filly RA, et al. Maternal outcome after open fetal surgery. A review of the first 17 human cases. *JAMA.* 1991 Feb 13;265(6):737-41. X-1.
3300. Lonky NM, Worthen N and Ross MG. Prediction of cesarean section scars with ultrasound imaging during pregnancy. *J Ultrasound Med.* 1989 Jan;8(1):15-9. X-1.
3301. Loong RL, Rogers MS and Chang AM. A controlled trial on wound drainage in caesarean section. *Aust N Z J Obstet Gynaecol.* 1988 Nov;28(4):266-9. X-9.
3302. Lopez-Escobar G, Fortney JA, Riano-Gamboa G, et al. Maternity record: initial report on a national experience (Colombia). *Int J Gynaecol Obstet.* 1978 Jul-1979 Aug;17(1):40-6. X-1.
3303. Lopez-Escobar G, Riano-Gamboa G, Fortney J, et al. Breech presentations in a sample of Colombian hospitals. *Int J Gynaecol Obstet.* 1979 Nov-Dec;17(3):284-9. X-1.
3304. Lorenzo AV. The preterm rabbit: a model for the study of acute and chronic effects of premature birth. *Pediatr Res.* 1985 Feb;19(2):201-5. X-1.
3305. Losty PD, Connell MG, Freese R, et al. Cardiovascular malformations in experimental congenital diaphragmatic hernia. *J Pediatr Surg.* 1999 Aug;34(8):1203-7. X-1.

3306. Lotgering FK, Gaugler-Senden IP, Lotgering SF, et al. Outcome after transabdominal cervicoisthmic cerclage. *Obstet Gynecol.* 2006 Apr;107(4):779-84. X-1.
3307. Loto O and Onile TG. Placenta praevia at the Obafemi Awolowo University Teaching Hospitals Complex, Ile-Ife. A ten year analysis. *Niger J Clin Pract.* 2008 Jun;11(2):130-3. X-1.
3308. Loto OM, Adewuya AO, Ajenifuja OK, et al. The effect of caesarean section on self-esteem amongst primiparous women in South-Western Nigeria: a case-control study. *J Matern Fetal Neonatal Med.* 2009 Sep;22(9):765-9. X-1.
3309. Loubert C, O'Brien PJ, Fernando R, et al. Epidural volume extension in combined spinal epidural anaesthesia for elective caesarean section: a randomised controlled trial. *Anaesthesia.* 2011 May;66(5):341-7. X-9.
3310. Loughnan BA, Carli F, Romney M, et al. Randomized controlled comparison of epidural bupivacaine versus pethidine for analgesia in labour. *Br J Anaesth.* 2000 Jun;84(6):715-9. X-4e, X-5.
3311. Loughrey JP, Walsh F and Gardiner J. Prophylactic intravenous bolus ephedrine for elective Caesarean section under spinal anaesthesia. *Eur J Anaesthesiol.* 2002 Jan;19(1):63-8. X-9.
3312. Loughrey JP, Yao N, Datta S, et al. Hemodynamic effects of spinal anesthesia and simultaneous intravenous bolus of combined phenylephrine and ephedrine versus ephedrine for caesarean delivery. *Int J Obstet Anesth.* 2005 Jan;14(1):43-7. X-9.
3313. Louie B, Guy J, Quinn M, et al. Reducing surgical length of stay: quantifying the impact. *Health Manage Forum.* 1995 Winter;8(4):29-35. X-1.
3314. Louie TJ, Binns BA, Baskett TF, et al. Cefotaxime, cefazolin, or ampicillin prophylaxis of febrile morbidity in emergency caesarean sections. *Clin Ther.* 1982;5 Suppl A:83-96. X-9.
3315. Louis J, Buhari MA, Allen D, et al. Postpartum morbidity associated with advanced HIV disease. *Infect Dis Obstet Gynecol.* 2006;2006:79512. X-1.
3316. Louis JM, Auckley D, Sokol RJ, et al. Maternal and neonatal morbidities associated with obstructive sleep apnea complicating pregnancy. *Am J Obstet Gynecol.* 2010 Mar;202(3):261 e1-5. X-1.
3317. Louis JM, Ehrenberg HM, Collin MF, et al. Perinatal intervention and neonatal outcomes near the limit of viability. *Am J Obstet Gynecol.* 2004 Oct;191(4):1398-402. X-1.
3318. Lourens R and Paterson-Brown S. Ergometrine given during caesarean section and incidence of delayed postpartum haemorrhage due to uterine atony. *J Obstet Gynaecol.* 2007 Nov;27(8):795-7. X-9.
3319. Love ER, Bhattacharya S and Smith NC. Effect of interpregnancy interval on outcomes of pregnancy after miscarriage: retrospective analysis of hospital episode statistics in Scotland. *BMJ.* 2010;341:c3967. X-1.
3320. Loverro G, Greco P, Vimercati A, et al. Maternal complications associated with cesarean section. *J Perinat Med.* 2001;29(4):322-6. X-1.
3321. Lowder JL, Shackelford DP, Holbert D, et al. A randomized, controlled trial to compare ketorolac tromethamine versus placebo after cesarean section to reduce pain and narcotic usage. *Am J Obstet Gynecol.* 2003 Dec;189(6):1559-62; discussion 1562. X-9.
3322. Lowe N. A mother's intuition: Nicola's story. *Pract Midwife.* 2010 Dec;13(11):32-3. X-1, X-2.
3323. Lowson SM, Brown J and Wilkins CJ. Influence of the lumbar interspace chosen for injection on the spread of hyperbaric 0.5% bupivacaine. *Br J Anaesth.* 1991 Apr;66(4):465-8. X-9.
3324. Lubarsky SL, Schiff E, Friedman SA, et al. Obstetric characteristics among nulliparas under age 15. *Obstet Gynecol.* 1994 Sep;84(3):365-8. X-1.
3325. Lubke GH, Kerssens C, Gershon RY, et al. Memory formation during general anesthesia for emergency caesarean sections. *Anesthesiology.* 2000 Apr;92(4):1029-34. X-1.
3326. Lucas DN, Borra PJ and Yentis SM. Epidural top-up solutions for emergency caesarean section: a comparison of preparation times. *Br J Anaesth.* 2000 Apr;84(4):494-6. X-1.
3327. Lucas DN, Ciccone GK and Yentis SM. Extending low-dose epidural analgesia for emergency Caesarean section. A comparison of three solutions. *Anaesthesia.* 1999 Dec;54(12):1173-7. X-9.
3328. Lucas DN, Yentis SM, Kinsella SM, et al. Urgency of caesarean section: a new classification. *J R Soc Med.* 2000 Jul;93(7):346-50. X-1, X-2.
3329. Lucas MJ, Sharma SK, McIntire DD, et al. A randomized trial of labor analgesia in women with pregnancy-induced hypertension. *Am J Obstet Gynecol.* 2001 Oct;185(4):970-5. X-3, X-4e, X-5.
3330. Luckas M, Buckett W and Alfirevic Z. Comparison of outcomes in uncomplicated term and post-term pregnancy following spontaneous labor. *J Perinat Med.* 1998;26(6):475-9. X-1.
3331. Ludvigsson JF and Ludvigsson J. Inflammatory bowel disease in mother or father and neonatal outcome. *Acta Paediatr.* 2002;91(2):145-51. X-1.
3332. Luewan S, Srisupundit K and Tongsong T. Outcomes of pregnancies complicated by beta-thalassemia/hemoglobin E disease. *Int J Gynaecol Obstet.* 2009 Mar;104(3):203-5. X-1.

3333. Lufkin EG, Nelson RL, Hill LM, et al. An analysis of diabetic pregnancies at Mayo Clinic, 1950-79. *Diabetes Care*. 1984 Nov-Dec;7(6):539-47. X-1.
3334. Luisi S, Petraglia F, Benedetto C, et al. Serum allopregnanolone levels in pregnant women: changes during pregnancy, at delivery, and in hypertensive patients. *J Clin Endocrinol Metab*. 2000 Jul;85(7):2429-33. X-1.
3335. Lukacz ES, Lawrence JM, Contreras R, et al. Parity, mode of delivery, and pelvic floor disorders. *Obstet Gynecol*. 2006 Jun;107(6):1253-60. X-1.
3336. Lukasse M, Vangen S, Oian P, et al. Childhood abuse and caesarean section among primiparous women in the Norwegian Mother and Child Cohort Study. *BJOG*. 2010 Aug;117(9):1153-7. X-1.
3337. Lukasse M, Vangen S, Oian P, et al. Fear of childbirth, women's preference for cesarean section and childhood abuse: a longitudinal study. *Acta Obstet Gynecol Scand*. 2011 Jan;90(1):33-40. X-1.
3338. Luke B and Brown MB. Maternal morbidity and infant death in twin vs triplet and quadruplet pregnancies. *Am J Obstet Gynecol*. 2008 Apr;198(4):401 e1-10. X-1.
3339. Lumbiganon P, Laopaiboon M, Gulmezoglu AM, et al. Method of delivery and pregnancy outcomes in Asia: the WHO global survey on maternal and perinatal health 2007-08. *Lancet*. 2010 Feb 6;375(9713):490-9. X-1.
3340. Lumley J. Any room left for disagreement about assisting breech births at term? *Lancet*. 2000;356(9239):1368-1369. X-1.
3341. Lumley J, Lester A, Renou P, et al. A failed RCT to determine the best method of delivery for very low birth weight infants. *Control Clin Trials*. 1985 Jun;6(2):120-7. X-3, X-4e, X-5.
3342. Lundin-Schiller S and Mitchell MD. Renin increases human amnion cell prostaglandin E2 biosynthesis. *J Clin Endocrinol Metab*. 1991 Aug;73(2):436-40. X-1.
3343. Luo Y and He GP. Pregnant women's awareness and knowledge of mother-to-child transmission of HIV in South Central China. *Acta Obstet Gynecol Scand*. 2008;87(8):831-6. X-1.
3344. Lurie S, Eldar I, Glezerman M, et al. Pregnancy outcome after stillbirth. *J Reprod Med*. 2007 Apr;52(4):289-92. X-1.
3345. Lurie S, Feinstein M and Mamet Y. Assessment of a newer technique for cesarean section. *Arch Gynecol Obstet*. 2002 Aug;266(4):195-7. X-1.
3346. Lurie S, Matzkel A, Weissman A, et al. Outcome of pregnancy in class A1 and A2 gestational diabetic patients delivered beyond 40 weeks' gestation. *Am J Perinatol*. 1992 Sep-Nov;9(5-6):484-8. X-1.
3347. Lurie S, Sadan O, Ben Aroya Z, et al. Atosiban treatment for uterine hyperactivity during active labor: a pilot study. *J Perinat Med*. 2004;32(2):137-9. X-1.
3348. Lussos SA, Bader AM, Thornhill ML, et al. The antiemetic efficacy and safety of prophylactic metoclopramide for elective cesarean delivery during spinal anesthesia. *Reg Anesth*. 1992 May-Jun;17(3):126-30. X-9.
3349. Luterkort M and Marsal K. Umbilical cord acid-base state and Apgar score in term breech neonates. *Acta Obstet Gynecol Scand*. 1987;66(1):57-60. X-1.
3350. Luthy DA, Malmgren JA and Zingheim RW. Cesarean delivery after elective induction in nulliparous women: the physician effect. *Am J Obstet Gynecol*. 2004 Nov;191(5):1511-5. X-1.
3351. Luthy DA, Malmgren JA, Zingheim RW, et al. Physician contribution to a cesarean delivery risk model. *Am J Obstet Gynecol*. 2003 Jun;188(6):1579-85; discussion 1585-7. X-1.
3352. Luthy DA, Shy KK, van Belle G, et al. A randomized trial of electronic fetal monitoring in preterm labor. *Obstet Gynecol*. 1987 May;69(5):687-95. X-4e, X-5.
3353. Luttkus AK, Friedmann W, Thomas S, et al. The safety of fetal pulse oximetry in parturients requiring fetal scalp blood sampling. *Obstet Gynecol*. 1997 Oct;90(4 Pt 1):533-7. X-1.
3354. Lyall EG, Stainsby C, Taylor GP, et al. Review of uptake of interventions to reduce mother to child transmission of HIV by women aware of their HIV status. *BMJ*. 1998 Jan 24;316(7127):268-70. X-1.
3355. Lydon-Rochelle MT, Holt VL, Nelson JC, et al. Accuracy of reporting maternal in-hospital diagnoses and intrapartum procedures in Washington State linked birth records. *Paediatr Perinat Epidemiol*. 2005 Nov;19(6):460-71. X-1.
3356. Lyell DJ, Pullen K, Fuh K, et al. Daily compared with 8-hour gentamicin for the treatment of intrapartum chorioamnionitis: a randomized controlled trial. *Obstet Gynecol*. 2010 Feb;115(2 Pt 1):344-9. X-3, X-4e, X-5.
3357. Lygidakis NA, Dimou G and Marinou D. Molar-incisor-hypomineralisation (MIH). A retrospective clinical study in Greek children. II. Possible medical aetiological factors. *Eur Arch Paediatr Dent*. 2008 Dec;9(4):207-17. X-1.
3358. Lykkesfeldt G and Osler M. Induction of labor with oral prostaglandin E2 and buccal demoxytocin without amniotomy. *Acta Obstet Gynecol Scand*. 1981;60(4):429-30. X-4d.
3359. Lyndrup J, Nickelsen C, Weber T, et al. Induction of labour by balloon catheter with extra-amniotic saline infusion (BCEAS): a randomised comparison with PGE2 vaginal

- pessaries. *Eur J Obstet Gynecol Reprod Biol.* 1994 Mar 15;53(3):189-97. X-4d.
3360. Lyndrup J, Weber T, Legarth J, et al. Prediction of mode of delivery and 'DisFIL score' following induction of labor by local PGE2. *Eur J Obstet Gynecol Reprod Biol.* 1993 Nov;52(1):11-9. X-1.
3361. Lyons G, Macdonald R and Mikl B. Combined epidural/spinal anaesthesia for caesarean section. Through the needle or in separate spaces? *Anaesthesia.* 1992 Mar;47(3):199-201. X-9.
3362. Lyrenas S, Clason I and Ulmsten U. In vivo controlled release of PGE2 from a vaginal insert (0.8 mm, 10 mg) during induction of labour. *BJOG.* 2001 Feb;108(2):169-78. X-1.
3363. Lyrenas S, Nyberg F, Lindberg B, et al. Cerebrospinal fluid activity of dynorphin-converting enzyme at term pregnancy. *Obstet Gynecol.* 1988 Jul;72(1):54-8. X-1.
3364. Ma X, Huang C, Lou S, et al. The clinical outcomes of late preterm infants: a multi-center survey of Zhejiang, China. *J Perinat Med.* 2009;37(6):695-9. X-1.
3365. Maak B and Frenzel J. The influence of perinatal risk factors on the incidence of atypical coagulation factor VII during the first days of life. *Eur J Pediatr.* 1977 Aug 12;125(4):259-64. X-1.
3366. Maayan-Metzger A, Mazkereth R, Shani A, et al. Risk factors for maternal intrapartum fever and short-term neonatal outcome. *Fetal Pediatr Pathol.* 2006 May-Jun;25(3):169-77. X-1.
3367. Maayan-Metzger A, Naor N and Sirota L. Comparative outcome study between triplet and singleton preterm newborns. *Acta Paediatr.* 2002;91(11):1208-11. X-1.
3368. Maberry MC, Gilstrap LC, 3rd, Bawdon R, et al. Anaerobic coverage for intra-amniotic infection: maternal and perinatal impact. *Am J Perinatol.* 1991 Sep;8(5):338-41. X-4e.
3369. Maberry MC, Ramin SM, Gilstrap LC, 3rd, et al. Intrapartum asphyxia in pregnancies complicated by intra-amniotic infection. *Obstet Gynecol.* 1990 Sep;76(3 Pt 1):351-4. X-1.
3370. Mabie WC, Barton JR, Wasserstrum N, et al. Clinical observations in asthma in pregnancy. *Journal of Maternal-Fetal Medicine.* 1992 1992 Jan-Feb;1(1):45-50. X-4e.
3371. Mabina MH, Pitsoe SB and Moodley J. The effect of traditional herbal medicines on pregnancy outcome. The King Edward VIII Hospital experience. *S Afr Med J.* 1997 Aug;87(8):1008-10. X-1.
3372. Macario A, Scibetta WC, Navarro J, et al. Analgesia for labor pain: a cost model. *Anesthesiology.* 2000 Mar;92(3):841-50. X-1.
3373. MacArthur C. More evidence against the routine use of epidurals... commentary on: Thorp JA, Hu DH, Albin RM, McNitt J, Meyer BA, Cohen GR, Yeast JD. The effect of intrapartum epidural analgesia on nulliparous labor: A randomized, controlled, prospective trial. *Am J Obstet Gynecol* 1993;169:851-858. *Birth: Issues in Perinatal Care.* 1994;21(3):172-174. X-2.
3374. Macarthur C, Glazener C, Lancashire R, et al. Faecal incontinence and mode of first and subsequent delivery: a six-year longitudinal study. *BJOG.* 2005 Aug;112(8):1075-82. X-1.
3375. MacArthur C, Glazener CM, Wilson PD, et al. Obstetric practice and faecal incontinence three months after delivery. *BJOG.* 2001 Jul;108(7):678-83. X-1.
3376. MacArthur C, Glazener CM, Wilson PD, et al. Persistent urinary incontinence and delivery mode history: a six-year longitudinal study. *BJOG.* 2006 Feb;113(2):218-24. X-1.
3377. MacDonald C, Pinion SB and MacLeod UM. Scottish female obstetricians' views on elective caesarean section and personal choice for delivery. *J Obstet Gynaecol.* 2002 Nov;22(6):586-9. X-1.
3378. MacDonald D, Grant A, Sheridan-Pereira M, et al. The Dublin randomized controlled trial of intrapartum fetal heart rate monitoring. *Am J Obstet Gynecol.* 1985 Jul 1;152(5):524-39. X-4e, X-5.
3379. Macer J, Buchanan D and Yonekura ML. Induction of labor with prostaglandin E2 vaginal suppositories. *Obstet Gynecol.* 1984 May;63(5):664-8. X-4d, X-5.
3380. Macer JA, Macer CL and Chan LS. Elective induction versus spontaneous labor: a retrospective study of complications and outcome. *Am J Obstet Gynecol.* 1992 Jun;166(6 Pt 1):1690-6; discussion 1696-7. X-1.
3381. Macfie AG, Magides AD, Richmond MN, et al. Gastric emptying in pregnancy. *Br J Anaesth.* 1991 Jul;67(1):54-7. X-1.
3382. MacGregor RR, Graziani AL and Samuels P. Randomized, double-blind study of cefotetan and cefoxitin in post-caesarean section endometritis. *Am J Obstet Gynecol.* 1992 Jul;167(1):139-43. X-9.
3383. MacGregor SN, Banzhaf WC, Silver RK, et al. A prospective, randomized evaluation of intrapartum amnioinfusion. Fetal acid-base status and cesarean delivery. *J Reprod Med.* 1991 Jan;36(1):69-73. X-4e.
3384. MacKenzie IZ, Bradley S and Embrey MP. A simpler approach to labor induction using lipid-based prostaglandin E2 vaginal suppository. *Am J Obstet Gynecol.* 1981 Sep 15;141(2):158-62. X-1, X-4d, X-5.

3385. MacKenzie IZ and Burns E. Randomised trial of one versus two doses of prostaglandin E2 for induction of labour: 1. Clinical outcome. *Br J Obstet Gynaecol.* 1997 Sep;104(9):1062-7. X-4d.
3386. MacKenzie IZ, Magill P and Burns E. Randomised trial of one versus two doses of prostaglandin E2 for induction of labour: 2. Analysis of cost. *Br J Obstet Gynaecol.* 1997 Sep;104(9):1068-72. X-4d, X-4e.
3387. MacLennan AH, Taylor AW, Wilson DH, et al. The prevalence of pelvic floor disorders and their relationship to gender, age, parity and mode of delivery. *BJOG.* 2000 Dec;107(12):1460-70. X-1.
3388. Macleod M and Murphy DJ. Operative vaginal delivery and the use of episiotomy--a survey of practice in the United Kingdom and Ireland. *Eur J Obstet Gynecol Reprod Biol.* 2008 Feb;136(2):178-83. X-1.
3389. Macones GA, Cahill AG, Stamilio DM, et al. Can uterine rupture in patients attempting vaginal birth after cesarean delivery be predicted? *Am J Obstet Gynecol.* 2006 Oct;195(4):1148-52. X-1.
3390. Macones GA, Hausman N, Edelstein R, et al. Predicting outcomes of trials of labor in women attempting vaginal birth after cesarean delivery: a comparison of multivariate methods with neural networks. *Am J Obstet Gynecol.* 2001 Feb;184(3):409-13. X-1.
3391. Macones GA, Peipert J, Nelson DB, et al. Maternal complications with vaginal birth after cesarean delivery: a multicenter study. *Am J Obstet Gynecol.* 2005 Nov;193(5):1656-62. X-1.
3392. Macones GA, Sehdev HM, Parry S, et al. The association between maternal cocaine use and placenta previa. *Am J Obstet Gynecol.* 1997 Nov;177(5):1097-100. X-1.
3393. Macrae DJ, Munishankrappa S, Burrow LM, et al. Double-blind comparison of the efficacy of extradural diamorphine, extradural phenoperidine and i.m. diamorphine following caesarean section. *Br J Anaesth.* 1987 Mar;59(3):354-9. X-9.
3394. Macri CJ, Schrimmer DB, Greenspoon JS, et al. Amnioinfusion does not affect the length of labor. *Am J Obstet Gynecol.* 1992 Oct;167(4 Pt 1):1134-6. X-1.
3395. Macri CJ, Schrimmer DB, Leung A, et al. Prophylactic amnioinfusion improves outcome of pregnancy complicated by thick meconium and oligohydramnios. *Am J Obstet Gynecol.* 1992 Jul;167(1):117-21. X-4e, X-5.
3396. Madaan M and Trivedi SS. Intrapartum electronic fetal monitoring vs. intermittent auscultation in postcesarean pregnancies. *Int J Gynaecol Obstet.* 2006 Aug;94(2):123-5. X-4b.
3397. Madazli R, Somunkiran A, Calay Z, et al. Histomorphology of the placenta and the placental bed of growth restricted fetuses and correlation with the Doppler velocimetry of the uterine and umbilical arteries. *Placenta.* 2003 May;24(5):510-6. X-1.
3398. Madi BC, Sandall J, Bennett R, et al. Effects of female relative support in labor: a randomized controlled trial. *Birth.* 1999 Mar;26(1):4-8. X-6.
3399. Madi-Jebara S, Ghosn A, Sleilaty G, et al. Prevention of hypotension after spinal anesthesia for cesarean section: 6% hydroxyethyl starch 130/0.4 (Voluven) versus lactated Ringer's solution. *J Med Liban.* 2008 Oct-Dec;56(4):203-7. X-9.
3400. Magalhaes E, Goveia CS, de Araujo Ladeira LC, et al. Ephedrine versus phenylephrine: prevention of hypotension during spinal block for cesarean section and effects on the fetus. *Rev Bras Anesthesiol.* 2009 Jan-Feb;59(1):11-20. X-9.
3401. Magann EF, Chauhan SP, Bufkin L, et al. Intra-operative haemorrhage by blunt versus sharp expansion of the uterine incision at caesarean delivery: a randomised clinical trial. *BJOG.* 2002 Apr;109(4):448-52. X-9.
3402. Magann EF, Chauhan SP, Martin JN, Jr., et al. Does uterine wiping influence the rate of post-Cesarean endometritis? *J Matern Fetal Med.* 2001 Oct;10(5):318-22. X-9.
3403. Magann EF, Chauhan SP, Rodts-Palenik S, et al. Subcutaneous stitch closure versus subcutaneous drain to prevent wound disruption after cesarean delivery: a randomized clinical trial. *Am J Obstet Gynecol.* 2002 Jun;186(6):1119-23. X-9.
3404. Magann EF, Cleveland RS, Dockery JR, et al. Acute tocolysis for fetal distress: terbutaline versus magnesium sulphate. *Aust N Z J Obstet Gynaecol.* 1993 Nov;33(4):362-4. X-3, X-4b, X-5.
3405. Magann EF, Dodson MK, Allbert JR, et al. Blood loss at time of cesarean section by method of placental removal and exteriorization versus in situ repair of the uterine incision. *Surg Gynecol Obstet.* 1993 Oct;177(4):389-92. X-9.
3406. Magann EF, Dodson MK, Ray MA, et al. Preoperative skin preparation and intraoperative pelvic irrigation: impact on post-cesarean endometritis and wound infection. *Obstet Gynecol.* 1993 Jun;81(6):922-5. X-9.
3407. Magann EF, Doherty DA, Field K, et al. Biophysical profile with amniotic fluid volume assessments. *Obstet Gynecol.* 2004 Jul;104(1):5-10. X-4e, X-5.
3408. Magann EF, Kinsella MJ, Chauhan SP, et al. Does an amniotic fluid index of ≤ 5 cm necessitate delivery in high-risk pregnancies? A case-control study. *Am J Obstet Gynecol.* 1999 Jun;180(6 Pt 1):1354-9. X-1.

3409. Magann EF and Nolan TE. Pregnancy outcome in an active-duty population. *Obstet Gynecol.* 1991 Sep;78(3 Pt 1):391-3. X-1.
3410. Magann EF, Perry KG, Jr., Dockery JR, Jr., et al. Cervical ripening before medical induction of labor: a comparison of prostaglandin E2, estradiol, and oxytocin. *Am J Obstet Gynecol.* 1995 Jun;172(6):1702-6; discussion 1704-8. X-4d, X-4e.
3411. Magann EF, Washburne JF, Harris RL, et al. Infectious morbidity, operative blood loss, and length of the operative procedure after cesarean delivery by method of placental removal and site of uterine repair. *J Am Coll Surg.* 1995 Dec;181(6):517-20. X-9.
3412. Magann EF, Winchester MI, Carter DP, et al. Factors adversely affecting pregnancy outcome in the military. *Am J Perinatol.* 1995 Nov;12(6):462-6. X-1.
3413. Maghoma J and Buchmann EJ. Maternal and fetal risks associated with prolonged latent phase of labour. *J Obstet Gynaecol.* 2002 Jan;22(1):16-9. X-1.
3414. Magill-Cuerden J. Training: the best way to operate? *Pract Midwife.* 2006 Oct;9(9):18-20. X-1, X-2.
3415. Magnani E, Corosu R, Mancino P, et al. Postoperative analgesia after cesarean section by continued administration of levobupivacaine with the On-Q Painbuster system over the fascia vs ketorolac + morphine i.v. *Clin Exp Obstet Gynecol.* 2006;33(4):223-5. X-9.
3416. Magos AL, Noble MC, Wong Ten Yuen A, et al. Controlled study comparing vaginal prostaglandin E2 pessaries with intravenous oxytocin for the stimulation of labour after spontaneous rupture of the membranes. *Br J Obstet Gynaecol.* 1983 Aug;90(8):726-31. X-4d, X-4e, X-5.
3417. Magriples U, Kershaw TS, Rising SS, et al. The effects of obesity and weight gain in young women on obstetric outcomes. *Am J Perinatol.* 2009 May;26(5):365-71. X-1.
3418. Magtibay PM, Ramin KD, Harris DY, et al. Misoprostol as a labor induction agent. *J Matern Fetal Med.* 1998 Jan-Feb;7(1):15-8. X-4d, X-5.
3419. Maguire A, Sanchez E, Fortuny C, et al. Potential risk factors for vertical HIV-1 transmission in Catalonia, Spain: the protective role of cesarean section. The Working Group on HIV-1 Vertical Transmission in Catalonia. *AIDS.* 1997 Dec;11(15):1851-7. X-1.
3420. Mah MW, Pyper AM, Oni GA, et al. Impact of antibiotic prophylaxis on wound infection after cesarean section in a situation of expected higher risk. *Am J Infect Control.* 2001 Apr;29(2):85-8. X-1.
3421. Mahadevan U, Sandborn WJ, Li DK, et al. Pregnancy outcomes in women with inflammatory bowel disease: a large community-based study from Northern California. *Gastroenterology.* 2007 Oct;133(4):1106-12. X-1.
3422. Mahmood TA. A prospective comparative study on the use of prostaglandin E2 gel (2 mg) and prostaglandin E2 tablet (3 mg) for the induction of labour in primigravid women with unfavorable cervixes. *Eur J Obstet Gynecol Reprod Biol.* 1989 Nov;33(2):169-75. X-4d.
3423. Mahmood TA and Dick MJ. A randomized trial of management of pre-labor rupture of membranes at term in multiparous women using vaginal prostaglandin gel. *Obstet Gynecol.* 1995 Jan;85(1):71-4. X-3, X-4e, X-5.
3424. Mahmood TA, Dick MJ, Smith NC, et al. Role of prostaglandin in the management of prelabour rupture of the membranes at term. *Br J Obstet Gynaecol.* 1992 Feb;99(2):112-7. X-4e, X-5.
3425. Mahomed K. A double-blind randomized controlled trial on the use of prophylactic antibiotics in patients undergoing elective caesarean section. *Br J Obstet Gynaecol.* 1988 Jul;95(7):689-92. X-9.
3426. Mahomed K, Nyoni R, Mlambo T, et al. Intrapartum foetal heart rate monitoring--continuous electronic versus intermittent Doppler--a randomised controlled trial. *Cent Afr J Med.* 1992 Dec;38(12):458-62. X-4e, X-5.
3427. Mahomed K, Nyoni R, Mlambo T, et al. Randomised controlled trial of intrapartum fetal heart rate monitoring. *BMJ.* 1994 Feb 19;308(6927):497-500. X-4e.
3428. Mahomed K, Seeras R and Coulson R. External cephalic version at term. A randomized controlled trial using tocolysis. *Br J Obstet Gynaecol.* 1991 Jan;98(1):8-13. X-4c, X-5.
3429. Mahomed MC, Downing JW, Jeal DE, et al. Ketamine for anaesthetic induction at Caesarean section. *S Afr Med J.* 1976 May 22;50(22):846-8. X-1.
3430. Mahomed MC, Downing JW, Jeal DE, et al. Propanidid for anaesthetic induction at Caesarean section. *S Afr Med J.* 1975 Aug 2;49(33):1358-60. X-1.
3431. Mahomed MC, Downing JW, Jeal DE, et al. Anaesthetic induction for Caesarean section with propanidid. *Anaesthesia.* 1976 Mar;31(2):205-11. X-1.
3432. Mahomed MC, Downing JW and Mahomed YH. Alfathesin for anaesthetic induction at caesarean section. *S Afr Med J.* 1975 Jun 28;49(27):1095-6. X-1.
3433. Mahomed YH, Downing JW, Coleman AJ, et al. Ketamine and the obstetric patient. *S Afr Med J.* 1974 Apr 13;48(17):734-6. X-1, X-3, X-4b, X-5.

3434. Mahoney SF and Malcoe LH. Cesarean delivery in Native American women: are low rates explained by practices common to the Indian health service? *Birth*. 2005 Sep;32(3):170-8. X-1.
3435. Mahony R, Walsh C, Foley ME, et al. Outcome of second delivery after prior macrosomic infant in women with normal glucose tolerance. *Obstet Gynecol*. 2006 Apr;107(4):857-62. X-1.
3436. Mahowald M. Beyond abortion: refusal of caesarean section. *Bioethics*. 1989 Apr;3(2):106-21. X-1.
3437. Maigaard S, Forman A and Andersson KE. Relaxant and contractile effects of some amines and prostanoids in myometrial and vascular smooth muscle within the human uteroplacental unit. *Acta Physiol Scand*. 1986 Sep;128(1):33-40. X-1.
3438. Maine D, Akalin MZ, Chakraborty J, et al. Why did maternal mortality decline in Matlab? *Stud Fam Plann*. 1996 Jul-Aug;27(4):179-87. X-1.
3439. Maiques V, Garcia-Tejedor A, Diago V, et al. Perioperative cesarean delivery morbidity among HIV-infected women under highly active antiretroviral treatment: a case-control study. *Eur J Obstet Gynecol Reprod Biol*. 2010 Nov;153(1):27-31. X-1, X-9.
3440. Maiques-Montesinos V, Cervera-Sanchez J, Bellver-Pradas J, et al. Post-cesarean section morbidity in HIV-positive women. *Acta Obstet Gynecol Scand*. 1999 Oct;78(9):789-92. X-1.
3441. Majoko F, Zwizwai M, Lindmark G, et al. Labor induction with vaginal misoprostol and extra-amniotic prostaglandin F2alpha gel. *Int J Gynaecol Obstet*. 2002 Feb;76(2):127-33. X-4d.
3442. Majoko F, Zwizwai M, Nystrom L, et al. Vaginal misoprostol for induction of labour: a more effective agent than prostaglandin F2 alpha gel and prostaglandin E2 pessary. *Cent Afr J Med*. 2002 Nov-Dec;48(11-12):123-8. X-4d, X-5.
3443. Major CA, Henry MJ, De Veciana M, et al. The effects of carbohydrate restriction in patients with diet-controlled gestational diabetes. *Obstet Gynecol*. 1998 Apr;91(4):600-4. X-1.
3444. Makedos G, Papanicolaou A, Hitoglou A, et al. Homocysteine, folic acid and B12 serum levels in pregnancy complicated with preeclampsia. *Arch Gynecol Obstet*. 2007 Feb;275(2):121-4. X-1.
3445. Makhseed MA, Ahmed MA and Musini VM. Impaired gestational glucose tolerance. Its effect on placental pathology. *Saudi Med J*. 2004 Sep;25(9):1241-4. X-1.
3446. Makila UM, Viinikka L and Ylikorkala O. Evidence that prostacyclin deficiency is a specific feature in preeclampsia. *Am J Obstet Gynecol*. 1984 Mar 15;148(6):772-4. X-1.
3447. Makkonen N, Heinonen S, Hongisto T, et al. Normalization of vasoactive changes in preeclampsia precedes clinical recovery. *Hypertens Pregnancy*. 2002;21(1):51-64. X-1.
3448. Malamitsi-Puchner A, Economou E, Sevastiadou S, et al. Endothelin 1-21 plasma levels on the first and fourth postpartum day in normal full-term neonates. *Dev Pharmacol Ther*. 1993;20(3-4):195-8. X-1.
3449. Malhotra M, Sharma JB, Tripathii R, et al. Maternal and fetal outcome in valvular heart disease. *Int J Gynaecol Obstet*. 2004 Jan;84(1):11-6. X-1.
3450. Malhotra N, Khanna S, Pasrija S, et al. Early oral hydration and its impact on bowel activity after elective caesarean section--our experience. *Eur J Obstet Gynecol Reprod Biol*. 2005 May 1;120(1):53-6. X-1.
3451. Malhotra S and Yentis SM. Extending low-dose epidural analgesia in labour for emergency Caesarean section - a comparison of levobupivacaine with or without fentanyl. *Anaesthesia*. 2007 Jul;62(7):667-71. X-9.
3452. Malik HZ, Khawaja NP, Zahid B, et al. Sublingual versus oral misoprostol for induction of labour in prelabour rupture of membranes at term. *J Coll Physicians Surg Pak*. 2010 Apr;20(4):242-5. X-4d.
3453. Malleeswaran S, Panda N, Mathew P, et al. A randomised study of magnesium sulphate as an adjuvant to intrathecal bupivacaine in patients with mild preeclampsia undergoing caesarean section. *Int J Obstet Anesth*. 2010 Apr;19(2):161-6. X-9.
3454. Malomo OO, Kuti O, Orji EO, et al. A randomised controlled study of non-closure of peritoneum at caesarean section in a Nigerian population. *J Obstet Gynaecol*. 2006 Jul;26(5):429-32. X-9.
3455. Malone FD, Craigo SD, Chelmow D, et al. Outcome of twin gestations complicated by a single anomalous fetus. *Obstet Gynecol*. 1996 Jul;88(1):1-5. X-1.
3456. Maltau JM and Andersen HT. Continuous epidural anaesthesia with a low frequency of instrumental deliveries. *Acta Obstet Gynecol Scand*. 1975;54(5):401-6. X-1.
3457. Malvasi A, Tinelli A, Brizzi A, et al. Long-term epidural analgesia treatment in pre-eclamptic women: a preliminary trial. *J Obstet Gynaecol*. 2009 Feb;29(2):114-8. X-1.
3458. Malvasi A, Tinelli A, Farine D, et al. Effects of visceral peritoneal closure on scar formation at caesarean delivery. *Int J Gynaecol Obstet*. 2009 May;105(2):131-5. X-9.
3459. Malvasi A, Tinelli A, Guido M, et al. Should the visceral peritoneum at the bladder flap closed at caesarean sections? A post-partum sonographic and clinical assessment. *J Matern Fetal Neonatal Med*. 2010 Jul;23(7):662-9. X-1.

3460. Malvasi A, Tinelli A, Stark M, et al. Low-dose sequential combined spinal-epidural anaesthesia in elective Stark caesarean section: a preliminary cohort study. *Eur Rev Med Pharmacol Sci.* 2010 Mar;14(3):215-21. X-9.
3461. Malzoni M, Rotond M, Perone C, et al. Fertility after laparoscopic myomectomy of large uterine myomas: operative technique and preliminary results. *Eur J Gynaecol Oncol.* 2003;24(1):79-82. X-1.
3462. Maman E, Lunenfeld E, Levy A, et al. Obstetric outcome of singleton pregnancies conceived by in vitro fertilization and ovulation induction compared with those conceived spontaneously. *Fertil Steril.* 1998 Aug;70(2):240-5. X-1.
3463. Mancuso A, De Vivo A and Fanara G. Cesarean section on demand: are there differences related to obstetricians' gender? *J Matern Fetal Neonatal Med.* 2006 May;19(5):309-10. X-1.
3464. Mancuso A, De Vivo A, Fanara G, et al. Cesarean section on request: are there loco-regional factors influencing maternal choice? An Italian experience. *J Obstet Gynaecol.* 2008 May;28(4):382-5. X-1.
3465. Mancuso A, De Vivo A, Fanara G, et al. Women's preference on mode of delivery in Southern Italy. *Acta Obstet Gynecol Scand.* 2006;85(6):694-9. X-1.
3466. Mancuso A, De Vivo A, Giacobbe A, et al. General versus spinal anaesthesia for elective caesarean sections: effects on neonatal short-term outcome. A prospective randomised study. *J Matern Fetal Neonatal Med.* 2010 Oct;23(10):1114-8. X-9.
3467. Mancuso A, Settineri S, Fanara G, et al. Confidential survey on cesarean section on request: obstetricians' personal experience in Sicily. *Acta Obstet Gynecol Scand.* 2006;85(5):623-4. X-1.
3468. Mancuso S, Ferrazzani S, De Carolis S, et al. Term and postterm low-risk pregnancies: management schemes for the reduction of high rates of cesarean section. *Minerva Ginecol.* 1996 Mar;48(3):95-8. X-1.
3469. Mandelbrot L, Dommergues M and Dumez Y. Prepartum transabdominal amnio-infusion for severe oligohydramnios. *Acta Obstet Gynecol Scand.* 1992 Feb;71(2):124-5. X-1.
3470. Mandelbrot L, Mayaux MJ, Bongain A, et al. Obstetric factors and mother-to-child transmission of human immunodeficiency virus type 1: the French perinatal cohorts. SEROGEST French Pediatric HIV Infection Study Group. *Am J Obstet Gynecol.* 1996 Sep;175(3 Pt 1):661-7. X-1.
3471. Mandelbrot L, Verspyck E, Dommergues M, et al. Transabdominal amnioinfusion for the management of nonlaboring postdates with severe oligohydramnios. *Fetal Diagn Ther.* 1993 Nov-Dec;8(6):412-7. X-1.
3472. Mando C, Tabano S, Colapietro P, et al. Transferrin receptor gene and protein expression and localization in human IUGR and normal term placentas. *Placenta.* 2011 Jan;32(1):44-50. X-1, X-9.
3473. Mangione S and Giarratano A. The role of antithrombin III in critical patients in obstetrics. *Minerva Anesthesiol.* 2002 May;68(5):449-53. X-1.
3474. Mankowitz E, Downing JW, Brock-Utne JG, et al. Total intravenous anaesthesia using low-dose ketamine infusion for caesarean section. A comparison with a standard inhalation anaesthetic technique. *S Afr Med J.* 1984 Feb 18;65(7):246-50. X-9.
3475. Manner RL. Court-ordered surgery for the protection of a viable fetus: *Jefferson v. Griffin Spalding County Hospital Authority*, 247 Ga. 86, 274 S.E.2d 457 (1981). *West New Engl Law Rev.* 1982 Summer;5(1):125-48. X-1.
3476. Manner T, Kanto J and Salonen M. Use of simple tests to determine the residual effects of the analgesic component of balanced anaesthesia. *Br J Anaesth.* 1987 Aug;59(8):978-82. X-9.
3477. Mano Y, Shibata K, Sumigama S, et al. Tocilizumab inhibits interleukin-6-mediated matrix metalloproteinase-2 and -9 secretions from human amnion cells in preterm premature rupture of membranes. *Gynecol Obstet Invest.* 2009;68(3):145-53. X-1.
3478. Mansfield PK. Re-evaluating the medical risks of late childbearing. *Women Health.* 1986 Summer;11(2):37-60. X-1.
3479. Manthata AL, Hall DR, Steyn PS, et al. The attitudes of two groups of South African women towards mode of delivery. *Int J Gynaecol Obstet.* 2006 Jan;92(1):87-91. X-1.
3480. Manullang TR, Viscomi CM and Pace NL. Intrathecal fentanyl is superior to intravenous ondansetron for the prevention of perioperative nausea during cesarean delivery with spinal anesthesia. *Anesth Analg.* 2000 May;90(5):1162-6. X-9.
3481. Many A, Helpman L, Vilnai Y, et al. Neonatal respiratory morbidity after elective cesarean section. *J Matern Fetal Neonatal Med.* 2006 Feb;19(2):75-8. X-1.
3482. Manyonda IT, Shaw DE and Drife JO. The effect of delayed pushing in the second stage of labor with continuous lumbar epidural analgesia. *Acta Obstet Gynecol Scand.* 1990;69(4):291-5. X-1.
3483. Manzai M and Liggins GC. Inhibitory effects of dispersed human amnion cells on production rates of prostaglandin E and F by endometrial cells. *Prostaglandins.* 1984 Sep;28(3):297-307. X-1.
3484. Manzanares S, Carrillo MP, Gonzalez-Peran E, et al. Isolated oligohydramnios in term pregnancy as an indication for induction of

- labor. *J Matern Fetal Neonatal Med.* 2007 Mar;20(3):221-4. X-1.
3485. Marchiano D, Elkousy M, Stevens E, et al. Diet-controlled gestational diabetes mellitus does not influence the success rates for vaginal birth after cesarean delivery. *Am J Obstet Gynecol.* 2004 Mar;190(3):790-6. X-1.
3486. Marchisio S, Ferraccioli K, Barbieri A, et al. Care pathways in obstetrics: the effectiveness in reducing the incidence of episiotomy in childbirth. *J Nurs Manag.* 2006 Oct;14(7):538-43. X-1, X-4e, X-5.
3487. Marco AP, Greenwald MK and Higgins MS. A preliminary study of 24-hour post-cesarean patient controlled analgesia: postoperative pain reports and morphine requests/utilization are greater in abstaining smokers than non-smokers. *Med Sci Monit.* 2005 Jun;11(6):CR255-261. X-1.
3488. Marinoni E, Korebrits C, Di Iorio R, et al. Effect of betamethasone in vivo on placental corticotropin-releasing hormone in human pregnancy. *Am J Obstet Gynecol.* 1998 Apr;178(4):770-8. X-1.
3489. Marinoni E, Santoro M, Vitagliano MP, et al. Intravaginal gemeprost and second-trimester pregnancy termination in the scarred uterus. *Int J Gynaecol Obstet.* 2007 Apr;97(1):35-9. X-1.
3490. Marinoni E, Zacharopoulou C, Di Rocco A, et al. Effect of betamethasone in vivo on placental adrenomedullin in human pregnancy. *J Soc Gynecol Investig.* 2006 Sep;13(6):418-24. X-1.
3491. Marks C, Fethers K and Mindel A. Management of women with recurrent genital herpes in pregnancy in Australia. *Sex Transm Infect.* 1999 Feb;75(1):55-7. X-1.
3492. Marquette GP, Boucher M, Theriault D, et al. Does the use of a tocolytic agent affect the success rate of external cephalic version? *Am J Obstet Gynecol.* 1996 Oct;175(4 Pt 1):859-61. X-4c, X-4e, X-5.
3493. Marshall VA. Management of premature rupture of membranes at or near term. *J Nurse Midwifery.* 1993 May-Jun;38(3):140-5. X-1.
3494. Martens MG, Faro S, Hammill HA, et al. Sulbactam/ampicillin versus metronidazole/gentamicin in the treatment of post-cesarean section endometritis. *Diagn Microbiol Infect Dis.* 1989 Jul-Aug;12(4 Suppl):189S-194S. X-9.
3495. Martens PJ, Derksen S and Gupta S. Predictors of hospital readmission of Manitoba newborns within six weeks postbirth discharge: a population-based study. *Pediatrics.* 2004 Sep;114(3):708-13. X-1.
3496. Martin JA, Hamilton BE and Ventura SJ. Births: preliminary data for 2000. *Natl Vital Stat Rep.* 2001 Jul 24;49(5):1-20. X-1.
3497. Martin JA and Menacker F. Expanded health data from the new birth certificate, 2004. *Natl Vital Stat Rep.* 2007 Apr 19;55(12):1-22. X-1.
3498. Martin JA, Park MM and Sutton PD. Births: preliminary data for 2001. *Natl Vital Stat Rep.* 2002 Jun 6;50(10):1-20. X-1.
3499. Martin JA, Smith BL, Mathews TJ, et al. Births and deaths: preliminary data for 1998. *Natl Vital Stat Rep.* 1999 Oct 5;47(25):1-45. X-1.
3500. Martin LF, Finigan KM and Nolan TE. Pregnancy after adjustable gastric banding. *Obstet Gynecol.* 2000 Jun;95(6 Pt 1):927-30. X-1.
3501. Martin S and Coleman M. Judicial intervention in pregnancy. *McGill Law J.* 1995 Aug;40(4):947-91. X-1.
3502. Martin TC and Clarke A. A case control study of the prevalence of perinatal complications associated with fetal macrosomia in Antigua and Barbuda. *West Indian Med J.* 2003 Sep;52(3):231-4. X-1.
3503. Marucci M, Diele C, Bruno F, et al. Subarachnoid anaesthesia in caesarean delivery: effects on alertness. *Minerva Anesthesiol.* 2003 Nov;69(11):809-19, 819-24. X-9.
3504. Marut JS and Mercer RT. The cesarean birth experience: implications for nursing. *Birth Defects Orig Artic Ser.* 1981;17(6):129-52. X-1.
3505. Marvin KW, Eykholt RL, Keelan JA, et al. The 15-deoxy-delta(12,14)-prostaglandin J(2)receptor, peroxisome proliferator activated receptor-gamma (PPARgamma) is expressed in human gestational tissues and is functionally active in JEG3 choriocarcinoma cells. *Placenta.* 2000 May;21(4):436-40. X-1.
3506. Marwick C. Mother accused of murder after refusing caesarean section. *BMJ.* 2004 Mar 20;328(7441):663. X-1, X-2.
3507. Maschi S, Clavenna A, Campi R, et al. Neonatal outcome following pregnancy exposure to antidepressants: a prospective controlled cohort study. *BJOG.* 2008 Jan;115(2):283-9. X-1.
3508. Mashiach R, Hod M, Kaplan B, et al. External cephalic version at term using broad criteria: effect on mode of delivery. *Clin Exp Obstet Gynecol.* 1995;22(4):279-84. X-1.
3509. Mashini IS, Fadel HE, Nelson GH, et al. Indications for and timing of delivery in diabetic pregnancies. *Am J Obstet Gynecol.* 1985 Dec 1;153(7):759-66. X-1.
3510. Maslovitz S, Many A, Landsberg JA, et al. The safety of low molecular weight heparin therapy during labor. *J Matern Fetal Neonatal Med.* 2005 Jan;17(1):39-43. X-1.
3511. Maslovitz S, Shenhav M, Levin I, et al. Outcome of induced deliveries in growth-restricted fetuses: second thoughts about the vaginal option. *Arch Gynecol Obstet.* 2009 Feb;279(2):139-43. X-1.
3512. Mason PR, Katzenstein DA, Chimbira TH, et al. Vaginal flora of women admitted to hospital

- with signs of sepsis following normal delivery, cesarean section or abortion. The Puerperal Sepsis Study Group. *Cent Afr J Med*. 1989 Mar;35(3):344-51. X-1.
3513. Massad M, Fahl M, Slim M, et al. Thrombosed Bjork-Shiley standard disc mitral valve prosthesis. *J Cardiovasc Surg (Torino)*. 1989 Nov-Dec;30(6):976-80. X-1.
3514. Masse E, Drolet P and Girard M. Direction of injection does not affect the spread of spinal bupivacaine in parturients. *Can J Anaesth*. 1997 Aug;44(8):816-9. X-9.
3515. Mastrobattista JM, Hollier LM, Yeomans ER, et al. Effects of nuchal cord on birthweight and immediate neonatal outcomes. *Am J Perinatol*. 2005 Feb;22(2):83-5. X-1.
3516. Matalon S, Sheiner E, Levy A, et al. Relationship of treated maternal hypothyroidism and perinatal outcome. *J Reprod Med*. 2006 Jan;51(1):59-63. X-1.
3517. Matar HE, Almerie MQ, Alsabbagh M, et al. Policies for care during the third stage of labour: a survey of maternity units in Syria. *BMC Pregnancy Childbirth*. 2010;10:32. X-1.
3518. Mathai M, Ambersheth S and George A. Comparison of two transverse abdominal incisions for cesarean delivery. *Int J Gynaecol Obstet*. 2002 Jul;78(1):47-9. X-9.
3519. Mathelier AC. A comparison of postoperative morbidity following prophylactic antibiotic administration by combined irrigation and intravenous route or by intravenous route alone during cesarean section. *J Perinat Med*. 1992;20(3):177-82. X-9.
3520. Mathelier AC. Radiopelvimetry after cesarean section. *J Reprod Med*. 1996 Jun;41(6):427-30. X-1.
3521. Mathew M, Saquib S and Rizvi SG. Polyhydramnios. Risk factors and outcome. *Saudi Med J*. 2008 Feb;29(2):256-60. X-1.
3522. Mathieu D. Respecting liberty and preventing harm: limits of state intervention in prenatal choice. *Harv J Law Public Policy*. 1985 Winter;8(1):19-55. X-1.
3523. Mathru M, Rao TL, Kartha RK, et al. Intravenous albumin administration for prevention of spinal hypotension during cesarean section. *Anesth Analg*. 1980 Sep;59(9):655-8. X-9.
3524. Matijevic R. Outcome of post-term pregnancy: a matched-pair case-control study. *Croat Med J*. 1998 Dec;39(4):430-4. X-1.
3525. Matonhodze BB, Hofmeyr GJ and Levin J. Labour induction at term--a randomised trial comparing Foley catheter plus titrated oral misoprostol solution, titrated oral misoprostol solution alone, and dinoprostone. *S Afr Med J*. 2003 May;93(5):375-9. X-4d, X-5.
3526. Matorras R, Tacuri C, Nieto A, et al. Lack of benefits of left tilt in emergent cesarean sections: a randomized study of cardiotocography, cord acid-base status and other parameters of the mother and the fetus. *J Perinat Med*. 1998;26(4):284-92. X-9.

3527. Matouskova A, Dottori O, Forssman L, et al. An improved method of epidural analgesia with reduced instrumental delivery rate. *Acta Obstet Gynecol Scand*. 1975;54(3):231-5. X-1, X-4, X-5.
3528. Matouskova A, Hanson B and Elmen H. Continuous mini-infusion of bupivacaine into the epidural space during labor. Part III: A clinical study of 225 patients. *Acta Obstet Gynecol Scand Suppl*. 1979;83:43-52.
3529. Matsota PK, Markantonis SL, Foustieri MZ, et al. Excretion of ropivacaine in breast milk during patient-controlled epidural analgesia after cesarean delivery. *Reg Anesth Pain Med*. 2009 Mar-Apr;34(2):126-9. X-1, X-9.
3530. Matsubara S, Ohkuchi A, Kikkawa M, et al. Blood loss in low-lying placenta: placental edge to cervical internal os distance of less vs. more than 2 cm. *J Perinat Med*. 2008;36(6):507-12. X-1.
3531. Matteson KA, Lievens SP, Catanzaro B, et al. Intrapartum group B streptococci prophylaxis in patients reporting a penicillin allergy. *Obstet Gynecol*. 2008 Feb;111(2 Pt 1):356-64. X-1.
3532. Matthews P, Dann WL, Cartwright DP, et al. Inspired oxygen concentration during general anaesthesia for caesarean section. *Eur J Anaesthesiol*. 1989 Jul;6(4):295-301. X-9.
3533. Matthias MS. Problematic integration in pregnancy and childbirth: contrasting approaches to uncertainty and desire in obstetric and midwifery care. *Health Commun*. 2009 Jan;24(1):60-70. X-1.
3534. Mauldin JG, Mauldin PD, Feng TI, et al. Determining the clinical efficacy and cost savings of successful external cephalic version. *Am J Obstet Gynecol*. 1996 Dec;175(6):1639-44. X-1.
3535. Mavalankar D, Singh A, Patel SR, et al. Saving mothers and newborns through an innovative partnership with private sector obstetricians: Chiranjeevi scheme of Gujarat, India. *Int J Gynaecol Obstet*. 2009 Dec;107(3):271-6. X-1.
3536. Mavalankar DV. Policy and management constraints on access to and use of life-saving emergency obstetric care in India. *J Am Med Womens Assoc*. 2002 Summer;57(3):165-6, 168. X-1.
3537. Mavalankar DV, Trivedi CR and Gray RH. Levels and risk factors for perinatal mortality in Ahmedabad, India. *Bull World Health Organ*. 1991;69(4):435-42. X-1.
3538. Mayberry JF and Weterman IT. European survey of fertility and pregnancy in women with Crohn's disease: a case control study by European collaborative group. *Gut*. 1986 Jul;27(7):821-5. X-1.
3539. Mayberry L. Nursing implications of the 2006 NIH State of the Science Conference Statement: Cesarean Delivery on Maternal Request. *MCN Am J Matern Child Nurs*. 2006 Sep-Oct;31(5):286-9. X-1.
3540. Mayer A, Erez O, Novack L, et al. Chronic hypertension is an independent risk factor for preeclampsia and preterm delivery in women with rheumatologic diseases: a population-based study. *Eur J Obstet Gynecol Reprod Biol*. 2007 Aug;133(2):157-63. X-1.
3541. Mayer DC, Quance D and Weeks SK. Headache after spinal anesthesia for cesarean section: a comparison of the 27-gauge Quincke and 24-gauge Sprotte needles. *Anesth Analg*. 1992 Sep;75(3):377-80. X-9.
3542. Mayhew TM, Sorensen FB, Klebe JG, et al. The effects of mode of delivery and sex of newborn on placental morphology in control and diabetic pregnancies. *J Anat*. 1993 Dec;183 (Pt 3):545-52. X-1.
3543. Mayo JL, Perez Perez A, Sanchez-Margalet V, et al. Up-regulation of placental leptin by human chorionic gonadotropin. *Endocrinology*. 2009 Jan;150(1):304-13. X-1.
3544. Mayo TW. Medical decision making during a surrogate pregnancy. *Houst Law Rev*. 1988 May;25(3):599-644. X-1, X-2.
3545. Mazhar SB, Imran R and Alam K. Trial of extra amniotic saline infusion with oxytocin versus prostaglandin E2 pessary for induction of labor. *J Coll Physicians Surg Pak*. 2003 Jun;13(6):317-20. X-4d, X-5.
3546. Mazhar SB, Peerzada A and Mahmud G. Maternal and perinatal complications in multiple versus singleton pregnancies: a prospective two years study. *J Pak Med Assoc*. 2002 Apr;52(4):143-7. X-1.
3547. Mazor M, Furman B, Wiznitzer A, et al. Maternal and perinatal outcome of patients with preterm labor and meconium-stained amniotic fluid. *Obstet Gynecol*. 1995 Nov;86(5):830-3. X-1.
3548. Mazor M, Leiberman JR, Dreval D, et al. Management and outcome of vertex-breech and vertex-vertex presentation in twin gestation: a comparative study. *Eur J Obstet Gynecol Reprod Biol*. 1986 Jun;22(1-2):69-75. X-1.
3549. Mazor-Dray E, Levy A, Schlaeffer F, et al. Maternal urinary tract infection: is it independently associated with adverse pregnancy outcome? *J Matern Fetal Neonatal Med*. 2009 Feb;22(2):124-8. X-1.
3550. Mazouni C, Provencal M, Porcu G, et al. Termination of pregnancy in patients with previous cesarean section. *Contraception*. 2006 Mar;73(3):244-8. X-1.
3551. Mazza F, Kitchens J, Kerr S, et al. Clinical excellence series. Eliminating birth trauma at Ascension Health. *Joint Commission Journal on Quality & Patient Safety*. 2007;33(1):15-24. X-3, X-4e, X-5.
3552. Mc Gurgan P, Coulter-Smith S and PJ OD. A national confidential survey of obstetrician's personal preferences regarding mode of

- delivery. *Eur J Obstet Gynecol Reprod Biol.* 2001 Jul;97(1):17-9. X-1.
3553. McAndrew CR and Harms P. Paraesthesiae during needle-through-needle combined spinal epidural versus single-shot spinal for elective caesarean section. *Anaesth Intensive Care.* 2003 Oct;31(5):514-7. X-9.
3554. McAra-Couper J, Jones M and Smythe E. Rising rates of intervention in childbirth. *British Journal of Midwifery.* 2010;18(3):160-169. X-1.
3555. McAuley DM, Moore J, McCaughey W, et al. Ranitidine as an antacid before elective Caesarean section. *Anaesthesia.* 1983 Feb;38(2):108-14. X-1, X-9.
3556. McAuliffe FM, Foley M, Firth R, et al. Outcome of diabetic pregnancy with spontaneous labour after 38 weeks. *Ir J Med Sci.* 1999 Jul-Sep;168(3):160-3. X-1.
3557. McBride S. The effect of induction of labor on the odds of primary Cesarean delivery. 2005;Ph.D.:391 p. X-1.
3558. McBride WG, Black BP, Brown CJ, et al. Method of delivery and developmental outcome at five years of age. *Med J Aust.* 1979 Apr 21;1(8):301-4. X-1.
3559. McCabe CJ, Goldie SJ and Fisman DN. The cost-effectiveness of directly observed highly-active antiretroviral therapy in the third trimester in HIV-infected pregnant women. *PLoS One.* 2010;5(4):e10154. X-1, X-4e.
3560. McCaul JFt, Rogers LW, Perry KG, Jr., et al. Premature rupture of membranes at term with an unfavorable cervix: comparison of expectant management, vaginal prostaglandin, and oxytocin induction. *South Med J.* 1997 Dec;90(12):1229-33. X-4d, X-4e.
3561. McClain CS. Why women choose trial of labor or repeat cesarean section. *J Fam Pract.* 1985 Sep;21(3):210-6. X-1.
3562. McClellan MS and Cbianca WA. Effects of early mother-infant contact following cesarean birth. *Obstet Gynecol.* 1980 Jul;56(1):52-5. X-9.
3563. McCloskey L, Petitti DB and Hobel CJ. Variations in the use of cesarean delivery for dystocia: lessons about the source of care. *Med Care.* 1992 Feb;30(2):126-35. X-1.
3564. McClure EM, Wright LL, Goldenberg RL, et al. The global network: a prospective study of stillbirths in developing countries. *Am J Obstet Gynecol.* 2007 Sep;197(3):247 e1-5. X-1.
3565. McCowan L and Jackson P. The prophylactic use of metronidazole in caesarean section. *N Z Med J.* 1980 Aug 27;92(666):153-5. X-9.
3566. McCurdy CM, Jr., Magann EF, McCurdy CJ, et al. The effect of placental management at cesarean delivery on operative blood loss. *Am J Obstet Gynecol.* 1992 Nov;167(5):1363-7. X-9.
3567. McDonald C, Curtis H, de Ruiter A, et al. National review of maternity care for women with HIV infection. *HIV Med.* 2006 Jul;7(5):275-80. X-1.
3568. McDonnell JG, Curley G, Carney J, et al. The analgesic efficacy of transversus abdominis plane block after cesarean delivery: a randomized controlled trial. *Anesth Analg.* 2008 Jan;106(1):186-91, table of contents. X-9.
3569. McDonnell M and Henderson-Smart DJ. Delayed umbilical cord clamping in preterm infants: a feasibility study. *J Paediatr Child Health.* 1997 Aug;33(4):308-10. X-3, X-4e.
3570. McDonnell NJ, Paech MJ, Browning RM, et al. A randomised comparison of regular oral oxycodone and intrathecal morphine for post-caesarean analgesia. *Int J Obstet Anesth.* 2010 Jan;19(1):16-23. X-9.
3571. McDuffie RS, Jr., Beck A, Bischoff K, et al. Effect of frequency of prenatal care visits on perinatal outcome among low-risk women. A randomized controlled trial. *JAMA.* 1996 Mar 20;275(11):847-51. X-5.
3572. McDuffie RS, Jr., Nelson GE, Osborn CL, et al. Effect of routine weekly cervical examinations at term on premature rupture of the membranes: a randomized controlled trial. *Obstet Gynecol.* 1992 Feb;79(2):219-22. X-5.
3573. McElvy SS, Miodovnik M, Myatt L, et al. Is human myometrial sampling at the time of cesarean delivery safe? *Am J Obstet Gynecol.* 2000 Dec;183(6):1583-6. X-1.
3574. McFarland LV, Raskin M, Daling JR, et al. Erb/Duchenne's palsy: a consequence of fetal macrosomia and method of delivery. *Obstet Gynecol.* 1986 Dec;68(6):784-8. X-1.
3575. McGill J and Shetty A. Mifepristone and misoprostol in the induction of labor at term. *Int J Gynaecol Obstet.* 2007 Feb;96(2):80-4. X-1.
3576. McGladdery SL, Aparicio S, Verrier-Jones K, et al. Outcome of pregnancy in an Oxford-Cardiff cohort of women with previous bacteriuria. *Q J Med.* 1992 Jul;83(303):533-9. X-1.
3577. McGrath P and Phillips E. Bioethics and birth: insights on risk decision-making for an elective caesarean after a prior caesarean delivery. *Monash Bioeth Rev.* 2009 Sep;28(3):22 1-19. X-1.
3578. McGrath P and Ray-Barruel G. The easy option? Australian findings on mothers' perception of elective Caesarean as a birth choice after a prior Caesarean section. *Int J Nurs Pract.* 2009 Aug;15(4):271-9. X-1.
3579. McGregor JA and Christiansen FB. Treatment of obstetric and gynecological infections, with an emphasis on beta-lactamase-producing organisms. *J Reprod Med.* 1988 Jun;33(6 Suppl):591-4. X-1.
3580. McGregor JA, French JI and Makowski E. Single-dose cefotetan versus multidose cefoxitin for prophylaxis in cesarean section in

- high-risk patients. *Am J Obstet Gynecol.* 1986 Apr;154(4):955-60. X-1.
3581. McGrory CH, Groshek MA, Sollinger HW, et al. Pregnancy outcomes in female pancreas-kidney recipients. *Transplant Proc.* 1999 Feb-Mar;31(1-2):652-3. X-1, X-4e.
3582. McGuinness BJ and Trivedi AN. Maternal height as a risk factor for Caesarean section due to failure to progress in labour. *Aust N Z J Obstet Gynaecol.* 1999 May;39(2):152-4. X-1.
3583. McGuinness GA, Merkow AJ, Kennedy RL, et al. Epidural anesthesia with bupivacaine for Cesarean section: neonatal blood levels and neurobehavioral responses. *Anesthesiology.* 1978 Oct;49(4):270-3. X-3, X-4b.
3584. McHugh GA. Protection of the rights of pregnant women in prisons and detention facilities. *New Engl J Prison Law.* 1980 Summer;6(2):231-63. X-1.
3585. McKelvey A, Ashe R, McKenna D, et al. Caesarean section in the second stage of labour: a retrospective review of obstetric setting and morbidity. *J Obstet Gynaecol.* 2010 Apr;30(3):264-7. X-1.
3586. McKilligin HR. Deliveries in teenagers at a Newfoundland general hospital. *Can Med Assoc J.* 1978 May 20;118(10):1252-4. X-1.
3587. McKinney PA, Parslow R, Gurney K, et al. Antenatal risk factors for childhood diabetes mellitus; a case-control study of medical record data in Yorkshire, UK. *Diabetologia.* 1997 Aug;40(8):933-9. X-1, X-4e.
3588. McKinney PA, Parslow R, Gurney KA, et al. Perinatal and neonatal determinants of childhood type 1 diabetes. A case-control study in Yorkshire, U.K. *Diabetes Care.* 1999 Jun;22(6):928-32. X-1.
3589. McKinnie V, Swift SE, Wang W, et al. The effect of pregnancy and mode of delivery on the prevalence of urinary and fecal incontinence. *Am J Obstet Gynecol.* 2005 Aug;193(2):512-7; discussion 517-8. X-1.
3590. McLaren RA, Chauhan SP and Gross TL. Intrapartum factors in early-onset group B streptococcal sepsis in term neonates: a case-control study. *Am J Obstet Gynecol.* 1996 Jun;174(6):1934-7; discussion 1937-40. X-1, X-4e, X-5.
3591. McLaughlin CC, Baptiste MS, Schymura MJ, et al. Perinatal risk factors for neuroblastoma. *Cancer Causes Control.* 2009 Apr;20(3):289-301. X-1.
3592. McLaughlin GB, Cheng YW and Caughey AB. Women with one elevated 3-hour glucose tolerance test value: are they at risk for adverse perinatal outcomes? *Am J Obstet Gynecol.* 2006 May;194(5):e16-9. X-1.
3593. McLaughlin RA. Associations among health literacy levels and health outcomes in pregnant women with pregestational and gestational diabetes in an urban setting. 2009;Ph.D.:129 p. X-1.
3594. McLaws ML, Murphy C and Whitby M. Standardising surveillance of nosocomial infections: the HISS program. *Hospital Infection Standardised Surveillance. J Qual Clin Pract.* 2000 Mar;20(1):6-11. X-1.
3595. McLean MT. Personal autonomy versus active management of labor. *Midwifery Today Childbirth Educ.* 1994 Summer(30):18. X-1.
3596. McLean MT. Marion's message. Cesarean on maternal request. *Midwifery Today Int Midwife.* 2006 Winter(80):10, 66. X-1.
3597. McLean SA and Ramsey J. Human rights, reproductive freedom, medicine and the law. *Med Law Int.* 2002;5(4):239-58. X-1.
3598. McLennan MT, Alten B, Melick C, et al. Patients' satisfaction with and attitudes toward vaginal delivery. *J Reprod Med.* 2005 Oct;50(10):740-4. X-1.
3599. McLennan MT, Melick CF, Alten B, et al. Patients' knowledge of potential pelvic floor changes associated with pregnancy and delivery. *Int Urogynecol J Pelvic Floor Dysfunct.* 2006 Jan;17(1):22-6. X-1.
3600. McLeod L, Barrett J, Hewson S, et al. Women's views regarding participation in a proposed randomized controlled trial of twin delivery. *J Obstet Gynaecol Can.* 2004 Jun;26(6):575-9. X-1.
3601. McLintic AJ, Danskin FH, Reid JA, et al. Effect of adrenaline on extradural anaesthesia, plasma lignocaine concentrations and the fetoplacental unit during elective caesarean section. *Br J Anaesth.* 1991 Dec;67(6):683-9. X-9.
3602. McLoughlin G. Does caesarean delivery prevent anal incontinence? *Nursing Times.* 2011;107(17):23-23. X-1, X-2.
3603. McMahan MJ, Li R, Schenck AP, et al. Previous cesarean birth. A risk factor for placenta previa? *J Reprod Med.* 1997 Jul;42(7):409-12. X-1.
3604. McMorland GH, Douglas MJ, Axelson JE, et al. The effect of pH adjustment of bupivacaine on onset and duration of epidural anaesthesia for caesarean section. *Can J Anaesth.* 1988 Sep;35(5):457-61. X-9.
3605. McMorland GH, Douglas MJ, Kim JH, et al. Epidural sufentanil for post-caesarean section analgesia: lack of benefit of epinephrine. *Can J Anaesth.* 1990 May;37(4 Pt 1):432-7. X-1, X-9.
3606. McMorrow RC, Ni Mhuirheartaigh RJ, Ahmed KA, et al. Comparison of transversus abdominis plane block vs spinal morphine for pain relief after Caesarean section. *Br J Anaesth.* 2011 May;106(5):706-12. X-9.
3607. McQueen J, Kingdom JC, Connell JM, et al. Fetal endothelin levels and placental vascular endothelin receptors in intrauterine growth retardation. *Obstet Gynecol.* 1993 Dec;82(6):992-8. X-1.

3608. Mead M, Bogaerts A and Reyns M. Midwives' perception of the intrapartum risk of healthy nulliparae in spontaneous labour, in The Flanders, Belgium. *Midwifery*. 2007 Dec;23(4):361-71. X-1.
3609. Meakin S. Education to save midwifery. *MIDIRS Midwifery Digest*. 2003;13(2):157-160. X-1, X-2.
3610. Mebazaa MS, Ouerghi S, Ben Meftah R, et al. Reduction of bupivacaine dose in spinal anaesthesia for caesarean section may improve maternal satisfaction by reducing incidence of low blood pressure episodes. *Middle East J Anesthesiol*. 2010 Jun;20(5):673-8. X-9.
3611. Mecklem DW, Humphrey MD and Hicks RW. Efficacy of bupivacaine delivered by wound catheter for post-Caesarean section analgesia. *Aust N Z J Obstet Gynaecol*. 1995 Nov;35(4):416-21. X-9.
3612. Meda N, Hounton S, De Brouwere V, et al. From evaluating a Skilled Care Initiative in rural Burkina Faso to policy implications for safe motherhood in Africa. *Trop Med Int Health*. 2008 Jul;13 Suppl 1:68-72. X-1.
3613. Meehan FP, Moolgaoker AS and Stallworthy J. Vaginal delivery under caudal analgesia after caesarean section and other major uterine surgery. *Br Med J*. 1972 Jun 24;2(5816):740-2. X-1.
3614. Mehdizadeh A, Roosta F, Chaichian S, et al. Evaluation of the impact of birth preparation courses on the health of the mother and the newborn. *Am J Perinatol*. 2005 Jan;22(1):7-9. X-6.
3615. Mehta S, Nuamah I and Kalhan S. Altered diastolic function in asymptomatic infants of mothers with gestational diabetes. *Diabetes*. 1991 Dec;40 Suppl 2:56-60. X-1.
3616. Meikle SF, Bissell ME, Freedman WL, et al. A retrospective review of the efficacy and safety of prostaglandin E2 with premature rupture of the membranes at term. *Obstet Gynecol*. 1992 Jul;80(1):76-9. X-1.
3617. Meikle SF, Steiner CA, Zhang J, et al. A national estimate of the elective primary cesarean delivery rate. *Obstet Gynecol*. 2005 Apr;105(4):751-6. X-1.
3618. Meininger D, Byhahn C, Kessler P, et al. Intrathecal fentanyl, sufentanil, or placebo combined with hyperbaric mepivacaine 2% for parturients undergoing elective cesarean delivery. *Anesth Analg*. 2003 Mar;96(3):852-8, table of contents. X-9.
3619. Mekbib T, Kassaye E, Getachew A, et al. The FIGO Save the Mothers Initiative: the Ethiopia-Sweden collaboration. *Int J Gynaecol Obstet*. 2003 Apr;81(1):93-102. X-1.
3620. Melamed N, Ben-Haroush A, Chen R, et al. Pregnancy outcome and mode of delivery after a previous operative vaginal delivery. *Obstet Gynecol*. 2009 Oct;114(4):757-63. X-1.
3621. Melamed N, Klinger G, Tenenbaum-Gavish K, et al. Short-term neonatal outcome in low-risk, spontaneous, singleton, late preterm deliveries. *Obstet Gynecol*. 2009 Aug;114(2 Pt 1):253-60. X-1.
3622. Melamed N, Yogev Y, Hadar E, et al. Preinduction cervical ripening with prostaglandin E2 at preterm. *Acta Obstet Gynecol Scand*. 2008;87(1):63-7. X-1.
3623. Melamed N, Yogev Y, Meizner I, et al. Sonographic prediction of fetal macrosomia: the consequences of false diagnosis. *J Ultrasound Med*. 2010 Feb;29(2):225-30. X-1.
3624. Melia RJ, Morgan M, Wolfe CD, et al. Consumers' views of the maternity services: implications for change and quality assurance. *J Public Health Med*. 1991 May;13(2):120-6. X-1.
3625. Melis F, Vandenbrouke JP, Buller HR, et al. Estimates of risk of venous thrombosis during pregnancy and puerperium are not influenced by diagnostic suspicion and referral basis. *Am J Obstet Gynecol*. 2004 Sep;191(3):825-9. X-1.
3626. Melzer K, Schutz Y, Soehnchen N, et al. Effects of recommended levels of physical activity on pregnancy outcomes. *Am J Obstet Gynecol*. 2010 Mar;202(3):266 e1-6. X-1.
3627. Menacker F, Declercq E and Maccorman MF. Cesarean delivery: background, trends, and epidemiology. *Semin Perinatol*. 2006 Oct;30(5):235-41. X-1.
3628. Menada Valenzano M, Lijoi D, Mistrangelo E, et al. Vaginal ultrasonographic and hysterosonographic evaluation of the low transverse incision after caesarean section: correlation with gynaecological symptoms. *Gynecol Obstet Invest*. 2006;61(4):216-22. X-1.
3629. Mendez R, Eisenach JC and Kashtan K. Epidural clonidine analgesia after cesarean section. *Anesthesiology*. 1990 Nov;73(5):848-52. X-9.
3630. Mendonca C, Griffiths J, Ateleanu B, et al. Hypotension following combined spinal-epidural anaesthesia for Caesarean section. Left lateral position vs. tilted supine position. *Anaesthesia*. 2003 May;58(5):428-31. X-9.
3631. Menezes Succi RC. Mother-to-child transmission of HIV in Brazil during the years 2000 and 2001: results of a multi-centric study. *Cad Saude Publica*. 2007;23 Suppl 3:S379-89. X-1.
3632. Ment LR, Oh W, Ehrenkranz RA, et al. Antenatal steroids, delivery mode, and intraventricular hemorrhage in preterm infants. *Am J Obstet Gynecol*. 1995 Mar;172(3):795-800. X-3, X-4e.
3633. Menticoglou SM. Differences among obstetricians in caesarean section rates. *Aust N Z J Obstet Gynaecol*. 1997 Nov;37(4):387-92. X-1.

3634. Mercer B, Pilgrim P and Sibai B. Labor induction with continuous low-dose oxytocin infusion: a randomized trial. *Obstet Gynecol.* 1991 May;77(5):659-63. X-4d.
3635. Mercer BM, Gilbert S, Landon MB, et al. Labor outcomes with increasing number of prior vaginal births after cesarean delivery. *Obstet Gynecol.* 2008 Feb;111(2 Pt 1):285-91. X-1.
3636. Mercer RT and Stainton MC. Perceptions of the birth experience: a cross-cultural comparison. *Health Care Women Int.* 1984;5(1-3):29-47. X-1.
3637. Mercier FJ, Riley ET, Frederickson WL, et al. Phenylephrine added to prophylactic ephedrine infusion during spinal anesthesia for elective cesarean section. *Anesthesiology.* 2001 Sep;95(3):668-74. X-9.
3638. Merrill DC, Goodwin P, Burson JM, et al. The optimal route of delivery for fetal meningomyelocele. *Am J Obstet Gynecol.* 1998 Jul;179(1):235-40. X-1.
3639. Merrill DC and Zlatnik FJ. Randomized, double-masked comparison of oxytocin dosage in induction and augmentation of labor. *Obstet Gynecol.* 1999 Sep;94(3):455-63. X-4d, X-5.
3640. Merz W, Van de Vondel P, Strunk H, et al. Diagnosis, treatment and application of color Doppler in conservative management of abnormally adherent placenta. *Ultraschall Med.* 2009 Dec;30(6):571-6. X-1.
3641. Mesleh RA, Al-Aql AS and Kurdi AM. Teenage pregnancy. *Saudi Med J.* 2001 Oct;22(10):864-7. X-1.
3642. Mesleh RA, Asiri F and Al-Naim MF. Cesarean section in the primigravid. *Saudi Med J.* 2000 Oct;21(10):957-9. X-1.
3643. Messinis I, Malamitsi-Puchner A, Hadjigeorgiou E, et al. Perinatal complications in elderly primigravidas. *Pediatr Padol.* 1982;17(3):597-602. X-1, X-4e.
3644. Metsala J, Kilkkinen A, Kaila M, et al. Perinatal factors and the risk of asthma in childhood--a population-based register study in Finland. *Am J Epidemiol.* 2008 Jul 15;168(2):170-8. X-1.
3645. Metsala J, Lundqvist A, Kaila M, et al. Maternal and perinatal characteristics and the risk of cow's milk allergy in infants up to 2 years of age: a case-control study nested in the Finnish population. *Am J Epidemiol.* 2010 Jun 15;171(12):1310-6. X-1.
3646. Metzger BE, Lowe LP, Dyer AR, et al. Hyperglycemia and adverse pregnancy outcomes. *N Engl J Med.* 2008 May 8;358(19):1991-2002. X-1.
3647. Meydanli MM, Caliskan E, Burak F, et al. Labor induction post-term with 25 micrograms vs. 50 micrograms of intravaginal misoprostol. *Int J Gynaecol Obstet.* 2003 Jun;81(3):249-55. X-4d.
3648. Meyer KC. Forced medical treatment in pregnancy: resolving the conflicting rights of mother and fetus. *Med Staff Couns.* 1990 Winter;4(1):53-8. X-1, X-2.
3649. Meyer M, Paranya G, Keefer Norris A, et al. Intrapartum and postpartum analgesia for women maintained on buprenorphine during pregnancy. *Eur J Pain.* 2010 Oct;14(9):939-43. X-1.
3650. Meyer M, Pflum J and Howard D. Outpatient misoprostol compared with dinoprostone gel for preinduction cervical ripening: a randomized controlled trial. *Obstet Gynecol.* 2005 Mar;105(3):466-72. X-4d.
3651. Meyer M, Wagner K, Benvenuto A, et al. Intrapartum and postpartum analgesia for women maintained on methadone during pregnancy. *Obstet Gynecol.* 2007 Aug;110(2 Pt 1):261-6. X-1.
3652. Meyer NL, Hosier KV, Scott K, et al. Cefazolin versus cefazolin plus metronidazole for antibiotic prophylaxis at cesarean section. *South Med J.* 2003 Oct;96(10):992-5. X-9.
3653. Michaels WH, Thompson HO, Boutt A, et al. Ultrasound diagnosis of defects in the scarred lower uterine segment during pregnancy. *Obstet Gynecol.* 1988 Jan;71(1):112-20. X-1.
3654. Michalowski S. Court-authorized cesarean sections--the end of a trend? *Mod Law Rev.* 1999 Jan;62(1):115-27. X-1, X-2, X-3, X-4, X-5.
3655. Michlin R, Oettinger M, Odeh M, et al. Maternal obesity and pregnancy outcome. *Isr Med Assoc J.* 2000 Jan;2(1):10-3. X-1.
3656. Middelburg KJ, Haadsma ML, Heineman MJ, et al. Ovarian hyperstimulation and the in vitro fertilization procedure do not influence early neuromotor development; a history of subfertility does. *Fertil Steril.* 2010 Feb;93(2):544-53. X-1.
3657. Middleton P, Crowther CA, Simmonds L, et al. Different intensities of glycaemic control for pregnant women with pre-existing diabetes. *Cochrane Database of Systematic Reviews.* 2010(9). X-1, X-2.
3658. Mikki N, Abu-Rmeileh NM, Wick L, et al. Cesarean delivery rates, determinants and indications in Makassed Hospital, Jerusalem 1993 and 2002. *East Mediterr Health J.* 2009 Jul-Aug;15(4):868-79. X-1.
3659. Mikulandra F, Perisa M, Merlak I, et al. The grand multipara--an obstetric problem? *Zentralbl Gynakol.* 1992;114(10):491-6. X-1.
3660. Mikulandra F, Perisa M, Merlak I, et al. Pregnancy and delivery in women aged 35 years and over. *Zentralbl Gynakol.* 1993;115(4):171-6. X-1.
3661. Mikulandra F, Perisa M and Stojnic E. When is fetal macrosomia (> or = 4500 g) an indication for caesarean section? *Zentralbl Gynakol.* 1996;118(8):441-7. X-1.

3662. Mikuni I, Hirai H, Toyama Y, et al. Efficacy of intrathecal morphine with epidural ropivacaine infusion for postcesarean analgesia. *J Clin Anesth.* 2010 Jun;22(4):268-73. X-9.
3663. Miles AL, Monga M, Waller DK, et al. Risk factors for symptomatic uterine rupture during a trial of labor: the 1990s. *Am J Perinatol.* 2000;17(7):385-9. X-1.
3664. Miletic T, Aberle N, Mikulandra F, et al. Perinatal outcome of pregnancies in women aged 40 and over. *Coll Antropol.* 2002 Jun;26(1):251-8. X-1.
3665. Millar JS, Winston T, McCauley D, et al. Quality improvement efforts in prenatal care for Oklahoma Medicaid managed care patients: 1995-1998. *J Okla State Med Assoc.* 2002 Jan;95(1):28-33. X-1.
3666. Miller ES, Partezana J and Montgomery RL. Vaginal birth after cesarean: a 5-year experience in a family practice residency program. *J Am Board Fam Pract.* 1995 Sep-Oct;8(5):357-60. X-1.
3667. Miller FH. Maternal-fetal ethical dilemmas: a guideline for physicians. *Semin Anesth.* 1991 Sep;10(3):157-62. X-1.
3668. Miller J, Thornton E and Gittens C. Influences of mode of birth and personality. *British Journal of Midwifery.* 2002;10(11):692-697. X-1.
3669. Miller L. Two patients or one? Problems of consent in obstetrics. *Med Law Int.* 1993;1(1):97-112. X-1.
3670. Miller LA. Legal issues in neonatal nursing. *Neonatal Netw.* 2003 Nov-Dec;22(6):67-8. X-1.
3671. Miller MK. Refusal to undergo a cesarean section: a woman's right or a criminal act? *Health Matrix Cleve.* 2005 Summer;15(2):383-400. X-9.
3672. Miller TD and Davis G. Use of the Atad catheter for the induction of labour in women who have had a previous Caesarean section--a case series. *Aust N Z J Obstet Gynaecol.* 2005 Aug;45(4):325-7. X-1.
3673. Milliez JM, Jannet D, Touboul C, et al. Maturation of the uterine cervix by repeated intracervical instillation of prostaglandin E2. *Am J Obstet Gynecol.* 1991 Sep;165(3):523-8. X-1.
3674. Milliez JM, Jannet D, Touboul C, et al. Two different regimens of preinduction ripening of the uterine cervix with prostaglandin E2: a randomized clinical study. *Eur J Obstet Gynecol Reprod Biol.* 1993 Aug;50(3):163-8. X-4d.
3675. Milne J, Gafni A, Lu D, et al. Developing and pre-testing a decision board to facilitate informed choice about delivery approach in uncomplicated pregnancy. *BMC Pregnancy Childbirth.* 2009;9:50. X-1.
3676. Milner AR, Bogod DG and Harwood RJ. Intrathecal administration of morphine for elective Caesarean section. A comparison between 0.1 mg and 0.2 mg. *Anaesthesia.* 1996 Sep;51(9):871-3. X-9.
3677. Milsom I, Ladfors L, Thiringer K, et al. Influence of maternal, obstetric and fetal risk factors on the prevalence of birth asphyxia at term in a Swedish urban population. *Acta Obstet Gynecol Scand.* 2002 Oct;81(10):909-17. X-1.
3678. Milwidsky A and Gutman A. Glycogen metabolism of normal human myometrium and leiomyoma--possible hormonal control. *Gynecol Obstet Invest.* 1983;15(3):147-52. X-1.
3679. Mimouni F, Miodovnik M, Rosenn B, et al. Birth trauma in insulin-dependent diabetic pregnancies. *Am J Perinatol.* 1992 May;9(3):205-8. X-1.
3680. Mimouni F, Miodovnik M, Whitsett JA, et al. Respiratory distress syndrome in infants of diabetic mothers in the 1980s: no direct adverse effect of maternal diabetes with modern management. *Obstet Gynecol.* 1987 Feb;69(2):191-5. X-1.
3681. Minaretzis D, Tsionu C, Papageorgiou I, et al. Intracervical prostaglandin E2 gel for cervical ripening and labor induction: what is the appropriate dose? *Gynecol Obstet Invest.* 1993;35(1):34-7. X-1, X-4d.
3682. Minchom P, Niswander K, Chalmers I, et al. Antecedents and outcome of very early neonatal seizures in infants born at or after term. *Br J Obstet Gynaecol.* 1987 May;94(5):431-9. X-1.
3683. Minerbi-Codish I, Fraser D, Avnun L, et al. Influence of asthma in pregnancy on labor and the newborn. *Respiration.* 1998;65(2):130-5. X-9.
3684. Minior VK and Divon MY. Fetal growth restriction at term: myth or reality? *Obstet Gynecol.* 1998 Jul;92(1):57-60. X-1.
3685. Minkoff H. The ethics of cesarean section by choice. *Semin Perinatol.* 2006 Oct;30(5):309-12. X-1, X-2.
3686. Minkoff H and Ecker J. Is there a doctor in the house? Standards of physician availability for laboring women. *Obstet Gynecol.* 2010 Sep;116(3):723-7. X-1, X-2.
3687. Minkoff HL and Schwarz RH. The rising cesarean section rate: can it safely be reversed? *Obstet Gynecol.* 1980 Aug;56(2):135-43. X-1.
3688. Mino M, Puertas A, Herruzo AJ, et al. Amnioinfusion in labor induction of term pregnancies with premature rupture of the membranes and low amniotic fluid. *Int J Gynaecol Obstet.* 1998 May;61(2):135-40. X-1.

3689. Mino M, Puertas A, Miranda JA, et al. Amnioinfusion in term labor with low amniotic fluid due to rupture of membranes: a new indication. *Eur J Obstet Gynecol Reprod Biol.* 1999 Jan;82(1):29-34. X-4d, X-4e.
3690. Mints M, Jansson M, Sadeghi B, et al. Endometrial endothelial cells are derived from donor stem cells in a bone marrow transplant recipient. *Hum Reprod.* 2008 Jan;23(1):139-43. X-1.
3691. Mintz G, Niz J, Gutierrez G, et al. Prospective study of pregnancy in systemic lupus erythematosus. Results of a multidisciplinary approach. *J Rheumatol.* 1986 Aug;13(4):732-9. X-1.
3692. Miodovnik M, Mimouni F, Tsang RC, et al. Management of the insulin-dependent diabetic during labor and delivery. Influences on neonatal outcome. *Am J Perinatol.* 1987 Apr;4(2):106-14. X-1.
3693. Miovech SM, Knapp H, Borucki L, et al. Major concerns of women after cesarean delivery. *J Obstet Gynecol Neonatal Nurs.* 1994 Jan;23(1):53-9. X-1.
3694. Mirakhur RK and Badve AV. Pregnancy and anaesthetic practice in India. *Anaesthesia.* 1975 Jan;30(1):18-22. X-1.
3695. Miranda AE, Trindade CR, Nunes RH, et al. Factors associated with prenatal care and seeking assistance in public hospitals in Vitoria, Espirito Santo, Brazil. *Women Health.* 2010 May;50(3):229-40. X-1.
3696. Miranda AF, Kyi W and Sivalingam N. Propofol and methohexitone for elective caesarean--a comparative study. *Med J Malaysia.* 1992 Dec;47(4):280-6. X-9.
3697. Mires G, Williams F and Howie P. Randomised controlled trial of cardiotocography versus Doppler auscultation of fetal heart at admission in labour in low risk obstetric population. *BMJ.* 2001 Jun 16;322(7300):1457-60; discussion 1460-2. X-5.
3698. Mirghani HM and Hamud OA. The effect of maternal diet restriction on pregnancy outcome. *Am J Perinatol.* 2006 Jan;23(1):21-4. X-1.
3699. Mirghani OA and Saeed OK. A simplified management of diabetic pregnant woman. *Saudi Med J.* 2000 Apr;21(4):335-9. X-1.
3700. Miser WF. Outcome of infants born with nuchal cords. *J Fam Pract.* 1992 Apr;34(4):441-5. X-1.
3701. Miser WF, Blount BW, LeClair BM, et al. The practice of obstetrics by Army family physicians. *J Am Board Fam Pract.* 1996 May-Jun;9(3):174-81. X-1.
3702. Mishra US and Ramanathan M. Delivery-related complications and determinants of caesarean section rates in India. *Health Policy Plan.* 2002 Mar;17(1):90-8. X-1.
3703. Misra A. Impact of the HealthChoice program on cesarean section and vaginal birth after C-section deliveries: a retrospective analysis. *Matern Child Health J.* 2008 Mar;12(2):266-74. X-1.
3704. Mitchell CM, Johnson RF, Giles WB, et al. Prostaglandin H synthase-2 gene regulation in the amnion at labour: histone acetylation and nuclear factor kappa B binding to the promoter in vivo. *Mol Hum Reprod.* 2008 Jan;14(1):53-9. X-1.
3705. Mitchell K. The effect of the labour electronic fetal monitoring admission test on operative delivery in low-risk women: a randomised controlled trial. *Evidence Based Midwifery.* 2008;6(1):18-26. X-5.
3706. Mitler LK, Rizzo JA and Horwitz SM. Physician gender and cesarean sections. *J Clin Epidemiol.* 2000 Oct;53(10):1030-5. X-1.
3707. Mitra SC, Ganesh V and Apuzzio JJ. Effect of maternal cocaine abuse on renal arterial flow and urine output of the fetus. *Am J Obstet Gynecol.* 1994 Dec;171(6):1556-9. X-1.
3708. Mitt P, Lang K, Peri A, et al. Surgical-site infections following cesarean section in an Estonian university hospital: postdischarge surveillance and analysis of risk factors. *Infect Control Hosp Epidemiol.* 2005 May;26(5):449-54. X-1, X-9.
3709. Mitty HA, Sterling KM, Alvarez M, et al. Obstetric hemorrhage: prophylactic and emergency arterial catheterization and embolotherapy. *Radiology.* 1993 Jul;188(1):183-7. X-1.
3710. Miura K, Miura S, Yamasaki K, et al. Increased level of cell-free placental mRNA in a subgroup of placenta previa that needs hysterectomy. *Prenat Diagn.* 2008 Sep;28(9):805-9. X-1.
3711. Miyabe M and Sato S. The effect of head-down tilt position on arterial blood pressure after spinal anesthesia for cesarean delivery. *Reg Anesth.* 1997 May-Jun;22(3):239-42. X-9.
3712. Miyazaki FS and Taylor NA. Saline amnioinfusion for relief of variable or prolonged decelerations. A preliminary report. *Am J Obstet Gynecol.* 1983 Jul 15;146(6):670-8. X-1, X-4e, X-5.
3713. Mockler JC, Murphy DJ and Wallace EM. An Australian and New Zealand survey of practice of the use of oxytocin at elective caesarean section. *Aust N Z J Obstet Gynaecol.* 2010 Feb;50(1):30-5. X-1.
3714. Mocumbi P and Amaral E. Reproductive rights and HIV/AIDS. *Best Pract Res Clin Obstet Gynaecol.* 2006 Jun;20(3):381-93. X-1.
3715. Modanlou HD, Dorchester WL, Thorosian A, et al. Antenatal versus neonatal transport to a regional perinatal center: a comparison between matched pairs. *Obstet Gynecol.* 1979 Jun;53(6):725-9. X-1.

3716. Modanlou HD, Dorchester WL, Thorosian A, et al. Macrosomia--maternal, fetal, and neonatal implications. *Obstet Gynecol.* 1980 Apr;55(4):420-4. X-1.
3717. Moen MD, Besinger RE, Tomich PG, et al. Effect of amnioinfusion on the incidence of postpartum endometritis in patients undergoing cesarean delivery. *J Reprod Med.* 1995 May;40(5):383-6. X-1, X-9.
3718. Moffat MA, Bell JS, Porter MA, et al. Decision making about mode of delivery among pregnant women who have previously had a caesarean section: A qualitative study. *BJOG.* 2007 Jan;114(1):86-93. X-1.
3719. Moftaquir-Handaj A, Barbe F, Barbarino-Monnier P, et al. Circulating chromogranin A and catecholamines in human fetuses at uneventful birth. *Pediatr Res.* 1995 Jan;37(1):101-5. X-1.
3720. Mohamed Ismail NA, Ibrahim M, Mohd Naim N, et al. Nifedipine versus terbutaline for tocolysis in external cephalic version. *Int J Gynaecol Obstet.* 2008 Sep;102(3):263-6. X-4c.
3721. Mohta M, Agarwal D, Gupta LK, et al. Comparison of potency of ephedrine and mephentermine for prevention of post-spinal hypotension in caesarean section. *Anaesth Intensive Care.* 2008 May;36(3):360-4. X-9.
3722. Mohta M, Janani SS, Sethi AK, et al. Comparison of phenylephrine hydrochloride and mephentermine sulphate for prevention of post spinal hypotension. *Anaesthesia.* 2010 Dec;65(12):1200-5. X-1, X-9.
3723. Moini A, Riazi K, Ebrahimi A, et al. Caesarean section rates in teaching hospitals of Tehran: 1999-2003. *East Mediterr Health J.* 2007 Mar-Apr;13(2):457-60. X-1.
3724. Moir CR, Ramsey PS, Ogburn PL, et al. A prospective trial of elective preterm delivery for fetal gastroschisis. *Am J Perinatol.* 2004 Jul;21(5):289-94. X-1.
3725. Moir DD. Anaesthesia for Caesarean section. An evaluation of a method using low concentrations of halothane and 50 per cent of oxygen. *Br J Anaesth.* 1970 Feb;42(2):136-42.
3726. Moise KJ, Jr., Saade G, Knudsen L, et al. Ultrasound-guided cardiac blood sampling of the rabbit fetus. *Fetal Diagn Ther.* 1994 Sep-Oct;9(5):331-6. X-1.
3727. Mokgokong ET and Crichton D. Extraperitoneal lower segment caesarean section for infected cases. A reappraisal. *S Afr Med J.* 1974 Apr 17;48(18):788-90. X-9.
3728. Mokmeli S, Khazemikho N, Niromanesh S, et al. The application of low-level laser therapy after cesarean section does not compromise blood prolactin levels and lactation status. *Photomed Laser Surg.* 2009 Jun;27(3):509-12. X-9.
3729. Mokriski BK and Malinow AM. Neonatal acid-base status following general anesthesia for emergency abdominal delivery with halothane or isoflurane. *J Clin Anesth.* 1992 Mar-Apr;4(2):97-100. X-3, X-4b, X-4e, X-5.
3730. Mola G and Rageau O. Augmentation of labour by a standard protocol in Papua New Guinea. *Asia Oceania J Obstet Gynaecol.* 1990 Sep;16(3):219-24. X-1.
3731. Molkenboer JF, Debie S, Roumen FJ, et al. Maternal health outcomes two years after term breech delivery. *J Matern Fetal Neonatal Med.* 2007 Apr;20(4):319-24. X-1.
3732. Molkenboer JF, Debie S, Roumen FJ, et al. Mothers' views of their childbirth experience two years after term breech delivery. *J Psychosom Obstet Gynaecol.* 2008 Mar;29(1):39-44. X-1.
3733. Molkenboer JF, Reijnders EP, Nijhuis JG, et al. Moderate neonatal morbidity after vaginal term breech delivery. *J Matern Fetal Neonatal Med.* 2004 Dec;16(6):357-61. X-4c, X-5.
3734. Molkenboer JF, Vencken PM, Sonnemans LG, et al. Conservative management in breech deliveries leads to similar results compared with cephalic deliveries. *J Matern Fetal Neonatal Med.* 2007 Aug;20(8):599-603. X-1.
3735. Mollberg M, Hagberg H, Bager B, et al. High birthweight and shoulder dystocia: the strongest risk factors for obstetrical brachial plexus palsy in a Swedish population-based study. *Acta Obstet Gynecol Scand.* 2005 Jul;84(7):654-9. X-1.
3736. Moller M, Thomsen AC, Sorensen J, et al. Oxytocin- or low-dose prostaglandin F2 alpha-infusion for stimulation of labor after primary rupture of membranes. A prospective, randomized trial. *Acta Obstet Gynecol Scand.* 1987;66(2):103-6. X-4d, X-4e, X-5.
3737. Mollica G, Pittini L, Minganti E, et al. Elective uterine myomectomy in pregnant women. *Clin Exp Obstet Gynecol.* 1996;23(3):168-72. X-1.
3738. Monari F, Di Mario S, Facchinetti F, et al. Obstetricians' and midwives' attitudes toward cesarean section. *Birth.* 2008 Jun;35(2):129-35. X-1.
3739. Monincx WM, Birnie E, Zondervan HA, et al. Maternal health, antenatal and at 8 weeks after delivery, in home versus in-hospital fetal monitoring in high-risk pregnancies. *Eur J Obstet Gynecol Reprod Biol.* 2001 Feb;94(2):197-204. X-3, X-4e, X-5.
3740. Monir-Bishty E, Pierce SJ, Kupittayanant S, et al. The effects of metabolic inhibition on intracellular calcium and contractility of human myometrium. *BJOG.* 2003 Dec;110(12):1050-6. X-1.
3741. Montgomery AA, Emmett CL, Fahey T, et al. Two decision aids for mode of delivery among women with previous caesarean section: randomised controlled trial. *BMJ.* 2007 Jun 23;334(7607):1305. X-4b.

3742. Montgomery J. Deciding for others. *Bull Med Ethics*. 1999 May;No. 148:18-20. X-1, X-2.
3743. Moodley J and Gouws E. A comparative study of the use of epoprostenol and dihydralazine in severe hypertension in pregnancy. *Br J Obstet Gynaecol*. 1992 Sep;99(9):727-30. X-4e, X-5.
3744. Moodley J, Venkatachalam S and Songca P. Misoprostol for cervical ripening at and near term--a comparative study. *S Afr Med J*. 2003 May;93(5):371-4. X-4d.
3745. Moodley J and Zeeman DJ. Prophylactic and antimicrobial therapy using lincomycin in patients undergoing emergency caesarean section. *S Afr Med J*. 1981 Jun 13;59(25):911-3. X-9.
3746. Moon S. C-section rebirth. Procedure making strong comeback after a decade. *Mod Healthc*. 2002 Jul 8;32(27):18. X-1, X-9.
3747. Moore A, Costello J, Wieczorek P, et al. Gabapentin improves postcesarean delivery pain management: a randomized, placebo-controlled trial. *Anesth Analg*. 2011 Jan;112(1):167-73. X-9.
3748. Moore CH, Wilhite A, Pan PH, et al. The addition of epinephrine to subarachnoid administered hyperbaric bupivacaine with fentanyl for cesarean delivery: the effect on onset time. *Reg Anesth*. 1992 Jul-Aug;17(4):202-4. X-9.
3749. Moore J, Bill KM, Flynn RJ, et al. A comparison between propofol and thiopentone as induction agents in obstetric anaesthesia. *Anaesthesia*. 1989 Sep;44(9):753-7. X-1, X-9.
3750. Moore LE, Briery CM, Clokey D, et al. Metformin and insulin in the management of gestational diabetes mellitus: preliminary results of a comparison. *J Reprod Med*. 2007 Nov;52(11):1011-5. X-4e, X-5.
3751. Moore MP and Redman CW. Case-control study of severe pre-eclampsia of early onset. *Br Med J (Clin Res Ed)*. 1983 Aug 27;287(6392):580-3. X-1.
3752. Moore TR, Origel W, Key TC, et al. The perinatal and economic impact of prenatal care in a low-socioeconomic population. *Am J Obstet Gynecol*. 1986 Jan;154(1):29-33. X-1.
3753. Morales M, Ceysens G, Jastrow N, et al. Spontaneous delivery or manual removal of the placenta during caesarean section: a randomised controlled trial. *BJOG*. 2004 Sep;111(9):908-12. X-9.
3754. Morales WJ and Lazar AJ. Expectant management of rupture of membranes at term. *South Med J*. 1986 Aug;79(8):955-8. X-4e, X-5.
3755. Moran DH, Perillo M, LaPorta RF, et al. Phenylephrine in the prevention of hypotension following spinal anesthesia for cesarean delivery. *J Clin Anesth*. 1991 Jul-Aug;3(4):301-5. X-9.
3756. Morgan MA, Berkowitz KM, Thomas SJ, et al. Abruptio placentae: perinatal outcome in normotensive and hypertensive patients. *Am J Obstet Gynecol*. 1994 Jun;170(6):1595-9. X-1.
3757. Morgan MA, Goldenberg RL and Schulkin J. Obstetrician-gynecologists' practices regarding preterm birth at the limit of viability. *J Matern Fetal Neonatal Med*. 2008 Feb;21(2):115-21. X-1.
3758. Morgan PJ, Halpern S and Lam-McCulloch J. Comparison of maternal satisfaction between epidural and spinal anesthesia for elective Cesarean section. *Can J Anaesth*. 2000 Oct;47(10):956-61. X-9.
3759. Morgan PJ, Mehta S and Kapala DM. Nalbuphine pretreatment in cesarean section patients receiving epidural morphine. *Reg Anesth*. 1991 Mar-Apr;16(2):84-8. X-9.
3760. Morganstern PS. Court-ordered caesarean sections: round II. *Healthspan*. 1990 Jun;7(6):10-1. X-9.
3761. Morhason-Bello IO, Adedokun BO, Ojengbede OA, et al. Assessment of the effect of psychosocial support during childbirth in Ibadan, south-west Nigeria: a randomised controlled trial. *Aust N Z J Obstet Gynaecol*. 2009 Apr;49(2):145-50. X-6.
3762. Mori M, Davies TW, Tsukamoto T, et al. Maternal and other factors of cryptorchidism--a case-control study in Japan. *Kurume Med J*. 1992;39(2):53-60. X-1.
3763. Moriarty KT, Onwuzurike B, Jones JJ, et al. The 30 minutes decision-to-delivery interval for 'urgent' caesarean sections: an elusive target. *J Obstet Gynaecol*. 2006 Nov;26(8):736-9. X-1.
3764. Morikawa M, Yamada T, Shimada S, et al. Pregnancy-induced antithrombin deficiency. *J Perinat Med*. 2010 Jul;38(4):379-85. X-1.
3765. Morkved S and Bo K. Effect of postpartum pelvic floor muscle training in prevention and treatment of urinary incontinence: a one-year follow up. *BJOG*. 2000 Aug;107(8):1022-8. X-1, X-3, X-4e.
3766. Morley R, Moore VM, Dwyer T, et al. Association between erythropoietin in cord blood of twins and size at birth: does it relate to gestational factors or to factors during labor or delivery? *Pediatr Res*. 2005 May;57(5 Pt 1):680-4. X-1.
3767. Moro M and Andrews M. Prophylactic antibiotics in cesarean section. *Obstet Gynecol*. 1974 Nov;44(5):688-92. X-9.
3768. Moro M, Perez-Rodriguez J, Figueras-Aloy J, et al. Predischarge morbidities in extremely and very low-birth-weight infants in Spanish neonatal units. *Am J Perinatol*. 2009 May;26(5):335-43. X-1.
3769. Moroni GA, Cossu MM and Barbarani V. Vertical transmission of hepatitis B. *Boll Ist Sieroter Milan*. 1979 Jan 31;57(6):779-85. X-1.

3770. Morris A. Life and death decisions: "Die, my dear doctor? That's the last thing I shall do!" *Eur J Health Law*. 1996 Mar;3(1):9-28. X-1.
3771. Morris C, Sullivan MH and Elder MG. Transfer and metabolism of platelet-activating factor by fetal membranes, amnion and chorion-decidua. *Br J Obstet Gynaecol*. 1992 Nov;99(11):895-8. X-1, X-9.
3772. Morris JA, Jr., Rosenbower TJ, Jurkovich GJ, et al. Infant survival after cesarean section for trauma. *Ann Surg*. 1996 May;223(5):481-8; discussion 488-91. X-1, X-9.
3773. Morris JM, Thompson K, Smithy J, et al. The usefulness of ultrasound assessment of amniotic fluid in predicting adverse outcome in prolonged pregnancy: a prospective blinded observational study. *BJOG*. 2003 Nov;110(11):989-94. X-1.
3774. Morrison JC, Coxwell WL, Kennedy BS, et al. The use of prophylactic antibiotics in patients undergoing cesarean section. *Surg Gynecol Obstet*. 1973 Mar;136(3):425-8. X-9.
3775. Morrow RJ, Rolbin SH, Ritchie JW, et al. Epidural anaesthesia and blood flow velocity in mother and fetus. *Can J Anaesth*. 1989 Sep;36(5):519-22. X-1, X-9.
3776. Morton CP, Bloomfield S, Magnusson A, et al. Ropivacaine 0.75% for extradural anaesthesia in elective caesarean section: an open clinical and pharmacokinetic study in mother and neonate. *Br J Anaesth*. 1997 Jul;79(1):3-8. X-1.
3777. Moschini V, Marra G and Dabrowska D. Complications of epidural and combined spinal-epidural analgesia in labour. *Minerva Anesthesiol*. 2006 Jan-Feb;72(1-2):47-58. X-1.
3778. Moses J, Doherty DA, Magann EF, et al. A randomized clinical trial of the intrapartum assessment of amniotic fluid volume: amniotic fluid index versus the single deepest pocket technique. *Am J Obstet Gynecol*. 2004 Jun;190(6):1564-9; discussion 1569-70. X-5, X-6.
3779. Moses RG, Knights SJ, Lucas EM, et al. Gestational diabetes: is a higher cesarean section rate inevitable? *Diabetes Care*. 2000 Jan;23(1):15-7. X-1.
3780. Moss JR, Crowther CA, Hiller JE, et al. Costs and consequences of treatment for mild gestational diabetes mellitus - evaluation from the ACHOIS randomised trial. *BMC Pregnancy Childbirth*. 2007;7:27. X-1, X-3, X-4e, X-5.
3781. Most O and Langer O. GDM women in good glycemic control: which meal-related measure enhances fetal well-being? *J Perinat Med*. 2007;35(6):481-5. X-1.
3782. Mould TA, Chong S, Spencer JA, et al. Women's involvement with the decision preceding their caesarean section and their degree of satisfaction. *Br J Obstet Gynaecol*. 1996 Nov;103(11):1074-7. X-1, X-9.
3783. Mousa WF, Al-Metwalli RR and Mostafa M. Epidural analgesia during labor--0.5% lidocaine with fentanyl vs. 0.08% ropivacaine with fentanyl. *Middle East J Anesthesiol*. 2010 Feb;20(4):521-7. X-4e, X-5.
3784. Mouzinho A, Rosenfeld CR, Sanchez PJ, et al. Effect of maternal hypertension on neonatal neutropenia and risk of nosocomial infection. *Pediatrics*. 1992 Sep;90(3):430-5. X-1.
3785. Moya F, Mena P, Heusser F, et al. Response of the maternal, fetal, and neonatal pituitary-thyroid axis to thyrotropin-releasing hormone. *Pediatr Res*. 1986 Oct;20(10):982-6. X-9.
3786. Moya FR, Reece EA and Hobbins JC. Fetal-neonatal uremia in advanced maternal diabetes. *Clin Pediatr (Phila)*. 1984 Apr;23(4):229-31. X-1.
3787. Moynihan AT, Smith TJ and Morrison JJ. The relaxant effect of nifedipine in human uterine smooth muscle and the BK(Ca) channel. *Am J Obstet Gynecol*. 2008 Feb;198(2):237 e1-8. X-1, X-9.
3788. Mozurkewich E, Horrocks J, Daley S, et al. The MisoPROM study: a multicenter randomized comparison of oral misoprostol and oxytocin for premature rupture of membranes at term. *Am J Obstet Gynecol*. 2003 Oct;189(4):1026-30. X-3, X-4d, X-4e, X-5.
3789. Mridha MK, Anwar I and Koblinsky M. Public-sector maternal health programmes and services for rural Bangladesh. *J Health Popul Nutr*. 2009 Apr;27(2):124-38. X-1.
3790. Mu SC, Lin CH, Sung TC, et al. Neurodevelopmental outcome of very-low-birth-weight infants with chorioamnionitis. *Acta Paediatr Taiwan*. 2007 Jul-Aug;48(4):207-12. X-1.
3791. Mugford M, Kingston J and Chalmers I. Reducing the incidence of infection after caesarean section: implications of prophylaxis with antibiotics for hospital resources. *BMJ*. 1989 Oct 21;299(6706):1003-6. X-9.
3792. Mukasa FM. Comparison of pregnancy and labour in teenagers and primigravidas aged 21-25 years in Transkei. *S Afr Med J*. 1992 Apr 18;81(8):421-3. X-1.
3793. Mukherjee S and Sood M. Towards a safer motherhood. *J Indian Med Assoc*. 1995 Mar;93(3):98-100, 89. X-1, X-4d, X-5.
3794. Mulayim B, Celik NY, Kaya S, et al. Early oral hydration after cesarean delivery performed under regional anesthesia. *Int J Gynaecol Obstet*. 2008 Jun;101(3):273-6. X-9.
3795. Muller PR, Stubbs TM and Laurent SL. A prospective randomized clinical trial comparing two oxytocin induction protocols. *Am J Obstet Gynecol*. 1992 Aug;167(2):373-80; discussion 380-1. X-4d, X-5.
3796. Mulvihill SJ, Stone MM, Debas HT, et al. The role of amniotic fluid in fetal nutrition. J

- Pediatr Surg. 1985 Dec;20(6):668-72. X-1, X-3.
3797. Mundle WR and Young DC. Vaginal misoprostol for induction of labor: a randomized controlled trial. *Obstet Gynecol.* 1996 Oct;88(4 Pt 1):521-5. X-4d, X-5.
3798. Mungen E, Tutuncu L, Muhcu M, et al. Pregnancy outcome following second-trimester amniocentesis: a case-control study. *Am J Perinatol.* 2006 Jan;23(1):25-30. X-1.
3799. Munkhaugen J, Lydersen S, Romundstad PR, et al. Kidney function and future risk for adverse pregnancy outcomes: a population-based study from HUNT II, Norway. *Nephrol Dial Transplant.* 2009 Dec;24(12):3744-50. X-1.
3800. Munn MB, Owen J, Vincent R, et al. Comparison of two oxytocin regimens to prevent uterine atony at cesarean delivery: a randomized controlled trial. *Obstet Gynecol.* 2001 Sep;98(3):386-90. X-9.
3801. Munn MB, Rouse DJ and Owen J. Intraoperative hypothermia and post-cesarean wound infection. *Obstet Gynecol.* 1998 Apr;91(4):582-4. X-1, X-9.
3802. Munoz FM, Greisinger AJ, Wehmanen OA, et al. Safety of influenza vaccination during pregnancy. *Am J Obstet Gynecol.* 2005 Apr;192(4):1098-106. X-1.
3803. Munro BH, Jacobsen BS and Brooten DA. Re-examination of the psychometric characteristics of the La Monica-Oberst Patient Satisfaction Scale. *Res Nurs Health.* 1994 Apr;17(2):119-25. X-1.
3804. Murphy AJ, Jalland M, Pepperell RJ, et al. Use of vaginal prostaglandin gel before induction of labour. *Aust N Z J Obstet Gynaecol.* 1980 May;20(2):84-6. X-1, X-5.
3805. Murphy DF, Nally B, Gardiner J, et al. Effect of metoclopramide on gastric emptying before elective and emergency caesarean section. *Br J Anaesth.* 1984 Oct;56(10):1113-6. X-1.
3806. Murphy DJ, Carey M, Montgomery AA, et al. Study protocol. ECSSIT - Elective Caesarean Section Syntocinon Infusion Trial. A multi-centre randomised controlled trial of oxytocin (Syntocinon) 5 IU bolus and placebo infusion versus oxytocin 5 IU bolus and 40 IU infusion for the control of blood loss at elective caesarean section. *BMC Pregnancy Childbirth.* 2009;9:36. X-9.
3807. Murphy DJ and Liebling RE. Cohort study of maternal views on future mode of delivery after operative delivery in the second stage of labor. *Am J Obstet Gynecol.* 2003 Feb;188(2):542-8. X-1.
3808. Murphy DJ, Liebling RE, Patel R, et al. Cohort study of operative delivery in the second stage of labour and standard of obstetric care. *BJOG.* 2003 Jun;110(6):610-5. X-1.
3809. Murphy DJ, MacGregor H, Munishankar B, et al. A randomised controlled trial of oxytocin 5IU and placebo infusion versus oxytocin 5IU and 30IU infusion for the control of blood loss at elective caesarean section--pilot study. ISRCTN 40302163. *Eur J Obstet Gynecol Reprod Biol.* 2009 Jan;142(1):30-3. X-9.
3810. Murphy DJ, Pope C, Frost J, et al. Women's views on the impact of operative delivery in the second stage of labour: qualitative interview study. *BMJ.* 2003 Nov 15;327(7424):1132. X-1.
3811. Murphy JD, Henderson K, Bowden MI, et al. Bupivacaine versus bupivacaine plus fentanyl for epidural analgesia: effect on maternal satisfaction. *BMJ.* 1991 Mar 9;302(6776):564-7. X-5.
3812. Murphy JF. The relentless rise in caesarean sections. *Ir Med J.* 2001 Jul-Aug;94(7):196. X-1.
3813. Murphy JR, Haverkamp AD, Langendoerfer S, et al. The relation of electronic fetal monitoring patterns to infant outcome measures in a random sample of term size infants born to high risk mothers. *Am J Epidemiol.* 1981 Oct;114(4):539-47. X-1, X-4e, X-5.
3814. Murphy KW, Hanretty KP and Inglis GC. Fetal catecholamine responses to vibroacoustic stimulation. *Am J Obstet Gynecol.* 1993 Dec;169(6):1571-7. X-3, X-4b, X-5.
3815. Murphy MC and Harvey SM. Choice of a childbirth method after cesarean. *Women Health.* 1989;15(2):67-85. X-1.
3816. Murray AM, Morgan M and Whitwam JG. Crystalloid versus colloid for circulatory preload for epidural caesarean section. *Anaesthesia.* 1989 Jun;44(6):463-6. X-9.
3817. Murray HG, Buonocore A and Hawley J. A randomized trial of two preparations of vaginal prostaglandin for pre-induction cervical ripening. *Obstet Gynecol.* 1995 Dec;86(6):880-5. X-4d, X-5.
3818. Murta EF, de Souza FH, de Souza MA, et al. High-grade cervical squamous intraepithelial lesion during pregnancy. *Tumori.* 2002 May-Jun;88(3):246-50. X-1.
3819. Murtha AP, Kaplan AL, Paglia MJ, et al. Evaluation of a novel technique for wound closure using a barbed suture. *Plast Reconstr Surg.* 2006 May;117(6):1769-80. X-9.
3820. Musk GC, Polglase GR, Bunnell JB, et al. High positive end-expiratory pressure during high-frequency jet ventilation improves oxygenation and ventilation in preterm lambs. *Pediatr Res.* 2011 Apr;69(4):319-24. X-1.
3821. Mutabingwa TK, Malle LN, Verhave JP, et al. Malaria chemosuppression during pregnancy. IV. Its effects on the newborn's passive malaria immunity. *Trop Geogr Med.* 1993;45(4):150-6. X-1, X-4e.

3822. Mutihir JT and Nyiputen YA. The unbooked patient: a lingering obstetric pathology in Jos, Nigeria. *J Obstet Gynaecol.* 2007 Oct;27(7):695-8. X-1.
3823. Mutlu Meydanli M, Caliskan E and Haberal A. Prediction of adverse outcome associated with vaginal misoprostol for labor induction. *Eur J Obstet Gynecol Reprod Biol.* 2003 Oct 10;110(2):143-8. X-1.
3824. Muzlifah KB and Choy YC. Comparison between preloading with 10 ml/kg and 20 ml/kg of Ringer's lactate in preventing hypotension during spinal anaesthesia for caesarean section. *Med J Malaysia.* 2009 Jun;64(2):114-7. X-9.
3825. Mychaliska GB, Bealer JF, Graf JL, et al. Operating on placental support: the ex utero intrapartum treatment procedure. *J Pediatr Surg.* 1997 Feb;32(2):227-30; discussion 230-1. X-1.
3826. Myers JE, Hart S, Armstrong S, et al. Evidence for multiple circulating factors in preeclampsia. *Am J Obstet Gynecol.* 2007 Mar;196(3):266 e1-6. X-1.
3827. Myers SA and Gleicher N. A successful program to lower cesarean-section rates. *N Engl J Med.* 1988 Dec 8;319(23):1511-6. .
3828. Myles T. Vaginal birth of twins after a previous Cesarean section. *J Matern Fetal Med.* 2001 Jun;10(3):171-4. X-1.
3829. Myles TD. Is there an obstetric July phenomenon? *Obstet Gynecol.* 2003 Nov;102(5 Pt 1):1080-4. X-1.
3830. Myles TD and Santolaya-Forgas J. Normal ultrasonic evaluation of amniotic fluid in low-risk patients at term. *J Reprod Med.* 2002 Aug;47(8):621-4. X-1.
3831. Nabhan AF. Long-term outcomes of two different surgical techniques for cesarean. *Int J Gynaecol Obstet.* 2008 Jan;100(1):69-75. X-9.
3832. Nabhan AF, El-Din LB, Rabie AH, et al. Impact of intrapartum factors on oxidative stress in newborns. *J Matern Fetal Neonatal Med.* 2009 Oct;22(10):867-72. X-3, X-4e, X-5.
3833. Nachshon I and Denno D. Birth stress and lateral preferences. *Cortex.* 1987 Mar;23(1):45-58. X-1.
3834. Nachum Z, Ben-Shlomo I, Weiner E, et al. Twice daily versus four times daily insulin dose regimens for diabetes in pregnancy: randomised controlled trial. *BMJ.* 1999 Nov 6;319(7219):1223-7. X-4e, X-5.
3835. Naef RW, 3rd, Chauhan SP, Chevalier SP, et al. Prediction of hemorrhage at cesarean delivery. *Obstet Gynecol.* 1994 Jun;83(6):923-6. X-1.
3836. Naef RW, 3rd, Ray MA, Chauhan SP, et al. Trial of labor after cesarean delivery with a lower-segment, vertical uterine incision: is it safe? *Am J Obstet Gynecol.* 1995 Jun;172(6):1666-73; discussion 1673-4. X-1.
3837. Nafisi S. Influence of uterine exteriorization versus in situ repair on post-Cesarean maternal pain: a randomized trial. *Int J Obstet Anesth.* 2007 Apr;16(2):135-8. X-9.
3838. Nagele F, Karas H, Spitzer D, et al. Closure or nonclosure of the visceral peritoneum at cesarean delivery. *Am J Obstet Gynecol.* 1996 Apr;174(4):1366-70. X-9.
3839. Nageotte MP, Bertucci L, Towers CV, et al. Prophylactic amnioinfusion in pregnancies complicated by oligohydramnios: a prospective study. *Obstet Gynecol.* 1991 May;77(5):677-80. X-3, X-4e, X-5.
3840. Nageotte MP, Freeman RK, Garite TJ, et al. Prophylactic intrapartum amnioinfusion in patients with preterm premature rupture of membranes. *Am J Obstet Gynecol.* 1985 Nov 1;153(5):557-62. X-1, X-4e, X-5.
3841. Nageotte MP, Larson D, Rumney PJ, et al. Epidural analgesia compared with combined spinal-epidural analgesia during labor in nulliparous women. *N Engl J Med.* 1997 Dec 11;337(24):1715-9. X-5.
3842. Nageotte MP, Towers CV, Asrat T, et al. Perinatal outcome with the modified biophysical profile. *Am J Obstet Gynecol.* 1994 Jun;170(6):1672-6. X-5.
3843. Nageotte MP, Towers CV, Asrat T, et al. The value of a negative antepartum test: contraction stress test and modified biophysical profile. *Obstet Gynecol.* 1994 Aug;84(2):231-4. X-4e.
3844. Nager CW, Key TC and Moore TR. Cervical ripening and labor outcome with preinduction intracervical prostaglandin E2 (Prepidil) gel. *J Perinatol.* 1987 Summer;7(3):189-93. X-1.
3845. Naguib AH, Morsi HM, Borg TF, et al. Vaginal misoprostol for second-trimester pregnancy termination after one previous cesarean delivery. *Int J Gynaecol Obstet.* 2010 Jan;108(1):48-51. X-1.
3846. Nagy G. Management of gestational diabetes. *Zentralbl Gynakol.* 1993;115(4):147-53. X-1.
3847. Nagy S, Bush M, Stone J, et al. Clinical significance of subchorionic and retroplacental hematomas detected in the first trimester of pregnancy. *Obstet Gynecol.* 2003 Jul;102(1):94-100. X-1.
3848. Nahar S and Costello A. The hidden cost of 'free' maternity care in Dhaka, Bangladesh. *Health Policy Plan.* 1998 Dec;13(4):417-22. X-1.
3849. Nakayama M, Yamamoto J, Ichinose H, et al. Effects of volume and concentration of lidocaine on epidural anaesthesia in pregnant females. *Eur J Anaesthesiol.* 2002 Nov;19(11):808-11. X-9.
3850. Naki MM, Api O, Celik H, et al. Comparative study of Misgav-Ladach and Pfannenstiel-Kerr cesarean techniques: a randomized controlled trial. *J Matern Fetal Neonatal Med.* 2011 Feb;24(2):239-44. X-9.

3851. Namba Y, Smith JB, Fox GS, et al. Plasma cortisol concentrations during Caesarean section. *Br J Anaesth*. 1980 Oct;52(10):1027-32. X-1.
3852. Narchi P, Benhamou D, Hamza J, et al. Ventilatory effects of epidural clonidine during the first 3 hours after caesarean section. *Acta Anaesthesiol Scand*. 1992 Nov;36(8):791-5. X-9.
3853. Nasir A, Korejo R and Noorani KJ. Child birth in squatting position. *J Pak Med Assoc*. 2007 Jan;57(1):19-22. X-4e, X-5.
3854. Nasr AM, ElBigawy AF, Abdelamid AE, et al. Evaluation of the use vs nonuse of urinary catheterization during cesarean delivery: a prospective, multicenter, randomized controlled trial. *J Perinatol*. 2009 Jun;29(6):416-21. X-3, X-4b, X-5.
3855. Nasrat H, Fageeh W, Abalkhail B, et al. Determinants of pregnancy outcome in patients with gestational diabetes. *Int J Gynaecol Obstet*. 1996 May;53(2):117-23. X-1.
3856. Nassar AH, Awwad J, Khalil AM, et al. A randomised comparison of patient satisfaction with vaginal and sublingual misoprostol for induction of labour at term. *BJOG*. 2007 Oct;114(10):1215-21. X-4d, X-5.
3857. Nassar AH, Fayyummy R, Saab W, et al. Grandmultiparas in modern obstetrics. *Am J Perinatol*. 2006 Aug;23(6):345-9. X-1.
3858. Nassar AH, Usta IM, Rechdan JB, et al. Pregnancy outcome in spontaneous twins versus twins who were conceived through in vitro fertilization. *Am J Obstet Gynecol*. 2003 Aug;189(2):513-8. X-1.
3859. Nassar N, Roberts CL, Raynes-Greenow CH, et al. Development and pilot-testing of a decision aid for women with a breech-presenting baby. *Midwifery*. 2007 Mar;23(1):38-47. X-1.
3860. Natale A, Davidson T, Geiger MJ, et al. Implantable cardioverter-defibrillators and pregnancy: a safe combination? *Circulation*. 1997 Nov 4;96(9):2808-12. X-1.
3861. Natale R, Milne JK, Campbell MK, et al. Management of premature rupture of membranes at term: randomized trial. *Am J Obstet Gynecol*. 1994 Oct;171(4):936-9. X-4e.
3862. Naulty JS, Datta S, Osteimer GW, et al. Epidural fentanyl for postcesarean delivery pain management. *Anesthesiology*. 1985 Dec;63(6):694-8. X-9.
3863. Naumann RW, Hauth JC, Owen J, et al. Subcutaneous tissue approximation in relation to wound disruption after cesarean delivery in obese women. *Obstet Gynecol*. 1995 Mar;85(3):412-6. X-9.
3864. Navaneethkrishnan R, Anderson A, Holding S, et al. A randomised controlled trial of placental cord drainage to reduce fetomaternal transfusion. *Eur J Obstet Gynecol Reprod Biol*. 2010 Mar;149(1):27-30. X-3, X-4e, X-5.
3865. Navot D, Mor-Yosef S, Granat M, et al. Antepartum fetal heart rate pattern associated with major congenital malformations. *Obstet Gynecol*. 1984 Mar;63(3):414-7. X-1, X-4e.
3866. Nayar R and Sahajanand H. Does anesthetic induction for Cesarean section with a combination of ketamine and thiopentone confer any benefits over thiopentone or ketamine alone? A prospective randomized study. *Minerva Anesthesiol*. 2009 Apr;75(4):185-90. X-9.
3867. Naylor CD, Sermer M, Chen E, et al. Cesarean delivery in relation to birth weight and gestational glucose tolerance: pathophysiology or practice style? Toronto Trihospital Gestational Diabetes Investigators. *JAMA*. 1996 Apr 17;275(15):1165-70. X-1.
3868. Naz T, Mehr un N and Hassan L. Eclampsia--management and outcome with magnesium sulphate as the anticonvulsant. *J Coll Physicians Surg Pak*. 2005 Oct;15(10):624-7. X-1.
3869. Ndiweni Q and Buchmann EJ. Unbooked mothers and their babies--what causes the poor outcomes? *S Afr Med J*. 1998 Feb;88(2 Suppl):192, 195-6, 199. X-1.
3870. Neary RH, Kilby MD, Kumpatula P, et al. Fetal and maternal lipoprotein metabolism in human pregnancy. *Clin Sci (Lond)*. 1995 Mar;88(3):311-8. X-1.
3871. Neau JP, Marion P, Mathis S, et al. Restless legs syndrome and pregnancy: follow-up of pregnant women before and after delivery. *Eur Neurol*. 2010;64(6):361-6. X-1, X-4e.
3872. Needleman J and Minnick AF. Anesthesia provider model, hospital resources, and maternal outcomes. *Health Serv Res*. 2009 Apr;44(2 Pt 1):464-82. X-1.
3873. Neilson DR, Jr., Prins RP, Bolton RN, et al. A comparison of prostaglandin E2 gel and prostaglandin F2 alpha gel for preinduction cervical ripening. *Am J Obstet Gynecol*. 1983 Jul 1;146(5):526-32. X-4e.
3874. Neldam S, Osler M, Hansen PK, et al. Intrapartum fetal heart rate monitoring in a combined low- and high-risk population: a controlled clinical trial. *Eur J Obstet Gynecol Reprod Biol*. 1986 Oct;23(1-2):1-11. X-4e, X-5.
3875. Nelson CR and Parkes JR. Placental localisation using the Doppler portable ultrasonic apparatus. *S Afr Med J*. 1974 Nov 30;48(58):2393-5. X-1, X-4e.
3876. Nelson EA and Taylor BJ. International child care practices study: methods and study population. *Early Hum Dev*. 1999 Jun;55(2):149-68. X-1.
3877. Nelson KB, Dambrosia JM, Ting TY, et al. Uncertain value of electronic fetal monitoring in predicting cerebral palsy. *N Engl J Med*. 1996 Mar 7;334(10):613-8. X-1.

3878. Nelson LD and Grobman WA. Obstetric morbidity associated with amniotic sheets. *Ultrasound Obstet Gynecol.* 2010 Sep;36(3):324-7. X-1.
3879. Nelson LJ. Compulsory treatment of pregnant women. *Clin Ethics Rep.* 1987 May;1(5):1-8. X-1, X-2.
3880. Nelson LJ, Buggy BP and Weil CJ. Forced medical treatment of pregnant women: "compelling each to live as seems good to the rest. *Hastings Law J.* 1986 May;37(5):703-63. X-1, X-2.
3881. Nelson RL, Furner SE, Westercamp M, et al. Cesarean delivery for the prevention of anal incontinence. *Cochrane Database of Systematic Reviews.* 2010(2). X-1.
3882. Nelson SH and Suresh MS. Lack of reactivity of uterine arteries from patients with obstetric hemorrhage. *Am J Obstet Gynecol.* 1992 May;166(5):1436-43. X-1.
3883. Nelson WL and O'Brien JM. The uterine sandwich for persistent uterine atony: combining the B-Lynch compression suture and an intrauterine Bakri balloon. *Am J Obstet Gynecol.* 2007 May;196(5):e9-10. X-1, X-9.
3884. Nemunaitis-Keller J and Gill P. Limitations of the obstetric group B Streptococcus protocol. *J Reprod Med.* 2003 Feb;48(2):107-11. X-1.
3885. Neri I, Airola G, Contu G, et al. Acupuncture plus moxibustion to resolve breech presentation: a randomized controlled study. *J Matern Fetal Neonatal Med.* 2004 Apr;15(4):247-52. X-4d, X-4c.
3886. Nerum H, Halvorsen L, Oian P, et al. Birth outcomes in primiparous women who were raped as adults: a matched controlled study. *BJOG.* 2010 Feb;117(3):288-94. X-1.
3887. Nerum H, Halvorsen L, Sorlie T, et al. Maternal request for cesarean section due to fear of birth: can it be changed through crisis-oriented counseling? *Birth.* 2006 Sep;33(3):221-8. X-1.
3888. Neuhoff D, Burke MS and Porreco RP. Cesarean birth for failed progress in labor. *Obstet Gynecol.* 1989 Jun;73(6):915-20. X-1.
3889. Neuman M, Langer R, Bachar R, et al. Penicillin-tetracycline prophylaxis in cesarean delivery: prospective and randomized comparison of short and long term therapy. *J Perinat Med.* 1990;18(2):145-8. X-9.
3890. Neumann PG and Valladares L. The emergence of maternal-fetal conflict policies. *Health Care Law Newsl.* 1991 Dec;6(12):3-7. X-1.
3891. Neutra RR, Greenland S and Friedman EA. The relationship between electronic fetal monitoring and Apgar score. *Am J Obstet Gynecol.* 1981 Jun 15;140(4):440-5. X-1.
3892. Newburn M. Cesarean sections performed without consent. *Mod Midwife.* 1996 Nov;6(11):9. X-9.
3893. Newell ML, Dunn DT, Peckham CS, et al. Vertical transmission of HIV-1: maternal immune status and obstetric factors. The European Collaborative Study. *AIDS.* 1996 Dec;10(14):1675-81. X-1, X-3, X-4e, X-5.
3894. Newell ML, Huang S, Fiore S, et al. Characteristics and management of HIV-1-infected pregnant women enrolled in a randomised trial: differences between Europe and the USA. *BMC Infect Dis.* 2007;7:60. X-1.
3895. Newell ML, Parazzini F, Mandelbrot L, et al. A randomised trial of mode of delivery in women infected with the human immunodeficiency virus. *Br J Obstet Gynaecol.* 1998 Mar;105(3):281-5. X-2, X-4e.
3896. Newnham JP, O'Dea MR, Reid KP, et al. Doppler flow velocity waveform analysis in high risk pregnancies: a randomized controlled trial. *Br J Obstet Gynaecol.* 1991 Oct;98(10):956-63. X-4e, X-5.
3897. Newton ER, Barss V and Cetrulo CL. The epidemiology and clinical history of asymptomatic midtrimester placenta previa. *Am J Obstet Gynecol.* 1984 Mar 15;148(6):743-8. X-1.
3898. Newton ER and Higgins CS. Factors associated with hospital-specific cesarean birth rates. *J Reprod Med.* 1989 Jun;34(6):407-11. X-1.
3899. Newton J, Round L and Curson R. The outcome of pregnancy in previously infertile women. *Acta Eur Fertil.* 1978 Sep;9(3):161-7. X-1.
3900. Ng CS, Lim LS, Chng KP, et al. Combined team management of diabetes mellitus in pregnancy. *Ann Acad Med Singapore.* 1985 Apr;14(2):297-302. X-1, X-4e, X-5.
3901. Ng EK, Leung TN, Tsui NB, et al. The concentration of circulating corticotropin-releasing hormone mRNA in maternal plasma is increased in preeclampsia. *Clin Chem.* 2003 May;49(5):727-31. X-1.
3902. Ng NK and Sivalingam N. The role of prophylactic antibiotics in caesarean section--a randomised trial. *Med J Malaysia.* 1992 Dec;47(4):273-9. X-9.
3903. Ng PC, So KW, Leung TF, et al. Infection control for SARS in a tertiary neonatal centre. *Arch Dis Child Fetal Neonatal Ed.* 2003 Sep;88(5):F405-9. X-1.
3904. Ng SK, Olog A, Spinks AB, et al. Risk factors and obstetric complications of large for gestational age births with adjustments for community effects: results from a new cohort study. *BMC Public Health.* 2010;10:460. X-1.
3905. Ng YT, Chen C, Chuah EC, et al. The evaluation of subarachnoid administration of fentanyl for surgery and postoperative analgesia in patients undergoing cesarean section. *Ma Zui Xue Za Zhi.* 1990 Dec;28(4):438-42. X-9.

3906. Ngamprasertwong P, Udomtecha D, Charuluxananan S, et al. Levobupivacaine versus racemic bupivacaine for extradural anesthesia for cesarean delivery. *J Med Assoc Thai.* 2005 Nov;88(11):1563-8. X-9.
3907. Ngan Kee WD, Khaw KS, Lau TK, et al. Randomised double-blinded comparison of phenylephrine vs ephedrine for maintaining blood pressure during spinal anaesthesia for non-elective Caesarean section*. *Anaesthesia.* 2008 Dec;63(12):1319-26. X-9.
3908. Ngan Kee WD, Khaw KS, Lee BB, et al. A dose-response study of prophylactic intravenous ephedrine for the prevention of hypotension during spinal anesthesia for cesarean delivery. *Anesth Analg.* 2000 Jun;90(6):1390-5. X-9.
3909. Ngan Kee WD, Khaw KS, Lee BB, et al. Randomized controlled study of colloid preload before spinal anaesthesia for caesarean section. *Br J Anaesth.* 2001 Nov;87(5):772-4. X-9.
3910. Ngan Kee WD, Khaw KS, Lee BB, et al. The limitations of ropivacaine with epinephrine as an epidural test dose in parturients. *Anesth Analg.* 2001 Jun;92(6):1529-31. X-4e.
3911. Ngan Kee WD, Khaw KS, Lee BB, et al. Metaraminol infusion for maintenance of arterial blood pressure during spinal anesthesia for cesarean delivery: the effect of a crystalloid bolus. *Anesth Analg.* 2001 Sep;93(3):703-8. X-9.
3912. Ngan Kee WD, Khaw KS, Ma KC, et al. Randomized, double-blind comparison of different inspired oxygen fractions during general anaesthesia for Caesarean section. *Br J Anaesth.* 2002 Oct;89(4):556-61. X-9.
3913. Ngan Kee WD, Khaw KS, Ma KC, et al. Maternal and neonatal effects of remifentanyl at induction of general anesthesia for cesarean delivery: a randomized, double-blind, controlled trial. *Anesthesiology.* 2006 Jan;104(1):14-20. X-9.
3914. Ngan Kee WD, Khaw KS and Ma ML. Patient-controlled epidural analgesia after caesarean section using meperidine. *Can J Anaesth.* 1997 Jul;44(7):702-6. X-9.
3915. Ngan Kee WD, Khaw KS, Ma ML, et al. Postoperative analgesic requirement after cesarean section: a comparison of anesthetic induction with ketamine or thiopental. *Anesth Analg.* 1997 Dec;85(6):1294-8. X-9.
3916. Ngan Kee WD, Khaw KS and Ng FF. Comparison of phenylephrine infusion regimens for maintaining maternal blood pressure during spinal anaesthesia for Caesarean section. *Br J Anaesth.* 2004 Apr;92(4):469-74. X-9.
3917. Ngan Kee WD, Khaw KS and Ng FF. Prevention of hypotension during spinal anesthesia for cesarean delivery: an effective technique using combination phenylephrine infusion and crystalloid cohydration. *Anesthesiology.* 2005 Oct;103(4):744-50. X-9.
3918. Ngan Kee WD, Khaw KS, Ng FF, et al. A prospective comparison of vasopressor requirement and hemodynamic changes during spinal anesthesia for cesarean delivery in patients with multiple gestation versus singleton pregnancy. *Anesth Analg.* 2007 Feb;104(2):407-11. X-9.
3919. Ngan Kee WD, Khaw KS, Ng FF, et al. Prophylactic phenylephrine infusion for preventing hypotension during spinal anesthesia for cesarean delivery. *Anesth Analg.* 2004 Mar;98(3):815-21, table of contents. X-9.
3920. Ngan Kee WD, Khaw KS, Tan PE, et al. Placental transfer and fetal metabolic effects of phenylephrine and ephedrine during spinal anesthesia for cesarean delivery. *Anesthesiology.* 2009 Sep;111(3):506-12. X-9.
3921. Ngan Kee WD, Lam KK, Chen PP, et al. Epidural meperidine after cesarean section. A dose-response study. *Anesthesiology.* 1996 Aug;85(2):289-94. X-9.
3922. Ngan Kee WD, Lam KK, Chen PP, et al. Comparison of patient-controlled epidural analgesia with patient-controlled intravenous analgesia using pethidine or fentanyl. *Anaesth Intensive Care.* 1997 Apr;25(2):126-32. X-9.
3923. Ngan Kee WD, Lam KK, Chen PP, et al. Epidural meperidine after cesarean section: the effect of diluent volume. *Anesth Analg.* 1997 Aug;85(2):380-4. X-9.
3924. Ngan Kee WD, Lam KK, Twyford C, et al. Evaluation of a disposable device for patient-controlled epidural analgesia after caesarean section. *Anaesth Intensive Care.* 1996 Feb;24(1):51-5. X-1, X-9.
3925. Ngan Kee WD, Lau TK, Khaw KS, et al. Comparison of metaraminol and ephedrine infusions for maintaining arterial pressure during spinal anesthesia for elective cesarean section. *Anesthesiology.* 2001 Aug;95(2):307-13. X-9.
3926. Ngan Kee WD, Lee A, Khaw KS, et al. A randomized double-blinded comparison of phenylephrine and ephedrine infusion combinations to maintain blood pressure during spinal anesthesia for cesarean delivery: the effects on fetal acid-base status and hemodynamic control. *Anesth Analg.* 2008 Oct;107(4):1295-302. X-9.
3927. Ngan Kee WD, Ma ML and Gin T. Patient-controlled epidural analgesia after caesarean section using a disposable device. *Aust N Z J Obstet Gynaecol.* 1997 Aug;37(3):304-7. X-9.

3928. Ngan Kee WD, Ma ML and Khaw KS. Addition of adrenaline to pethidine for epidural analgesia after caesarean section. *Anaesthesia*. 1997 Sep;52(9):853-7. X-9.
3929. Ngan Kee WD, Tam YH, Khaw KS, et al. Closed-loop feedback computer-controlled infusion of phenylephrine for maintaining blood pressure during spinal anaesthesia for caesarean section: a preliminary descriptive study. *Anaesthesia*. 2007 Dec;62(12):1251-6. X-9.
3930. Ngiam SK and Chong JL. The addition of intrathecal sufentanil and fentanyl to bupivacaine for caesarean section. *Singapore Med J*. 1998 Jul;39(7):290-4. X-9.
3931. Ngo C, Kayem G, Habibi A, et al. Pregnancy in sickle cell disease: maternal and fetal outcomes in a population receiving prophylactic partial exchange transfusions. *Eur J Obstet Gynecol Reprod Biol*. 2010 Oct;152(2):138-42. X-1.
3932. Ngu A and Quinn MA. Vaginal delivery following caesarean section. *Aust N Z J Obstet Gynaecol*. 1985 Feb;25(1):41-3. X-1.
3933. Nguyen T, Slater P and Cyna AM. Open vs specific questioning during anaesthetic follow-up after Caesarean section. *Anaesthesia*. 2009 Feb;64(2):156-60. X-1, X-9.
3934. Ni HY, Daling JR, Chu J, et al. Previous abdominal surgery and tubal pregnancy. *Obstet Gynecol*. 1990 Jun;75(6):919-22. X-1.
3935. Nice C, Feeney A, Godwin P, et al. A prospective audit of wound infection rates after caesarean section in five West Yorkshire hospitals. *J Hosp Infect*. 1996 May;33(1):55-61. X-1, X-9.
3936. Nicholas AD, Tipton RH, Wheatley CJ, et al. Obstetric practice and epidural analgesia. *J Obstet Gynaecol Br Commonw*. 1970 May;77(5):457-61. X-1.
3937. Nichols CM, Nam M, Ramakrishnan V, et al. Anal sphincter defects and bowel symptoms in women with and without recognized anal sphincter trauma. *Am J Obstet Gynecol*. 2006 May;194(5):1450-4. X-1.
3938. Nicholson JM, Caughey AB, Stenson MH, et al. The active management of risk in multiparous pregnancy at term: association between a higher preventive labor induction rate and improved birth outcomes. *Am J Obstet Gynecol*. 2009 Mar;200(3):250 e1-250 e13. X-1.
3939. Nicholson JM, Cronholm P, Kellar LC, et al. The association between increased use of labor induction and reduced rate of cesarean delivery. *J Womens Health (Larchmt)*. 2009 Nov;18(11):1747-58. X-1.
3940. Nicholson JM, Kellar LC, Cronholm PF, et al. Active management of risk in pregnancy at term in an urban population: an association between a higher induction of labor rate and a lower cesarean delivery rate. *Am J Obstet Gynecol*. 2004 Nov;191(5):1516-28. X-1.
3941. Nicholson JM, Stenson MH, Kellar LC, et al. Active management of risk in nulliparous pregnancy at term: association between a higher preventive labor induction rate and improved birth outcomes. *Am J Obstet Gynecol*. 2009 Mar;200(3):254 e1-254 e13. X-1.
3942. Nicholson JM, Yeager DL and Macones G. A preventive approach to obstetric care in a rural hospital: association between higher rates of preventive labor induction and lower rates of cesarean delivery. *Ann Fam Med*. 2007 Jul-Aug;5(4):310-9. X-1.
3943. Nicholson WK, Witter F and Powe NR. Effect of hospital setting and volume on clinical outcomes in women with gestational and type 2 diabetes mellitus. *J Womens Health (Larchmt)*. 2009 Oct;18(10):1567-76. X-1.
3944. Nielsen PE, Erickson JR, Abouleish EI, et al. Fetal heart rate changes after intrathecal sufentanil or epidural bupivacaine for labor analgesia: incidence and clinical significance. *Anesth Analg*. 1996 Oct;83(4):742-6. X-1.
3945. Nielsen PE, Goldman MB, Mann S, et al. Effects of teamwork training on adverse outcomes and process of care in labor and delivery: a randomized controlled trial. *Obstet Gynecol*. 2007 Jan;109(1):48-55. X-4e, X-5.
3946. Nielsen PE, Howard BC, Hill CC, et al. Comparison of elective induction of labor with favorable Bishop scores versus expectant management: a randomized clinical trial. *J Matern Fetal Neonatal Med*. 2005 Jul;18(1):59-64. X-4e, X-5.
3947. Nielsen PE, Thomson BA, Jackson RB, et al. Standard obstetric record charting system: evaluation of a new electronic medical record. *Obstet Gynecol*. 2000 Dec;96(6):1003-8. X-1.
3948. Nielsen TF, Hokegard KH and Moldin PG. X-ray pelvimetry and trial of labor after previous cesarean section. A prospective study. *Acta Obstet Gynecol Scand*. 1985;64(6):485-90. X-1.
3949. Nigam A, Madan M, Puri M, et al. Labour induction with 25 micrograms versus 50 micrograms intravaginal misoprostol in full term pregnancies. *Trop Doct*. 2010 Jan;40(1):53-5. X-4d.
3950. Nigam A, Singh VK, Dubay P, et al. Misoprostol vs. oxytocin for induction of labor at term. *Int J Gynaecol Obstet*. 2004 Sep;86(3):398-400. X-4d.
3951. Nilsen C, Nystrom L, Munjanja S, et al. Self-reported reproductive outcome and implications in relation to use of care in women in rural Zimbabwe. *Acta Obstet Gynecol Scand*. 2002 Jun;81(6):508-15. X-1.
3952. Nilsson L, Reinheimer T, Steinwall M, et al. FE 200 440: a selective oxytocin antagonist on

- the term-pregnant human uterus. *BJOG*. 2003 Nov;110(11):1025-8. X-9.
3953. Nilstun T, Habiba M, Lingman G, et al. Cesarean delivery on maternal request: can the ethical problem be solved by the principlist approach? *BMC Med Ethics*. 2008;9:11. X.
3954. Niruthisard S, Somboonviboon W, Thaithumyanon P, et al. Maternal and neonatal effects of single-dose epidural anesthesia with lidocaine and morphine for cesarean delivery. *J Med Assoc Thai*. 1998 Feb;81(2):103-9. X-1, X-9.
3955. Nishikawa K, Yokoyama N, Saito S, et al. Comparison of effects of rapid colloid loading before and after spinal anesthesia on maternal hemodynamics and neonatal outcomes in cesarean section. *J Clin Monit Comput*. 2007 Apr;21(2):125-9. X-9.
3956. Nkyekyer K. Twin and singleton births in Ghana--a case-control study. *Twin Res*. 2002 Aug;5(4):265-9. X-1.
3957. Noah ML, DeCoster JM, Fraser TJ, et al. Preinduction cervical softening with endocervical PGE2 gel. A multi-center trial. *Acta Obstet Gynecol Scand*. 1987;66(1):3-7. X-4d, X-5.
3958. Noah MM, Norton ME, Sandberg P, et al. Short-term maternal outcomes that are associated with the EXIT procedure, as compared with cesarean delivery. *Am J Obstet Gynecol*. 2002 Apr;186(4):773-7. X-1, X-9.
3959. Nobile CG, Raffaele G, Altomare C, et al. Influence of maternal and social factors as predictors of low birth weight in Italy. *BMC Public Health*. 2007;7:192. X-1.
3960. Noble DW, Morrison LM, Brockway MS, et al. Adrenaline, fentanyl or adrenaline and fentanyl as adjuncts to bupivacaine for extradural anaesthesia in elective caesarean section. *Br J Anaesth*. 1991 Jun;66(6):645-50. X-9.
3961. Nohr EA, Timpson NJ, Andersen CS, et al. Severe obesity in young women and reproductive health: the Danish National Birth Cohort. *PLoS One*. 2009;4(12):e8444. X-1.
3962. Nolan A and Lawrence C. A pilot study of a nursing intervention protocol to minimize maternal-infant separation after Cesarean birth. *J Obstet Gynecol Neonatal Nurs*. 2009 Jul-Aug;38(4):430-42. X-3, X-4b.
3963. Nor Azlin MI, Haliza H, Mahdy ZA, et al. Tocolysis in term breech external cephalic version. *Int J Gynaecol Obstet*. 2005 Jan;88(1):5-8. X-4c, X-4e.
3964. Nordberg EM. Incidence and estimated need of caesarean section, inguinal hernia repair, and operation for strangulated hernia in rural Africa. *Br Med J (Clin Res Ed)*. 1984 Jul 14;289(6437):92-3. X-1.
3965. Nordlander E, Hanson U and Persson B. Factors influencing neonatal morbidity in gestational diabetic pregnancy. *Br J Obstet Gynaecol*. 1989 Jun;96(6):671-8. X-1.

3966. Norjavaara E and de Verdier MG. Normal pregnancy outcomes in a population-based study including 2,968 pregnant women exposed to budesonide. *J Allergy Clin Immunol*. 2003 Apr;111(4):736-42. X-1.
3967. Norris LA, Higgins JR, Darling MR, et al. Nitric oxide in the uteroplacental, fetoplacental, and peripheral circulations in preeclampsia. *Obstet Gynecol*. 1999 Jun;93(6):958-63. X-1, X-9.
3968. Norris MC and Dewan DM. Effect of gravity on the spread of extradural anaesthesia for caesarean section. *Br J Anaesth*. 1987 Mar;59(3):338-41. X-1, X-9.
3969. Norris TE, Reese JW, Pirani MJ, et al. Are rural family physicians comfortable performing cesarean sections? *J Fam Pract*. 1996 Nov;43(5):455-60. X-1.
3970. Nortcliffe SA, Shah J and Buggy DJ. Prevention of postoperative nausea and vomiting after spinal morphine for Caesarean section: comparison of cyclizine, dexamethasone and placebo. *Br J Anaesth*. 2003 May;90(5):665-70. X-9.
3971. Norton AC, Davis AG and Spicer RJ. Lignocaine 2% with adrenaline for epidural caesarean section. A comparison with 0.5% bupivacaine. *Anaesthesia*. 1988 Oct;43(10):844-9. X-9.
3972. Novaes Junior M, Biancalana MM, Garcia SA, et al. Elevation of cord blood TSH concentration in newborn infants of mothers exposed to acute povidone iodine during delivery. *J Endocrinol Invest*. 1994 Nov;17(10):805-8. X-1, X-3, X-4b, X-4e, X-5.
3973. Novikova N and Hofmeyr GJ. Tranexamic acid for preventing postpartum haemorrhage. *Cochrane Database of Systematic Reviews*. 2010(7). X-1, X-2.
3974. Novikova N, Hofmeyr GJ and Essilfie-Appiah G. Prophylactic versus therapeutic amnioinfusion for oligohydramnios in labour. *Cochrane Database of Systematic Reviews*. 1996(1). X-1, X-2.
3975. Noyan Ashraf MA, Sadeghi A, Azarbakht Z, et al. Evaluation of intravenous hydrocortisone in reducing headache after spinal anesthesia: a double blind controlled clinical study [corrected]. *Middle East J Anesthesiol*. 2007 Jun;19(2):415-22. X-9.
3976. Noyes N, Berkeley AS, Freedman K, et al. Incidence of postpartum endomyometritis following single-dose antibiotic prophylaxis with either ampicillin/sulbactam, cefazolin, or cefotetan in high-risk cesarean section patients. *Infect Dis Obstet Gynecol*. 1998;6(5):220-3. X-9.
3977. Nuamah MA, Yura S, Sagawa N, et al. Significant increase in maternal plasma leptin concentration in induced delivery: a possible contribution of pro-inflammatory cytokines to placental leptin secretion. *Endocr J*. 2004 Apr;51(2):177-87. X-1, X-3, X-4e, X-5.
3978. Numazaki M and Fujii Y. Subhypnotic dose of propofol for the prevention of nausea and vomiting during spinal anaesthesia for caesarean section. *Anaesth Intensive Care*. 2000 Jun;28(3):262-5. X-9.
3979. Numazaki M and Fujii Y. Reduction of emetic symptoms during cesarean delivery with antiemetics: propofol at subhypnotic dose versus traditional antiemetics. *J Clin Anesth*. 2003 Sep;15(6):423-7. X-9.
3980. Nunes F, Rodrigues R and Meirinho M. Randomized comparison between intravaginal misoprostol and dinoprostone for cervical ripening and induction of labor. *Am J Obstet Gynecol*. 1999 Sep;181(3):626-9. X-4d.
3981. Nunes FP, Campos AP, Pedrosa SR, et al. Intravaginal glyceryl trinitrate and dinoprostone for cervical ripening and induction of labor. *Am J Obstet Gynecol*. 2006 Apr;194(4):1022-6. X-4d.
3982. Nuthalapaty FS, Ramsey PS, Biggio JR, et al. High-dose vaginal misoprostol versus concentrated oxytocin plus low-dose vaginal misoprostol for midtrimester labor induction: a randomized trial. *Am J Obstet Gynecol*. 2005 Sep;193(3 Pt 2):1065-70. X-4d.
3983. Nuutila M, Halmesmaki E, Hiilesmaa V, et al. Women's anticipations of and experiences with induction of labor. *Acta Obstet Gynecol Scand*. 1999 Sep;78(8):704-9. X-1.
3984. Nuutila M and Kajanoja P. Local administration of prostaglandin E2 for cervical ripening and labor induction: the appropriate route and dose. *Acta Obstet Gynecol Scand*. 1996 Feb;75(2):135-8. X-4d, X-5.
3985. Nwogu-Ikojo EE, Okafor, II and Ezegwui HU. Multiple antenatal bookings among pregnant women in Enugu, Nigeria. *J Obstet Gynaecol*. 2010 Apr;30(3):244-7. X-1.
3986. Nwosu UC, Wallach EE, Boggs TR, et al. Possible adrenocortical insufficiency in postmature neonates. *Am J Obstet Gynecol*. 1975 Aug 15;122(8):969-74. X-4e.
3987. Nygaard IE, Rao SS and Dawson JD. Anal incontinence after anal sphincter disruption: a 30-year retrospective cohort study. *Obstet Gynecol*. 1997 Jun;89(6):896-901. X-1.
3988. Nystedt A, Hogberg U and Lundman B. The negative birth experience of prolonged labour: a case-referent study. *J Clin Nurs*. 2005 May;14(5):579-86. X-1.
3989. Nystedt A, Hogberg U and Lundman B. Some Swedish women's experiences of prolonged labour. *Midwifery*. 2006 Mar;22(1):56-65. X-1.
3990. Oates RK and Harvey D. Failure of hypothermia as treatment for asphyxiated newborn rabbits. *Arch Dis Child*. 1976 Jul;51(7):512-6. X-1, X-3.

3991. Oats JN and Beischer NA. The persistence of abnormal glucose tolerance after delivery. *Obstet Gynecol.* 1990 Mar;75(3 Pt 1):397-401. X-1.
3992. Oats JN, Vasey DP and Waldron BA. Effects of ketamine on the pregnant uterus. *Br J Anaesth.* 1979 Dec;51(12):1163-6. X-1, X-3, X-4b, X-4e.
3993. Obade CC. In re A.C. reversed: judicial recognition of the rights of pregnant women. *J Clin Ethics.* 1990 Fall;1(3):251. X-1, X-4e.
3994. Obata-Yasuoka M, Hamada H, Watanabe H, et al. Midtrimester termination of pregnancy using gemeprost in combination with laminaria in women who have previously undergone cesarean section. *J Obstet Gynaecol Res.* 2009 Oct;35(5):901-5. X-1.
3995. Oberman M. Mothers and doctors' orders: unmasking the doctor's fiduciary role in maternal-fetal conflicts. *Northwest Univ Law Rev.* 2000 Winter;94(2):451-501. X-1.
3996. Oboro V, Adewunmi A, Ande A, et al. Morbidity associated with failed vaginal birth after cesarean section. *Acta Obstet Gynecol Scand.* 2010 Sep;89(9):1229-32. X-1.
3997. Oboro VO and Dare FO. Pregnancy outcome in nulliparous women aged 35 or older. *West Afr J Med.* 2006 Jan-Mar;25(1):65-8. X-1.
3998. Oboro VO, Isawumi AI, Akinola SE, et al. Factors predicting failure of labour induction. *Niger Postgrad Med J.* 2007 Jun;14(2):137-9. X-1.
3999. O'Brien D, Babiker E, O'Sullivan O, et al. Prediction of peripartum hysterectomy and end organ dysfunction in major obstetric haemorrhage. *Eur J Obstet Gynecol Reprod Biol.* 2010 Dec;153(2):165-9. X-1.
4000. Obst TE, Nauenberg E and Buck GM. Maternal health insurance coverage as a determinant of obstetrical anesthesia care. *J Health Care Poor Underserved.* 2001 May;12(2):177-91. X-1, X-9.
4001. Ochedalski T and Lachowicz A. Maternal and fetal hypothalamo-pituitary-adrenal axis: different response depends upon the mode of parturition. *Neuro Endocrinol Lett.* 2004 Aug;25(4):278-82. X-1.
4002. Ochi H, Kusanagi Y, Katayama T, et al. Clinical significance of normalization of uterine artery pulsatility index with maternal heart rate for the evaluation of uterine circulation in pregnancy-induced hypertension. *Ultrasound Obstet Gynecol.* 2003 May;21(5):459-63. X-1, X-4e, X-5.
4003. Ochsenbein-Imhof N, Huch A, Huch R, et al. No benefit from post-caesarean wound drainage. *Swiss Med Wkly.* 2001 May 5;131(17-18):246-50. X-9.
4004. Ochsenbein-Kolble N, Demartines N, Ochsenbein-Imhof N, et al. Cesarean section and simultaneous hernia repair. *Arch Surg.* 2004 Aug;139(8):893-5. X-1.
4005. Ochsenkuhn R, Strowitzki T, Gurtner M, et al. Pregnancy complications, obstetric risks, and neonatal outcome in singleton and twin pregnancies after GIFT and IVF. *Arch Gynecol Obstet.* 2003 Oct;268(4):256-61. X-1.
4006. O'Connor DJ, Scher LA, Gargiulo NJ, 3rd, et al. Incidence and characteristics of venous thromboembolic disease during pregnancy and the postnatal period: a contemporary series. *Ann Vasc Surg.* 2011 Jan;25(1):9-14. X-1.
4007. Odegaard I, Stray-Pedersen B, Hallberg K, et al. Maternal and fetal morbidity in pregnancies of Norwegian and Swedish women with cystic fibrosis. *Acta Obstet Gynecol Scand.* 2002 Aug;81(8):698-705. X-1.
4008. Odeh M, Tarazova L, Wolfson M, et al. Evidence that women with a history of cesarean section can deliver twins safely. *Acta Obstet Gynecol Scand.* 1997 Aug;76(7):663-6. X-1.
4009. Odem RR, Work BA, Jr. and Dawood MY. Pulsatile oxytocin for induction of labor: a randomized prospective controlled study. *J Perinat Med.* 1988;16(1):31-7. X-4d, X-5.
4010. Odendaal HJ. The fetal and labor outcome of 102 positive contraction stress tests. *Obstet Gynecol.* 1979 Nov;54(5):591-6. X-1.
4011. Odendaal HJ, Pattinson RC, Bam R, et al. Aggressive or expectant management for patients with severe preeclampsia between 28-34 weeks' gestation: a randomized controlled trial. *Obstet Gynecol.* 1990 Dec;76(6):1070-5. X-4e, X-5.
4012. Odero W and Otieno-Nyunya B. Major obstetric interventions among encamped refugees and the local population in Turkana District, Kenya. *East Afr Med J.* 2001 Dec;78(12):666-72. X-1, X-3.
4013. Odibo AO, Cahill AG, Stamilio DM, et al. Predicting placental abruption and previa in women with a previous cesarean delivery. *Am J Perinatol.* 2007 May;24(5):299-305. X-1.
4014. O'Driscoll K, Jackson RJ and Gallagher JT. Prevention of prolonged labour. *Br Med J.* 1969 May 24;2(5655):477-80. X-1.
4015. O'Driscoll K and Stronge JM. Active management of labor. *Br Med J.* 1973 Sep 15;3(5880):590. X-1, X-2, X-3, X-4e, X-5.
4016. Odum CU and Pipkins FB. The influence of mode of delivery, obstetric analgesia and anaesthesia on the response of isolated human chorionic plate arteries to angiotensin II. *West Afr J Med.* 1989 Jan-Mar;8(1):1-9. X-1.
4017. Offen WW and Gruber CM, Jr. Dose response to fenopufen calcium using placebo and codeine as controls. *J Med.* 1985;16(4):439-52. X-3, X-4e, X-5.
4018. Ofir D, Levy A, Wiznitzer A, et al. Familial Mediterranean fever during pregnancy: an independent risk factor for preterm delivery. *Eur J Obstet Gynecol Reprod Biol.* 2008 Dec;141(2):115-8. X-1.

4019. Ogaji DS, Ikpeme BM, Oyo-Ita AE, et al. Awareness and acceptability of strategies for preventing mother to child transmission of HIV among antenatal clients in Calabar, Nigeria. *Niger J Med.* 2008 Jan-Mar;17(1):29-32. X-1.
4020. Ognissanti F, Bucciero A, Conturso R, et al. A comparison of mezlocillin and cefotetan in cesarean section prophylaxis: a prospective, randomized study. Preliminary results. *J Chemother.* 1989 Jul;1(4 Suppl):1030-2. X-9.
4021. O'Grady JP, Veille JC, Holland RL, et al. External cephalic version: a clinical experience. *J Perinat Med.* 1986;14(3):189-96. X-1.
4022. Ogun CO, Kirgiz EN, Duman A, et al. Comparison of intrathecal isobaric bupivacaine-morphine and ropivacaine-morphine for Caesarean delivery. *Br J Anaesth.* 2003 May;90(5):659-64. X-9.
4023. Oguz S, Sener B, Ozcan S, et al. Nonfreeing of the lower leaf of the rectus sheath at caesarean section: a randomized controlled trial. *Aust N Z J Obstet Gynaecol.* 1998 Aug;38(3):317-8. X-9.
4024. Oh SY, Kim CJ, Park I, et al. Progesterone receptor isoform (A/B) ratio of human fetal membranes increases during term parturition. *Am J Obstet Gynecol.* 2005 Sep;193(3 Pt 2):1156-60. X-1.
4025. Oh SY, Song SE, Seo ES, et al. The expression of connective tissue growth factor in pregnancies complicated by severe preeclampsia or fetal growth restriction. *Placenta.* 2009 Nov;30(11):981-7. X-1.
4026. O'Hana HP, Levy A, Rozen A, et al. The effect of epidural analgesia on labor progress and outcome in nulliparous women. *J Matern Fetal Neonatal Med.* 2008 Aug;21(8):517-21. X-1.
4027. Ohel G, Gonen R, Vaida S, et al. Early versus late initiation of epidural analgesia in labor: does it increase the risk of cesarean section? A randomized trial. *Am J Obstet Gynecol.* 2006 Mar;194(3):600-5. X-5.
4028. Ohel G, Rahav D, Rothbart H, et al. Randomised trial of outpatient induction of labor with vaginal PGE2 at 40-41 weeks of gestation versus expectant management. *Arch Gynecol Obstet.* 1996;258(3):109-12. X-4e, X-5.
4029. Ohel G, Younis JS, Lang N, et al. Double-layer closure of uterine incision with visceral and parietal peritoneal closure: are they obligatory steps of routine cesarean sections? *J Matern Fetal Med.* 1996 Nov-Dec;5(6):366-9. X-9.
4030. Ohel I, Levy A, Mazor M, et al. Refusal of treatment in obstetrics - A maternal-fetal conflict. *J Matern Fetal Neonatal Med.* 2009 Jul;22(7):612-5. X-1.
4031. O'Herlihy C, Klein M and Goer H. Roundtable discussion. Active management of labor: benefits and risks... part 1. Birth: Issues in Perinatal Care. 1993;20(2):95-101. X-1, X-2.
4032. O'Herlihy C and Macdonald HN. Influence of preinduction prostaglandin E2 vaginal gel on cervical ripening and labor. *Obstet Gynecol.* 1979 Dec;54(6):708-10. X-1.
4033. Ohlsson A. Treatments of preterm premature rupture of the membranes: a meta-analysis. *Am J Obstet Gynecol.* 1989 Apr;160(4):890-906. X-1, X-2.
4034. Ohlsson G, Buchhave P, Leandersson U, et al. Warm tub bathing during labor: maternal and neonatal effects. *Acta Obstet Gynecol Scand.* 2001 Apr;80(4):311-4. X-4e, X-5.
4035. Ojala JR. A Lamentation of birth. *Midwifery Today Int Midwife.* 2007 Spring(81):34-5. X-1.
4036. Ojofeitimi EO, Elegbe I and Babafemi J. Diet restriction by pregnant women in Nigeria. *Int J Gynaecol Obstet.* 1982 Apr;20(2):99-103. X-1.
4037. Okasha AS, Motaweh MM and Bali A. Cimetidine - antacid combination as premedication for elective Caesarean section. *Can Anaesth Soc J.* 1983 Nov;30(6):593-7. X-9.
4038. O'Keefe D, O'Herlihy C, Gross Y, et al. Patient-controlled analgesia using a miniature electrochemically driven infusion pump. *Br J Anaesth.* 1994 Dec;73(6):843-6. X-1.
4039. Okonofua FE and Olatunbosun OA. Cesarean versus vaginal delivery in abruptio placentae associated with live fetuses. *Int J Gynaecol Obstet.* 1985 Dec;23(6):471-4. X-1, X-3, X-4e.
4040. Okoye BO, Losty PD, Fisher MJ, et al. Antenatal glucocorticoid therapy suppresses angiotensin-converting enzyme activity in rats with nitrofen-induced congenital diaphragmatic hernia. *J Pediatr Surg.* 1998 Feb;33(2):286-91. X-1.
4041. Okoye BO, Losty PD, Lloyd DA, et al. Effect of prenatal glucocorticoids on pulmonary vascular muscularisation in nitrofen-induced congenital diaphragmatic hernia. *J Pediatr Surg.* 1998 Jan;33(1):76-80. X-1.
4042. Okudaira S and Suzuki S. Influence of spinal hypotension on fetal oxidative status during elective cesarean section in uncomplicated pregnancies. *Arch Gynecol Obstet.* 2005 Apr;271(4):292-5. X-1, X-9.
4043. Ola ER, Imosemi OD and Abudu OO. Vaginal birth after one previous Caesarean section--evaluation of predictive factors. *Afr J Med Med Sci.* 2001 Mar-Jun;30(1-2):61-6. X-1.
4044. Oladapo OT, Ayoola-Sotubo O, Daniel OJ, et al. Tertiary hospital staff and caesarean section risk. *J Obstet Gynaecol.* 2006 May;26(4):325-8. X-1.
4045. Oladapo OT, Sotunsa JO and Sule-Odu AO. The rise in caesarean birth rate in Sagamu, Nigeria: reflection of changes in obstetric practice. *J Obstet Gynaecol.* 2004 Jun;24(4):377-81. X-1.

4046. Oladipo A and Syed A. The views of obstetricians in the south-west of England on the use of prostaglandins and syntocinon in VBAC. *J Obstet Gynaecol.* 2008 Feb;28(2):177-82. X-1.
4047. Oladokun A, Okewole AI, Adewole IF, et al. Evaluation of cases of eclampsia in the University College Hospital, Ibadan over a 10 year period. *West Afr J Med.* 2000 Jul-Sep;19(3):192-4. X-1.
4048. Olah KS, Vince GS, Neilson JP, et al. Interleukin-6, interferon-gamma, interleukin-8, and granulocyte-macrophage colony stimulating factor levels in human amniotic fluid at term. *J Reprod Immunol.* 1996 Nov;32(1):89-98. X-1.
4049. Olatunbosun A, Ravichander A, Turnell RW, et al. The influence of patient preferences and physician practices on cesarean delivery. *Clin Exp Obstet Gynecol.* 2002;29(1):19-21. X-1.
4050. Olayemi O, Adeniji RA, Udoh ES, et al. Determinants of pain perception in labour among parturients at the University College Hospital, Ibadan. *J Obstet Gynaecol.* 2005 Feb;25(2):128-30. X-1.
4051. Olden AJ, Jordan ET, Sakima NT, et al. Patients' versus nurses' assessments of pain and sedation after cesarean section. *J Obstet Gynecol Neonatal Nurs.* 1995 Feb;24(2):137-41. X-9.
4052. O'Leary JA. Vaginal delivery of the term breech. A preliminary report. *Obstet Gynecol.* 1979 Mar;53(3):341-3. X-1.
4053. O'Leary JA. Uterine artery ligation in the control of postcesarean hemorrhage. *J Reprod Med.* 1995 Mar;40(3):189-93. X-1.
4054. O'Leary JA, Mullins JH, Jr. and Andrinopoulos GC. Ampicillin vs. ampicillin-gentamicin prophylaxis in high-risk primary cesarean section. *J Reprod Med.* 1986 Jan;31(1):27-30. X-9.
4055. O'Leary JA and O'Leary JL. Uterine artery ligation for control of postcesarean hemorrhage. *Surg Forum.* 1968;19:409-10. X-4e.
4056. O'Leary JL and O'Leary JA. Uterine artery ligation for control of postcesarean section hemorrhage. *Obstet Gynecol.* 1974 Jun;43(6):849-53. X-9, X-4e.
4057. Oleen MA and Mariano JP. Controlling refractory atonic postpartum hemorrhage with Hemabate sterile solution. *Am J Obstet Gynecol.* 1990 Jan;162(1):205-8. X-1.
4058. Oleske DM, Branca ML, Schmidt JB, et al. A comparison of capitated and fee-for-service Medicaid reimbursement methods on pregnancy outcomes. *Health Serv Res.* 1998 Apr;33(1):55-73. X-1, X-4e, X-5.
4059. Oleske DM, Linn ES, Nachman KL, et al. Cesarean and VBAC delivery rates in Medicaid managed care, Medicaid fee-for-service, and private managed care. *Birth.* 1998 Jun;25(2):125-7. X-9.
4060. Olmos PR, Araya-Del-Pino AP, Gonzalez-Carvello CA, et al. Near-optimal glycemic control in Chilean women with pregestational type-2 diabetes: persistent macrosomia relates to maternal pre-pregnancy overweight. *Diabetes Res Clin Pract.* 2009 Jul;85(1):53-60. X-1.
4061. Olofsson C, Ekblom A, Ekman-Ordeberg G, et al. Increased cerebrospinal fluid concentration of aspartate but decreased concentration of nitric oxide breakdown products in women experiencing visceral pain during active labour. *Neuroreport.* 1997 Mar 3;8(4):995-8. X-1.
4062. Olofsson C, Ekblom A, Skoldefors E, et al. Anesthetic quality during cesarean section following subarachnoid or epidural administration of bupivacaine with or without fentanyl. *Acta Anaesthesiol Scand.* 1997 Mar;41(3):332-8. X-9.
4063. Olofsson CI, Legeby MH, Nygard EB, et al. Diclofenac in the treatment of pain after caesarean delivery. An opioid-saving strategy. *Eur J Obstet Gynecol Reprod Biol.* 2000 Feb;88(2):143-6. X-9.
4064. Olofsson P, Ingemarsson I and Solum T. Fetal distress during labour in diabetic pregnancy. *Br J Obstet Gynaecol.* 1986 Oct;93(10):1067-71. X-1.
4065. Olofsson P, Laurini RN and Marsal K. A high uterine artery pulsatility index reflects a defective development of placental bed spiral arteries in pregnancies complicated by hypertension and fetal growth retardation. *Eur J Obstet Gynecol Reprod Biol.* 1993 May;49(3):161-8. X-1.
4066. Olsen MA, Butler AM, Willers DM, et al. Risk factors for surgical site infection after low transverse cesarean section. *Infect Control Hosp Epidemiol.* 2008 Jun;29(6):477-84; discussion 485-6. X-1.
4067. Olsen MA, Butler AM, Willers DM, et al. Risk factors for endometritis after low transverse cesarean delivery. *Infect Control Hosp Epidemiol.* 2010 Jan;31(1):69-77. X-1.
4068. Olsen MA, Butler AM, Willers DM, et al. Comparison of costs of surgical site infection and endometritis after cesarean delivery using claims and medical record data. *Infect Control Hosp Epidemiol.* 2010 Aug;31(8):872-5. X-1.
4069. Olsen MA, Butler AM, Willers DM, et al. Attributable costs of surgical site infection and endometritis after low transverse cesarean delivery. *Infect Control Hosp Epidemiol.* 2010 Mar;31(3):276-82. X-1.
4070. Olusanya BO, Afe AJ and Onyia NO. Infants with HIV-infected mothers in a universal newborn hearing screening programme in Lagos, Nigeria. *Acta Paediatr.* 2009 Aug;98(8):1288-93. X-1.

4071. Olusanya BO, Afe AJ and Solanke OA. Are risk factors for stillbirths in low-income countries associated with sensorineural hearing loss in survivors? *J Matern Fetal Neonatal Med.* 2009 Jul;22(7):576-83. X-1.
4072. Olusanya BO and Solanke OA. Predictors of term stillbirths in an inner-city maternity hospital in Lagos, Nigeria. *Acta Obstet Gynecol Scand.* 2009;88(11):1243-51. X-1.
4073. O'Mahony F, Hofmeyr GJ and Menon V. Choice of instruments for assisted vaginal delivery. *Cochrane Database of Systematic Reviews.* 2010(11). X-1, X-2.
4074. Omole-Ohonsi A, Ashimi A and Adeleke S. Spontaneous pre-labour rupture of membranes at term: immediate versus delayed induction of labour. *West Afr J Med.* 2009 May;28(3):156-60. X-1, X-4d, X-4e, X-5.
4075. Omole-Ohonsi A and Attah RA. Obstetric outcome of teenage pregnancy in Kano, North-Western Nigeria. *West Afr J Med.* 2010 Sep-Oct;29(5):318-22. X-1.
4076. Omu AE, al-Othman S, al-Qattan F, et al. A comparative study of obstetric outcome of patients with pregnancy induced hypertension: economic considerations. *Acta Obstet Gynecol Scand.* 1996 May;75(5):443-8. X-1.
4077. Onah HE. Formal education does not improve the acceptance of cesarean section among pregnant Nigerian women. *Int J Gynaecol Obstet.* 2002 Mar;76(3):321-3. X-1.
4078. Onah HE and Nkwo PO. Caesarean section or symphysiotomy for obstructed labour for developing countries? Need to ascertain women's preferences. *J Obstet Gynaecol.* 2003 Nov;23(6):594-5. X-1, X-2.
4079. Onah HE and Ugonna MC. Preferences for cesarean section or symphysiotomy for obstructed labor among Nigerian women. *Int J Gynaecol Obstet.* 2004 Jan;84(1):79-81. X-1.
4080. Onderdonk AB, Delaney ML, DuBois AM, et al. Detection of bacteria in placental tissues obtained from extremely low gestational age neonates. *Am J Obstet Gynecol.* 2008 Jan;198(1):110 e1-7. X-1.
4081. Onen A and Ark HC. Fetal thoracic aorta doppler in cases with intrauterine growth restriction. *Clin Exp Obstet Gynecol.* 2001;28(3):168-70. X-1.
4082. Ong JP, Edwards GJ and Allison MC. Mode of delivery and risk of fecal incontinence in women with or without inflammatory bowel disease: questionnaire survey. *Inflamm Bowel Dis.* 2007 Nov;13(11):1391-4. X-1.
4083. Onile TG, Kuti O, Orji EO, et al. A prospective randomized clinical trial of urethral catheter removal following elective cesarean delivery. *Int J Gynaecol Obstet.* 2008 Sep;102(3):267-70. X-9.
4084. Onuigbo WI and Chukudebelu WO. Appendices removed at cesarean section: histopathology. *Dis Colon Rectum.* 1981 Oct;24(7):507-9. X-1.
4085. Onwuhafua PI and Oguntayo A. Perinatal mortality associated with eclampsia in Kaduna, Northern Nigeria. *Niger J Med.* 2006 Oct-Dec;15(4):397-400. X-1.
4086. Onyiriuka AN. High birth weight babies: incidence and foetal outcome in a mission hospital in Benin City, Nigeria. *Niger J Clin Pract.* 2006 Dec;9(2):114-9. X-1.
4087. Onyiriuka AN. Twin delivery: comparison of incidence and foetal outcome in two health institutions in Benin City, Nigeria. *Nig Q J Hosp Med.* 2009 Jan-Mar;19(1):1-5. X-1.
4088. Onyiriuka AN and Okolo AA. Neonatal morbidity pattern in infants born in Benin City to Nigerian mothers with hypertensive disorders in pregnancy. *Niger J Clin Pract.* 2007 Dec;10(4):294-9. X-1.
4089. Opara PI, Jaja T and Onubogu UC. Morbidity and mortality amongst infants of diabetic mothers admitted into a special care baby unit in Port Harcourt, Nigeria. *Ital J Pediatr.* 2010;36(1):77. X-1, X-4e.
4090. Opoeien HK, Valbo A, Grinde-Andersen A, et al. Post-cesarean surgical site infections according to CDC standards: rates and risk factors. A prospective cohort study. *Acta Obstet Gynecol Scand.* 2007;86(9):1097-102. X-1, X-9.
4091. Oppenheimer LW, Bland ES, Dabrowski A, et al. Uterine contraction pattern as a predictor of the mode of delivery. *J Perinatol.* 2002 Mar;22(2):149-53. X-1.
4092. Oppenheimer LW, Labrecque M, Wells G, et al. Prostaglandin E vaginal gel to treat dystocia in spontaneous labour: a multicentre randomised placebo-controlled trial. *BJOG.* 2005 May;112(5):612-8. X-5, X-6.
4093. Orach CG, Dubourg D and De Brouwere V. Costs and coverage of reproductive health interventions in three rural refugee-affected districts, Uganda. *Trop Med Int Health.* 2007 Mar;12(3):459-69. X-1.
4094. Oral E, Cagdas A, Gezer A, et al. Perinatal and maternal outcomes of fetal macrosomia. *Eur J Obstet Gynecol Reprod Biol.* 2001 Dec 1;99(2):167-71. X-1.
4095. O'Reilly-Green CP and Divon MY. Predictive value of amniotic fluid index for oligohydramnios in patients with prolonged pregnancies. *J Matern Fetal Med.* 1996 Jul-Aug;5(4):218-26. X-1.
4096. Orji EO and Ndububa VI. Obstetric performance of women aged over forty years. *East Afr Med J.* 2004 Mar;81(3):139-41. X-1.
4097. Orji EO, Ogunlola IO and Onwudiegwu U. Brought-in maternal deaths in south-west Nigeria. *J Obstet Gynaecol.* 2002 Jul;22(4):385-8. X-1.
4098. Orji EO, Olabode TO, Kuti O, et al. A randomised controlled trial of early initiation

- of oral feeding after cesarean section. *J Matern Fetal Neonatal Med.* 2009 Jan;22(1):65-71. X-9.
4099. Orji EO, Olaleye AO, Loto OM, et al. A randomised controlled trial of uterine exteriorisation and non-exteriorisation at caesarean section. *Aust N Z J Obstet Gynaecol.* 2008 Dec;48(6):570-4. X-9.
4100. Orji EO, Shittu AS, Makinde ON, et al. Effect of prolonged birth spacing on maternal and perinatal outcome. *East Afr Med J.* 2004 Aug;81(8):388-91. X-1.
4101. Ormezzano X, Francois TP, Viaud JY, et al. Aspiration pneumonitis prophylaxis in obstetric anaesthesia: comparison of effervescent cimetidine-sodium citrate mixture and sodium citrate. *Br J Anaesth.* 1990 Apr;64(4):503-6. X-9.
4102. Oron G, Hirsch R, Ben-Haroush A, et al. Pregnancy outcome in women with heart disease undergoing induction of labour. *BJOG.* 2004 Jul;111(7):669-75. X-1.
4103. Ortega-Senovilla H, Alvino G, Taricco E, et al. Enhanced circulating retinol and non-esterified fatty acids in pregnancies complicated with intrauterine growth restriction. *Clin Sci (Lond).* 2010 Mar;118(5):351-8. X-1.
4104. Osathanondh R, Chopra IJ and Tulchinsky D. Effects of dexamethasone on fetal and maternal thyroxine, triiodothyronine, reverse triiodothyronine, and thyrotropin levels. *J Clin Endocrinol Metab.* 1978 Dec;47(6):1236-9. X-1.
4105. Oscarsson ME, Amer-Wahlin I, Rydhstroem H, et al. Outcome in obstetric care related to oxytocin use. A population-based study. *Acta Obstet Gynecol Scand.* 2006;85(9):1094-8. X-1.
4106. Oshiro BT, Henry E, Wilson J, et al. Decreasing elective deliveries before 39 weeks of gestation in an integrated health care system. *Obstet Gynecol.* 2009 Apr;113(4):804-11. X-1.
4107. Osis MJ, Cecatti JG, de Padua KS, et al. Brazilian doctors' perspective on the second opinion strategy before a C-section. *Rev Saude Publica.* 2006 Apr;40(2):233-9. X-1.
4108. Osis MJ, Padua KS, Duarte GA, et al. The opinion of Brazilian women regarding vaginal labor and cesarean section. *Int J Gynaecol Obstet.* 2001 Nov;75 Suppl 1:S59-66. X-1.
4109. Osmers RG, Adelman-Grill BC, Rath W, et al. Biochemical events in cervical ripening dilatation during pregnancy and parturition. *J Obstet Gynaecol (Tokyo 1995).* 1995 Apr;21(2):185-94. X-1.
4110. Ostlund I, Hanson U, Bjorklund A, et al. Maternal and fetal outcomes if gestational impaired glucose tolerance is not treated. *Diabetes Care.* 2003 Jul;26(7):2107-11. X-1, X-4e.
4111. O'Sullivan CJ, Allen NM, O'Loughlin AJ, et al. Thrombin and PAR1-activating peptide: effects on human uterine contractility in vitro. *Am J Obstet Gynecol.* 2004 Apr;190(4):1098-105. X-1.
4112. O'Sullivan G, Sear JW, Bullingham RE, et al. The effect of magnesium trisilicate mixture, metoclopramide and ranitidine on gastric pH, volume and serum gastrin. *Anaesthesia.* 1985 Mar;40(3):246-53. X-9.
4113. O'Sullivan GM, Smith M, Morgan B, et al. H2 antagonists and bupivacaine clearance. *Anaesthesia.* 1988 Feb;43(2):93-5. X-9.
4114. Otamiri G, Berg G, Ledin T, et al. Delayed neurological adaptation in infants delivered by elective cesarean section and the relation to catecholamine levels. *Early Hum Dev.* 1991 Jul;26(1):51-60. X-1.
4115. Otamiri G, Berg G, Ledin T, et al. Influence of elective cesarean section and breech delivery on neonatal neurological condition. *Early Hum Dev.* 1990 Jun;23(1):53-66. X-1.
4116. Otley H. Fear of childbirth: Understanding the causes, impact and treatment. *British Journal of Midwifery.* 2011;19(4):215-220. X-1.
4117. Ott WJ, Mora G, Arias F, et al. Comparison of the modified biophysical profile to a "new" biophysical profile incorporating the middle cerebral artery to umbilical artery velocity flow systolic/diastolic ratio. *Am J Obstet Gynecol.* 1998 Jun;178(6):1346-53. X-4e, X-5.
4118. Ottervanger HP, Keirse MJ, Smit W, et al. Controlled comparison of induction versus expectant care for prelabor rupture of the membranes at term. *J Perinat Med.* 1996;24(3):237-42. X-4e.
4119. Ottinger WS, Menard MK and Brost BC. A randomized clinical trial of prostaglandin E2 intracervical gel and a slow release vaginal pessary for preinduction cervical ripening. *Am J Obstet Gynecol.* 1998 Aug;179(2):349-53. X-4d, X-5.
4120. Ottolini SR. Through the looking glass. *Ann Emerg Med.* 2009 Dec;54(6):841-2. X-1, X-2.
4121. Otubu JA, Kumi GO and Ezem BU. Pregnancy and delivery after successful repair of vesicovaginal fistula. *Int J Gynaecol Obstet.* 1982 Apr;20(2):163-6. X-1.
4122. Ou SX, Han D, Severson RK, et al. Birth characteristics, maternal reproductive history, hormone use during pregnancy, and risk of childhood acute lymphocytic leukemia by immunophenotype (United States). *Cancer Causes Control.* 2002 Feb;13(1):15-25. X-1.
4123. Ouellette A. New medical technology: a chance to reexamine court-ordered medical procedures during pregnancy. *Albany Law Rev.* 1994;57(3):927-60. X-1.
4124. Ouerghi S, Bougacha MA, Frikha N, et al. Combined use of crystalloid preload and low dose spinal anesthesia for preventing hypotension in spinal anesthesia for cesarean

delivery: a randomized controlled trial. Middle East J Anesthesiol. 2010 Jun;20(5):667-72. X-9.

4125. Ouzounian JG, Masaki DI, Abboud TK, et al. Systemic vascular resistance index determined by thoracic electrical bioimpedance predicts the risk for maternal hypotension during regional anesthesia for cesarean delivery. Am J Obstet Gynecol. 1996 Mar;174(3):1019-25. X-9.
4126. Oweis AI. Relationships among the situational variables of perceived stress of the childbirth experience, perceived length and perceived difficulty of labor, selected personal variables, perceived nursing support and postpartum depression in primiparous Jordanian women living in Jordan. 2001;D.N.Sc.:181 p. X-1.
4127. Owen J, Groome LJ and Hauth JC. Randomized trial of prophylactic antibiotic therapy after preterm amnion rupture. Am J Obstet Gynecol. 1993 Oct;169(4):976-81. X-4e, X-5.
4128. Owen J, Henson BV and Hauth JC. A prospective randomized study of saline solution amnioinfusion. Am J Obstet Gynecol. 1990 May;162(5):1146-9. X-4e, X-5.
4129. Owens LA, O'Sullivan EP, Kirwan B, et al. ATLANTIC DIP: the impact of obesity on pregnancy outcome in glucose-tolerant women. Diabetes Care. 2010 Mar;33(3):577-9. X-1, X-4e.
4130. Owens M, Bhullar A, Carlan SJ, et al. Effect of fundal pressure on maternal to fetal microtransfusion at the time of cesarean delivery. J Obstet Gynaecol Res. 2003 Jun;29(3):152-6. X-9.
4131. Owolabi AT, Dare FO, Fasubaa OB, et al. Risk factors for retained placenta in southwestern Nigeria. Singapore Med J. 2008 Jul;49(7):532-7. X-1.
4132. Owolabi AT, Kuti O and Ogunlola IO. Randomised trial of intravaginal misoprostol and intracervical Foley catheter for cervical ripening and induction of labour. J Obstet Gynaecol. 2005 Aug;25(6):565-8. X-4d.
4133. Oyarzun E, Gomez R, Rioseco A, et al. Antibiotic treatment in preterm labor and intact membranes: a randomized, double-blinded, placebo-controlled trial. J Matern Fetal Med. 1998 May-Jun;7(3):105-10. X-4e, X-5.
4134. Oyelese Y, Catanzarite V, Prefumo F, et al. Vasa previa: the impact of prenatal diagnosis on outcomes. Obstet Gynecol. 2004 May;103(5 Pt 1):937-42. X-1.
4135. Oyston J. Obstetrical anaesthesia in Ontario. Can J Anaesth. 1995 Dec;42(12):1117-25. X-1.
4136. Ozalp E, Tanir HM and Sener T. Dinoprostone vaginal insert versus intravenous oxytocin to reduce postpartum blood loss following vaginal or cesarean delivery. Clin Exp Obstet Gynecol. 2010;37(1):53-5. X-3, X-4b, X-4d, X-5.

4137. Ozarda Ilcol Y, Uncu G and Ulus IH. Free and phospholipid-bound choline concentrations in serum during pregnancy, after delivery and in newborns. *Arch Physiol Biochem.* 2002 Dec;110(5):393-9. X-1.
4138. Ozcakar ZB, Sahin F, Beyazova U, et al. Physical and mental development of Turkish twins. *Pediatr Int.* 2003 Dec;45(6):712-8. X-1.
4139. Ozkan S, Caliskan E, Doger E, et al. Comparative efficacy and safety of vaginal misoprostol versus dinoprostone vaginal insert in labor induction at term: a randomized trial. *Arch Gynecol Obstet.* 2009 Jul;280(1):19-24. X-4d.
4140. Ozsoy M and Ozsoy D. Induction of labor with 50 and 100 microg of misoprostol: comparison of maternal and fetal outcomes. *Eur J Obstet Gynecol Reprod Biol.* 2004 Mar 15;113(1):41-4. X-4d, X-5.
4141. Ozturk A, Demirci F, Yavuz T, et al. Antenatal and delivery risk factors and prevalence of cerebral palsy in Duzce (Turkey). *Brain Dev.* 2007 Jan;29(1):39-42. X-1.
4142. Ozumba BC, Obi SN and Oli JM. Diabetes mellitus in pregnancy in an African population. *Int J Gynaecol Obstet.* 2004 Feb;84(2):114-9. X-1.
4143. Ozumbia BC and Ibe AI. Eclampsia in Enugu, eastern Nigeria. *Acta Obstet Gynecol Scand.* 1993 Apr;72(3):189-92. X-1.
4144. Pabinger I, Kyrle PA, Heisteringer M, et al. The risk of thromboembolism in asymptomatic patients with protein C and protein S deficiency: a prospective cohort study. *Thromb Haemost.* 1994 Apr;71(4):441-5. X-1.
4145. Pacheco LD, Rosen MP, Gei AF, et al. Management of uterine hyperstimulation with concomitant use of oxytocin and terbutaline. *Am J Perinatol.* 2006 Aug;23(6):377-80. X-4e, X-5.
4146. Padilla SL, Spence MR and Beauchamp PJ. Single-dose ampicillin for cesarean section prophylaxis. *Obstet Gynecol.* 1983 Apr;61(4):463-6. X-9.
4147. Padmadas SS, Kumar S, Nair SB, et al. Cesarean section delivery in Kerala, India: evidence from a National Family Health Survey. *Soc Sci Med.* 2000 Aug;51(4):511-21. X-1.
4148. Paech MJ. Epidural anaesthesia for caesarean section: a comparison of 0.5% bupivacaine and 2% lignocaine both with adrenaline. *Anaesth Intensive Care.* 1988 May;16(2):187-96. X-9.
4149. Paech MJ. Epidural pethidine or fentanyl during caesarean section: a double-blind comparison. *Anaesth Intensive Care.* 1989 May;17(2):157-65. X-9.
4150. Paech MJ and Evans SF. Prospective clinical evaluation of two combined spinal-epidural kits. *Anaesth Intensive Care.* 1995 Oct;23(5):600-4. X-1.
4151. Paech MJ, Moore JS and Evans SF. Meperidine for patient-controlled analgesia after cesarean section. Intravenous versus epidural administration. *Anesthesiology.* 1994 Jun;80(6):1268-76. X-9.
4152. Paech MJ, Pavy TJ, Orlikowski CE, et al. Postcesarean analgesia with spinal morphine, clonidine, or their combination. *Anesth Analg.* 2004 May;98(5):1460-6, table of contents. X-9.
4153. Paech MJ, Westmore MD and Speirs HM. A double-blind comparison of epidural bupivacaine and bupivacaine-fentanyl for caesarean section. *Anaesth Intensive Care.* 1990 Feb;18(1):22-30. X-9.
4154. Pafumi C, Farina M, Bandiera S, et al. Differences in umbilical cord blood units collected during cesarean section, before or after the delivery of the placenta. *Gynecol Obstet Invest.* 2002;54(2):73-7. X-1.
4155. Pafumi C, Milone G, Maggi I, et al. Umbilical cord blood collection in Cesarean section: a comparison before and after placental delivery. *Arch Gynecol Obstet.* 2002 Aug;266(4):193-4. X-9.
4156. Page L. Fruitful labours. *Nurs Stand.* 2003 Jun 25-Jul 1;17(41):104. X-1, X-2.
4157. Page L, Beake S, Vail A, et al. Clinical outcomes of one-to-one midwifery practice. *British Journal of Midwifery.* 2001;9(11):700-706. X-1.
4158. Pahari K and Ghosh A. Study of pregnancy outcome over a period of five years in a postgraduate institute of west Bengal. *J Indian Med Assoc.* 1997 Jun;95(6):172-4. X-1.
4159. Paine MA, Scioscia M, Gumaa KA, et al. P-type inositol phosphoglycans in serum and amniotic fluid in active pre-eclampsia. *J Reprod Immunol.* 2006 Apr;69(2):165-79. X-1.
4160. Pak SC, Song CH, So GY, et al. Extrauterine incubation of fetal goats applying the extracorporeal membrane oxygenation via umbilical artery and vein. *J Korean Med Sci.* 2002 Oct;17(5):663-8. X-1.
4161. Pakenham S, Chamberlain SM and Smith GN. Women's views on elective primary caesarean section. *J Obstet Gynaecol Can.* 2006 Dec;28(12):1089-94. X-1.
4162. Pal M, Biswas AK and Bhattacharya SM. B-Lynch Brace Suturing in primary post-partum hemorrhage during cesarean section. *J Obstet Gynaecol Res.* 2003 Oct;29(5):317-20. X-1.
4163. Palacios Jaraquemada JM, Pesaresi M, Nassif JC, et al. Anterior placenta percreta: surgical approach, hemostasis and uterine repair. *Acta Obstet Gynecol Scand.* 2004 Aug;83(8):738-44. X-1.
4164. Palacios QT, Jones MM, Hawkins JL, et al. Post-caesarean section analgesia: a comparison of epidural butorphanol and morphine. *Can J Anaesth.* 1991 Jan;38(1):24-30. X-9.

4165. Palacios-Jaraquemada JM. Diagnosis and management of placenta accreta. *Best Pract Res Clin Obstet Gynaecol.* 2008 Dec;22(6):1133-48. X-1, X-2.
4166. Palahniuk RJ and Cumming M. Serum cholinesterase activity following the use of methoxyflurane in obstetrics. *Anesthesiology.* 1977 Dec;47(6):520-2. X-4e.
4167. Palencia R, Gafni A, Hannah ME, et al. The costs of planned cesarean versus planned vaginal birth in the Term Breech Trial. *CMAJ.* 2006 Apr 11;174(8):1109-13. X-1.
4168. Pallasmaa N, Ekblad U, Aitokallio-Tallberg A, et al. Cesarean delivery in Finland: maternal complications and obstetric risk factors. *Acta Obstet Gynecol Scand.* 2010 Jul;89(7):896-902. X-1, X-9.
4169. Palmer AW, Waugaman WR, Conklin KA, et al. Does the administration of oral Bicitra before elective cesarean section affect the incidence of nausea and vomiting in the parturient? *Nurse Anesth.* 1991 Sep;2(3):126-33. X-9.
4170. Palmer CM, Emerson S, Volgoropolous D, et al. Dose-response relationship of intrathecal morphine for postcesarean analgesia. *Anesthesiology.* 1999 Feb;90(2):437-44. X-9.
4171. Palmer CM, Nogami WM, Van Maren G, et al. Postcesarean epidural morphine: a dose-response study. *Anesth Analg.* 2000 Apr;90(4):887-91. X-9.
4172. Palmer CM, Voulgaropoulos D and Alves D. Subarachnoid fentanyl augments lidocaine spinal anesthesia for cesarean delivery. *Reg Anesth.* 1995 Sep-Oct;20(5):389-94. X-9.
4173. Palomba S, Falbo A, Russo T, et al. Pregnancy in women with polycystic ovary syndrome: the effect of different phenotypes and features on obstetric and neonatal outcomes. *Fertil Steril.* 2010 Oct;94(5):1805-11. X-1.
4174. Palta M, Sadek M, Gabbert D, et al. The relation of maternal complications to outcomes in very low birthweight infants in an era of changing neonatal care. *Am J Perinatol.* 1996 Feb;13(2):109-14. X-1.
4175. Pan MH, Wei TT and Shieh BS. Comparative analgesic enhancement of alfentanil, fentanyl, and sufentanil to spinal tetracaine anesthesia for cesarean delivery. *Acta Anaesthesiol Sin.* 1994 Sep;32(3):171-6. X-9.
4176. Pan PH and James CF. Anesthetic-postoperative morphine regimens for cesarean section and postoperative oxygen saturation monitored by a telemetric pulse oximetry network for 24 continuous hours. *J Clin Anesth.* 1994 Mar-Apr;6(2):124-8. X-9.
4177. Pan PH and Moore CH. Intraoperative antiemetic efficacy of prophylactic ondansetron versus droperidol for cesarean section patients under epidural anesthesia. *Anesth Analg.* 1996 Nov;83(5):982-6. X-9.
4178. Pan PH and Moore CH. Comparing the efficacy of prophylactic metoclopramide, ondansetron, and placebo in cesarean section patients given epidural anesthesia. *J Clin Anesth.* 2001 Sep;13(6):430-5. X-9.
4179. Pan PM, Huang CT, Wei TT, et al. Enhancement of analgesic effect of intrathecal neostigmine and clonidine on bupivacaine spinal anesthesia. *Reg Anesth Pain Med.* 1998 Jan-Feb;23(1):49-56. X-9.
4180. Panburana P, Phaupradit W, Tantisirin O, et al. Maternal complications after Caesarean section in HIV-infected pregnant women. *Aust N Z J Obstet Gynaecol.* 2003 Apr;43(2):160-3. X-9.
4181. Panburana P, Sirinavin S, Phaupradit W, et al. Elective cesarean delivery plus short-course lamivudine and zidovudine for the prevention of mother-to-child transmission of human immunodeficiency virus type 1. *Am J Obstet Gynecol.* 2004 Mar;190(3):803-8. X-9.
4182. Panchal S, Arria AM and Harris AP. Intensive care utilization during hospital admission for delivery: prevalence, risk factors, and outcomes in a statewide population. *Anesthesiology.* 2000 Jun;92(6):1537-44. X-1.
4183. Pandian RU. Dydrogesterone in threatened miscarriage: a Malaysian experience. *Maturitas.* 2009 Dec;65 Suppl 1:S47-50. X-4e.
4184. Pandian Z, Bhattacharya S and Templeton A. Review of unexplained infertility and obstetric outcome: a 10 year review. *Hum Reprod.* 2001 Dec;16(12):2593-7. X-1.
4185. Pandis GK, Papageorghiou AT, Otigbah CM, et al. Randomized study of vaginal misoprostol (PGE(1)) and dinoprostone gel (PGE(2)) for induction of labor at term. *Ultrasound Obstet Gynecol.* 2001 Dec;18(6):629-35. X-4d.
4186. Pandis GK, Papageorghiou AT, Ramanathan VG, et al. Preinduction sonographic measurement of cervical length in the prediction of successful induction of labor. *Ultrasound Obstet Gynecol.* 2001 Dec;18(6):623-8. X-1.
4187. Pang MW, Lee TS, Leung AK, et al. A longitudinal observational study of preference for elective caesarean section among nulliparous Hong Kong Chinese women. *BJOG.* 2007 May;114(5):623-9. X-1.
4188. Pang SM, Leung DT, Leung TY, et al. Determinants of preference for elective caesarean section in Hong Kong Chinese pregnant women. *Hong Kong Med J.* 2007 Apr;13(2):100-5. X-1.
4189. Panni MK and Segal S. Local anesthetic requirements are greater in dystocia than in normal labor. *Anesthesiology.* 2003 Apr;98(4):957-63. X-1, X-3, X-4e.
4190. Panting-Kemp A, Nguyen T, Chang E, et al. Idiopathic polyhydramnios and perinatal outcome. *Am J Obstet Gynecol.* 1999 Nov;181(5 Pt 1):1079-82. X-1.

4191. Papadopoulos VG, Decavalas GO, Kondakis XG, et al. Vibroacoustic stimulation in abnormal biophysical profile: verification of facilitation of fetal well-being. *Early Hum Dev.* 2007 Mar;83(3):191-7. X-4e.
4192. Papageorgiou I, Tsionou C, Minaretzis D, et al. Labor characteristics of uncomplicated prolonged pregnancies after induction with intracervical prostaglandin E2 gel versus intravenous oxytocin. *Gynecol Obstet Invest.* 1992;34(2):92-6. X-4d.
4193. Papaloucas A, Kotoulas IG and Paradelis AG. Evaluation of cephradine-chemoprophylaxis in Cesarean section. *Methods Find Exp Clin Pharmacol.* 1981 Jan-Feb;3(1):29-32. X-9.
4194. Papamicheal E, Pillai R and Yoong W. Children having children: Outcome of extreme teenage pregnancies (13-15 years). *Acta Obstet Gynecol Scand.* 2009;88(11):1284-7. X-1.
4195. Papandreou L, Chasiotis G, Seferiadis K, et al. Calcium levels during the initiation of labor. *Eur J Obstet Gynecol Reprod Biol.* 2004 Jul 15;115(1):17-22. X-1.
4196. Papanikolaou EG, Plachouras N, Drougia A, et al. Comparison of misoprostol and dinoprostone for elective induction of labour in nulliparous women at full term: a randomized prospective study. *Reprod Biol Endocrinol.* 2004 Sep 27;2:70. X-4d.
4197. Papinniemi M, Keski-Nisula L and Heinonen S. Placental ratio and risk of velamentous umbilical cord insertion are increased in women with placenta previa. *Am J Perinatol.* 2007 Jun;24(6):353-7. X-1.
4198. Paquet C and Steben M. Prevention of and screening for herpes simplex infection: a survey of Quebec physicians. *J Obstet Gynaecol Can.* 2010 Feb;32(2):126-31. X-1.
4199. Paranjothy S, Frost C and Thomas J. How much variation in CS rates can be explained by case mix differences? *BJOG.* 2005 May;112(5):658-66. X-1.
4200. Paraskeva A, Staikou C, Melemini A, et al. Intravenous morphine and droperidol after caesarean delivery under subarachnoid anaesthesia has no effect on postoperative pain or analgesic requirements. *Eur J Anaesthesiol.* 2009 Oct;26(10):847-50. X-9.
4201. Paraskevaidis E, Koliopoulos G, Lolis E, et al. Delivery outcomes following loop electrosurgical excision procedure for microinvasive (FIGO stage IA1) cervical cancer. *Gynecol Oncol.* 2002 Jul;86(1):10-3. X-1.
4202. Parazzini F, Benedetto C, Danti L, et al. A randomized comparison of vaginal prostaglandin E2 with oxytocin plus amniotomy for induction of labour in women with intermediately ripe cervixes. *Eur J Obstet Gynecol Reprod Biol.* 1998 Oct;81(1):15-20. X-4d.
4203. Parazzini F, Dindelli M, Luchini L, et al. Risk factors for placenta praevia. *Placenta.* 1994 Apr;15(3):321-6. X-1.
4204. Parazzini F, Tozzi L, Ferraroni M, et al. Risk factors for ectopic pregnancy: an Italian case-control study. *Obstet Gynecol.* 1992 Nov;80(5):821-6. X-1.
4205. Pardi G, Buscaglia M, Ferrazzi E, et al. Cord sampling for the evaluation of oxygenation and acid-base balance in growth-retarded human fetuses. *Am J Obstet Gynecol.* 1987 Nov;157(5):1221-8. X-1, X-3, X-4e, X-5.
4206. Parekh N, Husaini SW and Russell IF. Caesarean section for placenta praevia: a retrospective study of anaesthetic management. *Br J Anaesth.* 2000 Jun;84(6):725-30. X-1.
4207. Parilla BV and McDermott TM. Prophylactic amnioinfusion in pregnancies complicated by chorioamnionitis: a prospective randomized trial. *Am J Perinatol.* 1998;15(12):649-52. X-4e, X-5.
4208. Park BJ and Kim YW. Safety of cesarean myomectomy. *J Obstet Gynaecol Res.* 2009 Oct;35(5):906-11. X-1.
4209. Park BY, Jeong CW, Jang EA, et al. Dose-related attenuation of cardiovascular responses to tracheal intubation by intravenous remifentanyl bolus in severe pre-eclamptic patients undergoing Caesarean delivery. *Br J Anaesth.* 2011 Jan;106(1):82-7. X-9.
4210. Park CS, Yeoum SG and Choi ES. Study of subjectivity in the perception of cesarean birth. *Nurs Health Sci.* 2005 Mar;7(1):3-8. X-1.
4211. Park GE, Hauch MA, Curlin F, et al. The effects of varying volumes of crystalloid administration before cesarean delivery on maternal hemodynamics and colloid osmotic pressure. *Anesth Analg.* 1996 Aug;83(2):299-303. X-9.
4212. Parker CR, Jr., Favor JK, Carden LG, et al. Effects of intrapartum stress on fetal adrenal function. *Am J Obstet Gynecol.* 1993 Dec;169(6):1407-11. X-1.
4213. Parker RK, Holtmann B and White PF. Patient-controlled epidural analgesia: interactions between nalbuphine and hydromorphone. *Anesth Analg.* 1997 Apr;84(4):757-63. X-9.
4214. Parker RK, Sawaki Y and White PF. Epidural patient-controlled analgesia: influence of bupivacaine and hydromorphone basal infusion on pain control after cesarean delivery. *Anesth Analg.* 1992 Nov;75(5):740-6. X-9.
4215. Parker RK and White PF. Epidural patient-controlled analgesia: an alternative to intravenous patient-controlled analgesia for pain relief after cesarean delivery. *Anesth Analg.* 1992 Aug;75(2):245-51. X-9.
4216. Parks DG and Ziel HK. Macrosomia. A proposed indication for primary cesarean section. *Obstet Gynecol.* 1978 Oct;52(4):407-9. X-1.

4217. Parnass SM, Curran MJ and Becker GL. Incidence of hypotension associated with epidural anesthesia using alkalized and nonalkalinized lidocaine for cesarean section. *Anesth Analg*. 1987 Nov;66(11):1148-50. X-1.
4218. Parpaglioni R, Baldassini B, Barbati G, et al. Adding sufentanil to levobupivacaine or ropivacaine intrathecal anaesthesia affects the minimum local anaesthetic dose required. *Acta Anaesthesiol Scand*. 2009 Oct;53(9):1214-20. X-9.
4219. Parpaglioni R, Capogna G, Celleno D, et al. Intraoperative fetal oxygen saturation during Caesarean section: general anaesthesia using sevoflurane with either 100% oxygen or 50% nitrous oxide in oxygen. *Eur J Anaesthesiol*. 2002 Feb;19(2):115-8. X-9.
4220. Parpaglioni R, Frigo MG, Lemma A, et al. Minimum local anaesthetic dose (MLAD) of intrathecal levobupivacaine and ropivacaine for Caesarean section. *Anaesthesia*. 2006 Feb;61(2):110-5. X-9.
4221. Parry E, Parry D and Pattison N. Induction of labour for post term pregnancy: an observational study. *Aust N Z J Obstet Gynaecol*. 1998 Aug;38(3):275-80. X-1.
4222. Parry MG, Fernando R, Bawa GP, et al. Dorsal column function after epidural and spinal blockade: implications for the safety of walking following low-dose regional analgesia for labour. *Anaesthesia*. 1998 Apr;53(4):382-7. X-9.
4223. Parsons AK, Sauer MV, Parsons MT, et al. Appendectomy at cesarean section: a prospective study. *Obstet Gynecol*. 1986 Oct;68(4):479-82. X-9.
4224. Parsons M and Nagy S. Anaesthetists' perspective on oral intake for women in labour. *British Journal of Midwifery*. 2006;14(8):488-491. X-1.
4225. Parsons M, Simpson M and Ponton T. Raspberry leaf and its effect on labour: safety and efficacy. *Aust Coll Midwives Inc J*. 1999 Sep;12(3):20-5. X-1.
4226. Parsons MT and Spellacy WN. Prospective randomized study of x-ray pelvimetry in the primigravida. *Obstet Gynecol*. 1985 Jul;66(1):76-9. X-4e, X-5.
4227. Parsons MT, Winegar A, Siefert L, et al. Pregnancy outcomes in short women. *J Reprod Med*. 1989 May;34(5):357-61. X-1.
4228. Pasquini L, Wimalasundera RC, Fichera A, et al. High perinatal survival in monoamniotic twins managed by prophylactic sulindac, intensive ultrasound surveillance, and Cesarean delivery at 32 weeks' gestation. *Ultrasound Obstet Gynecol*. 2006 Oct;28(5):681-7. X-1.
4229. Pasternak DP, Pine M, Nolan K, et al. Risk-adjusted measurement of primary cesarean sections: reliable assessment of the quality of obstetrical services. *Qual Manag Health Care*. 1999 Fall;8(1):47-54. X-1.
4230. Pastorfide GB, Gorgonio NM, Ganzon AR, et al. Zinc chloride spray--magnesium hydroxide ointment dual topical regimen in the treatment of obstetric and gynecologic incisional wounds. *Clin Ther*. 1989 Mar-Apr;11(2):258-63. X-3, X-4b, X-4e, X-5.
4231. Pasupathy D, Wood AM, Pell JP, et al. Time trend in the risk of delivery-related perinatal and neonatal death associated with breech presentation at term. *Int J Epidemiol*. 2009 Apr;38(2):490-8. X-1.
4232. Pasupathy D, Wood AM, Pell JP, et al. Time of birth and risk of neonatal death at term: retrospective cohort study. *BMJ*. 2010;341:c3498. X-1.
4233. Patel JA, Patel NA, Thomas RL, et al. Pregnancy outcomes after laparoscopic Roux-en-Y gastric bypass. *Surg Obes Relat Dis*. 2008 Jan-Feb;4(1):39-45. X-1.
4234. Patel M, Samsoun G, Swami A, et al. Posture and the spread of hyperbaric bupivacaine in parturients using the combined spinal epidural technique. *Can J Anaesth*. 1993 Oct;40(10):943-6. X-9.
4235. Patel P, Desai P and Gajjar F. Labor epidural analgesia in pre-eclampsia: a prospective study. *J Obstet Gynaecol Res*. 2005 Aug;31(4):291-5. X-4e.
4236. Pateman K, Khalil A and O'Brien P. Electronic fetal heart rate monitoring: help or hindrance? *British Journal of Midwifery*. 2008;16(7):454-457. X-1, X-2.
4237. Paterson-Brown S, Fisk NM, Edmonds DK, et al. Preinduction cervical assessment by Bishop's score and transvaginal ultrasound. *Eur J Obstet Gynecol Reprod Biol*. 1991 Jun 5;40(1):17-23. X-1, X-4e, X-5.
4238. Patnaik P and Rout GC. Prostaglandin E2 gel for cervical priming and induction of labour in unfavourable cervical state. *J Indian Med Assoc*. 1995 Apr;93(4):140-1, 135. X-1, X-4d, X-5.
4239. Patolia DS, Hilliard RL, Toy EC, et al. Early feeding after cesarean: randomized trial. *Obstet Gynecol*. 2001 Jul;98(1):113-6. X-9.
4240. Pattanittum P, Ewens MR, Laopaiboon M, et al. Use of antenatal corticosteroids prior to preterm birth in four South East Asian countries within the SEA-ORCHID project. *BMC Pregnancy Childbirth*. 2008;8:47. X-1.
4241. Patterson CC, Carson DJ, Hadden DR, et al. A case-control investigation of perinatal risk factors for childhood IDDM in Northern Ireland and Scotland. *Diabetes Care*. 1994 May;17(5):376-81. X-1.
4242. Patterson DA, Winslow M and Matus CD. Spontaneous vaginal delivery. *Am Fam Physician*. 2008 Aug 1;78(3):336-41. X-1, X-2.

4243. Pattinson RC and Farrell EE. Pelvimetry for fetal cephalic presentations at or near term. *Cochrane Database of Systematic Reviews*. 1997(2). X-1, X-2.
4244. Pattinson RC, Norman K and Odendaal HJ. The role of Doppler velocimetry in the management of high risk pregnancies. *Br J Obstet Gynaecol*. 1994 Feb;101(2):114-20. X-4e.
4245. Patumanond J, Tawichasri C and Khunpradit S. Infant male sex as a risk factor for shoulder dystocia but not for cephalopelvic disproportion: an independent or confounded effect? *Gend Med*. 2010 Feb;7(1):55-63. X-1.
4246. Patwardhan VB. Eclampsia. *J Indian Med Assoc*. 1995 Feb;93(2):58-9, 48. X-1, X-2.
4247. Paul DA, Locke R, Zook K, et al. Racial differences in prenatal care of mothers delivering very low birth weight infants. *J Perinatol*. 2006 Feb;26(2):74-8. X-1.
4248. Paul DA, Mackley A, Locke RG, et al. State infant mortality: an ecologic study to determine modifiable risks and adjusted infant mortality rates. *Matern Child Health J*. 2009 May;13(3):343-8. X-1.
4249. Paumgarten FJ, Magalhaes-de-Souza CA, de-Carvalho RR, et al. Embryotoxic effects of misoprostol in the mouse. *Braz J Med Biol Res*. 1995 Mar;28(3):355-61. X-1.
4250. Paungmora N, Herabutya Y, P OP, et al. Comparison of oral and vaginal misoprostol for induction of labor at term: a randomized controlled trial. *J Obstet Gynaecol Res*. 2004 Oct;30(5):358-62. X-4d.
4251. Pavicic H, Hamelin K and Menticoglou SM. Does routine induction of labour at 41 weeks really reduce the rate of caesarean section compared with expectant management? *J Obstet Gynaecol Can*. 2009 Jul;31(7):621-6. X-1.
4252. Pavlova-Greenfield T, Sutija VG and Gudavalli M. Adolescent pregnancy: positive perinatal outcome at a community hospital. *J Perinat Med*. 2000;28(6):443-6. X-1.
4253. Pavy TJ, Gambling DR, Merrick PM, et al. Rectal indomethacin potentiates spinal morphine analgesia after caesarean delivery. *Anaesth Intensive Care*. 1995 Oct;23(5):555-9. X-9.
4254. Pavy TJ, Paech MJ and Evans SF. The effect of intravenous ketorolac on opioid requirement and pain after caesarean delivery. *Anesth Analg*. 2001 Apr;92(4):1010-4. X-9.
4255. Payne SD, Resnik R, Moore TR, et al. Maternal characteristics and risk of severe neonatal thrombocytopenia and intracranial hemorrhage in pregnancies complicated by autoimmune thrombocytopenia. *Am J Obstet Gynecol*. 1997 Jul;177(1):149-55. X-1.
4256. Peaceman AM, Feinglass J and Manheim LM. Risk-adjustment of caesarean delivery rates: a practical method for use in quality improvement. *Am J Med Qual*. 2002 May-Jun;17(3):113-7. X-1.
4257. Peaceman AM, Lopez-Zeno JA, Minogue JP, et al. Factors that influence route of delivery--active versus traditional labor management. *Am J Obstet Gynecol*. 1993 Oct;169(4):940-4. X-1, X-5.
4258. Pearce C, Torres C, Stallings S, et al. Elective appendectomy at the time of cesarean delivery: a randomized controlled trial. *Am J Obstet Gynecol*. 2008 Nov;199(5):491 e1-5. X-9.
4259. Pearson L and Shoo R. Availability and use of emergency obstetric services: Kenya, Rwanda, Southern Sudan, and Uganda. *Int J Gynaecol Obstet*. 2005 Feb;88(2):208-15. X-1.
4260. Peck RW, Price DE, Lang GD, et al. Birthweight of babies born to mothers with type 1 diabetes: is it related to blood glucose control in the first trimester? *Diabet Med*. 1991 Apr;8(3):258-62. X-1.
4261. Peckham C and Newell ML. Human immunodeficiency virus infection and mode of delivery. *Acta Paediatr Suppl*. 1997 Jun;421:104-6. X-1, X-2.
4262. Pedersen H, Santos AC, Steinberg ES, et al. Incidence of visceral pain during cesarean section: the effect of varying doses of spinal bupivacaine. *Anesth Analg*. 1989 Jul;69(1):46-9. X-9.
4263. Pedersen JE, Fernandes A and Christensen M. Halothane 2% for caesarean section. *Eur J Anaesthesiol*. 1992 Jul;9(4):319-24. X-9.
4264. Pedersen P, Avlund OL, Pedersen BL, et al. Intramuscular adrenaline does not reduce the incidence of respiratory distress and hypoglycaemia in neonates delivered by elective caesarean section at term. *Arch Dis Child Fetal Neonatal Ed*. 2009 May;94(3):F164-7. X-9.
4265. Peek M, Shennan A, Halligan A, et al. Hypertension in pregnancy: which method of blood pressure measurement is most predictive of outcome? *Obstet Gynecol*. 1996 Dec;88(6):1030-3. X-1.
4266. Peipert JF and Bracken MB. Maternal age: an independent risk factor for caesarean delivery. *Obstet Gynecol*. 1993 Feb;81(2):200-5. X-1.
4267. Peipert JF, Hogan JW, Gifford D, et al. Strength of indication for cesarean delivery: comparison of private physician versus resident service labor management. *Am J Obstet Gynecol*. 1999 Aug;181(2):435-9. X-1.
4268. Peixoto AJ, Celich MF, Zardo L, et al. Ondansetron or droperidol for prophylaxis of nausea and vomiting after intrathecal morphine. *Eur J Anaesthesiol*. 2006 Aug;23(8):670-5. X-9.
4269. Peled Y, Perri T, Chen R, et al. Gestational diabetes mellitus--implications of different treatment protocols. *J Pediatr Endocrinol Metab*. 2004 Jun;17(6):847-52. X-1.

4270. Peleg D, Hannah ME, Hodnett ED, et al. Predictors of cesarean delivery after prelabor rupture of membranes at term. *Obstet Gynecol.* 1999 Jun;93(6):1031-5. X-4e.
4271. Pellegrini JE, Bailey SL, Graves J, et al. The impact of nalmefene on side effects due to intrathecal morphine at cesarean section. *AANA J.* 2001 Jun;69(3):199-205. X-9.
4272. Pelosi M, Langer A and Hung C. Prophylactic internal iliac artery ligation at cesarean hysterectomy. *Am J Obstet Gynecol.* 1975 Feb 1;121(3):394-8. X-1.
4273. Peltz B and Sinclair DM. Induction agents for Caesarean section. A comparison of thiopentone and ketamine. *Anaesthesia.* 1973 Jan;28(1):37-42. X-9.
4274. Pembrey L, Newell ML and Tovo PA. The management of HCV infected pregnant women and their children European paediatric HCV network. *J Hepatol.* 2005 Sep;43(3):515-25. X-1.
4275. Pence S, Kocoglu H, Balat O, et al. The effect of delivery on umbilical arterial cord blood gases and lipid peroxides: comparison of vaginal delivery and cesarean section. *Clin Exp Obstet Gynecol.* 2002;29(3):212-4. X-1, X-3, X-4e.
4276. Penn ZJ and Steer PJ. Reasons for declining participation in a prospective randomized trial to determine the optimum mode of delivery of the preterm breech. *Control Clin Trials.* 1990 Aug;11(4):226-31. X-1.
4277. Penn ZJ and Steer PJ. How obstetricians manage the problem of preterm delivery with special reference to the preterm breech. *Br J Obstet Gynaecol.* 1991 Jun;98(6):531-4. X-1.
4278. Penn ZJ, Steer PJ and Grant A. A multicentre randomised controlled trial comparing elective and selective caesarean section for the delivery of the preterm breech infant. *Br J Obstet Gynaecol.* 1996 Jul;103(7):684-9. X-9.
4279. Pennell CE, Henderson JJ, O'Neill MJ, et al. Induction of labour in nulliparous women with an unfavourable cervix: a randomised controlled trial comparing double and single balloon catheters and PGE2 gel. *BJOG.* 2009 Oct;116(11):1443-52. X-4d.
4280. Pennison EH and Egerman RS. Perinatal outcomes in gestational diabetes: a comparison of criteria for diagnosis. *Am J Obstet Gynecol.* 2001 May;184(6):1118-21. X-1.
4281. Pentecost AF. The effect of buccal 'pitocin' on the unripe cervix. *Curr Med Res Opin.* 1973;1(8):482-4. X-1.
4282. Pepple DJ, Mullings AM and Reid HL. Increased incidence of adverse perinatal outcome with low maternal blood viscosity in preeclampsia. *Clin Hemorheol Microcirc.* 2004;30(2):127-31. X-1.
4283. Pereira C, Bugalho A, Bergstrom S, et al. A comparative study of caesarean deliveries by assistant medical officers and obstetricians in Mozambique. *Br J Obstet Gynaecol.* 1996 Jun;103(6):508-12. X-1, X-9.
4284. Peretz B and Kafka I. Baby bottle tooth decay and complications during pregnancy and delivery. *Pediatr Dent.* 1997 Jan-Feb;19(1):34-6. X-1.
4285. Perez-Then E, Pena R, Tavarez-Rojas M, et al. Preventing mother-to-child HIV transmission in a developing country: the Dominican Republic experience. *J Acquir Immune Defic Syndr.* 2003 Dec 15;34(5):506-11. X-1.
4286. Periti P, Mazzei T, Lamanna S, et al. Single-dose ceftriaxone versus multi-dose cefotaxime antimicrobial prophylaxis in gynecologic and obstetrical surgery. Preliminary results of a multicenter prospective randomized study. *Chemioterapia.* 1984 Oct;3(5):299-304. X-9.
4287. Perkins RP. The merits of extraperitoneal cesarean section: a continuing experience. *J Reprod Med.* 1977 Sep;19(3):154-8. X-1.
4288. Perkins RP. Perinatal observations in a high-risk population managed without intrapartum fetal pH studies. *Am J Obstet Gynecol.* 1984 Jun 1;149(3):327-36. X-1.
4289. Perlman JM, Broyles RS and Rogers CG. Neonatal neurologic characteristics of preterm twin infants <1,250 gm birth weight. *Pediatr Neurol.* 1997 Nov;17(4):322-6. X-1.
4290. Perlow JH, Montgomery D, Morgan MA, et al. Severity of asthma and perinatal outcome. *Am J Obstet Gynecol.* 1992 Oct;167(4 Pt 1):963-7. X-1.
4291. Perlow JH and Morgan MA. Massive maternal obesity and perioperative cesarean morbidity. *Am J Obstet Gynecol.* 1994 Feb;170(2):560-5. X-1.
4292. Perlow JH, Morgan MA, Montgomery D, et al. Perinatal outcome in pregnancy complicated by massive obesity. *Am J Obstet Gynecol.* 1992 Oct;167(4 Pt 1):958-62. X-1.
4293. Perreault C, Blaise GA and Meloche R. Another look at maternal inspired oxygen concentration during cesarian section. *Can J Anaesth.* 1990 May;37(4 Pt 2):S118. X-9.
4294. Perreault C, Blaise GA and Meloche R. Maternal inspired oxygen concentration and fetal oxygenation during caesarean section. *Can J Anaesth.* 1992 Feb;39(2):155-7. X-9.
4295. Perreault C, Guay J, Gaudreault P, et al. Residual curarization in the neonate after caesarean section. *Can J Anaesth.* 1991 Jul;38(5):587-91. X-1.
4296. Perri T, Chen R, Yoeli R, et al. Are singleton assisted reproductive technology pregnancies at risk of prematurity? *J Assist Reprod Genet.* 2001 May;18(5):245-9. X-1.

4297. Perriss BW, Latham BV and Wilson IH. Analgesia following extradural and i.m. pethidine in post-caesarean section patients. *Br J Anaesth.* 1990 Mar;64(3):355-7. X-9.
4298. Perry MY and Leaphart WL. Randomized trial of intracervical versus posterior fornix dinoprostone for induction of labor. *Obstet Gynecol.* 2004 Jan;103(1):13-7. X-4d.
4299. Persson M, Norman M and Hanson U. Obstetric and perinatal outcomes in type 1 diabetic pregnancies: A large, population-based study. *Diabetes Care.* 2009 Nov;32(11):2005-9. X-1.
4300. Persson-Kjerstadius N, Forsgren H and Westgren M. Intrapartum amnioinfusion in women with oligohydramniosis. A prospective randomized trial. *Acta Obstet Gynecol Scand.* 1999 Feb;78(2):116-9. X-4e.
4301. Perveen S. Maternal and neonatal adverse outcome at repeat cesarean delivery versus repeat vaginal delivery. *J Coll Physicians Surg Pak.* 2011 Feb;21(2):84-7. X-1.
4302. Peschers U, Schaer G, Anthuber C, et al. Changes in vesical neck mobility following vaginal delivery. *Obstet Gynecol.* 1996 Dec;88(6):1001-6. X-1.
4303. Peschers UM, Schaer GN, DeLancey JO, et al. Levator ani function before and after childbirth. *Br J Obstet Gynaecol.* 1997 Sep;104(9):1004-8. X-1.
4304. Peskin DT. The impact of analgesic dosing strategy on motor blockade and mode of delivery for women in labor. 2006;Ph.D.:176 p. X-4e.
4305. Peters C, Cowley M and Standiford L. The process of outcomes management in an acute care facility. *Nurs Adm Q.* 1999 Fall;24(1):75-89. X-1.
4306. Peterson CM, Medchill M, Gordon DS, et al. Cesarean prophylaxis: a comparison of cefamandole and cefazolin by both intravenous and lavage routes, and risk factors associated with endometritis. *Obstet Gynecol.* 1990 Feb;75(2):179-82. X-9.
4307. Petraglia F, Di Blasio AM, Florio P, et al. High levels of fetal membrane activin beta A and activin receptor IIB mRNAs and augmented concentration of amniotic fluid activin A in women in term or preterm labor. *J Endocrinol.* 1997 Jul;154(1):95-101. X-1.
4308. Petropoulos G, Siristatidis C, Salamalekis E, et al. Spinal and epidural versus general anesthesia for elective cesarean section at term: effect on the acid-base status of the mother and newborn. *J Matern Fetal Neonatal Med.* 2003 Apr;13(4):260-6. X-1.
4309. Petrou S and Glazener C. The economic costs of alternative modes of delivery during the first two months postpartum: results from a Scottish observational study. *BJOG.* 2002 Feb;109(2):214-7. X-1.
4310. Pettker CM, Pocock SB, Smok DP, et al. Transcervical Foley catheter with and without oxytocin for cervical ripening: a randomized controlled trial. *Obstet Gynecol.* 2008 Jun;111(6):1320-6. X-4d.
4311. Pevzner L, Goffman D, Freda MC, et al. Patients' attitudes associated with cesarean delivery on maternal request in an urban population. *Am J Obstet Gynecol.* 2008 May;198(5):e35-7. X-1.
4312. Pevzner L, Powers BL, Rayburn WF, et al. Effects of maternal obesity on duration and outcomes of prostaglandin cervical ripening and labor induction. *Obstet Gynecol.* 2009 Dec;114(6):1315-21. X-4e, X-5.
4313. Pevzner L, Rayburn WF, Rumney P, et al. Factors predicting successful labor induction with dinoprostone and misoprostol vaginal inserts. *Obstet Gynecol.* 2009 Aug;114(2 Pt 1):261-7. X-4d, X-4e.
4314. Pezzlo MT, Hesser JW, Morgan T, et al. Improved laboratory efficiency and diagnostic accuracy with new double-lumen-protected swab for endometrial specimens. *J Clin Microbiol.* 1979 Jan;9(1):56-9. X-1.
4315. Phadungkiatwattana P, Rujiwetpongstorn J, Tansathit T, et al. Pregnancy outcomes of Southeast Asian immigrant pregnant women compared with Thai pregnant women in Rajavithi Hospital. *J Med Assoc Thai.* 2011 Feb;94(2):147-51. X-1.
4316. Pharaon S. Lower genito-urinary fistulae. *Saudi J Kidney Dis Transpl.* 2007 Nov;18(4):643-7. X-1.
4317. Phatak MS and Kurhade GA. A longitudinal study of antenatal changes in lung function tests and importance of postpartum exercises in their recovery. *Indian J Physiol Pharmacol.* 2003 Jul;47(3):352-6. X-1.
4318. Phelan JP. The maternal abdominal wall: a fortress against fetal health care? *South Calif Law Rev.* 1991 Nov;65(1):461-90. X-1.
4319. Phelan JP, Korst LM and Settles DK. Uterine activity patterns in uterine rupture: a case-control study. *Obstet Gynecol.* 1998 Sep;92(3):394-7. X-1.
4320. Phelan JP and Pruyn SC. Prophylactic antibiotics in cesarean section: a double-blind study of cefazolin. *Am J Obstet Gynecol.* 1979 Mar 1;133(5):474-8. X-9.
4321. Philipp E. Guanfacine in the treatment of hypertension due to pre-eclamptic toxemia in thirty women. *Br J Clin Pharmacol.* 1980;10 Suppl 1:137S-140S. X-1.
4322. Philipson EH, Kalhan SC, Riha MM, et al. Effects of maternal glucose infusion on fetal acid-base status in human pregnancy. *Am J Obstet Gynecol.* 1987 Oct;157(4 Pt 1):866-73. X-9.
4323. Philipson EH, Kalhan SC, Rosen MG, et al. Gestational diabetes mellitus. Is further

- improvement necessary? *Diabetes*. 1985 Jun;34 Suppl 2:55-60. X-1.
4324. Phillips E, McGrath P and Vaughan G. 'I wanted desperately to have a natural birth': mothers' insights on vaginal birth after Caesarean (VBAC). *Contemp Nurse*. 2009 Dec-2010 Jan;34(1):77-84. X-1.
4325. Phillips N. Surgical adhesions: 'the ties that bind'. *NurseWeek* (15475131). 2009;16(11):20-25. X-1.
4326. Phillips N. Surgical adhesions: 'the ties that bind'. *Nursing Spectrum -- DC, Maryland & Virginia Edition*. 2009;19(11):26-31. X-1.
4327. Phillips N. Surgical adhesions: 'the ties that bind'. *Nursing Spectrum -- Florida Edition*. 2009;19(10):20-25. X-1.
4328. Phillips N. Surgical adhesions: 'the ties that bind'. *Nursing Spectrum -- Greater Chicago*. 2009;22(11):16-21. X-1.
4329. Phillips N. Surgical adhesions: 'the ties that bind'. *Nursing Spectrum -- New York & New Jersey Edition*. 2009;21(16):24-29. X-1.
4330. Phillips N. Surgical adhesions: 'the ties that bind'. *Nursing Spectrum -- Philadelphia Tri -- State Edition*. 2009;18([10]):16-21. X-1.
4331. Phillips N. Surgical adhesions: 'the ties that bind'. *NurseWeek* (15470571). 2009;23(12):32-37. X-1.
4332. Phillips RN, Thornton J and Gleicher N. Physician bias in cesarean sections. *JAMA*. 1982 Sep 3;248(9):1082-4. X-1.
4333. Phillips TW, Jr., Broussard DM, Sumrall WD, 3rd, et al. Intraoperative oxygen administration does not reduce the incidence or severity of nausea or vomiting associated with neuraxial anesthesia for cesarean delivery. *Anesth Analg*. 2007 Oct;105(4):1113-7, table of contents. X-9.
4334. Phipps H, Roberts CL, Nassar N, et al. The management of breech pregnancies in Australia and New Zealand. *Aust N Z J Obstet Gynaecol*. 2003 Aug;43(4):294-7; discussion 261. X-1.
4335. Phipps MG, Watabe B, Clemons JL, et al. Risk factors for bladder injury during cesarean delivery. *Obstet Gynecol*. 2005 Jan;105(1):156-60. X-1.
4336. Phupong V and Suebnukarn K. Obstetric outcomes in nulliparous young adolescents. *Southeast Asian J Trop Med Public Health*. 2007 Jan;38(1):141-5. X-1.
4337. Piazze J, Padula F, Cerekja A, et al. Prognostic value of umbilical-middle cerebral artery pulsatility index ratio in fetuses with growth restriction. *Int J Gynaecol Obstet*. 2005 Dec;91(3):233-7. X-1.
4338. Piccoli GB, Attini R, Vasario E, et al. Pregnancy and chronic kidney disease: a challenge in all CKD stages. *Clin J Am Soc Nephrol*. 2010 May;5(5):844-55. X-1.
4339. Picker RH, Robertson RD, Pennington JC, et al. A safe method of amniocentesis for lecithin/sphingomyelin determination in late pregnancy using ultrasound. *Obstet Gynecol*. 1976 Jun;47(6):722-4. X-1.
4340. Pickles CJ, Broughton Pipkin F and Symonds EM. A randomised placebo controlled trial of labetalol in the treatment of mild to moderate pregnancy induced hypertension. *Br J Obstet Gynaecol*. 1992 Dec;99(12):964-8. X.
4341. Pierce ET, Carr DB and Datta S. Effects of ephedrine and phenylephrine on maternal and fetal atrial natriuretic peptide levels during elective cesarean section. *Acta Anaesthesiol Scand*. 1994 Jan;38(1):48-51. X-9.
4342. Piggott SE, Bogod DG, Rosen M, et al. Isoflurane with either 100% oxygen or 50% nitrous oxide in oxygen for caesarean section. *Br J Anaesth*. 1990 Sep;65(3):325-9. X-9.
4343. Pillar N, Levy A, Holcberg G, et al. Pregnancy and perinatal outcome in women with hyperthyroidism. *Int J Gynaecol Obstet*. 2010 Jan;108(1):61-4. X-1.
4344. Pitt C, Sanchez-Ramos L and Kaunitz AM. Adjunctive intravaginal metronidazole for the prevention of postcesarean endometritis: a randomized controlled trial. *Obstet Gynecol*. 2001 Nov;98(5 Pt 1):745-50. X-9.
4345. Pittard WB, 3rd, Miller K and Sorensen RU. Normal lymphocyte responses to mitogens in term and premature neonates following normal and abnormal intrauterine growth. *Clin Immunol Immunopathol*. 1984 Feb;30(2):178-87. X-1.
4346. Pittard WB, 3rd, Miller KM and Sorensen RU. Perinatal influences on in vitro B lymphocyte differentiation in human neonates. *Pediatr Res*. 1985 Jul;19(7):655-8. X-1.
4347. Place J. Two views of the same picture. *AWHONN Lifelines*. 2005 Oct-Nov;9(5):432, 431. X-1.
4348. Plante LA. Public health implications of cesarean on demand. *Obstet Gynecol Surv*. 2006 Dec;61(12):807-15. X-1, X-2.
4349. Plehwe WE, Shearman RP and Turtle JR. Management of pregnancy complicated by diabetes: experience with 232 patients in a 4-year period. *Aust N Z J Obstet Gynaecol*. 1984 Aug;24(3):167-73. X-1.
4350. Pliszczynska-Brennenstuhl M, Golabek W and Golabek E. Impedance audiometry in newborns of abnormal deliveries. *Ann Univ Mariae Curie Sklodowska Med*. 1995;50:55-8. X-4e.
4351. Plouin PF, Breart G, Llado J, et al. A randomized comparison of early with conservative use of antihypertensive drugs in the management of pregnancy-induced hypertension. *Br J Obstet Gynaecol*. 1990 Feb;97(2):134-41. X-4e.

4352. Plunkett BA and Grobman WA. Routine hepatitis C virus screening in pregnancy: a cost-effectiveness analysis. *Am J Obstet Gynecol.* 2005 Apr;192(4):1153-61. X-1.
4353. Plunkett BA, Lin A, Wong CA, et al. Management of the second stage of labor in nulliparas with continuous epidural analgesia. *Obstet Gynecol.* 2003 Jul;102(1):109-14. X-5.
4354. Pohl JE, Thurston H, Davis D, et al. Successful use of oral diazoxide in the treatment of severe toxemia of pregnancy. *Br Med J.* 1972 Jun 3;2(5813):568-70. X-1.
4355. Poindexter YM, Sangi-Haghepeykar H, Poindexter AN, 3rd, et al. Previous cesarean section. A contraindication to vaginal hysterectomy? *J Reprod Med.* 2001 Sep;46(9):840-4. X-1.
4356. Polishuk WZ, Anteby SO and Weinstein D. Puerperal endometritis and intrauterine adhesions. *Int Surg.* 1975 Aug;60(8):418-20. X-9.
4357. Polk BF, Krache M, Phillippe M, et al. Randomized clinical trial of perioperative cefoxitin in preventing maternal infection after primary cesarean section. *Am J Obstet Gynecol.* 1982 Apr 15;142(8):983-7. X-9.
4358. Pollard JK and Mitchell MD. Effects of gestational age on prostaglandin production and its regulation in human myometrial cells. *J Matern Fetal Med.* 1996 Mar-Apr;5(2):93-8. X-1, X-9.
4359. Pollard JK and Mitchell MD. Intrauterine infection and the effects of inflammatory mediators on prostaglandin production by myometrial cells from pregnant women. *Am J Obstet Gynecol.* 1996 Feb;174(2):682-6. X-1.
4360. Pollnow DM and Broekhuizen FF. Randomized, double-blind trial of prostaglandin E2 intravaginal gel versus low-dose oxytocin for cervical ripening before induction of labor. *Am J Obstet Gynecol.* 1996 Jun;174(6):1910-3; discussion 1913-6. X-4d, X-5.
4361. Poma PA. Effect of departmental policies on cesarean delivery rates: a community hospital experience. *Obstet Gynecol.* 1998 Jun;91(6):1013-8. .
4362. Poma PA. Effects of obstetrician characteristics on cesarean delivery rates. A community hospital experience. *Am J Obstet Gynecol.* 1999 Jun;180(6 Pt 1):1364-72. X-1.
4363. Pongraweevan O, Santawata U, Weerasarn L, et al. Epidural nalbuphine for post cesarean epidural morphine induced pruritus. *J Med Assoc Thai.* 2009 Jun;92(6):782-6. X-9.
4364. Pongthai S. Labour and delivery of obese parturients. *J Med Assoc Thai.* 1990 Feb;73 Suppl 1:52-6. X-1.
4365. Ponte J, Collett BJ and Walmsley A. Anaesthetic temperature and shivering in epidural anaesthesia. *Acta Anaesthesiol Scand.* 1986 Oct;30(7):584-7. X-9.
4366. Poon YY, Chen KP, Wong SY, et al. Combined epidural lidocaine-fentanyl-epinephrine for cesarean section. *Ma Zui Xue Za Zhi.* 1989 Jun;27(2):143-8. X-9.
4367. Poonam, Banerjee B, Singh SN, et al. The Misgav Ladach method: a step forward in the operative technique of caesarean section. *Kathmandu Univ Med J (KUMJ).* 2006 Apr-Jun;4(2):198-202. X-9.
4368. Popkin DR, Martinez LA and Carswell GA. Metronidazole in the prophylaxis of anaerobic infections in gynecologic surgery. *Surgery.* 1983 Jan;93(1 Pt 2):180-4. X-9.
4369. Popovic J and Grujic Z. Influence of pregnancy on one-compartmental bio-metric blood loss calculations after cesarean section and gynaecological surgery. *Eur J Drug Metab Pharmacokinet.* 2008 Jan-Mar;33(1):53-9. X-1.
4370. Popovic J, Grujic Z and Sabo A. Influence of pregnancy on ceftriaxone, cefazolin and gentamicin pharmacokinetics in caesarean vs. non-pregnant sectioned women. *J Clin Pharm Ther.* 2007 Dec;32(6):595-602. X-1.
4371. Porreco RP. High cesarean section rate: a new perspective. *Obstet Gynecol.* 1985 Mar;65(3):307-11. X-5.
4372. Porreco RP. Meeting the challenge of the rising cesarean birth rate. *Obstet Gynecol.* 1990 Jan;75(1):133-6. .
4373. Porreco RP, Boehm FH, Dildy GA, et al. Dystocia in nulliparous patients monitored with fetal pulse oximetry. *Am J Obstet Gynecol.* 2004 Jan;190(1):113-7. X-1.
4374. Porreco RP, Schoolcraft CL and Schoolcraft WB. Pregnancy outcome following donor embryo replacement. *J Matern Fetal Med.* 1997 Jul-Aug;6(4):237-40. X-1.
4375. Portelinha A, Belo L, Cerdeira AS, et al. Lipid levels including oxidized LDL in women with history of preeclampsia. *Hypertens Pregnancy.* 2010 Jan;29(1):93-100. X-1.
4376. Porter M, Bhattacharya S and van Teijlingen E. Unfulfilled expectations: how circumstances impinge on women's reproductive choices. *Soc Sci Med.* 2006 Apr;62(7):1757-67. X-1.
4377. Potter JE, Berquo E, Perpetuo IH, et al. Unwanted caesarean sections among public and private patients in Brazil: prospective study. *BMJ.* 2001 Nov 17;323(7322):1155-8. X-1.
4378. Potter JE, Perpetuo IH, Berquo E, et al. Frustrated demand for postpartum female sterilization in Brazil. *Contraception.* 2003 May;67(5):385-90. X-1.
4379. Pouta AM, Karinen J, Vuolteenaho OJ, et al. Effect of intravenous fluid preload on vasoactive peptide secretion during Caesarean section under spinal anaesthesia. *Anaesthesia.* 1996 Feb;51(2):128-32. X-9.

4380. Powell-Jackson T, Neupane BD, Tiwari S, et al. The impact of Nepal's national incentive programme to promote safe delivery in the district of Makwanpur. *Adv Health Econ Health Serv Res*. 2009;21:221-49. X-1.
4381. Power ML, Cogswell ME and Schulkin J. US obstetrician-gynaecologist's prevention and management of obesity in pregnancy. *J Obstet Gynaecol*. 2009 Jul;29(5):373-7. X-1.
4382. Prabhu M, Wang LF, Tait AR, et al. A randomized controlled study of whether the partner's presence in the operating room during neuraxial anesthesia for cesarean delivery reduces patient anxiety. *Int J Obstet Anesth*. 2009 Oct;18(4):362-7. X-9.
4383. Pradhan B. Spinal anesthesia for cesarean section: comparison of 5.0% lignocaine and 0.5% bupivacaine. *Nepal Med Coll J*. 2010 Mar;12(1):30-3. X-9.
4384. Prager M, Eneroth-Grimfors E, Edlund M, et al. A randomised controlled trial of intravaginal dinoprostone, intravaginal misoprostol and transcervical balloon catheter for labour induction. *BJOG*. 2008 Oct;115(11):1443-50. X-4d.
4385. Prakash S, Joshi N, Gogia AR, et al. Analgesic efficacy of two doses of intrathecal midazolam with bupivacaine in patients undergoing cesarean delivery. *Reg Anesth Pain Med*. 2006 May-Jun;31(3):221-6. X-9.
4386. Prakash S, Pramanik V, Chellani H, et al. Maternal and neonatal effects of bolus administration of ephedrine and phenylephrine during spinal anaesthesia for caesarean delivery: a randomised study. *Int J Obstet Anesth*. 2010 Jan;19(1):24-30. X-9.
4387. Prasad RN, Adaikan PG, Arulkumaran S, et al. Preinduction cervical priming with PGE2 vaginal film in primigravidae--a randomised, double blind, placebo controlled study. *Prostaglandins Leukot Essent Fatty Acids*. 1989 Jun;36(3):185-8. X-4d, X-5.
4388. Prather WR, Toren A, Meiron M, et al. The role of placental-derived adherent stromal cell (PLX-PAD) in the treatment of critical limb ischemia. *Cytotherapy*. 2009;11(4):427-34. X-1.
4389. Pratt R. Perinatal HIV infection in 1999: effective preventative strategies. *Journal of Neonatal Nursing*. 1999;5(2):37-41. X-1, X-2.
4390. Pratt RJ and Pellowe CM. Preventing perinatal and infant HIV infection. *Infant*. 2006;2(3):116-119. X-1, X-2.
4391. Pressman EK and Blakemore KJ. A prospective randomized trial of two solutions for intrapartum amnioinfusion: effects on fetal electrolytes, osmolality, and acid-base status. *Am J Obstet Gynecol*. 1996 Oct;175(4 Pt 1):945-9. X-4e, X-5.
4392. Pressman EK, Tucker JA, Jr., Anderson NC, Jr., et al. Morphologic and electrophysiologic characterization of isolated pregnant human myometrial cells. *Am J Obstet Gynecol*. 1988 Nov;159(5):1273-9. X-9.
4393. Preston PG, Rosen MA, Hughes SC, et al. Epidural anesthesia with fentanyl and lidocaine for cesarean section: maternal effects and neonatal outcome. *Anesthesiology*. 1988 Jun;68(6):938-43. X-9.
4394. Price L. A mother's intuition. *Pract Midwife*. 2010 Dec;13(11):28-31. X-1, X-2.
4395. Price MR and Broomberg J. The impact of the fee-for-service reimbursement system on the utilisation of health services. Part III. A comparison of caesarean section rates in white nulliparous women in the private and public sectors. *S Afr Med J*. 1990 Aug 4;78(3):136-8. X-1.
4396. Prins RP, Bolton RN, Mark C, 3rd, et al. Cervical ripening with intravaginal prostaglandin E2 gel. *Obstet Gynecol*. 1983 Apr;61(4):459-62. X-4d, X-4e, X-5.
4397. Procianoy RS, Giacomini CB and Oliveira ML. Fetal and neonatal cortical adrenal function in birth asphyxia. *Acta Paediatr Scand*. 1988 Sep;77(5):671-4. X-1.
4398. Procianoy RS, Silveira RC, Mussi-Pinhata MM, et al. Sepsis and neutropenia in very low birth weight infants delivered of mothers with preeclampsia. *J Pediatr*. 2010 Sep;157(3):434-8, 438 e1. X-1.
4399. Pron G, Mocarski E, Bennett J, et al. Pregnancy after uterine artery embolization for leiomyomata: the Ontario multicenter trial. *Obstet Gynecol*. 2005 Jan;105(1):67-76. X-1.
4400. Protonotariou E, Malamitsi-Puchner A, Rizos D, et al. Alterations in Th1/Th2 cytokine concentrations in early neonatal life. *J Matern Fetal Neonatal Med*. 2003 Dec;14(6):407-10. X-1.
4401. Prysak M and Castronova FC. Elective induction versus spontaneous labor: a case-control analysis of safety and efficacy. *Obstet Gynecol*. 1998 Jul;92(1):47-52. X-1.
4402. Prytherch H, Massawe S, Kuelker R, et al. The unmet need for emergency obstetric care in Tanga Region, Tanzania. *BMC Pregnancy Childbirth*. 2007;7:16. X-1.
4403. Puchalski SA and Morison DH. Onset of subarachnoid bupivacaine in caesarean section. *Can J Anaesth*. 1990 May;37(4 Pt 2):S35. X-4b.
4404. Puertas A, Paz Carrillo M, Molto L, et al. Meconium-stained amniotic fluid in labor: a randomized trial of prophylactic amniofusion. *Eur J Obstet Gynecol Reprod Biol*. 2001 Nov;99(1):33-7. X-4e.
4405. Putre L. Patient care. Rise in C-sections tax hospitals' resources. *Hosp Health Netw*. 2008 Apr;82(4):12. X-1, X-2, X-3, X-4e, X-5.

4406. Qian XW, Chen XZ and Li DB. Low-dose ropivacaine-sufentanil spinal anaesthesia for caesarean delivery: a randomised trial. *Int J Obstet Anesth.* 2008 Oct;17(4):309-14. X-9.
4407. Qidwai GI, Caughey AB and Jacoby AF. Obstetric outcomes in women with sonographically identified uterine leiomyomata. *Obstet Gynecol.* 2006 Feb;107(2 Pt 1):376-82. X-1.
4408. Qiu H, Paneth N, Lorenz JM, et al. Labor and delivery factors in brain damage, disabling cerebral palsy, and neonatal death in low-birth-weight infants. *Am J Obstet Gynecol.* 2003 Oct;189(4):1143-9. X-1.
4409. Quayyum Z, Nadjib M, Ensor T, et al. Expenditure on obstetric care and the protective effect of insurance on the poor: lessons from two Indonesian districts. *Health Policy Plan.* 2010 May;25(3):237-47. X-1.
4410. Qublan HS, Merhej A, Dabbas MA, et al. Spinal versus general anesthesia for elective cesarean delivery: a prospective comparative study. *Clin Exp Obstet Gynecol.* 2001;28(4):246-8. X-9.
4411. Quenby S, Mountfield S, Cartwright JE, et al. Antiphospholipid antibodies prevent extravillous trophoblast differentiation. *Fertil Steril.* 2005 Mar;83(3):691-8. X-1, X-9.
4412. Quilligan EJ. Vaginal birth after Cesarean section: 270 degrees. *J Obstet Gynaecol Res.* 2001 Aug;27(4):169-73. X-1, X-2, X-3, X-4b, X-5.
4413. Quinlivan JA, Petersen RW and Nichols CN. Patient preference the leading indication for elective Caesarean section in public patients--results of a 2-year prospective audit in a teaching hospital. *Aust N Z J Obstet Gynaecol.* 1999 May;39(2):207-14. X-1.
4414. Quirk JG, Jr., Raker RK, Petrie RH, et al. The role of glucocorticoids, unstressful labor, and atraumatic delivery in the prevention of respiratory distress syndrome. *Am J Obstet Gynecol.* 1979 Aug 1;134(7):768-71. X-1, X-3, X-4e, X-5.
4415. Qureshi B, Inafuku K, Oshima K, et al. Ultrasonographic evaluation of lower uterine segment to predict the integrity and quality of cesarean scar during pregnancy: a prospective study. *Tohoku J Exp Med.* 1997 Sep;183(1):55-65. X-1, X-4b, X-4e.
4416. Qvist N and Storm K. Cimethidine pre-anesthetic. A prophylactic method against Mendelson's syndrome in cesarean section. *Acta Obstet Gynecol Scand.* 1983;62(2):157-9. X-9.
4417. Qvist N, Storm K and Holmskov A. Cimethidine as pre-anesthetic agent for cesarean section: perinatal effects on the infant, the placental transfer of cimethidine and its elimination in the infants. *J Perinat Med.* 1985;13(4):179-83. X-9.
4418. Raatikainen K, Heiskanen N and Heinonen S. Transition from overweight to obesity worsens pregnancy outcome in a BMI-dependent manner. *Obesity (Silver Spring).* 2006 Jan;14(1):165-71. X-1.
4419. Rabe H, Wacker A, Hulskamp G, et al. A randomised controlled trial of delayed cord clamping in very low birth weight preterm infants. *Eur J Pediatr.* 2000 Oct;159(10):775-7. X-3, X-4e.
4420. Rabinovici J, Barkai G, Reichman B, et al. Randomized management of the second nonvertex twin: vaginal delivery or cesarean section. *Am J Obstet Gynecol.* 1987 Jan;156(1):52-6. X-3, X-4e, X-5.
4421. Rabl M, Ahner R, Bitschnau M, et al. Acupuncture for cervical ripening and induction of labor at term--a randomized controlled trial. *Wien Klin Wochenschr.* 2001 Dec 17;113(23-24):942-6. X-4d, X-5.
4422. Rabl M, Joura EA, Yucel Y, et al. A randomized trial of vaginal prostaglandin E2 for induction of labor. Insert vs. tablet. *J Reprod Med.* 2002 Feb;47(2):115-9. X-4d, X-5.
4423. Raby C, Helewa M, Hazlitt G, et al. Are most patients on the labour floor in active labour? A descriptive study of a Canadian obstetrical unit. *J Obstet Gynaecol Can.* 2005 Feb;27(2):130-6. X-1.
4424. Radabaugh S and Everhart A. Cesarean births: reducing incidence while improving outcomes. *AWHONN Lifelines.* 1999 Feb-Mar;3(1):28-34. X-1, X-2, X-3, X-4e.
4425. Radin TG, Harmon JS and Hanson DA. Nurses' care during labor: its effect on the cesarean birth rate of healthy, nulliparous women. *Birth.* 1993 Mar;20(1):14-21. X-1.
4426. Rafique Z, Shibli KU, Russell IF, et al. A randomised controlled trial of the closure or non-closure of peritoneum at caesarean section: effect on post-operative pain. *BJOG.* 2002 Jun;109(6):694-8. X-9.
4427. Rafla N and Farquharson R. Lupus anticoagulant in pre-eclampsia and intra-uterine growth retardation. *Eur J Obstet Gynecol Reprod Biol.* 1991 Dec 13;42(3):167-70. X-1.
4428. Rageth JC, Juzi C and Grossenbacher H. Delivery after previous cesarean: a risk evaluation. *Swiss Working Group of Obstetric and Gynecologic Institutions. Obstet Gynecol.* 1999 Mar;93(3):332-7. X-1.
4429. Rahaman J, Narayansingh GV and Roopnarinesingh S. Fetal outcome among obese parturients. *Int J Gynaecol Obstet.* 1990 Mar;31(3):227-30. X-1.
4430. Rahimi M and Makarem J. Effects of diclofenac epolamine patch on postoperative sore throat in parturients after cesarean delivery under endotracheal general anesthesia.

- Acta Anaesthesiol Taiwan. 2009 Mar;47(1):17-21. X-9.
4431. Rahimi M, Makarem J and Goharrizi AG. Succinylcholine-induced myalgia in obstetric patients scheduled for caesarean section--diclofenac vs placebo patches. Middle East J Anaesthesiol. 2009 Oct;20(3):417-22. X-9.
4432. Rahman K and Jenkins JG. Failed tracheal intubation in obstetrics: no more frequent but still managed badly. Anaesthesia. 2005 Feb;60(2):168-71. X-1.
4433. Rainaldi MP, Tazzari PL, Scagliarini G, et al. Blood salvage during caesarean section. Br J Anaesth. 1998 Feb;80(2):195-8. X-9.
4434. Raio L, Ghezzi F, Di Naro E, et al. Perinatal outcome of fetuses with a birth weight greater than 4500 g: an analysis of 3356 cases. Eur J Obstet Gynecol Reprod Biol. 2003 Aug 15;109(2):160-5. X-1.
4435. Rajab KE, Issa AA, Mohammed AM, et al. Sick cell disease and pregnancy in Bahrain. Int J Gynaecol Obstet. 2006 May;93(2):171-5. X-1.
4436. Rajasingam D, Seed PT, Briley AL, et al. A prospective study of pregnancy outcome and biomarkers of oxidative stress in nulliparous obese women. Am J Obstet Gynecol. 2009 Apr;200(4):395 e1-9. X-1, X-4e.
4437. Rajdl D, Racek J, Steinerova A, et al. Markers of oxidative stress in diabetic mothers and their infants during delivery. Physiol Res. 2005;54(4):429-36. X-1.
4438. Ramadani H. Cesarean section intraoperative blood loss and mode of placental separation. Int J Gynaecol Obstet. 2004 Nov;87(2):114-8. X-9.
4439. Raman NV and Rao CA. Magnesium sulfate as an anticonvulsant in eclampsia. Int J Gynaecol Obstet. 1995 Jun;49(3):289-98. X-1.
4440. Ramanathan J, Angel JJ, Bush AJ, et al. Changes in maternal middle cerebral artery blood flow velocity associated with general anesthesia in severe preeclampsia. Anesth Analg. 1999 Feb;88(2):357-61. X-1, X-9.
4441. Ramanathan J, Sibai BM, Mabie WC, et al. The use of labetalol for attenuation of the hypertensive response to endotracheal intubation in preeclampsia. Am J Obstet Gynecol. 1988 Sep;159(3):650-4. X-9.
4442. Ramanathan J, Sibai BM, Vu T, et al. Correlation between bleeding times and platelet counts in women with preeclampsia undergoing cesarean section. Anesthesiology. 1989 Aug;71(2):188-91. X-1.
4443. Ramanathan J, Vaddadi AK and Arheart KL. Combined spinal and epidural anesthesia with low doses of intrathecal bupivacaine in women with severe preeclampsia: a preliminary report. Reg Anesth Pain Med. 2001 Jan-Feb;26(1):46-51. X-1.
4444. Ramanathan S, Desai NS and Zakowski M. Systemic vascular uptake of epinephrine from the lumbar epidural space in parturients. Reg Anesth. 1995 May-Jun;20(3):199-205. X-9.
4445. Ramanathan S, Gandhi S, Arismendy J, et al. Oxygen transfer from mother to fetus during cesarean section under epidural anesthesia. Anesth Analg. 1982 Jul;61(7):576-81. X-9.
4446. Ramanathan S and Grant GJ. Vasopressor therapy for hypotension due to epidural anesthesia for cesarean section. Acta Anaesthesiol Scand. 1988 Oct;32(7):559-65. X-1, X-9.
4447. Ramanathan S, Khoo P and Arismendy J. Perioperative maternal and neonatal acid-base status and glucose metabolism in patients with insulin-dependent diabetes mellitus. Anesth Analg. 1991 Aug;73(2):105-11. X-1.
4448. Rameez MF and Goonewardene IM. Nitric oxide donor isosorbide mononitrate for pre-induction cervical ripening at 41 weeks' gestation: A randomized controlled trial. J Obstet Gynaecol Res. 2007 Aug;33(4):452-6. X-4d, X-5.
4449. Ramin SM, Gambling DR, Lucas MJ, et al. Randomized trial of epidural versus intravenous analgesia during labor. Obstet Gynecol. 1995 Nov;86(5):783-9. X-4e, X-5.
4450. Ramin SM, Gilstrap LC, 3rd, Leveno KJ, et al. Acid-base significance of meconium discovered prior to labor. Am J Perinatol. 1993 Mar;10(2):143-5. X-1.
4451. Ramin SM, Ramin KD, Cox K, et al. Comparison of prophylactic angiotensin II versus ephedrine infusion for prevention of maternal hypotension during spinal anesthesia. Am J Obstet Gynecol. 1994 Sep;171(3):734-9. X-9.
4452. Ramirez-Cacho WA, Flores S, Schrader RM, et al. Effect of chronic maternal methadone therapy on intrapartum fetal heart rate patterns. J Soc Gynecol Investig. 2006 Feb;13(2):108-11. X-1.
4453. Ramos GA, Jacobson GF, Kirby RS, et al. Comparison of glyburide and insulin for the management of gestational diabetics with markedly elevated oral glucose challenge test and fasting hyperglycemia. J Perinatol. 2007 May;27(5):262-7. X-1.
4454. Ramsay S. UK woman wins right to refuse caesarean section. Lancet. 1998 May 16;351(9114):1499. X-1.
4455. Ramsey PS, Harris DY, Ogburn PL, Jr., et al. Comparative efficacy and cost of the prostaglandin analogs dinoprostone and misoprostol as labor preinduction agents. Am J Obstet Gynecol. 2003 Feb;188(2):560-5. X-4d.
4456. Ramsey PS, Savage K, Lincoln T, et al. Vaginal misoprostol versus concentrated oxytocin and vaginal PGE2 for second-trimester labor induction. Obstet Gynecol. 2004 Jul;104(1):138-45. X-4d.
4457. Ramsey PS, White AM, Guinn DA, et al. Subcutaneous tissue reapproximation, alone or

- in combination with drain, in obese women undergoing cesarean delivery. *Obstet Gynecol*. 2005 May;105(5 Pt 1):967-73. X-9.
4458. Randalls B, Broadway JW, Browne DA, et al. Comparison of four subarachnoid solutions in a needle-through-needle technique for elective caesarean section. *Br J Anaesth*. 1991 Mar;66(3):314-8. X-9.
4459. Ranheim T, Haugen F, Staff AC, et al. Adiponectin is reduced in gestational diabetes mellitus in normal weight women. *Acta Obstet Gynecol Scand*. 2004 Apr;83(4):341-7. X-1.
4460. Ranheim T, Staff AC and Henriksen T. VEGF mRNA is unaltered in decidual and placental tissues in preeclampsia at delivery. *Acta Obstet Gynecol Scand*. 2001 Feb;80(2):93-8. X-1.
4461. Rankhethoa NM, Moodley J, Adhikari M, et al. Perinatal outcome of babies born to black South African women with hypertension. *East Afr Med J*. 1998 Jul;75(7):388-91. X-1.
4462. Ransom SB, Studdert DM, Dombrowski MP, et al. Reduced medicolegal risk by compliance with obstetric clinical pathways: a case--control study. *Obstet Gynecol*. 2003 Apr;101(4):751-5. X-1.
4463. Ranta PO, Ala-Kokko TI, Kukkonen JE, et al. Incisional and epidural analgesia after caesarean delivery: a prospective, placebo-controlled, randomised clinical study. *Int J Obstet Anesth*. 2006 Jul;15(3):189-94. X-9.
4464. Rao A, Celik E, Poggi S, et al. Cervical length and maternal factors in expectantly managed prolonged pregnancy: prediction of onset of labor and mode of delivery. *Ultrasound Obstet Gynecol*. 2008 Oct;32(5):646-51. X-1.
4465. Rao ZA, Choudhri A, Naqvi S, et al. Walking epidural with low dose bupivacaine plus tramadol on normal labour in primipara. *J Coll Physicians Surg Pak*. 2010 May;20(5):295-8. X-1.
4466. Rasheed R, Alam AA, Younus S, et al. Oral versus vaginal misoprostol for labour induction. *J Pak Med Assoc*. 2007 Aug;57(8):404-7. X-4d, X-5.
4467. Rasheed S, Abdelmonem A and Amin M. Adolescent pregnancy in Upper Egypt. *Int J Gynaecol Obstet*. 2011 Jan;112(1):21-4. X-1.
4468. Rashid M and Rashid RS. Higher order repeat caesarean sections: how safe are five or more? *BJOG*. 2004 Oct;111(10):1090-4. X-1.
4469. Raskas M. "Can you scrub?". *J Surg Educ*. 2009 Mar-Apr;66(2):118-9. X-1, X-2, X-9.
4470. Rasmussen MJ, Firth R, Foley M, et al. The timing of delivery in diabetic pregnancy: a 10-year review. *Aust N Z J Obstet Gynaecol*. 1992 Nov;32(4):313-7. X-1.
4471. Rasmussen OB, Pedersen BL, Wilken-Jensen C, et al. Stratified rates of cesarean sections and spontaneous vaginal deliveries. Data from five labor wards in Denmark--1996. *Acta Obstet Gynecol Scand*. 2000 Mar;79(3):227-31. X-1.
4472. Rasooli S, Moslemi F, Parish M, et al. Spinal anesthesia with minidose bupivacaine-fentanyl for cesarean section in preeclamptic parturients. *Saudi Med J*. 2008 Mar;29(3):460-2. X-1, X-2, X-3, X-4b, X-4e.
4473. Rath W, Loos W, Kuhn W, et al. The importance of early laboratory screening methods for maternal and fetal outcome in cases of HELLP syndrome. *Eur J Obstet Gynecol Reprod Biol*. 1990 Jul-Aug;36(1-2):43-51. X-1.
4474. Rauniar GP, Das BP, Banerje B, et al. Current status of prophylactic use of antimicrobial agents for caesarean section in a tertiary care teaching hospital in eastern Nepal. *Nepal Med Coll J*. 2006 Mar;8(1):14-8. X-1.
4475. Rawal N, Schollin J and Weststrom G. Epidural versus combined spinal epidural block for cesarean section. *Acta Anaesthesiol Scand*. 1988 Jan;32(1):61-6. X-9.
4476. Ray DA and Garite TJ. Prostaglandin E2 for induction of labor in patients with premature rupture of membranes at term. *Am J Obstet Gynecol*. 1992 Mar;166(3):836-43. X-1, X-4d, X-4e, X-5.
4477. Rayamajhi R, Thapa M and Pande S. The challenge of grandmultiparity in obstetric practice. *Kathmandu Univ Med J (KUMJ)*. 2006 Jan-Mar;4(1):70-4. X-1.
4478. Rayburn W, Gosen R, Ramadei C, et al. Outpatient cervical ripening with prostaglandin E2 gel in uncomplicated postdate pregnancies. *Am J Obstet Gynecol*. 1988 Jun;158(6 Pt 1):1417-23. X-4d, X-5.
4479. Rayburn W, Varner M, Galask R, et al. Comparison of moxalactam and cefazolin as prophylactic antibiotics during cesarean section. *Antimicrob Agents Chemother*. 1985 Mar;27(3):337-9. X-9.
4480. Rayburn WF, Geranis BJ, Ramadei CA, et al. Patient-controlled analgesia for post-cesarean section pain. *Obstet Gynecol*. 1988 Jul;72(1):136-9. X-9.
4481. Rayburn WF, Gittens LN, Lucas MJ, et al. Weekly administration of prostaglandin E2 gel compared with expectant management in women with previous cesareans. *Prepidil Gel Study Group*. *Obstet Gynecol*. 1999 Aug;94(2):250-4. X-4b.
4482. Rayburn WF, Powers BL, Plasse TF, et al. Pharmacokinetics of a controlled-release misoprostol vaginal insert at term. *J Soc Gynecol Investig*. 2006 Feb;13(2):112-7. X-1.
4483. Rayburn WF, Smith CV, Woods MP, et al. Combined continuous and demand narcotic dosing for patient-controlled analgesia after cesarean section. *Anesthesiol Rev*. 1990 Sep-Oct;17(5):58-62. X-9.
4484. Rayburn WF, Sökkary N, Clokey DE, et al. Consequences of routine delivery at 38 weeks for A-2 gestational diabetes. *J Matern Fetal Neonatal Med*. 2005 Nov;18(5):333-7. X-1.

4485. Raynes-Greenow CH, Roberts CL, Barratt A, et al. Pregnant women's preferences and knowledge of term breech management, in an Australian setting. *Midwifery*. 2004 Jun;20(2):181-7. X-1.
4486. Raziell A, Friedler S, Strassburger D, et al. Reproductive performance of patients undergoing intracytoplasmic sperm injection with 100% implantation rate. *J Assist Reprod Genet*. 2000 Aug;17(7):379-84. X-1.
4487. Read JS, Tuomala R, Kpamegan E, et al. Mode of delivery and postpartum morbidity among HIV-infected women: the women and infants transmission study. *J Acquir Immune Defic Syndr*. 2001 Mar 1;26(3):236-45. X-1.
4488. Rebarber A, Lonser R, Jackson S, et al. The safety of intraoperative autologous blood collection and autotransfusion during cesarean section. *Am J Obstet Gynecol*. 1998 Sep;179(3 Pt 1):715-20. X-1.
4489. Reddy BK, Pizer B and Bull PT. Neonatal serum cortisol suppression by etomidate compared with thiopentone, for elective cesarean section. *Eur J Anaesthesiol*. 1988 May;5(3):171-6. X-9.
4490. Reddy D, Murphy SJ, Kane SV, et al. Relapses of inflammatory bowel disease during pregnancy: in-hospital management and birth outcomes. *Am J Gastroenterol*. 2008 May;103(5):1203-9. X-1.
4491. Reece EA, Leguizamón G and Homko C. Stringent controls in diabetic nephropathy associated with optimization of pregnancy outcomes. *J Matern Fetal Med*. 1998 Jul-Aug;7(4):213-6. X-1.
4492. Reece EA, Moya F, Yazigi R, et al. Persistent pulmonary hypertension: assessment of perinatal risk factors. *Obstet Gynecol*. 1987 Nov;70(5):696-700. X-1.
4493. Reece SA and Reece EA. Lack of consent although informed: fetal neglect. *Med Trial Tech Q*. 1985 Fall;32(2):130-44. X-1, X-4e.
4494. Reed B. A disappearing art: vaginal breech birth. *Pract Midwife*. 2003 Oct;6(9):16-8. X-1.
4495. Reed SD, Vollan TA and Svec MA. Pregnancy outcomes in women with rheumatoid arthritis in Washington State. *Matern Child Health J*. 2006 Jul;10(4):361-6. X-1.
4496. Rees KM, Shaw AR, Bennert K, et al. Healthcare professionals' views on two computer-based decision aids for women choosing mode of delivery after previous cesarean section: a qualitative study. *BJOG*. 2009 Jun;116(7):906-14. X-1.
4497. Rees SG, Thurlow JA, Gardner IC, et al. Maternal cardiovascular consequences of positioning after spinal anaesthesia for Caesarean section: left 15 degree table tilt vs. left lateral. *Anaesthesia*. 2002 Jan;57(1):15-20. X-9.
4498. Refuerzo JS, Momirova V, Peaceman AM, et al. Neonatal outcomes in twin pregnancies delivered moderately preterm, late preterm, and term. *Am J Perinatol*. 2010 Aug;27(7):537-42. X-1, X-4e.
4499. Regaert P and Noorduyn H. General anesthesia with etomidate, alfentanil and droperidol for caesarean section. *Acta Anaesthesiol Belg*. 1984 Sep;35(3):193-200. X-1.
4500. Regan KJ and O'Sullivan G. The extension of epidural blockade for emergency Caesarean section: a survey of current UK practice. *Anaesthesia*. 2008 Feb;63(2):136-42. X-1.
4501. Reggiori A, Ravera M, Cocozza E, et al. Randomized study of antibiotic prophylaxis for general and gynaecological surgery from a single centre in rural Africa. *Br J Surg*. 1996 Mar;83(3):356-9. X-9.
4502. Regnier S, Ferman V, Levy P, et al. A case-control study of polymorphic eruption of pregnancy. *J Am Acad Dermatol*. 2008 Jan;58(1):63-7. X-1.
4503. Rehu M and Jahkola M. Prophylactic antibiotics in Caesarean section: effect of a short preoperative course of benzyl penicillin or clindamycin plus gentamicin on postoperative infectious morbidity. *Ann Clin Res*. 1980 Apr;12(2):45-8. X-9.
4504. Reichman O, Gdanský E, Latinsky B, et al. Digital rotation from occipito-posterior to occipito-anterior decreases the need for cesarean section. *Eur J Obstet Gynecol Reprod Biol*. 2008 Jan;136(1):25-8. X-1.
4505. Reid AJ, Carroll JC, Ruderman J, et al. Differences in intrapartum obstetric care provided to women at low risk by family physicians and obstetricians. *CMAJ*. 1989 Mar 15;140(6):625-33. X-1.
4506. Reid GJ and Helewa ME. A trial of pulsatile versus continuous oxytocin administration for the induction of labor. *J Perinatol*. 1995 Sep-Oct;15(5):364-6; quiz 367-8. X-4d, X-5.
4507. Reid JA and Thorburn J. Extradural bupivacaine or lignocaine anaesthesia for elective caesarean section: the role of maternal posture. *Br J Anaesth*. 1988 Aug;61(2):149-53. X-9.
4508. Reilly DR. Caesarean section on maternal request: how clear medical evidence fails to produce ethical consensus. *J Obstet Gynaecol Can*. 2009 Dec;31(12):1176-9. X-1, X-2.
4509. Reime B, Klein MC, Kelly A, et al. Do maternity care provider groups have different attitudes towards birth? *BJOG*. 2004 Dec;111(12):1388-93. X-1.
4510. Reis PM, Sander CM and Pearlman MD. Abruptio placentae after auto accidents. A case-control study. *J Reprod Med*. 2000 Jan;45(1):6-10. X-1.
4511. Reiser LS. Anesthesia for cesarean section. *Current Reviews for Nurse Anesthetists*. 1987;10(9):66-72. X-4b.

4512. Remer M. A tale of 2 births. *Midwifery Today Int Midwife*. 2009 Autumn(91):11. X-1, X-2, X-3, X-4e, X-5.
4513. Remez L. Offering a woman sterilization during an emergency cesarean section may sometimes be appropriate. *Int Fam Plan Perspect*. 2003 Mar;29(1):52. X-1, X-2, X-3, X-4b, X-4e, X-5.
4514. Renner RM, Eden KB, Osterweil P, et al. Informational factors influencing patient's childbirth preferences after prior cesarean. *Am J Obstet Gynecol*. 2007 May;196(5):e14-6. X-1.
4515. Resick LK and Erlen JA. Vaginal birth after cesarean: issues and implications. *J Am Acad Nurse Pract*. 1990 Jul-Sep;2(3):100-6. X-1, X-2.
4516. Reti LL, Ross A, Kloss M, et al. The management of severe preeclampsia with intravenous magnesium sulphate, hydralazine and central venous catheterization. *Aust N Z J Obstet Gynaecol*. 1987 May;27(2):102-5. X-1.
4517. Retnakaran R, Qi Y, Sermer M, et al. An abnormal screening glucose challenge test in pregnancy predicts postpartum metabolic dysfunction, even when the antepartum oral glucose tolerance test is normal. *Clin Endocrinol (Oxf)*. 2009 Aug;71(2):208-14. X-1.
4518. Reubinoff BE, Samueloff A, Ben-Haim M, et al. Is the obstetric outcome of in vitro fertilized singleton gestations different from natural ones? A controlled study. *Fertil Steril*. 1997 Jun;67(6):1077-83. X-1.
4519. Revicky V, Nirmal D, Mukhopadhyay S, et al. Could a mediolateral episiotomy prevent obstetric anal sphincter injury? *Eur J Obstet Gynecol Reprod Biol*. 2010 Jun;150(2):142-6. X-1.
4520. Rey HR, James LS and Wiele RV. Optimized search for parameters useful in the interpretation of fetal heart rate data. *Med Instrum*. 1979 Nov-Dec;13(6):337-43. X-1.
4521. Reynolds F, Laishley R, Morgan B, et al. Effect of time and adrenaline on the foeto-maternal distribution of bupivacaine. *Br J Anaesth*. 1989 May;62(5):509-14. X-9.
4522. Reynolds JW, Barnhart BJ and Carlson CV. Foeto-placental steroid metabolism in growth retarded human fetuses. *Pediatr Res*. 1986 Feb;20(2):166-8. X-1.
4523. Reza FM, Zahra F, Esmaeel F, et al. Preemptive analgesic effect of ketamine in patients undergoing elective cesarean section. *Clin J Pain*. 2010 Mar-Apr;26(3):223-6. X-9.
4524. Reza N, Ali SM, Saeed K, et al. The impact of music on postoperative pain and anxiety following cesarean section. *Middle East J Anesthesiol*. 2007 Oct;19(3):573-86. X-9.
4525. Rhee E, Detti L and Mari G. Superior mesenteric artery flow velocity waveforms in small for gestational age fetuses. *J Matern Fetal Med*. 1998 May-Jun;7(3):120-3. X-1.
4526. Rhoden NK. The judge in the delivery room: the emergence of court-ordered cesareans. *Calif Law Rev*. 1986 Dec;74(6):1951-2030. X-1.
4527. Rhoden NK. Cesareans and Samaritans. *Law Med Health Care*. 1987 Fall;15(3):118-25. X-1.
4528. Rhoden NK. Informed consent in obstetrics: some special problems. *West New Engl Law Rev*. 1987;9(1):67-88. X-1.
4529. Rhodes ET, Pawlak DB, Takoudes TC, et al. Effects of a low-glycemic load diet in overweight and obese pregnant women: a pilot randomized controlled trial. *Am J Clin Nutr*. 2010 Dec;92(6):1306-15. X-4e, X-5.
4530. Ribalta J, Reyes H, Gonzalez MC, et al. S-adenosyl-L-methionine in the treatment of patients with intrahepatic cholestasis of pregnancy: a randomized, double-blind, placebo-controlled study with negative results. *Hepatology*. 1991 Jun;13(6):1084-9. X-4e, X-5.
4531. Ribatti D, Loverro G, Vacca A, et al. Expression of tenascin is related to angiogenesis in pre-eclampsia. *Eur J Clin Invest*. 1998 May;28(5):373-8. X-1.
4532. Ricart W, Lopez J, Mozas J, et al. Potential impact of American Diabetes Association (2000) criteria for diagnosis of gestational diabetes mellitus in Spain. *Diabetologia*. 2005 Jun;48(6):1135-41. X-1.
4533. Ricart W, Lopez J, Mozas J, et al. Body mass index has a greater impact on pregnancy outcomes than gestational hyperglycaemia. *Diabetologia*. 2005 Sep;48(9):1736-42. X-1.
4534. Rice JP, Kay HH and Mahony BS. The clinical significance of uterine leiomyomas in pregnancy. *Am J Obstet Gynecol*. 1989 May;160(5 Pt 1):1212-6. X-1.
4535. Rice PL, Naksook C and Watson LE. The experiences of postpartum hospital stay and returning home among Thai mothers in Australia. *Midwifery*. 1999 Mar;15(1):47-57. X-1.
4536. Richard F, Ouedraogo C and De Brouwere V. Quality cesarean delivery in Ouagadougou, Burkina Faso: a comprehensive approach. *Int J Gynaecol Obstet*. 2008 Dec;103(3):283-90. X-1.
4537. Richard F, Witter S and de Brouwere V. Innovative approaches to reducing financial barriers to obstetric care in low-income countries. *Am J Public Health*. 2010 Oct;100(10):1845-52. X-1, X-2.
4538. Richards J. Ethics series. Too choosy about choice: the responsibility of the midwife. *British Journal of Midwifery*. 1997;5(3):163-168. X-1, X-2.

4539. Richards LB. The perpetuation of fear and cesarean. *Midwifery Today Childbirth Educ.* 1992 Autumn(23):20-1. X-1.
4540. Richardson MG, Collins HV and Wissler RN. Intrathecal hypobaric versus hyperbaric bupivacaine with morphine for cesarean section. *Anesth Analg.* 1998 Aug;87(2):336-40. X-9.
4541. Richman VV. Setting goals for reductions in Canadian cesarean delivery rates: benchmarking medical practice patterns. *Am J Obstet Gynecol.* 1999 Sep;181(3):635-7. X-1.
4542. Ridgeway JJ, Weyrich DL and Benedetti TJ. Fetal heart rate changes associated with uterine rupture. *Obstet Gynecol.* 2004 Mar;103(3):506-12. X-1.
4543. Ridley RT, Davis PA, Bright JH, et al. What influences a woman to choose vaginal birth after cesarean? *J Obstet Gynecol Neonatal Nurs.* 2002 Nov-Dec;31(6):665-72. X-1.
4544. Rieger L, Segerer S, Bernar T, et al. Specific subsets of immune cells in human decidua differ between normal pregnancy and preeclampsia--a prospective observational study. *Reprod Biol Endocrinol.* 2009;7:132. X-1.
4545. Rietberg CC, Elferink-Stinkens PM and Visser GH. The effect of the Term Breech Trial on medical intervention behaviour and neonatal outcome in The Netherlands: an analysis of 35,453 term breech infants. *BJOG.* 2005 Feb;112(2):205-9. X-1.
4546. Riis L, Vind I, Politi P, et al. Does pregnancy change the disease course? A study in a European cohort of patients with inflammatory bowel disease. *Am J Gastroenterol.* 2006 Jul;101(7):1539-45. X-1.
4547. Rijhsinghani A, Savopoulos SE, Walters JK, et al. Ampicillin/sulbactam versus ampicillin alone for cesarean section prophylaxis: a randomized double-blind trial. *Am J Perinatol.* 1995 Sep;12(5):322-4. X-9.
4548. Rijnders M, Baston H, Schonbeck Y, et al. Perinatal factors related to negative or positive recall of birth experience in women 3 years postpartum in the Netherlands. *Birth.* 2008 Jun;35(2):107-16. X-1.
4549. Rijnders M, Herschderfer K, Prins M, et al. A retrospective study of the success, safety and effectiveness of external cephalic version without tocolysis in a specialised midwifery centre in the Netherlands. *Midwifery.* 2008 Mar;24(1):38-45. X-1.
4550. Riley ET, Cohen SE, Macario A, et al. Spinal versus epidural anesthesia for cesarean section: a comparison of time efficiency, costs, charges, and complications. *Anesth Analg.* 1995 Apr;80(4):709-12. X-1.
4551. Riley ET, Cohen SE, Rubenstein AJ, et al. Prevention of hypotension after spinal anesthesia for cesarean section: six percent hetastarch versus lactated Ringer's solution. *Anesth Analg.* 1995 Oct;81(4):838-42. X-9.

4552. Riley ET, Walker D, Hamilton CL, et al. Intrathecal sufentanil for labor analgesia does not cause a sympathectomy. *Anesthesiology*. 1997 Oct;87(4):874-8. X-1.
4553. Riley LE, Tuomala RE, Heeren T, et al. Low risk of post-caesarean section infection in insulin-requiring diabetic women. *Diabetes Care*. 1996 Jun;19(6):597-600. X-1, X-9.
4554. Riley SC, Bassett NS, Berdusco ET, et al. Changes in the abundance of mRNA for type-I 3 beta-hydroxysteroid dehydrogenase/delta 5->delta 4 isomerase in the human placenta and fetal membranes during pregnancy and labor. *Gynecol Obstet Invest*. 1993;35(4):199-203. X-1.
4555. Rinehart BK, Terrone DA, Lagoo-Deenadayalan S, et al. Expression of the placental cytokines tumor necrosis factor alpha, interleukin 1beta, and interleukin 10 is increased in preeclampsia. *Am J Obstet Gynecol*. 1999 Oct;181(4):915-20. X-1.
4556. Rioseco AJ, Ivankovic MB, Manzur A, et al. Intrahepatic cholestasis of pregnancy: a retrospective case-control study of perinatal outcome. *Am J Obstet Gynecol*. 1994 Mar;170(3):890-5. X-1.
4557. Riskin A, Abend-Weinger M, Riskin-Mashiah S, et al. Cesarean section, gestational age, and transient tachypnea of the newborn: timing is the key. *Am J Perinatol*. 2005 Oct;22(7):377-82. X-1.
4558. Riskin A, Riskin-Mashiah S, Lusky A, et al. The relationship between delivery mode and mortality in very low birthweight singleton vertex-presenting infants. *BJOG*. 2004 Dec;111(12):1365-71. X-1.
4559. Rix P, Ladehoff P, Moller AM, et al. Cervical ripening and induction of delivery by local administration of prostaglandin E2 gel or vaginal tablets is equally effective. *Acta Obstet Gynecol Scand*. 1996 Jan;75(1):45-7. X-4d.
4560. Rizk DE, Nsanze H, Mabrouk MH, et al. Systemic antibiotic prophylaxis in elective cesarean delivery. *Int J Gynaecol Obstet*. 1998 Jun;61(3):245-51. X-9.
4561. Rizvi JH, Rasul S, Malik S, et al. Experience with screening for abnormal glucose tolerance in pregnancy: maternal and perinatal outcome. *Asia Oceania J Obstet Gynaecol*. 1992 Jun;18(2):99-105. X-1.
4562. Rizzo N, Ciardelli V, Gandolfi Colleoni G, et al. Delivery and immigration: the experience of an Italian hospital. *Eur J Obstet Gynecol Reprod Biol*. 2004 Oct 15;116(2):170-2. X-1.
4563. Roach VJ and Rogers MS. Pregnancy outcome beyond 41 weeks gestation. *Int J Gynaecol Obstet*. 1997 Oct;59(1):19-24. X-4e.
4564. Roan S. Once a C-section always a C-section? Yes, insist many experts: amid some doctors' and health plans' concerns about risks, fewer women are delivering vaginally after a caesarean. *Los Angeles Times -- Southern California Edition (Front Page)*. 2001:S1. X-1.
4565. Roberts AB and Pattison NS. Pregnancy in women with diabetes mellitus, twenty years experience: 1968-1987. *N Z Med J*. 1990 May 9;103(889):211-3. X-1.
4566. Roberts CL, Ford JB, Thompson JF, et al. Population rates of haemorrhage and transfusions among obstetric patients in NSW: a short communication. *Aust N Z J Obstet Gynaecol*. 2009 Jun;49(3):296-8. X-1.
4567. Roberts CL, Taylor L and Henderson-Smart D. Trends in births at and beyond term: evidence of a change? *Br J Obstet Gynaecol*. 1999 Sep;106(9):937-42. X-1.
4568. Roberts D, Nwosu EC and Walkinshaw SA. The fetal outcome in pregnancies with isolated reduced amniotic fluid volume in the third trimester. *J Perinat Med*. 1998;26(5):390-5. X-1.
4569. Roberts RG, Deutchman M, King VJ, et al. Changing policies on vaginal birth after cesarean: impact on access. *Birth*. 2007 Dec;34(4):316-22. X-1.
4570. Roberts SS. The diabetes advisor. *Diabetes Forecast*. 2002;55(6):29-32. X-4e.
4571. Roberts WE, Fulp KS, Morrison JC, et al. The impact of leiomyomas on pregnancy. *Aust N Z J Obstet Gynaecol*. 1999 Feb;39(1):43-7. X-1.
4572. Robertson JA. Procreative liberty and the control of conception, pregnancy, and childbirth. *Va Law Rev*. 1983 Apr;69(3):405-64. X-1.
4573. Robins K, Wilson R, Watkins EJ, et al. Chlorhexidine spray versus single use sachets for skin preparation before regional nerve blockade for elective caesarean section: an effectiveness, time and cost study. *Int J Obstet Anesth*. 2005 Jul;14(3):189-92. X-9.
4574. Robinson CA, Macones GA, Roth NW, et al. Does station of the fetal head at epidural placement affect the position of the fetal vertex at delivery? *Am J Obstet Gynecol*. 1996 Oct;175(4 Pt 1):991-4. X-1.
4575. Robson BA. Breast engorgement in breastfeeding mothers. 1990;PH.D.:164 p. X-4e.
4576. Robson S, Carey A, Mishra R, et al. Elective caesarean delivery at maternal request: a preliminary study of motivations influencing women's decision-making. *Aust N Z J Obstet Gynaecol*. 2008 Aug;48(4):415-20. X-1.
4577. Robson S and Ellwood D. Should obstetricians support a 'term cephalic trial'? *Aust N Z J Obstet Gynaecol*. 2003 Oct;43(5):341-3. X-1.
4578. Robson S, Ramsay B and Chandler K. Registrar experience in vaginal breech

- delivery. How much is occurring? *Aust N Z J Obstet Gynaecol.* 1999 May;39(2):215-7. X-1.
4579. Robson S, Thompson J and Ellwood D. Obstetric management of the next pregnancy after an unexplained stillbirth: an anonymous postal survey of Australian obstetricians. *Aust N Z J Obstet Gynaecol.* 2006 Aug;46(4):278-81. X-1.
4580. Robson SC, Boys RJ, Rodeck C, et al. Maternal and fetal haemodynamic effects of spinal and extradural anaesthesia for elective caesarean section. *Br J Anaesth.* 1992 Jan;68(1):54-9. X-9.
4581. Robson SJ, Leader LR, Bennett MJ, et al. Do women's perceptions of care at the time of unexplained stillbirth influence their wishes for management in subsequent pregnancy? An Internet-based empirical study. *J Obstet Gynaecol Res.* 2010 Feb;36(1):108-14. X-1.
4582. Robson SJ, Leader LR, Dear KB, et al. Women's expectations of management in their next pregnancy after an unexplained stillbirth: an Internet-based empirical study. *Aust N Z J Obstet Gynaecol.* 2009 Dec;49(6):642-6. X-1.
4583. Robson SJ, Tan WS, Adeyemi A, et al. Estimating the rate of caesarean section by maternal request: anonymous survey of obstetricians in Australia. *Birth.* 2009 Sep;36(3):208-12. X-1.
4584. Rocha G, Fernandes P, Rocha P, et al. Pleural effusions in the neonate. *Acta Paediatr.* 2006 Jul;95(7):791-8. X-1.
4585. Rochelson B, Pagano M, Conetta L, et al. Previous preterm caesarean delivery: identification of a new risk factor for uterine rupture in VBAC candidates. *J Matern Fetal Neonatal Med.* 2005 Nov;18(5):339-42. X-1.
4586. Rocke DA, Rout CC and Gouws E. Intravenous administration of the proton pump inhibitor omeprazole reduces the risk of acid aspiration at emergency caesarean section. *Anesth Analg.* 1994 Jun;78(6):1093-8. X-9.
4587. Rodney WM, Hardison D, Rodney-Arnold K, et al. Impact of deliveries on the office practice of family medicine. *J Natl Med Assoc.* 2006 Oct;98(10):1685-90. X-1.
4588. Rodrigues R, Nunes F, Tiago D, et al. Induction of labor with intravaginal administration of misoprostol. *Int J Gynaecol Obstet.* 1998 Mar;60(3):233-7. X-1, X-4d.
4589. Rodriguez AI, Porter KB and O'Brien WF. Blunt versus sharp expansion of the uterine incision in low-segment transverse caesarean section. *Am J Obstet Gynecol.* 1994 Oct;171(4):1022-5. X-9.
4590. Rodriguez EJ, Spann C, Jamieson D, et al. Postoperative morbidity associated with caesarean delivery among human immunodeficiency virus-seropositive women. *Am J Obstet Gynecol.* 2001 May;184(6):1108-11. X-1.
4591. Rodriguez MI, Edelman A, Wallace N, et al. Denying postpartum sterilization to women with Emergency Medicaid does not reduce hospital charges. *Contraception.* 2008 Sep;78(3):232-6. X-1.
4592. Roemer FJ, Rowland DY and Nuamah IF. Retrospective study of fetal effects of prolonged labor before caesarean delivery. *Obstet Gynecol.* 1991 May;77(5):653-8. X-1.
4593. Roes EM, Raijmakers MT, Boo TM, et al. Oral N-acetylcysteine administration does not stabilise the process of established severe preeclampsia. *Eur J Obstet Gynecol Reprod Biol.* 2006 Jul;127(1):61-7. X-4e.
4594. Roethlisberger M, Womastek I, Posch M, et al. Early postpartum hysterectomy: incidence and risk factors. *Acta Obstet Gynecol Scand.* 2010 Aug;89(8):1040-4. X-1.
4595. Roex AJ, Puyenbroek JI, MacLaren DM, et al. A randomized clinical trial of antibiotic prophylaxis in caesarean section: maternal morbidity, risk factors and bacteriological changes. *Eur J Obstet Gynecol Reprod Biol.* 1986 Jul;22(3):117-24. X-9.
4596. Roex AJ, Puyenbroek JI, van Loenen AC, et al. Single- versus three-dose cefoxitin prophylaxis in caesarean section: a randomized clinical trial. *Eur J Obstet Gynecol Reprod Biol.* 1987 Aug;25(4):293-8. X-9.
4597. Rogers FB, Rozycki GS, Osler TM, et al. A multi-institutional study of factors associated with fetal death in injured pregnant patients. *Arch Surg.* 1999 Nov;134(11):1274-7. X-1.
4598. Rogers MS, Lau TK, Wang CC, et al. Amnioinfusion for the prevention of meconium aspiration during labour. *Aust N Z J Obstet Gynaecol.* 1996 Nov;36(4):407-10. X-1.
4599. Rogers R, Gilson G and Kammerer-Doak D. Epidural analgesia and active management of labor: effects on length of labor and mode of delivery. *Obstet Gynecol.* 1999 Jun;93(6):995-8. X-1.
4600. Rogers RG, Gardner MO, Tool KJ, et al. Active management of labor: a cost analysis of a randomized controlled trial. *West J Med.* 2000 Apr;172(4):240-3. X-1.
4601. Rogers S. Fetal rights and maternal rights: is there a conflict? *Can J Women Law.* 1986;1(2):456-69. X-1.
4602. Rojansky N, Tanos V, Reubinoff B, et al. Effect of epidural analgesia on duration and outcome of induced labor. *Int J Gynaecol Obstet.* 1997 Mar;56(3):237-44. X-1, X-4e.
4603. Roland L, Beauchemin D, Acteau G, et al. Effects of labor on placental expression of superoxide dismutases in preeclampsia. *Placenta.* 2010 May;31(5):392-400. X-1, X-4e, X-5.

4604. Roland-Zejly L, Moisan V, St-Pierre I, et al. Altered placental glutathione peroxidase mRNA expression in preeclampsia according to the presence or absence of labor. *Placenta*. 2011 Feb;32(2):161-7. X-1.
4605. Rolbin SH, Cole AF, Hew EM, et al. Prophylactic intramuscular ephedrine before epidural anaesthesia for caesarean section: efficacy and actions on the fetus and newborn. *Can Anaesth Soc J*. 1982 Mar;29(2):148-53. X-9.
4606. Rollins NC, Filteau SM, Coutsooudis A, et al. Feeding mode, intestinal permeability, and neopterin excretion: a longitudinal study in infants of HIV-infected South African women. *J Acquir Immune Defic Syndr*. 2001 Oct 1;28(2):132-9. X-1.
4607. Roman AS, Schreher J, Mackenzie AP, et al. Omega-3 fatty acids and decidual cell prostaglandin production in response to the inflammatory cytokine IL-1beta. *Am J Obstet Gynecol*. 2006 Dec;195(6):1693-9. X-1.
4608. Roman H, Robillard PY, Hulsey TC, et al. Obstetrical and neonatal outcomes in obese women. *West Indian Med J*. 2007 Oct;56(5):421-6. X-1, X-3, X-4e, X-5.
4609. Romanini C, Valensise H, Ciotti G, et al. Tryptophan availability and fetal behavioral states. *Fetal Ther*. 1989;4 Suppl 1:68-72. X-1.
4610. Romano AM and Goer H. Research summaries for normal birth. *Journal of Perinatal Education*. 2007 2007 Winter;16(1):37-40. X-1, X-2.
4611. Romanyuk V, Raichel L, Sergienko R, et al. Pneumonia during pregnancy: radiological characteristics, predisposing factors and pregnancy outcomes. *J Matern Fetal Neonatal Med*. 2011 Jan;24(1):113-7. X-1.
4612. Romero R, Lafreniere D, Hobbins JC, et al. A product from human decidua inhibits prostaglandin production by human amnion. *Prostaglandins Leukot Med*. 1987 Nov;30(1):29-36. X-1.
4613. Ronsmans C, Endang A, Gunawan S, et al. Evaluation of a comprehensive home-based midwifery programme in South Kalimantan, Indonesia. *Trop Med Int Health*. 2001 Oct;6(10):799-810. X-1.
4614. Ronsmans C, Etard JF, Walraven G, et al. Maternal mortality and access to obstetric services in West Africa. *Trop Med Int Health*. 2003 Oct;8(10):940-8. X-1.
4615. Ronzoni S, Marconi AM, Cetin I, et al. Umbilical amino acid uptake at increasing maternal amino acid concentrations: effect of a maternal amino acid infusate. *Am J Obstet Gynecol*. 1999 Aug;181(2):477-83. X-1.
4616. Roohan PJ, Josberger RE and Gesten FC. Risk-adjusted primary cesarean delivery rates for managed care plans in New York State, 1998. *Matern Child Health J*. 2001 Sep;5(3):169-77. X-1.
4617. Rooks JP, Weatherby NL, Ernst EK, et al. Outcomes of care in birth centers. The National Birth Center Study. *N Engl J Med*. 1989 Dec 28;321(26):1804-11. X-1.
4618. Rooney CM, Crawford AT, Vassallo BJ, et al. Is previous cesarean section a risk for incidental cystotomy at the time of hysterectomy? A case-controlled study. *Am J Obstet Gynecol*. 2005 Dec;193(6):2041-4. X-1.
4619. Roopnarinesingh SS. The young Negro primigravida in Jamaica. *J Obstet Gynaecol Br Commonw*. 1970 May;77(5):424-6. X-1.
4620. Roost M, Johnsdotter S, Liljestrang J, et al. A qualitative study of conceptions and attitudes regarding maternal mortality among traditional birth attendants in rural Guatemala. *BJOG*. 2004 Dec;111(12):1372-7. X-1.
4621. Roper RE and Salem MG. Effects of glycopyrrolate and atropine combined with antacid on gastric acidity. *Br J Anaesth*. 1981 Dec;53(12):1277-80. X-1.
4622. Rorarius M, Suominen P, Haanpaa M, et al. Neurologic sequelae after caesarean section. *Acta Anaesthesiol Scand*. 2001 Jan;45(1):34-41. X-1.
4623. Rorarius MG, Suominen P, Baer GA, et al. Diclofenac and ketoprofen for pain treatment after elective caesarean section. *Br J Anaesth*. 1993 Mar;70(3):293-7. X-9.
4624. Rorke MJ, Davey DA and Du Toit HJ. Foetal oxygenation during caesarean section. *Anaesthesia*. 1968 Oct;23(4):585-96. X-4b.
4625. Rosaeg OP and Lindsay MP. Epidural opioid analgesia after caesarean section: a comparison of patient-controlled analgesia with meperidine and single bolus injection of morphine. *Can J Anaesth*. 1994 Nov;41(11):1063-8. X-4e.
4626. Rosaeg OP, Lui AC, Cicutti NJ, et al. Peri-operative multimodal pain therapy for caesarean section: analgesia and fitness for discharge. *Can J Anaesth*. 1997 Aug;44(8):803-9. X-9.
4627. Rose GL and Chapman MG. Aetiological factors in placenta praevia--a case controlled study. *Br J Obstet Gynaecol*. 1986 Jun;93(6):586-8. X-1.
4628. Rosen DJ, Michaeli G, Markov S, et al. Fetal surveillance. Should it begin at 40 weeks' gestation in a low-risk population? *J Reprod Med*. 1995 Feb;40(2):135-9. X-4e.
4629. Rosen MA, Hughes SC, Shnider SM, et al. Epidural morphine for the relief of postoperative pain after cesarean delivery. *Anesth Analg*. 1983 Jul;62(7):666-72. X-9.
4630. Rosen MG and Chik L. The association between cesarean birth and outcome in vertex presentation: relative importance of birth weight, Dubowitz scores, and delivery route. *Am J Obstet Gynecol*. 1984 Nov 15;150(6):775-9. X-1.

4631. Rosen MG, Debanne SM, Thompson K, et al. Abnormal labor and infant brain damage. *Obstet Gynecol.* 1992 Dec;80(6):961-5. X-1.
4632. Rosenberg TJ, Garbers S, Lipkind H, et al. Maternal obesity and diabetes as risk factors for adverse pregnancy outcomes: differences among 4 racial/ethnic groups. *Am J Public Health.* 2005 Sep;95(9):1545-51. X-1.
4633. Rosenblatt RA, Dobie SA, Hart LG, et al. Interspecialty differences in the obstetric care of low-risk women. *Am J Public Health.* 1997 Mar;87(3):344-51. X-1.
4634. Rosenthal TC, Ferrara E and Hesler E. Providing birthing services in rural health networks: coping with change in New York State. *J Rural Health.* 1996 Spring;12(2):137-45. X-1.
4635. Roset E, Boulvain M and Irion O. Nonclosure of the peritoneum during caesarean section: long-term follow-up of a randomised controlled trial. *Eur J Obstet Gynecol Reprod Biol.* 2003 May 1;108(1):40-4. X-1.
4636. Roshan DF, Petrikovsky B, Sichinava L, et al. Soft forceps. *Int J Gynaecol Obstet.* 2005 Mar;88(3):249-52. X-1.
4637. Roshanfekr D, Blakemore KJ, Lee J, et al. Station at onset of active labor in nulliparous patients and risk of cesarean delivery. *Obstet Gynecol.* 1999 Mar;93(3):329-31. X-1.
4638. Ross JA, Tunstall ME, Campbell DM, et al. The use of 0.25% isoflurane premixed in 50% nitrous oxide and oxygen for pain relief in labour. *Anaesthesia.* 1999 Dec;54(12):1166-72. X-1, X-4e, X-5.
4639. Ross MG, Devoe LD and Rosen KG. ST-segment analysis of the fetal electrocardiogram improves fetal heart rate tracing interpretation and clinical decision making. *J Matern Fetal Neonatal Med.* 2004 Mar;15(3):181-5. X-1.
4640. Ross SM, Windsor IM, Robins-Browne RM, et al. Microbiological studies during the perinatal period. An attempt to correlate selected bacterial and viral infections with intra-uterine deaths and preterm labour. *S Afr Med J.* 1984 Oct 20;66(16):598-603. X-4e.
4641. Ross VH, Moore CH, Pan PH, et al. Reduced duration of intrathecal sufentanil analgesia in laboring cocaine users. *Anesth Analg.* 2003 Nov;97(5):1504-8. X-1, X-4e.
4642. Ross VH, Pan PH, Owen MD, et al. Neostigmine decreases bupivacaine use by patient-controlled epidural analgesia during labor: a randomized controlled study. *Anesth Analg.* 2009 Aug;109(2):524-31. X-3, X-4b, X-4e, X-5.
4643. Rosser J. Continuous electronic fetal heart monitoring during labour. *Practising Midwife.* 1998;1(7/8):60-61. X-1, X-2, X-3, X-4, X-5.
4644. Rossi E and Costa M. Fish oil derivatives as a prophylaxis of recurrent miscarriage associated with antiphospholipid antibodies (APL): a pilot study. *Lupus.* 1993 Oct;2(5):319-23. X-1.
4645. Rossouw HJ, Howarth G and Odendaal HJ. Ketanserin and hydralazine in hypertension in pregnancy--a randomised double-blind trial. *S Afr Med J.* 1995 Jun;85(6):525-8. X-4e, X-5.
4646. Roth RM, Gleckman RA, Gantz NM, et al. Antibiotic irrigations. A plea for controlled clinical trials. *Pharmacotherapy.* 1985 Jul-Aug;5(4):222-7. X-1, X-2.
4647. Rothbard MJ, Mayer W, Wystepek A, et al. Prophylactic antibiotics in cesarean section. *Obstet Gynecol.* 1975 Apr;45(4):421-4. X-9.
4648. Rothman BK. The active management of physicians. *Birth.* 1993 Sep;20(3):158-9. X-1, X-2, X-3.
4649. Rotmensch S, Vishne TH, Celentano C, et al. Maternal infectious morbidity following multiple courses of betamethasone. *J Infect.* 1999 Jul;39(1):49-54. X-1, X-3, X-4e.
4650. Rouben D and Arias F. A randomized trial of extra-amniotic saline infusion plus intracervical Foley catheter balloon versus prostaglandin E2 vaginal gel for ripening the cervix and inducing labor in patients with unfavorable cervixes. *Obstet Gynecol.* 1993 Aug;82(2):290-4. X-4d, X-5.
4651. Rouhe H, Salmela-Aro K, Halmesmaki E, et al. Fear of childbirth according to parity, gestational age, and obstetric history. *BJOG.* 2009 Jan;116(1):67-73. X-1.
4652. Roulson CJ, Bennett J, Shaw M, et al. Effect of extradural diamorphine on analgesia after caesarean section under subarachnoid block. *Br J Anaesth.* 1993 Dec;71(6):810-3. X-9.
4653. Roumen FJ and Luyben AG. Safety of term vaginal breech delivery. *Eur J Obstet Gynecol Reprod Biol.* 1991 Jul 25;40(3):171-7. X-1.
4654. Rouse DJ, Hauth JC, Andrews WW, et al. Chlorhexidine vaginal irrigation for the prevention of periparturient infection: a placebo-controlled randomized clinical trial. *Am J Obstet Gynecol.* 1997 Mar;176(3):617-22. X-4b, X-4e, X-5.
4655. Rouse DJ, Landon M, Leveno KJ, et al. The Maternal-Fetal Medicine Units cesarean registry: chorioamnionitis at term and its duration-relationship to outcomes. *Am J Obstet Gynecol.* 2004 Jul;191(1):211-6. X-1.
4656. Rouse DJ, Leindecker S, Landon M, et al. The MFMU Cesarean Registry: uterine atony after primary cesarean delivery. *Am J Obstet Gynecol.* 2005 Sep;193(3 Pt 2):1056-60. X-1.
4657. Rouse DJ, MacPherson C, Landon M, et al. Blood transfusion and cesarean delivery. *Obstet Gynecol.* 2006 Oct;108(4):891-7. X-1.
4658. Rouse DJ, McCullough C, Wren AL, et al. Active-phase labor arrest: a randomized trial of chorioamnion management. *Obstet Gynecol.* 1994 Jun;83(6):937-40. X-5.
4659. Rouse DJ, Owen J and Hauth JC. Active-phase labor arrest: oxytocin augmentation for at least 4 hours. *Obstet Gynecol.* 1999 Mar;93(3):323-8. X-1.

4660. Rousseau JA, Girard K, Turcot-Lemay L, et al. A randomized study comparing skin closure in cesarean sections: staples vs subcuticular sutures. *Am J Obstet Gynecol.* 2009 Mar;200(3):265 e1-4. X-9.
4661. Rout CC, Akoojee SS, Rocke DA, et al. Rapid administration of crystalloid preload does not decrease the incidence of hypotension after spinal anaesthesia for elective caesarean section. *Br J Anaesth.* 1992 Apr;68(4):394-7. X-9.
4662. Rout CC and Rocke DA. Effects of alfentanil and fentanyl on induction of anaesthesia in patients with severe pregnancy-induced hypertension. *Br J Anaesth.* 1990 Oct;65(4):468-74. X-9.
4663. Rout CC, Rocke DA, Brijball R, et al. Prophylactic intramuscular ephedrine prior to caesarean section. *Anaesth Intensive Care.* 1992 Nov;20(4):448-52. X-9.
4664. Rout CC, Rocke DA and Gouws E. Intravenous ranitidine reduces the risk of acid aspiration of gastric contents at emergency caesarean section. *Anesth Analg.* 1993 Jan;76(1):156-61. X-9.
4665. Rout CC, Rocke DA and Gouws E. Leg elevation and wrapping in the prevention of hypotension following spinal anaesthesia for elective caesarean section. *Anaesthesia.* 1993 Apr;48(4):304-8. X-9.
4666. Rowan C. Court-ordered cesareans--choice or control? *Nurs Ethics.* 1998 Nov;5(6):542-4. X-1, X-2, X-3, X-4e, X-5.
4667. Rowe-Murray HJ and Fisher JR. Operative intervention in delivery is associated with compromised early mother-infant interaction. *BJOG.* 2001 Oct;108(10):1068-75. X-1.
4668. Rowe-Murray HJ and Fisher JR. Baby friendly hospital practices: caesarean section is a persistent barrier to early initiation of breastfeeding. *Birth.* 2002 Jun;29(2):124-31. X-1.
4669. Rowland BL, Vermillion ST and Soper DE. Scheduled cesarean delivery and the prevention of human immunodeficiency virus transmission: a survey of practicing obstetricians. *Am J Obstet Gynecol.* 2001 Aug;185(2):327-31. X-1.
4670. Rowland TC, Jr. Transactions of the Sixtieth Annual Meeting of The South Atlantic Association of Obstetricians and Gynecologists. What goes around comes around. Presidential address. *Am J Obstet Gynecol.* 1998 Aug;179(2):283-91. X-1, X-2.
4671. Roy JD, Girard M and Drolet P. Intrathecal meperidine decreases shivering during caesarean delivery under spinal anaesthesia. *Anesth Analg.* 2004 Jan;98(1):230-4, table of contents. x-1.
4672. Roy KK, Baruah J, Moda N, et al. Evaluation of unilateral versus bilateral ovarian drilling in clomiphene citrate resistant cases of polycystic ovarian syndrome. *Arch Gynecol Obstet.* 2009 Oct;280(4):573-8. X-3, X-4e, X-5.
4673. Roy L and Ramanathan S. ST-segment depression and myocardial contractility during caesarean section under spinal anaesthesia. *Can J Anaesth.* 1999 Jan;46(1):52-5. X-1.
4674. Rozenberg P, Chevret S, Goffinet F, et al. Induction of labour with a viable infant: a randomised clinical trial comparing intravaginal misoprostol and intravaginal dinoprostone. *BJOG.* 2001 Dec;108(12):1255-62. X-4d.
4675. Rozenberg P, Chevret S, Senat MV, et al. A randomized trial that compared intravaginal misoprostol and dinoprostone vaginal insert in pregnancies at high risk of fetal distress. *Am J Obstet Gynecol.* 2004 Jul;191(1):247-53. X-4d.
4676. Roztocil A, Pilka L, Jelinek J, et al. A comparison of three preinduction cervical priming methods: prostaglandin E2 gel, Dilapan S rods and Estradiol gel. *Ceska Gynekol.* 1998 Feb;63(1):3-9. X-4d, X-5.
4677. Rubinstein LM, Lebherz TB and Kleinkopf V. Laparoscopic tubal sterilization: long-term postoperative follow-up. *Contraception.* 1976 May;13(5):631-8. X-4e.
4678. Rucklidge MW, Durbridge J, Barnes PK, et al. Glycopyrronium and hypotension following combined spinal-epidural anaesthesia for elective Caesarean section in women with relative bradycardia. *Anaesthesia.* 2002 Jan;57(1):4-8. X-9.
4679. Rucklidge MW, Paech MJ and Yentis SM. A comparison of the lateral, Oxford and sitting positions for performing combined spinal-epidural anaesthesia for elective Caesarean section. *Anaesthesia.* 2005 Jun;60(6):535-40. X-9.
4680. Rudd EG, Cobey EA, Long WH, et al. Prevention of endomyometritis using antibiotic irrigation during caesarean section. *Obstet Gynecol.* 1982 Oct;60(4):413-6. X-9.
4681. Rudd EG, Long WH and Dillon MB. Febrile morbidity following cefamandole nafate intrauterine irrigation during caesarean section. *Am J Obstet Gynecol.* 1981 Sep 1;141(1):12-6. X-9.
4682. Ruderman J, Carroll JC, Reid AJ, et al. Are physicians changing the way they practise obstetrics? *CMAJ.* 1993 Feb 1;148(3):409-15. X-1.
4683. Rudge MV, Atallah AN, Peracoli JC, et al. Randomized controlled trial on prevention of postcesarean infection using penicillin and cephalothin in Brazil. *Acta Obstet Gynecol Scand.* 2006;85(8):945-8. X-9.
4684. Rudman A, El-Khoury B and Waldenstrom U. Evaluating multi-dimensional aspects of postnatal hospital care. *Midwifery.* 2008 Dec;24(4):425-41. X-1.

4685. Ruffatti A, Orsini A, Di Lenardo L, et al. A prospective study of fifty-three consecutive calcium heparin treated pregnancies in patients with antiphospholipid antibody-related fetal loss. *Clin Exp Rheumatol*. 1997 Sep-Oct;15(5):499-505. X-1.
4686. Ruiz I, Hernandez-Aguado I and Garrido P. Variation in surgical rates: a population study. *Med Care*. 1998 Sep;36(9):1315-23. X-1.
4687. Ruiz-Moreno JA, Garcia-Rojas JM and Lozada-Leon JD. Prevention of postcesarean infectious morbidity with a single dose of intravenous metronidazole. *Int J Gynaecol Obstet*. 1991 Mar;34(3):217-20. X-9.
4688. Runza M, Albani A, Tagliabue M, et al. Spinal anesthesia using hyperbaric 0.75% versus hyperbaric 1% bupivacaine for cesarean section. *Anesth Analg*. 1998 Nov;87(5):1099-103. X-9.
4689. Ruozi-Berretta A, Piazzze JJ, Cosmi E, et al. Computerized cardiotocography parameters in pregnant women affected by pregestational diabetes mellitus. *J Perinat Med*. 2004;32(5):426-9. X-1.
4690. Ruparelia BA and Chapman MG. Early low-lying placentae--ultrasonic assessment, progress and outcome. *Eur J Obstet Gynecol Reprod Biol*. 1985 Oct;20(4):209-13. X-1.
4691. Rusconi F, Galassi C, Forastiere F, et al. Maternal complications and procedures in pregnancy and at birth and wheezing phenotypes in children. *Am J Respir Crit Care Med*. 2007 Jan 1;175(1):16-21. X-1.
4692. Rush J, Burlock S, Lambert K, et al. The effects of whirlpools baths in labor: a randomized, controlled trial. *Birth*. 1996 Sep;23(3):136-43. X-5.
4693. Russell AW, McIntyre HD, Whitehead JP, et al. Adipose tissue from pregnant women with and without gestational diabetes mellitus: insulin-sensitive but resistant to hyperosmolarity. *Am J Obstet Gynecol*. 2005 Dec;193(6):2017-23. X-1.
4694. Russell D, Duncan LA, Frame WT, et al. Patient-controlled analgesia with morphine and droperidol following caesarean section under spinal anaesthesia. *Acta Anaesthesiol Scand*. 1996 May;40(5):600-5. X-9.
4695. Russell EC, Wrench I, Feast M, et al. Pre-oxygenation in pregnancy: the effect of fresh gas flow rates within a circle breathing system. *Anaesthesia*. 2008 Aug;63(8):833-6. X-1.
4696. Russell IF. Spinal anaesthesia for caesarean section. The use of 0.5% bupivacaine. *Br J Anaesth*. 1983 Apr;55(4):309-14. X-1.
4697. Russell IF. Effect of posture during the induction of subarachnoid analgesia for caesarean section. Right v. left lateral. *Br J Anaesth*. 1987 Mar;59(3):342-6. X-9.
4698. Russell IF and Holmqvist EL. Subarachnoid analgesia for caesarean section. A double-blind comparison of plain and hyperbaric 0.5% bupivacaine. *Br J Anaesth*. 1987 Mar;59(3):347-53. X-9.
4699. Rust LA, Waring RW, Hall GL, et al. Intrathecal narcotics for obstetric analgesia in a community hospital. *Am J Obstet Gynecol*. 1994 Jun;170(6):1643-6; discussion 1646-8. X-1.
4700. Rust OA, Greybush M, Atlas RO, et al. Preinduction cervical ripening. A randomized trial of intravaginal misoprostol alone vs. a combination of transcervical Foley balloon and intravaginal misoprostol. *J Reprod Med*. 2001 Oct;46(10):899-904. X-4d, X-5.
4701. Rutanen EM, Karkkainen TH, Lehtovirta J, et al. Evaluation of a rapid strip test for insulin-like growth factor binding protein-1 in the diagnosis of ruptured fetal membranes. *Clin Chim Acta*. 1996 Sep 30;253(1-2):91-101. X-1.
4702. Ruth V, Fyhrquist F, Clemons G, et al. Cord plasma vasopressin, erythropoietin, and hypoxanthine as indices of asphyxia at birth. *Pediatr Res*. 1988 Oct;24(4):490-4. X-1.
4703. Ruth V, Pohjavuori M, Rovamo L, et al. Plasma beta-endorphin in perinatal asphyxia and respiratory difficulties in newborn infants. *Pediatr Res*. 1986 Jun;20(6):577-80. X-1.
4704. Ryan K, Schnatz P, Greene J, et al. Change in cesarean section rate as a reflection of the present malpractice crisis. *Conn Med*. 2005 Mar;69(3):139-41. X-1.
4705. Rybak EA. Hippocratic ideal, Faustian bargain and Damocles' sword: erosion of patient autonomy in obstetrics. *J Perinatol*. 2009 Nov;29(11):721-5. X-1, X-2.
4706. Rydhstrom H and Ingemarsson I. A case-control study of the effects of birth by caesarean section on intrapartum and neonatal mortality among twins weighing 1500-2499 g. *Br J Obstet Gynaecol*. 1991 Mar;98(3):249-53. X-1.
4707. Rydhstrom H and Ingemarsson I. No benefit from conservative management in nulliparous women with premature rupture of the membranes (PROM) at term. A randomized study. *Acta Obstet Gynecol Scand*. 1991;70(7-8):543-7. X-3, X-4e, X-5.
4708. Rydhstrom H, Walles B and Owman C. Myometrial norepinephrine in human pregnancy. Elevated levels in various disorders leading to cesarean section. *J Reprod Med*. 1989 Nov;34(11):901-4. X-1.
4709. Ryding EL. Investigation of 33 women who demanded a cesarean section for personal reasons. *Acta Obstet Gynecol Scand*. 1993 May;72(4):280-5. X-1.

4710. Ryding EL, Wijma B, Wijma K, et al. Fear of childbirth during pregnancy may increase the risk of emergency cesarean section. *Acta Obstet Gynecol Scand*. 1998 May;77(5):542-7. X-1.
4711. Ryding EL, Wiren E, Johansson G, et al. Group counseling for mothers after emergency cesarean section: a randomized controlled trial of intervention. *Birth*. 2004 Dec;31(4):247-53. X-9.
4712. Rytlewski K, Olszanecki R, Lauterbach R, et al. Effects of oral L-arginine on the foetal condition and neonatal outcome in preeclampsia: a preliminary report. *Basic Clin Pharmacol Toxicol*. 2006 Aug;99(2):146-52. X-4e, X-5.
4713. Saadat M, Nejad SM, Habibi G, et al. Maternal and neonatal outcomes in women with preeclampsia. *Taiwan J Obstet Gynecol*. 2007 Sep;46(3):255-9. X-1.
4714. Sabsamruei P and Tanprasertkul C. Intrapartum ultrasonogram for the determination of fetal occiput position and risk of cesarean section. *J Med Assoc Thai*. 2010 Feb;93(2):149-53. X-1.
4715. Sacks DA, Chen W, Greenspoon JS, et al. Should the same glucose values be targeted for type 1 as for type 2 diabetics in pregnancy? *Am J Obstet Gynecol*. 1997 Nov;177(5):1113-9. X-1.
4716. Sacks DA, Feig DS, Liu IL, et al. Managing type I diabetes in pregnancy: how near normal is necessary? *J Perinatol*. 2006 Aug;26(8):458-62. X-5, X-6.
4717. Sadan O, Ginath S, Gomel A, et al. Vacuum application through a nonfully dilated cervix: a viable option. *Arch Gynecol Obstet*. 2003 Oct;268(4):281-3. X-1.
4718. Sadeh-Mestechkin D, Walfisch A, Zeadna A, et al. Early post partum discharge: is it possible? *Arch Gynecol Obstet*. 2007 Jul;276(1):65-70. X-1.
4719. Safir A, Levy A, Sikuler E, et al. Maternal hepatitis B virus or hepatitis C virus carrier status as an independent risk factor for adverse perinatal outcome. *Liver Int*. 2010 May;30(5):765-70. X-1.
4720. Sahu MT, Das V, Mittal S, et al. Overt and subclinical thyroid dysfunction among Indian pregnant women and its effect on maternal and fetal outcome. *Arch Gynecol Obstet*. 2010 Feb;281(2):215-20. X-1.
4721. Sainio S, Javela K, Kekomaki R, et al. Thrombopoietin levels in cord blood plasma and amniotic fluid in fetuses with alloimmune thrombocytopenia and healthy controls. *Br J Haematol*. 2000 May;109(2):330-5. X-1.
4722. Saisto T, Toivanen R, Salmela-Aro K, et al. Therapeutic group psychoeducation and relaxation in treating fear of childbirth. *Acta Obstet Gynecol Scand*. 2006;85(11):1315-9. X-1.
4723. Saisto T, Ylikorkala O and Halmesmaki E. Factors associated with fear of delivery in second pregnancies. *Obstet Gynecol*. 1999 Nov;94(5 Pt 1):679-82. X-1.
4724. Saito K, Haruki A, Ishikawa H, et al. Prospective study of intramuscular ergometrine compared with intramuscular oxytocin for prevention of postpartum hemorrhage. *J Obstet Gynaecol Res*. 2007 Jun;33(3):254-8. X-1.
4725. Saito T, Sessler DI, Fujita K, et al. Thermoregulatory effects of spinal and epidural anesthesia during cesarean delivery. *Reg Anesth Pain Med*. 1998 Jul-Aug;23(4):418-23. X-9.
4726. Sakala EP, Kaye S, Murray RD, et al. Epidural analgesia. Effect on the likelihood of a successful trial of labor after cesarean section. *J Reprod Med*. 1990 Sep;35(9):886-90. X-1.
4727. Sakala EP, Kaye S, Murray RD, et al. Oxytocin use after previous cesarean: why a higher rate of failed labor trial? *Obstet Gynecol*. 1990 Mar;75(3 Pt 1):356-9. X-1.
4728. Sakura M, Nakabayashi M, Takeda Y, et al. Elevated fetal fibronectin in midtrimester amniotic fluid is involved with the onset of preeclampsia. *J Obstet Gynaecol Res*. 1998 Feb;24(1):73-6. X-1.
4729. Salant DJ, Marcus RG, Milne FJ, et al. Pregnancy in renal transplant recipients. *S Afr Med J*. 1976 Jul 31;50(33):1288-90. X-1.
4730. Saldana LR, Schulman H and Lin C. Routine amniocentesis at term. *Obstet Gynecol*. 1976 May;47(5):521-4. X-1.
4731. Saleem S. Efficacy of dinoprostone, intracervical foleys and misoprostol in labor induction. *J Coll Physicians Surg Pak*. 2006 Apr;16(4):276-9. X-4d, X-5.
4732. Saleh A, Al-Sultan SM, Moria AM, et al. Fetal macrosomia greater than or equal to 4000 grams. Comparing maternal and neonatal outcomes in diabetic and nondiabetic women. *Saudi Med J*. 2008 Oct;29(10):1463-9. X-1.
4733. Salim R, Ben-Shlomo I, Nachum Z, et al. The incidence of large fetomaternal hemorrhage and the Kleihauer-Betke test. *Obstet Gynecol*. 2005 May;105(5 Pt 1):1039-44. X-1.
4734. Salim R, Garmi G, Nachum Z, et al. The impact of non-significant variable decelerations appearing in the latent phase on delivery mode: a prospective cohort study. *Reprod Biol Endocrinol*. 2010;8:81. X-1.
4735. Salim R and Shalev E. Health implications resulting from the timing of elective cesarean delivery. *Neonatal Intensive Care*. 2010;23(7):28. X-1, X-9.
4736. Salmon P and Drew NC. Multidimensional assessment of women's experience of childbirth: relationship to obstetric procedure, antenatal preparation and obstetric history. *J Psychosom Res*. 1992 May;36(4):317-27. X-1.

4737. Salomon O, Steinberg DM, Pshithizki M, et al. The influence of prothrombotic polymorphisms and obstetrical and medical variables on the length of secondary postpartum hemorrhage. *J Womens Health (Larchmt)*. 2005 May;14(4):306-10. X-1.
4738. Salonen JT and Heinonen OP. Mental retardation and mother's hypertension during pregnancy. *J Ment Defic Res*. 1984 Mar;28 (Pt 1):53-6. X-1.
4739. Saltzman DH, Eron LJ, Kay HH, et al. Single-dose antibiotic prophylaxis in high-risk patients undergoing cesarean section. *Obstet Gynecol*. 1985 May;65(5):655-7. X-9.
4740. Saltzman DH, Eron LJ, Toy C, et al. Ticarcillin plus clavulanic acid versus cefoxitin in the prophylaxis of infection after cesarean section. *Am J Med*. 1985 Nov 29;79(5B):172-3. X-4b.
4741. Saltzman DH, Eron LJ, Tuomala RE, et al. Single-dose antibiotic prophylaxis in high-risk patients undergoing cesarean section. A comparative trial. *J Reprod Med*. 1986 Aug;31(8):709-12. X-9.
4742. Samadi S, Khadivzadeh T, Emami A, et al. The effect of *Hypericum perforatum* on the wound healing and scar of cesarean. *J Altern Complement Med*. 2010 Jan;16(1):113-7. X-9.
4743. Samarasekera DN, Bekhit MT, Wright Y, et al. Long-term anal continence and quality of life following postpartum anal sphincter injury. *Colorectal Dis*. 2008 Oct;10(8):793-9. X-1.
4744. Sambaziotis H, Conway C, Figueroa R, et al. Second-trimester sonographic comparison of the lower uterine segment in pregnant women with and without a previous cesarean delivery. *J Ultrasound Med*. 2004 Jul;23(7):907-11; quiz 913-4. X-1.
4745. Sampsel CM, Brink CA and Wells TJ. Digital measurement of pelvic muscle strength in childbearing women. *Nurs Res*. 1989 May-Jun;38(3):134-8. X-1.
4746. Sampsel CM, Miller JM, Mims BL, et al. Effect of pelvic muscle exercise on transient incontinence during pregnancy and after birth. *Obstet Gynecol*. 1998 Mar;91(3):406-12. X-3, X-4e, X-5.
4747. Samuels LA, Christie L, Roberts-Gittens B, et al. The effect of hyoscine butylbromide on the first stage of labour in term pregnancies. *BJOG*. 2007 Dec;114(12):1542-6. X-5.
4748. Samuels TA, Minkoff H, Feldman J, et al. Obstetricians, health attorneys, and court-ordered cesarean sections. *Womens Health Issues*. 2007 Mar-Apr;17(2):107-14. X-1.
4749. Samuels-Reid JH, Scott RB and Brown WE. Contraceptive practices and reproductive patterns in sickle cell disease. *J Natl Med Assoc*. 1984 Sep;76(9):879-83. X-1, X-4e.
4750. Sanansilp V, Areewatana S and Tonsukchai N. Droperidol and the side effects of epidural morphine after cesarean section. *Anesth Analg*. 1998 Mar;86(3):532-7. X-9.
4751. Sanchez-Ramos L, Farah LA, Kaunitz AM, et al. Preinduction cervical ripening with commercially available prostaglandin E2 gel: a randomized, double-blind comparison with a hospital-compounded preparation. *Am J Obstet Gynecol*. 1995 Oct;173(4):1079-84. X-4d, X-5.
4752. Sanchez-Ramos L, Kaunitz AM and Connor PM. Hygroscopic cervical dilators and prostaglandin E2 gel for preinduction cervical ripening. A randomized, prospective comparison. *J Reprod Med*. 1992 Apr;37(4):355-9. X-4d, X-5.
4753. Sanchez-Rodriguez EN, Nava-Salazar S, Mendoza-Rodriguez CA, et al. Persistence of decidual NK cells and KIR genotypes in healthy pregnant and preeclamptic women: a case-control study in the third trimester of gestation. *Reprod Biol Endocrinol*. 2011;9:8. X-1.
4754. Sanders RD, Mallory S, Lucas DN, et al. Extending low-dose epidural analgesia for emergency Caesarean section using ropivacaine 0.75%. *Anaesthesia*. 2004 Oct;59(10):988-92. X-9.
4755. Sandgren E, Sandgren S, Urazalin M, et al. HIV/AIDS awareness and risk behaviour among pregnant women in Semey, Kazakhstan, 2007. *BMC Public Health*. 2008;8:295. X-1.
4756. Sandmire HF and DeMott RK. The Green Bay cesarean section study. IV. The physician factor as a determinant of cesarean birth rates for the large fetus. *Am J Obstet Gynecol*. 1996 May;174(5):1557-64. X-1.
4757. Sanli S, Yegin A, Kayacan N, et al. Effects of hyperbaric spinal ropivacaine for caesarean section: with or without fentanyl. *Eur J Anaesthesiol*. 2005 Jun;22(6):457-61. X-9.
4758. Santema JG, Bourdrez P and Wallenburg HC. Maternal and perinatal complications in triplet compared with twin pregnancy. *Eur J Obstet Gynecol Reprod Biol*. 1995 Jun;60(2):143-7. X-1.
4759. Santerre RE. The effect of the ACOG guideline on vaginal births after cesarean. *Med Care Res Rev*. 1996 Sep;53(3):315-29. X-1, X-4b.
4760. Santiago JV, Clarke WL and Arias F. Studies with a pancreatic beta cell simulator in the third trimester of pregnancies complicated by diabetes. *Am J Obstet Gynecol*. 1978 Oct 15;132(4):455-63. X-1.
4761. Santos A and Datta S. Prophylactic use of droperidol for control of nausea and vomiting during spinal anesthesia for cesarean section. *Anesth Analg*. 1984 Jan;63(1):85-7. X-4b.
4762. Santulli P, Mandelbrot L, Facchiano E, et al. Obstetrical and neonatal outcomes of pregnancies following gastric bypass surgery: a retrospective cohort study in a French referral centre. *Obes Surg*. 2010 Nov;20(11):1501-8. X-1.

4763. Sapmaz E, Celik H and Altungul A. Bilateral ascending uterine artery ligation vs. tourniquet use for hemostasis in cesarean myomectomy. A comparison. *J Reprod Med*. 2003 Dec;48(12):950-4. X-3, X-4b, X-4e, X-5.
4764. Sarah R. Power, certainty, and the fear of death. *Women Health*. 1987;13(1-2):59-71. X-1.
4765. Sarandakou A, Rizos D, Botsis D, et al. Mucin-like carcinoma-associated antigen (MCA) during normal pregnancy. *Eur J Obstet Gynecol Reprod Biol*. 2001 May;96(1):51-4. X-1.
4766. Saraswat L, Porter M and Bhattacharya S. Cesarean section and tubal infertility: is there an association? *Reprod Biomed Online*. 2008 Aug;17(2):259-64. X-1.
4767. Saravanan S, Kocarev M, Wilson RC, et al. Equivalent dose of ephedrine and phenylephrine in the prevention of post-spinal hypotension in Cesarean section. *Br J Anaesth*. 2006 Jan;96(1):95-9. X-9.
4768. Saravanan S, Robinson AP, Qayoum Dar A, et al. Minimum dose of intrathecal diamorphine required to prevent intraoperative supplementation of spinal anaesthesia for Cesarean section. *Br J Anaesth*. 2003 Sep;91(3):368-72. X-9.
4769. Saravolatz LD, Lee C and Drukker B. Comparison of intravenous administration with intrauterine irrigation with ceforanide for nonelective cesarean section. *Obstet Gynecol*. 1985 Oct;66(4):513-6. X-9.
4770. Sargent C and Stark N. Surgical birth: interpretations of cesarean delivery among private hospital patients and nursing staff. *Soc Sci Med*. 1987;25(12):1269-76. X-1.
4771. Sarkar RK, Cooley SM, Donnelly JC, et al. The incidence and impact of increased body mass index on maternal and fetal morbidity in the low-risk primigravid population. *J Matern Fetal Neonatal Med*. 2007 Dec;20(12):879-83. X-1.
4772. Sarna MC, Soni AK, Gomez M, et al. Intravenous oxytocin in patients undergoing elective cesarean section. *Anesth Analg*. 1997 Apr;84(4):753-6. X-9.
4773. Sarno AP, Jr., Hinderstein WN and Staiano RA. Fetal macrosomia in a military hospital: incidence, risk factors, and outcome. *Mil Med*. 1991 Feb;156(2):55-8. X-1.
4774. Saropala N and Chaturachinda K. Outcome of premature rupture of membranes (PROM) at term: Ramathibodi Hospital, 1988. *J Med Assoc Thai*. 1993 Jan;76 Suppl 1:56-9. X-1.
4775. Sarowar MG, Medin E, Gazi R, et al. Calculation of costs of pregnancy- and puerperium-related care: experience from a hospital in a low-income country. *J Health Popul Nutr*. 2010 Jun;28(3):264-72. X-1.
4776. Sartain JB, Barry JJ, Howat PW, et al. Intravenous oxytocin bolus of 2 units is superior to 5 units during elective Cesarean section. *Br J Anaesth*. 2008 Dec;101(6):822-6. X-9.
4777. Sarvela J, Halonen P, Soikkeli A, et al. A double-blinded, randomized comparison of intrathecal and epidural morphine for elective cesarean delivery. *Anesth Analg*. 2002 Aug;95(2):436-40, table of contents. X-9.
4778. Sarvela PJ, Halonen PM and Korttila KT. Comparison of 9 mg of intrathecal plain and hyperbaric bupivacaine both with fentanyl for cesarean delivery. *Anesth Analg*. 1999 Nov;89(5):1257-62. X-9.
4779. Sarvela PJ, Halonen PM, Soikkeli AI, et al. Ondansetron and tropisetron do not prevent intraspinal morphine- and fentanyl-induced pruritus in elective cesarean delivery. *Acta Anaesthesiol Scand*. 2006 Feb;50(2):239-44. X-9.
4780. Sasaki Y, Morimoto T, Saito H, et al. The role of parathyroid hormone-related protein in intra-tracheal fluid. *Endocr J*. 2000 Apr;47(2):169-75. X-1.
4781. Satin AJ, Hankins GD and Yeomans ER. A prospective study of two dosing regimens of oxytocin for the induction of labor in patients with unfavorable cervixes. *Am J Obstet Gynecol*. 1991 Oct;165(4 Pt 1):980-4. X-4d, X-5.
4782. Satin AJ, Leveno KJ, Sherman ML, et al. High- versus low-dose oxytocin for labor stimulation. *Obstet Gynecol*. 1992 Jul;80(1):111-6. X-1, X-4d, X-5.
4783. Satin AJ, Leveno KJ, Sherman ML, et al. High-dose oxytocin: 20- versus 40-minute dosage interval. *Obstet Gynecol*. 1994 Feb;83(2):234-8. X-1.
4784. Satin AJ, Leveno KJ, Sherman ML, et al. Factors affecting the dose response to oxytocin for labor stimulation. *Am J Obstet Gynecol*. 1992 Apr;166(4):1260-1. X-1.
4785. Satin AJ, Leveno KJ, Sherman ML, et al. Maternal youth and pregnancy outcomes: middle school versus high school age groups compared with women beyond the teen years. *Am J Obstet Gynecol*. 1994 Jul;171(1):184-7. X-1.
4786. Satin AJ, Maberry MC, Leveno KJ, et al. Chorioamnionitis: a harbinger of dystocia. *Obstet Gynecol*. 1992 Jun;79(6):913-5. X-1.
4787. Sato T, Konishi F, Minakami H, et al. Pelvic floor disturbance after childbirth: vaginal delivery damages the upper levels of sphincter innervation. *Dis Colon Rectum*. 2001 Aug;44(8):1155-61. X-1.
4788. Sauer L, Harrison MR, Flake AW, et al. Does an expanding fetal abdominal mass produce pulmonary hypoplasia? *J Pediatr Surg*. 1987 Jun;22(6):508-12. X-3.

4789. Sauer M, Parsons M and Sampson M. Placenta previa: an analysis of three years experience. *Am J Perinatol.* 1985 Jan;2(1):39-42. X-1.
4790. Saunders DL and Makutu SL. Cesarean section deliveries in Fiji, 1986 to 1996. *Pac Health Dialog.* 2001 Mar;8(1):71-7. X-1.
4791. Saunders K. Should we worry about meconium? A controlled study of neonatal outcome. *Trop Doct.* 2002 Jan;32(1):7-10. X-1.
4792. Saunders LD and Flowerdew G. Cesarean sections in Alberta from April 1979 to March 1988. *CMAJ.* 1991 May 15;144(10):1243-9, 1252. X-1.
4793. Saunders NJ and Barclay C. Closed suction wound drainage and lower-segment caesarean section. *Br J Obstet Gynaecol.* 1988 Oct;95(10):1060-2. X-9.
4794. Savage W. Cutting decision. Interview by Tricia Reid. *Nurs Times.* 1993 Oct 6-12;89(40):16-7. X-1, X-2, X-3, X-4.
4795. Savage W. The right to choose. *Nurs Stand.* 1998 May 20-26;12(35):14. X-1.
4796. Savage W and Francome C. British caesarean section rates: have we reached a plateau? *Br J Obstet Gynaecol.* 1993 May;100(5):493-6. X-1, X-3, X-4e, X-5.
4797. Savitz DA, Stein CR, Siega-Riz AM, et al. Gestational weight gain and birth outcome in relation to prepregnancy body mass index and ethnicity. *Ann Epidemiol.* 2011 Feb;21(2):78-85. X-1.
4798. Sawai SK, Williams MC, O'Brien WF, et al. Sequential outpatient application of intravaginal prostaglandin E2 gel in the management of postdates pregnancies. *Obstet Gynecol.* 1991 Jul;78(1):19-23. X-4d.
4799. Sawchuck DJ. Evaluation of perinatal clinical practice guidelines in British Columbia. 2006;Ph.D.:237 p. X-1.
4800. Saygan-Karamursel B, Teksam O, Aksu T, et al. Perinatal outcomes of spontaneous twins compared with twins conceived through intracytoplasmic sperm injection. *J Perinat Med.* 2006;34(2):132-8. X-1.
4801. Scaravelli G, Thorne C and Newell ML. The management of pregnancy and delivery in HIV-infected women in Europe. *Eur J Obstet Gynecol Reprod Biol.* 1995 Sep;62(1):7-13. X-1.
4802. Scarpignato C, Caltabiano M, Condemi V, et al. Short-term versus long-term cefuroxime prophylaxis in patients undergoing emergency cesarean section. *Clin Ther.* 1982;5(2):186-92. X-9.
4803. Schaap AH, Wolf H, Bruinse HW, et al. Effects of antenatal corticosteroid administration on mortality and long-term morbidity in early preterm, growth-restricted infants. *Obstet Gynecol.* 2001 Jun;97(6):954-60. X-1.
4804. Schadewaldt P, Hammen HW, Kamalanathan L, et al. Biochemical monitoring of pregnancy and breast feeding in five patients with classical galactosaemia--and review of the literature. *Eur J Pediatr.* 2009 Jun;168(6):721-9. X-1.
4805. Schaefer-Graf UM, Kjos SL, Fauzan OH, et al. A randomized trial evaluating a predominantly fetal growth-based strategy to guide management of gestational diabetes in Caucasian women. *Diabetes Care.* 2004 Feb;27(2):297-302. X-3, X-4e, X-5.
4806. Schaefer-Graf UM, Dupak J, Vogel M, et al. Hyperinsulinism, neonatal obesity and placental immaturity in infants born to women with one abnormal glucose tolerance test value. *J Perinat Med.* 1998;26(1):27-36. X-1.
4807. Schalkwyk J, Amiri N, Lalji S, et al. Acceptance of a rapid herpes test in labour: survey of attitudes of patients and health care providers. *J Obstet Gynaecol Can.* 2008 Sep;30(9):776-80. X-1.
4808. Schannwell CM, Schneppenheim M, Perings SM, et al. Alterations of left ventricular function in women with insulin-dependent diabetes mellitus during pregnancy. *Diabetologia.* 2003 Feb;46(2):267-75. X-1.
4809. Schatz M, Zeiger RS, Hoffman CP, et al. Increased transient tachypnea of the newborn in infants of asthmatic mothers. *Am J Dis Child.* 1991 Feb;145(2):156-8. X-1.
4810. Schaub AF, Litschgi M, Hoesli I, et al. Obstetric gel shortens second stage of labor and prevents perineal trauma in nulliparous women: a randomized controlled trial on labor facilitation. *J Perinat Med.* 2008;36(2):129-35. X-4e, X-5.
4811. Schauburger CW. False labor. *Obstet Gynecol.* 1986 Dec;68(6):770-2. X-1.
4812. Schauburger CW, Rooney BL, Beguin EA, et al. Evaluating the thirty minute interval in emergency cesarean sections. *J Am Coll Surg.* 1994 Aug;179(2):151-5. X-1.
4813. Schauflier HH, Brown C and Milstein A. Raising the bar: the use of performance guarantees by the Pacific Business Group on Health. *Health Aff (Millwood).* 1999 Mar-Apr;18(2):134-42. X-1.
4814. Scheckler WE and Peterson PJ. Nosocomial infections in 15 rural Wisconsin hospitals--results and conclusions from 6 months of comprehensive surveillance. *Infect Control.* 1986 Aug;7(8):397-402. X-1.
4815. Schedvins K and Moberg PJ. Prevention of postoperative infection in cesarean section after rupture of the membranes. *Int J Gynaecol Obstet.* 1986 Jun;24(3):165-8. X-9.

4816. Scheepers HC, de Jong PA, Essed GG, et al. Carbohydrate solution intake during labour just before the start of the second stage: a double-blind study on metabolic effects and clinical outcome. *BJOG*. 2004 Dec;111(12):1382-7. X-5, X-6.
4817. Scheepers HC, Thans MC, de Jong PA, et al. The effects of oral carbohydrate administration on fetal acid base balance. *J Perinat Med*. 2002;30(5):400-4. X-1.
4818. Schenker JG. Codes of perinatal ethics: an international perspective. *Clin Perinatol*. 2003 Mar;30(1):45-65. X-1.
4819. Schenker JG and Simha A. Quintuplet pregnancy. *Obstet Gynecol*. 1975 May;45(5):590-3. X-1.
4820. Schiff E, Friedman SA, Mashlach S, et al. Maternal and neonatal outcome of 846 term singleton breech deliveries: seven-year experience at a single center. *Am J Obstet Gynecol*. 1996 Jul;175(1):18-23. X-1.
4821. Schiff MA and Grossman DC. Adverse perinatal outcomes and risk for postpartum suicide attempt in Washington state, 1987-2001. *Pediatrics*. 2006 Sep;118(3):e669-75. X-1.
4822. Schindl M, Birner P, Reingrabner M, et al. Elective cesarean section vs. spontaneous delivery: a comparative study of birth experience. *Acta Obstet Gynecol Scand*. 2003 Sep;82(9):834-40. X-1, X-3, X-4e, X-5.
4823. Schlenzig C, Maurer S, Goppelt M, et al. Postpartum curettage in patients with HELLP-syndrome does not result in accelerated recovery. *Eur J Obstet Gynecol Reprod Biol*. 2000 Jul;91(1):25-8. X-1.
4824. Schmitz T, Carnavalet Cde C, Azria E, et al. Neonatal outcomes of twin pregnancy according to the planned mode of delivery. *Obstet Gynecol*. 2008 Mar;111(3):695-703. X-1.
4825. Schneider KT, Luftner D and Rath W. Efficacy and safety of a 2-tier prostaglandin labor induction schedule. *J Perinat Med*. 1994;22(5):399-407. X-4d, X-5.
4826. Scholl TO, Sowers M, Chen X, et al. Maternal glucose concentration influences fetal growth, gestation, and pregnancy complications. *Am J Epidemiol*. 2001 Sep 15;154(6):514-20. X-1.
4827. Scholz HS, Haas J and Petru E. Do primiparas aged 40 years or older carry an increased obstetric risk? *Prev Med*. 1999 Oct;29(4):263-6. X-1.
4828. Schreiber J and Benedetti T. Conservative management of preterm premature rupture of the fetal membranes in a low socioeconomic population. *Am J Obstet Gynecol*. 1980 Jan 1;136(1):92-6. X-1.
4829. Schrimmer DB, Macri CJ and Paul RH. Prophylactic amnioinfusion as a treatment for oligohydramnios in laboring patients: a prospective, randomized trial. *Am J Obstet Gynecol*. 1991 Oct;165(4 Pt 1):972-5. X.
4830. Schuler L, Pastuszak A, Sanseverino TV, et al. Pregnancy outcome after exposure to misoprostol in Brazil: a prospective, controlled study. *Reprod Toxicol*. 1999 Mar-Apr;13(2):147-51. X-1.
4831. Schultetus RR, Paulus DA and Spohr GL. Haemodynamic effects of ketamine and thiopentone during anaesthetic induction for caesarean section. *Can Anaesth Soc J*. 1985 Nov;32(6):592-6. X-9.
4832. Schultz CC, Wood JY, Magann EF, et al. Prediction of a caesarean delivery by labour and delivery nurses. *Aust N Z J Obstet Gynaecol*. 2007 Oct;47(5):402-5. X-1.
4833. Schulz-Stubner S, Zingel E and Rossaint R. Vibration sense testing with a 128-Hz tuning fork as a tool to determine recovery from epidural neuraxial block. *Reg Anesth Pain Med*. 2001 Nov-Dec;26(6):518-22. X-9.
4834. Schuster MW, Chauhan SP, McLaughlin BN, et al. Comparison of insulin regimens and administration modalities in pregnancy complicated by diabetes. *J Miss State Med Assoc*. 1998 Jun;39(6):208-12. X-4e, X-5.
4835. Schuster MW, Chauhan SP, McLaughlin BN, et al. Comparison of insulin regimens and administration modalities in pregnancy complicated by diabetes. *J Miss State Med Assoc*. 1998 Feb;39(2):51-5. X-3, X-4e, X-5.
4836. Schvarcz E, Palmer M, Ingberg CM, et al. Increased prevalence of upper gastrointestinal symptoms in long-term type 1 diabetes mellitus. *Diabet Med*. 1996 May;13(5):478-81. X-1.
4837. Schwappach DL, Blaudszun A, Conen D, et al. Women's experiences with low-risk singleton in-hospital delivery in Switzerland. *Swiss Med Wkly*. 2004 Feb 21;134(7-8):103-9. X-1.
4838. Schwartz DB, Greenberg MD, Daoud Y, et al. Genital condylomas in pregnancy: use of trichloroacetic acid and laser therapy. *Am J Obstet Gynecol*. 1988 Jun;158(6 Pt 1):1407-16. X-1.
4839. Schwartz MA, Wang CC, Eckert LO, et al. Risk factors for urinary tract infection in the postpartum period. *Am J Obstet Gynecol*. 1999 Sep;181(3):547-53. X-1.
4840. Schytt E, Lindmark G and Waldenström U. Physical symptoms after childbirth: prevalence and associations with self-rated health. *BJOG*. 2005 Feb;112(2):210-7. X-1.
4841. Sciscione AC, Duhl A, Pollock MA, et al. Extramembranous placement of an air-coupled vs. transducer-tipped intrauterine pressure catheter. *J Reprod Med*. 2005 Aug;50(8):578-84. X-4e.
4842. Sciscione AC, Muench M, Pollock M, et al. Transcervical Foley catheter for preinduction cervical ripening in an outpatient versus

- inpatient setting. *Obstet Gynecol.* 2001 Nov;98(5 Pt 1):751-6. X-4e.
4843. Sciscione AC, Nguyen L, Manley J, et al. A randomized comparison of transcervical Foley catheter to intravaginal misoprostol for preinduction cervical ripening. *Obstet Gynecol.* 2001 Apr;97(4):603-7. X-4e.
4844. Sciscione AC, Nguyen L, Manley JS, et al. Uterine rupture during preinduction cervical ripening with misoprostol in a patient with a previous Caesarean delivery. *Aust N Z J Obstet Gynaecol.* 1998 Feb;38(1):96-7. X-1.
4845. Scott C. Resisting the temptation to turn medical recommendations into judicial orders: a reconsideration of court-ordered surgery for pregnant women. *Ga State Univ Law Rev.* 1994 May;10(4):615-89. X-1, X-2.
4846. Scott LL, Hollier LM, McIntire D, et al. Acyclovir suppression to prevent clinical recurrences at delivery after first episode genital herpes in pregnancy: an open-label trial. *Infect Dis Obstet Gynecol.* 2001;9(2):75-80. X-1.
4847. Scott LL, Hollier LM, McIntire D, et al. Acyclovir suppression to prevent recurrent genital herpes at delivery. *Infect Dis Obstet Gynecol.* 2002;10(2):71-7. X-4e.
4848. Scott LL, Sanchez PJ, Jackson GL, et al. Acyclovir suppression to prevent cesarean delivery after first-episode genital herpes. *Obstet Gynecol.* 1996 Jan;87(1):69-73. X-4e.
4849. Scott PV, Bowen FE, Cartwright P, et al. Intrathecal morphine as sole analgesic during labour. *Br Med J.* 1980 Aug 2;281(6236):351-3. X-1.
4850. Scott R. The pregnant woman and the good Samaritan: can a woman have a duty to undergo a caesarean section? *Oxf J Leg Stud.* 2000 Autumn;20(3):407-36. X-1.
4851. Scott RT, Strickland DM, Hankins GD, et al. Maternal height and weight gain during pregnancy as risk factors for cesarean section. *Mil Med.* 1989 Jul;154(7):365-7. X-1.
4852. Seago DP, Roberts WE, Johnson VK, et al. Planned cesarean hysterectomy: A preferred alternative to separate operations. *Am J Obstet Gynecol.* 1999 Jun;180(6 Pt 1):1385-93. X-1.
4853. Seah YS, Chen C, Ng YT, et al. Ilioinguinal nerve block with 0.375% marcaine for postoperative pain relief in cesarean section. *Ma Zui Xue Za Zhi.* 1990 Sep;28(3):307-10. X-9.
4854. Sears DH, Leeman MI, Jassy LJ, et al. The frequency of postdural puncture headache in obstetric patients: a prospective study comparing the 24-gauge versus the 22-gauge Sprotte needle. *J Clin Anesth.* 1994 Jan-Feb;6(1):42-6. X.
4855. Seaton S, Reeves M and McLean S. Oxycodone as a component of multimodal analgesia for lactating mothers after Caesarean section: relationships between maternal plasma, breast milk and neonatal plasma levels. *Aust N Z J Obstet Gynaecol.* 2007 Jun;47(3):181-5. X-9.
4856. Seaward PG, Hannah ME, Myhr TL, et al. International Multicentre Term Prelabor Rupture of Membranes Study: evaluation of predictors of clinical chorioamnionitis and postpartum fever in patients with prelabor rupture of membranes at term. *Am J Obstet Gynecol.* 1997 Nov;177(5):1024-9. X-4e.
4857. Sebhatu B. Determining the sensitivity of sitting height in predicting cephalo pelvic disproportion in Eritrea. *Trop Doct.* 2005 Oct;35(4):204-6. X-1.
4858. Sebitloane MH and Moodley J. Emergency peripartum hysterectomy. *East Afr Med J.* 2001 Feb;78(2):70-4. X-1.
4859. Secher NJ, Hansen PK, Lenstrup C, et al. Controlled trial of ultrasound screening for light for gestational age (LGA) infants in late pregnancy. *Eur J Obstet Gynecol Reprod Biol.* 1986 Dec;23(5-6):307-13. X-5.
4860. Secher NJ, Kern Hansen P, Lenstrup C, et al. A randomized study of fetal abdominal diameter and fetal weight estimation for detection of light-for-gestation infants in low-risk pregnancies. *Br J Obstet Gynaecol.* 1987 Feb;94(2):105-9. X-5.
4861. Seeras RC. Induction of labor utilizing vaginal vs. intracervical prostaglandin E2. *Int J Gynaecol Obstet.* 1995 Feb;48(2):163-7. X-4d.
4862. Seeras RC, Olatunbosun OA, Pierson RA, et al. Induction of labor using prostaglandin E2 (PGE2) vaginal gel in triacetin base. An efficacy study comparing two dosage regimens. *Clin Exp Obstet Gynecol.* 1995;22(2):105-10. X-4d.
4863. Seffah JD. Caesarean section and birth weight at Korle Bu Teaching Hospital--preliminary report. *West Afr J Med.* 2002 Jul-Sep;21(3):212-4. X-1.
4864. Seffah JD and Armah JO. Antenatal ultrasonography for breech delivery. *Int J Gynaecol Obstet.* 2000 Jan;68(1):7-12. X-4c.
4865. Segal D, Holcberg G, Sapir O, et al. Neurofibromatosis in pregnancy. Maternal and perinatal outcome. *Eur J Obstet Gynecol Reprod Biol.* 1999 May;84(1):59-61. X-1.
4866. Segal D, Sheiner E, Yohai D, et al. Early amniotomy -- high risk factor for cesarean section. *Eur J Obstet Gynecol Reprod Biol.* 1999 Oct;86(2):145-9. X-1.
4867. Segal S, Eappen S and Datta S. Superiority of multi-orifice over single-orifice epidural catheters for labor analgesia and cesarean delivery. *J Clin Anesth.* 1997 Mar;9(2):109-12. X-1.
4868. Segal S, Shemesh IY, Blumenthal R, et al. Treatment of obstetric hemorrhage with recombinant activated factor VII (rFVIIa). *Arch Gynecol Obstet.* 2003 Oct;268(4):266-7. X-1.

4869. Segregur J, Bukovic D, Milinovic D, et al. Fetal macrosomia in pregnant women with gestational diabetes. *Coll Antropol.* 2009 Dec;33(4):1121-7. X-1.
4870. Seidman DS, Paz I, Nadu A, et al. Are multiple cesarean sections safe? *Eur J Obstet Gynecol Reprod Biol.* 1994 Oct;57(1):7-12. X-1.
4871. Seiler JS. The demise of vaginal operative obstetrics: a suggested plan for its revival. *Obstet Gynecol.* 1990 Apr;75(4):710-3. X-1.
4872. Sekhavat L, Dehghani Firouzabadi R and Mojiri P. Effect of expansion technique of uterine incision on maternal blood loss in cesarean section. *Arch Gynecol Obstet.* 2010 Nov;282(5):475-9. X-1, X-9.
4873. Sekhavat L, Tabatabaie A, Dalili M, et al. Efficacy of tranexamic acid in reducing blood loss after cesarean section. *J Matern Fetal Neonatal Med.* 2009 Jan;22(1):72-5. X-9.
4874. Sekirime WK and Lule JC. Maternal morbidity following emergency cesarean section in asymptomatic HIV-1 infected patients in Mulago Hospital Kampala, Uganda. *J Obstet Gynaecol.* 2008 Oct;28(7):703-9. X-9.
4875. Sekizawa A, Yokokawa K, Sugito Y, et al. Evaluation of bidirectional transfer of plasma DNA through placenta. *Hum Genet.* 2003 Sep;113(4):307-10. X-1, X-9.
4876. Sela HY, Shveiky D, Laufer N, et al. Pregnant women injured in terror-related multiple casualty incidents: injuries and outcomes. *J Trauma.* 2008 Mar;64(3):727-32. X-1.
4877. Selo-Ojeme D, Abulhassan N, Mandal R, et al. Preferred and actual delivery mode after a cesarean in London, UK. *Int J Gynaecol Obstet.* 2008 Aug;102(2):156-9. X-1.
4878. Selo-Ojeme DO, Bhattacharjee P, Izuwa-Njoku NF, et al. Emergency peripartum hysterectomy in a tertiary London hospital. *Arch Gynecol Obstet.* 2005 Feb;271(2):154-9. X-1.
4879. Selo-Ojeme DO, Omosaiye M, Battacharjee P, et al. Risk factors for obstetric admissions to the intensive care unit in a tertiary hospital: a case-control study. *Arch Gynecol Obstet.* 2005 Sep;272(3):207-10. X-1.
4880. Semple AJ, Macrae DJ, Munishankarappa S, et al. Effect of the addition of adrenaline to extradural diamorphine analgesia after cesarean section. *Br J Anaesth.* 1988 May;60(6):632-8. X-9.
4881. Sempowski IP and Houlden RL. Managing diabetes during pregnancy. *Guide for family physicians.* *Can Fam Physician.* 2003 Jun;49:761-7. X-1, X-2.
4882. Semprini AE, Castagna C, Ravizza M, et al. The incidence of complications after cesarean section in 156 HIV-positive women. *AIDS.* 1995 Aug;9(8):913-7. X-1, X-9.
4883. Sen A, Rudra A, Sarkar SK, et al. Intrathecal midazolam for postoperative pain relief in caesarean section delivery. *J Indian Med Assoc.* 2001 Dec;99(12):683-4, 686. X-9.
4884. Sen S, Malik S and Salhan S. Ultrasonographic evaluation of lower uterine segment thickness in patients of previous cesarean section. *Int J Gynaecol Obstet.* 2004 Dec;87(3):215-9. X-1.
4885. Sen S, Ozmert G, Aydin ON, et al. The persisting analgesic effect of low-dose intravenous ketamine after spinal anaesthesia for caesarean section. *Eur J Anaesthesiol.* 2005 Jul;22(7):518-23. X-9.
4886. Sen S, Ozmert G, Turan H, et al. The effects of spinal anesthesia on QT interval in preeclamptic patients. *Anesth Analg.* 2006 Nov;103(5):1250-5. X-1.
4887. Sendag F, Terek MC, Itil IM, et al. Maternal and perinatal outcomes in women with gestational diabetes mellitus as compared to nondiabetic controls. *J Reprod Med.* 2001 Dec;46(12):1057-62. X-1.
4888. Senecal J, Xiong X and Fraser WD. Effect of fetal position on second-stage duration and labor outcome. *Obstet Gynecol.* 2005 Apr;105(4):763-72. X-1.
4889. Sener EB, Guldogus F, Karakaya D, et al. Comparison of neonatal effects of epidural and general anesthesia for cesarean section. *Gynecol Obstet Invest.* 2003;55(1):41-5. X-9.
4890. Seneviratne HR, de Silva GD, de Silva MV, et al. Obstetric performance, perinatal outcome and risk of infection to the newborn in spontaneous and artificial rupture of membranes during labour. *Ceylon Med J.* 1998 Mar;43(1):11-5. X-1.
4891. Sentilhes L, Goffinet F, Talbot A, et al. Attempted vaginal versus planned cesarean delivery in 195 breech first twin pregnancies. *Acta Obstet Gynecol Scand.* 2007;86(1):55-60. X-1.
4892. Sentilhes L, Gromez A, Razzouk K, et al. B-Lynch suture for massive persistent postpartum hemorrhage following stepwise uterine devascularization. *Acta Obstet Gynecol Scand.* 2008;87(10):1020-6. X-1.
4893. Seoud MA, Nassar AH, Usta IM, et al. Impact of advanced maternal age on pregnancy outcome. *Am J Perinatol.* 2002 Jan;19(1):1-8. X-1.
4894. Seracchioli R, Rossi S, Govoni F, et al. Fertility and obstetric outcome after laparoscopic myomectomy of large myomata: a randomized comparison with abdominal myomectomy. *Hum Reprod.* 2000 Dec;15(12):2663-8. X-1.
4895. Sercekus P and Okumus H. Fears associated with childbirth among nulliparous women in Turkey. *Midwifery.* 2009 Apr;25(2):155-62. X-1.
4896. Serenius F, Ewald U, Farooqi A, et al. Short-term outcome after active perinatal management at 23-25 weeks of gestation. A study from two Swedish tertiary care centres.

Part 1: maternal and obstetric factors. Acta Paediatr. 2004 Jul;93(7):945-53. X-1.

4897. Serjeant GR, Hambleton I and Thame M. Fecundity and pregnancy outcome in a cohort with sickle cell-haemoglobin C disease followed from birth. BJOG. 2005 Sep;112(9):1308-14. X-1.
4898. Sermer M, Naylor CD, Farine D, et al. The Toronto Tri-Hospital Gestational Diabetes Project. A preliminary review. Diabetes Care. 1998 Aug;21 Suppl 2:B33-42. X-1.
4899. Sermer M, Naylor CD, Gare DJ, et al. Impact of increasing carbohydrate intolerance on maternal-fetal outcomes in 3637 women without gestational diabetes. The Toronto Tri-Hospital Gestational Diabetes Project. Am J Obstet Gynecol. 1995 Jul;173(1):146-56. X-1.
4900. Seron-Ferre M, Riffo R, Valenzuela GJ, et al. Twenty-four-hour pattern of cortisol in the human fetus at term. Am J Obstet Gynecol. 2001 May;184(6):1278-83. X-1.
4901. Seror J, Allouche C and Elhaik S. Use of Sengstaken-Blakemore tube in massive postpartum hemorrhage: a series of 17 cases. Acta Obstet Gynecol Scand. 2005 Jul;84(7):660-4. X-1.
4902. Serra A, Fitze G, Kamin G, et al. Preliminary report on elective preterm delivery at 34 weeks and primary abdominal closure for the management of gastroschisis. Eur J Pediatr Surg. 2008 Feb;18(1):32-7. X-1.
4903. Setayesh AR, Kholdebarin AR, Moghadam MS, et al. The Trendelenburg position increases the spread and accelerates the onset of epidural anesthesia for Cesarean section. Can J Anaesth. 2001 Oct;48(9):890-3. X-9.
4904. Seyb ST, Berka RJ, Socol ML, et al. Risk of cesarean delivery with elective induction of labor at term in nulliparous women. Obstet Gynecol. 1999 Oct;94(4):600-7. X-1.
4905. Seymour J. A pregnant woman's decision to decline treatment: how should the law respond? J Law Med. 1994 Aug;2(1):27-37. X-1.
4906. Sezer OA and Gunaydin B. Efficacy of patient-controlled epidural analgesia after initiation with epidural or combined spinal-epidural analgesia. Int J Obstet Anesth. 2007 Jul;16(3):226-30. X-1.
4907. Sezik M, Ozkaya O, Sezik HT, et al. Does marriage between first cousins have any predictive value for maternal and perinatal outcomes in pre-eclampsia? J Obstet Gynaecol Res. 2006 Oct;32(5):475-81. X-1.
4908. Shaffer BL, Cheng YW, Vargas JE, et al. Manual rotation to reduce caesarean delivery in persistent occiput posterior or transverse position. J Matern Fetal Neonatal Med. 2011 Jan;24(1):65-72. X-1.
4909. Shaffer TH, Lowe CA, Bhutani VK, et al. Liquid ventilation: effects on pulmonary function in distressed meconium-stained lambs. Pediatr Res. 1984 Jan;18(1):47-52. X-1.

4910. Shah M and Wright JD. Surgical intervention in the management of postpartum hemorrhage. *Semin Perinatol.* 2009 Apr;33(2):109-15. X-2.
4911. Shah MA and Williams DR. Cesarean section on demand: round one. *J Midwifery Womens Health.* 2004 Mar-Apr;49(2):85-6. X-1, X-2.
4912. Shah S, Mazher Y and John IS. Single or triple dose piperacillin prophylaxis in elective cesarean section. *Int J Gynaecol Obstet.* 1998 Jul;62(1):23-9. X-9.
4913. Shaheen AA and Myers RP. The outcomes of pregnancy in patients with cirrhosis: a population-based study. *Liver Int.* 2010 Feb;30(2):275-83. X-1.
4914. Shahin AY, Farghaly TA, Mohamed SA, et al. Bilateral uterine artery ligation plus B-Lynch procedure for atonic postpartum hemorrhage with placenta accreta. *Int J Gynaecol Obstet.* 2010 Mar;108(3):187-90. X-1.
4915. Shahin AY and Osman AM. Parietal peritoneal closure and persistent postcesarean pain. *Int J Gynaecol Obstet.* 2009 Feb;104(2):135-9. X-9.
4916. Shahin AY and Osman AM. Intraperitoneal lidocaine instillation and postcesarean pain after parietal peritoneal closure: a randomized double blind placebo-controlled trial. *Clin J Pain.* 2010 Feb;26(2):121-7. X-9.
4917. Shahriari A and Khooshideh M. Intrathecal fentanyl added to lidocaine for Cesarean delivery under spinal anesthesia--a randomised clinical trial. *Middle East J Anesthesiol.* 2007 Jun;19(2):397-406. X-9.
4918. Shahriari A, Khooshideh M and Heidari MH. Prevention of nausea and vomiting in caesarean section under spinal anaesthesia with midazolam or metoclopramide? *J Pak Med Assoc.* 2009 Nov;59(11):756-9. X-9.
4919. Shaikh JM, Memon A, Memon MA, et al. Post dural puncture headache after spinal anaesthesia for caesarean section: a comparison of 25 g Quincke, 27 g Quincke and 27 g Whitacre spinal needles. *J Ayub Med Coll Abbottabad.* 2008 Jul-Sep;20(3):10-3. X-9.
4920. Shakur H, Elbourne D, Gulmezoglu M, et al. The WOMAN Trial (World Maternal Antifibrinolytic Trial): tranexamic acid for the treatment of postpartum haemorrhage: an international randomised, double blind placebo controlled trial. *Trials.* 2010;11:40. X-1, X-4e, X-5.
4921. Shakya A and Sharma J. Comparison of single versus multiple doses of antibiotic prophylaxis in reducing post-elective Caesarean section infectious morbidity. *Kathmandu Univ Med J (KUMJ).* 2010 Apr-Jun;8(30):179-84. X-1.
4922. Shakya R, Shrestha J and Thapa P. Safety and efficacy of misoprostol and dinoprostone as cervical ripening agents. *JNMA J Nepal Med Assoc.* 2010 Jan-Mar;49(177):33-7. X-1.
4923. Shallow H. The caesarean section debate: reclaiming childbirth -- some thoughts from a midwife. *Midwifery Matters.* 2004(101):13-14. X-1.
4924. Shalloway PB. Learning from the patient's view. *Adv Nurse Pract.* 1999 Mar;7(3):95. X-1, X-2, X-3, X-4e, X-5.
4925. Shammam AG and Momani MD. Misoprostol for termination of second trimester pregnancy in a scarred uterus. *Saudi Med J.* 2006 Aug;27(8):1173-6. X-1.
4926. Shanklin DR and Sibai BM. Ultrastructural aspects of preeclampsia. II. Mitochondrial changes. *Am J Obstet Gynecol.* 1990 Sep;163(3):943-53. X-1.
4927. Shao J, Catalano PM, Yamashita H, et al. Vanadate enhances but does not normalize glucose transport and insulin receptor phosphorylation in skeletal muscle from obese women with gestational diabetes mellitus. *Am J Obstet Gynecol.* 2000 Nov;183(5):1263-70. X-1.
4928. Shao J, Catalano PM, Yamashita H, et al. Decreased insulin receptor tyrosine kinase activity and plasma cell membrane glycoprotein-1 overexpression in skeletal muscle from obese women with gestational diabetes mellitus (GDM): evidence for increased serine/threonine phosphorylation in pregnancy and GDM. *Diabetes.* 2000 Apr;49(4):603-10. X-1.
4929. Shapira S, Goldberger S, Beyth Y, et al. Induced second trimester abortion by extra-amniotic prostaglandin infusion in patients with a cesarean scar: is it safe? *Acta Obstet Gynecol Scand.* 1999 Jul;78(6):511-4. X-1.
4930. Shapiro S. Epidemiologic evaluation of large-scale perinatal programs. *Mead Johnson Symp Perinat Dev Med.* 1982(20):13-21. X-1.
4931. Sharami SH, Milani F, Zahiri Z, et al. A randomized trial of prostaglandin E2 gel and extra-amniotic saline infusion with high dose oxytocin for cervical ripening. *Med Sci Monit.* 2005 Aug;11(8):CR381-6. X-4d, X-5.
4932. Sharar SR, Ready LB, Ross BK, et al. A comparison of postcesarean epidural morphine analgesia by single injection and by continuous infusion. *Reg Anesth.* 1991 Jul-Aug;16(4):232-5. X-9.
4933. Sharf M, Eibschitz I, Hakim M, et al. Is serum free estradiol measurement essential in the management of hypertensive disorders during pregnancy? *Eur J Obstet Gynecol Reprod Biol.* 1984 Aug;17(6):365-75. X-1, X-4e, X-5.
4934. Sharkey A, Gulden RH, Lipton JM, et al. Effect of radiant heat on the metabolic cost of postoperative shivering. *Br J Anaesth.* 1993 Apr;70(4):449-50. X-9.
4935. Sharma K, Batra YK and Singh H. Effect of decreased cerebrospinal fluid proteins on the spread of local anaesthetic drugs in pregnancy. *Indian J Med Res.* 1990 Jun;92:175-7. X-4e.

4936. Sharma PS, Eden KB, Guise JM, et al. Subjective risk vs. objective risk can lead to different post-cesarean birth decisions based on multiattribute modeling. *J Clin Epidemiol*. 2011 Jan;64(1):67-78. X-1.
4937. Sharma R, Nandi D, Shukla I, et al. Effect of pregnancy associated hypertension on immunoglobulin levels in newborns. *Indian Pediatr*. 1992 May;29(5):581-6. X-1.
4938. Sharma SK, Alexander JM, Messick G, et al. Cesarean delivery: a randomized trial of epidural analgesia versus intravenous meperidine analgesia during labor in nulliparous women. *Anesthesiology*. 2002 Mar;96(3):546-51. X-4e, X-5.
4939. Sharma SK, Sidawi JE, Ramin SM, et al. Cesarean delivery: a randomized trial of epidural versus patient-controlled meperidine analgesia during labor. *Anesthesiology*. 1997 Sep;87(3):487-94. X-4e, X-5.
4940. Shaxted EJ, Heyes VM, Walker MP, et al. Umbilical-cord plasma progesterone in term infants delivered by caesarean section. *Br J Obstet Gynaecol*. 1982 Jan;89(1):73-6. X-1.
4941. Shearer VE, Ramin SM, Wallace DH, et al. Fetal effects of prophylactic ephedrine and maternal hypotension during regional anesthesia for cesarean section. *J Matern Fetal Med*. 1996 Mar-Apr;5(2):79-84. X-9.
4942. Sheffield JS, Hill JB, Hollier LM, et al. Valacyclovir prophylaxis to prevent recurrent herpes at delivery: a randomized clinical trial. *Obstet Gynecol*. 2006 Jul;108(1):141-7. X-4e.
4943. Sheiner E, Abramowicz JS, Levy A, et al. Nuchal cord is not associated with adverse perinatal outcome. *Arch Gynecol Obstet*. 2006 May;274(2):81-3. X-1.
4944. Sheiner E, Bashiri A, Levy A, et al. Obstetric characteristics and perinatal outcome of pregnancies with uterine leiomyomas. *J Reprod Med*. 2004 Mar;49(3):182-6. X-1.
4945. Sheiner E, Levy A, Feinstein U, et al. Risk factors and outcome of failure to progress during the first stage of labor: a population-based study. *Acta Obstet Gynecol Scand*. 2002 Mar;81(3):222-6. X-1.
4946. Sheiner E, Levy A, Katz M, et al. Gender does matter in perinatal medicine. *Fetal Diagn Ther*. 2004 Jul-Aug;19(4):366-9. X-1.
4947. Sheiner E, Levy A, Katz M, et al. Identifying risk factors for peripartum cesarean hysterectomy. A population-based study. *J Reprod Med*. 2003 Aug;48(8):622-6. X-1.
4948. Sheiner E, Levy A, Katz M, et al. Pregnancy outcome following recurrent spontaneous abortions. *Eur J Obstet Gynecol Reprod Biol*. 2005 Jan 10;118(1):61-5. X-1.
4949. Sheiner E, Levy A and Mazor M. Precipitate labor: higher rates of maternal complications. *Eur J Obstet Gynecol Reprod Biol*. 2004 Sep 10;116(1):43-7. X-1.
4950. Sheiner E, Levy A, Menes TS, et al. Maternal obesity as an independent risk factor for caesarean delivery. *Paediatr Perinat Epidemiol*. 2004 May;18(3):196-201. X-1.
4951. Sheiner E, Levy A, Silverberg D, et al. Pregnancy after bariatric surgery is not associated with adverse perinatal outcome. *Am J Obstet Gynecol*. 2004 May;190(5):1335-40. X-1.
4952. Sheiner E, Mazor M, Levy A, et al. Pregnancy outcome of asthmatic patients: a population-based study. *J Matern Fetal Neonatal Med*. 2005 Oct;18(4):237-40. X-1.
4953. Sheiner E, Segal D, Shoham-Vardi I, et al. The impact of early amniotomy on mode of delivery and pregnancy outcome. *Arch Gynecol Obstet*. 2000 Sep;264(2):63-7. X-1.
4954. Sheiner E, Shoham-Vardi I, Hershkovitz R, et al. Infertility treatment is an independent risk factor for cesarean section among nulliparous women aged 40 and above. *Am J Obstet Gynecol*. 2001 Oct;185(4):888-92. X-1.
4955. Sheiner E, Shoham-Vardi I, Silberstein T, et al. Failed vacuum extraction. Maternal risk factors and pregnancy outcome. *J Reprod Med*. 2001 Sep;46(9):819-24. X-1.
4956. Shellhaas CS, Gilbert S, Landon MB, et al. The frequency and complication rates of hysterectomy accompanying cesarean delivery. *Obstet Gynecol*. 2009 Aug;114(2 Pt 1):224-9. X-1.
4957. Shen JJ, Tymkow C and MacMullen N. Disparities in maternal outcomes among four ethnic populations. *Ethn Dis*. 2005 Summer;15(3):492-7. X-1.
4958. Shende D, Cooper GM and Bowden MI. The influence of intrathecal fentanyl on the characteristics of subarachnoid block for caesarean section. *Anaesthesia*. 1998 Jul;53(7):706-10. X-9.
4959. Sherer DM, Menashe M and Ron M. Measures to enhance performance of an atraumatic cesarean section in prematurity. *Am J Perinatol*. 1989 Jan;6(1):22-3. X-1, X-2.
4960. Sherer DM, Onyeije CI, Binder D, et al. Uncomplicated baseline fetal tachycardia or bradycardia in postterm pregnancies and perinatal outcome. *Am J Perinatol*. 1998 May;15(5):335-8. X-1.
4961. Sheriff MH, Hardman M, Lamont CA, et al. Successful pregnancy in a 44-year-old haemodialysis patient. *Br J Obstet Gynaecol*. 1978 May;85(5):386-9. X-1.
4962. Sherline DM. Picenadol (LY 150720) compared with meperidine and placebo for relief of post-cesarean section pain: a randomized double-blind study. *Am J Obstet Gynecol*. 1983 Oct 15;147(4):404-6. X-9.
4963. Sherman D, Lurie S, Betzer M, et al. Uterine flora at cesarean and its relationship to postpartum endometritis. *Obstet Gynecol*. 1999 Nov;94(5 Pt 1):787-91. X-1.

4964. Sheth SS and Malpani AN. Vaginal hysterectomy following previous cesarean section. *Int J Gynaecol Obstet.* 1995 Aug;50(2):165-9. X-1.
4965. Shetty A, Burt R, Rice P, et al. Women's perceptions, expectations and satisfaction with induced labour--a questionnaire-based study. *Eur J Obstet Gynecol Reprod Biol.* 2005 Nov 1;123(1):56-61. X-1.
4966. Shetty A, Danielian P and Templeton A. A comparison of oral and vaginal misoprostol tablets in induction of labour at term. *BJOG.* 2001 Mar;108(3):238-43. X-4d.
4967. Shetty A, Danielian P and Templeton A. Sublingual misoprostol for the induction of labor at term. *Am J Obstet Gynecol.* 2002 Jan;186(1):72-6. X-4d.
4968. Shetty A, Martin R, Danielian P, et al. A comparison of two dosage regimens of oral misoprostol for labor induction at term. *Acta Obstet Gynecol Scand.* 2002 Apr;81(4):337-42. X-4d.
4969. Sheybany S, Murphy JF, Evans D, et al. Ritodrine in the management of fetal distress. *Br J Obstet Gynaecol.* 1982 Sep;89(9):723-6. X-1.
4970. Shi JJ, Wang YP, Sun WZ, et al. The effect of low dose propofol for prevention of nausea and vomiting during spinal anesthesia for cesarean section. *Acta Anaesthesiol Sin.* 1994 Jun;32(2):95-8. X-9.
4971. Shibli KU, Dhillon AR, Goode JA, et al. Effect of intrathecal fentanyl on oxytocin secretion in pregnant women not in labour. *Clin Sci (Lond).* 2001 Oct;101(4):415-9. X-9.
4972. Shime J, Gare DJ, Andrews J, et al. Prolonged pregnancy: surveillance of the fetus and the neonate and the course of labor and delivery. *Am J Obstet Gynecol.* 1984 Mar 1;148(5):547-52. X-1, X-4e, X-5.
4973. Shimizu I, Makino H, Imagawa A, et al. Clinical and immunogenetic characteristics of fulminant type 1 diabetes associated with pregnancy. *J Clin Endocrinol Metab.* 2006 Feb;91(2):471-6. X-1.
4974. Shimoni Z, Kama N, Mamet Y, et al. Empowering surgical nurses improves compliance rates for antibiotic prophylaxis after cesarean birth. *J Adv Nurs.* 2009 Nov;65(11):2345-9. X-1.
4975. Shimonovitz S, Botosneano A and Hochner-Celnikier D. Successful first vaginal birth after cesarean section: a predictor of reduced risk for uterine rupture in subsequent deliveries. *Isr Med Assoc J.* 2000 Jul;2(7):526-8. X-1.
4976. Shin YK, Kim YD and Collea JV. The effect of propofol on isolated human pregnant uterine muscle. *Anesthesiology.* 1998 Jul;89(1):105-9. X-1.
4977. Shipp TD, Zelop C, Cohen A, et al. Post-cesarean delivery fever and uterine rupture in a subsequent trial of labor. *Obstet Gynecol.* 2003 Jan;101(1):136-9. X-1.
4978. Shipp TD, Zelop C, Repke JT, et al. The association of maternal age and symptomatic uterine rupture during a trial of labor after prior cesarean delivery. *Obstet Gynecol.* 2002 Apr;99(4):585-8. X-1.
4979. Shirazian T, Monteith S, Friedman F, et al. Lifestyle modification program decreases pregnancy weight gain in obese women. *Am J Perinatol.* 2010 May;27(5):411-4. X-1.
4980. Shirgaonkar AT, Purva M and Russell IF. A double blind comparison of the variability of block levels assessed using a hand held Neurotip or a Neuropen at elective caesarean section under spinal anaesthesia. *Int J Obstet Anesth.* 2010 Jan;19(1):61-6. X-1.
4981. Shmorgun D, Chan WS and Ray JG. Association between Bell's palsy in pregnancy and pre-eclampsia. *QJM.* 2002 Jun;95(6):359-62. X-1.
4982. Shnider SM and Sun H. Recent advances in spinal anesthesia for cesarean section. *Current Reviews for Nurse Anesthetists.* 1993;15(25):207-212. X-4b.
4983. Shoaib T, Khan S, Javed I, et al. Loading dose of magnesium sulphate versus standard regime for prophylaxis of pre-eclampsia. *J Coll Physicians Surg Pak.* 2009 Jan;19(1):30-3. X-1.
4984. Shoham I, Wiznitzer A, Silberstein T, et al. Gestational diabetes complicated by hydramnios was not associated with increased risk of perinatal morbidity and mortality. *Eur J Obstet Gynecol Reprod Biol.* 2001 Dec 10;100(1):46-9. X-1.
4985. Shoker J. Obstructed labours. *CMAJ.* 2008 Jan 15;178(2):141. X-1, X-2.
4986. Shorten A, Chamberlain M, Shorten B, et al. Making choices for childbirth: development and testing of a decision-aid for women who have experienced previous caesarean. *Patient Educ Couns.* 2004 Mar;52(3):307-13. X-1.
4987. Shorten A, Lewis DE and Shorten B. Trial of labour versus elective repeat caesarean section: a cost-effectiveness analysis. *Aust Health Rev.* 1998;21(1):8-28. X-1.
4988. Shorten A, Shorten B, Keogh J, et al. Making choices for childbirth: a randomized controlled trial of a decision-aid for informed birth after cesarean. *Birth.* 2005 Dec;32(4):252-61. X-4b.
4989. Shrestha NS and Singh N. Nuchal cord and perinatal outcome. *Kathmandu Univ Med J (KUMJ).* 2007 Jul-Sep;5(3):360-3. X-1.
4990. Shrim A, Levin I, Mallozzi A, et al. Does very advanced maternal age, with or without egg donation, really increase obstetric risk in a large tertiary center? *J Perinat Med.* 2010 Nov;38(6):645-50. X-1.
4991. Shrivastava V, Nageotte M, Major C, et al. Case-control comparison of cesarean hysterectomy with and without prophylactic

- placement of intravascular balloon catheters for placenta accreta. *Am J Obstet Gynecol.* 2007 Oct;197(4):402 e1-5. X-1.
4992. Shrivastava VK, Garite TJ, Jenkins SM, et al. A randomized, double-blinded, controlled trial comparing parenteral normal saline with and without dextrose on the course of labor in nulliparas. *Am J Obstet Gynecol.* 2009 Apr;200(4):379 e1-6. X-5.
4993. Shuaib AA, Frass KA, Al-Harazi AH, et al. Pregnancy outcomes of mothers aged 17 years or less. *Saudi Med J.* 2011 Feb;32(2):166-70. X-1.
4994. Shuiqing M, Xuming B and Jinghe L. Pregnancy and its outcome in women with malformed uterus. *Chin Med Sci J.* 2002 Dec;17(4):242-5. X-1.
4995. Sia AT, Lim Y, Lim EC, et al. A118G single nucleotide polymorphism of human mu-opioid receptor gene influences pain perception and patient-controlled intravenous morphine consumption after intrathecal morphine for postcesarean analgesia. *Anesthesiology.* 2008 Sep;109(3):520-6. X-1.
4996. Sia AT, Sng BL, Lim EC, et al. The influence of ATP-binding cassette sub-family B member -1 (ABCB1) genetic polymorphisms on acute and chronic pain after intrathecal morphine for caesarean section: a prospective cohort study. *Int J Obstet Anesth.* 2010 Jul;19(3):254-60. X-1.
4997. Sia AT, Thomas E, Chong JL, et al. Combination of suppository diclofenac and intravenous morphine infusion in post-caesarean section pain relief--a step towards balanced analgesia? *Singapore Med J.* 1997 Feb;38(2):68-70. X-9.
4998. Sia WW, Powrie RO, Cooper AB, et al. The incidence of deep vein thrombosis in women undergoing cesarean delivery. *Thromb Res.* 2009;123(3):550-5. X-1, X-3, X-4e.
4999. Sibai BM, Mercer BM, Schiff E, et al. Aggressive versus expectant management of severe preeclampsia at 28 to 32 weeks' gestation: a randomized controlled trial. *Am J Obstet Gynecol.* 1994 Sep;171(3):818-22. X-4e, X-5.
5000. Sibanda N, Briggs JD, Davison JM, et al. Pregnancy after organ transplantation: a report from the UK Transplant pregnancy registry. *Transplantation.* 2007 May 27;83(10):1301-7. X-1.
5001. Siddik SM, Aouad MT, Jalbout MI, et al. Diclofenac and/or propacetamol for postoperative pain management after cesarean delivery in patients receiving patient controlled analgesia morphine. *Reg Anesth Pain Med.* 2001 Jul-Aug;26(4):310-5. X-9.
5002. Siddik SM, Aouad MT, Kai GE, et al. Hydroxyethylstarch 10% is superior to Ringer's solution for preloading before spinal anesthesia for Cesarean section. *Can J Anaesth.* 2000 Jul;47(7):616-21. X-9.

5003. Siddik-Sayyid S, Aouad-Maroun M, Sleiman D, et al. Epidural tramadol for postoperative pain after Cesarean section. *Can J Anaesth*. 1999 Aug;46(8):731-5. X-9.
5004. Siddik-Sayyid SM, Aouad MT, Jalbout MI, et al. Intrathecal versus intravenous fentanyl for supplementation of subarachnoid block during cesarean delivery. *Anesth Analg*. 2002 Jul;95(1):209-13, table of contents. X-9.
5005. Siddik-Sayyid SM, Aouad MT, Jalbout MI, et al. Comparison of three modes of patient-controlled epidural analgesia during labour. *Eur J Anaesthesiol*. 2005 Jan;22(1):30-4. X-4e.
5006. Siddik-Sayyid SM, Aouad MT, Taha SK, et al. Does ondansetron or granisetron prevent subarachnoid morphine-induced pruritus after cesarean delivery? *Anesth Analg*. 2007 Feb;104(2):421-4. X-9.
5007. Siddik-Sayyid SM, Nasr VG, Taha SK, et al. A randomized trial comparing colloid preload to coload during spinal anesthesia for elective cesarean delivery. *Anesth Analg*. 2009 Oct;109(4):1219-24. X-9.
5008. Siddik-Sayyid SM, Yazbeck-Karam VG, Zahreddine BW, et al. Ondansetron is as effective as diphenhydramine for treatment of morphine-induced pruritus after cesarean delivery. *Acta Anaesthesiol Scand*. 2010 Jul;54(6):764-9. X-9.
5009. Siddiqi R and Jafri SA. Maternal satisfaction after spinal anaesthesia for caesarean deliveries. *J Coll Physicians Surg Pak*. 2009 Feb;19(2):77-80. X-1.
5010. Siddiqui D, Stiller RJ, Collins J, et al. Pregnancy outcome after successful external cephalic version. *Am J Obstet Gynecol*. 1999 Nov;181(5 Pt 1):1092-5. X-1.
5011. Siddiqui M, Goldszmidt E, Fallah S, et al. Complications of exteriorized compared with in situ uterine repair at cesarean delivery under spinal anesthesia: a randomized controlled trial. *Obstet Gynecol*. 2007 Sep;110(3):570-5. X-9.
5012. Sidenvall R, Heijbel J, Blomquist HK, et al. An incident case-control study of first unprovoked afebrile seizures in children: a population-based study of pre- and perinatal risk factors. *Epilepsia*. 2001 Oct;42(10):1261-5. X-1.
5013. Sidorenko VN. Clinical application of Medical Resonance Therapy Music in high-risk pregnancies. *Integr Physiol Behav Sci*. 2000 Jul-Sep;35(3):199-207. X-1.
5014. Sieroszewski P, Jasinski A, Perenc M, et al. The Arabin pessary for the treatment of threatened mid-trimester miscarriage or premature labour and miscarriage: a case series. *J Matern Fetal Neonatal Med*. 2009 Jun;22(6):469-72. X-1.
5015. Sifakis S, Angelakis E, Makrigiannakis A, et al. Chemoprophylactic and bactericidal efficacy of 80 mg gentamicin in a single and once-daily dosing. *Arch Gynecol Obstet*. 2005 Sep;272(3):201-6. X-1.
5016. Siggelkow W, Boehm D, Skala C, et al. The influence of macrosomia on the duration of labor, the mode of delivery and intrapartum complications. *Arch Gynecol Obstet*. 2008 Dec;278(6):547-53. X-1.
5017. Signore C, Hemachandra A and Klebanoff M. Neonatal mortality and morbidity after elective cesarean delivery versus routine expectant management: a decision analysis. *Semin Perinatol*. 2006 Oct;30(5):288-95. X-1, X-2.
5018. Signorelli C, Autelitano M, Bailo U, et al. Case-control study on risk factors for caesarean section: methodological issues. *Ann Ig*. 1991 Nov-Dec;3(6):347-54. X-1.
5019. Signorelli C, Cattaruzza MS and Osborn JF. Risk factors for caesarean section in Italy: results of a multicentre study. *Public Health*. 1995 May;109(3):191-9. X-1.
5020. Sikorski J, Wilson J, Clement S, et al. A randomised controlled trial comparing two schedules of antenatal visits: the antenatal care project. *BMJ*. 1996 Mar 2;312(7030):546-53. X-5.
5021. Silasi M, Coonrod DV, Kim M, et al. Transient tachypnea of the newborn: is labor prior to cesarean delivery protective? *Am J Perinatol*. 2010 Nov;27(10):797-802. X-1.
5022. Sills ES, Sweitzer CL, Morton PC, et al. Dizygotic twin delivery following in vitro fertilization and transfer of thawed blastocysts cryopreserved at day 6 and 7. *Fertil Steril*. 2003 Feb;79(2):424-7. X-1, X-2.
5023. Silva AA, Lamy-Filho F, Alves MT, et al. Risk factors for low birthweight in north-east Brazil: the role of caesarean section. *Paediatr Perinat Epidemiol*. 2001 Jul;15(3):257-64. X-1.
5024. Silva DA, Singh PP, Bauman J, et al. Acute hypertensive response to prostaglandin F2 alpha during anesthesia administration. A case report. *J Reprod Med*. 1987 Sep;32(9):700-2. X-1, X-2.
5025. Silver RM, Landon MB, Rouse DJ, et al. Maternal morbidity associated with multiple repeat cesarean deliveries. *Obstet Gynecol*. 2006 Jun;107(6):1226-32. X-1.
5026. Silverman JA, Barrett J and Callum JL. The appropriateness of red blood cell transfusions in the peripartum patient. *Obstet Gynecol*. 2004 Nov;104(5 Pt 1):1000-4. X-1.
5027. Silverman NH and Schmidt KG. Ventricular volume overload in the human fetus: observations from fetal echocardiography. *J Am Soc Echocardiogr*. 1990 Jan-Feb;3(1):20-9. X-1.
5028. Simbar M, Karimian Z, Afrakhteh M, et al. Increased risk of pre-eclampsia (PE) among women with the history of migraine. *Clin Exp Hypertens*. 2010 May;32(3):159-65. X-1.
5029. Simecka O, Reilley B, Joseph M, et al. Obstetrics during Civil War: six months on a

- maternity ward in Mallavi, northern Sri Lanka. *Med Confl Surviv.* 2002 Jul-Sep;18(3):258-70. X-1.
5030. Simhayoff N, Sheiner E, Levy A, et al. To induce or not to induce labor: a macrosomic dilemma. *Gynecol Obstet Invest.* 2004;58(3):121-5. X-1.
5031. Simini F, Maillard F and Breart G. Cesarean section odds ratios. *Eur J Obstet Gynecol Reprod Biol.* 1990 Jan-Feb;34(1-2):1-13. X-1.
5032. Simmer HH, Frankland M and Greipel M. On the regulation of fetal and maternal 16 alpha-hydroxydehydroepiandrosterone and its sulfate by cortisol and ACTH in human pregnancy at term. *Am J Obstet Gynecol.* 1975 Mar 1;121(5):646-52. X-1.
5033. Simmer K, Lort-Phillips L, James C, et al. A double-blind trial of zinc supplementation in pregnancy. *Eur J Clin Nutr.* 1991 Mar;45(3):139-44. X-4e, X-5.
5034. Simmons D, Conroy C and Scott DJ. Impact of a diabetes midwifery educator on the diabetes in pregnancy service at Middlemore Hospital. *Practical Diabetes International.* 2001;18(4):119-122. X-1.
5035. Simms-Stewart D, Thame M, Hemans-Keen A, et al. Retained placenta in homozygous sickle cell disease. *Obstet Gynecol.* 2009 Oct;114(4):825-8. X-1.
5036. Simoes T, Aboim L, Costa A, et al. Puerperal complications following elective Cesarean sections for twin pregnancies. *J Perinat Med.* 2007;35(2):104-7. X-1.
5037. Simoes T, Condeco P, Dias E, et al. Induction of labor with oral misoprostol in nulliparous mothers of twins. *J Perinat Med.* 2006;34(2):111-4. X-1.
5038. Simon L, Provenchere S, de Saint Blanquat L, et al. Dose of prophylactic intravenous ephedrine during spinal anesthesia for cesarean section. *J Clin Anesth.* 2001 Aug;13(5):366-9. X-1.
5039. Simonson DC, Ahern MM and Hendryx MS. Anesthesia staffing and anesthetic complications during cesarean delivery: a retrospective analysis. *Nurs Res.* 2007 Jan-Feb;56(1):9-17. X-1.
5040. Simpkin JC, Kermani F, Palmer AM, et al. Effects of corticotrophin releasing hormone on contractile activity of myometrium from pregnant women. *Br J Obstet Gynaecol.* 1999 May;106(5):439-45. X-1.
5041. Simpson EL, Lawrenson RA, Nightingale AL, et al. Venous thromboembolism in pregnancy and the puerperium: incidence and additional risk factors from a London perinatal database. *BJOG.* 2001 Jan;108(1):56-60. X-1.
5042. Simpson KH, Madej TH, McDowell JM, et al. Comparison of extradural buprenorphine and extradural morphine after caesarean section. *Br J Anaesth.* 1988 May;60(6):627-31. X-9.
5043. Simpson KR. Surgical safety: minimizing risk of retained foreign bodies during cesarean birth. *MCN Am J Matern Child Nurs.* 2007 May-Jun;32(3):200. X-9.

5044. Simpson KR. Reconsideration of the costs of convenience: quality, operational, and fiscal strategies to minimize elective labor induction. *J Perinat Neonatal Nurs.* 2010 Jan-Mar;24(1):43-52; quiz 53-4. X-1.
5045. Sinatra R, Chung KS, Silverman DG, et al. An evaluation of morphine and oxymorphone administered via patient-controlled analgesia (PCA) or PCA plus basal infusion in postcesarean-delivery patients. *Anesthesiology.* 1989 Oct;71(4):502-7. X-9.
5046. Sinatra RS, Lodge K, Sibert K, et al. A comparison of morphine, meperidine, and oxymorphone as utilized in patient-controlled analgesia following cesarean delivery. *Anesthesiology.* 1989 Apr;70(4):585-90. X-9.
5047. Sindhvananda W, Leelanukrom R, Rodanant O, et al. Maternal satisfaction to epidural and spinal anesthesia for cesarean section. *J Med Assoc Thai.* 2004 Jun;87(6):628-35. X-9.
5048. Singh SI, Morley-Forster PK, Shamsah M, et al. Influence of injection rate of hyperbaric bupivacaine on spinal block in parturients: a randomized trial. *Can J Anaesth.* 2007 Apr;54(4):290-5. X-9.
5049. Siristatidis C, Salamalekis E, Vitoratos N, et al. Intrapartum surveillance of IUGR fetuses with cardiotocography and fetal pulse oximetry. *Biol Neonate.* 2003;83(3):162-5. X-1.
5050. Siti Salmah G and Choy YC. Comparison of morphine with fentanyl added to intrathecal 0.5% hyperbaric bupivacaine for analgesia after caesarean section. *Med J Malaysia.* 2009 Mar;64(1):71-4. X-9.
5051. Sitras V, Paulssen RH, Gronaas H, et al. Gene expression profile in labouring and non-labouring human placenta near term. *Mol Hum Reprod.* 2008 Jan;14(1):61-5. X-1.
5052. Sivaganesh S and Senarath U. Prevalence of antenatal risk conditions among women in an underserved district of Northern Sri Lanka. *Ceylon Med J.* 2009 Dec;54(4):110-4. X-1.
5053. Sivasubramaniam S and Paul J. Thromboprophylaxis in pregnancy: do we need new guidelines? *Internet Journal of Anesthesiology.* 2008;17(2):12-12. X-1.
5054. Sivevski A. Spinal anaesthesia for cesarean section with reduced dose of intrathecal bupivacaine plus fentanyl. *Prilozi.* 2006 Dec;27(2):225-36. X-9.
5055. Skalkidis Y, Petridou E, Papathoma E, et al. Are operative delivery procedures in Greece socially conditioned? *Int J Qual Health Care.* 1996 Apr;8(2):159-65. X-1.
5056. Skarsgard ED, Claydon J, Bouchard S, et al. Canadian Pediatric Surgical Network: a population-based pediatric surgery network and database for analyzing surgical birth defects. The first 100 cases of gastroschisis. *J Pediatr Surg.* 2008 Jan;43(1):30-4; discussion 34. X-1.
5057. Skimming JW, DeMarco VG and Cassin S. The effects of nitric oxide inhalation on the pulmonary circulation of preterm lambs. *Pediatr Res.* 1995 Jan;37(1):35-40. X-1.
5058. Skinner J, Greene RA, Gardeil F, et al. Does increased resistance on umbilical artery Doppler preclude a trial of labour? *Eur J Obstet Gynecol Reprod Biol.* 1998 Jul;79(1):35-8. X-1.
5059. Skoner MM, Thompson WD and Caron VA. Factors associated with risk of stress urinary incontinence in women. *Nurs Res.* 1994 Sep-Oct;43(5):301-6. X-1.
5060. Skret-Magierlo J, Wicherek L, Basta P, et al. RCAS1 decidual immunoreactivity during cesarean section in scar decidualis: immune cell presence and activity. *Gynecol Obstet Invest.* 2008;65(3):187-94. X-1.
5061. Skull AJ, Slater GH, Duncombe JE, et al. Laparoscopic adjustable banding in pregnancy: safety, patient tolerance and effect on obesity-related pregnancy outcomes. *Obes Surg.* 2004 Feb;14(2):230-5. X-1.
5062. Skupski DW, Abramovitz S, Samuels J, et al. Adverse effects of combined spinal-epidural versus traditional epidural analgesia during labor. *Int J Gynaecol Obstet.* 2009 Sep;106(3):242-5. X-4e, X-5.
5063. Skupski DW, Harrison-Restelli C and Dupont RB. External cephalic version: an approach with few complications. *Gynecol Obstet Invest.* 2003;56(2):83-8. X-1.
5064. Slattery MM, Brennan C, O'Leary MJ, et al. Human chorionic gonadotrophin inhibition of pregnant human myometrial contractility. *BJOG.* 2001 Jul;108(7):704-8. X-1.
5065. Slattery MM, Friel AM, Healy DG, et al. Uterine relaxant effects of cyclooxygenase-2 inhibitors in vitro. *Obstet Gynecol.* 2001 Oct;98(4):563-9. X-1.
5066. Slavotinek A, Hellen E, Gould S, et al. Three infants of diabetic mothers with malformations of left-right asymmetry--further evidence for the aetiological role of diabetes in this malformation spectrum. *Clin Dysmorphol.* 1996 Jul;5(3):241-7. X-1.
5067. Sleutel MR. Intrapartum nursing care: a case study of supportive interventions and ethical conflicts. *Birth.* 2000 Mar;27(1):38-45. X-1.
5068. Sloan FA, Conover CJ, Mah ML, et al. Impact of medicaid managed care on utilization of obstetric care: evidence from TennCare's early years. *South Med J.* 2002 Aug;95(8):811-21. X-1.
5069. Small M, Cassidy L, Leiper JM, et al. Outcome of pregnancy in insulin-dependent (type 1) diabetic women between 1971 and 1984. *Q J Med.* 1986 Dec;61(236):1159-69. X-1.

5070. Small R, Lumley J, Donohue L, et al. Randomised controlled trial of midwife led debriefing to reduce maternal depression after operative childbirth. *BMJ*. 2000 Oct 28;321(7268):1043-7. X-4e.
5071. Smarason AK, Sargent IL, Starkey PM, et al. The effect of placental syncytiotrophoblast microvillous membranes from normal and pre-eclamptic women on the growth of endothelial cells in vitro. *Br J Obstet Gynaecol*. 1993 Oct;100(10):943-9. X-1.
5072. Smedstad KG and Morison DH. A comparative study of continuous and intermittent epidural analgesia for labour and delivery. *Can J Anaesth*. 1988 May;35(3 (Pt 1)):234-41. X-4e, X-5.
5073. Smeeton NC, Rona RJ, Dobson P, et al. Assessing the determinants of stillbirths and early neonatal deaths using routinely collected data in an inner city area. *BMC Med*. 2004 Jul 6;2:27. X-1.
5074. Smith BL, Martin JA and Ventura SJ. Births and deaths: preliminary data for July 1997-June 1998. *Natl Vital Stat Rep*. 1999 Jul 29;47(22):1-32. X-1.
5075. Smith C, Crowther C, Wilkinson C, et al. Knee-chest postural management for breech at term: a randomized controlled trial. *Birth*. 1999 Jun;26(2):71-5. X-4c.
5076. Smith CM, Guralnick MS, Gelfand MM, et al. The effects of transcutaneous electrical nerve stimulation on post-caesarean pain. *Pain*. 1986 Nov;27(2):181-93. X-9.
5077. Smith CV, Miller A and Livezey GT. Double-blind comparison of 2.5 and 5.0 mg of prostaglandin E2 gel for preinduction cervical ripening. *J Reprod Med*. 1996 Oct;41(10):745-8. X-4d, X-5.
5078. Smith CV, Rayburn WF, Connor RE, et al. Double-blind comparison of intravaginal prostaglandin E2 gel and "chip" for preinduction cervical ripening. *Am J Obstet Gynecol*. 1990 Sep;163(3):845-7. X-4d, X-5.
5079. Smith CV, Rayburn WF and Miller AM. Intravaginal prostaglandin E2 for cervical ripening and initiation of labor. Comparison of a multidose gel and single, controlled-release pessary. *J Reprod Med*. 1994 May;39(5):381-4. X-4d, X-5.
5080. Smith EA, Thorburn J, Duckworth RA, et al. A comparison of 25 G and 27 G Whitacre needles for caesarean section. *Anaesthesia*. 1994 Oct;49(10):859-62. X-9.
5081. Smith GC. Age at menarche and the risk of operative first delivery. *BJOG*. 2009 Nov;116(12):1613-21. X-1.
5082. Smith GC, Celik E, To M, et al. Cervical length at mid-pregnancy and the risk of primary caesarean delivery. *N Engl J Med*. 2008 Mar 27;358(13):1346-53. X-1.
5083. Smith GC, White IR, Pell JP, et al. Predicting caesarean section and uterine rupture among women attempting vaginal birth after prior caesarean section. *PLoS Med*. 2005 Sep;2(9):e252. X-1.
5084. Smith ID, Klubien KE, Wood ML, et al. Diamorphine analgesia after caesarean section. Comparison of intramuscular and epidural administration of four dose regimens. *Anaesthesia*. 1991 Nov;46(11):970-3. X-9.
5085. Smith J and Mousa HA. Peripartum hysterectomy for primary postpartum haemorrhage: incidence and maternal morbidity. *J Obstet Gynaecol*. 2007 Jan;27(1):44-7. X-1.
5086. Smith JE and John E. Neonatal hypotension: two years' experience in a neonatal intensive care nursery. *Aust Paediatr J*. 1983 Sep;19(3):162-4. X-1.
5087. Smith KL and Baskett TF. Uterine compression sutures as an alternative to hysterectomy for severe postpartum hemorrhage. *J Obstet Gynaecol Can*. 2003 Mar;25(3):197-200. X-1.
5088. Smith LP, Nagourney BA, McLean FH, et al. Hazards and benefits of elective induction of labor. *Am J Obstet Gynecol*. 1984 Mar 1;148(5):579-85. X-1.
5089. Smith S. NCHS dataline. *Public Health Reports*. 2006;121(2):208-210. X-1.
5090. Smith YR, Dombrowski MP, Leach KC, et al. Decrease in myometrial beta-adrenergic receptors with prenatal cocaine use. *Obstet Gynecol*. 1995 Mar;85(3):357-60. X-1.
5091. Smulian JC, Potash SK, Lai YL, et al. Appropriateness of antibiotic use in the postpartum period. *J Matern Fetal Med*. 2001 Oct;10(5):312-7. X-1.
5092. Snell P and Hicks C. An exploratory study in the UK of the effectiveness of three different pain management regimens for post-caesarean section women. *Midwifery*. 2006 Sep;22(3):249-61. X-9.
5093. Sng BL, Pay LL and Sia AT. Comparison of 2% lignocaine with adrenaline and fentanyl, 0.75% ropivacaine and 0.5% levobupivacaine for extension of epidural analgesia for urgent caesarean section after low dose epidural infusion during labour. *Anaesth Intensive Care*. 2008 Sep;36(5):659-64. X-9.
5094. Sng BL, Sia AT, Quek K, et al. Incidence and risk factors for chronic pain after caesarean section under spinal anaesthesia. *Anaesth Intensive Care*. 2009 Sep;37(5):748-52. X-1.
5095. Snooks SJ, Swash M, Henry MM, et al. Risk factors in childbirth causing damage to the pelvic floor innervation. *Int J Colorectal Dis*. 1986 Jan;1(1):20-4. X-1.
5096. Sobande AA, Al-Bar H and Archibong EI. Diabetes and perinatal loss. A continuing problem. *Saudi Med J*. 2000 Feb;21(2):161-3. X-1.

5097. Sobande AA and Albar HM. Outcome of induced labour in pregnancies at 41 weeks gestation and over in Saudi Arabia. *East Mediterr Health J.* 2003 May;9(3):316-23. X-1.
5098. Sobande AA, Al-Bar HM and Archibong EI. A comparison of spontaneous labor with induced vaginal tablets prostaglandin E2 in grand multiparae. *Saudi Med J.* 2001 Aug;22(8):698-701. X-1.
5099. Sobande AA, Archibong EI and Akinola SE. Pregnancy outcome in asthmatic patients from high altitudes. *Int J Gynaecol Obstet.* 2002 May;77(2):117-21. X-1.
5100. Sobande AA, Eskandar M and Archibong EI. Complications of pregnancy and foetal outcomes in pregnant diabetic patients managed in a tertiary hospital in Saudi Arabia. *West Afr J Med.* 2005 Jan-Mar;24(1):13-7. X-1.
5101. Soderstrom-Anttila V and Hovatta O. An oocyte donation program with goserelin down-regulation of voluntary donors. *Acta Obstet Gynecol Scand.* 1995 Apr;74(4):288-92. X-1.
5102. Soderstrom-Anttila V, Tiitinen A, Foudila T, et al. Obstetric and perinatal outcome after oocyte donation: comparison with in-vitro fertilization pregnancies. *Hum Reprod.* 1998 Feb;13(2):483-90. X-1.
5103. Solca M, Kolobow T, Huang HH, et al. Respiratory distress syndrome in immature lambs. Prevention through antenatal accelerated conditioning of the lung. *Am Rev Respir Dis.* 1984 Jun;129(6):979-84. X-1.
5104. Soliman SR and Burrows RF. Cesarean section: analysis of the experience before and after the National Consensus Conference on Aspects of Cesarean Birth. *CMAJ.* 1993 Apr 15;148(8):1315-20. X-1.
5105. Somell C. Induction of labor and cervical ripening with oral PGE2 in risk pregnancies. A placebo-controlled study. *Acta Obstet Gynecol Scand.* 1987;66(7):633-7. X-4d.
5106. Sommerville F. Paying for choice in childbirth. *Nurs Times.* 1999 Jun 2-8;95(22):20. X-1, X-2.
5107. Somrat C, Oranuch K, Ketchada U, et al. Optimal dose of nalbuphine for treatment of intrathecal-morphine induced pruritus after caesarean section. *J Obstet Gynaecol Res.* 1999 Jun;25(3):209-13. X-9.
5108. Sonnad SS, Moyer CA and Bernstein SJ. Comparing physician and administrator responses to cesarean section guidelines and actual practice. *Jt Comm J Qual Improv.* 2000 Sep;26(9):515-24. X-1.
5109. Sonntag B, Stolze B, Heinecke A, et al. Preterm birth but not mode of delivery is associated with an increased risk of developing inflammatory bowel disease later in life. *Inflamm Bowel Dis.* 2007 Nov;13(11):1385-90. X-1.
5110. Sood AK, Sorosky JI, Mayr N, et al. Cervical cancer diagnosed shortly after pregnancy: prognostic variables and delivery routes. *Obstet Gynecol.* 2000 Jun;95(6 Pt 1):832-8. X-1.
5111. Soontranan P, Chayachinda D and Thaworanun J. Position for administering an epidural block using a photograph as a visual aid in cesarean section patients. *J Med Assoc Thai.* 2002 Sep;85 Suppl 3:S830-6. X-9.
5112. Soper DE, Mayhall CG and Dalton HP. Risk factors for intraamniotic infection: a prospective epidemiologic study. *Am J Obstet Gynecol.* 1989 Sep;161(3):562-6; discussion 566-8. X-1.
5113. Sorensen SS, Brocks V and Lenstrup C. Induction of labor and cervical ripening by intracervical prostaglandin E2. *Obstet Gynecol.* 1985 Jan;65(1):110-4. X-4d.
5114. Sorensen SS and Trauelsen AG. Obstetric implications of minor mullerian anomalies in oligomenorrhic women. *Am J Obstet Gynecol.* 1987 May;156(5):1112-8. X-1.
5115. Soriano D, Dulitzki M, Keidar N, et al. Early oral feeding after cesarean delivery. *Obstet Gynecol.* 1996 Jun;87(6):1006-8. X-9.
5116. Sorkio S, Cuthbertson D, Barlund S, et al. Breastfeeding patterns of mothers with type 1 diabetes: results from an infant feeding trial. *Diabetes Metab Res Rev.* 2010 Mar;26(3):206-11. X-1.
5117. Sorokin Y, Blackwell S, Reinke T, et al. Demographic and intrapartum characteristics of term pregnancies with early-onset neonatal seizures. *J Perinatol.* 2001 Mar;21(2):90-2. X-1.
5118. Sorosky JI, Squatrito R, Ndubisi BU, et al. Stage I squamous cell cervical carcinoma in pregnancy: planned delay in therapy awaiting fetal maturity. *Gynecol Oncol.* 1995 Nov;59(2):207-10. X-1.
5119. Sosa CG, Balaguer E, Alonso JG, et al. Meperidine for dystocia during the first stage of labor: A randomized controlled trial. *Am J Obstet Gynecol.* 2004 Oct;191(4):1212-8. X-5, X-6.
5120. Sosa R, Kennell J, Klaus M, et al. The effect of a supportive companion on perinatal problems, length of labor, and mother-infant interaction. *N Engl J Med.* 1980 Sep 11;303(11):597-600. X-1.
5121. Soundararajan N and Russell I. A randomised comparison of a hand-held Neurotip and the Neuropen for assessing loss of touch sensation during spinal anaesthesia for caesarean section. *Int J Obstet Anesth.* 2007 Jul;16(3):202-7. X-9.
5122. Souza JP, Cecatti JG, Faundes A, et al. Maternal near miss and maternal death in the World Health Organization's 2005 global survey on maternal and perinatal health. *Bull World Health Organ.* 2010 Feb;88(2):113-9. X-1.

5123. Spaans WA, van der Velde FH and van Roosmalen J. Trial of labour after previous caesarean section in rural Zimbabwe. *Eur J Obstet Gynecol Reprod Biol.* 1997 Mar;72(1):9-14. X-1.
5124. Spellacy WN and Gall SA. Prostaglandin F 2 and oxytocin for term labor induction. *J Reprod Med.* 1972 Dec;9(6):300-3. X-4d.
5125. Spellacy WN, Gall SA, Shevach AB, et al. The induction of labor at term. Comparisons between prostaglandin F 2 and oxytocin infusions. *Obstet Gynecol.* 1973 Jan;41(1):14-21. X-4d, X-5.
5126. Spellacy WN, Mahan CS and Cruz AC. The adolescent's first pregnancy: a controlled study. *South Med J.* 1978 Jul;71(7):768-71. X-1.
5127. Spellacy WN, Miller S, Winegar A, et al. Macrosomia--maternal characteristics and infant complications. *Obstet Gynecol.* 1985 Aug;66(2):158-61. X-1.
5128. Spellacy WN, Miller SJ and Winegar A. Pregnancy after 40 years of age. *Obstet Gynecol.* 1986 Oct;68(4):452-4. X-1.
5129. Spetz J, Smith MW and Ennis SF. Physician incentives and the timing of cesarean sections: evidence from California. *Med Care.* 2001 Jun;39(6):536-50. X-1.
5130. Spielman FJ and Corke BC. Advantages and disadvantages of regional anesthesia for cesarean section. A review. *J Reprod Med.* 1985 Nov;30(11):832-40. X-1, X-2.
5131. Spinnato JA, Youkilis B, Cook VD, et al. Antibiotic prophylaxis at Cesarean delivery. *J Matern Fetal Med.* 2000 Nov-Dec;9(6):348-50. X-9.
5132. Spitzer KA, Murphy K, Crowther M, et al. Postpartum management of women at increased risk of thrombosis--results of a Canadian pilot survey. *J Rheumatol.* 2006 Nov;33(11):2222-6. X-1.
5133. Spong CY, Landon MB, Gilbert S, et al. Risk of uterine rupture and adverse perinatal outcome at term after cesarean delivery. *Obstet Gynecol.* 2007 Oct;110(4):801-7. X-1.
5134. Sporri S, Hanggi W, Braghetta A, et al. Pelvimetry by magnetic resonance imaging as a diagnostic tool to evaluate dystocia. *Obstet Gynecol.* 1997 Jun;89(6):902-8. X-1.
5135. Sporri S, Thoeny HC, Raio L, et al. MR imaging pelvimetry: a useful adjunct in the treatment of women at risk for dystocia? *AJR Am J Roentgenol.* 2002 Jul;179(1):137-44. X-1.
5136. Spreafico P, Scian A, Epis A, et al. Cesarean section: antibiotic prophylaxis with ceftazole. *Chemioterapia.* 1987 Jun;6(2 Suppl):613-6. X-4b.
5137. Springen K. The right to choose. Cesarean sections are on the rise again. Public-health officials want to limit them, but many patients and doctors are resisting. *Newsweek.* 2000 Dec 4;136(23):73-4. X-1.
5138. Spurrett B and Cook CM. Why we choose caesarean section: a prospective study. *Aust N Z J Obstet Gynaecol.* 1997 Aug;37(3):297-300. X-1.
5139. Sreevidya S and Sathiyasekaran BW. High caesarean rates in Madras (India): a population-based cross sectional study. *BJOG.* 2003 Feb;110(2):106-11. X-1.
5140. Srinivas SK, Stamilio DM, Sammel MD, et al. Vaginal birth after caesarean delivery: does maternal age affect safety and success? *Paediatr Perinat Epidemiol.* 2007 Mar;21(2):114-20. X-1.
5141. Srinivas SK, Stamilio DM, Stevens EJ, et al. Safety and success of vaginal birth after cesarean delivery in patients with preeclampsia. *Am J Perinatol.* 2006 Apr;23(3):145-52. X-1.
5142. St Onge RD and Connors GT. Preinduction cervical ripening: a comparison of intracervical prostaglandin E2 gel versus the Foley catheter. *Am J Obstet Gynecol.* 1995 Feb;172(2 Pt 1):687-90. X-4d, X-5.
5143. Stacey R, Jones R, Kar G, et al. High-dose intrathecal diamorphine for analgesia after Caesarean section. *Anaesthesia.* 2001 Jan;56(1):54-60. X-9.
5144. Stadlmayr W, Schneider H, Amsler F, et al. How do obstetric variables influence the dimensions of the birth experience as assessed by Salmon's item list (SIL-Ger)? *Eur J Obstet Gynecol Reprod Biol.* 2004 Jul 15;115(1):43-50. X-1.
5145. Staff AC, Braekke K, Harsem NK, et al. Circulating concentrations of sFlt1 (soluble fms-like tyrosine kinase 1) in fetal and maternal serum during pre-eclampsia. *Eur J Obstet Gynecol Reprod Biol.* 2005 Sep 1;122(1):33-9. X-1.
5146. Staff AC, Braekke K, Johnsen GM, et al. Circulating concentrations of soluble endoglin (CD105) in fetal and maternal serum and in amniotic fluid in preeclampsia. *Am J Obstet Gynecol.* 2007 Aug;197(2):176 e1-6. X-1.
5147. Staff AC, Halvorsen B, Ranheim T, et al. Elevated level of free 8-iso-prostaglandin F2alpha in the decidua basalis of women with preeclampsia. *Am J Obstet Gynecol.* 1999 Nov;181(5 Pt 1):1211-5. X-1.
5148. Staff AC, Ranheim T and Halvorsen B. Augmented PLA2 activity in pre-eclamptic decidual tissue--a key player in the pathophysiology of 'acute atherosis' in pre-eclampsia? *Placenta.* 2003 Nov;24(10):965-73. X-1.
5149. Staff AC, Ranheim T, Khoury J, et al. Increased contents of phospholipids, cholesterol, and lipid peroxides in decidua basalis in women with preeclampsia. *Am J*

Obstet Gynecol. 1999 Mar;180(3 Pt 1):587-92.
X-1.

5150. Staffolani R, Cester N, Magnanelli R, et al. Local anaesthetic effects on trophoblast membrane fluidity. *Biochem Mol Biol Int*. 1993 Mar;29(3):527-30. X-1.
5151. Stafford I and Belfort M. Placenta accreta, increta, and percreta: lifesaving strategies to stop the bleeding... part 1 of this two-part article. *Contemporary OB/GYN*. 2008;53(5):48-53. X-1, X-2.
5152. Stafford I and Belfort MA. Placenta accreta, increta, and percreta: a team-based approach starts with prevention. *Contemporary OB/GYN*. 2008;53(4):76-82. X-4e.
5153. Stafford RS. Alternative strategies for controlling rising cesarean section rates. *JAMA*. 1990 Feb 2;263(5):683-7. X-4e, X-5.
5154. Stafford RS. The impact of nonclinical factors on repeat cesarean section. *JAMA*. 1991 Jan 2;265(1):59-63. X-1.
5155. Stage AH, Gailey TA, Jr. and Hopkins WB, 3rd. The transplacental transfer of cephradine. *J La State Med Soc*. 1980 Oct;132(10):148-50. X-1.
5156. Stage AH, Glover DD and Vaughan JE. Low-dose cephradine prophylaxis in obstetric and gynecologic surgery. *J Reprod Med*. 1982 Mar;27(3):113-9. X-9.
5157. Staikou C, Siafaka I, Petropoulos G, et al. Responses to mechanical and electrical stimuli are not attenuated by late pregnancy. *Acta Anaesthesiol Belg*. 2006;57(3):277-81. X-1, X-9.
5158. Stalberg K, Bodestedt A, Lyrenas S, et al. A narrow pelvic outlet increases the risk for emergency cesarean section. *Acta Obstet Gynecol Scand*. 2006;85(7):821-4. X-1, X-9.
5159. Stallmach T, Hebisch G, Joller H, et al. Expression pattern of cytokines in the different compartments of the feto-maternal unit under various conditions. *Reprod Fertil Dev*. 1995;7(6):1573-80. X-1.
5160. Stamer UM, Messerschmidt A and Wulf H. Anaesthesia for caesarean section--a German survey. *Acta Anaesthesiol Scand*. 1998 Jul;42(6):678-84. X-1.
5161. Stamilio DM, DeFranco E, Pare E, et al. Short interpregnancy interval: risk of uterine rupture and complications of vaginal birth after cesarean delivery. *Obstet Gynecol*. 2007 Nov;110(5):1075-82. X-1.
5162. Stampe Sorensen S, Palmgren Colov N, Andreasson B, et al. Induction of labor by vaginal prostaglandin E2. A randomized study comparing pessaries with vaginal tablets. *Acta Obstet Gynecol Scand*. 1992 Apr;71(3):201-6. X-4d.
5163. Stanek J. Acute and chronic placental membrane hypoxic lesions. *Virchows Arch*. 2009 Oct;455(4):315-22. X-1.
5164. Stanek J. Placental membrane and placental disc microscopic chorionic cysts share similar

- clinicopathologic associations. *Pediatr Dev Pathol.* 2011 Jan-Feb;14(1):1-9. X-1.
5165. Stanyer BT. Court-ordered cesarean sections: an example of the dangers of judicial involvement in medical decision making. *Gonzaga Law Rev.* 1992;28(1):121-40. X-1, X-2.
5166. Stark M, Hoyme UB, Stubert B, et al. Post-cesarean adhesions--are they a unique entity? *J Matern Fetal Neonatal Med.* 2008 Aug;21(8):513-6. X-1.
5167. Stark MA and Miller MG. Barriers to the use of hydrotherapy in labor. *J Obstet Gynecol Neonatal Nurs.* 2009 Nov-Dec;38(6):667-75. X-1.
5168. Starr RV, Zurawski J and Ismail M. Preoperative vaginal preparation with povidone-iodine and the risk of postcesarean endometritis. *Obstet Gynecol.* 2005 May;105(5 Pt 1):1024-9. X-9.
5169. Steel JM. Contraception, pregnancy and breast feeding in the insulin-dependent diabetic. *Practitioner.* 1987 Nov 9;231(1438):1489-95. X-1.
5170. Stein DJ, Birnbach DJ, Danzer BI, et al. Acupressure versus intravenous metoclopramide to prevent nausea and vomiting during spinal anesthesia for cesarean section. *Anesth Analg.* 1997 Feb;84(2):342-5. X-9.
5171. Stein JL, Bardequez AD, Verma UL, et al. Nipple stimulation for labor augmentation. *J Reprod Med.* 1990 Jul;35(7):710-4. X-5.
5172. Steinbock B. Maternal-fetal conflict and in utero fetal therapy. *Albany Law Rev.* 1994;57(3):781-93. X-1.
5173. Steiner H, Zahradnik HP, Breckwoldt M, et al. Cervical ripening prior to induction of labor (intracervical application of a PG E2 viscous gel). *Prostaglandins.* 1979 Jan;17(1):125-33. X-1, x-4d, X-5.
5174. Stell R, Myer P, Hood RJ, et al. Is granisetron 0.1 mg IV effective in preventing PONV and pruritis in groups of cesarean section patients receiving spinal anesthesia and intrathecal opioids? *AANA Journal.* 2007;75(5):363-364. X-4b.
5175. Stella CL, O'Brien JM, Forrester KJ, et al. The coexistence of gestational hypertension and diabetes: influence on pregnancy outcome. *Am J Perinatol.* 2008 Jun;25(6):325-9. X-1.
5176. Stempel JE, Prins RP and Dean S. Preinduction cervical ripening: a randomized prospective comparison of the efficacy and safety of intravaginal and intracervical prostaglandin E2 gel. *Am J Obstet Gynecol.* 1997 Jun;176(6):1305-9; discussion 1309-12. X-4d.
5177. Stene LC and Joner G. Atopic disorders and risk of childhood-onset type 1 diabetes in individuals. *Clin Exp Allergy.* 2004 Feb;34(2):201-6. X-1.
5178. Stene LC, Ronningen KS, Undlien DE, et al. Does the relative risk for type 1 diabetes conferred by HLA-DQ, INS, and PTPN22 polymorphisms vary with maternal age, birth weight, or cesarean section? *Pediatr Diabetes.* 2011 Mar;12(2):91-4. X-1.
5179. Stenius-Aarniala B, Piirila P and Teramo K. Asthma and pregnancy: a prospective study of 198 pregnancies. *Thorax.* 1988 Jan;43(1):12-8. X-1.
5180. Stepan H, Walther T and Faber R. C-type natriuretic peptide in maternal plasma in spontaneous labour, at elective cesarean section and during puerperium. *J Perinat Med.* 1998;26(5):396-9. X-1.
5181. Stephenson PA and Wagner MG. Reproductive rights and the medical care system: a plea for rational health policy. *J Public Health Policy.* 1993 Summer;14(2):174-82. X-1, X-2.
5182. Stern K. Court-ordered caesarian sections: in whose interests? *Mod Law Rev.* 1993 Mar;56(2):238-43. X-1.
5183. Sterne G, Shields LE and Dubinsky TJ. Abnormal fetal cerebral and umbilical Doppler measurements in fetuses with intrauterine growth restriction predicts the severity of perinatal morbidity. *J Clin Ultrasound.* 2001 Mar-Apr;29(3):146-51. X-1.
5184. Stevens JD, Braithwaite P, Corke CF, et al. Double-blind comparison of epidural diamorphine and intramuscular morphine after elective caesarean section, with computerised analysis of continuous pulse oximetry. *Anaesthesia.* 1991 Apr;46(4):256-9. X-9.
5185. Stewart A, Fernando R, McDonald S, et al. The dose-dependent effects of phenylephrine for elective cesarean delivery under spinal anesthesia. *Anesth Analg.* 2010 Nov;111(5):1230-7. X-9.
5186. Stewart A, Sodhi V, Harper N, et al. Assessment of the effect upon maternal knowledge of an information leaflet about pain relief in labour. *Anaesthesia.* 2003 Oct;58(10):1015-9. X-1, X-3, X-4e.
5187. Stiehm ER, Lambert JS, Mofenson LM, et al. Efficacy of zidovudine and human immunodeficiency virus (HIV) hyperimmune immunoglobulin for reducing perinatal HIV transmission from HIV-infected women with advanced disease: results of Pediatric AIDS Clinical Trials Group protocol 185. *J Infect Dis.* 1999 Mar;179(3):567-75. X-4e, X-5.
5188. Stienstra R, Jonker TA, Bourdreux P, et al. Ropivacaine 0.25% versus bupivacaine 0.25% for continuous epidural analgesia in labor: a double-blind comparison. *Anesth Analg.* 1995 Feb;80(2):285-9. X-4e, X-5.
5189. Stiller-Timor L, Levy A, Holcberg G, et al. Upper respiratory tract infection during pregnancy: is it associated with adverse perinatal outcome? *Am J Perinatol.* 2010 Sep;27(8):619-24. X-1.

5190. Stine LE, Phelan JP, Wallace R, et al. Update on external cephalic version performed at term. *Obstet Gynecol.* 1985 May;65(5):642-6. X-1.
5191. Stirrup CA, Lucas DN, Cox ML, et al. Maternal anti-factor Xa activity following subcutaneous unfractionated heparin after Caesarean section. *Anaesthesia.* 2001 Sep;56(9):855-8. X-1.
5192. Stiver HG, Forward KR, Livingstone RA, et al. Multicenter comparison of cefoxitin versus cefazolin for prevention of infectious morbidity after nonelective cesarean section. *Am J Obstet Gynecol.* 1983 Jan 15;145(2):158-63. X-9.
5193. Stiver HG, Forward KR, Tyrrell DL, et al. Comparative cervical microflora shifts after cefoxitin or cefazolin prophylaxis against infection following cesarean section. *Am J Obstet Gynecol.* 1984 Aug 1;149(7):718-21. X-9.
5194. Stock A, Ming WW, Rogers M, et al. Prediction of caesarean section from ultrasound and clinical assessment of fetal size. *Aust N Z J Obstet Gynaecol.* 1994 Aug;34(4):393-8. X-1.
5195. Stockbridge L. The light in the grey area: a wild woman's view of caesarean surgery. *Midwifery Today Int Midwife.* 2008 Summer(86):42, 67-8. X-1, X-2, X-3, X-4e, X-5.
5196. Stoddart PA, Cooper A, Russell R, et al. A comparison of epidural diamorphine with intravenous patient-controlled analgesia using the Baxter infusor following caesarean section. *Anaesthesia.* 1993 Dec;48(12):1086-90. X-9.
5197. Stokowski LA. Noteworthy professional news. *Advances in Neonatal Care (Elsevier Science).* 2006;6(4):171-174. X-1.
5198. Stoll K, Fairbrother N, Carty E, et al. "It's all the rage these days": University students' attitudes toward vaginal and cesarean birth. *Birth.* 2009 Jun;36(2):133-40. X-1.
5199. Stone JL, Lockwood CJ, Berkowitz G, et al. Use of cervical prostaglandin E2 gel in patients with previous cesarean section. *Am J Perinatol.* 1994 Jul;11(4):309-12. X-1, X-4b, X-5.
5200. Stone KM, Brooks CA, Guinan ME, et al. National surveillance for neonatal herpes simplex virus infections. *Sex Transm Dis.* 1989 Jul-Sep;16(3):152-6. X-1.
5201. Stotland NE, Hopkins LM and Caughey AB. Gestational weight gain, macrosomia, and risk of cesarean birth in nondiabetic nulliparas. *Obstet Gynecol.* 2004 Oct;104(4):671-7. X-1.
5202. Stotland NL. Women's bodies, doctors' dynamics. *J Am Acad Psychoanal Dyn Psychiatry.* 2004 Spring;32(1):181-91. X-1, X-2.
5203. Stovall TG, Thorpe EM, Jr. and Ling FW. Treatment of post-cesarean section endometritis with ampicillin and sulbactam or clindamycin and gentamicin. *J Reprod Med.* 1993 Nov;38(11):843-8. X-9.

5204. Strachan BK, van Wijngaarden WJ, Sahota D, et al. Cardiotocography only versus cardiotocography plus PR-interval analysis in intrapartum surveillance: a randomised, multicentre trial. *FECG Study Group. Lancet*. 2000 Feb 5;355(9202):456-9. X-4e.
5205. Straughn HK, Goldenberg RL, Tolosa JE, et al. Birthweight-specific neonatal mortality in developing countries and obstetric practices. *Int J Gynaecol Obstet*. 2003 Jan;80(1):71-8. X-1.
5206. Strauss A, Kirz D, Modanlou HD, et al. Perinatal events and intraventricular/subependymal hemorrhage in the very low-birth weight infant. *Am J Obstet Gynecol*. 1985 Apr 15;151(8):1022-7. X-1.
5207. Stray-Pedersen B, Solberg VM, Torkildsen E, et al. Postpartum bacteriuria. A multicenter evaluation of different screening procedures and a controlled short-course treatment trial with amoxicillin. *Eur J Obstet Gynecol Reprod Biol*. 1989 May;31(2):163-71. X-1.
5208. Street ME, Seghini P, Fieni S, et al. Changes in interleukin-6 and IGF system and their relationships in placenta and cord blood in newborns with fetal growth restriction compared with controls. *Eur J Endocrinol*. 2006 Oct;155(4):567-74. X-1.
5209. Stringer EM, Ekouevi DK, Coetzee D, et al. Coverage of nevirapine-based services to prevent mother-to-child HIV transmission in 4 African countries. *JAMA*. 2010 Jul 21;304(3):293-302. X-1.
5210. Strobelt N, Merigalli V, Ratti M, et al. Randomized study on removable PGE2 vaginal insert versus PGE2 cervical gel for cervical priming and labor induction in low-Bishop-score pregnancy. *Acta Obstet Gynecol Scand*. 2006;85(3):302-5. X-4d.
5211. Strong C. Delivering hydrocephalic fetuses. *Bioethics*. 1991 Jan;5(1):1-22. X-1.
5212. Strong TH, Jr., Brown WL, Jr., Brown WL, et al. Experience with early postcesarean hospital dismissal. *Am J Obstet Gynecol*. 1993 Jul;169(1):116-9. X-1.
5213. Strong TH, Jr., Hetzler G, Sarno AP, et al. Prophylactic intrapartum amnioinfusion: a randomized clinical trial. *Am J Obstet Gynecol*. 1990 Jun;162(6):1370-4; discussion 1374-5. .
5214. Strulov L, Zimmer EZ, Granot M, et al. Pain catastrophizing, response to experimental heat stimuli, and post-cesarean section pain. *J Pain*. 2007 Mar;8(3):273-9. X-1.
5215. Strumper D, Louwen F, Durieux ME, et al. Epidural local anesthetics: a novel treatment for fetal growth retardation? *Fetal Diagn Ther*. 2005 May-Jun;20(3):208-13. X-1.
5216. Stuart JC, Kan AF, Rowbottom SJ, et al. Acid aspiration prophylaxis for emergency Caesarean section. *Anaesthesia*. 1996 May;51(5):415-21. X-9.
5217. Stukin S. Poz partner: treatment. How to have a healthy baby. *POZ*. 1999(53):89-90. X-2.
5218. Sturgess RH. In re A.C.: a court-ordered cesarean becomes precedent for nonconsensual organ harvesting. *Nova Law Rev*. 1989 Spring;13(2):649-69. X-1.
5219. Sturt AS, Dokubo EK and Sint TT. Antiretroviral therapy (ART) for treating HIV infection in ART-eligible pregnant women. *Cochrane Database of Systematic Reviews*. 2010(3). X-1, X-2.
5220. Stutchfield P, Whitaker R and Russell I. Antenatal betamethasone and incidence of neonatal respiratory distress after elective caesarean section: pragmatic randomised trial. *BMJ*. 2005 Sep 24;331(7518):662. X-9.
5221. Su M, Hannah WJ, Willan A, et al. Planned caesarean section decreases the risk of adverse perinatal outcome due to both labour and delivery complications in the Term Breech Trial. *BJOG*. 2004 Oct;111(10):1065-74. X-1.
5222. Su M, McLeod L, Ross S, et al. Factors associated with maternal morbidity in the Term Breech Trial. *J Obstet Gynaecol Can*. 2007 Apr;29(4):324-30. X-1.
5223. Sudik R, Husch K, Steller J, et al. Fertility and pregnancy outcome after myomectomy in sterility patients. *Eur J Obstet Gynecol Reprod Biol*. 1996 Apr;65(2):209-14. X-1.
5224. Sugano T, Nasu K, Narahara H, et al. Platelet-activating factor induces an imbalance between matrix metalloproteinase-1 and tissue inhibitor of metalloproteinases-1 expression in human uterine cervical fibroblasts. *Biol Reprod*. 2000 Mar;62(3):540-6. X-1.
5225. Suita S, Taguchi T, Yamanouchi T, et al. Fetal stabilization for antenatally diagnosed diaphragmatic hernia. *J Pediatr Surg*. 1999 Nov;34(11):1652-7. X-1.
5226. Sukalich S, Mingione MJ and Glantz JC. Obstetric outcomes in overweight and obese adolescents. *Am J Obstet Gynecol*. 2006 Sep;195(3):851-5. X-1.
5227. Suknikhom W and Tannirandom Y. Previous uterine operation and placenta previa. *J Med Assoc Thai*. 2011 Mar;94(3):272-7. X-1.
5228. Sullivan CA, Benton LW, Roach H, et al. Combining medical and mechanical methods of cervical ripening. Does it increase the likelihood of successful induction of labor? *J Reprod Med*. 1996 Nov;41(11):823-8. X-4d.
5229. Sullivan I, Faulds J and Ralph C. Contamination of salvaged maternal blood by amniotic fluid and fetal red cells during elective Caesarean section. *Br J Anaesth*. 2008 Aug;101(2):225-9. X-9.
5230. Sullivan JT, Grobman WA, Bauchat JR, et al. A randomized controlled trial of the effect of combined spinal-epidural analgesia on the success of external cephalic version for breech presentation. *Int J Obstet Anesth*. 2009 Oct;18(4):328-34. X-4c, X-4e.

5231. Sullivan S, Williamson B, Wilson LK, et al. Blunt needles for the reduction of needlestick injuries during cesarean delivery: a randomized controlled trial. *Obstet Gynecol.* 2009 Aug;114(2 Pt 1):211-6. X-9.
5232. Sullivan SA, Smith T, Chang E, et al. Administration of cefazolin prior to skin incision is superior to cefazolin at cord clamping in preventing postcesarean infectious morbidity: a randomized, controlled trial. *Am J Obstet Gynecol.* 2007 May;196(5):455 e1-5. X-9.
5233. Sultana A and Ahmed S. Attitude of women of NWFP towards antenatal care. *J Ayub Med Coll Abbottabad.* 2002 Apr-Jun;14(2):14-8. X-1.
5234. Sumiyoshi S, Machida J, Yamamoto T, et al. Massive immature teratoma in a neonate. *Int J Oral Maxillofac Surg.* 2010 Oct;39(10):1020-3. X-1.
5235. Sun HL, Cheng KW, Chien CC, et al. Diclofenac sodium and low dose epidural morphine for postcesarean analgesia. *Ma Zui Xue Za Zhi.* 1990 Sep;28(3):295-301. X-9.
5236. Sun HL, Ling QD, Sun WZ, et al. Lower limb wrapping prevents hypotension, but not hypothermia or shivering, after the introduction of epidural anesthesia for cesarean delivery. *Anesth Analg.* 2004 Jul;99(1):241-4. X-9.
5237. Sun HL, Wu CC, Lin MS, et al. Combination of low-dose epidural morphine and intramuscular diclofenac sodium in postcesarean analgesia. *Anesth Analg.* 1992 Jul;75(1):64-8. X-9.
5238. Sun LM, Walker MC, Cao HL, et al. Assisted reproductive technology and placenta-mediated adverse pregnancy outcomes. *Obstet Gynecol.* 2009 Oct;114(4):818-24. X-1.
5239. Sun SL, Cheng KW, Chien CC, et al. The effect of volume of epidural morphine on postoperative analgesia in patients undergoing cesarean section. *Ma Zui Xue Za Zhi.* 1990 Dec;28(4):433-7. X-9.
5240. Sunshine A, Olson NZ, O'Neill E, et al. Analgesic efficacy of a hydrocodone with ibuprofen combination compared with ibuprofen alone for the treatment of acute postoperative pain. *J Clin Pharmacol.* 1997 Oct;37(10):908-15. X-4e.
5241. Sunshine A, Olson NZ, Zigelboim I, et al. Ketoprofen, acetaminophen plus oxycodone, and acetaminophen in the relief of postoperative pain. *Clin Pharmacol Ther.* 1993 Nov;54(5):546-55. X-9.
5242. Sunshine A, Roure C, Olson N, et al. Analgesic efficacy of two ibuprofen-codeine combinations for the treatment of postepisiotomy and postoperative pain. *Clin Pharmacol Ther.* 1987 Oct;42(4):374-80. X-3, X-4e.
5243. Sunshine A, Zigelboim I, Laska E, et al. A double-blind, parallel comparison of ketoprofen, aspirin, and placebo in patients with postpartum pain. *J Clin Pharmacol.* 1986 Nov-Dec;26(8):706-11. X-3, X-4e.
5244. Sunshine A, Zigelboim I, Olson NZ, et al. A comparative oral analgesic study of indoprofen, aspirin, and placebo in postpartum pain. *J Clin Pharmacol.* 1985 Jul-Aug;25(5):374-80. X-3, X-4e.
5245. Sur S and Mackenzie IZ. Does discussion of possible scar rupture influence preferred mode of delivery after a caesarean section? *J Obstet Gynaecol.* 2005 May;25(4):338-41. X-1.
5246. Sur S, Murphy KW and Mackenzie IZ. Delivery after caesarean section: consultant obstetricians' professional advice and personal preferences. *J Obstet Gynaecol.* 2009 Apr;29(3):212-6. X-1.
5247. Surakarn J and Tannirandorn Y. Intramuscular diclofenac for analgesia after cesarean delivery: a randomized controlled trial. *J Med Assoc Thai.* 2009 Jun;92(6):733-7. X-9.
5248. Suranyi A, Retz C, Rigo J, et al. Fetal renal hyperechogenicity in intrauterine growth retardation: importance and outcome. *Pediatr Nephrol.* 2001 Jul;16(7):575-80. X-1.
5249. Surapanthapisit P and Thitadilok W. Risk factors of caesarean section due to cephalopelvic disproportion. *J Med Assoc Thai.* 2006 Oct;89 Suppl 4:S105-11. X-1.
5250. Surbek DV, Boesiger H, Hoesli I, et al. A double-blind comparison of the safety and efficacy of intravaginal misoprostol and prostaglandin E2 to induce labor. *Am J Obstet Gynecol.* 1997 Nov;177(5):1018-23. X-4d.
5251. Surbek DV, Visca E, Steinmann C, et al. Umbilical cord blood collection before placental delivery during cesarean delivery increases cord blood volume and nucleated cell number available for transplantation. *Am J Obstet Gynecol.* 2000 Jul;183(1):218-21. X-9.
5252. Surita FG, Cecatti JG, Parpinelli MA, et al. Hyaluronidase versus Foley catheter for cervical ripening in high-risk term and post term pregnancies. *Int J Gynaecol Obstet.* 2005 Mar;88(3):258-64. X-4b, X-4d.
5253. Sutcliffe AG, D'Souza SW, Cadman J, et al. Outcome in children from cryopreserved embryos. *Arch Dis Child.* 1995 Apr;72(4):290-3. X-1.
5254. Sutcliffe AG, Taylor B, Saunders K, et al. Outcome in the second year of life after in-vitro fertilisation by intracytoplasmic sperm injection: a UK case-control study. *Lancet.* 2001 Jun 30;357(9274):2080-4. X-1.
5255. Sutherland J, Seaton H and Lowry C. The influence of epidural pethidine on shivering during lower segment caesarean section under epidural anaesthesia. *Anaesth Intensive Care.* 1991 May;19(2):228-32. X-9.

5256. Sutton L, Sayer GP, Bajuk B, et al. Do very sick neonates born at term have antenatal risks? 1. Infants ventilated primarily for problems of adaptation to extra-uterine life. *Acta Obstet Gynecol Scand*. 2001 Oct;80(10):905-16. X-1.
5257. Sutton L, Sayer GP, Bajuk B, et al. Do very sick neonates born at term have antenatal risks? 2. Infants ventilated primarily for lung disease. *Acta Obstet Gynecol Scand*. 2001 Oct;80(10):917-25. X-1.
5258. Suziedelis AK. Raising questions about society's "duty to rescue" the unborn. *Health Care Ethics USA*. 2004;12(1):E3. X-1, X-2, X-3, X-4, X-5.
5259. Suzuki S. Risk factors for emergency cesarean delivery of the second twin after vaginal delivery of the first twin. *J Obstet Gynaecol Res*. 2009 Jun;35(3):467-71. X-1.
5260. Suzuki S, Otsubo Y, Sawa R, et al. Clinical trial of induction of labor versus expectant management in twin pregnancy. *Gynecol Obstet Invest*. 2000;49(1):24-7. X-4d, X-4e.
5261. Suzuki S, Sawa R, Yoneyama Y, et al. Preoperative diagnosis of dehiscence of the lower uterine segment in patients with a single previous Caesarean section. *Aust N Z J Obstet Gynaecol*. 2000 Nov;40(4):402-4. X-1.
5262. Svanstrom MC, Biber B, Hanes M, et al. Signs of myocardial ischaemia after injection of oxytocin: a randomized double-blind comparison of oxytocin and methylergometrine during Caesarean section. *Br J Anaesth*. 2008 May;100(5):683-9. X-9.
5263. Svenningsen NW, Liedholm H and Aberg A. Hypertension in pregnancy and the infant. A controlled follow-up study. *Acta Obstet Gynecol Scand Suppl*. 1984;118:103-6. X-1.
5264. Swain S, Ojha KN, Prakash A, et al. Maternal and perinatal mortality due to eclampsia. *Indian Pediatr*. 1993 Jun;30(6):771-3. X-1.
5265. Swanson MJ. High religion in labor & delivery. The bonds of normalcy. *Midwifery Today Int Midwife*. 1998 Autumn(47):18-9. X-1, X-2, X-3, X-4e, X-5.
5266. Swart M, Sewell J and Thomas D. Intrathecal morphine for caesarean section: an assessment of pain relief, satisfaction and side-effects. *Anaesthesia*. 1997 Apr;52(4):373-7. X-9.
5267. Swende TZ and Hwande TS. Female sterilization by tubal ligation at caesarean section in Makurdi, Nigeria. *Ann Afr Med*. 2010 Oct-Dec;9(4):246-50. X-1.
5268. Sword W, Watt S, Krueger P, et al. The Ontario Mother and Infant Study (TOMIS) III: a multi-site cohort study of the impact of delivery method on health, service use, and costs of care in the first postpartum year. *BMC Pregnancy Childbirth*. 2009;9:16. X-1.
5269. Sybulski S and Maughan GB. Relationship between cortisol levels in umbilical cord plasma and development of the respiratory distress syndrome in premature newborn infants. *Am J Obstet Gynecol*. 1976 May 15;125(2):239-43. X-1.
5270. Syed S, Chaudhri R, Rizvi F, et al. Oral misoprostol for induction of labour. *J Coll Physicians Surg Pak*. 2010 Feb;20(2):102-5. X-1, X-4d.
5271. Sylvan K, Ryding EL and Rydhstroem H. Routine ultrasound screening in the third trimester: a population-based study. *Acta Obstet Gynecol Scand*. 2005 Dec;84(12):1154-8. X-1.
5272. Symon A. Obstetric litigation: effects on clinical practice. *Gynakol Geburtshilfliche Rundsch*. 2000;40(3-4):165-71. X-1, X-2.
5273. Szeverenyi M and Lampe L. Examination of gestations and deliveries subsequent to rivanol-induced interruption of first trimester pregnancies. *Acta Med Hung*. 1986;43(2):187-99. X-1.
5274. Szilagyi A and Szabo I. Improvement of perinatal outcome in diabetic pregnant women. *Early Pregnancy*. 2001 Jan;5(1):55-6. X-1.
5275. Szymankiewicz M, Jedrzejczak P, Rozycka J, et al. Newborn outcome after assisted reproductive technology: experiences and reflections from Poland. *Int J Fertil Womens Med*. 2004 Jul-Aug;49(4):150-4. X-1.
5276. Szymonowicz W and Yu VY. Severe pre-eclampsia and infants of very low birth weight. *Arch Dis Child*. 1987 Jul;62(7):712-6. X-1.
5277. Tabasi Z, Behrashi M and Mahdian M. Vaginal Misoprostol versus high dose of oxytocin for labor induction: a comparative study. *Pak J Biol Sci*. 2007 Mar 15;10(6):920-3. X-4d.
5278. Tabedar S, Maharjan SK, Shrestha BR, et al. A comparison of 25 gauge Quincke spinal needle with 26 gauge Eldor spinal needle for the elective Caesarian sections: insertion characteristics and complications. *Kathmandu Univ Med J (KUMJ)*. 2003 Oct-Dec;1(4):263-6. X-9.
5279. Tabowei TO and Oboro VO. Active management of labour in a district hospital setting. *J Obstet Gynaecol*. 2003 Jan;23(1):9-12. X-4e.
5280. Tabowei TO and Oboro VO. Low dose intravaginal misoprostol versus intracervical balloon catheter for pre-induction cervical ripening. *East Afr Med J*. 2003 Feb;80(2):91-4. X-4d.
5281. Tackley RM and Coe AJ. Alkalinized bupivacaine and adrenaline for epidural caesarean section. A comparison with 0.5% bupivacaine. *Anaesthesia*. 1988 Dec;43(12):1019-21. X-9.
5282. Tadesse E, Adane M and Abiyou M. Caesarean section deliveries at Tikur Anbessa

- Teaching Hospital, Ethiopia. *East Afr Med J*. 1996 Sep;73(9):619-22. X-1.
5283. Tausch HW, Jr., Frigoletto F, Kitzmiller J, et al. Risk of respiratory distress syndrome after prenatal dexamethasone treatment. *Pediatrics*. 1979 Jan;63(1):64-72. X-4e.
5284. Taffel SM, Placek PJ and Liss T. Trends in the United States cesarean section rate and reasons for the 1980-85 rise. *Am J Public Health*. 1987 Aug;77(8):955-9. X-1.
5285. Taffel SM, Placek PJ and Moien M. Cesarean section rate levels off in 1987. *Fam Plann Perspect*. 1989 Sep-Oct;21(5):227-8. X-1, X-2, X-4e.
5286. Tahirovic H, Toromanovic A and Grbic S. Higher frequency of screening TSH above 5 mIU/l in infants likely exposed to higher doses of iodine-containing skin antiseptic: implications for assessment of iodine sufficiency. *J Pediatr Endocrinol Metab*. 2009 Apr;22(4):335-8. X-1.
5287. Tahirovic H, Toromanovic A, Grbic S, et al. Maternal and neonatal urinary iodine excretion and neonatal TSH in relation to use of antiseptic during caesarean section in an iodine sufficient area. *J Pediatr Endocrinol Metab*. 2009 Dec;22(12):1145-9. X-1.
5288. Tahirovic HF. Transient hypothyroxinemia in neonates with birth asphyxia delivered by emergency cesarean section. *J Pediatr Endocrinol*. 1994 Jan-Mar;7(1):39-41. X-1.
5289. Taillefer C and Dube J. Singleton breech at term: two continents, two approaches. *J Obstet Gynaecol Can*. 2010 Mar;32(3):238-43. X-1, X-2.
5290. Takayama T, Minakami H, Koike T, et al. Risks associated with cesarean sections in women with placenta previa. *J Obstet Gynaecol Res*. 1997 Aug;23(4):375-9. X-1.
5291. Takoudes TC, Weitzen S, Slocum J, et al. Risk of cesarean wound complications in diabetic gestations. *Am J Obstet Gynecol*. 2004 Sep;191(3):958-63. X-1.
5292. Talas BB, Altinkaya SO, Talas H, et al. Predictive factors and short-term fetal outcomes of breech presentation: a case-control study. *Taiwan J Obstet Gynecol*. 2008 Dec;47(4):402-7. X-1.
5293. Taljaard M, Donner A, Villar J, et al. Understanding the factors associated with differences in caesarean section rates at hospital level: the case of Latin America. *Paediatr Perinat Epidemiol*. 2009 Nov;23(6):574-81. X-1.
5294. Tam WH, Lee DT, Chiu HF, et al. A randomised controlled trial of educational counselling on the management of women who have suffered suboptimal outcomes in pregnancy. *BJOG*. 2003 Sep;110(9):853-9. X-3, X-4e.
5295. Tamdee D, Charuluxananan S, Punjasawadwong Y, et al. A randomized controlled trial of pentazocine versus ondansetron for the treatment of intrathecal morphine-induced pruritus in patients undergoing cesarean delivery. *Anesth Analg*. 2009 Nov;109(5):1606-11. X-9.
5296. Tamilselvan P, Fernando R, Bray J, et al. The effects of crystalloid and colloid preload on cardiac output in the parturient undergoing planned cesarean delivery under spinal anesthesia: a randomized trial. *Anesth Analg*. 2009 Dec;109(6):1916-21. X-9.
5297. Tamim H, El-Chemaly S, Nassar A, et al. Incidence and correlates of cesarean section in a capital city of a middle-income country. *J Perinat Med*. 2007;35(4):282-8. X-1.
5298. Tamim H, El-Chemaly SY, Nassar AH, et al. Cesarean delivery among nulliparous women in Beirut: assessing predictors in nine hospitals. *Birth*. 2007 Mar;34(1):14-20. X-1.
5299. Tamsen L, Lyrenas S and Cnattingius S. Premature rupture of the membranes--intervention or not. *Gynecol Obstet Invest*. 1990;29(2):128-31. X-1.
5300. Tan CH, Tay KH, Sheah K, et al. Perioperative endovascular internal iliac artery occlusion balloon placement in management of placenta accreta. *AJR Am J Roentgenol*. 2007 Nov;189(5):1158-63. X-1.
5301. Tan EC, Lim EC, Teo YY, et al. Ethnicity and OPRM variant independently predict pain perception and patient-controlled analgesia usage for post-operative pain. *Mol Pain*. 2009;5:32. X-1.
5302. Tan EC, Lim Y, Teo YY, et al. Ethnic differences in pain perception and patient-controlled analgesia usage for postoperative pain. *J Pain*. 2008 Sep;9(9):849-55. X-1.
5303. Tan KT and Tan KH. Pregnancy and delivery in primigravidae aged 35 and over. *Singapore Med J*. 1994 Oct;35(5):495-501. X-1.
5304. Tan L, Pepra E and Haloob RK. The outcome of pregnancy after large loop excision of the transformation zone of the cervix. *J Obstet Gynaecol*. 2004 Jan;24(1):25-7. X-1.
5305. Tan PC, Mubarak S and Omar SZ. Absorbable versus nonabsorbable sutures for subcuticular skin closure of a transverse suprapubic incision. *Int J Gynaecol Obstet*. 2008 Nov;103(2):179-81. X-9.
5306. Tan PC, Valiapan SD, Tay PY, et al. Concurrent oxytocin with dinoprostone pessary versus dinoprostone pessary in labour induction of nulliparas with an unfavourable cervix: a randomised placebo-controlled trial. *BJOG*. 2007 Jul;114(7):824-32. X-4d.
5307. Tan PC, Yow CM and Omar SZ. Effect of coital activity on onset of labor in women scheduled for labor induction: a randomized controlled trial. *Obstet Gynecol*. 2007 Oct;110(4):820-6. X-5.

5308. Tan SL, Doyle P, Campbell S, et al. Obstetric outcome of in vitro fertilization pregnancies compared with normally conceived pregnancies. *Am J Obstet Gynecol.* 1992 Sep;167(3):778-84. X-1, X-2.
5309. Tan T, Ojo R, Immani S, et al. Reduction of severity of pruritus after elective caesarean section under spinal anaesthesia with subarachnoid morphine: a randomised comparison of prophylactic granisetron and ondansetron. *Int J Obstet Anesth.* 2010 Jan;19(1):56-60. X-9.
5310. Tanaka M, Balki M, Parkes RK, et al. ED95 of phenylephrine to prevent spinal-induced hypotension and/or nausea at elective cesarean delivery. *Int J Obstet Anesth.* 2009 Apr;18(2):125-30. X-9.
5311. Tanaka S, Kobayashi T, Songjinda P, et al. Influence of antibiotic exposure in the early postnatal period on the development of intestinal microbiota. *FEMS Immunol Med Microbiol.* 2009 Jun;56(1):80-7. X-1.
5312. Tanbo T, Dale PO, Lunde O, et al. Obstetric outcome in singleton pregnancies after assisted reproduction. *Obstet Gynecol.* 1995 Aug;86(2):188-92. X-1.
5313. Taner CE, Hakverdi AU, Aban M, et al. Prevalence, management and outcome in eclampsia. *Int J Gynaecol Obstet.* 1996 Apr;53(1):11-5. X-1.
5314. Tang CH, Wang HI, Hsu CS, et al. Risk-adjusted cesarean section rates for the assessment of physician performance in Taiwan: a population-based study. *BMC Public Health.* 2006;6:246. X-1.
5315. Tangtrakul S, Taechaiya S, Suthutvoravut S, et al. Post-cesarean section urinary tract infection: a comparison between intermittent and indwelling catheterization. *J Med Assoc Thai.* 1994 May;77(5):244-8. X-9.
5316. Tangtrakul S, Thongjerm M, Suthutvoravuth S, et al. Outcome of delivery following first-pregnancy abortion. *J Med Assoc Thai.* 1988 Mar;71 Suppl 1:68-71. X-1.
5317. Tanir HM, Sener T, Gurer H, et al. A ten-year gestational diabetes mellitus cohort at a university clinic of the mid-Anatolian region of Turkey. *Clin Exp Obstet Gynecol.* 2005;32(4):241-4. X-1.
5318. Tantbirojn P, Saleemuddin A, Sirois K, et al. Gross abnormalities of the umbilical cord: related placental histology and clinical significance. *Placenta.* 2009 Dec;30(12):1083-8. X-1.
5319. Tarhan O, Canbay O, Celebi N, et al. Subhypnotic doses of midazolam prevent nausea and vomiting during spinal anesthesia for cesarean section. *Minerva Anesthesiol.* 2007 Dec;73(12):629-33. X-9.
5320. Taricco E, Radaelli T, Rossi G, et al. Effects of gestational diabetes on fetal oxygen and glucose levels in vivo. *BJOG.* 2009 Dec;116(13):1729-35. X-1.
5321. Tarim E, Kilicdag E, Bagis T, et al. Second-trimester pregnancy termination with oral misoprostol in women who have had one cesarean section. *Int J Gynaecol Obstet.* 2005 Jul;90(1):84-5. X-4e.
5322. Tashima LS, Millar LK and Bryant-Greenwood GD. Genes upregulated in human fetal membranes by infection or labor. *Obstet Gynecol.* 1999 Sep;94(3):441-9. X-1.
5323. Tassi PG, Tarantini M, Cadenelli GP, et al. Ceftazidime in antibiotic prophylaxis for emergency cesarean section: a randomized prospective study. *Int J Clin Pharmacol Ther Toxicol.* 1987 Oct;25(10):582-8. X-9.
5324. Tastekin A, Ors R, Demircan B, et al. Oxidative stress in infants born to preeclamptic mothers. *Pediatr Int.* 2005 Dec;47(6):658-62. X-1.
5325. Tateishi SA. Apprehending the fetus en ventre sa mere: a study in judicial sleight of hand. *Sask Law Rev.* 1989;53(1):113-41. X-1.
5326. Tauer CA. Lives at stake: how to respond to a woman's refusal of cesarean surgery when she risks losing her child or her life. *Health Prog.* 1992 Sep;73(3):18, 20-27. X-1.
5327. Tauer CA. When pregnant patients refuse interventions. *AWHONNS Clin Issues Perinat Womens Health Nurs.* 1993;4(4):596-605. X-1, X-2.
5328. Tayebati SK, Giannella M, Indraccolo SR, et al. Muscarinic cholinergic receptors and acetylcholinesterase activity in umbilical artery and vein in pregnancy-induced hypertension (pre-eclampsia). *Clin Exp Hypertens.* 1997 Nov;19(8):1205-17. X-1.
5329. Taylor DR, Doughty AS, Kaufman H, et al. Uterine rupture with the use of PGE2 vaginal inserts for labor induction in women with previous cesarean sections. *J Reprod Med.* 2002 Jul;47(7):549-54. X-1.
5330. Taylor H. A self administration of balanced oral analgesia -- the successful 'low-tech' approach to pain management following cesarean section. *MIDIRS Midwifery Digest.* 1999;9(1):81-85. X-1, X-2.
5331. Taylor J and Johnson M. How women manage fatigue after childbirth. *Midwifery.* 2010 Jun;26(3):367-75. X-1.
5332. Taylor M. Rebalancing obstetric and midwifery thinking. *Pract Midwife.* 2008 Jul-Aug;11(7):24-8. X-1, X-2, X-3, X-4e, X-5.
5333. Taylor S and Armour C. Consumer preference for dinoprostone vaginal gel using stated preference discrete choice modelling. *Pharmacoeconomics.* 2003;21(10):721-35. X-1.
5334. Taylor VM, Kramer MD, Vaughan TL, et al. Placenta previa and prior cesarean delivery:

- how strong is the association? *Obstet Gynecol.* 1994 Jul;84(1):55-7. X-1.
5335. Taylor VM, Peacock S, Kramer MD, et al. Increased risk of placenta previa among women of Asian origin. *Obstet Gynecol.* 1995 Nov;86(5):805-8. X-1.
5336. Tazeh-Kand NF, Eslami B and Mohammadian K. Inhaled fluticasone propionate reduces postoperative sore throat, cough, and hoarseness. *Anesth Analg.* 2010 Oct;111(4):895-8. X-9.
5337. Tchobroutsky C, Vray MM and Altman JJ. Risk/benefit ratio of changing late obstetrical strategies in the management of insulin-dependent diabetic pregnancies. A comparison between 1971-1977 and 1978-1985 periods in 389 pregnancies. *Diabete Metab.* 1991 Mar-Apr;17(2):287-94. X-1.
5338. Techanivate A, Rodanant O, Tachawattanawisal W, et al. Intrathecal fentanyl for prevention of shivering in cesarean section. *J Med Assoc Thai.* 2005 Sep;88(9):1214-21. X-9.
5339. Tei A, Mutoh S, Yaoi Y, et al. Serum levels of coagulation-fibrinolysis factors in normal pregnancy, labor and puerperium and in cesarean section delivery. *Bull Tokyo Med Dent Univ.* 1989 Jun;36(2):19-26. X-1.
5340. Tejani N, Verma U, Shiffman R, et al. Effect of route of delivery on periventricular/intraventricular hemorrhage in the low-birth-weight fetus with a breech presentation. *J Reprod Med.* 1987 Dec;32(12):911-4. X-1.
5341. Tenovuo AH, Kero PO, Korvenranta HJ, et al. Risk factors associated with severely small for gestational age neonates. *Am J Perinatol.* 1988 Jul;5(3):267-71. X-1.
5342. Teoh WH and Sia AT. Colloid preload versus coload for spinal anesthesia for cesarean delivery: the effects on maternal cardiac output. *Anesth Analg.* 2009 May;108(5):1592-8. X-9.
5343. Teoh WH, Thomas E and Tan HM. Ultra-low dose combined spinal-epidural anesthesia with intrathecal bupivacaine 3.75 mg for cesarean delivery: a randomized controlled trial. *Int J Obstet Anesth.* 2006 Oct;15(4):273-8. X-9.
5344. Teperi J. Multi method approach to the assessment of data quality in the Finnish Medical Birth Registry. *J Epidemiol Community Health.* 1993 Jun;47(3):242-7. X-1.
5345. Terajima K, Onodera H, Kobayashi M, et al. Efficacy of intrathecal morphine for analgesia following elective cesarean section: comparison with previous delivery. *J Nippon Med Sch.* 2003 Aug;70(4):327-33. X-9.
5346. Teramo K, Kari MA, Eronen M, et al. High amniotic fluid erythropoietin levels are associated with an increased frequency of fetal and neonatal morbidity in type 1 diabetic pregnancies. *Diabetologia.* 2004 Oct;47(10):1695-703. X-1.
5347. Teramo KA, Hiilesmaa VK, Schwartz R, et al. Amniotic fluid and cord plasma erythropoietin levels in pregnancies complicated by preeclampsia, pregnancy-induced hypertension and chronic hypertension. *J Perinat Med.* 2004;32(3):240-7. X-1.
5348. Teramo KA, Widness JA, Clemons GK, et al. Amniotic fluid erythropoietin correlates with umbilical plasma erythropoietin in normal and abnormal pregnancy. *Obstet Gynecol.* 1987 May;69(5):710-6. X-1.
5349. Tercanli S, Schneider M, Visca E, et al. Influence of volume preloading on uteroplacental and fetal circulation during spinal anaesthesia for caesarean section in uncomplicated singleton pregnancies. *Fetal Diagn Ther.* 2002 May-Jun;17(3):142-6. X-1.
5350. Ternov K, Nilsson M, Lofberg L, et al. Acupuncture for pain relief during childbirth. *Acupunct Electrother Res.* 1998;23(1):19-26. X-1, X-4e, X-5.
5351. Terui K, Omoto A, Osada H, et al. Influence of fetal stabilization on postnatal status of patients with congenital diaphragmatic hernia. *Pediatr Surg Int.* 2011 Jan;27(1):29-33. X-1, X-4e.
5352. Tessen JA and Zlatnik FJ. Monoamniotic twins: a retrospective controlled study. *Obstet Gynecol.* 1991 Jun;77(6):832-4. X-1.
5353. Tettambel MA. Preoperative use of antacids to prevent mendelson's syndrome in cesarean section: a pilot study. *J Am Osteopath Assoc.* 1983 Jul;82(11):858-60. X-3, X-4b.
5354. Tevaarwerk GJ, Harding PG, Milne KJ, et al. Pregnancy in diabetic women: outcome with a program aimed at normoglycemia before meals. *Can Med Assoc J.* 1981 Sep 1;125(5):435-40. X-1.
5355. Thanasuan S and Borriboonhirunsarn D. Incidence of gestational diabetes mellitus among pregnant women with one abnormal value of oral glucose tolerance test. *J Med Assoc Thai.* 2006 Aug;89(8):1109-14. X-1.
5356. Thato S, Rachukul S and Sopajaree C. Obstetrics and perinatal outcomes of Thai pregnant adolescents: a retrospective study. *Int J Nurs Stud.* 2007 Sep;44(7):1158-64. X-1.
5357. Theodoridis TD, Chatzigeorgiou KN, Zepiridis L, et al. A prospective randomized study for evaluation of wound retractors in the prevention of incision site infections after cesarean section. *Clin Exp Obstet Gynecol.* 2011;38(1):57-9. X-1, X-9.

5358. Thiex NW, Chames MC and Loch-Carusio RK. Tissue-specific induction of COX-2 and prostaglandins in lipopolysaccharide-stimulated extraplacental human gestational membranes in a 2-chamber transwell culture system. *Reprod Sci*. 2010 Dec;17(12):1120-9. X-1.
5359. Thigpen BD, Hood WA, Chauhan S, et al. Timing of prophylactic antibiotic administration in the uninfected laboring gravida: a randomized clinical trial. *Am J Obstet Gynecol*. 2005 Jun;192(6):1864-8; discussion 1868-71. X-9.
5360. Thilaganathan B, Cutner A, Latimer J, et al. Management of the third stage of labour in women at low risk of postpartum haemorrhage. *Eur J Obstet Gynecol Reprod Biol*. 1993 Jan;48(1):19-22. X-3, X-4e, X-5.
5361. Thind GS, Wells JC and Wilkes RG. The effects of continuous intravenous naloxone on epidural morphine analgesia. *Anaesthesia*. 1986 Jun;41(6):582-5. X-9.
5362. Thomas DG, Robson SC, Redfern N, et al. Randomized trial of bolus phenylephrine or ephedrine for maintenance of arterial pressure during spinal anaesthesia for Caesarean section. *Br J Anaesth*. 1996 Jan;76(1):61-5. X-9.
5363. Thomas J, Paranjothy S and James D. National cross sectional survey to determine whether the decision to delivery interval is critical in emergency caesarean section. *BMJ*. 2004 Mar 20;328(7441):665. X-1.
5364. Thomas JS, Koh SH and Cooper GM. Haemodynamic effects of oxytocin given as i.v. bolus or infusion on women undergoing Caesarean section. *Br J Anaesth*. 2007 Jan;98(1):116-9. X-9.
5365. Thomas PA, Weedon J, Krasinski K, et al. Maternal predictors of perinatal human immunodeficiency virus transmission. The New York City Perinatal HIV Transmission Collaborative Study Group. *Pediatr Infect Dis J*. 1994 Jun;13(6):489-95. X-1.
5366. Thompson DM, Dansereau J, Creed M, et al. Tight glucose control results in normal perinatal outcome in 150 patients with gestational diabetes. *Obstet Gynecol*. 1994 Mar;83(3):362-6. X-1.
5367. Thompson EM, Wilson CM, Moore J, et al. Plasma bupivacaine levels associated with extradural anaesthesia for caesarean section. *Anaesthesia*. 1985 May;40(5):427-32. X-9.
5368. Thompson TT, Thorp JM, Jr., Mayer D, et al. Does epidural analgesia cause dystocia? *J Clin Anesth*. 1998 Feb;10(1):58-65. X-1.
5369. Thomson F, Shanbhag S, Templeton A, et al. Obstetric outcome in women with subfertility. *BJOG*. 2005 May;112(5):632-7. X-1.
5370. Thomson M. After Re S. *Med Law Rev*. 1994 Summer;2(2):127-48. X-1, X-2.
5371. Thong MK, Ho JJ and Khatijah NN. A population-based study of birth defects in Malaysia. *Ann Hum Biol*. 2005 Mar-Apr;32(2):180-7. X-1.
5372. Thorburn J and Moir DD. Extradural analgesia: the influence of volume and concentration of bupivacaine on the mode of delivery, analgesic efficacy and motor block. *Br J Anaesth*. 1981 Sep;53(9):933-9. X-5.
5373. Thoren T, Holmstrom B, Rawal N, et al. Sequential combined spinal epidural block versus spinal block for cesarean section: effects on maternal hypotension and neurobehavioral function of the newborn. *Anesth Analg*. 1994 Jun;78(6):1087-92. X-9.
5374. Thornberry EA and Thomas TA. Posture and post-spinal headache. A controlled trial in 80 obstetric patients. *Br J Anaesth*. 1988 Feb;60(2):195-7. X-4e.
5375. Thorne C and Newell ML. Are girls more at risk of intrauterine-acquired HIV infection than boys? *AIDS*. 2004 Jan 23;18(2):344-7. X-1.
5376. Thorne C, Semenenko I, Pilipenko T, et al. Progress in prevention of mother-to-child transmission of HIV infection in Ukraine: results from a birth cohort study. *BMC Infect Dis*. 2009;9:40. X-1.
5377. Thorngren-Jerneck K and Herbst A. Perinatal factors associated with cerebral palsy in children born in Sweden. *Obstet Gynecol*. 2006 Dec;108(6):1499-505. X-1.
5378. Thornton JG and Lilford RJ. Active management of labour: current knowledge and research issues. *BMJ*. 1994 Aug 6;309(6951):366-9. X-1.
5379. Thornton TE and Paltrow L. The rights of pregnant patients: Carder case brings bold policy initiatives. *Healthspan*. 1991 May;8(5):10-6. X-1.
5380. Thorp JA, Hu DH, Albin RM, et al. The effect of intrapartum epidural analgesia on nulliparous labor: a randomized, controlled, prospective trial. *Am J Obstet Gynecol*. 1993 Oct;169(4):851-8. X-4e, X-5.
5381. Thorp JA, McNitt JD and Leppert PC. Effects of epidural analgesia: some questions and answers. *Birth*. 1990 Sep;17(3):157-62. X-1, X-2.
5382. Thorp JA, Parisi VM, Boylan PC, et al. The effect of continuous epidural analgesia on cesarean section for dystocia in nulliparous women. *Am J Obstet Gynecol*. 1989 Sep;161(3):670-5. X-9.
5383. Thubisi M, Ebrahim A, Moodley J, et al. Vaginal delivery after previous caesarean section: is X-ray pelvimetry necessary? *Br J Obstet Gynaecol*. 1993 May;100(5):421-4. X-4b.
5384. Thurman AR, Anca Y, White CA, et al. Post-caesarean delivery infectious morbidity: Focus on preoperative antibiotics and methicillin-

- resistant *Staphylococcus aureus*. *Am J Infect Control*. 2010 Oct;38(8):612-6. X-1, X-9.
5385. Thurman AR and Janecek T. One-year follow-up of women with unfulfilled postpartum sterilization requests. *Obstet Gynecol*. 2010 Nov;116(5):1071-7. X-1.
5386. Thurman AR, Zoller JS and Swift SE. Non-pregnant patients' preference for delivery route. *Int Urogynecol J Pelvic Floor Dysfunct*. 2004 Sep-Oct;15(5):308-12. X-1.
5387. Thwaites AJ, Rice CP and Smith I. Rapid sequence induction: a questionnaire survey of its routine conduct and continued management during a failed intubation. *Anaesthesia*. 1999 Apr;54(4):376-81. X-1.
5388. Thyfault JP, Hedberg EM, Anchan RM, et al. Gestational diabetes is associated with depressed adiponectin levels. *J Soc Gynecol Investig*. 2005 Jan;12(1):41-5. X-1.
5389. Tihtonen K, Koobi T, Yli-Hankala A, et al. Maternal haemodynamics in pre-eclampsia compared with normal pregnancy during caesarean delivery. *BJOG*. 2006 Jun;113(6):657-63. X-1.
5390. Tikkanen M, Nuutila M, Hiilesmaa V, et al. Clinical presentation and risk factors of placental abruption. *Acta Obstet Gynecol Scand*. 2006;85(6):700-5. X-1.
5391. Tikkanen M, Nuutila M, Hiilesmaa V, et al. Prepregnancy risk factors for placental abruption. *Acta Obstet Gynecol Scand*. 2006;85(1):40-4. X-1.
5392. Tilton Z, Hodgson MI, Donoso E, et al. Complications and outcome of pregnancy in obese women. *Nutrition*. 1989 Mar-Apr;5(2):95-9. X-1.
5393. Tingaker BK, Ekman-Ordeberg G, Facer P, et al. Influence of pregnancy and labor on the occurrence of nerve fibers expressing the capsaicin receptor TRPV1 in human corpus and cervix uteri. *Reprod Biol Endocrinol*. 2008;6:8. X-1.
5394. Tita AT, Hauth JC, Grimes A, et al. Decreasing incidence of postcesarean endometritis with extended-spectrum antibiotic prophylaxis. *Obstet Gynecol*. 2008 Jan;111(1):51-6. X-9.
5395. Tita AT, Landon MB, Spong CY, et al. Timing of elective repeat cesarean delivery at term and neonatal outcomes. *N Engl J Med*. 2009 Jan 8;360(2):111-20. X-1.
5396. Tita AT, Owen J, Stamm AM, et al. Impact of extended-spectrum antibiotic prophylaxis on incidence of postcesarean surgical wound infection. *Am J Obstet Gynecol*. 2008 Sep;199(3):303 e1-3. X-9.
5397. To WW and Li IC. Occipital posterior and occipital transverse positions: reappraisal of the obstetric risks. *Aust N Z J Obstet Gynaecol*. 2000 Aug;40(3):275-9. X-1.
5398. Todd AL, Trudinger BJ, Cole MJ, et al. Antenatal tests of fetal welfare and development at age 2 years. *Am J Obstet Gynecol*. 1992 Jul;167(1):66-71. X-1.
5399. Todd DA, Jana A and John E. Chronic oxygen dependency in infants born at 24-32 weeks' gestation: the role of antenatal and neonatal factors. *J Paediatr Child Health*. 1997 Oct;33(5):402-7. X-1.
5400. Tomic V, Bosnjak K, Petrov B, et al. Macrosomic births at Mostar Clinical Hospital: a 2-year review. *Bosn J Basic Med Sci*. 2007 Aug;7(3):271-4. X-1.
5401. Tomic V, Grizelj B and Zadro M. Perinatal outcome in primiparous women aged 35 and older: a case-control study. *Med Arh*. 2008;62(1):18-9. X-1.
5402. Tomic V, Petrovic O, Petrov B, et al. Hypertensive disorders in pregnancy: a 5-year analysis of the wartime and postwar period in South-Western region of Bosnia and Herzegovina. *Coll Antropol*. 2009 Dec;33 Suppl 2:115-9. X-1.
5403. Tong S, Egan V and Wallace EM. Fetal activin A: associations with labour, umbilical artery pH and neonatal outcome. *BJOG*. 2004 Apr;111(4):326-30. X-1.
5404. Tongsong T, Wanapirak C, Kunavikaturkul C, et al. Fetal loss rate associated with cordocentesis at midgestation. *Am J Obstet Gynecol*. 2001 Mar;184(4):719-23. X-1.
5405. Tonks A. Short cuts: all you need to read in the other general journals. *BMJ: British Medical Journal*. 2009;338(7687):134-135. X-1.
5406. Tonni G, Ferrari B, De Felice C, et al. Fetal acid-base and neonatal status after general and neuraxial anesthesia for elective cesarean section. *Int J Gynaecol Obstet*. 2007 May;97(2):143-6. X-1.
5407. Torkestani F, Zafarghandi N, Davati A, et al. Case-controlled study of the relationship between delivery method and incidence of post-partum urinary incontinence. *J Int Med Res*. 2009 Jan-Feb;37(1):214-9. X-1.
5408. Torrance E and Dockery K. Clinical governance and caesarean section. *British Journal of Midwifery*. 2003;11(2):94-96. X-1.
5409. Tough S, Benzies K, Fraser-Lee N, et al. Factors influencing childbearing decisions and knowledge of perinatal risks among Canadian men and women. *Matern Child Health J*. 2007 Mar;11(2):189-98. X-1.
5410. Tovo PA, de Martino M, Gabiano C, et al. Mode of delivery and gestational age influence perinatal HIV-1 transmission. *Italian Register for HIV Infection in Children. J Acquir Immune Defic Syndr Hum Retrovirol*. 1996 Jan 1;11(1):88-94. X-1.
5411. Tovo PA, Gabiano C and Tulisso S. Maternal clinical factors influencing HIV-1 transmission. *Acta Paediatr Suppl*. 1997 Jun;421:52-5. X-1, X-2.

5412. Towers CV, Deveikis A, Asrat T, et al. A "bloodless cesarean section" and perinatal transmission of the human immunodeficiency virus. *Am J Obstet Gynecol.* 1998 Sep;179(3 Pt 1):708-14. X-1.
5413. Tracy SK, Sullivan E, Dahlen H, et al. Does size matter? A population-based study of birth in lower volume maternity hospitals for low risk women. *BJOG.* 2006 Jan;113(1):86-96. X-1.
5414. Tran SH, Caughey AB and Musci TJ. Meconium-stained amniotic fluid is associated with puerperal infections. *Am J Obstet Gynecol.* 2003 Sep;189(3):746-50. X-1.
5415. Tranmer JE. Nutritional support during labour: A randomized clinical trial of patient-controlled oral intake during labour. 1999;Ph.D.:127 p. X-2.
5416. Tranquilli AL and Giannubilo SR. Cesarean delivery on maternal request in Italy. *Int J Gynaecol Obstet.* 2004 Feb;84(2):169-70. X-1, X-9.
5417. Tranquilli AL, Giannubilo SR, Bezzeccheri V, et al. Transabdominal amnioinfusion in preterm premature rupture of membranes: a randomised controlled trial. *BJOG.* 2005 Jun;112(6):759-63. X-4e.
5418. Tranquilli AL, Giannubilo SR, Tedeschi E, et al. Placental expression of nitric oxide synthase during HELLP syndrome: the correlation with maternal-fetal Doppler velocimetry. *Acta Obstet Gynecol Scand.* 2005 Sep;84(9):849-53. X-1.
5419. Trasande L, Lee M, Liu Y, et al. Incremental charges, costs, and length of stay associated with obesity as a secondary diagnosis among pregnant women. *Med Care.* 2009 Oct;47(10):1046-52. X-1.
5420. Traynor JD, Dooley SL, Seyb S, et al. Is the management of epidural analgesia associated with an increased risk of cesarean delivery? *Am J Obstet Gynecol.* 2000 May;182(5):1058-62. X-1.
5421. Traynor JD and Peaceman AM. Maternal hospital charges associated with trial of labor versus elective repeat cesarean section. *Birth.* 1998 Jun;25(2):81-4. X-1.
5422. Trevisan G, Ramos JG, Martins-Costa S, et al. Pregnancy in patients with chronic renal insufficiency at Hospital de Clinicas of Porto Alegre, Brazil. *Ren Fail.* 2004 Jan;26(1):29-34. X-1.
5423. Triglia MT, Palamara F, Lojacono A, et al. A randomized controlled trial of 24-hour vaginal dinoprostone pessary compared to gel for induction of labor in term pregnancies with a Bishop score < or = 4. *Acta Obstet Gynecol Scand.* 2010 May;89(5):651-7. X-4d.
5424. Trindel RM. Fetal interests vs. maternal rights: is the state going too far? *Akron Law Rev.* 1991 Spring;24(3-4):743-62. X-1.
5425. Tripathi A, Somwanshi M, Singh B, et al. A comparison of intravenous ranitidine and omeprazole on gastric volume and pH in women undergoing emergency caesarean section. *Can J Anaesth.* 1995 Sep;42(9):797-800. X-9.
5426. Tritten J. No second chances. *Pract Midwife.* 2004 Oct;7(9):4-5. X-1, X-2, X-3, X-4, X-5.
5427. Tritten J. The unkindest cut of all. *Pract Midwife.* 2006 Oct;9(9):4-5. X-1, X-2.
5428. Trivedi NS, Eddi D and Shevde K. Headache prevention following accidental dural puncture in obstetric patients. *J Clin Anesth.* 1993 Jan-Feb;5(1):42-5. X-3, X-4e.
5429. Trobough J. Pushing through: a tale of homebirth after cesarean. *Midwifery Today Int Midwife.* 2010 Summer(94):26-7, 67. X-1, X-2, X-4e, X-5.
5430. Troche V, Ville Y and Fernandez H. Pregnancy after heart or heart-lung transplantation: a series of 10 pregnancies. *Br J Obstet Gynaecol.* 1998 Apr;105(4):454-8. X-1.
5431. Trofatter KF, Jr. Effect of preinduction cervical softening with dinoprostone gel on outcome of oxytocin-induced labor. *Clin Ther.* 1993 Sep-Oct;15(5):838-44. X-4d, X-5.
5432. Trotter TN, Hayes-Gregson P, Robinson S, et al. Wound infiltration of local anaesthetic after lower segment caesarean section. *Anaesthesia.* 1991 May;46(5):404-7. X-9.
5433. Trovarelli T and Valenti J. The pregnant Jehovah's Witness: how nurse executives can assist staff in providing culturally competent care. *JONAS Healthc Law Ethics Regul.* 2005 Oct-Dec;7(4):105-9; quiz 110-1. X-1, X-2, X-3, X-4e, X-5.
5434. Trowell J. Possible effects of emergency caesarian section on the mother-child relationship. *Early Hum Dev.* 1982 Oct;7(1):41-51. X-1.
5435. Trowell JA. Emergency caesarian section: a research study of the mother/child relationship of a group of women admitted expecting a normal vaginal delivery. *Child Abuse Negl.* 1983;7(4):387-94. X-1.
5436. Trudinger BJ, Cook CM, Giles WB, et al. Umbilical artery flow velocity waveforms in high-risk pregnancy. Randomised controlled trial. *Lancet.* 1987 Jan 24;1(8526):188-90. X-4e, X-5.
5437. Tsai FF, Fan SZ, Yang YM, et al. Human opioid mu-receptor A118G polymorphism may protect against central pruritus by epidural morphine for post-cesarean analgesia. *Acta Anaesthesiol Scand.* 2010 Nov;54(10):1265-9. X-1, X-9.
5438. Tsai MY, Shultz EK and Nelson JA. Amniotic fluid phosphatidylglycerol in diabetic and control pregnant patients at different gestational lengths. *Am J Obstet Gynecol.* 1984 Jun 15;149(4):388-92. X-1.

5439. Tsai YC and Chu KS. A comparison of tramadol, amitriptyline, and meperidine for postepidural anesthetic shivering in parturients. *Anesth Analg*. 2001 Nov;93(5):1288-92. X-9.
5440. Tsai YW and Hu TW. National health insurance, physician financial incentives, and primary cesarean deliveries in Taiwan. *Am J Public Health*. 2002 Sep;92(9):1514-7. X-3, X-4e, X-5.
5441. Tschudin S, Alder J, Hendriksen S, et al. Pregnant women's perception of cesarean section on demand. *J Perinat Med*. 2009;37(3):251-6. X-1.
5442. Tschudin S, Alder J, Hendriksen S, et al. Previous birth experience and birth anxiety: predictors of caesarean section on demand? *J Psychosom Obstet Gynaecol*. 2009 Sep;30(3):175-80. X-1.
5443. Tsen LC, Boosalis P, Segal S, et al. Hemodynamic effects of simultaneous administration of intravenous ephedrine and spinal anesthesia for cesarean delivery. *J Clin Anesth*. 2000 Aug;12(5):378-82. X-9.
5444. Tshorny M, Mimouni FB, Littner Y, et al. Decreased neonatal tibial bone ultrasound velocity in term infants born after breech presentation. *J Perinatol*. 2007 Nov;27(11):693-6. X-1.
5445. Tsu VD. Maternal height and age: risk factors for cephalopelvic disproportion in Zimbabwe. *Int J Epidemiol*. 1992 Oct;21(5):941-6. X-1.
5446. Tsuda H, Takahashi Y, Iwagaki S, et al. Intra-amniotic infection increases amniotic lamellar body count before 34 weeks of gestation. *J Matern Fetal Neonatal Med*. 2010 Oct;23(10):1230-6. X-1, X-9.
5447. Tubiana R, Le Chenadec J, Rouzioux C, et al. Factors associated with mother-to-child transmission of HIV-1 despite a maternal viral load <500 copies/ml at delivery: a case-control study nested in the French perinatal cohort (EPF-ANRS CO1). *Clin Infect Dis*. 2010 Feb 15;50(4):585-96. X-1.
5448. Tubman TR, Rollins MD, Patterson C, et al. Increased incidence of respiratory distress syndrome in babies of hypertensive mothers. *Arch Dis Child*. 1991 Jan;66(1 Spec No):52-4. X-1.
5449. Tuffnell DJ, Jankowicz D, Lindow SW, et al. Outcomes of severe pre-eclampsia/eclampsia in Yorkshire 1999/2003. *BJOG*. 2005 Jul;112(7):875-80. X-1.
5450. Tukur J, Umar NI, Khan N, et al. Comparison of emergency caesarean section to misoprostol induction for the delivery of antepartum eclamptic patients: a pilot study. *Niger J Med*. 2007 Oct-Dec;16(4):364-7. X.
5451. Tuleu C, Allam J, Gill H, et al. Short term stability of pH-adjusted lidocaine-adrenaline epidural solution used for emergency caesarean section. *Int J Obstet Anesth*. 2008 Apr;17(2):118-22. X-1.
5452. Tully JL, Klapholz H, Baldini LM, et al. Perioperative use of cefoxitin in primary cesarean section. *J Reprod Med*. 1983 Dec;28(12):827-32. X-9.
5453. Tunghaisal S, Pinjaroen S, Chandeying V, et al. Incidental appendectomy at cesarean section: a prospective study. *J Med Assoc Thai*. 1989 Nov;72(11):633-7. X-9.
5454. Tunstall ME. The reduction of amnesic wakefulness during caesarean section. *Anaesthesia*. 1979 Apr;34(4):316-9. X-1, X-9.
5455. Tunstall ME and Hawksworth GM. Halothane uptake and nitrous oxide concentration. Arterial halothane levels during Caesarean section. *Anaesthesia*. 1981 Feb;36(2):177-82. X-9.
5456. Tunstall ME and Sheikh A. Comparison of 1.5% enflurane with 1.25% isoflurane in oxygen for caesarean section: avoidance of awareness without nitrous oxide. *Br J Anaesth*. 1989 Feb;62(2):138-43. X-9.
5457. Tuomala RE, O'Driscoll PT, Bremer JW, et al. Cell-associated genital tract virus and vertical transmission of human immunodeficiency virus type 1 in antiretroviral-experienced women. *J Infect Dis*. 2003 Feb 1;187(3):375-84. X-1.
5458. Turan S, Turan OM, Berg C, et al. Computerized fetal heart rate analysis, Doppler ultrasound and biophysical profile score in the prediction of acid-base status of growth-restricted fetuses. *Ultrasound Obstet Gynecol*. 2007 Oct;30(5):750-6. X-1.
5459. Turgut S, Kaptanoglu B, Emmungil G, et al. Increased plasma levels of growth hormone, insulin-like growth factor (IGF)-I and IGF-binding protein 3 in pregnant rats with exercise. *Tohoku J Exp Med*. 2006 Jan;208(1):75-81. X-1.
5460. Turhanoglu S, Kaya S and Erdogan H. Is there an advantage in using low-dose intrathecal bupivacaine for cesarean section? *J Anesth*. 2009;23(3):353-7. X-9.
5461. Turkoz A, Tugal T, Gokdeniz R, et al. Effectiveness of intravenous ephedrine infusion during spinal anaesthesia for caesarean section based on maternal hypotension, neonatal acid-base status and lactate levels. *Anaesth Intensive Care*. 2002 Jun;30(3):316-20. X-9.
5462. Turnbull DA, Wilkinson C, Yaser A, et al. Women's role and satisfaction in the decision to have a caesarean section. *Med J Aust*. 1999 Jun 21;170(12):580-3. X-1.
5463. Turner CE, Young JM, Solomon MJ, et al. Vaginal delivery compared with elective caesarean section: the views of pregnant women and clinicians. *BJOG*. 2008 Nov;115(12):1494-502. X-1.

5464. Turner CE, Young JM, Solomon MJ, et al. Willingness of pregnant women and clinicians to participate in a hypothetical randomised controlled trial comparing vaginal delivery and elective caesarean section. *Aust N Z J Obstet Gynaecol.* 2008 Dec;48(6):542-6. X-1.
5465. Turner DJ and Wilson J. Effect of diazepam on awareness during caesarean section under general anaesthesia. *Br Med J.* 1969 Jun 21;2(5659):736-7. X-9.
5466. Turner GA, Newnham JP, Johnson C, et al. Effects of extradural anaesthesia on umbilical and uteroplacental arterial flow velocity waveforms. *Br J Anaesth.* 1991 Sep;67(3):306-9. X-1.
5467. Turner MJ, Brassil M and Gordon H. Active management of labor associated with a decrease in the cesarean section rate in nulliparas. *Obstet Gynecol.* 1988 Feb;71(2):150-4. X-4e.
5468. Turnquest MA, How HY, Cook CR, et al. Chorioamnionitis: is continuation of antibiotic therapy necessary after cesarean section? *Am J Obstet Gynecol.* 1998 Nov;179(5):1261-6. X-9.
5469. Turnquest MA, Lemke MD and Brown HL. Cervical ripening: randomized comparison of intravaginal prostaglandin E2 gel with prostaglandin E2 gel plus laminaria tents. *J Matern Fetal Med.* 1997 Sep-Oct;6(5):260-3. X-4d.
5470. Turnquest Wells M. A Guest Editorial: Safely Reducing the Cesarean Delivery Rate. *Obstet Gynecol.* 2002;57(7):409-412. X-1, X-2.
5471. Turrentine MA and Andres RL. Modern analysis of pathologic uterine rings. *South Med J.* 1997 Jan;90(1):40-2. X-1.
5472. Turrentine MA and Ramirez MM. Adverse perinatal events and subsequent cesarean rate. *Obstet Gynecol.* 1999 Aug;94(2):185-8. X-1.
5473. Turunen K, Sumanen M, Haukilahti RL, et al. Good pregnancy outcome despite intrahepatic cholestasis. *Scand J Prim Health Care.* 2010 Jun;28(2):102-7. X-1.
5474. Tussing AD and Wojtowycz MA. The cesarean decision in New York State, 1986. Economic and noneconomic aspects. *Med Care.* 1992 Jun;30(6):529-40. X-1.
5475. Tussing AD and Wojtowycz MA. The effect of physician characteristics on clinical behavior: cesarean section in New York State. *Soc Sci Med.* 1993 Nov;37(10):1251-60. X-1.
5476. Tussing AD and Wojtowycz MA. Health maintenance organizations, independent practice associations, and cesarean section rates. *Health Serv Res.* 1994 Apr;29(1):75-93. X-1.
5477. Tuzovic L, Djelmis J and Ilijic M. Obstetric risk factors associated with placenta previa development: case-control study. *Croat Med J.* 2003 Dec;44(6):728-33. X-1.
5478. Tyagi A, Girotra G, Kumar A, et al. Single-shot spinal anaesthesia, combined spinal-epidural and epidural volume extension for elective caesarean section: a randomized comparison. *Int J Obstet Anesth.* 2009 Jul;18(3):231-6. X-9.
5479. Tyden G, Brattstrom C, Bjorkman U, et al. Pregnancy after combined pancreas-kidney transplantation. *Diabetes.* 1989 Jan;38 Suppl 1:43-5. X-1.
5480. Tyrrell SN, Lilford RJ, Macdonald HN, et al. Randomized comparison of routine vs highly selective use of Doppler ultrasound and biophysical scoring to investigate high risk pregnancies. *Br J Obstet Gynaecol.* 1990 Oct;97(10):909-16. X.
5481. Tzeng JI and Mok MS. Combination of intramuscular Ketorolac and low dose epidural morphine for the relief of post-caesarean pain. *Ann Acad Med Singapore.* 1994 Nov;23(6 Suppl):10-3. X-9.
5482. Tzeng JI, Wang JJ, Ho ST, et al. Dexamethasone for prophylaxis of nausea and vomiting after epidural morphine for post-Caesarean section analgesia: comparison of droperidol and saline. *Br J Anaesth.* 2000 Dec;85(6):865-8. X-9.
5483. Tzingounis V, Makris N, Zolotas J, et al. Cefuroxime prophylaxis in caesarean section. *Pharmatherapeutica.* 1982;3(2):140-2. X-9.
5484. Udayasankar V, Padmagirison R and Majoko F. National survey of obstetricians in Wales regarding induction of labour in women with a previous caesarean section. *J Obstet Gynaecol.* 2008 Jan;28(1):48-50. X-1.
5485. Udom NU and Betley CL. Effects of maternity-stay legislation on 'drive-through deliveries'. *Health Aff (Millwood).* 1998 Sep-Oct;17(5):208-15. X-1.
5486. Udy P. Emotional impact of cesareans. *Midwifery Today Int Midwife.* 2009 Spring(89):12-3, 63-4. X-1, X-2, X-3, X-4e, X-5.
5487. Ueda K, Ikeda T, Iwanaga N, et al. Intrapartum fetal heart rate monitoring in cases of congenital heart disease. *Am J Obstet Gynecol.* 2009 Jul;201(1):64 e1-6. X-1.
5488. Ueyama H, He YL, Tanigami H, et al. Effects of crystalloid and colloid preload on blood volume in the parturient undergoing spinal anesthesia for elective Cesarean section. *Anesthesiology.* 1999 Dec;91(6):1571-6. X-9.
5489. Ukpong DI and Owolabi AT. Postpartum emotional distress: a controlled study of Nigerian women after caesarean childbirth. *J Obstet Gynaecol.* 2006 Feb;26(2):127-9. X-1.
5490. Ullmo S, Vial Y, Di Bernardo S, et al. Pathologic ventricular hypertrophy in the offspring of diabetic mothers: a retrospective study. *Eur Heart J.* 2007 Jun;28(11):1319-25. X-1.

5491. Ulmsten U, Ekman G, Belfrage P, et al. Intracervical versus intravaginal PGE2 for induction of labor at term in patients with an unfavorable cervix. *Arch Gynecol.* 1985;236(4):243-8. X-4d.
5492. Ulstein M. Breech delivery. *Ann Chir Gynaecol.* 1980;69(2):70-4. X-1.
5493. Uma R, Libby G and Murphy DJ. Obstetric management of a woman's first delivery and the implications for pelvic floor surgery in later life. *BJOG.* 2005 Aug;112(8):1043-6. X-1.
5494. Unfer V, Piazza Garnica J, Di Benedetto MR, et al. Pregnancy in adolescents. A case-control study. *Clin Exp Obstet Gynecol.* 1995;22(2):161-4. X-1.
5495. Unlugenc H, Ozalevli M, Gunduz M, et al. Comparison of intrathecal magnesium, fentanyl, or placebo combined with bupivacaine 0.5% for parturients undergoing elective cesarean delivery. *Acta Anaesthesiol Scand.* 2009 Mar;53(3):346-53. X-9.
5496. Unlugenc H, Ozalevli M, Gunes Y, et al. A double-blind comparison of intrathecal S(+) ketamine and fentanyl combined with bupivacaine 0.5% for Caesarean delivery. *Eur J Anaesthesiol.* 2006 Dec;23(12):1018-24. X-9.
5497. Unsal M, Yanik FF, Gurkan N, et al. Pulmonary functions in pre-eclamptic women. *Eur J Obstet Gynecol Reprod Biol.* 2003 Nov 10;111(1):33-7. X-1.
5498. Unterweger M, Marincek B, Gottstein-Aalame N, et al. Ultrafast MR imaging of the pelvic floor. *AJR Am J Roentgenol.* 2001 Apr;176(4):959-63. X-1.
5499. Uotila J, Tuimala R and Kirkinen P. Good perinatal outcome in selective vaginal breech delivery at term. *Acta Obstet Gynecol Scand.* 2005 Jun;84(6):578-83. X-1.
5500. Ural SH and Lievens S. Suppression of herpes simplex virus during pregnancy. *Hospital Physician.* 2005;41(4):19. X-4e.
5501. Urasra DP, Carlstedt A, Nystrom L, et al. Are process indicators adequate to assess essential obstetric care at district level?--a case study from Rufiji district, Tanzania. *Afr J Reprod Health.* 2005 Dec;9(3):100-11. X-1.
5502. Urayama KY, Von Behren J and Reynolds P. Birth characteristics and risk of neuroblastoma in young children. *Am J Epidemiol.* 2007 Mar 1;165(5):486-95. X-1.
5503. Urban J and Iwaszkiewicz-Pawlowska A. Concentration of free fatty acids (FFA) in amniotic fluid and maternal and cord serum in cases of intrauterine growth retardation. *J Perinat Med.* 1986;14(4):259-62. X-1.
5504. Ure D, James KS, McNeill M, et al. Glycopyrrolate reduces nausea during spinal anaesthesia for caesarean section without affecting neonatal outcome. *Br J Anaesth.* 1999 Feb;82(2):277-9. X-9.
5505. Urquhart DR and Tai C. Obstetric performance in the elderly Malaysian primigravida. *Asia Oceania J Obstet Gynaecol.* 1991 Dec;17(4):321-5. X-1.
5506. Usha Kiran TS and Jayawickrama NS. Who is responsible for the rising caesarean section rate? *J Obstet Gynaecol.* 2002 Jul;22(4):363-5. X-1.
5507. Usta IM, Hobeika EM, Musa AA, et al. Placenta previa-accreta: risk factors and complications. *Am J Obstet Gynecol.* 2005 Sep;193(3 Pt 2):1045-9. X-1.
5508. Usta IM, Zoorob D, Abu-Musa A, et al. Obstetric outcome of teenage pregnancies compared with adult pregnancies. *Acta Obstet Gynecol Scand.* 2008;87(2):178-83. X-1.
5509. Ustun C, Kokcu A, Cil E, et al. Relationship between endomyometritis and the duration of premature membrane rupture. *J Matern Fetal Med.* 1998 Sep-Oct;7(5):243-6. X-1.
5510. Ustunyurt E, Ugur M, Ustunyurt BO, et al. Prospective randomized study of oxytocin discontinuation after the active stage of labor is established. *J Obstet Gynaecol Res.* 2007 Dec;33(6):799-803. X-4d, X-4e, X-5.
5511. Uszynski M, Maciejewski K, Uszynski W, et al. Placenta and myometrium--the two main sources of fibrinolytic components during pregnancy. *Gynecol Obstet Invest.* 2001;52(3):189-93. X-1.
5512. Uszynski M, Sztenc S, Zekanowska E, et al. Thrombomodulin in human gestational tissues: placenta, fetal membranes and myometrium. *Adv Med Sci.* 2006;51:312-5. X-1.
5513. Uygur D, Gun O, Kelekci S, et al. Multiple repeat caesarean section: is it safe? *Eur J Obstet Gynecol Reprod Biol.* 2005 Apr 1;119(2):171-5. X-1.
5514. Uygur D, Kis S, Tuncer R, et al. Risk factors and infant outcomes associated with umbilical cord prolapse. *Int J Gynaecol Obstet.* 2002 Aug;78(2):127-30. X-1.
5515. Vacca A, Grant A, Wyatt G, et al. Portsmouth operative delivery trial: a comparison vacuum extraction and forceps delivery. *Br J Obstet Gynaecol.* 1983 Dec;90(12):1107-12. X-4e, X-5.
5516. Vaillancourt C, Berger N and Boksa P. Effects of vaginal birth versus caesarean section birth with general anesthesia on blood gases and brain energy metabolism in neonatal rats. *Exp Neurol.* 1999 Nov;160(1):142-50. X-1.
5517. Vakhariya VR and Sherman AI. Prostaglandin F 2 for induction of labor. *Am J Obstet Gynecol.* 1972 May 15;113(2):212-22. X-4d.
5518. Valanne J, Kauppila A and Hollmen A. Effect of halothane anaesthesia on blood loss during Caesarean section. *Ann Chir Gynaecol Fenn.* 1973;62(2):73-6. X-4b.

5519. Valentin L, Ekman G, Isberg PE, et al. Clinical evaluation of the fetus and neonate. Relation between intra-partum cardiotocography, Apgar score, cord blood acid-base status and neonatal morbidity. *Arch Gynecol Obstet*. 1993;253(2):103-15. X-1.
5520. Valentine BH. Intravenous oxytocin and oral prostaglandin E2 for ripening of the unfavourable cervix. *Br J Obstet Gynaecol*. 1977 Nov;84(11):846-54. X-1, X-4d, X-5.
5521. Valentine JM, Lyons G and Bellamy MC. The effect of intrathecal midazolam on post-operative pain. *Eur J Anaesthesiol*. 1996 Nov;13(6):589-93. X-9.
5522. Valenzuela G, Harper MJ and Hayashi RH. Uterine venous, peripheral venous, and radial arterial levels of prostaglandins E and F in women with pregnancy-induced hypertension. *Am J Obstet Gynecol*. 1983 Jan 1;145(1):11-4. X-1.
5523. Valenzuela GJ, Craig J, Bernhardt MD, et al. Placental passage of the oxytocin antagonist atosiban. *Am J Obstet Gynecol*. 1995 Apr;172(4 Pt 1):1304-6. X-1.
5524. Valle RF and Sciarra JJ. Hysteroscopy: a useful diagnostic adjunct in gynecology. *Am J Obstet Gynecol*. 1975 May;122(2):230-5. X-1.
5525. Vallejo MC, Mandell GL, Sabo DP, et al. Postdural puncture headache: a randomized comparison of five spinal needles in obstetric patients. *Anesth Analg*. 2000 Oct;91(4):916-20. X-9.
5526. Vallejo MC, Phelps AL, Shepherd CJ, et al. Nitrous oxide anxietyolysis for elective cesarean section. *J Clin Anesth*. 2005 Nov;17(7):543-8. X-9.
5527. Valli J, Pirhonen J, Aantaa R, et al. The effects of regional anaesthesia for caesarean section on maternal and fetal blood flow velocities measured by Doppler ultrasound. *Acta Anaesthesiol Scand*. 1994 Feb;38(2):165-9. X-1, X-9.
5528. Valsky DV, Lipschuetz M, Bord A, et al. Fetal head circumference and length of second stage of labor are risk factors for levator ani muscle injury, diagnosed by 3-dimensional transperineal ultrasound in primiparous women. *Am J Obstet Gynecol*. 2009 Jul;201(1):91 e1-7. X-1.
5529. Valtonen M, Kanto J and Rosenberg P. Comparison of propofol and thiopentone for induction of anaesthesia for elective caesarean section. *Anaesthesia*. 1989 Sep;44(9):758-62. X-9.
5530. Vambergue A, Nuttens MC, Verier-Mine O, et al. Is mild gestational hyperglycaemia associated with maternal and neonatal complications? The Diagest Study. *Diabet Med*. 2000 Mar;17(3):203-8. X-1.
5531. van Amerongen D. Vaginal birth after cesarean section in an HMO. *HMO Pract*. 1989 May-Jun;3(3):104-7. X-1.
5532. van Beusekom CM, Zeegers TA, Martini IA, et al. Milk of patients with tightly controlled insulin-dependent diabetes mellitus has normal macronutrient and fatty acid composition. *Am J Clin Nutr*. 1993 Jun;57(6):938-43. X-1.
5533. van Bogaert LJ. Prevention of post-spinal hypotension at elective cesarean section by wrapping of the lower limbs. *Int J Gynaecol Obstet*. 1998 Jun;61(3):233-8. X-9.
5534. Van Bogaert LJ. Spinal block caesarean section in parturients with pregnancy-induced hypertension. *East Afr Med J*. 1998 Apr;75(4):227-31. X-1.
5535. van Bogaert LJ. Lumbar lordosis and the spread of subarachnoid hyperbaric 0.5% bupivacaine at cesarean section. *Int J Gynaecol Obstet*. 2000 Oct;71(1):65-6. X-3, X-4b, X-4e.
5536. Van Damme W, De Brouwere V, Boelaert M, et al. Effects of a refugee-assistance programme on host population in Guinea as measured by obstetric interventions. *Lancet*. 1998 May 30;351(9116):1609-13. X-1.
5537. van de Geijn EJ, van Vugt JM, Sollie JE, et al. Ultrasonographic diagnosis and perinatal management of fetal abdominal wall defects. *Fetal Diagn Ther*. 1991;6(1-2):2-10. X-1.
5538. Van de Velde M, Teunkens A, Kuypers M, et al. General anaesthesia with target controlled infusion of propofol for planned caesarean section: maternal and neonatal effects of a remifentanyl-based technique. *Int J Obstet Anesth*. 2004 Jul;13(3):153-8. X-1.
5539. Van de Velde M, Van Schoubroeck D, Jani J, et al. Combined spinal-epidural anesthesia for cesarean delivery: dose-dependent effects of hyperbaric bupivacaine on maternal hemodynamics. *Anesth Analg*. 2006 Jul;103(1):187-90, table of contents. X-9.
5540. van den Berg AA, Sadek M, Swanson S, et al. Epidural injection of lidocaine reduces the response to dural puncture accompanying spinal needle insertion when performing combined spinal-epidural anesthesia. *Anesth Analg*. 2005 Sep;101(3):882-5, table of contents. X-9.
5541. van den Bergh JE, Sueters M, Segaar M, et al. Determinants of episiotomy in rural Zimbabwe. *Acta Obstet Gynecol Scand*. 2003 Oct;82(10):966-8. X-1.
5542. van den Biggelaar AH, Richmond PC, Pomat WS, et al. Neonatal pneumococcal conjugate vaccine immunization primes T cells for preferential Th2 cytokine expression: a randomized controlled trial in Papua New Guinea. *Vaccine*. 2009 Feb 25;27(9):1340-7. X-3, X-4e, X-5.
5543. van Der Hulst LA, van Teijlingen ER, Bonsel GJ, et al. Does a pregnant woman's intended place of birth influence her attitudes toward and occurrence of obstetric interventions? *Birth*. 2004 Mar;31(1):28-33. X-1.

5544. van der Linden MC, van Erp EJ, Ruijs GJ, et al. A prospective randomized study comparing amoxicillin/clavulanate with cefuroxime plus metronidazole for perioperative prophylaxis in gynaecological surgery. *Eur J Obstet Gynecol Reprod Biol.* 1993 Jul;50(2):141-5. X-9.
5545. van der Walt D and Venter PF. Management of term pregnancy with premature rupture of the membranes and unfavourable cervix. *S Afr Med J.* 1989 Jan 21;75(2):54-6. X-4d, X-4e, X-5.
5546. van Dongen PW, Nijhuis JG and Jongsma HW. Reduced blood loss during caesarean section due to a controlled stapling technique. *Eur J Obstet Gynecol Reprod Biol.* 1989 Aug;32(2):95-102. X-9.
5547. Van Dorsten JP, Schiffrin BS and Wallace RL. Randomized control trial of external cephalic version with tocolysis in late pregnancy. *Am J Obstet Gynecol.* 1981 Oct 15;141(4):417-24. X-4e, X-5.
5548. van Gemund N, Scherjon S, LeCessie S, et al. A randomised trial comparing low dose vaginal misoprostol and dinoprostone for labour induction. *BJOG.* 2004 Jan;111(1):42-9. X-4d.
5549. van Heerden J and Steyn DW. Management of premature rupture of the membranes after 34 weeks' gestation -- early versus delayed induction of labour. *S Afr Med J.* 1996 Mar;86(3):264-8. X-4d, X-4e.
5550. Van Hoof TJ, Casey BA, Tate JP, et al. The status of prenatal care among Medicaid Managed Care patients in Connecticut. *Eval Health Prof.* 2000 Dec;23(4):409-21. X-1.
5551. van Loon AJ, Mantingh A, Serlier EK, et al. Randomised controlled trial of magnetic-resonance pelvimetry in breech presentation at term. *Lancet.* 1997 Dec 20-27;350(9094):1799-804. X-4c.
5552. van Runnard Heimel PJ, Schobben AF, Huisjes AJ, et al. The transplacental passage of prednisolone in pregnancies complicated by early-onset HELLP syndrome. *Placenta.* 2005 Nov;26(10):842-5. X-1.
5553. van Schie DL, de Jeu RM, Steyn DW, et al. The optimal dosage of ketanserin for patients with severe hypertension in pregnancy. *Eur J Obstet Gynecol Reprod Biol.* 2002 May 10;102(2):161-6. X-3, X-4d, X-5.
5554. van Tuijl I, van Klei WA, van der Werff DB, et al. The effect of addition of intrathecal clonidine to hyperbaric bupivacaine on postoperative pain and morphine requirements after Caesarean section: a randomized controlled trial. *Br J Anaesth.* 2006 Sep;97(3):365-70. X-9.
5555. van Tuyl T. The Netherlands. *AIMS Journal.* 2008;20(2):16-17. X-1.
5556. Van Veelen AJ, Van Cappellen AW, Flu PK, et al. Effect of external cephalic version in late pregnancy on presentation at delivery: a randomized controlled trial. *Br J Obstet Gynaecol.* 1989 Aug;96(8):916-21. X-4c, X-4e.
5557. Van Voorhis LW, Reiter RC, Gambone JC, et al. Rate-based calculation of failure to progress: a proposed quality improvement method. *Obstet Gynecol.* 1992 Apr;79(4):633-6. X-1.
5558. Van Wijk MJ, Boer K, Nisell H, et al. Endothelial function in myometrial resistance arteries of normal pregnant women perfused with syncytiotrophoblast microvillous membranes. *BJOG.* 2001 Sep;108(9):967-72. X-1.
5559. Van Winter JT, Harmon MC, Atkinson EJ, et al. Young Moms' Clinic: a multidisciplinary approach to pregnancy education in teens and in young single women. *J Pediatr Adolesc Gynecol.* 1997 Feb;10(1):28-33. X-1.
5560. Vandenbussche FP, De Jong-Potjer LC, Stiggelbout AM, et al. Differences in the valuation of birth outcomes among pregnant women, mothers, and obstetricians. *Birth.* 1999 Sep;26(3):178-83. X-1.
5561. Vanek M, Sheiner E, Levy A, et al. Chronic hypertension and the risk for adverse pregnancy outcome after superimposed pre-eclampsia. *Int J Gynaecol Obstet.* 2004 Jul;86(1):7-11. X-1.
5562. Vangen S, Johansen RE, Sundby J, et al. Qualitative study of perinatal care experiences among Somali women and local health care professionals in Norway. *Eur J Obstet Gynecol Reprod Biol.* 2004 Jan 15;112(1):29-35. X-1.
5563. Vangen S, Stoltenberg C, Holan S, et al. Outcome of pregnancy among immigrant women with diabetes. *Diabetes Care.* 2003 Feb;26(2):327-32. X-1.
5564. Varastehpour A, Radaelli T, Minium J, et al. Activation of phospholipase A2 is associated with generation of placental lipid signals and fetal obesity. *J Clin Endocrinol Metab.* 2006 Jan;91(1):248-55. X-1.
5565. Vardo JH, Thornburg LL and Glantz JC. Maternal and neonatal morbidity among nulliparous women undergoing elective induction of labor. *J Reprod Med.* 2011 Jan-Feb;56(1-2):25-30. X-1.
5566. Varga J and Varga I. Thrombosis prophylaxis with subcutaneous heparin Ca injection in the course of caesarean sections. *Ther Hung.* 1991;39(1):41-3. X-1.
5567. Varma TR, Bateman S, Patel RH, et al. Ultrasound evaluation of amniotic fluid: outcome of pregnancies with severe oligohydramnios. *Int J Gynaecol Obstet.* 1988 Oct;27(2):185-92. X-1.

5568. Varma TR, Norman J and Cowell L. Induction of labor with vaginal prostaglandin E2 pessaries. *Int J Gynaecol Obstet.* 1983 Feb;21(1):55-64. X-1, X-4d.
5569. Varner MW, Fraser AM, Hunter CY, et al. The intergenerational predisposition to operative delivery. *Obstet Gynecol.* 1996 Jun;87(6):905-11. X-1.
5570. Varner MW, Thom E, Spong CY, et al. Trial of labor after one previous cesarean delivery for multifetal gestation. *Obstet Gynecol.* 2007 Oct;110(4):814-9. X-1.
5571. Varner MW, Weiner CP, Petzold CR, et al. Comparison of cefotetan and cefoxitin as prophylaxis in cesarean section. *Am J Obstet Gynecol.* 1986 Apr;154(4):951-4. X-9.
5572. Varvarigou AA, Petsali M, Vassilakos P, et al. Increased cortisol concentrations in the cord blood of newborns whose mothers smoked during pregnancy. *J Perinat Med.* 2006;34(6):466-70. X-1.
5573. Veena, Saxena K and Singhal KC. Evaluation of PGE2 gel for cervical ripening and induction of labour. *Indian J Physiol Pharmacol.* 1994 Jul;38(3):193-6. X-1.
5574. Vega CE, Kahhale S and Zugaib M. Maternal mortality due to arterial hypertension in Sao Paulo City (1995-1999). *Clinics (Sao Paulo).* 2007 Dec;62(6):679-84. X-1.
5575. Veiby G, Daltveit AK, Engelsen BA, et al. Pregnancy, delivery, and outcome for the child in maternal epilepsy. *Epilepsia.* 2009 Sep;50(9):2130-9. X-1.
5576. Vejtorp M, Pedersen J, Klebbe JG, et al. Low concentration of plasma amino acids in newborn babies of diabetic mothers. *Acta Paediatr Scand.* 1977 Jan;66(1):53-8. X-1.
5577. Velandia M, Matthisen AS, Uvnas-Moberg K, et al. Onset of vocal interaction between parents and newborns in skin-to-skin contact immediately after elective cesarean section. *Birth.* 2010 Sep;37(3):192-201. X-1, X-9.
5578. Vengalil SR, Guinn DA, Olabi NF, et al. A randomized trial of misoprostol and extra-amniotic saline infusion for cervical ripening and labor induction. *Obstet Gynecol.* 1998 May;91(5 Pt 1):774-9. X-4d.
5579. Ventolini G, Neiger R and McKenna D. Decreasing infectious morbidity in cesarean delivery by changing gloves. *J Reprod Med.* 2004 Jan;49(1):13-6. X-9.
5580. Ventura SJ, Anderson RN, Martin JA, et al. Births and deaths: preliminary data for 1997. *Natl Vital Stat Rep.* 1998 Oct 7;47(4):1-41. X-1.
5581. Venturini P, Contu G, Mazza V, et al. Induction of labor in women with oligohydramnios. *J Matern Fetal Neonatal Med.* 2005 Feb;17(2):129-32. X-1.
5582. Vercauteren M, Vereecken K, La Malfa M, et al. Cost-effectiveness of analgesia after Caesarean section. A comparison of intrathecal morphine and epidural PCA. *Acta Anaesthesiol Scand.* 2002 Jan;46(1):85-9. X-9.
5583. Vercauteren MP, Coppejans HC, Hoffmann VH, et al. Prevention of hypotension by a single 5-mg dose of ephedrine during small-dose spinal anesthesia in prehydrated cesarean delivery patients. *Anesth Analg.* 2000 Feb;90(2):324-7. X-9.
5584. Vercauteren MP, Coppejans HC, Hoffmann VL, et al. Small-dose hyperbaric versus plain bupivacaine during spinal anesthesia for cesarean section. *Anesth Analg.* 1998 May;86(5):989-93. X-9.
5585. Vercauteren MP, Coppejans HC, ten Broecke PW, et al. Epidural sufentanil for postoperative patient-controlled analgesia (PCA) with or without background infusion: a double-blind comparison. *Anesth Analg.* 1995 Jan;80(1):76-80. X-9.
5586. Vercauteren MP, Hoffmann V, Coppejans HC, et al. Hydroxyethylstarch compared with modified gelatin as volume preload before spinal anaesthesia for Caesarean section. *Br J Anaesth.* 1996 May;76(5):731-3. X-9.
5587. Vercauteren MP, Saldien V, Bosschaerts P, et al. Potentiation of sufentanil by clonidine in PCEA with or without basal infusion. *Eur J Anaesthesiol.* 1996 Nov;13(6):571-6. X-9.
5588. Vercauteren MP, Vandepuut DM, Meert TF, et al. Patient-controlled epidural analgesia with sufentanil following caesarean section: the effect of adrenaline and clonidine admixture. *Anaesthesia.* 1994 Sep;49(9):767-71. X-9.
5589. Vercellini P, Zuliani G, Rognoni MT, et al. Pregnancy at forty and over: a case-control study. *Eur J Obstet Gynecol Reprod Biol.* 1993 Mar;48(3):191-5. X-1.
5590. Verdiales M, Pacheco C and Cohen WR. The effect of maternal obesity on the course of labor. *J Perinat Med.* 2009;37(6):651-5. X-1.
5591. Vergani P, Ceruti P, Strobelt N, et al. Transabdominal amnioinfusion in oligohydramnios at term before induction of labor with intact membranes: a randomized clinical trial. *Am J Obstet Gynecol.* 1996 Aug;175(2):465-70. X-4e, X-5.
5592. Vergani P, Ghidini A, Strobelt N, et al. Do uterine leiomyomas influence pregnancy outcome? *Am J Perinatol.* 1994 Sep;11(5):356-8. X-1.
5593. Vergani P, Roncaglia N, Andreotti C, et al. Prognostic value of uterine artery Doppler velocimetry in growth-restricted fetuses delivered near term. *Am J Obstet Gynecol.* 2002 Oct;187(4):932-6. X-1.

5594. Verkuyl DA. Sterilisation during unplanned caesarean sections for women likely to have a completed family--should they be offered? Experience in a country with limited health resources. *BJOG*. 2002 Aug;109(8):900-4. X-1.
5595. Verlaenen H, Cammu H, Derde MP, et al. Singleton pregnancy after in vitro fertilization: expectations and outcome. *Obstet Gynecol*. 1995 Dec;86(6):906-10. X-1.
5596. Verma A, Weir A, Drummond J, et al. Performance profile of an outcome measure: morbidity assessment index for newborns. *J Epidemiol Community Health*. 2005 May;59(5):420-6. X-1.
5597. Verstraelen H, Goetgeluk S, Derom C, et al. Preterm birth in twins after subfertility treatment: population based cohort study. *BMJ*. 2005 Nov 19;331(7526):1173. X-1.
5598. Vertommen JD, Van Aken H, Vandermeulen E, et al. Maternal and neonatal effects of adding epidural sufentanil to 0.5% bupivacaine for cesarean delivery. *J Clin Anesth*. 1991 Sep-Oct;3(5):371-6. X-9.
5599. Vezina Y, Bujold E, Varin J, et al. Cesarean delivery after successful external cephalic version of breech presentation at term: a comparative study. *Am J Obstet Gynecol*. 2004 Mar;190(3):763-8. X-1.
5600. Vichitvejpaisal P, Svastdi-Xuto O and Udompuntuturux S. A comparative study of isobaric and hyperbaric solution of bupivacaine for spinal anaesthesia in caesarean section. *J Med Assoc Thai*. 1992 May;75(5):278-82. X-9.
5601. Videbech P, Nielsen J, Wohler M, et al. The impact of large Y chromosome on pregnancy, foetus and birth. *Clin Genet*. 1984 Oct;26(4):281-8. X-1.
5602. Videla FL, Satin AJ, Barth WH, Jr., et al. Trial of labor: a disciplined approach to labor management resulting in a high rate of vaginal delivery. *Am J Perinatol*. 1995 May;12(3):181-4. X-1.
5603. Viegas OA, Leong WP, Ahmed S, et al. Obstetrical outcome with increasing maternal age. *J Biosoc Sci*. 1994 Apr;26(2):261-7. X-1.
5604. Viegas OA, Singh K, Adaikan PG, et al. Preinduction cervical priming in high risk pregnancy--experience with a new sustained release PGE2 vaginal film. *Prostaglandins Leukot Med*. 1986 Jan;21(1):61-8. X-1, X-4d, X-5.
5605. Vieira EM and Ford NJ. Provision of female sterilization in Ribeirao Preto, Sao Paulo, Brazil. *Cad Saude Publica*. 2004 Sep-Oct;20(5):1201-10. X-1.
5606. Vierhout ME, Out JJ and Wallenburg HC. Elective induction of labor: a prospective clinical study, I: Obstetric and neonatal effects. *J Perinat Med*. 1985;13(4):155-62. X-1.
5607. Viinikainen K, Heinonen S, Eriksson K, et al. Community-based, prospective, controlled study of obstetric and neonatal outcome of 179 pregnancies in women with epilepsy. *Epilepsia*. 2006 Jan;47(1):186-92. X-1.
5608. Vijapurkar M, Mota L, Shetty S, et al. Menorrhagia and reproductive health in rare bleeding disorders: a study from the Indian subcontinent. *Haemophilia*. 2009 Jan;15(1):199-202. X-1.
5609. Villar J, Carroli G, Zavaleta N, et al. Maternal and neonatal individual risks and benefits associated with caesarean delivery: multicentre prospective study. *BMJ*. 2007 Nov 17;335(7628):1025. X-1.
5610. Villar J, Valladares E, Wojdyla D, et al. Caesarean delivery rates and pregnancy outcomes: the 2005 WHO global survey on maternal and perinatal health in Latin America. *Lancet*. 2006 Jun 3;367(9525):1819-29. X-1.
5611. Ville Y, Proudler A, Kuhn P, et al. Aldosterone concentration in normal, growth-retarded, anemic, and hydropic fetuses. *Obstet Gynecol*. 1994 Oct;84(4):511-4. X-1.
5612. Villeneuve MG, Khalife S, Marcoux S, et al. Surgical staples in cesarean section: a randomized controlled trial. *Am J Obstet Gynecol*. 1990 Nov;163(5 Pt 1):1641-6. X-9.
5613. Vimala N, Mittal S and Kumar S. Sublingual misoprostol versus oxytocin infusion to reduce blood loss at cesarean section. *Int J Gynaecol Obstet*. 2006 Feb;92(2):106-10. X-9.
5614. Vimercati A, Greco P, Loverro G, et al. Maternal complications after caesarean section in HIV infected women. *Eur J Obstet Gynecol Reprod Biol*. 2000 May;90(1):73-6. X-1.
5615. Vincent RD, Jr., Chestnut DH, Choi WW, et al. Does epidural fentanyl decrease the efficacy of epidural morphine after cesarean delivery? *Anesth Analg*. 1992 May;74(5):658-63. X-9.
5616. Vincent RD, Jr., Werhan CF, Norman PF, et al. Prophylactic angiotensin II infusion during spinal anesthesia for elective cesarean delivery. *Anesthesiology*. 1998 Jun;88(6):1475-9. X-9.
5617. Vincenti E, Tambuscio B, Marchesoni D, et al. Use of intramyometrial injection of prostaglandin F 2 alpha in the management of intractable hemorrhage due to uterine atony. *Clin Exp Obstet Gynecol*. 1982;9(1):26-30. X-1.
5618. Vintzileos AM, Antsaklis A, Varvarigos I, et al. A randomized trial of intrapartum electronic fetal heart rate monitoring versus intermittent auscultation. *Obstet Gynecol*. 1993 Jun;81(6):899-907. X-4e, X-5.
5619. Vinukonda G, Dummula K, Malik S, et al. Effect of prenatal glucocorticoids on cerebral vasculature of the developing brain. *Stroke*. 2010 Aug;41(8):1766-73. X-1.

5620. Visalyaputra S, Rodanant O, Somboonviboon W, et al. Spinal versus epidural anesthesia for cesarean delivery in severe preeclampsia: a prospective randomized, multicenter study. *Anesth Analg*. 2005 Sep;101(3):862-8, table of contents. X-9.
5621. Visco AG, Viswanathan M, Lohr KN, et al. Cesarean delivery on maternal request: maternal and neonatal outcomes. *Obstet Gynecol*. 2006 Dec;108(6):1517-29. X-1.
5622. Viscomi CM, Rathmell JP, Mason SB, et al. Analgesic efficacy and side effects of subarachnoid sufentanil-bupivacaine administered to women in advanced labor. *Reg Anesth*. 1996 Sep-Oct;21(5):424-9. X-1.
5623. Visser AA, Giesteira MV and Prinsloo ST. The effectiveness of salbutamol as a suppressant of established labour. *S Afr Med J*. 1979 Sep 1;56(12):481-4. X-1.
5624. Visser AA, Prinsloo ST and Giesteira MV. Suppression of uterine activity with salbutamol before caesarean section. *S Afr Med J*. 1979 Dec 15;56(25):1093-8. X-1.
5625. Visser W and Wallenburg HC. Temporarily management of severe pre-eclampsia with and without the HELLP syndrome. *Br J Obstet Gynaecol*. 1995 Feb;102(2):111-7. X-1.
5626. Vlachos DG, Schulpis KH, Parthimos T, et al. Maternal-neonatal erythrocyte membrane Na(+), K (+)-ATPase and Mg (2+)-ATPase activities in relation to the mode of delivery. *Eur J Appl Physiol*. 2008 Jul;103(5):501-8. X-1.
5627. Vlachos DG, Schulpis KH, Parthimos T, et al. The effect of the mode of delivery on the maternal-neonatal erythrocyte membrane acetylcholinesterase activity. *Clin Biochem*. 2008 Jul;41(10-11):818-23. X-1.
5628. Vladic-Stjernholm Y, Vladic T, Blesson CS, et al. Prostaglandin treatment is associated with a withdrawal of progesterone and androgen at the receptor level in the uterine cervix. *Reprod Biol Endocrinol*. 2009;7:116. X-1.
5629. Vlemmix F, Rosman AN, Fleuren MA, et al. Implementation of the external cephalic version in breech delivery. Dutch national implementation study of external cephalic version. *BMC Pregnancy Childbirth*. 2010;10:20. X-1, X-4c.
5630. Vogel I, Salvig JD, Secher NJ, et al. Association between raised serum relaxin levels during the eighteenth gestational week and very preterm delivery. *Am J Obstet Gynecol*. 2001 Feb;184(3):390-3. X-1.
5631. Voigt HJ and Becker V. Doppler flow measurements and histomorphology of the placental bed in uteroplacental insufficiency. *J Perinat Med*. 1992;20(2):139-47. X-1.
5632. Volkmer BG, Seidl EM, Gschwend JE, et al. Pregnancy in women with ureterosigmoidostomy. *Urology*. 2002 Dec;60(6):979-82. X-1.
5633. Volmink J. HIV: mother-to-child transmission... adapted with permission from Volmink J. HIV: mother to child transmission. *Clin Evid Concise* 2003;10:154-5. *American Family Physician*. 2004;69(5):1181. X-4e.
5634. Volpe L, Di Cianni G, Bottone P, et al. Gestational diabetes: clinical characteristics and birth weight. *Ann Ist Super Sanita*. 1997;33(3):407-10. X-1.
5635. von Mandach U, Huch R, Malinverni R, et al. Ceftriaxone (single dose) versus cefoxitin (multiple doses): success and failure of antibiotic prophylaxis in 1052 cesarean sections. *J Perinat Med*. 1993;21(5):385-97. X-9.
5636. Voss DH, Cumminsky KC, Cook VD, et al. Effect of three concentrations of intracervical prostaglandin E2 gel for cervical ripening. *J Matern Fetal Med*. 1996 Jul-Aug;5(4):186-93. X-4d, X-5.
5637. Vucevic M and Russell IF. Spinal anaesthesia for caesarean section: 0.125% plain bupivacaine 12 ml compared with 0.5% plain bupivacaine 3 ml. *Br J Anaesth*. 1992 Jun;68(6):590-5. X-9.
5638. Vukojevic M, Soldo I and Granic D. Risk factors associated with cerebral palsy in newborns. *Coll Antropol*. 2009 Dec;33 Suppl 2:199-201. X-1.
5639. Vuorela P, Matikainen MT, Kuusela P, et al. Endothelial tie receptor antigen in maternal and cord blood of healthy and preeclamptic subjects. *Obstet Gynecol*. 1998 Aug;92(2):179-83. X-1.
5640. Wackerle A, Blochlinger-Wegmann B, Burkhardt T, et al. Notes on a stick: use and acceptability of woman-held maternity notes. *Eur J Obstet Gynecol Reprod Biol*. 2010 Dec;153(2):156-9. X-1.
5641. Wadhawan R, Vohr BR, Fanaroff AA, et al. Does labor influence neonatal and neurodevelopmental outcomes of extremely-low-birth-weight infants who are born by cesarean delivery? *Am J Obstet Gynecol*. 2003 Aug;189(2):501-6. X-1.
5642. Wager GP, Martin DH, Koutsky L, et al. Puerperal infectious morbidity: relationship to route of delivery and to antepartum Chlamydia trachomatis infection. *Am J Obstet Gynecol*. 1980 Dec 1;138(7 Pt 2):1028-33. X-1.
5643. Wagner K. Women's health. *Access*. 1999;13(10):8-8. X-2.
5644. Wagner MV, Chin VP, Peters CJ, et al. A comparison of early and delayed induction of labor with spontaneous rupture of membranes at term. *Obstet Gynecol*. 1989 Jul;74(1):93-7.
5645. Wahab MA, Karantzis P, Eccersley PS, et al. A randomised, controlled study of uterine exteriorisation and repair at caesarean section. *Br J Obstet Gynaecol*. 1999 Sep;106(9):913-6. X-9.

5646. Wainer N. A butcher's dozen. *Midwifery Today Int Midwife*. 2001 Spring(57):9-15. X-1, X-2, X-3, X-4e, X-5.
5647. Waldenstrom U. Experience of labor and birth in 1111 women. *J Psychosom Res*. 1999 Nov;47(5):471-82. X-1.
5648. Waldenstrom U, Axelsson O, Nilsson S, et al. Effects of routine one-stage ultrasound screening in pregnancy: a randomised controlled trial. *Lancet*. 1988 Sep 10;2(8611):585-8. X-4e, X-5.
5649. Waldenstrom U, Bergman V and Vasell G. The complexity of labor pain: experiences of 278 women. *J Psychosom Obstet Gynaecol*. 1996 Dec;17(4):215-28. X-1.
5650. Waldenstrom U, Borg IM, Olsson B, et al. The childbirth experience: a study of 295 new mothers. *Birth*. 1996 Sep;23(3):144-53. X-1.
5651. Waldenstrom U, Hildingsson I and Ryding EL. Antenatal fear of childbirth and its association with subsequent caesarean section and experience of childbirth. *BJOG*. 2006 Jun;113(6):638-46. X-1.
5652. Walker NC and O'Brien B. The relationship between method of pain management during labor and birth outcomes. *Clin Nurs Res*. 1999 May;8(2):119-34. X-1.
5653. Walker R, Turnbull D and Wilkinson C. Increasing cesarean section rates: exploring the role of culture in an Australian community. *Birth*. 2004 Jun;31(2):117-24. X-1.
5654. Wallace DH, Leveno KJ, Cunningham FG, et al. Randomized comparison of general and regional anesthesia for cesarean delivery in pregnancies complicated by severe preeclampsia. *Obstet Gynecol*. 1995 Aug;86(2):193-9. X-9.
5655. Wallace RL, Eglinton GS, Yonekura ML, et al. Extraperitoneal cesarean section: a surgical form of infection prophylaxis? *Am J Obstet Gynecol*. 1984 Jan 15;148(2):172-7. X-9.
5656. Wallace RL, Schifrin BS and Paul RH. The delivery route for very-low-birth-weight infants. A preliminary report of a randomized, prospective study. *J Reprod Med*. 1984 Oct;29(10):736-40. X-1.
5657. Wallace RL, VanDorsten JP, Eglinton GS, et al. External cephalic version with tocolysis. Observations and continuing experience at the Los Angeles County/University of Southern California Medical Center. *J Reprod Med*. 1984 Oct;29(10):745-8. X-1, X-3, X-4e, X-5.
5658. Wallace RL and Yonekura ML. The use of prophylactic antibiotics in patients undergoing emergency primary cesarean section. *Am J Obstet Gynecol*. 1983 Nov 1;147(5):533-6. X-9.
5659. Wallin G and Fall O. Modified Joel-Cohen technique for caesarean delivery. *Br J Obstet Gynaecol*. 1999 Mar;106(3):221-6. X-9.
5660. Walling AD, Lin KW, Miller KE, et al. Tips. *American Family Physician*. 2006;74(5):835. X-1.
5661. Walmsley K and Hobbs L. Vaginal birth after lower segment caesarean section. *Mod Midwife*. 1994 Apr;4(4):20-1. X-1, X-2.
5662. Walsh D. Evidence-based care. Part four: fetal monitoring should be controlled. *British Journal of Midwifery*. 2000;8(8):511-516. X-1, X-2.
5663. Walsh D. National C-section audit ... what it won't tell you. *Pract Midwife*. 2000 Nov;3(10):26-7. X-1.
5664. Walther T, Faber R, Maul B, et al. Fetal, neonatal cord, and maternal plasma concentrations of angiotensin-converting enzyme (ACE). *Prenat Diagn*. 2002 Feb;22(2):111-3. X-1.
5665. Walton DL, Ludlow D and Willis DC. Vaginal birth after cesarean section. Acceptance and outcome at a rural hospital. *J Reprod Med*. 1993 Sep;38(9):716-8. X-1.
5666. Walton SM, Maresh MJ, Murray A, et al. Induction of labour with prostaglandin gel in patients with unfavourable cervixes. *Clin Exp Obstet Gynecol*. 1992;19(1):5-8. X-1.
5667. Wandabwa J, Doyle P, Paul K, et al. Risk factors for severe abruptio placenta in Mulago Hospital, Kampala, Uganda. *Afr Health Sci*. 2005 Dec;5(4):285-90. X-1.
5668. Wandabwa J, Doyle P, Todd J, et al. Risk factors for ruptured uterus in Mulago hospital Kampala, Uganda. *East Afr Med J*. 2008 Feb;85(2):56-63. X-1.
5669. Wandabwa J, Doyle P, Todd J, et al. Risk factors for severe post partum haemorrhage in Mulago hospital, Kampala, Uganda. *East Afr Med J*. 2008 Feb;85(2):64-71. X-1.
5670. Wang CS and Chou P. Characteristics and outcomes of adolescent pregnancies in Kaohsiung County, Taiwan. *J Formos Med Assoc*. 1999 Jun;98(6):415-21. X-1.
5671. Wang CY, Ong GS and Delilkan AE. Epidural anaesthesia for caesarean section: a comparison of 0.5% bupivacaine plain, 0.5% bupivacaine plus 100 micrograms fentanyl and 0.5% bupivacaine plus 50 micrograms fentanyl. *Med J Malaysia*. 1994 Sep;49(3):269-74. X-9.
5672. Wang F, Shen X, Guo X, et al. Epidural analgesia in the latent phase of labor and the risk of cesarean delivery: a five-year randomized controlled trial. *Anesthesiology*. 2009 Oct;111(4):871-80. X-9.
5673. Wang JH, He XH, Wu RJ, et al. Clinicopathologic characteristics of uterine adenomyoma in pregnant women. *Fertil Steril*. 2007 Jul;88(1):172-5. X-1.
5674. Wang JH, Xu KH, Lin J, et al. Methotrexate therapy for cesarean section scar pregnancy with and without suction curettage. *Fertil Steril*. 2009 Oct;92(4):1208-13. X-1.

5675. Wang JJ, Ho ST, Liu HS, et al. The preemptive effect of regional anesthesia on post-cesarean section pain. *Acta Anaesthesiol Sin.* 1995 Dec;33(4):211-6. X-9.
5676. Wang JJ, Ho ST, Wong CS, et al. Dexamethasone prophylaxis of nausea and vomiting after epidural morphine for post-Cesarean analgesia. *Can J Anaesth.* 2001 Feb;48(2):185-90. X-9.
5677. Wang JX, Norman RJ and Kristiansson P. The effect of various infertility treatments on the risk of preterm birth. *Hum Reprod.* 2002 Apr;17(4):945-9. X-1.
5678. Wang LH, Lin HC, Lin CC, et al. Increased risk of adverse pregnancy outcomes in women receiving zolpidem during pregnancy. *Clin Pharmacol Ther.* 2010 Sep;88(3):369-74. X-1.
5679. Wang LZ, Zhang YF, Tang BL, et al. Effects of intrathecal and i.v. small-dose sufentanil on the median effective dose of intrathecal bupivacaine for Cesarean section. *Br J Anaesth.* 2007 Jun;98(6):792-6. X-9.
5680. Wang YP, Cheng YJ, Fan SZ, et al. Conscious sedation by low dose propofol infusion during spinal anesthesia for cesarean section. *Acta Anaesthesiol Sin.* 1996 Sep;34(3):117-21. X-9.
5681. Waqar F, Nasar R and Fawad A. The comparison of placental removal methods on operative blood loss. *J Ayub Med Coll Abbottabad.* 2008 Jul-Sep;20(3):3-5. X-9.
5682. Ward HR, Jennings OG, Potgieter P, et al. Do plastic adhesive drapes prevent post caesarean wound infection? *J Hosp Infect.* 2001 Mar;47(3):230-4. X-9.
5683. Ward PM and Biggs JS. Trends in adolescent pregnancies. *Aust N Z J Obstet Gynaecol.* 1981 May;21(2):88-92. X-1.
5684. Ward VP, Charlett A, Fagan J, et al. Enhanced surgical site infection surveillance following caesarean section: experience of a multicentre collaborative post-discharge system. *J Hosp Infect.* 2008 Oct;70(2):166-73. X-1.
5685. Wareing M, Akef H, Greenwood SL, et al. Umbilical artery Doppler waveform indices from normal pregnant women are related to vasodilatation of placental chorionic plate small arteries. *J Obstet Gynaecol.* 2005 Apr;25(3):248-52. X-1.
5686. Warren MA. Women's rights versus the protection of fetuses. *Midwest Med Ethics.* 1991 Winter;7(1):1, 3-7. X-1.
5687. Warszawski J, Tubiana R, Le Chenadec J, et al. Mother-to-child HIV transmission despite antiretroviral therapy in the ANRS French Perinatal Cohort. *AIDS.* 2008 Jan 11;22(2):289-99. X-1.
5688. Warwick JP, Kearns CF and Scott WE. The effect of subhypnotic doses of propofol on the incidence of pruritus after intrathecal morphine for caesarean section. *Anaesthesia.* 1997 Mar;52(3):270-5. X-9.
5689. Watanabe T, Minakami H, Sakata Y, et al. Effect of heparin on activated partial thromboplastin time in patients undergoing gynecologic or obstetric surgery. *Gynecol Obstet Invest.* 2001;51(3):178-83. X-1.
5690. Watanasomsiri N, Rungruxsirivorn T and Chaithongwongwatthana S. Risk factors for cesarean hysterectomy in cesarean delivery. *J Med Assoc Thai.* 2006 Oct;89 Suppl 4:S100-4. X-1.
5691. Waters JH, Biscotti C, Potter PS, et al. Amniotic fluid removal during cell salvage in the cesarean section patient. *Anesthesiology.* 2000 Jun;92(6):1531-6. X-1.
5692. Waterstone M, Bewley S and Wolfe C. Incidence and predictors of severe obstetric morbidity: case-control study. *BMJ.* 2001 May 5;322(7294):1089-93; discussion 1093-4. X-1.
5693. Watkinson M and Dyas A. *Staphylococcus aureus* still colonizes the untreated neonatal umbilicus. *J Hosp Infect.* 1992 Jun;21(2):131-6. X-1, X-3, X-4b, X-4e, X-5.
5694. Watts DH, Brown ZA, Money D, et al. A double-blind, randomized, placebo-controlled trial of acyclovir in late pregnancy for the reduction of herpes simplex virus shedding and cesarean delivery. *Am J Obstet Gynecol.* 2003 Mar;188(3):836-43. X-4d, X-4e.
5695. Watts DH, Hillier SL and Eschenbach DA. Upper genital tract isolates at delivery as predictors of post-cesarean infections among women receiving antibiotic prophylaxis. *Obstet Gynecol.* 1991 Feb;77(2):287-92. X-9.
5696. Watts DH, Lambert JS, Stiehm ER, et al. Complications according to mode of delivery among human immunodeficiency virus-infected women with CD4 lymphocyte counts of $< \text{or} = 500/\mu\text{mL}$. *Am J Obstet Gynecol.* 2000 Jul;183(1):100-7. X-1.
5697. Wauer RR, Schmalisch G, Menzel K, et al. The antenatal use of ambroxol (bromhexine metabolite VIII) to prevent hyaline membrane disease: a controlled double-blind study. *Int J Biol Res Pregnancy.* 1982;3(2):84-91. X-4e.
5698. Wax JR, Cartin A, Pinette MG, et al. Patient choice cesarean: an evidence-based review. *Obstet Gynecol Surv.* 2004 Aug;59(8):601-16. X-1, X-2.
5699. Wax JR, Cartin A, Pinette MG, et al. Patient choice cesarean--the Maine experience. *Birth.* 2005 Sep;32(3):203-6. X-1.
5700. Wax JR, Cartin A, Pinette MG, et al. The impact of Roux-en-Y gastric bypass surgery for morbid obesity on second trimester obstetric ultrasound completion rates. *J Clin Ultrasound.* 2010 Jul;38(6):283-6. X-1.
5701. Wax JR, Cartin A, Wolff R, et al. Pregnancy following gastric bypass surgery for morbid obesity: maternal and neonatal outcomes. *Obes Surg.* 2008 May;18(5):540-4. X-1.

5702. Wax JR, Hersey K, Philput C, et al. Single dose cefazolin prophylaxis for postcesarean infections: before vs. after cord clamping. *J Matern Fetal Med.* 1997 Jan-Feb;6(1):61-5. X-9.
5703. Wax JR, Philput C, Mather J, et al. Twin vaginal birth after cesarean. *Conn Med.* 2000 Apr;64(4):205-8. X-1.
5704. Wax JR, Seiler A, Horowitz S, et al. Interpregnancy interval as a risk factor for placenta accreta. *Conn Med.* 2000 Nov;64(11):659-61. X-1.
5705. Wax JR, Sutula K, Lerer T, et al. Labor and delivery following successful external cephalic version. *Am J Perinatol.* 2000;17(4):183-6. X-1.
5706. Wax JR, Watson WJ, Miller RC, et al. Prenatal sonographic diagnosis of hemivertebrae: associations and outcomes. *J Ultrasound Med.* 2008 Jul;27(7):1023-7. X-1.
5707. Weaver JJ, Statham H and Richards M. Are there "unnecessary" cesarean sections? Perceptions of women and obstetricians about cesarean sections for nonclinical indications. *Birth.* 2007 Mar;34(1):32-41. X-1.
5708. Webb AA and Shipton EA. Re-evaluation of i.m. ephedrine as prophylaxis against hypotension associated with spinal anaesthesia for Caesarean section. *Can J Anaesth.* 1998 Apr;45(4):367-9. X-9.
5709. Weber T and Obel E. Pregnancy complications following conization of the uterine cervix (I). *Acta Obstet Gynecol Scand.* 1979;58(3):259-63. X-1, X-2.
5710. Webster J, Moore K and McMullan A. Breastfeeding outcomes for women with insulin dependent diabetes. *J Hum Lact.* 1995 Sep;11(3):195-200. X-1.
5711. Wedisinghe L, Macleod M and Murphy DJ. Use of oxytocin to prevent haemorrhage at caesarean section--a survey of practice in the United Kingdom. *Eur J Obstet Gynecol Reprod Biol.* 2008 Mar;137(1):27-30. X-1.
5712. Wee LY, Sebire NJ, Bhundia J, et al. Histomorphometric characterisation of shared and non-shared cotyledonary villus territories of monochorionic placentae in relation to pregnancy complications. *Placenta.* 2006 Apr-May;27(4-5):475-82. X-1.
5713. Weeks JW, Major CA, de Veciana M, et al. Gestational diabetes: does the presence of risk factors influence perinatal outcome? *Am J Obstet Gynecol.* 1994 Oct;171(4):1003-7. X-1.
5714. Weerakiet S, Srisombut C, Rojanasakul A, et al. Prevalence of gestational diabetes mellitus and pregnancy outcomes in Asian women with polycystic ovary syndrome. *Gynecol Endocrinol.* 2004 Sep;19(3):134-40. X-1.
5715. Weerawetwat W, Buranawanich S and Kanawong M. Closure vs non-closure of the visceral and parietal peritoneum at cesarean delivery: 16 year study. *J Med Assoc Thai.* 2004 Sep;87(9):1007-11. X-9.
5716. Weimar CH, Lim AC, Bots ML, et al. Risk factors for uterine rupture during a vaginal birth after one previous caesarean section: a case-control study. *Eur J Obstet Gynecol Reprod Biol.* 2010 Jul;151(1):41-5. X-1.
5717. Weinstein D, Ezra Y, Picard R, et al. Expectant management of post-term patients: observations and outcome. *J Matern Fetal Med.* 1996 Sep-Oct;5(5):293-7. X-1.
5718. Weinstein L, Dyne PL and Duerbeck NB. The PROEF diet--a new postoperative regimen for oral early feeding. *Am J Obstet Gynecol.* 1993 Jan;168(1 Pt 1):128-31. X-9.
5719. Weinstein RB and Trussell J. Declining cesarean delivery rates in California: an effect of managed care? *Am J Obstet Gynecol.* 1998 Sep;179(3 Pt 1):657-64. X-1.
5720. Weintraub AY, Levy A, Holcberg G, et al. The outcome of blunt abdominal trauma preceding birth. *Int J Fertil Womens Med.* 2006 Nov-Dec;51(6):275-9. X-1.
5721. Weiss E, Ulrich S and Berle P. Condition at birth of infants with previously absent or reverse umbilical artery end-diastolic flow velocities. *Arch Gynecol Obstet.* 1992;252(1):37-43. X-9.
5722. Weiss E, Ulrich S, Berle P, et al. CK-BB as indicator of prenatal brain-cell injury in fetuses with absent or reverse end-diastolic flow velocities of the umbilical arteries. *J Perinat Med.* 1994;22(3):219-26. X-1.
5723. Weiss JL, Malone FD, Emig D, et al. Obesity, obstetric complications and cesarean delivery rate--a population-based screening study. *Am J Obstet Gynecol.* 2004 Apr;190(4):1091-7. X-1.
5724. Weiss JL, Malone FD, Vidaver J, et al. Threatened abortion: A risk factor for poor pregnancy outcome, a population-based screening study. *Am J Obstet Gynecol.* 2004 Mar;190(3):745-50. X-1.
5725. Weiss N and Bernstein PS. Risk factor scoring for predicting venous thromboembolism in obstetric patients. *Am J Obstet Gynecol.* 2000 May;182(5):1073-5. X-1.
5726. Weiss PA, Kainer F and Haas J. Cord blood insulin to assess the quality of treatment in diabetic pregnancies. *Early Hum Dev.* 1998 Jul 10;51(3):187-95. X-1.
5727. Weiss SL. An evaluation of muscle relaxants in cesarean sections. *AANA J.* 1977 Jun;45(3):306-8. X-4b.
5728. Weiss V and Roth M. Gas chromatographic determination of methoxyflurane in maternal and foetal blood during anaesthesia for Caesarean sections. *Anaesthesist.* 1975 Feb;24(2):67-72. X-9.

5729. Weissman A and Hagay ZJ. Management of breech presentation: the 1993 Israeli census. *Eur J Obstet Gynecol Reprod Biol.* 1995 May;60(1):21-8. X-1.
5730. Weissman A, Talmon R and Jakobi P. The outcome of abdominally delivered triplets and twins: a matched case-control study. *Eur J Obstet Gynecol Reprod Biol.* 1998 Aug;79(2):123-5. X-1.
5731. Weisz B, Shrim A, Homko CJ, et al. One hour versus two hours postprandial glucose measurement in gestational diabetes: a prospective study. *J Perinatol.* 2005 Apr;25(4):241-4. X-1.
5732. Wells CE. Vaginal birth after cesarean delivery: views from the private practitioner. *Semin Perinatol.* 2010 Oct;34(5):345-50. X-1.
5733. Wen JC, Liu TC, Chen YH, et al. No increased risk of adverse pregnancy outcomes for women with myasthenia gravis: a nationwide population-based study. *Eur J Neurol.* 2009 Aug;16(8):889-94. X-1.
5734. Wen SW, Lei H, Kramer MS, et al. Determinants of intrapartum fetal death in a remote and indigent population in China. *J Perinatol.* 2004 Feb;24(2):77-81. X-1.
5735. Wen ZS, Lin L, Laufe LE, et al. The introduction of postpartum intrauterine devices in the People's Republic of China. *Int J Gynaecol Obstet.* 1983 Apr;21(2):151-4. X-1.
5736. Wendel PJ, Ramin SM, Barnett-Hamm C, et al. Asthma treatment in pregnancy: a randomized controlled study. *Am J Obstet Gynecol.* 1996 Jul;175(1):150-4. X-4e.
5737. Wendland CL. The vanishing mother: Cesarean section and "evidence-based obstetrics". *Med Anthropol Q.* 2007 Jun;21(2):218-33. X-1, X-2.
5738. Wennberg E, Frid I, Haljamae H, et al. Colloid (3% Dextran 70) with or without ephedrine infusion for cardiovascular stability during extradural caesarean section. *Br J Anaesth.* 1992 Jul;69(1):13-8. X-9.
5739. Wennberg E, Frid I, Haljamae H, et al. Comparison of Ringer's acetate with 3% dextran 70 for volume loading before extradural caesarean section. *Br J Anaesth.* 1990 Nov;65(5):654-60. X-9.
5740. Wennerholm UB, Hamberger L, Nilsson L, et al. Obstetric and perinatal outcome of children conceived from cryopreserved embryos. *Hum Reprod.* 1997 Aug;12(8):1819-25. X-1.
5741. Wenstrom KD and Parsons MT. The prevention of meconium aspiration in labor using amnioinfusion. *Obstet Gynecol.* 1989 Apr;73(4):647-51. X-4e, X-5.
5742. Wenstrom KD, Weiner CP and Williamson RA. Antenatal treatment of fetal alloimmune thrombocytopenia. *Obstet Gynecol.* 1992 Sep;80(3 Pt 1):433-5. X-1.
5743. Werner M, Bjornsson E, Prytz H, et al. Autoimmune hepatitis among fertile women: strategies during pregnancy and breastfeeding? *Scand J Gastroenterol.* 2007 Aug;42(8):986-91. X-1.
5744. Wessel J, Endrikat J and Buscher U. Elevated risk of neonatal outcome following denial of pregnancy: results of a one-year prospective study compared with control groups... reprinted from *J Perinat Med* 31 (2003) 29-35. *Neonatal Intensive Care.* 2003;16(7):17-22. X-1.
5745. Westergaard JG, Lange AP, Pedersen GT, et al. Use of oral oxytocics for stimulation of labor in cases of premature rupture of the membranes at term. A randomized comparative study of prostaglandin E2 tablets and demoxytocin resorbibles. *Acta Obstet Gynecol Scand.* 1983;62(2):111-6. X-4d.
5746. Westgate J, Harris M, Curnow JS, et al. Plymouth randomized trial of cardiotocogram only versus ST waveform plus cardiotocogram for intrapartum monitoring in 2400 cases. *Am J Obstet Gynecol.* 1993 Nov;169(5):1151-60. X-3.
5747. Westgren M, Dolfin T, Halperin M, et al. Mode of delivery in the low birth weight fetus. Delivery by cesarean section independent of fetal lie versus vaginal delivery in vertex presentation. A study with long-term follow-up. *Acta Obstet Gynecol Scand.* 1985;64(1):51-7. X-1.
5748. Westin B. Evaluation of a fetopelvic scoring system in the management of breech presentations. *Acta Obstet Gynecol Scand.* 1977;56(5):505-8. X-1.
5749. Wheeler AS and Harris BA. Anesthesia for pregnancy-induced hypertension. *Clin Perinatol.* 1982 Feb;9(1):95-111. X-1, X-2.
5750. Whitecar MP, Turner S and Higby MK. Adnexal masses in pregnancy: a review of 130 cases undergoing surgical management. *Am J Obstet Gynecol.* 1999 Jul;181(1):19-24. X-1.
5751. Whittle MJ, Hanretty KP, Primrose MH, et al. Screening for the compromised fetus: a randomized trial of umbilical artery velocimetry in unselected pregnancies. *Am J Obstet Gynecol.* 1994 Feb;170(2):555-9. X-4e.
5752. Whyte H, Hannah ME, Saigal S, et al. Outcomes of children at 2 years after planned cesarean birth versus planned vaginal birth for breech presentation at term: the International Randomized Term Breech Trial. *Am J Obstet Gynecol.* 2004 Sep;191(3):864-71. X-1.
5753. Wicherek L, Basta P, Sikora J, et al. RCAS1 decidual immunoreactivity in severe pre-eclampsia: immune cell presence and activity. *Am J Reprod Immunol.* 2007 Oct;58(4):358-66. X-1.

5754. Wicks E. The right to refuse medical treatment under the European Convention on Human Rights. *Med Law Rev.* 2001 Spring;9(1):17-40. X-1, X-2, X-3, X-4, X-5.
5755. Widness JA, Cowett RM, Coustan DR, et al. Neonatal morbidities in infants of mothers with glucose intolerance in pregnancy. *Diabetes.* 1985 Jun;34 Suppl 2:61-5. X-1.
5756. Widness JA, Teramo KA, Clemons GK, et al. Direct relationship of antepartum glucose control and fetal erythropoietin in human type 1 (insulin-dependent) diabetic pregnancy. *Diabetologia.* 1990 Jun;33(6):378-83. X-1.
5757. Wiese J. Factors of importance in the use-effectiveness of intrauterine devices. *Dan Med Bull.* 1977 Feb;24(1):23-5. X-4e.
5758. Wig J, Biswas GC, Malhotra SK, et al. Comparison of sodium citrate with magnesium trisilicate as pre-anaesthetic antacid in emergency caesarean sections. *Indian J Med Res.* 1987 Mar;85:306-10. X-4b.
5759. Wijesiriwardana A, Bhattacharya S, Shetty A, et al. Obstetric outcome in women with threatened miscarriage in the first trimester. *Obstet Gynecol.* 2006 Mar;107(3):557-62. X-1.
5760. Wijma K, Ryding EL and Wijma B. Predicting psychological well-being after emergency caesarean section: a preliminary study. *Journal of Reproductive & Infant Psychology.* 2002;20(1):25-36. X-1.
5761. Wiklund I, Edman G and Andolf E. Caesarean section on maternal request: reasons for the request, self-estimated health, expectations, experience of birth and signs of depression among first-time mothers. *Acta Obstet Gynecol Scand.* 2007;86(4):451-6. X-1.
5762. Wiklund I, Edman G, Ryding EL, et al. Expectation and experiences of childbirth in primiparae with caesarean section. *BJOG.* 2008 Feb;115(3):324-31. X-1.
5763. Wiklund I, Norman M, Uvnas-Moberg K, et al. Epidural analgesia: breast-feeding success and related factors. *Midwifery.* 2009 Apr;25(2):e31-8. X-1.
5764. Wilailak S, Saropala N and Chaturachinda K. Elective induction of labor: Ramathibodi Hospital (Jan-Jun, 1990). *J Med Assoc Thai.* 1993 Jan;76 Suppl 1:44-7. X-1.
5765. Wilczynski J, Cyptryk K, Zawodniak-Szalapska M, et al. The role of Staged Diabetes Management in improving diabetes care in Poland. *Practical Diabetes International.* 1999;16(5):137-141. X-1.
5766. Wilczynski JR, Tchorzewski H, Banasik M, et al. Lymphocyte subset distribution and cytokine secretion in third trimester decidua in normal pregnancy and preeclampsia. *Eur J Obstet Gynecol Reprod Biol.* 2003 Jul 1;109(1):8-15. X-1.
5767. Wildemeersch DA and Schellen AM. Double-blind trial of prostaglandin F2alpha and oxytocin in the induction of labour. *Curr Med Res Opin.* 1976;4(4):263-6. X-4d, X-5.
5768. Wilder-Smith CH, Hill L, Dyer RA, et al. Postoperative sensitization and pain after cesarean delivery and the effects of single im doses of tramadol and diclofenac alone and in combination. *Anesth Analg.* 2003 Aug;97(2):526-33, table of contents. X-9.
5769. Wilkes PT, Wolf DM, Kronbach DW, et al. Risk factors for cesarean delivery at presentation of nulliparous patients in labor. *Obstet Gynecol.* 2003 Dec;102(6):1352-7. X-1.
5770. Wilkinson C, McIlwaine G, Boulton-Jones C, et al. Is a rising caesarean section rate inevitable? *Br J Obstet Gynaecol.* 1998 Jan;105(1):45-52. X-1.
5771. Willcourt RJ, Pager D, Wendel J, et al. Induction of labor with pulsatile oxytocin by a computer-controlled pump. *Am J Obstet Gynecol.* 1994 Feb;170(2):603-8. X-4d.
5772. Willet KE, Jobe AH, Ikegami M, et al. Pulmonary interstitial emphysema 24 hours after antenatal betamethasone treatment in preterm sheep. *Am J Respir Crit Care Med.* 2000 Sep;162(3 Pt 1):1087-94. X-1.
5773. Willi MJ, Winkler M, Fischer DC, et al. Chorioamnionitis: elevated interleukin-6 and interleukin-8 concentrations in the lower uterine segment. *J Perinat Med.* 2002;30(4):292-6. X-1.
5774. Williams A, Tincello DG, White S, et al. Risk scoring system for prediction of obstetric anal sphincter injury. *BJOG.* 2005 Aug;112(8):1066-9. X-1.
5775. Williams CM, Okada DM, Marshall JR, et al. Clinical and microbiologic risk evaluation for post-cesarean section endometritis by multivariate discriminant analysis: role of intraoperative mycoplasma, aerobes, and anaerobes. *Am J Obstet Gynecol.* 1987 Apr;156(4):967-74. X-1.
5776. Williams JH and Hepner DL. Risperidone and exaggerated hypotension during a spinal anesthetic. *Anesth Analg.* 2004 Jan;98(1):240-1, table of contents. X-1, X-2.
5777. Williams JK, Lewis ML, Cohen GR, et al. The sequential use of estradiol and prostaglandin E2 topical gels for cervical ripening in high-risk term pregnancies requiring induction of labor. *Am J Obstet Gynecol.* 1988 Jan;158(1):55-8. X-4d, X-5.
5778. Williams JK, Wilkerson WG, O'Brien WF, et al. Use of prostaglandin E2 topical cervical gel in high-risk patients: a critical analysis. *Obstet Gynecol.* 1985 Dec;66(6):769-73. X-4d.

5779. Williams KP, Farquharson DF, Bebbington M, et al. Screening for fetal well-being in a high-risk pregnant population comparing the nonstress test with umbilical artery Doppler velocimetry: a randomized controlled clinical trial. *Am J Obstet Gynecol.* 2003 May;188(5):1366-71. X-4e.
5780. Williams MA, Luthy DA, Zingheim RW, et al. Preinduction prostaglandin E2 gel prior to induction of labor in women with a previous cesarean section. *Gynecol Obstet Invest.* 1995;40(2):89-93. X-1.
5781. Williams MC, Knuppel RA, O'Brien WF, et al. A randomized comparison of assisted vaginal delivery by obstetric forceps and polyethylene vacuum cup. *Obstet Gynecol.* 1991 Nov;78(5 Pt 1):789-94. X-4e, X-5.
5782. Williamson W, Burks D, Pipkin J, et al. Effect of timing of fluid bolus on reduction of spinal-induced hypotension in patients undergoing elective cesarean delivery. *AANA J.* 2009 Apr;77(2):130-6. X-9.
5783. Williamson WD, Burks DS, Pipkin JM, et al. Effect of timing of fluid bolus on reduction of spinal induced hypotension in patients undergoing elective cesarean section... State of the Science Oral and Poster Sessions: part 2. *AANA Journal.* 2006;74(6):456-457. X-4b.
5784. Willis AT. Metronidazole in the prevention and treatment of anaerobic sepsis. *Ann Ist Super Sanita.* 1979;15(1):123-35. X-3.
5785. Willis AT. Metronidazole in the prevention and treatment of anaerobic sepsis. *Scand J Infect Dis Suppl.* 1979(19):98-104. X-4e.
5786. Wilson B, Thornton JG, Hewison J, et al. The Leeds University Maternity Audit Project. *Int J Qual Health Care.* 2002 Jun;14(3):175-81. X-1.
5787. Wilson BL. The influence of hospitals, providers, and patients in birth outcomes following induction of labor. 2008;Ph.D.:189 p. X-1, X-3, X-4e, X-5.
5788. Wilson BL, Effken J and Butler RJ. The relationship between cesarean section and labor induction. *J Nurs Scholarsh.* 2010 Jun;42(2):130-8. X-1.
5789. Wilson D, Douglas J, Heid R, et al. Preoperative dextrose does not affect spinal-induced hypotension in elective Cesarean section. *Can J Anaesth.* 1999 Nov;46(11):1024-9. X-9.
5790. Wilson KL, Zelig CM, Harvey JP, et al. Persistent pulmonary hypertension of the newborn is associated with mode of delivery and not with maternal use of selective serotonin reuptake inhibitors. *Am J Perinatol.* 2011 Jan;28(1):19-24. X-1.
5791. Wilson PD. A comparison of four methods of ripening the unfavourable cervix. *Br J Obstet Gynaecol.* 1978 Dec;85(12):941-4. X-4d.
5792. Wilson RJ, Allen MJ, Nandi M, et al. Spontaneous contractions of myometrium from humans, non-human primate and rodents are sensitive to selective oxytocin receptor antagonism in vitro. *BJOG.* 2001 Sep;108(9):960-6. X-1.
5793. Wilson SH, Fecho K, Marshall J, et al. Factors influencing cesarean delivery operative times: a prospective observational cohort study. *Int J Obstet Anesth.* 2010 Oct;19(4):417-21. X-1, X-9.
5794. Windrim R, Bennett K, Mundle W, et al. Oral administration of misoprostol for labor induction: a randomized controlled trial. *Obstet Gynecol.* 1997 Mar;89(3):392-7. X-4d.
5795. Wing DA. Misoprostol vaginal insert compared with dinoprostone vaginal insert: a randomized controlled trial. *Obstet Gynecol.* 2008 Oct;112(4):801-12. X-4d.
5796. Wing DA, Fassett MJ, Guberman C, et al. A comparison of orally administered misoprostol to intravenous oxytocin for labor induction in women with favorable cervical examinations. *Am J Obstet Gynecol.* 2004 Jun;190(6):1689-94; discussion 1694-6. X-4d.
5797. Wing DA, Fassett MJ and Mishell DR. Mifepristone for preinduction cervical ripening beyond 41 weeks' gestation: a randomized controlled trial. *Obstet Gynecol.* 2000 Oct;96(4):543-8. X-4d, X-5.
5798. Wing DA, Guberman C and Fassett M. A randomized comparison of oral mifepristone to intravenous oxytocin for labor induction in women with prelabor rupture of membranes beyond 36 weeks' gestation. *Am J Obstet Gynecol.* 2005 Feb;192(2):445-51. X-4d, X-4e.
5799. Wing DA, Ham D and Paul RH. A comparison of orally administered misoprostol with vaginally administered misoprostol for cervical ripening and labor induction. *Am J Obstet Gynecol.* 1999 May;180(5):1155-60. X-4d.
5800. Wing DA, Jones MM, Rahall A, et al. A comparison of misoprostol and prostaglandin E2 gel for preinduction cervical ripening and labor induction. *Am J Obstet Gynecol.* 1995 Jun;172(6):1804-10. X-4d.
5801. Wing DA, Miller H, Parker L, et al. Misoprostol vaginal insert for successful labor induction: a randomized controlled trial. *Obstet Gynecol.* 2011 Mar;117(3):533-41. X-4d.
5802. Wing DA, Ortiz-Omphroy G and Paul RH. A comparison of intermittent vaginal administration of misoprostol with continuous dinoprostone for cervical ripening and labor induction. *Am J Obstet Gynecol.* 1997 Sep;177(3):612-8. X-4d.
5803. Wing DA and Paul RH. A comparison of differing dosing regimens of vaginally administered misoprostol for preinduction cervical ripening and labor induction. *Am J Obstet Gynecol.* 1996 Jul;175(1):158-64. X-4d.

5804. Wing DA and Paul RH. Induction of labor with misoprostol for premature rupture of membranes beyond thirty-six weeks' gestation. *Am J Obstet Gynecol.* 1998 Jul;179(1):94-9. X-4d, X-4e, X-5.
5805. Wing DA, Paul RH and Millar LK. Management of the symptomatic placenta previa: a randomized, controlled trial of inpatient versus outpatient expectant management. *Am J Obstet Gynecol.* 1996 Oct;175(4 Pt 1):806-11. X-4e.
5806. Wing DA, Powers BL and Rayburn WF. Determining dose and endpoints of a controlled-release misoprostol vaginal insert for a phase III trial. *J Reprod Med.* 2008 Sep;53(9):695-6. X-1.
5807. Wing DA, Rahall A, Jones MM, et al. Misoprostol: an effective agent for cervical ripening and labor induction. *Am J Obstet Gynecol.* 1995 Jun;172(6):1811-6. X-4d.
5808. Winkler M, Rath W, Fischer DC, et al. Regulation of interleukin-8 synthesis in human lower uterine segment fibroblasts by cytokines and growth factors. *Obstet Gynecol.* 2000 Apr;95(4):584-8. X-1.
5809. Winograd RH. Uterine artery embolization for postpartum hemorrhage. *Best Pract Res Clin Obstet Gynaecol.* 2008 Dec;22(6):1119-32. X-1, X-2.
5810. Winslow EH. Hospital extra. Working smart. Rocking care. *American Journal of Nursing.* 1992;92(5):16G-16G. X-2.
5811. Wiruchongsanon P. Relief of low back labor pain by using intracutaneous injections of sterile water: a randomized clinical trial. *J Med Assoc Thai.* 2006 May;89(5):571-6. X-4e, X-5.
5812. Witlin AG, Friedman SA and Sibai BM. The effect of magnesium sulfate therapy on the duration of labor in women with mild preeclampsia at term: a randomized, double-blind, placebo-controlled trial. *Am J Obstet Gynecol.* 1997 Mar;176(3):623-7. X-3, X-4e.
5813. Witlin AG, Mattar F and Sibai BM. Postpartum stroke: a twenty-year experience. *Am J Obstet Gynecol.* 2000 Jul;183(1):83-8. X-1.
5814. Wittels B, Glosten B, Faure EA, et al. Opioid antagonist adjuncts to epidural morphine for postcesarean analgesia: maternal outcomes. *Anesth Analg.* 1993 Nov;77(5):925-32. X-9.
5815. Wittels B, Glosten B, Faure EA, et al. Postcesarean analgesia with both epidural morphine and intravenous patient-controlled analgesia: neurobehavioral outcomes among nursing neonates. *Anesth Analg.* 1997 Sep;85(3):600-6. X-1.
5816. Wittels B, Glosten B, Faure EAM, et al. Postcesarean analgesia with both epidural morphine and intravenous patient-controlled analgesia: neurobehavioral outcomes among nursing neonates... reprinted from *Anesthesia & Analgesia*, Volume 85, Number 3, copyright 1997 by the International Anesthesia Research Society, published by Williams & Wilkins, Baltimore. *Neonatal Intensive Care.* 1998;11(2):42-46. X-4b.
5817. Wittels B, Scott DT and Sinatra RS. Exogenous opioids in human breast milk and acute neonatal neurobehavior: a preliminary study. *Anesthesiology.* 1990 Nov;73(5):864-9. X-9.
5818. Witter FR and Mercer BM. Improved intravaginal controlled-release prostaglandin E2 insert for cervical ripening at term. The Prostaglandin E2 insert Study Group. *J Matern Fetal Med.* 1996 Mar-Apr;5(2):64-9. X-4d, X-5.
5819. Witter FR, Rocco LE and Johnson TR. A randomized trial of prostaglandin E2 in a controlled-release vaginal pessary for cervical ripening at term. *Am J Obstet Gynecol.* 1992 Mar;166(3):830-4. X-4d, X-5.
5820. Witter FR and Weitz CM. A randomized trial of induction at 42 weeks gestation versus expectant management for postdates pregnancies. *Am J Perinatol.* 1987 Jul;4(3):206-11. X-4d, X-4e.
5821. Witter FR and Weitz CM. Cervical examination prior to induction in postdate pregnancies. *Surg Gynecol Obstet.* 1989 Mar;168(3):214-6. X-3, X-4d, X-4e, X-5.
5822. Witter S and Diadhiou M. Key informant views of a free delivery and caesarean policy in Senegal. *Afr J Reprod Health.* 2008 Dec;12(3):93-111. X-1.
5823. Wittgrove AC, Jester L, Wittgrove P, et al. Pregnancy following gastric bypass for morbid obesity. *Obes Surg.* 1998 Aug;8(4):461-4; discussion 465-6. X-1.
5824. Wiznitzer A. Obstructed labor and shoulder dystocia. *Curr Opin Obstet Gynecol.* 1995 Dec;7(6):486-91. X-1, X-2.
5825. Wohlmuth CT, Gumbs J and Quebral-Ivie J. B-Lynch suture: a case series. *Int J Fertil Womens Med.* 2005 Jul-Aug;50(4):164-73. X-1.
5826. Wolf ME, Daling JR and Voigt LF. Prior cesarean delivery in women with secondary tubal infertility. *Am J Public Health.* 1990 Nov;80(11):1382-3. X-1.
5827. Wolfe HM, Gross TL, Sokol RJ, et al. Determinants of morbidity in obese women delivered by cesarean. *Obstet Gynecol.* 1988 May;71(5):691-6. X-1.
5828. Wong CA, McCarthy RJ, Fitzgerald PC, et al. Gastric emptying of water in obese pregnant women at term. *Anesth Analg.* 2007 Sep;105(3):751-5. X-1, X-3, X-4e.

5829. Wong CA, McCarthy RJ, Sullivan JT, et al. Early compared with late neuraxial analgesia in nulliparous labor induction: a randomized controlled trial. *Obstet Gynecol.* 2009 May;113(5):1066-74. X-4d, X-4e.
5830. Wong CA and Peaceman AM. Effect of early epidural analgesia on labor: cutting through the confusion. *Contemporary OB/GYN.* 2006;51(7):64.
5831. Wong CA, Scavone BM, Peaceman AM, et al. The risk of cesarean delivery with neuraxial analgesia given early versus late in labor. *N Engl J Med.* 2005 Feb 17;352(7):655-65. X-5, X-6.
5832. Wong JO, Tan TD, Cheu NW, et al. Comparison of the efficacy of parecoxib versus ketorolac combined with morphine on patient-controlled analgesia for post-cesarean delivery pain management. *Acta Anaesthesiol Taiwan.* 2010 Dec;48(4):174-7. X-9.
5833. Wong JO, Tan TD, Leung PO, et al. Spinal anesthesia with two different dosages of 0.75% glucose-free ropivacaine: a comparison of efficacy and safety in Chinese parturients undergoing cesarean section. *Acta Anaesthesiol Sin.* 2003 Sep;41(3):131-8. X-9.
5834. Wong LF, Caughey AB, Nakagawa S, et al. Perinatal outcomes among different Asian-American subgroups. *Am J Obstet Gynecol.* 2008 Oct;199(4):382 e1-6. X-1.
5835. Wong R, Gee CL and Ledger WJ. Prophylactic use of cefazolin in monitored obstetric patients undergoing cesarean section. *Obstet Gynecol.* 1978 Apr;51(4):407-11. X-9.
5836. Wong SF and Ho LC. Labour outcome of low-risk multiparas of 40 years and older. A case-control study. *Aust N Z J Obstet Gynaecol.* 1998 Nov;38(4):388-90. X-1.
5837. Wong SF, Hui SK, Choi H, et al. Does sweeping of membranes beyond 40 weeks reduce the need for formal induction of labour? *BJOG.* 2002 Jun;109(6):632-6. X-4e, X-5.
5838. Wongcharoenkiat N and Boriboonthirunsarn D. Maternal height and the risk of cesarean delivery in nulliparous women. *J Med Assoc Thai.* 2006 Oct;89 Suppl 4:S65-9. X-1.
5839. Wood C, Renou P, Oats J, et al. A controlled trial of fetal heart rate monitoring in a low-risk obstetric population. *Am J Obstet Gynecol.* 1981 Nov 1;141(5):527-34. X-1, X-4e, X-5.
5840. Wood RM, Simon H and Oz AU. Pelosi-type vs. traditional cesarean delivery. A prospective comparison. *J Reprod Med.* 1999 Sep;44(9):788-95. X-1.
5841. Wood SL, Chen S, Ross S, et al. The risk of unexplained antepartum stillbirth in second pregnancies following cesarean section in the first pregnancy. *BJOG.* 2008 May;115(6):726-31. X-1.
5842. Woods JR, Saywell RM, Jr. and Benson JT. Comparative costs of a cooperative care program versus inpatient hospital care for obstetric patients. *Med Care.* 1988 Jun;26(6):596-606. X-1.
5843. Woolbright LA. Why is the cesarean delivery rate so high in Alabama? An examination of risk factors, 1991-1993. *Birth.* 1996 Mar;23(1):20-5. X-1.
5844. Woolnough M, Allam J, Hemingway C, et al. Intra-operative fluid warming in elective caesarean section: a blinded randomised controlled trial. *Int J Obstet Anesth.* 2009 Oct;18(4):346-51. X-9.
5845. Woolnough MJ, Hemingway C, Allam J, et al. Warming of patients during Caesarean section: a telephone survey. *Anaesthesia.* 2009 Jan;64(1):50-3. X-1.
5846. Work BA, Jr. Role of preventive antibiotics in patients undergoing cesarean section. *South Med J.* 1977 Oct;70 Suppl 1:44-5. X-9.
5847. Worthington LM, Mulcahy AJ, White S, et al. Attitudes to oral feeding following caesarean section. *Anaesthesia.* 1999 Mar;54(3):292-6. X-1.
5848. Wray J. Review of the National Sentinel Caesarean Section Audit Report. *Pract Midwife.* 2001 Dec;4(11):24-5. X-1.
5849. Wrench IJ, Sanghera S, Pinder A, et al. Dose response to intrathecal diamorphine for elective caesarean section and compliance with a national audit standard. *Int J Obstet Anesth.* 2007 Jan;16(1):17-21. X-9.
5850. Wrich P and Whiteside J. Is amnioinfusion beneficial when umbilical cord compression is suspected during labor? *Evidence-Based Practice.* 2010;13(6):9-10. X-1, X-2, X-3, X-4, X-5.
5851. Wright CH, Gardin TH and Wright CL. Obstetric care in a health maintenance organization and a private fee-for-service practice: a comparative analysis. *Am J Obstet Gynecol.* 1984 Aug 15;149(8):848-56. X-1.
5852. Wright JD, Herzog TJ, Shah M, et al. Regionalization of care for obstetric hemorrhage and its effect on maternal mortality. *Obstet Gynecol.* 2010 Jun;115(6):1194-200. X-1.
5853. Wright M. The value of X-ray pelvimetry in previous caesarean section pregnancies. *S Afr Med J.* 1985 Sep 14;68(6):409-11. X-1.
5854. Writer WD, Dewan DM and James FM, 3rd. Three per cent 2-chloroprocaine for caesarean section: appraisal of a standardized dose technique. *Can Anaesth Soc J.* 1984 Sep;31(5):559-64. X-1.
5855. Writer WD, Hurtig JB, Evans D, et al. Epidural morphine prophylaxis of postoperative pain: report of a double-blind multicentre study. *Can Anaesth Soc J.* 1985 Jul;32(4):330-8. X-9.

5856. Wu HC, Liu YC, Ou KL, et al. Effects of acupuncture on post-cesarean section pain. *Chin Med J (Engl)*. 2009 Aug 5;122(15):1743-8. X-9.
5857. Wu JI, Lo Y, Chia YY, et al. Prevention of postoperative nausea and vomiting after intrathecal morphine for Cesarean section: a randomized comparison of dexamethasone, droperidol, and a combination. *Int J Obstet Anesth*. 2007 Apr;16(2):122-7. X-9.
5858. Wu JL, Hsu MS, Hsu TC, et al. The efficacy of intrathecal coadministration of morphine and bupivacaine for labor analgesia. *Acta Anaesthesiol Sin*. 1997 Dec;35(4):209-16. X-1.
5859. Wu JM, Hundley AF and Visco AG. Elective primary cesarean delivery: attitudes of urogynecology and maternal-fetal medicine specialists. *Obstet Gynecol*. 2005 Feb;105(2):301-6. X-1.
5860. Wu S, Kocherginsky M and Hibbard JU. Abnormal placentation: twenty-year analysis. *Am J Obstet Gynecol*. 2005 May;192(5):1458-61. X-1.
5861. Wu X, Sallinen K, Anttila L, et al. Expression of insulin-receptor substrate-1 and -2 in ovaries from women with insulin resistance and from controls. *Fertil Steril*. 2000 Sep;74(3):564-72. X-1.
5862. Wu YW, March WM, Croen LA, et al. Perinatal stroke in children with motor impairment: a population-based study. *Pediatrics*. 2004 Sep;114(3):612-9. X-1.
5863. Wu YW, Seah YS, Chung KT, et al. Postoperative pain relief in primigravida caesarean section patients--combination of intrathecal morphine and epinephrine. *Acta Anaesthesiol Sin*. 1999 Sep;37(3):111-4. X-1.
5864. Wu Z, Viisainen K, Li X, et al. Maternal care in rural China: a case study from Anhui province. *Neonatal Intensive Care*. 2009;22(5):26-31. X-1.
5865. Wuest S, Raio L, Wyssmueller D, et al. Effects of female genital mutilation on birth outcomes in Switzerland. *BJOG*. 2009 Aug;116(9):1204-9. X-1.
5866. Wylie BJ, Gilbert S, Landon MB, et al. Comparison of transverse and vertical skin incision for emergency cesarean delivery. *Obstet Gynecol*. 2010 Jun;115(6):1134-40. X-1.
5867. Wylie BR, Kong J, Kozak SE, et al. Normal perinatal mortality in type 1 diabetes mellitus in a series of 300 consecutive pregnancy outcomes. *Am J Perinatol*. 2002 May;19(4):169-76. X-1.
5868. Wyszynski DF and Wu T. Prenatal and perinatal factors associated with isolated oral clefting. *Cleft Palate Craniofac J*. 2002 May;39(3):370-5. X-1.
5869. Xavier P, Ayres-De-Campos D, Reynolds A, et al. The modified Misgav-Ladach versus the Pfannenstiel-Kerr technique for cesarean section: a randomized trial. *Acta Obstet Gynecol Scand*. 2005 Sep;84(9):878-82. X-9.
5870. Xenakis EM, Langer O, Piper JM, et al. Low-dose versus high-dose oxytocin augmentation of labor--a randomized trial. *Am J Obstet Gynecol*. 1995 Dec;173(6):1874-8. X-5.
5871. Xenakis EM, Piper JM, Field N, et al. Preeclampsia: is induction of labor more successful? *Obstet Gynecol*. 1997 Apr;89(4):600-3. X-1.
5872. Xiong X, Saunders LD, Wang FL, et al. Gestational diabetes mellitus: prevalence, risk factors, maternal and infant outcomes. *Int J Gynaecol Obstet*. 2001 Dec;75(3):221-8. X-1.
5873. Xirasagar S and Lin HC. Maternal request CS--role of hospital teaching status and for-profit ownership. *Eur J Obstet Gynecol Reprod Biol*. 2007 May;132(1):27-34. X-1.
5874. Xirasagar S, Lin HC and Liu TC. Do group practices have lower caesarean rates than solo practice obstetric clinics? Evidence from Taiwan. *Health Policy Plan*. 2006 Jul;21(4):319-25. X-1.
5875. Xu J, Chen H, Ma T, et al. Termination of early pregnancy in the scarred uterus with mifepristone and misoprostol. *Int J Gynaecol Obstet*. 2001 Mar;72(3):245-51. X-1.
5876. Xu S, Liu L, Lu S, et al. Clinical observation on vertical transmission of human papillomavirus. *Chin Med Sci J*. 1998 Mar;13(1):29-31. X-1.
5877. Yadav S, Saxena U, Yadav R, et al. Hypertensive disorders of pregnancy and maternal and foetal outcome: a case controlled study. *J Indian Med Assoc*. 1997 Oct;95(10):548-51. X-1.
5878. Yahya SZ, Williams J, Mathers A, et al. Variations in the management of singleton breech presentation throughout Scotland. *Scott Med J*. 1998 Oct;43(5):144-5. X-1.
5879. Yakoob MY, Lawn JE, Darmstadt GL, et al. Stillbirths: Epidemiology, Evidence, and Priorities for Action. *Seminars in Perinatology*. 2010;34(6):387-394. X-1, X-2.
5880. Yalti S, Oral O, Gurbuz B, et al. Ratio of middle cerebral to umbilical artery blood velocity in preeclamptic & hypertensive women in the prediction of poor perinatal outcome. *Indian J Med Res*. 2004 Jul;120(1):44-50. X-1.
5881. Yamada H, Kishida T, Kobayashi N, et al. Massive immunoglobulin treatment in women with four or more recurrent spontaneous primary abortions of unexplained aetiology. *Hum Reprod*. 1998 Sep;13(9):2620-3. X-1.
5882. Yamada T, Minakami H, Matsubara S, et al. Meconium-stained amniotic fluid exhibits chemotactic activity for polymorphonuclear

leukocytes in vitro. *J Reprod Immunol*. 2000 Feb;46(1):21-30. X-1.

5883. Yamani TY and Rouzi AA. Induction of labor with vaginal prostaglandin-E2 in grand multiparous women with one previous cesarean section. *Int J Gynaecol Obstet*. 1999 Jun;65(3):251-3. X-1.
5884. Yamani Zamzami TY. Vaginal birth after cesarean section in grand multiparous women. *Arch Gynecol Obstet*. 2004 Jul;270(1):21-4. X-1.
5885. Yamani-Zamzami TY. Delivery outcomes at term after one previous cesarean section. *Saudi Med J*. 2007 Dec;28(12):1845-9. X-1.
5886. Yamasmit W and Chaithongwongwatthana S. Risk factors for cesarean hysterectomy in tertiary center in Thailand: a case-control study. *J Obstet Gynaecol Res*. 2009 Feb;35(1):60-5. X-1.
5887. Yancey MK, Harlass FE, Benson W, et al. The perioperative morbidity of scheduled cesarean hysterectomy. *Obstet Gynecol*. 1993 Feb;81(2):206-10. X-1.
5888. Yang Q, Wen SW, Chen Y, et al. Neonatal mortality and morbidity in vertex-vertex second twins according to mode of delivery and birth weight. *J Perinatol*. 2006 Jan 1;26(1):3-10. X-1.
5889. Yang Q, Wen SW, Phillips K, et al. Comparison of maternal risk factors between placental abruption and placenta previa. *Am J Perinatol*. 2009 Apr;26(4):279-86. X-1.
5890. Yang YW, Chen CS, Chen YH, et al. Psoriasis and pregnancy outcomes: a nationwide population-based study. *J Am Acad Dermatol*. 2011 Jan;64(1):71-7. X-1.
5891. Yarnell RW, Polis T, Reid GN, et al. Patient-controlled analgesia with epidural meperidine after elective cesarean section. *Reg Anesth*. 1992 Nov-Dec;17(6):329-33. X-9.
5892. Yasin SY and Beydoun SN. Pregnancy outcome at greater than or equal to 20 weeks' gestation in women in their 40s. A case-control study. *J Reprod Med*. 1988 Feb;33(2):209-13. X-1.
5893. Yasmeeen S, Romano PS, Schembri ME, et al. Accuracy of obstetric diagnoses and procedures in hospital discharge data. *Am J Obstet Gynecol*. 2006 Apr;194(4):992-1001. X-1.
5894. Yasmeeen S, Wilkins EE, Field NT, et al. Pregnancy outcomes in women with systemic lupus erythematosus. *J Matern Fetal Med*. 2001 Apr;10(2):91-6. X-1.
5895. Yasuda R, Takeuchi K, Funakoshi T, et al. Bioelectrical impedance analysis in the clinical management of preeclamptic women with edema. *J Perinat Med*. 2003;31(4):275-80. X-1.
5896. Yau G, Gin T, Ewart MC, et al. Propofol for induction and maintenance of anaesthesia at caesarean section. A comparison with thiopentone/enflurane. *Anaesthesia*. 1991 Jan;46(1):20-3. X-9.

5897. Yau G, Kan AF, Gin T, et al. A comparison of omeprazole and ranitidine for prophylaxis against aspiration pneumonitis in emergency caesarean section. *Anaesthesia*. 1992 Feb;47(2):101-4. X-9.
5898. Yazicioglu F, Gokdogan A, Kelekci S, et al. Incomplete healing of the uterine incision after caesarean section: Is it preventable? *Eur J Obstet Gynecol Reprod Biol*. 2006 Jan 1;124(1):32-6. X-9.
5899. Yazigi A, Chalhoub V, Madi-Jebari S, et al. Prophylactic ondansetron is effective in the treatment of nausea and vomiting but not on pruritus after caesarean delivery with intrathecal sufentanil-morphine. *J Clin Anesth*. 2002 May;14(3):183-6. X-9.
5900. Yeast JD and Garite TR. The role of cervical cerclage in the management of preterm premature rupture of the membranes. *Am J Obstet Gynecol*. 1988 Jan;158(1):106-10. X-1.
5901. Yee HY. Quantitative determination of lecithin and sphingomyelin in amniotic fluid. *Clin Chem*. 1982 Nov;28(11):2241-3. X-1.
5902. Yee I, Carstoniu J, Halpern S, et al. A comparison of two doses of epidural fentanyl during caesarean section. *Can J Anaesth*. 1993 Aug;40(8):722-5. X-9.
5903. Yeh HM, Chen LK, Lin CJ, et al. Prophylactic intravenous ondansetron reduces the incidence of intrathecal morphine-induced pruritus in patients undergoing caesarean delivery. *Anesth Analg*. 2000 Jul;91(1):172-5. X-9.
5904. Yeh J, Leipzig S, Friedman EA, et al. Results of in vitro fertilization pregnancies: experience at Boston's Beth Israel Hospital. *Int J Fertil*. 1990 Mar-Apr;35(2):116-9. X-1.
5905. Yeh YC, Chen SY, Lin CJ, et al. Differential analgesic effect of tenoxicam on post-caesarean uterine cramping pain between primiparous and multiparous women. *J Formos Med Assoc*. 2005 Sep;104(9):647-51. X-9.
5906. Yentur EA, Topcu I, Ekici Z, et al. The effect of epidural and general anesthesia on newborn rectal temperature at elective caesarean section. *Braz J Med Biol Res*. 2009 Sep;42(9):863-7. X-9.
5907. Yeo SN and Lo WK. Bispectral index in assessment of adequacy of general anaesthesia for lower segment caesarean section. *Anaesth Intensive Care*. 2002 Feb;30(1):36-40. X-1.
5908. Yildirim G, Gungorduk K, Guven HZ, et al. When should we perform prophylactic antibiotics in elective caesarean cases? *Arch Gynecol Obstet*. 2009 Jul;280(1):13-8. X-9.
5909. Yilmazer M, Kurtay G, Sonmezer M, et al. Factor V Leiden and prothrombin 20210 G-A mutations in controls and in patients with thromboembolic events during pregnancy or the puerperium. *Arch Gynecol Obstet*. 2003 Oct;268(4):304-8. X-1.
5910. Ying H, Duan T, Bao YR, et al. Transverse annular compression sutures in the lower uterine segment to control postpartum hemorrhage at caesarean delivery for complete placenta previa. *Int J Gynaecol Obstet*. 2010 Mar;108(3):247-8. X-1.
5911. Yip SK, Lau TK and Rogers MS. A study on prophylactic antibiotics in caesarean sections--is it worthwhile? *Acta Obstet Gynecol Scand*. 1997 Jul;76(6):547-9. X-9.
5912. YM AM, Elusseini EA, Omer MM, et al. Heparin and aspirin in pregnant Sudanese women with recurrent miscarriage associated with antiphospholipid antibodies. *Afr J Reprod Health*. 2007 Aug;11(2):95-8. X-1.
5913. Yoder BA, Kirsch EA, Barth WH, et al. Changing obstetric practices associated with decreasing incidence of meconium aspiration syndrome. *Obstet Gynecol*. 2002 May;99(5 Pt 1):731-9. X-1.
5914. Yoder PR, Gibbs RS, Blanco JD, et al. A prospective, controlled study of maternal and perinatal outcome after intra-amniotic infection at term. *Am J Obstet Gynecol*. 1983 Mar 15;145(6):695-701. X-1.
5915. Yogev Y, Ben-Haroush A, Chen R, et al. Active induction management of labor for diabetic pregnancies at term; mode of delivery and fetal outcome--a single center experience. *Eur J Obstet Gynecol Reprod Biol*. 2004 Jun 15;114(2):166-70. X-1.
5916. Yogev Y, Ben-Haroush A, Gilboa Y, et al. Induction of labor with vaginal prostaglandin E2. *J Matern Fetal Neonatal Med*. 2003 Jul;14(1):30-4. X-1.
5917. Yogev Y, Ben-Haroush A, Horowitz ER, et al. PGE2 induction of labor for consistent decreased perception of fetal movements at term. *Int J Gynaecol Obstet*. 2003 Aug;82(2):173-8. X-1.
5918. Yogev Y, Ben-Haroush A, Lahav E, et al. Induction of labor with prostaglandin E2 in women with previous caesarean section and unfavorable cervix. *Eur J Obstet Gynecol Reprod Biol*. 2004 Oct 15;116(2):173-6. X-1.
5919. Yogev Y and Langer O. Pregnancy outcome in obese and morbidly obese gestational diabetic women. *Eur J Obstet Gynecol Reprod Biol*. 2008 Mar;137(1):21-6. X-1.
5920. Yokoi R, Suda S, Kobayashi K, et al. Differential susceptibility of rat embryos to methyl methanesulfonate during the pregastrulation period. *J Toxicol Sci*. 2007 Dec;32(5):495-503. X-1.
5921. Yokoyama K, Suzuki M, Shimada Y, et al. Effect of administration of pre-warmed intravenous fluids on the frequency of hypothermia following spinal anesthesia for Caesarean delivery. *J Clin Anesth*. 2009 Jun;21(4):242-8. X-9.

5922. Yonekura ML, Appleman M, Wallace R, et al. Predictive value of amniotic-membrane cultures for the development of postcesarean endometritis. *Rev Infect Dis*. 1984 Mar-Apr;6 Suppl 1:S157-64. X-1.
5923. Yonekura ML, Songster G and Smith-Wallace T. Preinduction cervical priming with PGE2 intracervical gel. *Am J Perinatol*. 1985 Oct;2(4):305-10. X-4d.
5924. Yoo KY, Jeong CW, Kang MW, et al. Bispectral index values during sevoflurane-nitrous oxide general anesthesia in women undergoing cesarean delivery: a comparison between women with and without prior labor. *Anesth Analg*. 2008 Jun;106(6):1827-32. X-1.
5925. Yoo KY, Jeong CW, Park BY, et al. Effects of remifentanyl on cardiovascular and bispectral index responses to endotracheal intubation in severe pre-eclamptic patients undergoing Caesarean delivery under general anaesthesia. *Br J Anaesth*. 2009 Jun;102(6):812-9. X-9.
5926. Yoon BH, Lee CM and Kim SW. An abnormal umbilical artery waveform: a strong and independent predictor of adverse perinatal outcome in patients with preeclampsia. *Am J Obstet Gynecol*. 1994 Sep;171(3):713-21. X-1.
5927. Yoong W, Kolhe S, Karoshi M, et al. The obstetric performance of United Kingdom asylum seekers from Somalia: a case-control study and literature review. *Int J Fertil Womens Med*. 2005 Jul-Aug;50(4):175-9. X-1.
5928. Yoong W, Wagley A, Fong C, et al. Obstetric performance of ethnic Kosovo Albanian asylum seekers in London: a case-control study. *J Obstet Gynaecol*. 2004 Aug;24(5):510-2. X-1.
5929. York R and Brown LP. Women with diabetes during pregnancy: sociodemographics, outcomes, and costs of care. *Public Health Nurs*. 1995 Oct;12(5):290-3. X-1.
5930. York S, Briscoe L, Walkinshaw S, et al. Why women choose to have a repeat caesarean section. *British Journal of Midwifery*. 2005;13(7):440-445. X-1.
5931. Yoshimura S, Masuzaki H, Miura K, et al. Effect of epidermal growth factor on lung growth in experimental fetal pulmonary hypoplasia. *Early Hum Dev*. 2000 Jan;57(1):61-9. X-1.
5932. Yost NP, Bloom SL, Sibley MK, et al. A hospital-sponsored quality improvement study of pain management after cesarean delivery. *Am J Obstet Gynecol*. 2004 May;190(5):1341-6. X-9.
5933. Young A, Thomson AJ, Ledingham M, et al. Immunolocalization of proinflammatory cytokines in myometrium, cervix, and fetal membranes during human parturition at term. *Biol Reprod*. 2002 Feb;66(2):445-9. X-1.
5934. Young BK, Klein SA, Katz M, et al. Intravenous dexamethasone for prevention of neonatal respiratory distress: A prospective controlled study. *Am J Obstet Gynecol*. 1980 Sep 15;138(2):203-9. X-4e.
5935. Young DC, Popat R, Luther ER, et al. Influence of maternal oxygen administration on the term fetus before labor. *Am J Obstet Gynecol*. 1980 Feb 1;136(3):321-4. X-3, X-4b, X-5.
5936. Young R, Platt L and Ledger W. Prophylactic cefoxitin in cesarean section. *Surg Gynecol Obstet*. 1983 Jul;157(1):11-4. X-9.
5937. Young RC and Zhang P. The mechanism of propagation of intracellular calcium waves in cultured human uterine myocytes. *Am J Obstet Gynecol*. 2001 May;184(6):1228-34. X-1.
5938. Young TK and Woodmansee B. Factors that are associated with cesarean delivery in a large private practice: the importance of prepregnancy body mass index and weight gain. *Am J Obstet Gynecol*. 2002 Aug;187(2):312-8; discussion 318-20. X-1.
5939. Youngstrom PC, Cowan RI, Sutheimer C, et al. Pain relief and plasma concentrations from epidural and intramuscular morphine in post-cesarean patients. *Anesthesiology*. 1982 Nov;57(5):404-9. X-9.
5940. Yousef AA and Amr YM. The effect of adding magnesium sulphate to epidural bupivacaine and fentanyl in elective caesarean section using combined spinal-epidural anaesthesia: a prospective double blind randomised study. *Int J Obstet Anesth*. 2010 Oct;19(4):401-4. X-9.
5941. Yu CC, Chuah EC, Ng YT, et al. Neonatal status in cesarean section under epidural anesthesia with supplementary oxygen. *Ma Zui Xue Za Zhi*. 1992 Dec;30(4):229-36. X-1.
5942. Yu PY and Gambling DR. A comparative study of patient-controlled epidural fentanyl and single dose epidural morphine for post-caesarean analgesia. *Can J Anaesth*. 1993 May;40(5 Pt 1):416-20. X-9.
5943. Yu SC, Ngan Kee WD and Kwan AS. Addition of meperidine to bupivacaine for spinal anaesthesia for Caesarean section. *Br J Anaesth*. 2002 Mar;88(3):379-83. X-9.
5944. Yu VY, Loke HL and Szymonowicz W. Outcome of singleton infants delivered vaginally or by caesarean section at 23 to 28 weeks' gestation. *Aust N Z J Obstet Gynaecol*. 1987 Aug;27(3):196-200. X-1.
5945. Yuen PM, Pang HY, Chung T, et al. Cervical ripening before induction of labour in patients with an unfavourable cervix: a comparative randomized study of the Atad Ripener Device, prostaglandin E2 vaginal pessary, and prostaglandin E2 intracervical gel. *Aust N Z J Obstet Gynaecol*. 1996 Aug;36(3):291-5. X-4d, X-5.

5946. Yun E, Topulos GP, Body SC, et al. Pulmonary function changes during epidural anesthesia for cesarean delivery. *Anesth Analg*. 1996 Apr;82(4):750-3. X-9.
5947. Yun EM, Marx GF and Santos AC. The effects of maternal position during induction of combined spinal-epidural anesthesia for cesarean delivery. *Anesth Analg*. 1998 Sep;87(3):614-8. X-9.
5948. Zahn J, Bernstein H, Hossain S, et al. Comparison of non-invasive blood pressure measurements on the arm and calf during cesarean delivery. *J Clin Monit Comput*. 2000;16(8):557-62. X-9.
5949. Zahran KM, Shahin AY, Abdellah MS, et al. Sublingual versus vaginal misoprostol for induction of labor at term: a randomized prospective placebo-controlled study. *J Obstet Gynaecol Res*. 2009 Dec;35(6):1054-60. X-4d.
5950. Zaiss I, Kehl S, Petri E, et al. Umbilical cord blood donation during caesarean section does not lead to increased maternal blood loss. *In Vivo*. 2010 May-Jun;24(3):339-40. X-1.
5951. Zakowski MI, Ramanathan S and Turndorf H. A two-dose epidural morphine regimen for cesarean section patients: therapeutic efficacy. *Acta Anaesthesiol Scand*. 1992 Oct;36(7):698-701. X-9.
5952. Zamzami TY. A comparison of induction with vaginal prostaglandin E2 versus spontaneous of labor in grand multiparous women. *Arch Gynecol Obstet*. 2005 Dec;273(3):176-9. X-1.
5953. Zamzami TY. Prelabor rupture of membranes at term in low-risk women: induce or wait? *Arch Gynecol Obstet*. 2006 Feb;273(5):278-82. X-1.
5954. Zanardo V, Caroni G and Burlina A. Higher homocysteine concentrations in women undergoing caesarean section under general anesthesia. *Thromb Res*. 2003;112(1-2):33-6. X-1.
5955. Zanetta G, Tampieri A, Currado I, et al. Changes in cesarean delivery in an Italian university hospital, 1982-1996: a comparison with the national trend. *Birth*. 1999 Sep;26(3):144-8. X-1, X-4b, X-4e.
5956. Zareian Z and Zareian P. Non-closure versus closure of peritoneum during cesarean section: a randomized study. *Eur J Obstet Gynecol Reprod Biol*. 2006 Sep-Oct;128(1-2):267-9. X-9.
5957. Zaremba W, Grunert E and Aurich JE. Prophylaxis of respiratory distress syndrome in premature calves by administration of dexamethasone or a prostaglandin F2 alpha analogue to their dams before parturition. *Am J Vet Res*. 1997 Apr;58(4):404-7. X-1.
5958. Zaretsky MV, Alexander JM, McIntire DD, et al. Magnetic resonance imaging pelvimetry and the prediction of labor dystocia. *Obstet Gynecol*. 2005 Nov;106(5 Pt 1):919-26. X-1.
5959. Zdeb MS, Therriault GD and Logrillo VM. Frequency, spacing, and outcome of pregnancies subsequent to primary cesarean childbirth. *Am J Obstet Gynecol*. 1984 Sep 15;150(2):205-12. X-1, X-2, X-4b, X-5.
5960. Zeanah M and Schlosser SP. Adherence to ACOG guidelines on exercise during pregnancy: effect on pregnancy outcome. *J Obstet Gynecol Neonatal Nurs*. 1993 Jul-Aug;22(4):329-35. X-1.
5961. Zeisler H, Joura EA, Bancher-Todesca D, et al. Prophylactic cerclage in pregnancy. Effect in women with a history of conization. *J Reprod Med*. 1997 Jul;42(7):390-2. X-1.
5962. Zelop C, Nadel A, Frigoletto FD, Jr., et al. Placenta accreta/percreta/increta: a cause of elevated maternal serum alpha-fetoprotein. *Obstet Gynecol*. 1992 Oct;80(4):693-4. X-1.
5963. Zelop CM, Shipp TD, Cohen A, et al. Trial of labor after 40 weeks' gestation in women with prior cesarean. *Obstet Gynecol*. 2001 Mar;97(3):391-3. X-1.
5964. Zelop CM, Shipp TD, Repke JT, et al. Uterine rupture during induced or augmented labor in gravid women with one prior cesarean delivery. *Am J Obstet Gynecol*. 1999 Oct;181(4):882-6. X-1.
5965. Zelop CM, Shipp TD, Repke JT, et al. Outcomes of trial of labor following previous cesarean delivery among women with fetuses weighing >4000 g. *Am J Obstet Gynecol*. 2001 Oct;185(4):903-5. X-1.
5966. Zera CA and Seely EW. Diabetes: Treatment of gestational diabetes reduces obstetric morbidity. *Nat Rev Endocrinol*. 2010 Feb;6(2):69-70. X-1, X-2.
5967. Zeteroglu S, Engin-Ustun Y, Ustun Y, et al. A prospective randomized study comparing misoprostol and oxytocin for premature rupture of membranes at term. *J Matern Fetal Neonatal Med*. 2006 May;19(5):283-7. X-3, X-4d, X-5.
5968. Zeteroglu S, Sahin I and Gol K. Cesarean delivery rates in adolescent pregnancy. *Eur J Contracept Reprod Health Care*. 2005 Jun;10(2):119-22. X-1.
5969. Zeteroglu S, Ustun Y, Engin-Ustun Y, et al. Peripartum hysterectomy in a teaching hospital in the eastern region of Turkey. *Eur J Obstet Gynecol Reprod Biol*. 2005 May 1;120(1):57-62. X-1.
5970. Zezai A, Apers L and Zishiri C. Cesarean section rate as a process indicator of safe motherhood programmes: the case of Midlands Province. *Cent Afr J Med*. 2001 May;47(5):129-34. X-1, X-4e, X-5.
5971. Zhang J, Landy HJ, Branch DW, et al. Contemporary patterns of spontaneous labor with normal neonatal outcomes. *Obstet Gynecol*. 2010 Dec;116(6):1281-7. X-1.

5972. Zhang J, Liu Y, Meikle S, et al. Cesarean delivery on maternal request in southeast China. *Obstet Gynecol.* 2008 May;111(5):1077-82. X-1.
5973. Zhang J and Savitz DA. Maternal age and placenta previa: a population-based, case-control study. *Am J Obstet Gynecol.* 1993 Feb;168(2):641-5. X-1.
5974. Zhang J, Troendle J, Reddy UM, et al. Contemporary cesarean delivery practice in the United States. *Am J Obstet Gynecol.* 2010 Oct;203(4):326 e1-326 e10. X-1.
5975. Zhang W, Song Y, He X, et al. Prevalence and risk factors of overactive bladder syndrome in Fuzhou Chinese women. *Neurourol Urodyn.* 2006;25(7):717-21. X-1.
5976. Zhang W, Wang L and Liu L. The study of levels of norepinephrine and dopamine-beta-hydroxylase in patients with pregnancy-induced hypertension. *Zhonghua Yi Xue Za Zhi (Taipei).* 2001 Jun;64(6):351-6. X-1.
5977. Zhang W, Zhao Y and Yin Y. The relationship between catecholamines levels in mother and fetus, and pathogenesis of pregnancy-induced hypertension. *Chin Med J (Engl).* 2003 Jul;116(7):1108-9. X-1.
5978. Zhang Y, Zhao YY and Qiao J. Obstetric outcome of women with uterine anomalies in China. *Chin Med J (Engl).* 2010 Feb 20;123(4):418-22. X-1.
5979. Zhang YL, Liu JT, Gao JS, et al. Influential and prognostic factors of small for gestational age infants. *Chin Med J (Engl).* 2009 Feb 20;122(4):386-9. X-1.
5980. Zhou HY, Li L, Li D, et al. Clinical observation on the treatment of post-cesarean hypogalactia by auricular points sticking-pressing. *Chin J Integr Med.* 2009 Apr;15(2):117-20. X-9.
5981. Zhou ZQ, Shao Q, Zeng Q, et al. Lumbar wedge versus pelvic wedge in preventing hypotension following combined spinal epidural anaesthesia for caesarean delivery. *Anaesth Intensive Care.* 2008 Nov;36(6):835-9. X-9.
5982. Zhu XM, Han T, Sargent IL, et al. Differential expression profile of microRNAs in human placentas from preeclamptic pregnancies vs normal pregnancies. *Am J Obstet Gynecol.* 2009 Jun;200(6):661 e1-7. X-1.
5983. Zhuang Y and Huang L. Uterine artery embolization compared with methotrexate for the management of pregnancy implanted within a cesarean scar. *Am J Obstet Gynecol.* 2009 Aug;201(2):152 e1-3. X-3, X-4e.
5984. Ziadeh S. Obstetric outcome of teenage pregnancies in North Jordan. *Arch Gynecol Obstet.* 2001 Mar;265(1):26-9. X-1.
5985. Ziadeh S and Yahaya A. Pregnancy outcome at age 40 and older. *Arch Gynecol Obstet.* 2001 Mar;265(1):30-3. X-1.
5986. Ziadeh SM. Maternal and perinatal outcome in nulliparous women aged 35 and older. *Gynecol Obstet Invest.* 2002;54(1):6-10. X-1.
5987. Ziadeh SM and Abu-Heija AT. Duration of labor in patients delivered vaginally after one previous lower segment cesarean section. *Int J Gynaecol Obstet.* 1994 Jun;45(3):213-5. X-1.
5988. Ziadeh SM and Sunna E. Obstetric and perinatal outcome of pregnancies with term labour and meconium-stained amniotic fluid. *Arch Gynecol Obstet.* 2000 Sep;264(2):84-7. X-1.
5989. Zimmer EZ, Jakobi P, Weissman A, et al. Maternal and fetal digoxin-like immunoreactive factor in elective cesarean sections and spontaneous vaginal delivery. *Eur J Obstet Gynecol Reprod Biol.* 1990 Jul-Aug;36(1-2):53-8. X-1.
5990. Ziogos E, Tsiodras S, Matalliotakis I, et al. Ampicillin/sulbactam versus cefuroxime as antimicrobial prophylaxis for cesarean delivery: a randomized study. *BMC Infect Dis.* 2010;10:341. X-9.
5991. Zite N, Wuellner S and Gilliam M. Failure to obtain desired postpartum sterilization: risk and predictors. *Obstet Gynecol.* 2005 Apr;105(4):794-9. X-1.
5992. Zlatnik FJ. The Iowa premature breech trial. *Am J Perinatol.* 1993 Jan;10(1):60-3. X-4b, X-4c, X-4e.
5993. Zohar E, Luban I, Zunker I, et al. Patient-controlled bupivacaine wound instillation following cesarean section: the lack of efficacy of adjuvant ketamine. *J Clin Anesth.* 2002 Nov;14(7):505-11. X-9.
5994. Zohar E, Shapiro A, Eidinov A, et al. Postcesarean analgesia: the efficacy of bupivacaine wound instillation with and without supplemental diclofenac. *J Clin Anesth.* 2006 Sep;18(6):415-21. X-9.
5995. Zollinger TW, Saywell RM, Jr., Hubbs OA, 3rd, et al. Assessing prenatal care in a family practice residency clinic. *Fam Med.* 1997 Nov-Dec;29(10):736-42. X-1.
5996. Zorlu CG, Turan C, Isik AZ, et al. Emergency hysterectomy in modern obstetric practice. Changing clinical perspective in time. *Acta Obstet Gynecol Scand.* 1998 Feb;77(2):186-90. X-1.
5997. Zorzoli A, Soliani A, Perra M, et al. Cervical changes throughout pregnancy as assessed by transvaginal sonography. *Obstet Gynecol.* 1994 Dec;84(6):960-4. X-1.
5998. Zubor P, Szunyogh N, Dokus K, et al. Application of uterotonics on the basis of regular ultrasonic evaluation of the uterus prevents unnecessary surgical intervention in the postpartum period. *Arch Gynecol Obstet.* 2010 Sep;282(3):261-7. X-1.

5999. Zwart JJ, Richters JM, Ory F, et al. Uterine rupture in The Netherlands: a nationwide population-based cohort study. *BJOG*. 2009 Jul;116(8):1069-78; discussion 1078-80. X-1.

Appendix C. Evidence Tables

Evidence Table C1. Strategies To Reduce Cesarean Birth

Evidence Table C2. Strategies To Reduce Cesarean Birth—Systems Interventions

Evidence Table C1. Strategies to reduce cesarean birth

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Abdel-Aleem et al., 2005</p> <p>Country: Egypt</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 04/2003 to 03/2004</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Transcervical amnioinfusion (1000 mL warmed saline) and 1 g amoxicillin IV</p> <p>Groups: G1: Amnioinfusion and conventional obstetric care G2: Conventional obstetric care only</p> <p>N at enrollment: G1: 219 G2: 219</p> <p>N at birth: G1: 219 G2: 219</p> <p>Age: NR</p> <p>Race/ethnicity: NR</p> <p>Parous: NR</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Single fetus • Vertex presentation • Gestational age > 37 weeks • Cervical dilation < 5 cm • Nonreassuring fetal heart rate trace indicating fetal distress <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Vaginal bleeding • Fetal anomalies • Uterine scars • Uterine anomalies • Malpresentation • Intrauterine growth retardation • Maternal temperature > 38° C • Grand multiparity (> 5) • Severe pre-eclampsia 	<p>Cervical dilation at admission, mean cm ± SD: G1: 3.9 ± 1.1 G2: 3.8 ± 1.3</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression: NR</p> <p>Labor augmented, n (%): G1: 22 (10.1) G2: 23 (10.5)</p> <p>AROM: NR</p> <p>Internal monitoring (method NR), n (%): G1: 219 (100) G2: 219 (100)</p> <p>Amnioinfusion, n (%): G1: 214 (97.7) G2: 0</p> <p>Epidural: NR</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes</p> <p>Cesarean birth for fetal distress, n (%): G1: 105 (47.9) G2: 149 (68) G1/G2: RR = 0.70 (95% CI: 0.60-0.83)</p> <p>Vaginal, assisted: NR</p> <p>Vaginal, spontaneous: NR</p> <p>Maternal harms, n (%): Maternal pyrexia (> 38°C): G1: 16 (7.3) G2: 14 (6.4) G1/G2: RR = 1.14 (95% CI: 0.57-2.28)</p> <p>Maternal mortality: NR</p> <p>Infant outcomes</p> <p>Neonatal mortality, n (%): G1: 0 G2: 1 (< 1)</p> <p>Apgar score < 7, n (%): 1 minute: G1: 29 (13.2) G2: 77 (0.35) G1/G2: RR = 0.38 (95% CI: 0.26-0.55)</p> <p>5 minutes: G1: 9 (4.1) G2: 29 (13.2) G1/G2: RR = 0.31 (95% CI: 0.15-0.64)</p> <p>NICU admission, n (%): G1: 14 (6.4) G2: 31 (14.2) G1/G2: RR = 0.45 (95% CI: 0.25-0.83)</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Adamsons et al., 1999</p> <p>Country: Puerto Rico</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 04/1998 to 10/1998</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Propranolol 2 mg IV given every 4 hours until delivery, started upon admission to labor room after an initial period of observation revealed no evidence of abnormal fetal heart rate patterns.</p> <p>Groups: G1: Propranolol G2: Usual care</p> <p>N at enrollment: G1: 34 G2: 23</p> <p>N at birth: G1: 34 G2: 23</p> <p>Age: NR</p> <p>Race/ethnicity: NR</p> <p>Parous: G1: 0 G2: 0</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Nulliparity • No contraindication for vaginal delivery or use of propranolol (e.g., history of bronchial asthma) • Investigator available to be present through complete labor and delivery period <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • See inclusion criteria 	<p>Cervical dilation at admission: NR</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression, total time of labor, mean hours (range): G1: 7.92 (2.25-11.0) G2: 6 (2.0-11.25) G1/G2: <i>P</i> = NS</p> <p>Labor augmented: NR</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural: NR</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 4 (11.7) G2: 4 (17.6) G1/G2: <i>P</i> = 0.367</p> <p>Vaginal, assisted: NR</p> <p>Vaginal, spontaneous: NR</p> <p>Maternal harms, n: Anesthesia related morbidity: G1: 0 G2: 0</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality, n: G1: 0 G2: 0</p> <p>Apgar score: NR</p> <p>NICU admission: NR</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Ajadi et al., 2006</p> <p>Country: Nigeria</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: NR</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Amniotomy in labor</p> <p>Groups: G1: Amniotomy G2: Control/no amniotomy</p> <p>N at enrollment: G1: 64 G2: 64</p> <p>N at birth: G1: 64 G2: 64</p> <p>Age, mean ± yrs SD: G1: 29.4 ± 5.7 G2: 28.6 ± 6.9</p> <p>Race/ethnicity: NR</p> <p>Parous: NR</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> Uncomplicated pregnancy presenting in labor Spontaneous onset of labor at ≥ 37 weeks to < 42 weeks Singleton fetus in cephalic presentation Cervical dilatation ≥ 4 cm but < 6 cm Intact membranes <p>Exclusion criteria:</p> <ul style="list-style-type: none"> High-risk pregnancies, such as previous cesarean, hemoglobinopathies, hypertension in pregnancy, malpresentations and multiple pregnancies, antepartum hemorrhage, suspected intrauterine growth restriction, advanced labor (≥ 6 cm), ruptured membranes, and fetal distress 	<p>Cervical dilation at randomization, mean ± SD: G1: 4.60 ± 0.32 G2: 4.70 ± 0.30 G1/G2: P = NS</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression, vaginal deliveries, mean minutes ± SD: Duration randomization to delivery: G1: 208.27 ± 22.52 (n=58) G2: 292.07 ± 23.41 (n=59) G1/G2: P ≤ 0.05</p> <p>Labor augmented, n (%): G1: 4 (6.25) G2: 6 (9.4) G1/G2: P = NS</p> <p>AROM, n (%): G1: 64 (100) G2: NR¹</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural: NR</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 1 (1.6) G2: 1 (1.6) G1/G2: P = NS</p> <p>Vaginal, assisted, n (%): G1: 6 (9.3) G2: 5 (7.8) G1/G2: P = NS</p> <p>Vaginal, spontaneous, n (%): G1: 57 (89.1) G2: 58 (90.6) G1/G2: P = NS</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality: NR</p> <p>Apgar score < 7, 1 minute, n (%): G1: 5 (7.8) G2: 4 (6.3)</p> <p>NICU admission: NR</p>

¹ Patients could have amniotomy if progress was not satisfactory.

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Asher et al., 2009</p> <p>Country: US</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Clinic</p> <p>Enrollment period: 02/2005 to 03/2007</p> <p>Funding: American Academy of Family Physicians Foundation, American Academy of Family Physicians, UNC Dept. Family Medicine, NIH</p> <p>Author industry relationship disclosure: None</p> <p>Design: RCT</p>	<p>Intervention: Traditional Chinese Medicine (TCM) acupuncture, sham acupuncture, or usual care only group.</p> <p>Acupuncture point at LI4, SP6, BL32, and BL54 were needled bilaterally</p> <p>Groups: G1: TCM acupuncture G2: Sham acupuncture G3: No acupuncture</p> <p>N at enrollment: G1: 30 G2: 29 G3: 30</p> <p>N at birth: G1: 30 G2: 29 G3: 30</p> <p>Age, mean yrs ± SD: G1: 30.4 ± 3.9 G2: 29.6 ± 4.8 G3: 28.9 ± 5.7</p> <p>Race/ethnicity: NR</p> <p>Parous, n: G1: 0 G2: 0 G3: 0</p> <p>Medicaid: NR</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> Nulliparous Between 38-41 weeks gestation Able to communicate in English ≥ 18 years old <p>Exclusion criteria:</p> <ul style="list-style-type: none"> Uncertain dating Transportation difficulties Breech presentation Previous inability to tolerate acupuncture 	<p>Cervical dilation at admission: NR</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression: NR</p> <p>Labor augmented: NR</p> <p>AROM, n (%): G1: 16 (53) G2: 16 (55) G3: 17 (57) <i>P</i> = 0.99</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural: NR</p> <p>Maternal infection in labor, n (%): G1: 7 (23) G2: 6 (21) G3: 2 (7) <i>P</i> = 0.20</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 6 (20) G2: 2 (7) G3: 3 (10) <i>P</i> = 0.37</p> <p>Vaginal, assisted: NR</p> <p>Vaginal, spontaneous: NR</p> <p>Maternal harms: Endometritis, n: G1: 0 G2: 0 G3: 0 <i>P</i> = 1.0</p> <p>Postpartum hemorrhage and/or uterine atony, n (%): G1: 3 (10) G2: 2 (7) G3: 1 (3) <i>P</i> = 0.70</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality: NR</p> <p>Apgar score, mean ± SD: 1 minute: G1: 7.7 ± 1.8 G2: 7.9 ± 1.6 G3: 8.2 ± 1.4 <i>P</i> = 0.44</p> <p>5 minutes: G1: 8.8 ± 0.8 G2: 8.9 ± 0.4 G3: 9.0 ± 0.2 <i>P</i> = 0.36</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
Asher et al., 2009 (continued)					NICU admission, n (%): G1: 0 G2: 0 G3: 1 (3.3) <i>P</i> = 0.66

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Barakat et al., 2009</p> <p>Country: Spain</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Other</p> <p>Enrollment period: 01/2000 to 03/2002</p> <p>Funding: Spanish Ministry of Education</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Light-intensity resistance exercise training performed during 2nd and 3rd trimesters (three sessions per week for approximately 26 weeks)</p> <p>Groups: G1: Exercise sessions G2: Control</p> <p>N at enrollment: G1: 80 G2: 80</p> <p>N at birth: G1: 72 G2: 70</p> <p>Age, mean yrs ± SD: G1: 30.4 ± 2.9 G2: 29.5 ± 3.7</p> <p>Race/ethnicity: NR</p> <p>Parous, n (%): 0: G1: 52 (72.2) G2: 40 (57.1) 1: G1: 16 (22.2) G2: 25 (35.7) 2: G1: 4 (5.6) G2: 5 (7.1)</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • 25-35 years old • Sedentary (not exercising > 20 minutes on > 3 days per week) • Singleton • Uncomplicated gestation <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • High risk for preterm birth (more than one previous PTB) 	<p>Cervical dilation at admission: NR</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression, mean minutes ± SD: Dilation time: G1: 426 ± 20 G2: 378 ± 13 G1/G2: <i>P</i> > 0.1</p> <p>Labor augmented: NR</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 50 (69.4) G2: 48 (68.6) G1/G2: <i>P</i> > 0.1</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 11 (15.3) G2: 11 (15.7)</p> <p>Vaginal, assisted, n (%): G1: 10 (13.9) G2: 9 (12.9)</p> <p>Vaginal, spontaneous, n (%): G1: 51 (70.8) G2: 50 (71.4) G1/G2: <i>P</i> > 0.1</p> <p>Maternal harms, n (%): Exercise related injuries: G1: 0 G2: 0</p> <p>Preterm deliveries: G1: 2 (2.8) G2: 3 (4.3)</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality: NR</p> <p>Apgar score, mean ± SD: 1 minute: G1: 8.9 ± 1.1 G2: 8.8 ± 1.2</p> <p>5 minutes: G1: 9.9 ± 0.2 G2: 9.9 ± 0.3</p> <p>NICU admission: NR</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Bernitz et al., 2011</p> <p>Country: Norway</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: NR</p> <p>Funding: Regional Health Trust, National Advisory Committee for Obstetrics in Norway and Østfold Hospital Trust</p> <p>Author industry relationship disclosure: 0/6</p> <p>Design: RCT</p>	<p>Intervention: Midwife-led unit: care designed for low risk women wanting minimal intervention (no epidural or augmentation unless required for second phase of second stage). If extended surveillance needed woman transferred to Normal or Special Unit.</p> <p>Normal unit: organized for women with expected normal births with access to extended surveillance, epidural and operative vaginal delivery.</p> <p>Special unit: organized for women who need extended surveillance in the antenatal period, during labor and after birth.</p> <p>Groups: G1: Midwife-led unit G2: Normal unit G3: Special unit</p> <p>N at enrollment: G1: 282 G2: 412 G3: 417</p> <p>N at birth: G1: 282 G2: 412 G3: 417</p> <p>Age, n (%): < 25 years: G1: 103 (25) G2: 100 (24)</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Healthy, low risk women without any disease known to influence the pregnancy • Singleton fetus in cephalic position • Pre-pregnant BMI ≤ 32 • Not smoking more than 10 cigarettes/day • No prior operation on uterus • No prior complicated deliveries • Spontaneous onset of labor between 36⁺¹ and 41⁺⁶ weeks <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • See above 	<p>Cervical dilation at admission: NR</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression: NR</p> <p>Labor augmented, n (%): G1: 108 (26.2) G2: 153 (36.7) G3: 107 (38.0) P < 0.01</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 65 (16.0) G2: 97 (23.0) G3: 70 (25.0) P < 0.01</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 24 (6.0) G2: 24 (6.0) G3: 23 (8.0) P = NS</p> <p>Vaginal, assisted, n (%): G1: 43 (10.0) G2: 51 (12.0) G3: 30 (11.0) P = NS</p> <p>Vaginal, spontaneous, n (%): G1: 345 (84.0) G2: 342 (82.0) G3: 229 (81.0) P = NS</p> <p>Maternal harms (post partum hemorrhage > 1000 ml), n (%): G1: 7 (1.7) G2: 9 (2.2) G3: 9 (3.2) P = NS</p> <p>Maternal mortality: NR</p> <p>Infant outcomes</p> <p>Neonatal mortality: NR</p> <p>Apgar score < 7, 5 minutes, n (%): G1: 4 (1.0) G2: 6 (1.0) G3: 1 (0.5) P = NS</p> <p>NICU admission, n (%): G1: 32 (8.0) G2: 26 (6.0) G3: 19 (7.0) P = NS</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
Bernitz et al., 2011 (continued)	<p>G3: 64 (22.7)</p> <p>25-35 years: G1: 263 (63.8) G2: 270 (64.7) G3: 181 (64.2)</p> <p>> 35 years: G1: 46 (11.2) G2: 47 (11.3) G3: 37 (13.1)</p> <p>Race/ethnicity: NR</p> <p>Parous, n (%): G1: 134 (32.5) G2: 132 (31.7) G3: 98 (35.4)</p> <p>Medicaid: Not applicable</p>				

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Bidgood and Steer, 1987</p> <p>Country: UK</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Antenatal clinic Labor and delivery suite</p> <p>Enrollment period: NR</p> <p>Funding: Action Research for the Crippled Child</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Interventions:</p> <ul style="list-style-type: none"> G1: Oxytocin deferred for 8 hours then given at treating physician's discretion G2: If uterine activity < 700 kPas/15 min, oxytocin at 2 mU/min and increased by 2 mU/min every 15 minutes until uterine activity stable or > 1500 kPas/15 min, then infusion rate halved to maintenance level 2mU/min G3: Oxytocin at 7 mU/min and increased by 7 mU/min every 15 minutes, limited by a frequency of 7 contractions in 15 minutes or by abnormality in the fetal heart rate (FHR) trace. <p>Groups: G1: No oxytocin for 8 hours G2: Automatic infusion/low-dose oxytocin G3: High-dose oxytocin</p> <p>N at enrollment: G1: 20 G2: 21 G3: 19</p> <p>N at birth: G1: 20 G2: 21 G3: 19</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> First spontaneous labor Vertex presentation Within 3 weeks of term Slow progress of labor <p>Exclusion criteria:</p> <ul style="list-style-type: none"> See inclusion criteria 	<p>Cervical dilation at admission: NR</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression, mean hours ± SD: G1: 27 ± 8.1 G2: 25 ± 6.7 G3: 23 ± 7.8</p> <p>Labor augmented, n (%): Oxytocin stimulation: G1: 5 (25.0) G2: 13 (61.9) G3: 19 (100.0)</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, n: Total: 58/60</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes Cesarean birth, n (%): G1: 9 (45) G2: 7 (33.3) G3: 5 (26.3)</p> <p>Vaginal, assisted, n (%): Kielland forceps and low forceps: G1: 8 (40) G2: 9 (42.8) G3: 8 (41)</p> <p>Vaginal, spontaneous, n (%): G1: 3 (15) G2: 5 (23.8) G3: 6 (31.5)</p> <p>Maternal harms, n: Hyperstimulation: G1: 0 G2: 0 G3: 7</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality: NR</p> <p>Apgar score < 7, 5 minutes, n: G1: 1 G2: 1 G3: NR</p> <p>NICU admission: NR</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
Bidgood and Steer, 1987 (continued)	Age: NR Race/ethnicity: NR Parous: NR Medicaid: Not applicable				

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Bloom et al., 2006</p> <p>Country: US</p> <p>Participant source: Academic multi site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 05/2002 to 02/2005</p> <p>Funding: NIH</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Knowledge of intrapartum fetal oxygen saturation through a display to the clinician on a fetal pulse oximeter</p> <p>Groups: G1: Open, fetal oxygen saturation displayed G2: Masked, fetal oxygen saturation not displayed</p> <p>N at enrollment: G1: 2,629 G2: 2,712</p> <p>N at birth: G1: 2,629 G2: 2,712</p> <p>Age, mean yrs ± SD: G1: 23.5 ± 5.5 G2: 23.5 ± 5.5</p> <p>Race/ethnicity, n (%): White: G1: 1,348 (51.3) G2: 1,414 (52.1) Black: G1: 817 (31.1) G2: 838 (30.9) Asian: G1: 39 (1.5) G2: 34 (1.3) Other: G1: 425 (16.2) G2: 426 (15.7) Hispanic or Latino: G1: 641 (24.4) G2: 668 (24.6) Not Hispanic or Latino: G1: 1,988 (75.6) G2: 2,044 (75.4)</p> <p>Parous, n: G1: 0 G2: 0</p> <p>Medicaid: NR</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Nulliparous • Singleton, cephalic, living fetus • ≥ 36 weeks of gestation • Cervical dilatation 2-6 cm <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Planned cesarean delivery • Maternal fever (≥ 38°C) • Known HIV or hepatitis virus infection • Heart or renal disease • Diabetes mellitus 	<p>Cervical dilation at admission, mean cm ± SD: G1: 4.7 ± 1.0 G2: 4.7 ± 1.0</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression: NR</p> <p>Labor augmented, n (%): Oxytocin: G1: 1,859 (70.7) G2: 1,913 (70.5)</p> <p>AROM: NR</p> <p>Internal monitoring, n (%): Electronic fetal monitoring: G1: 2,629 (100) G2: 2,712 (100)</p> <p>Amnioinfusion: NR</p> <p>Epidural: NR</p> <p>Regional analgesia, n (%): G1: 2266 (86.2) G2: 2362 (87.1)</p> <p>Maternal infection in labor, n (%): Chorioamnionitis: G1: 282 (10.7) G2: 291 (10.7) G1/G2: <i>P</i> = 1.00</p>	<p>Maternal Outcomes</p> <p>Cesarean birth, n (%): G1: 692 (26.3) G2: 747 (27.5) G1/G2: RR = 0.96 (95% CI: 0.87-1.04), <i>P</i> = 0.31</p> <p>Vaginal, assisted, n (%): G1: 380 (14.5) G2: 400 (14.7) G1/G2: RR = 0.98 (95% CI: 0.86-1.12), <i>P</i> = 0.76</p> <p>Vaginal, spontaneous, n (%): G1: 1557 (59.2) G2: 1565 (57.7) G1/G2: RR = 1.03 (95% CI: 0.98-1.07), <i>P</i> = 0.26</p> <p>Maternal harms, n (%): Postpartum endometritis: G1: 114 (4.3) G2: 120 (4.4) G1/G2: <i>P</i> = 0.87</p> <p>Wound complications: G1: 4 (0.2) G2: 3 (0.1) G1/G2: <i>P</i> = 0.72</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality, n (%): G1: 0 G2: 1 (< 0.1) G1/G2: <i>P</i> = 1.00</p> <p>Apgar score < 4, 5 minutes, n (%): G1: 6 (0.2) G2: 3 (0.1) G1/G2: <i>P</i> = 0.34</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
Bloom et al., 2006 (continued)					NICU admission, n (%): G1: 126 (4.8) G2: 147 (5.4) G1/G2: <i>P</i> = 0.30

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Bloom et al., 1998</p> <p>Country: US</p> <p>Participant source: Non-academic single site Community</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 09/1996 to 10/1997</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Walking as desired during 1st stage of labor, as compared with supine, lateral or sitting position in labor bed (usual care)</p> <p>Groups: G1: Walking group G2: Usual care group Ga: Women who actually walked Gb: Women who did not walk</p> <p>N at enrollment: (1st stage of labor) G1: 536 G1a: 380 G1b: 156 G2: 531</p> <p>N at birth: G1: 536 G2: 531</p> <p>Age, mean years ± SD: G1: 22.4 ± 5 G2: 22.5 ± 5</p> <p>Race/ethnicity, n (%): White: G1: 24 (4) G2: 26 (5) Black: G1: 67 (12) G2: 74 (14) Hispanic: G1: 440 (82) G2: 425 (80) Other: G1: 5 (1) G2: 6 (1)</p> <p>Parous, n (%): G1: 264 (49) G2: 259 (49)</p> <p>Medicaid: NR</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> Regular uterine contractions Cervical dilatation of 3-5 cm Cephalic presentation 36-41 weeks gestation <p>Exclusion criteria:</p> <ul style="list-style-type: none"> Any known complications of pregnancy, including breech presentation 	<p>Cervical dilation at admission, mean cm ± SD: G1: 4.0 ± 0.9 G2: 4.0 ± 0.8 G1/G2: <i>P</i> = 0.74</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression: Length of 1st stage, mean hours ± SD: G1: 6.1 ± 3.6 G1a: 6.2 ± 3.5 G1b: 5.5 ± 3.6 G2: 6.1 ± 3.5 G1a/G1b: <i>P</i> = 0.05 G1a/G2: <i>P</i> = 0.36</p> <p>Duration of labor 1st stage, nulliparous women, mean hours ± SD: G1: 7.6 ± 3.9 G2: 7.3 ± 3.9 G1/G2: <i>P</i> = 0.47</p> <p>Duration of labor 1st stage, parous women, mean hours ± SD: G1: 4.6 ± 2.4 G2: 4.7 ± 2.4 G1/G2: <i>P</i> = 0.60</p> <p>Duration of labor 2nd stage, mean hours ± SD: G1: 0.6 ± 3.6 G2: 0.6 ± 0.7 G1/G2: <i>P</i> = NS</p> <p>Duration of labor 2nd stage, nulliparous women, mean hours ± SD: G1: 1.0 ± 0.9 G2: 0.9 ± 0.8 G1/G2: <i>P</i> = 0.46</p> <p>Duration of labor 2nd stage, parous women, mean hours ± SD: G1: 0.2 ± 0.3 G2: 0.2 ± 0.3 G1/G2: <i>P</i> = 0.42</p> <p>Labor augmented, n (%): Oxytocin: G1: 122 (23) G1a: 85 (22) G2: 137 (26) G1a/G2: <i>P</i> = 0.23</p>	<p>Maternal outcomes Cesarean birth, n (%): Cesarean birth: G1: 23 (4) G2: 31 (6) G1/G2: <i>P</i> = 0.25</p> <p>Cesarean birth, nulliparous women: G1: 19 (7) G2: 21 (8) G1/G2: <i>P</i> = 0.74</p> <p>Cesarean birth, parous women: G1: 4 (2) G2: 10 (4) G1/G2: <i>P</i> = 0.10</p> <p>Vaginal, assisted, n (%): Forceps: G1: 23 (4) G2: 17 (3) G1/G2: <i>P</i> = 0.35</p> <p>Forceps, nulliparous women: G1: 21 (8) G2: 15 (6) G1/G2: <i>P</i> = 0.30</p> <p>Forceps, parous women: G1: 2 (1) G2: 2 (1) G1/G2: <i>P</i> = 0.99</p> <p>Vaginal, spontaneous, n (%): G1: 490 (91) G2: 483 (91) G1/G2: <i>P</i> = 0.39</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality, n: G1: 0 G2: 0</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
Bloom et al., 1998 (continued)				<p>Oxytocin, nulli-parous women: G1: 95 (35) G2: 99 (36) G1/G2: $P = 0.72$</p> <p>Oxytocin, parous women: G1: 27 (10) G2: 38 (15) G1/G2: $P = 0.12$</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural only, n (%): G1: 29 (5) G2: 31 (6)</p> <p>Epidural and IV analgesia, n (%): G1: 138 (26) G2: 153 (29)</p> <p>Maternal infection in labor, n (%): Chorioamnionitis: G1: 43 (8) G2: 42 (8)</p>	<p>Apgar score < 3, 5 minutes, n: G1: 0 G2: 0</p> <p>NICU admission: NR</p>

Among the 380 women in G1 who actually walked, 278 (73%) were asked if they would choose to walk again during a future labor, and 274 (99%) said yes.

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Campbell et al., 2006</p> <p>Country: US</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Ambulatory care center, diner, homes, various locations</p> <p>Enrollment period: 1998 to 2002</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Lay doula (personally chosen, additional support people who received training from a certified doula)</p> <p>Groups: G1: Doula support in labor G2: Control/standard care</p> <p>N at enrollment: G1: 298 G2: 300</p> <p>N at birth: G1: 291 G2: 295</p> <p>Age, mean yrs: G1: 22.2 G2: 22.6</p> <p>Race/ethnicity, %: White: G1: 56 G2: 56 Black: G1: 36 G2: 29 Indian: G1: 0.4 G2: 0.6 Chinese: G1: 0.7 G2: 0.2 Filipino: G1: 0.4 G2: 0.6 Other: G1: 6 G2: 12 Hispanic: G1: 18 G2: 21 Non-Hispanic: G1: 78 G2: 72 Other: G1: 4 G2: 7</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Nulliparous • Singleton pregnancy • Low-risk pregnancy at the time of enrollment in the study • Able to identify a female friend or family member willing to act as a lay doula <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Contraindication to labor (e.g., placenta previa, planned cesarean) 	<p>Cervical dilation at admission, mean cm ± SD: G1: 4.3 ± 1.3 G2: 3.9 ± 1.2 G1/G2: P = 0.007</p> <p>Cervical effacement at admission: NR</p>	<p>Length of labor, vaginal births, mean hours ± SD: G1: 10.4 ± 4.3 G2: 11.7 ± 4.8 G1/G2: P = 0.004</p> <p>Labor augmented, %: Pitocin: G1: 46 G2: 49</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, %: G1: 85 G2: 88 G1/G2: P = 0.4</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes Cesarean birth, %: G1: 18.9 G2: 17.9 G1/G2: P = 0.7</p> <p>Vaginal, assisted: NR</p> <p>Vaginal, spontaneous: NR</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality: NR</p> <p>Apgar score > 6, %: 1 minute: G1: 95 G2: 90 G1/G2: P = 0.04</p> <p>5 minutes: G1: 99.7 G2: 97.0 G1/G2: P = 0.006</p> <p>NICU admission: NR</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
Campbell et al., 2006 (continued)	Parous, n: G1: 0 G2: 0 Medicaid: NR Low income, %: G1: 100 G2: 100				

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Choudhary et al., 2010</p> <p>Country: India</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Hospital, labor and delivery suite</p> <p>Enrollment period: NR</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: None</p> <p>Design: RCT</p>	<p>Intervention: Transcervical amnioinfusion during labor complicated by meconium-stained amniotic fluid in a setting with limited peripartum facilities</p> <p>Groups: G1: Amnioinfusion G2: Standard labor management without amnioinfusion</p> <p>N at enrollment: G1: 146 G2: 146</p> <p>N at birth: G1: 146 G2: 146</p> <p>Age, mean yrs ± SD: G1: 24.0 ± 3.8 G2: 25.3 ± 4.7</p> <p>Race/ethnicity: NR</p> <p>Parous, %: Multigravida: G1: 56.2 G2: 56.5</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Term pregnancy > 37 weeks • Singleton pregnancy • Cephalic presentation • Moderate or thick meconium • Adequate pelvis <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Indications for immediate delivery such as cord prolapsed • Persistent fetal bradycardia • Chorioamnionitis • Antepartum hemorrhage • Fetal malpresentation • Fetal congenital anomaly • Polyhydramnios • Maternal cardiac or pulmonary disease • Multiple gestation 	<p>Cervical dilation at admission: NR</p> <p>Cervical effacement at admission: NR</p> <p>When meconium detected, cm ± SD: G1: 3.8 ± 1.0 G2: 3.5 ± 1.4</p>	<p>Labor progression, time from meconium detection to delivery, minutes, mean ± SD: G1: 178.3 ± 101.8 G2: 130.5 ± 70.4 G1/G2: <i>P</i> = 0.000</p> <p>Labor augmented: NR</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion, n (%): G1: 146 (100) G2: 0</p> <p>Epidural: NR</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 43 (29.5) G2: 93 (63.7)</p> <p>Vaginal, assisted, n (%): G1: 0 G2: 7 (4.8)</p> <p>Vaginal, spontaneous, n (%): G1: 103 (70.5) G2: 46 (31.5)</p> <p>Maternal harms, n (%): Pyrexia: G1: 4 (3) G2: 8 (5) G1/G2: <i>P</i> = 0.238</p> <p>Incoordinate uterine activity: G1: 0 G2: 3 (2.1)</p> <p>Cord prolapse during amnioinfusion: G1: 0 G2: 0</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality, n (%): G1: 2 (1.4) G2: 16 (11) G1/G2: <i>P</i> = 0.01</p> <p>Apgar score < 7, n (%): 1 minute: G1: 15 (10) G2: 45 (31) G1/G2: <i>P</i> < 0.001</p> <p>5 minutes: G1: 1 (0.7) G2: 12 (8.2) G1/G2: <i>P</i> = 0.000</p> <p>NICU admission: NR</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Cohen et al., 1987</p> <p>Country: US</p> <p>Participant source: Community practice</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 09/1985 to 06/1986</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Early aggressive management consisted of amniotomy if required, insertion of a fetal electrode, an intrauterine pressure cannula and oxytocin infusion within 30 minutes of presentation to the labor suite.</p> <p>Groups: G1: Early aggressive management group G2: Control group</p> <p>N at enrollment: G1: 75 G2: 75</p> <p>N at birth: G1: 75 G2: 75</p> <p>Age, mean yrs (SEM): G1: 19.5 (0.4) G2: 20.6 (0.4) G1/G2: <i>P</i> = NS</p> <p>Race/ethnicity, %: White: G1: 54.7 G2: 66.7 Black: G1: 37.4 G2: 21.3 Hispanic: G1: 8.0 G2: 10.7 G1/G2: <i>P</i> = NS</p> <p>Parous, n (%): Primigravid: G1: 75 (100) G2: 75 (100)</p> <p>Medicaid: NR</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Low risk • Primigravid • 37 to 42 weeks • Met standard criteria for admission to labor suite (uterine contractions accompanied by cervical dilation of 3 cm or ruptured membranes) • Demonstrated an inadequate pattern (frequency of < 3 contractions lasting 40 seconds each in a 10 minute time period). <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • See inclusion criteria 	<p>Cervical dilation at admission, mean cm ± SD: G1: 2.6 ± 0.1 G2: 3.0 ± 0.1 G1/G2: <i>P</i> = 0.03</p> <p>Cervical effacement at admission, mean (SEM): G1: 82.3 (2.3) G2: 85.3 (2.5) G1/G2: <i>P</i> = NS</p>	<p>Labor progression, subjects achieving vaginal delivery, mean hours (SEM): Duration of labor, latent period: G1: 1.42 (0.33) G2: 2.15 (0.29) G1/G2: <i>P</i> = NS</p> <p>Duration of labor, active phase: G1: 4.38 (0.36) G2: 4.14 (0.36) G1/G2: <i>P</i> = NS</p> <p>Duration of labor, deceleration phase: G1: 0.27 (0.07) G2: 0.27 (0.06) G1/G2: <i>P</i> = NS</p> <p>Labor augmented, n (%): G1: 75 (100)* G2: 28 (37)*</p> <p>AROM: NR</p> <p>Internal monitoring, n (%): Fetal electrode: G1: 75 (100) G2: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural: NR</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes Cesarean birth, n (%): G1: 10 (13) G2: 11 (15) G1/G2: <i>P</i> = NS</p> <p>Vaginal, assisted, n (%): G1: 6 (8) G2: 3 (4) G1/G2: <i>P</i> = NS</p> <p>Vaginal, spontaneous, n (%): G1: 59 (79) G2: 61 (81) G1/G2: <i>P</i> = NS</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality: NR</p> <p>Apgar score, 5 minutes, mean (SEM): G1: 8.97 (0.06) G2: 8.95 (0.06) G1/G2: <i>P</i> = NS</p> <p>Cord pH, mean ± SD: G1: 7.31 (0.01) G2: 7.31 (0.01) G1/G2: <i>P</i> = NS</p> <p>NICU admission: NR</p>

* Calculated by reviewer.

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Cox et al., 1999</p> <p>Country: UK</p> <p>Participant source: Non-academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 05/1996 to 01/1998</p> <p>Funding: Nycomed UK</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Inflatable obstetric belt; synchronized to apply uniform fundal pressure during contraction, used for the 2nd stage of labor</p> <p>Groups: G1: Inflatable obstetric belt during 2nd stage of labor G2: Standard care with 1 hour of passive 2nd stage and 1 hour active pushing; instrumental delivery if not imminent</p> <p>N at enrollment: G1: 260 G2: 240</p> <p>N at birth: G1: 260 G2: 240</p> <p>Age, mean yrs ± SD: G1: 30.3 ± 4.1 G2: 30.1 ± 4.5</p> <p>Race/ethnicity, n (%): White: G1: 224 (93.3) G2: 204 (85) Other: G1: 36 (13.8) G2: 36 (15)</p> <p>Parous, n: G1: 0 G2: 0</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Nulliparous • Singleton • Cephalic presentation • Age 20-40 years • Term delivery (> 37 weeks gestation) • Functioning epidural analgesia • < 10 cm cervical dilatation at admission • Weight < 100 kg • Written informed consent <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • History of cancer • Significant cardiovascular, renal, hepatic, GI, respiratory, endocrine, metabolic, hematopoietic, or neurological disorders • Current drug or alcohol abuse • Previous surgery of the myometrium • Moderate to severe PIH • History of antepartum hemorrhage in current pregnancy • Abnormal fetus • Uterine overextension • Hydramnios • Abnormal uterine activity • Signs of placental abruption 	<p>Cervical dilation at insertion of epidural, median cm (range): G1: 4 (3-5) G2: 3 (2.5-4.25)</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression, median minutes (IQR): Duration of 1st stage: G1: 450 (320-622.5) G2: 495 (340-645)</p> <p>Length of total 2nd stage: G1: 136 (107-160) G2: 136 (95.5-165) G2/G1: Δ = -1 (95% CI: -10, 7), <i>P</i> = 0.8053</p> <p>Labor augmented, n (%): Oxytocin: G1: 166 (63.8) G2: 151 (62.9)</p> <p>Induced: G1: 79 (30.4) G2: 66 (27.5)</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 260 (100) G2: 240 (100)</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 15 (5.8) G2: 9 (3.8) G2/G1: OR = 0.64 (95% CI: 0.27-1.49), <i>P</i> = 0.292</p> <p>Vaginal, assisted, n (%): Lift-out instrumental: G1: 108 (41.5) G2: 101 (42.1) G2/G1: OR = 1.02 (95% CI: 0.71-1.46), <i>P</i> = 0.902</p> <p>Rotational instrumental: G1: 26 (10) G2: 36 (15) G2/G1: OR = 1.59 (95% CI: 0.92-2.73), <i>P</i> = 0.090</p> <p>Vaginal, spontaneous, n (%): G1: 111 (42.7) G2: 94 (39.2) G2/G1: OR = 0.86 (95% CI: 0.60-1.24), <i>P</i> = 0.423</p> <p>Maternal harms, n (%): 3rd degree tear: G1: 17 (6.5) G2: 1 (0.4) G2/G1: OR = 16.72 (95% CI: 2.81-∞), <i>P</i> < 0.001</p> <p>Catheter insertion for urinary retention: G1: 6 (2.3) G2: 2 (1.3)</p> <p>Maternal mortality, n: G1: 0 G2: 0</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
Cox et al., 1999 (continued)					<u>Neonatal outcomes</u> Neonatal mortality, n: G1: 0 G2: 0 Apgar score: NR NICU admission: NR

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: East et al., 2006</p> <p>Country: Australia</p> <p>Participant source: Academic multisite</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 07/1999 to 09/2004</p> <p>Funding: Australian National Health and Medical Research Council, Queensland Health, The University of Queensland, TYCO Inc.</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Cardiotocography monitoring with fetal pulse oximetry</p> <p>Groups: G1: Cardiotocography with fetal pulse oximetry G2: Cardiotocography only</p> <p>N at enrollment: G1: 306 G2: 295</p> <p>N at birth: G1: 306 G2: 295</p> <p>Age, mean yrs ± SD: G1: 29.7 ± 5.8 G2: 28.9 ± 5.6</p> <p>Race/ethnicity: NR</p> <p>Parous, n (%): G1: 58 (19.0) G2: 69 (23.4)</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Non-reassuring cardiotocograph during labor • Early or active labor • Able to give informed consent • Gestational age ≥ 36 weeks • Ruptured amniotic membranes or eligible and consenting to artificial rupture of membranes <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Multiple gestation • Non-vertex presentation • Placenta previa • Abruptio placentae • Antepartum hemorrhage • Uterine anomaly • Fetal anomalies • Known significant viral infection • Other contraindication to invasive monitoring 	<p>Cervical dilation at admission, median cm (IQR): G1: 3 (2-3.9) G2: 3 (2-4)</p> <p>Cervical effacement at admission: NR</p> <p>Prior cesarean, n (%): G1: 19 (6.2) G2: 16 (5.4)</p> <p>Multiple gestation, n: G1: 0 G2: 0</p>	<p>Labor progression, median minutes (IQR): G1: 186 (109, 306) G2: 147 (94, 248) G1/G2: <i>P</i> = 0.01</p> <p>Labor augmented, n (%): Oxytocin infusion: G1: 254 (83.3) G2: 238 (80.7)</p> <p>Prostaglandin: G1: 86 (28.2) G2: 88 (29.8)</p> <p>AROM, n (%): G1: 162 (53.1) G2: 171 (58.0)</p> <p>Internal monitoring, n (%): G1: 305 (100) G2: 295 (100)</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 274 (89.8) G2: 254 (86.1)</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 140 (45.9) G2: 142 (48.1) G1/G2: RR = 0.95 (95% CI: 0.80-1.13), <i>P</i> = 0.584</p> <p>Vaginal, assisted, n (%): G1: 84 (27.5) G2: 67 (22.7) G1/G2: RR = 1.21 (95% CI: 0.92-1.60), <i>P</i> = 0.173</p> <p>Vaginal, spontaneous, n (%): G1: 81 (26.6) G2: 86 (29.2) G1/G2: RR = 0.91 (95% CI: 0.70-1.18), <i>P</i> = 0.478</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality: NR</p> <p>Apgar score < 4, 1 minute, n (%): G1: 12 (3.9) G2: 9 (3.1) G1/G2: RR = 1.29 (95% CI: 0.55-3.02), <i>P</i> = 0.556</p> <p>Apgar score < 7, 5 minutes, n (%): G1: 5 (1.6) G2: 6 (2) G1/G2: RR = 0.81 (95% CI: 0.25-2.61), <i>P</i> = 0.719</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
East et al., 2006 (continued)					<p>Apgar score, median (IQR): 1 minute: G1: 8 (7-9) G2: 9 (7-9) G1/G2: $P = 0.344$</p> <p>5 minutes: G1: 9 (9-9) G2: 9 (9-9) G1/G2: $P = 0.802$</p> <p>NICU admission, n (%): G1: 9 (3) G2: 11 (3.7) G1/G2: RR = 0.79 (95% CI: 0.33-1.88), $P = 0.596$</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Frigoletto et al., 1995</p> <p>Country: US</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 01/1991 to 07/1993</p> <p>Funding: NIH</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Active management labor protocol: One-to-one nursing care. Standardized criteria for diagnosis of labor (painful contractions accompanied by effacement at least 80%, bloody show or spontaneous rupture of membranes). Management of labor- amniotomy within one hour of diagnosis. Cervical exams at least every two hours. Oxytocin to treat inefficient uterine action (rate of cervical dilation < than 1 cm/hour during 1st stage of labor, time between full dilation and fetus head at pelvic floor > 1 hour during 2nd stage. Infusion begun at 4mU per minute and increased by 4mU per minute to maximum dose of 40 mU per minute</p> <p>Groups: G1: Active management G2: Usual care</p> <p>N at enrollment: G1: 1017 G2: 917</p> <p>N at birth: G1: 1009 G2: 906</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Full-term pregnancy • Vertex presentation • Spontaneous onset of labor <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Pregnancy related complications: • Pregnancy-induced hypertension • Nonreassuring fetal-heart pattern at admission • Gestational diabetes • Intrauterine growth retardation • Oligo hydramnios • Placenta previa • Prolapsed cord • Score of < 6 out of 8 on a biophysical profile • Treatment with systemic steroids during pregnancy • Fetus with congenital anomaly • Active herpes • Maternal medical conditions: • Diabetes • HIV infection with CD4 lymphocyte count < 500 • Serious chronic medical condition 	<p>Cervical dilation at admission, mean ± SD: Protocol eligible (n): G1: (678) 3.3 ± 2.0 G2: (585) 3.6 ± 2.1</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression: NR</p> <p>Labor augmented, n (%):Protocol eligible G1: (70) G2: (56) G1/G2: RR=1.3 (95% CI:1.2-1.4)</p> <p>AROM, n (%):Protocol eligible subgroup G1: (61) G2: (51) G1/G2: RR=1.2 (95% CI:1.1-1.3)</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, %: Protocol eligible subgroup: G1: 54 G2: 64 G1/G2: RR = 0.8 (95% CI: 0.8-0.9)</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes Cesarean birth, n (%): ITT: G1: 197 (19.5) G2: 176 (19.4) G1/G2: RR= 1.0 (95% CI: 0.8-1.2)</p> <p>Cesarean birth, %: Protocol eligible subgroup: G1: 10.9 G2: 11.5 G1/G2: RR = 0.9 (95% CI: 0.4-1.9)</p> <p>Vaginal, assisted, n (%): Protocol eligible subgroup: G1: (10.8) G2: (14.4) G1/G2: RR= 0.8 (95% CI: 0.6-1.2)</p> <p>Vaginal, spontaneous, n (%): Protocol eligible subgroup: G1: (78.3) G2: (74.2) G1/G2: RR = 1.1 (95% CI: 0.8-1.4)</p> <p>Maternal harms, n (%): Fever: G1/G2: RR 0.6 (95% CI: 0.4 -0.9)</p> <p>Maternal mortality: See comment below¹</p> <p>Infant outcomes Neonatal mortality: NR</p> <p>Apgar score < 5, five minutes, n: G1: 2 G2: 2</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
Frigoletto et al., 1995 (continued)	Protocol-eligible: G1: 678 G2: 585 Age: NR Race/ethnicity: NR Parous: NR Medicaid: NR				NICU admission: NR

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Gagnon et al., 1997</p> <p>Country: Canada</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 01/1993 to 07/1994</p> <p>Funding: Fonds de la recherche en santé du Québec (FRSQ)</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: One-to-one intrapartum nursing care from the time of randomization until one hour after birth</p> <p>Groups: G1: One-to-one intrapartum nursing care G2: No intervention/usual nursing care</p> <p>N at enrollment: G1: 209 G2: 204</p> <p>N at birth: G1: 198 G2: 204</p> <p>Age, mean yrs: G1: 27.6 G2: 27.8</p> <p>Race/ethnicity: NR</p> <p>Parous, n: G1: 0 G2: 0</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Nulliparous • Singleton • > 37 weeks gestation • In labor (regular painful contractions ≤ 5 minutes apart) <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Scheduled cesarean • Scheduled induction • IUGR • Preeclampsia • Paid labor support • Cervical dilation > 4 cm • Nonreactive non-stress test • Absence of fetal heart tones 	<p>Cervical dilation at admission, mean cm ± SD: G1: 2.7 ± 1.0 G2: 2.7 ± 1.0</p> <p>Cervical effacement at admission: NR</p> <p>Multiple gestation, n: G1: 0 G2: 0</p>	<p>Labor duration from randomization, mean hours ± SD: G1: 9.1 ± 4.1 G2: 9.4 ± 4.7 G1/G2: Δ = -0.3 (95% CI: -1.0,0.4)</p> <p>Labor augmented, n (%): Pre-randomization (oxytocin): G1: 55 (26.3) G2: 45 (22.1)</p> <p>Post-randomization (oxytocin): G1: 82 (39.2) G2: 96 (47.1) G1/G2: RR = 0.83 (95% CI: 0.67-1.04)</p> <p>AROM, n (%): G1: 128 (61.1) G2: 126 (61.8)</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): Before randomization: G1: 36 (17.2) G2: 41 (20.1)</p> <p>Post-randomization: G1: 139 (66.5) G2: 142 (69.6) G1/G2: RR = 0.96 (95% CI: 0.84-1.09)</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes Cesarean birth, n (%): G1: 29 (13.9) G2: 33 (16.2) G1/G2: RR = 0.86 (95% CI: 0.54-1.36)</p> <p>Vaginal, assisted, n (%): G1: 48 (23.0) G2: 44 (21.6) G1/G2: RR = 1.06 (95% CI: 0.74-1.53)</p> <p>Vaginal, spontaneous, n (%): G1: 131 (63.1) G2: 127 (62.3)</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality: NR</p> <p>Apgar score, mean ± SD: 1 minute: G1: 8.0 ± 1.4 G2: 8.3 ± 0.9 G1/G2: Δ = -0.3 (95% CI: -0.5,-0.1)</p> <p>5 minutes: G1: 8.9 ± 0.9 G2: 9.0 ± 0.8 G1/G2: Δ = -0.1 (95% CI: -0.3,0.1)</p> <p>NICU admission, n (%): G1: 15 (7.2) G2: 10 (4.9) G1/G2: RR = 1.46 (95% CI: 0.67-3.18)</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Gambling et al., 1998</p> <p>Country: US</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 08/1994 to 02/1995</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Combined spinal epidural (CSE) arm: IV bolus 500 mL Ringer's lactate; 10 µg sufentanil injected into subarachnoid space; 0.25% bupivacaine administered via epidural in 3-5 mL increments to achieve bilateral T10-T8 sensory level, followed by epidural infusion 0.125% bupivacaine and 2µg/mL fentanyl at 8-10 mL/hour (rate halved at start of 2nd stage)</p> <p>Meperidine group: initial dose of 50 mg meperidine and 25 mg promethazine IV; then 50 mg meperidine on request every hour (max 200 mg in 4 hours)</p> <p>Groups: G1: Combined spinal-epidural analgesia G2: IV meperidine analgesia (50 mg on demand/ max 200 mg in 4 hours)</p> <p>N at enrollment: G1: 616 G2: 607</p> <p>N at birth: G1: 616 G2: 607</p> <p>Age, mean yrs ± SD: G1: 21.7 ± 4.9 G2: 22.4 ± 4.9</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Healthy parturient • In spontaneous labor • Term pregnancy <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Pregnancy complication • Cervical dilatation > 5 cm on admission • Other than singleton cephalic gestation 	<p>Cervical dilation at admission, median cm (IQR): G1: 4.0 (3.0, 5.0) G2: 4.0 (3.25, 5.0)</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression: First analgesia to delivery interval, mean hours ± SD: G1: 5.0 ± 3.3 G2: 4.0 ± 3.1 G1/G2: <i>P</i> = 0.0001</p> <p>First analgesia to delivery interval, nulliparous women, mean hours ± SD: G1: 6.0 ± 3.4 G2: 4.9 ± 3.2 G1/G2: <i>P</i> < 0.0002</p> <p>First analgesia to delivery interval, protocol compliant women, mean minutes ± SD: G1: 298 ± 199 G2: 177 ± 131 G1/G2: <i>P</i> < 0.005</p> <p>Second stage of labor, mean minutes ± SD: G1: 48 ± 50 G2: 31 ± 34 G1/G2: <i>P</i> = 0.0001</p> <p>Second stage > 2 hours, n (%): G1: 61 (10) G2: 24 (4)</p> <p>Second stage of labor, nulliparous women, mean minutes ± SD: G1: 64 ± 54 G2: 43 ± 38 G1/G2: <i>P</i> < 0.0002</p> <p>Second stage > 2 hours, nulliparous women, n (%): G1: 54 (16) G2: 19 (6)</p>	<p>Maternal outcomes Cesarean birth, n (%): Cesarean birth: G1: 39 (6) G2: 34 (5.5) G1/G2: <i>P</i> = NS</p> <p>Cesarean birth for dystocia: G1: 23 (3.5) G2: 25 (4.0) G1/G2: <i>P</i> = NS</p> <p>Cesarean birth, nulliparous women: G1: 30 (10) G2: 25 (9) G1/G2: <i>P</i> = NS</p> <p>Cesarean birth for dystocia, nulliparous women: G1: 21 (7) G2: 24 (8) G1/G2: <i>P</i> = NS</p> <p>Cesarean birth, protocol compliant nulliparous women: G1: 27 (11) G2: 8 (5) G1/G2: <i>P</i> = 0.023</p> <p>Vaginal, assisted, n (%): Outlet forceps: G1: 10 (1.5) G2: 10 (1.5)</p> <p>Low forceps: G1: 41 (6.5) G2: 24 (4)</p> <p>Vaginal, spontaneous, n (%): G1: 526 (86) G2: 539 (89) G1/G2: <i>P</i> = NS</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
Gambling et al., 1998 (continued)	<p>Race/ethnicity, n (%) White: G1: 64 (10) G2: 54 (9) Black: G1: 180 (29) G2: 177 (29) Hispanic: G1: 360 (59) G2: 366 (60) Other: G1: 12 (2) G2: 10 (2)</p> <p>Parous, n (%): G1: 280 (45.5) G2: 293 (48.3)</p> <p>Medicaid: NR</p>				<p>Vaginal, spontaneous, nulliparous women, n (%): G1: 229 (77) G2: 230 (80) G1/G2: <i>P</i> = NS</p> <p>Maternal harms, n (%): Maternal fever > 38°C, protocol compliant nulliparous women: G1: 88 (22) G2: 11 (3) G1/G2: <i>P</i> < 0.005</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality: NR</p> <p>Apgar score < 7, 5 minutes, n (%): G1: 0 G2: 1 (0.2)</p> <p>NICU admission: NR</p>

* Calculated by reviewer.

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Garite et al., 2000</p> <p>Country: US</p> <p>Participant source: Academic multi site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: NR</p> <p>Funding: Nellcor Division of Mallinckrodt, Inc.</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Fetal pulse oximetry (Nellcor FS14 fetal oxygen sensor inserted transcervically until it rests against fetal cheek; connected to Nellcor N-400 monitor), in addition to FHR monitoring</p> <p>Groups: G1: Fetal pulse oximetry with FHR monitoring G2: FHR monitoring alone</p> <p>N at enrollment: G1: 508 G2: 502</p> <p>N at birth: G1: 508 G2: 502</p> <p>Age, mean yrs: G1: 27.6 G2: 27.3</p> <p>Race/ethnicity, n (%): White: G1: 331 (65) G2: 303 (60) Black: G1: 51 (10) G2: 72 (14) Hispanic: G1: 103 (20) G2: 104 (21) Asian: G1: 18 (4) G2: 20 (4)</p> <p>Parity, mean: G1: 0.7 G2: 0.7</p> <p>Medicaid, n (%): G1: 171 (34) G2: 181 (36)</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • ≥ 36 weeks gestational age • In active labor • One or more of the FHR patterns included • Singleton in a cephalic presentation • Cervix dilated ≥ 2 cm and at the -2 station or below • Ruptured membranes <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Planned cesarean • Placenta previa • Need for immediate delivery • Active genital herpes or known HIV infection • Participation in other studies 	<p>Cervical dilation at admission, mean cm: G1: 5.7 G2: 5.5</p> <p>Cervical effacement at admission: NR</p> <p>Prior cesarean, n (%): G1: 64 (13) G2: 60 (12)</p> <p>Multiple gestation, n: G1: 0 G2: 0</p>	<p>Labor progression: NR</p> <p>Labor augmented, n (%): Prostaglandin: G1: 157 (31) G2: 123 (25)</p> <p>AROM (amniotomy), n (%): G1: 340 (67) G2: 318 (63)</p> <p>Internal monitoring (scalp pH monitoring), n (%): G1: 15 (3) G2: 26 (5)</p> <p>Amnioinfusion, n (%): G1: 177 (35) G2: 180 (36)</p> <p>Epidural, n (%): G1: 487 (96) G2: 471 (94)</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): All indications: G1: 147 (29) G2: 130 (26) G1/G2: $P = 0.49$</p> <p>Non-reassuring fetal status: G1: 23 (5) G2: 51 (10) G1/G2: $P < 0.0001$</p> <p>Fetal intolerance with dystocia: G1: 27 (5) G2: 35 (7) G1/G2: $P = NS$</p> <p>Dystocia: G1: 94 (19) G2: 43 (9) G1/G2: $P < 0.0001$</p> <p>Vaginal, assisted, n (%): G1: 120 (24) G2: 117 (23) G1/G2: $P = NS$</p> <p>Vaginal, spontaneous, n (%): G1: 241 (47) G2: 255 (51) G1/G2: $P = NS$</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality, n (%): G1: 3 (0.6) G2: 2 (0.4)</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
Garite et al., 2000 (continued)					<p>Apgar score < 7, 5 minutes, n: G1: 8 G2: 19</p> <p>G1/G2: P = 0.05 Apgar score, mean: 1 minute: G1: 7.5 G2: 7.6</p> <p>5 minutes: G1: 8.7 G2: 8.8</p> <p>NICU admission, n: G1: 92 G2: 74</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Garite et al., 2000</p> <p>Country: US</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: NR</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Lactated Ringer's or isotonic saline IV infusion, 125 or 250 mL/hr</p> <p>Groups: G1: 125 mL/hr fluid infusion G2: 250 mL/hr fluid infusion</p> <p>N at enrollment: G1: 94 G2: 101</p> <p>N at birth: G1: 94 G2: 101</p> <p>Age, mean yrs: G1: 21.2 G2: 21.5</p> <p>Race/ethnicity, n (%): White: G1: 18 (19.1) G2: 23 (22.7) Hispanic: G1: 63 (67.0) G2: 66 (65.3) Black: G1: 3 (3.1) G2: 1 (0.9) Asian: G1: 7 (7.4) G2: 7 (6.9) Other: G1: 3 (3.1) G2: 4 (3.9)</p> <p>Parous, n: G1: 0 G2: 0</p> <p>Medicaid: NR</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> Nulliparous Spontaneous active labor Singleton pregnancy ≥ 36 weeks gestation Cephalic presentation Dilatation 2-5 cm, with or without ruptured membranes <p>Exclusion criteria:</p> <ul style="list-style-type: none"> Labor induction Preeclampsia Cardiac or renal disease Previous cesarean Chorioamnionitis, pyelonephritis, or other febrile illness 	<p>Cervical dilation at randomization, mean cm: G1: 3.6 G2: 3.8</p> <p>Cervical effacement at admission, mean %: G1: 87.2 G2: 89.6</p>	<p>Labor progression, duration of labor, mean minutes: G1: 552 G2: 484</p> <p>Labor augmented, n (%): Oxytocin: G1: 61 (65) G2: 51 (49)</p> <p>AROM, n (%): G1: 29/48 (60) G2: 22/54 (41)</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 73 (77.6) G2: 76 (75.2)</p> <p>Maternal infection in labor, n (%): Endometritis: G1: 8 (9) G2: 3 (3)</p> <p>Chorioamnionitis (maternal temp > 38°C): G1: 18 (19) G2: 15 (15)</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 16 (17.0) G2: 10 (9.9) G1/G2: <i>P</i> = 0.22</p> <p>Vaginal, assisted, n (%): G1: 15 (16) G2: 22 (21) G1/G2: <i>P</i> = 0.68</p> <p>Vaginal, spontaneous, n (%):* G1: 63 (67) G2: 69 (68)</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality, n: G1: 0 G2: 0</p> <p>Apgar score < 7, 5 minutes, n (%): G1: 0 G2: 1 (0.9)</p> <p>NICU admission, n (%): G1: 8 (8.5) G2: 10 (9.9)</p>

* The number of spontaneous vaginal births was calculated by the reviewer, subtracting the number of operative vaginal and cesarean deliveries from the overall N for the group

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Harper et al., 2006</p> <p>Country: US</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Clinic</p> <p>Enrollment period: 07/2004 to 02/2005</p> <p>Funding: Bowes Cefalo Young Researcher Award, North Carolina Academic Alliance for Integrative Medicine Pilot Funding</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Acupuncture treatments 3 out of 4 consecutive days. Needles inserted and left in place for 30 minutes, following treatment regimen from Shanghai College of Medicine text.</p> <p>Groups: G1: Acupuncture G2: Control/no acupuncture</p> <p>N at enrollment: G1: 30 G2: 26</p> <p>N at birth: G1: 30 G2: 26</p> <p>Age, mean yrs ± SD: G1: 29.2 ± 4.9 G2: 29.1 ± 4.8</p> <p>Race/ethnicity, n (%): Caucasian: G1: 27 (90) G2: 22 (85) Black: G1: 1 (3) G2: 3 (11) Hispanic: G1: 2 (7) G2: 1 (4)</p> <p>Parous: NR</p> <p>Medicaid: NR</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> Nulliparous 39 4/7 to 41 weeks gestation Singleton pregnancy Vertex fetus Cervical Bishop score < 7 <p>Exclusion criteria:</p> <ul style="list-style-type: none"> Uncertain dating as described by ACOG criteria Contraindications to vaginal delivery (breech, previa) Previous inability to tolerate acupuncture 	<p>Cervical dilation at admission, mean cm: G1: 3.3 G2: 2.7 G1/G2: <i>P</i> = 0.28</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression, time from enrollment to delivery, mean hours ± SD: G1: 124 ± 86.7 G2: 145 ± 82.7 G1/G2: <i>P</i> = 0.36</p> <p>Labor augmented: NR</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural: NR</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes Cesarean birth, %: G1: 17 G2: 39 G1/G2: OR = 3.13 (95% CI: 0.99-10.8), <i>P</i> = 0.07</p> <p>Vaginal, assisted: NR</p> <p>Vaginal, spontaneous: NR</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Infant outcomes Neonatal mortality: NR</p> <p>Apgar score: G1: NR G2: NR G1/G2: <i>P</i> = NS</p> <p>NICU admission: G1: NR G2: NR G1/G2: <i>P</i> = NS</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Harvey et al., 1996</p> <p>Country: Canada</p> <p>Participant source: Non-academic multi site</p> <p>Intervention setting: Clinic Labor and delivery suite</p> <p>Enrollment period: 02/1992 to 08/1994</p> <p>Funding: Alberta Foundation for Nursing research and Alberta Association of Registered Nurses</p> <p>Author Industry Relationship Disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Nurse-midwife care- a team of seven nurse-midwives. Seen by an OB at initial visit and at 36 weeks to confirm their low-risk status.</p> <p>Groups: G1: Nurse-midwife care G2: Physician care</p> <p>N at enrollment: G1: 101 G2: 93</p> <p>N at birth: G1: 101 G2: 93</p> <p>Age, mean yrs: G1: 30.26 ± 3.77 G2: 30.9 ± 4.33</p> <p>Race/ethnicity, n (%): White: G1: 97 (96.1) G2: 91 (97.8) Asian: G1: 3 (2.8) G2: 2 (2.2) Aboriginal: G1: 1 (1.1) G2: 0 (0)</p> <p>Parous, n (%): G1: 45 (44.6) G2: 49 (52.7)</p> <p>Medicaid: NA</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Requested midwifery care • Low risk for medical complications according to the Alberta perinatal risk scoring system • Provided informed consent <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Prior cesarean • Primigravidas < 17 or > 37 years of age • > 20 weeks gestation at time of entry into study 	<p>Cervical dilation at admission mean ± SD: NR</p> <p>Cervical effacement at admission mean ± SD: NR</p>	<p>Labor progression induction, n (%): G1: 8 (8) G2: 14 (15.6)</p> <p>Labor augmented, n (%): G1: 14 (14) G2: 19 (21.1)</p> <p>AROM, n (%): G1: 17 (16.8) G2: 28 (30.1)</p> <p>Internal monitoring, n (%): NR</p> <p>Amnioinfusion, n (%): NR</p> <p>Epidural, n (%): G1: 13 (12.9) G2: 22 (23.7)</p> <p>Maternal infection in labor, n (%): NR</p>	<p>Maternal Outcomes</p> <p>Cesarean birth, n (%): G1: 4 (4.0) G2: 14 (15.1) G1/G2: <i>P</i> = 0.01 (95% CI: 2.89-19.3)</p> <p>Vaginal, assisted, %: G1: 5.9 G2: 7.6</p> <p>Vaginal, spontaneous, n (%): G1: 89 (88.2) G2: 71 (76.3)</p> <p>Maternal harms, postpartum hemorrhage, n (%): G1: 6 (5.9) G2: 3 (3.2)</p> <p>Fever > 38°, n (%): G1: 1 (1) G2: 2 (2.2)</p> <p>Retained placenta, n (%): G1: 3 (2.9) G2: 2 (2.2)</p> <p>Maternal mortality, n (%): G1: 0 G2: 0</p> <p>Infant outcomes</p> <p>Neonatal mortality, n (%): G1: 0 G2: 0</p> <p>Apgar score, < 7 at 1 minute, n (%): G1: 14 (13.9) G2: 27 (29.0) G1/G2: <i>P</i> = 0.013 (95% CI: 3.75-26.6%)</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
Harvey et al., 1996 (continued)					<p>Apgar score, < 7 at 5 minute, n (%): G1: 4 (4.0) G2: 4 (4.3)</p> <p>NICU admission, n (%): G1: 8 (7.9) G2: 18 (19.35) G1/G2: <i>P</i> = 0.02 (95% CI: 1.8-21%)</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Hemminki et al., 1990</p> <p>Country: Finland</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 1987 to 1988</p> <p>Funding: Finnish Academy of Science</p> <p>Author industry relationship disclosure: NR</p> <p>Design: Two RCTs</p>	<p>Intervention: Two trials of midwifery student support during labor</p> <p>Groups: G1a: Midwifery students G2a: Usual care Ga: 1987 trial Gb: 1988 trial</p> <p>N at enrollment: G1a: 41 G2a: 38 G1b: 81 G2b: 80</p> <p>N at birth: G1a: 41 G2a: 38 G1b: 81 G2b: 80</p> <p>Age, mean yrs ± SD: G1a: 30 ± 5.2 G2a: 28.1 ± 5.1 G1b: 27.3 ± 5.3 G2b: 29.5 ± 5.6</p> <p>Race/ethnicity: NR</p> <p>Parous, %: G1a: 54 G2a: 37 G1b: 49 G2b: 59</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> For 1987 trial, enrolled in reception or labor wards (including women entered from antenatal ward or arrived at the time when no free students were on duty) For 1988 trial, enrolled in labor ward only <p>Exclusion criteria:</p> <ul style="list-style-type: none"> Planned cesarean section Gestation < 35 weeks Breech presentation Multiple pregnancy Serious disease (e.g., diabetes, serious preeclampsia) Cervical dilatation > 8 cm and/or delivery expected in less than 3 hours 	<p>Cervical dilation at admission: NR</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression: Admission to birth, mean hours ± SD: G1a: 8.3 ± 6.2 (n=34) G2a: 10.0 ± 6.8 (n=31) G1b: 7.6 ± 4.9 (n=71) G2b: 9.2 ± 6.1 (n=73) G1: 7.8 ± 5.3 G2: 9.5 ± 6.3 G1a/G2a: <i>P</i> = NS G1b/G2b: <i>P</i> = NS G1/G2: <i>P</i> < 0.05</p> <p>Admission to birth > 11 hours, %: G1a: 12 (n=34) G2a: 29 (n=31) G1b: 16 (n=71) G2b: 23 (n=73) G1: 15 G2: 25 G1a/G2a: <i>P</i> = NS G1b/G2b: <i>P</i> = NS G1/G2: <i>P</i> = NS</p> <p>Randomization to birth, mean hours ± SD: G1a: NR G2a: NR G1b: 5.1 ± 3.8 G2b: 5.7 ± 3.7 G1b/G2b: <i>P</i> = NS</p> <p>Randomization to birth ≥ 11 hours, %: G1a: NR G2a: NR G1b: 5 G2b: 15 G1b/G2b: <i>P</i> < 0.05</p> <p>Labor augmented, %: Oxytocin: G1a: 8 G2a: 8 G1b: 10 G2b: 20</p>	<p>Maternal outcomes Cesarean birth, %: G1a: 0 G2a: 8 G1b: 3 G2b: 4 G1: 2 G2: 5 G1a/G2a: <i>P</i> = NS G1b/G2b: <i>P</i> = NS G1/G2: <i>P</i> = NS</p> <p>Vaginal, assisted, %:* G1a: 7 G2a: 3 G1b: 4 G2b: 6 G1: 5 G2: 5 G1a/G2a: <i>P</i> = NS G1b/G2b: <i>P</i> = NS G1/G2: <i>P</i> = NS</p> <p>Vaginal, spontaneous, %: G1a: 93 G2a: 89 G1b: 93 G2b: 90 G1: 93 G2: 90</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality: NR</p> <p>Apgar score, 5 minutes, mean ± SD: G1: 9.12 ± 0.48 G2: 8.98 ± 0.45 G1/G2: <i>P</i> < 0.05</p> <p>NICU admission: NR</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
Hemminki et al., 1990 (continued)				<p>G1a/G2a: <i>P</i> = NS, G1b/G2b: <i>P</i> = NS</p> <p>AROM: NR</p> <p>Internal monitoring, n (%): Fetal blood sampling: G1a: NR G2a: NR G1b: NR G2b: NR G1a/G2a: <i>P</i> = NS G1b/G2b: <i>P</i> = NS</p> <p>Amnioinfusion: NR</p> <p>Epidural: NR</p> <p>Maternal infection in labor: NR</p>	

* The proportion of spontaneous vaginal deliveries was calculated by the reviewer, subtracting assisted vaginal and cesarean deliveries from 100%.

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Hinshaw et al., 2008</p> <p>Country: UK</p> <p>Participant source: Non-academic multi site</p> <p>Intervention setting: Clinic</p> <p>Enrollment period: 01/1999 to 12/2001</p> <p>Funding: NHS, Northern and Yorkshire Region Research Programme</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT, not blinded</p>	<p>Intervention: All patients had amniotomy if membranes intact prior to randomization. Oxytocin started within 20 minutes of randomization; starting dose 2 mu/min increased by doubling every 30 minutes until contraction rate of 4-5 in 10 minutes achieved, or a max dose of 32 mu/minute reached.</p> <p>Groups: G1: Immediate oxytocin G2: Conservative management (oxytocin withheld up to 8 hours)</p> <p>N at enrollment: G1: 208 G2: 204</p> <p>N at birth: G1: 208 G2: 204</p> <p>Age, median yrs (IQR): G1: 22 (20-28) G2: 23 (19-29)</p> <p>Race/ethnicity: NR</p> <p>Parous, n: G1: 0 G2: 0</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Low-risk • Nulliparous • Spontaneous labor (≥ 2 contractions in 10 minutes and dilation ≥ 3 cm) at term (37 to 42 weeks) • Primary dysfunctional labor (dilation progressed by ≤ 2 cm over 4 hours from an initial dilation of 3-6 cm) • Singleton, vertex fetus <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Did not receive information sheet about trial during the antenatal period 	<p>Cervical dilation at admission, median (IQR): G1: 4.0 (3.0-4.0) G2: 4.0 (3.0-4.0)</p> <p>Cervical dilation immediately prerandomization, median (IQR): G1: 5.0 (4.0-5.5) G2: 5.0 (4.0-5.5)</p> <p>Cervical effacement at admission: NR</p> <p>Prior cesarean, n: G1: 0 G2: 0</p> <p>Multiple gestation, n: G1: 0 G2: 0</p>	<p>Labor progression: NR</p> <p>Labor augmented, n: G1: 202 G2: 30</p> <p>AROM, n (%): G1: 155 (75) G2: 158 (79)</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): Pre-randomization: G1: 49 (24) G2: 48 (24)</p> <p>Post-randomization: G1: 111 (53) G2: 120 (59) G1/G2: OR = 0.80 (95% CI: 0.5-1.2)</p> <p>Maternal infection in labor, n (%): Pyrexia: G1: 4 (1.9) G2: 8 (3.9) G1/G2: OR = 0.48 (95% CI: 0.14-1.6)</p>	<p>Maternal outcomes Cesarean birth, n (%): G1: 28 (14) G2: 28 (14) G1/G2: OR = 0.98 (95% CI: 0.6-1.7)</p> <p>Vaginal, assisted, n (%): G1: 47 (23) G2: 62 (30) G1/G2: OR = 0.67 (95% CI: 0.4-1.0)</p> <p>Vaginal, spontaneous, n (%): G1: 133 (64) G2: 114 (56) G1/G2: OR = 1.40 (95% CI: 0.9-2.1)</p> <p>Postpartum haemorrhage (> 500 ml), n (%): G1: 41 (20) G2: 45 (22) G1/G2: OR = 0.87 (95% CI: 0.5-1.4)</p> <p>Blood transfusion, n (%): G1: 10 (4.8) G2: 10 (4.9)</p> <p>Major depression (EPDS > 12), n (%): G1: 30/150 (20) G2: 24/163 (15) G1/G2: $P = 0.22$</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality, n: G1: 1 G2: 1 G1/G2: OR = 0.98 (95% CI: 0.06-16)</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
Hinshaw et al., 2008 (continued)					Apgar score \leq 7, 5 minutes, n (%): G1: 5 (2.5) G2: 3 (1.5) NICU admission, n (%): G1: 6 (2.9) G2: 5 (2.5) G1/G2: OR = 1.2, (95% CI: 0.4-3.9)

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Hodnett et al., 2002</p> <p>Country: US & Canada</p> <p>Participant source: Multi-site (9 academic and 4 non-academic)</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 05/1999 to 05/2001</p> <p>Funding: NIH</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Continuous labor support by specially trained nurse during labor (support for a minimum of 80% of time from randomization to delivery)</p> <p>Groups: G1: Continuous labor support by trained support nurse G2: Usual care by a nurse who had not received the labor support training</p> <p>N at enrollment: G1: 3,454 G2: 3,461</p> <p>N at birth: G1: 3,454 G2: 3,461</p> <p>N at follow-up: G1: 2,836 G2: 2,765</p> <p>Age, mean yrs ± SD: G1: 29.4 ± 5.5 G2: 29.5 ± 5.7</p> <p>Race/ethnicity, n (%): White: G1: 2,561 (74.2) G2: 2,594 (75) Asian/Pacific Islander: G1: 335 (9.7) G2: 333 (9.6) Black: G1: 158 (4.6) G2: 130 (3.8) Hispanic: G1: 182 (5.3) G2: 183 (5.3) Native American/ Native Canadian: G1: 124 (3.6) G2: 137 (4)</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Live singleton fetus or twins • No contraindications to labor • Competent to give informed consent • In established labor but 2nd stage not imminent <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Gestational age < 34 weeks at labor onset • Planning cesarean delivery • Already enrolled in labor/delivery management study with incompatible protocol • Expecting continuous support from either midwives or doulas/labor coaches • Such high-risk that a 1:1 patient-nurse ratio was deemed medically necessary 	<p>Cervical dilation at admission, n (%): < 3 cm: G1: 706 (20.4) G2: 718 (20.8) 3-6 cm: G1: 1,732 (50.1) G2: 1,772 (51.2) > 6 cm: G1: 72 (2.1) G2: 80 (2.3) Unknown: G1: 944 (27.3) G2: 891 (25.7)</p> <p>Cervical effacement at admission: NR</p> <p>Prior cesarean, n (%): G1: 188 (5.4) G2: 153 (4.4)</p> <p>Multiple gestation, n (%): G1: 22 (0.6) G2: 12 (0.3)</p>	<p>Labor progression, time from active labor to delivery, median hours (IQR): G1: 7.1 (4.4-10.8) G2: 6.9 (4.3-10.6)</p> <p>Labor augmented, n (%): G1: 1,040 (30.1) G2: 942 (27.2) G1/G2: <i>P</i> = 0.008</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 2,282 (66.1) G2: 2,352 (68)</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes Cesarean birth, n (%): G1: 432 (12.5) G2: 437 (12.6) G1/G2: <i>P</i> = 0.44</p> <p>Vaginal, assisted, n (%): G1: 541 (15.7) G2: 561 (16.2) G1/G2: <i>P</i> = 0.54</p> <p>Vaginal, spontaneous, n (%): G1: 2,481 (71.8) G2: 2,463 (71.2) G1/G2: <i>P</i> = 0.54</p> <p>Maternal harms, n (%): Fever:¹ G1: 23 (0.7) G2: 16 (0.5)</p> <p>Hemorrhage:² G1: 93 (2.7) G2: 91 (2.6)</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality, n (%): G1: 2 (0.06) G2: 1 (0.03)</p> <p>Apgar score < 7, n (%): 1 minute: G1: 317 (9.1) G2: 367 (10.6) G1/G2: <i>P</i> = 0.04</p> <p>5 minutes: G1: 30 (0.9) G2: 25 (0.7) G1/G2: <i>P</i> = 0.5</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
Hodnett et al., 2002 (continued)	<p>Other: G1: 94 (2.7) G2: 83 (2.4)</p> <p>Parous, n (%): G1: 1,753 (50.7) G2: 1,767 (51)</p> <p>Medicaid: NR</p>				<p>NICU/ Intermediate care admission, n (%):³ G1: 246 (7.1) G2: 254 (7.3) G1/G2: <i>P</i> = 0.7</p>

¹Oral temperature of $\geq 38^{\circ}\text{C}$ on two occasions, at least 24 hours apart, not including the first 24 hours after delivery.

²Hemorrhage during postpartum stay (blood volume ≥ 1000 mL)

³Newborns admitted to a higher level of care (intermediate and/or neonatal intensive care nursery)

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Hofmeyr et al., 1998 [See Mahomed et al., 1998]</p> <p>Country: South Africa</p> <p>Participant source: Academic multisite</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 1991 to 1996</p> <p>Funding: South African Medical Research Council, University of Witwatersand, UNDP/UNFPA/WHO/World Bank Special Programme of Research, Development, and Research Training in Human Reproduction, Utah Medical</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Transcervical amnioinfusion of 800 mL of saline at 15 mL/min followed by maintenance infusion at 3 mL/min</p> <p>Groups: G1: Amnioinfusion G2: Control/routine care</p> <p>N at enrollment: G1: 176 G2: 176</p> <p>N at birth: G1: 167 G2: 159</p> <p>Age, mean yrs ± SD: G1: 25.4 ± 6.4 G2: 25.7 ± 6.7</p> <p>Race/ethnicity: NR</p> <p>Parous, n (%): G1: 88/163 (54)* G2: 79/160 (49.4)*</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • In labor • ≥ 37 weeks gestation • Singleton • Cephalic presentation • Moderate or heavy meconium staining of amniotic fluid <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • See inclusion criteria 	<p>Cervical dilation at admission, mean cm ± SD: G1: 4.7 ± 1.8 G2: 4.9 ± 1.5</p> <p>Cervical effacement at admission: NR</p> <p>Prior cesarean, n (%): G1: 12/152 (7.9) G2: 10/153 (6.5)</p>	<p>Labor progression: NR</p> <p>Labor augmented: NR</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion, n (%): G1: 167 (100) G2: 0</p> <p>Epidural: NR</p> <p>Maternal infection in labor, n (%): Postpartum temperature > 38°C: G1: 19/149 (13) G2: 15/145 (10)</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 70/167 (42) G2: 68/159 (43) G1/G2: RR = 0.98 (95% CI: 0.76-1.26)</p> <p>Vaginal, assisted, n (%): G1: 9/167 (5.4) G2: 12/159 (7.5) G1/G2: RR = 0.72 (95% CI: 0.31-1.67)</p> <p>Vaginal, spontaneous, n (%): G1: 88 (52)* G2: 79 (49)*</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality, n: G1: 0 G2: 0</p> <p>Apgar score < 7, 5 minutes, n (%): G1: 6/166 (3.6) G2: 4/165 (2.4) G1/G2: RR = 1.49 (95% CI: 0.43-5.18)</p> <p>Cord pH, 7.2: G1: 18/96 (19) G2: 20/105 (19) G1/G2: RR = 0.98 (95% CI: 0.55-1.75)</p> <p>NICU admission, n (%): G1: 3/164 (1.8) G2: 4/163 (2.5) G1/G2: RR = 0.75 (95% CI: 0.17-3.28)</p>

* Calculated by reviewer

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Homer et al., 2001</p> <p>Country: Australia</p> <p>Participant source: NR</p> <p>Intervention setting: Antenatal clinics, public hospital labor and delivery suite</p> <p>Enrollment period: 01/1997 to 04/1998</p> <p>Funding: Australian National Health and Medical Research Council, New South Wales Health Department</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Community-based model providing continuity of midwifery care throughout antenatal, intrapartum, and postnatal periods via two teams of six full-time midwives</p> <p>Groups: G1: Community-based model G2: Standard care</p> <p>N at enrollment: G1: 640 G2: 643</p> <p>N at birth: G1: 550 G2: 539</p> <p>Age, mean yrs: G1: 28.2 G2: 28</p> <p>Language of country of birth, n (%): English: G1: 256 (46.5) G2: 256 (47.5) Chinese: G1: 90 (16.4) G2: 93 (17.3) Arabic: G1: 86 (15.6) G2: 87 (16.1) Other non-English: G1: 116 (21.1) G2: 98 (18.2) Unknown: G1: 2 (0.4) G2: 5 (0.9)</p> <p>Parous, n (%): G1: 297 (54) G2: 291 (54)</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> < 24 weeks gestation at first visit Reside in designated catchment area Planned to have baby in hospital delivery suite <p>Exclusion criteria:</p> <ul style="list-style-type: none"> Presence of significant maternal disease (e.g., renal disease with impaired renal function, essential hypertension, insulin dependent diabetes) Two previous cesareans Previous classical cesarean 	<p>Cervical dilation at admission: NR</p> <p>Cervical effacement at admission: NR</p> <p>Prior cesarean, n (%): G1: 33 (6.0) G2: 44 (8.2)</p> <p>Multiple gestation (twins), n (%): Total: 10 (0.9)</p> <p>Grandmultiparity (> 5 births), n (%): G1: 10 (1.8) G2: 7 (1.3)</p> <p>Past significant postpartum haemorrhage, n (%): G1: 7 (1.3) G2: 8 (1.5)</p> <p>Previous pre-eclampsia, n (%): G1: 28 (5.1) G2: 21 (3.9)</p> <p>Previous gestational diabetes, n (%): G1: 10 (1.8) G2: 15 (2.8)</p> <p>Antenatal complications, n (%): Antenatal admission: G1: 53 (9.6) G2: 72 (13.4)</p> <p>Day assessment unit: G1: 27 (4.9) G2: 30 (5.6)</p> <p>Antepartum haemorrhage: G1: 9 (1.6) G2: 14 (2.6)</p>	<p>Labor progression: NR</p> <p>Labor augmented, n (%): G1: 227 (41.3) G2: 200 (37.1)</p> <p>AROM: NR</p> <p>Internal monitoring (electronic fetal monitoring), n (%): G1: 252 (45.8) G2: 275 (51.0)</p> <p>Amnioinfusion: NR</p> <p>Epidural/spinal anesthesia, n (%): G1: 157 (28.5) G2: 172 (31.9)</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): Total: G1: 73 (13.3) G2: 96 (17.8)</p> <p>Elective: G1: 21 (3.8) G2: 34 (6.3)</p> <p>Emergency: G1: 52 (9.5) G2: 62 (11.5)</p> <p>Vaginal, assisted, n (%): Forceps/vacuum extraction: G1: 71 (12.9) G2: 63 (11.7)</p> <p>Vaginal, spontaneous, n (%):* G1: 406 (73.8) G2: 381 (70.7)</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality, n: G1: 4 G2: 4</p> <p>Apgar score, 5 minutes, mean: G1: 8.9 G2: 8.8 G1/G2: $P = 0.3$</p> <p>Apgar score < 7, 5 minutes, n (%): G1: 12 (2.2) G2: 13 (2.4) G1/G2: $P = 0.8$</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
Homer et al., 2001 (continued)			Pre-eclampsia: G1: 33 (6.0) G2: 34 (6.3)		NICU (special care nursery) admission, n (%): G1: 80 (14.5) G2: 102 (18.9) G1/G2: $P = 0.12$
			Gestational diabetes: G1: 42 (7.6) G2: 37 (6.9)		
			Threatened preterm labour: G1: 8 (1.5) G2: 12 (2.2)		
			Other: G1: 76 (13.8) G2: 96 (18)		

* Number of spontaneous vaginal births calculated by the reviewer, subtracting the number of cesarean and assisted vaginal births from overall total births.

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Jalil et al., 2009</p> <p>Country: Malaysia</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 2005 to 2006</p> <p>Funding: Universiti Sains Malaysia</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Epidural analgesia: 12ml of 0.2% ropivacaine followed by continuous 0.2% ropivacaine with 2 µg/ml fentanyl at 7-10 ml/hr; IV bolus ≥ 500 mL lactated Ringer's</p> <p>Intramuscular (IM) pethidine: 75-100 mg with 25 mg of promethazine hydrochloride at first request followed by 75 mg pethidine (up to 300 mg in 4 hr) upon request.</p> <p>Groups: G1: Epidural ropivacaine G2: IM pethidine</p> <p>N at enrollment: G1: 94 G2: 98</p> <p>N at birth: G1: 94 G2: 98</p> <p>Age, mean yrs ± SD: G1: 28.7 ± 5.6 G2: 29.5 ± 5.1</p> <p>Race/ethnicity, n (%): Malay: G1: 86 (91.5) G2: 96 (98) Non-Malay: G1: 8 (8.5) G2: 2 (2)</p> <p>Parous, n (%): G1: 94 (100) G2: 98 (100)</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Laboring women with ASA 1-11 • 2nd to 5th pregnancy with tested pelvis • Full term • Spontaneous labor • Age 18-40 years • Singleton with cephalic presentation • 3-5 cm OS • Height > 150 cm • Weight < 100 kg • Good working epidural (pain score VAS ≤ 30 mm after 15 min of epidural administration) <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Bad obstetric history • Post date • History of allergy to local anesthetic • Patient refusal • Failed epidural • Contraindications for epidural analgesia 	<p>Cervical dilation at admission, mean cm ± SD: G1: 3.7 ± 0.71 G2: 3.85 ± 0.78 G1/G2: <i>P</i> = 0.401</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression, mean minutes ± SD: 1st stage of labor: G1: 506.6 ± 151.7 G2: 392.1 ± 190.7 G1/G2: <i>P</i> = 0.001</p> <p>2nd stage of labor: G1: 24.0 ± 11.1 G2: 10.1 ± 9.8 G1/G2: <i>P</i> = 0.001</p> <p>Labor augmented, n (%): Oxytocin: G1: 29 (30.8) G2: 79 (80.6) G1/G2: <i>P</i> = 0.001</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 94 (100) G2: 0</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes Cesarean birth, n (%): G1: 11 (11.7) G2: 7 (7.1) G1/G2: <i>P</i> = 0.186</p> <p>Vaginal, assisted, n (%): G1: 11 (11.7) G2: 2 (2.1) G1/G2: <i>P</i> = 0.007</p> <p>Vaginal, spontaneous, n (%): G1: 72 (76.6) G2: 89 (90.8) G1/G2: <i>P</i> = 0.007</p> <p>Maternal harms: NR</p> <p>Maternal mortality, n: G1: 0 G2: 0</p> <p>Neonatal outcomes Neonatal mortality, n: G1: 0 G2: 0</p> <p>Apgar score 7, 5 minutes, n (%): G1: 1 (1.1) G2: 0 G1/G2: <i>P</i> = 0.306</p> <p>NICU admission: NR</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Jansen et al., 2006</p> <p>Country: Canada</p> <p>Participant source: Multi site (all but one hospital with obstetric services in Vancouver and suburbs)</p> <p>Intervention setting: Other</p> <p>Enrollment period: 08/2001 to 10/2004</p> <p>Funding: Canadian Institutes of Health</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Home-based triage at time of painful contractions at term, with nursing assessment of maternal vital signs, abdominal palpitation, auscultation of fetal heart rate, assessment of contractions and examination of cervix.</p> <p>Groups: G1: Home visit G2: Telephone triage</p> <p>N at enrollment: G1: 728 G2: 731</p> <p>N at birth: G1: 728 G2: 731</p> <p>Age, mean yrs ± SD: G1: 28.6 ± 5.1 G2: 28.3 ± 5.1</p> <p>Race/ethnicity, n (%): White: G1: 342 (47.0) G2: 309 (42.3) East Asian: G1: 158 (21.7) G2: 151 (20.7) South Asian: G1: 177 (24.3) G2: 223 (30.5) First Nation:¹ G1: 10 (1.4) G2: 10 (1.4) Black: G1: 6 (0.8) G2: 10 (1.4) Other: G1: 35 (4.8) G2: 27 (3.7)</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> Lived within a 30-minute drive of a hospital in the study Ages 16-42 years 37-41 weeks of gestation Nulliparous Carrying a singleton fetus in the vertex position Spoke English, Cantonese, Mandarin, Punjabi, Korean, or Farsi Also included patients with labor induced on an outpatient basis with prostaglandins <p>Exclusion criteria:</p> <ul style="list-style-type: none"> Type 1 diabetes Cardiovascular disease 3rd trimester bleeding Fetal anomalies Abnormal fetal biophysical profile Any other condition arising from or coexisting with the pregnancy that were deemed to be a contraindication to laboring at home Women whose primary caregivers were midwives 	<p>Cervical dilation at admission ≤ 3 cm, n (%): G1: 324 (44.7) G2: 385 (52.8) G1/G2: RR = 0.85 (95% CI: 0.76-0.94)</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression: NR</p> <p>Labor augmented (spontaneous labor patients only), n (%): G1: 421 (61.2) G2: 439 (64.5) G1/G2: RR = 0.95 (95% CI: 0.88-1.04)</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 476 (65.4) G2: 499 (68.3) G1/G2: RR = 0.95 (95% CI: 0.89-1.01)</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 208 (28.6) G2: 186 (25.4) G2/G1: RR = 1.12 (95% CI: 0.94-1.32)</p> <p>Vaginal, assisted, n (%): G1: 184 (25.3) G2: 216 (29.5) G2/G1: RR = 0.86 (95% CI: 0.73-1.02)</p> <p>Vaginal, spontaneous, n (%): G1: 336 (46.2) G2: 329 (45.0) G2/G1: RR = 1.03 (95% CI: 0.92-1.15)</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality: NR</p> <p>Apgar score < 7, n (%): 1 minute: G1: 90 (12) G2: 92 (13) G2/G1: RR = 0.97 (95% CI: 0.75-1.30) 5 minutes: G1: 9 (1.2) G2: 6 (0.8) G2/G1: RR = 1.52 (95% CI: 0.54-4.23)</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
Jansen et al., 2006 (continued)	<p>Missing: G1: 0 G2: 1</p> <p>Parous, n: G1: 0 G2: 0</p> <p>Medicaid: Not applicable</p>				<p>NICU admission, n (%): G1: 14 (1.9) G2: 6 (0.8)</p>

¹ First Nation = Native American.

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Karraz et al., 2003</p> <p>Country: France</p> <p>Participant source: Non-academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 02/1999 to 04/2001</p> <p>Funding: Hospital departmental funds</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: All received intermittent epidural bolus injections 0.1% ropivacine and 0.6 µg/mL sufatenil, plus ambulatory instructions (walking, sitting, or semisupine reclining) or remaining supine (not allowed to walk, sit, or go to restroom)</p> <p>Groups: G1: Ambulatory group with epidural G2: Non-ambulatory group with epidural</p> <p>N at enrollment: G1: 144 G2: 77</p> <p>N at birth: G1: 141 G2: 74</p> <p>Age, mean yrs ± SD: G1: 27.4 ± 4.3 G2: 27.5 ± 4.6</p> <p>Race/ethnicity: NR</p> <p>Parous, n (%): G1: 44 (30.7) G2: 27 (36.5)</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • 36-42 weeks gestation • Singleton pregnancy • Cephalic presentation • Uncomplicated pregnancies presenting in spontaneous labor or scheduled for induction <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Pre-eclampsia • Previous cesarean 	<p>Cervical dilation at epidural insertion, mean ± SD: G1: 3.27 ± 1.3 G2: 3.37 ± 1.4</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression, mean minutes ± SD: G1: 173 ± 110 G2: 236 ± 131 G1/G2: <i>P</i> = 0.001</p> <p>Labor augmented, n (%): Oxytocin: G1: 120/141 (85.1)* G2: 64/74 (86.5)*</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 144 (100) G2: 77 (100)</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes Cesarean birth, n (%): G1: 13 (9.2) G2: 12 (16.2) G1/G2: <i>P</i> = 0.15</p> <p>Vaginal, assisted, n (%): G1: 11 (7.8) G2: 6 (8.1) G1/G2: <i>P</i> = 0.93</p> <p>Vaginal, spontaneous, n (%): G1: 117 (83.0) G2: 56 (75.7) G1/G2: <i>P</i> = 0.45</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality: NR</p> <p>Apgar score: NR</p> <p>NICU admission: NR</p>

* Calculated by reviewer

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Kennell et al., 1991</p> <p>Country: US</p> <p>Participant source: Community practice</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: NR</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT for 2 groups but the 3rd group was non-random</p>	<p>Intervention: Doula support: the doula stayed with the study participant from admission through delivery, soothing and touching her patient and giving encouragement. In addition, the doula explained to her patient what to expect during labor. When necessary, the doula translated medical instructions for the patient.</p> <p>Women in the observed group received routine hospital care.</p> <p>Women in the control group received doula support.</p> <p>Groups: G1: Supported group G2: Observed group G3: Control group</p> <p>N at enrollment: G1: 212 G2: 200 G3: 204</p> <p>N at birth: G1: 212 G2: 200 G3: 204</p> <p>Age, mean yrs ± SD: G1: 19.9 ± 3.5 G2: 19.7 ± 3.6 G3: 20.3 ± 3.8</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Nulliparous • Singleton • Term • Uncomplicated pregnancy • Admitted in active labor • Cervical dilation 3-4 cm • 13-34 years of age <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Pregnancy induced hypertension • Breech presentation • Gestational diabetes • History of drug or alcohol abuse • Other high risk conditions 	<p>Cervical dilation at admission, n (%): 3 cm: G1: 34 (16) G2: 34 (17) G3: 51 (25)</p> <p>4 cm: G1: 178 (84) G2: 166 (83) G3: 153 (75) G1/G2/G3: <i>P</i> = 0.04</p>	<p>Labor progression, duration of labor, mean hours ± SD: G1: 7.4 ± 3.8 G2: 8.4 ± 4.2 G3: 9.4 ± 4.2 G1/G2: <i>P</i> < 0.02 G1/G3: <i>P</i> < 0.02 G2/G3: <i>P</i> < 0.02 G1/G2/G3: <i>P</i> = 0.0001</p> <p>Labor augmented, n (%): Oxytocin: G1: 36 (17) G2: 46 (23) G3: 89 (43.6) G1/G2: <i>P</i> = NS G1/G3: <i>P</i> < 0.0001 G2/G3: <i>P</i> < 0.0001 G1/G2/G3: <i>P</i> < 0.0001</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 14/179 (7.8) G2: 31/137 (22.6) G3: 68/123 (55.3) G1/G2/G3: <i>P</i> < 0.0001</p> <p>Maternal infection in labor, n: NR</p>	<p>Maternal outcomes Cesarean birth, n (%): G1: 17 (8) G2: 26 (13) G3: 37 (18) G1/G2: <i>P</i> = NS G1/G3: <i>P</i> = 0.004 G2/G3: <i>P</i> = NS G1/G2/G3: <i>P</i> = 0.009</p> <p>Vaginal, assisted, n (%): Forceps: G1: 16 (8.2) G2: 37 (21.3) G3: 44 (26.3)</p> <p>Vaginal, spontaneous, n (%): G1: 179 (84.4)* G2: 137 (68.5)* G3: 123 (60.2)*</p> <p>Maternal harms, n (%): Maternal fever: G1: 3 (1.4) G2: 14 (7.0) G3: 21 (10.3) G1/G2: <i>P</i> = 0.009 G1/G3: <i>P</i> = 0.002 G2/G3: <i>P</i> = NS G1/G2/G3: <i>P</i> = 0.0007</p> <p>Maternal mortality: NR</p> <p>Infant outcomes Neonatal mortality, n: G1: 0 G2: 0 G3: 0</p> <p>Apgar score: NR</p> <p>NICU admission: NR</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
Kennell et al., 1991 (continued)	<p>Race/ethnicity, n (%) White: G1: 21(10) G2: 21 (11) G3: 29 (14) Black: G1: 53 (25) G2: 50 (25) G3: 56 (27) Hispanic: G1: 136 (64) G2: 129 (65) G3: 116 (57) Asian: G1: 2 (1) G2: 0 G3: 3 (1)</p> <p>Nulliparous, n (%) G1: 212 (100) G2: 200 (100) G3: 204 (100)</p> <p>Medicaid: NR</p>				

* Calculated by reviewer.

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Kuhnert et al., 2004</p> <p>Country: Germany</p> <p>Participant source: NR</p> <p>Intervention setting: NR</p> <p>Enrollment period: NR</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Fetal pulse oximetry and electronic fetal heart rate (FHR) monitoring and fetal scalp monitoring (a Nellcor FS 14° C fetal oxygen sensor was placed and connected to a Nellcor N-400 monitor. The flexible FS 14° C sensor inserted transcervically until it rests against the fetal cheek).</p> <p>Groups: G1: Fetal pulse oximetry, FHR monitoring, fetal scalp sampling G2: FHR monitoring, fetal scalp sampling</p> <p>N at enrollment: G1: 73 G2: 73</p> <p>N at birth: G1: 73 G2: 73</p> <p>Age: NR</p> <p>Race/ethnicity: NR</p> <p>Parous: NR</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • ≥ 36 weeks gestation • Active labor • Non-reassuring FHR • Single fetus • Cephalic presentation • Cervix dilated to ≥ 2 cm and at ≤ -2 station • Ruptured membranes <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Planned cesarean • Placenta previa • Need for immediate delivery • Active genital herpes • Known HIV infection • Multiple pregnancies 	<p>Cervical dilation at admission: NR</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression: NR</p> <p>Labor augmented: NR</p> <p>AROM: NR</p> <p>Internal monitoring, n (%): Fetal oxygen sensor: G1: 73 (100) G2: 73 (100)</p> <p>Amnioinfusion: NR</p> <p>Epidural: NR</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 12 (16.4) G2: 27 (37.0)</p> <p>Vaginal, assisted, n (%): G1: 13 (17.8) G2: 22 (30.1)</p> <p>Vaginal, spontaneous, n (%): G1: 48 (65.8) G2: 24 (32.9) G1/G2: $P \leq 0.001$</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality: NR</p> <p>Apgar score: NR</p> <p>NICU admission: NR</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Lavender et al., 2006</p> <p>Country: UK</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery Suite, birthing center</p> <p>Enrollment period: 08/1998 to 03/2005</p> <p>Funding: Liverpool Women's Foundation Trust</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Partogram with action line 2 or 4 hours to the right of alert line. When progress crosses the action line, a diagnosis of prolonged labor is made and managed according to standard protocol</p> <p>Groups: G1: Partogram with 2-hour action line G2: Partogram with 4-hour action line</p> <p>N at enrollment: G1: 1,503 G2: 1,497</p> <p>N at birth: G1: 1,490 G2: 1,485</p> <p>Age, mean yrs ± SD: G1: 25.4 ± 5.5 G2: 25.3 ± 5.5</p> <p>Race/ethnicity: NR</p> <p>Parous, n: G1: 0 G2: 0</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Primigravid • Spontaneous labor • At term (≥ 37 weeks gestation) • Live, singleton, cephalic presentation <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Significant medical disease • Pregnancies with fetal malformations • Required high-dependency intrapartum care 	<p>Cervical dilation at randomization 3-10 cm, n (%): G1: 1,421 (95.4) G2: 1,409 (94.9)</p> <p>Cervical effacement at randomization, n (%): G1: 1,285 (86.2) G2: 1,276 (85.9)</p>	<p>Labor progression, randomization–delivery interval, mean minutes ± SD: G1: 539.6 ± 260.3 G2: 566.4 ± 289.7 G1/G2: <i>P</i> = 0.008</p> <p>Labor augmented, n (%): Oxytocin: G1: 696 (46.7) G2: 607 (40.9)</p> <p>AROM, n (%): G1: 715 (48) G2: 657 (44.2)</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 479 (32.1) G2: 473 (31.9)</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes Cesarean birth, n (%): G1: 136 (9.1) G2: 135 (9.1) G1/G2: RR = 1 (95% CI: 0.80-1.26)</p> <p>Vaginal, assisted, n (%): G1: 294 (19.7) G2: 320 (21.5) G1/G2: RR = 0.92 (95% CI: 0.80-1.05)</p> <p>Vaginal, spontaneous: NR</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality: NR</p> <p>Apgar score < 7, 5 minutes, n (%): G1: 22 (1.5) G2: 29 (2) G1/G2: RR = 0.79 (95% CI: 0.44-1.30)</p> <p>NICU admission, n (%): G1: 21 (1.4) G2: 30 (2) G1/G2: RR = 0.85 (95% CI: 0.49-1.47)</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Lavender et al., 1998</p> <p>Country: UK</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery site</p> <p>Enrollment period: 01/1996 to 08/1997</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Assessment of the effects of three different partograms on cesarean rate and maternal satisfaction</p> <p>Groups: G1: Partogram, with 2 hour action line G2: Partogram with 3 hour action line G3: Partogram with 4 hour action line</p> <p>N at enrollment:¹ G1: 315 G2: 302 G3: 311</p> <p>N at birth: G1: 315 G2: 302 G3: 311</p> <p>Age, mean yrs ± SD: G1: 25.1 ± 5.1 G2: 24.8 ± 5.4 G3: 25 ± 5.1</p> <p>Race/ethnicity: NR</p> <p>Parous, n: G1: 0 G2: 0 G3: 0</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Primigravid women • Spontaneous labor • At term • Live • Singleton • Cephalic presentation <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Diabetes • Pregnancies complicated by fetal malformations • Women requiring high dependency intrapartum care • Unsatisfactory admission cardiotocograph 	<p>Cervical dilation at admission, 3-10 cm, n (%): G1: 256 (81.3) G2: 243 (80.5) G3: 241 (77.7)</p> <p>Cervical effaced admission, n (%): G1: 270 (85.7) G2: 245 (81.1) G3: 259 (83.5)</p>	<p>Labor progression, duration of labor from randomization to delivery, median minutes (IQR): G1: 516 (330-737) G2: 532.5 (332.5-739.3) G3: 517 (302-734)</p> <p>Labor augmented, n (%): Syntocinon: G1: 144 (45.7) G2: 136 (45) G3: 129 (41.6)</p> <p>AROM only, n (%): G1: 120 (38) G2: 122 (40.4) G3: 121 (39)</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 120 (38) G2: 99 (32.8) G3: 101 (32.6)</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes Cesarean birth, n (%): G1: 35 (11.1) G2: 43 (14.2) G3: 26 (8.4) G1/G2: OR = 0.8 (95% CI: 0.5-1.2) G2/G3: OR = 1.8 (95% CI: 1.1-3.2) G1/G3: OR = 1.4 (95% CI: 0.8-2.4)</p> <p>Vaginal, assisted, n (%): G1: 66 (20.9) G2: 68 (22.5) G3: 73 (23.5)</p> <p>Vaginal, spontaneous, n (%):² G1: 214 (67.9) G2: 191 (63.2) G3: 212 (68.1)</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality: NR</p> <p>Apgar score < 7, 5 minutes, n (%): G1: 6 (1.9) G2: 4 (1.3) G3: 5 (1.6)</p> <p>NICU admission, n (%): G1: 4 (1.3) G2: 1 (0.3) G3: 2 (0.6)</p>

¹ 932 women were randomized, but four could not be traced due to inaccurate recording of demographic details.

² The number of spontaneous vaginal deliveries were calculated by the reviewer, subtracting the number of cesarean and operative deliveries from the overall group totals.

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Lopez-Zeno et al., 1992</p> <p>Country: US</p> <p>Participant source: Community practice</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 02/1990 to 03/1991</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Active labor management. Amniotomy performed within one hour of the diagnosis of labor. Cervical exams performed hourly for the first three hours, then every two hours. When rate of cervical dilation < 1 cm/hr, oxytocin infused at an initial rate of 6 mU/min. Dose increased by 6 mU/min every 15 minutes (to a max of 36 mU/min) until there were 7 contractions every 15 minutes. The occurrence of more than 7 contractions per 15 minutes was managed by decreasing the oxytocin infusion rate by 6 mU/min.</p> <p>Groups: G1: Active management G2: Traditional management</p> <p>N at enrollment: G1: 351 G2: 354</p> <p>N at birth: G1: 351 G2: 354</p> <p>Age, mean yrs ± SD: G1: 27.3 ± 5.8 G2: 26.7 ± 6.1 G1/G2: <i>P</i> = NS</p> <p>Race/ethnicity, n (%): White:* G1: 241 (68.6) G2: 226 (63.8)</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Nulliparous • In spontaneous labor • ≥ 37 weeks <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Multiple gestation • Noncephalic presentation • Previous uterine surgery • Amniotomy performed before criteria for labor satisfied • Labor augmentation with oxytocin begun before criteria for labor satisfied 	<p>Cervical dilation at admission, mean cm ± SD: G1: 3.2 ± 1.5 G2: 3.2 ± 1.5 G1/G2: <i>P</i> = NS</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression, mean hours ± SD: Length of first stage: G1: 5.05 ± 2.33 G2: 6.72 ± 3.64 G1/G2: <i>P</i> < 0.0001</p> <p>Length of second stage: G1: 1.44 ± 0.97 G2: 1.43 ± 1.08 G1/G2: <i>P</i> = NS</p> <p>Labor augmented, n (%): G1: 250 (71.2) G2: 234 (66.1) G1/G2: <i>P</i> = NS</p> <p>AROM: NR</p> <p>Internal monitoring, n (%): Intrauterine pressure catheter: G1: 191 (54.4) G2: 182 (51.4) G1/G2: <i>P</i> = NS</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 253 (72.1) G2: 255 (72.0) G1/G2: <i>P</i> = NS</p> <p>Maternal infection in labor: NR</p>	<p>Maternal Outcomes</p> <p>Cesarean birth, n (%): G1: 37 (10.5) G2: 50 (14.1)</p> <p>Vaginal, assisted, n (%): G1: 89 (25.3)* G2: 99 (27.9)*</p> <p>Vaginal, spontaneous, n (%): G1: 225 (64.1)* G2: 205 (57.9)*</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Infant outcomes</p> <p>Neonatal mortality, n: G1: 0 G2: 0 G1/G2: <i>P</i> = NS</p> <p>Apgar score < 7, 5 minutes, n (%): G1: 1 (0.3) G2: 1 (0.3) G1/G2: <i>P</i> = NS</p> <p>NICU admission, n (%): G1: 14 (4.0) G2: 11 (3.1) G1/G2: <i>P</i> = NS</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
Lopez-Zeno et al., 1992 (continued)	Nonwhite: G1: 110 (31.3) G2: 128 (36.2) Parous, n (%): Nulliparous: G1: 351 (100) G2: 354 (100) Medicaid: NR				

* Calculated by reviewer.

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Mahomed et al., 1998 [See Hofmeyr et al., 1998]</p> <p>Country: Zimbabwe</p> <p>Participant source: Academic multisite</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 05/1995 to 04/1996</p> <p>Funding: South African Medical Research Council University of Witwatersand</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Transcervical amnioinfusion of 500 mL of saline over 30 minutes, then 500 mL at 30 drops/min</p> <p>Groups: G1: Amnioinfusion G2: Routine care/control</p> <p>N at enrollment: G1: 325 G2: 336</p> <p>N at birth: G1: 319 G2: 324</p> <p>Age, mean yrs ± SD: G1: 23.3 ± 4.9 G2: 23.2 ± 5.2</p> <p>Race/ethnicity: NR</p> <p>Parous, n (%): G1: 123 (37.8)* G2: 137 (40.8)*</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • In labor during office hours • ≥ 37 weeks gestation • Singleton • Cephalic presentation • Moderate or heavy meconium staining of amniotic fluid <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Indication for immediate delivery • Chorioamnio-nitis • Vaginal bleeding • Serious fetal congenital abnormality • Previous cesarean • Maternal cardiac or pulmonary disease 	<p>Cervical dilation at admission, n (%): G1: 6 (1.8) G2: 10 (3.0) > 7 cm: G1: 35 (10.8) G2: 30 (8.9)</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression: NR</p> <p>Labor augmented, n (%): Oxytocin: G1: 122 (38) G2: 155 (46)</p> <p>AROM: NR</p> <p>Internal monitoring, n: G1: 0 G2: 0</p> <p>Amnioinfusion, n (%): G1: 325 (100) G2: 0</p> <p>Epidural: NR</p> <p>Maternal infection in labor, n (%): Pyrexia in labor ward: G1: 3 (0.9) G2: 10 (3.0) G1/G2: RR = 0.31 (95% CI: 0.09-1.12)</p>	<p>Maternal outcomes Cesarean birth, n (%): G1: 30/317 (9.5) G2: 37/328 (12.3) G1/G2: RR = 0.84 (95% CI: 0.53-1.32)</p> <p>Vaginal, assisted, n (%): G1: 13/320 (4.1) G2: 11/333 (3.3) G1/G2: RR = 1.23 (95% CI: 0.56-2.7)</p> <p>Vaginal, spontaneous: NR</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality, n (%): G1: 4/324 (1.2) G2: 12/335 (3.6) G1/G2: RR = 0.34 (95% CI: 0.11-1.06)</p> <p>Apgar score < 7, 5 minutes, n (%): G1: 9/324 (2.8) G2: 27/336 (8.0) G1/G2: RR = 0.35 (95% CI: 0.17-0.73)</p> <p>NICU admission, n (%): G1: 41/321 (12.8) G2: 76/332 (22.9) G1/G2: RR = 0.56 (95% CI: 0.39-0.79)</p>

* Calculated by reviewer

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Matsuo et al., 2009</p> <p>Country: US</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Hospital, labor and delivery suite</p> <p>Enrollment period: 10/2007 to 12/2007</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Use of dental support device (DSD) during active pushing in the second stage of labor</p> <p>Groups: G1: DSD G2: Control/no DSD</p> <p>N at enrollment: G1: 32 G2: 32</p> <p>N at birth: G1: 32 G2: 32</p> <p>N at follow-up: (questionnaire completed by patients, timing NR) G1: 27 G2: 0</p> <p>Age, mean yrs ± SD: G1: 22.6 ± 5.7 G2: 22.2 ± 5.8</p> <p>Race/ethnicity, n (%): White: G1: 7 (21.9) G2: 6 (18.7) Black: G1: 23 (71.9) G2: 23 (71.9) Asian: G1: 2 (6.3) G2: 3 (9.4)</p> <p>Parous, n: G1: 0 G2: 0</p> <p>Medicaid: NR</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> Onset or induction of labor Primipara Term Singleton Cephalic presentation Reactive fetal heart rate pattern Functioning epidural anesthesia <p>Exclusion criteria:</p> <ul style="list-style-type: none"> Medical or obstetrical complications, including intra-uterine growth retardation (IUGR), large for gestational age (LGA), uterine anomaly, uterine myomata, pre-eclampsia, diabetes mellitus, fetal anomaly, and maternal heart disease 	<p>Cervical dilation at admission: NR</p> <p>Cervical effacement at admission: NR</p> <p>Favorable cervix, n (%): G1: 8 (25) G2: 8 (25)</p>	<p>Labor progression: Duration 1st stage, mean minutes ± SD: G1: 453.9 ± 135.3 G2: 472.0 ± 186.9 G1/G2: <i>P</i> = 0.20</p> <p>Duration 2nd stage, median (IQR): G1: 19 (9) G2: 31 (23) G1/G2: <i>P</i> < 0.001</p> <p>Labor augmented, n (%): Induction: G1: 15 (46.9) G2: 13 (40.6) G1/G2: RR = 0.8 (95% CI: 0.3-2.1), <i>P</i> = 0.8</p> <p>Oxytocin: G1: 23 (71.9) G2: 19 (59.4) G1/G2: RR = 0.6 (95% CI: 0.2-1.6), <i>P</i> = 0.71</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 32 (100) G2: 32 (100)</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 4 (12.5) G2: 8 (25.0)</p> <p>Vaginal, assisted, n (%): G1: 3 (9.4) G2: 2 (6.3)</p> <p>Vaginal, spontaneous, n (%): G1: 25 (78.1) G2: 22 (68.8)</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality: NR</p> <p>Apgar score, 1 minute, median (IQR): G1: 9 (1) G2: 9 (1) G1/G2: <i>P</i> = 0.50</p> <p>Apgar score, 5 minutes, median (IQR): G1: 9 (0) G2: 9 (0) G1/G2: <i>P</i> = 0.33</p> <p>NICU admission, n (%): G1: 3 (9.4) G2: 3 (9.4) G1/G2: <i>P</i> = 1.0</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: McGrath and Kennell, 2008</p> <p>Country: US</p> <p>Participant source: Community practice (childbirth education classes in the greater Cleveland area)</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 10/1988 to 10/1992</p> <p>Funding: NICHD</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Doula met couples at hospital as soon as possible after random assignment (typically within an hour of arrival) and remained with them throughout labor and delivery.</p> <p>Groups: G1: Doula support G2: Routine care</p> <p>N at enrollment: G1: 224 G2: 196</p> <p>N at birth: G1: 224 G2: 196</p> <p>Age, mean yrs ± SD: G1: 29.0 ± 4.8 G2: 28.6 ± 4.5</p> <p>Race/ethnicity, n (%): Caucasian: G1: 180 (80.4) G2: 149 (76.0) African American: G1: 37 (16.5) G2: 43 (21.9) Asian: G1: 6 (2.7) G2: 3 (1.5) Hispanic: G1: 1 (0.4) G2: 1 (0.5)</p> <p>Parous, n: G1: 0 G2: 0</p> <p>Medicaid: NR</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Nulliparous • Ages 18-41 • In the third trimester of an uncomplicated pregnancy • Expected to be accompanied during labor by their male partner • Planned to deliver at University Hospitals in Cleveland • Under the care of a private obstetrician <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Midwife delivery 	<p>Cervical dilation at admission: NR</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression: NR</p> <p>Labor augmented, n (%): Total: 240/420 (57)</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 145 (64.7) G2: 149 (76.0) G1/G2: <i>P</i> = 0.008</p> <p>Elevated temperature, n (%): ≥ 37.5°C: Total: 73 (17.4) ≥ 38°C: Total: 29 (7) G1/G2: <i>P</i> = NS</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 30 (13.4) G2: 49 (25.0) G1/G2: <i>P</i> = 0.002</p> <p>Vaginal, assisted, n (%): Total: 90/420 (21)</p> <p>Vaginal, spontaneous: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality, n: G1: 0 G2: 0</p> <p>Apgar score ≤ 7, 5 minutes, n (%): G1: 4 (1.8) G2: 6 (3.1)</p> <p>NICU admission: NR</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: McNiven et al., 1998</p> <p>Country: Canada</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 02/1994 to 01/1995</p> <p>Funding: The Perinatal Nursing Research Unit, University of Toronto</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Early labor assessment: women found to be in false or latent labor were encouraged to go home or walk before admission</p> <p>Groups: G1: Early labor assessment G2: Direct admission to hospital</p> <p>N at enrollment: G1: 105 G2: 104</p> <p>N at birth: G1: 105 G2: 104</p> <p>Age, mean yrs ± SD: G1: 24.9 ± 5.5 G2: 25.7 ± 4.8</p> <p>Race/ethnicity: NR</p> <p>Parous, n: G1: 0 G2: 0</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> Nulliparous ≥ 37 weeks gestation Defined as low risk Spontaneous labor <p>Exclusion criteria:</p> <ul style="list-style-type: none"> Booked for labor induction or cesarean section 	<p>Cervical dilation at admission: NR</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression: Labor in hospital, mean hours ± SD: G1: 8.3 ± 5.6 G2: 13.5 ± 7.9 G1/G2: <i>P</i> = 0.001</p> <p>2nd stage, mean minutes ± SD: G1: 76.8 ± 66.7 G2: 95.0 ± 63.7 G1/G2: <i>P</i> = 0.045</p> <p>Labor augmented, n (%): Oxytocin: G1: 24 (22.9) G2: 42 (40.4) G1/G2: OR = 0.44 (95% CI: 0.24-0.8), <i>P</i> = 0.001</p> <p>AROM, n (%): G1: 49 (46.7) G2: 56 (53.8) G1/G2: OR = 0.75 (95% CI: 0.44-1.29), <i>P</i> = 0.368</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 83 (79) G2: 94 (90.4) G1/G2: OR = 0.40 (95% CI: 0.18-0.90), <i>P</i> = 0.023</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 8 (7.6) G2: 11 (10.6) G1/G2: OR = 0.70 (95% CI: 0.27-1.81), <i>P</i> = 0.45</p> <p>Vaginal, assisted, n (%): Forceps: G1: 10 (9.5) G2: 14 (13.5) G1/G2: OR = 0.68 (95% CI: 0.28-1.60), <i>P</i> = 0.4992</p> <p>Vacuum extraction: G1: 22 (21.0) G2: 23 (22.0) G1/G2: OR = 0.93 (95% CI: 0.48-1.81), <i>P</i> = 0.838</p> <p>Vaginal, spontaneous, n (%): G1: 65 (61.9) G2: 56 (53.8)</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality: NR</p> <p>Apgar score < 7, 5 minutes, n (%): G1: 1 (1) G2: 0</p> <p>NICU admission: NR</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Mehrangiz et al., 2004</p> <p>Country: Iran</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 1996 to 1999</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Comparison of effectiveness for paracervical block with promethazine versus promethazine only</p> <p>Groups: G1: Paracervical block with promethazine G2: Promethazine only/control</p> <p>N at enrollment: G1: 50 G2: 50</p> <p>N at birth: G1: 50 G2: 50</p> <p>Age: NR</p> <p>Race/ethnicity: NR</p> <p>Parous, %: Total: 58</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Full term • Uncomplicated • Stages 4-5 cm dilatation • Having contractions • Pain score 8-10 <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Uteroplacental insufficiency • Diabetes • Gestational hypertension • Malpresentation • Chronic hypertension 	<p>Cervical dilation at admission: NR</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression: 1st stage, mean minutes: G1: 85 G2: 220</p> <p>2nd stage, mean minutes: G1: 15 G2: 17</p> <p>Mean ratio of cervical dilation, cm/hour: G1: 3/8 G2: 2/1</p> <p>Labor augmented: NR</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural: NR</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes Cesarean birth (with fetal distress), n (%): G1: 1 (2) G2: 2 (4) G1/G2: $P = 0.310$</p> <p>Vaginal, assisted: NR</p> <p>Vaginal, spontaneous: NR</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality, n: G1: 0 G2: 0</p> <p>Apgar score > 7, 5 minutes, n (%): G1: 50 (100) G2: 50 (100)</p> <p>NICU admission: NR</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Moodley et al., 1998</p> <p>Country: South Africa</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 01/1993 to 04/1993</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Amnioinfusion with 0.9% normal saline at room temperature at 15 mL/min until a volume of 1 liter was completed</p> <p>Groups: G1: Amnioinfusion G2: Routine care for MSAF (IV fluids, 40% oxygen by mask, left lateral positioning of mother, and continuous FHR monitoring)</p> <p>N at enrollment: G1: 30 G2: 30</p> <p>N at birth: G1: 30 G2: 30</p> <p>Age, mean yrs: G1: 21.6 G2: 22.6</p> <p>Race/ethnicity: NR</p> <p>Parous, n (%): G1: 9 (30) G2: 12 (40)</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Singleton • Cephalic presentation • Term pregnancy • In active phase of labor • MSAF (grade I, II, or III) • Normal CTG <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Multiple pregnancy • Significant medical or surgical conditions • Chorioamnionitis • Abnormal CTG that necessitated immediate delivery • Previous cesarean 	<p>Cervical dilation at admission: NR</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression: NR</p> <p>Labor augmented: NR</p> <p>AROM: NR</p> <p>Internal monitoring, n: G1: 0 G2: 0</p> <p>Amnioinfusion, n (%): G1: 30 (100) G2: 0</p> <p>Epidural: NR</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 12 (40) G2: 14 (47)</p> <p>Vaginal, assisted, n: G1: 0 G2: 0</p> <p>Vaginal, spontaneous, n (%): G1: 18 (60) G2: 16 (53.3)</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality, n: G1: 0 G2: 0</p> <p>Apgar score, 5 minutes, mean ± SD: G1: 9.57 ± 0.67 G2: 9.33 ± 1.03</p> <p>Umbilical artery pH, mean ± SD: G1: 7.0 ± 0.056 G2: 7.23 ± 0.114 G1/G2: <i>P</i> = 0.0029</p> <p>NICU admission: NR</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Nicholson et al., 2008</p> <p>Country: US</p> <p>Participant source: Academic multi site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: NR</p> <p>Funding: NIH, First Hospital Foundation, Forest Pharmaceuticals</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Active management of risk in pregnancy at term (AMOR-IPAT): determination of an upper limit of the optimal time of delivery (UL-OTD) based on maternal and fetal characteristics, preventive induction of labor 1-4 days before UL-OTD ± cervical ripening</p> <p>Groups: G1: AMOR-IPAT exposed G2: Not AMOR-IPAT exposed</p> <p>N at enrollment: G1: 136 G2: 134</p> <p>N at birth: G1: 136 G2: 134</p> <p>Age, median yrs: G1: 23.4 G2: 23.3</p> <p>Race/ethnicity, %: African American: G1: 89.7 G2: 86.6</p> <p>Parous, %: G1: 52.2 G2: 53.0</p> <p>Medicaid, %: G1: 92.6 G2: 91.8</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Between 32-37½ weeks gestation • Accurate pregnancy dating • Fluent in English • At least 1 of 6 risk factors for cesarean delivery: (1) maternal age ≥ 35 years at time of delivery; (2) maternal height ≤ 62 in; (3) BMI ≥ 30 kg/m² at conception; (4) blood pressure > 80 mmHg diastolic or > 120 mmHg systolic in 1st trimester; (5) 1st trimester hemoglobin level < 11.0 g/dL; (6) history of fetus > 8 lb 8 oz <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Undelivered at 37 weeks 4 days gestation • Multiple gestation • Previous cesarean delivery • Placenta previa • Positive HIV antibody titers • Previous cervical cone biopsy • Any other fetal or maternal issue that would preclude a trial of labor 	<p>Cervical dilation at admission: NR</p> <p>Cervical effacement at admission: NR</p> <p>Initial Bishop's score, median: G1: 3 G2: 5</p> <p>Initial Bishop's score ≤ 5, %: G1: 79.4 G2: 69.4</p>	<p>Labor progression: Duration of 1st stage, mean hours: G1: 7.3 G2: 6.4 G1/G2: <i>P</i> = 0.11</p> <p>Duration of 2nd stage, mean minutes: G1: 41 G2: 48 G1/G2: <i>P</i> = 0.43</p> <p>Labor augmented, after PROM or ineffective spontaneous labor, %: G1: 19.8 G2: 32.8 G1/G2: RR = 0.62 (95% CI: 0.40-0.92), <i>P</i> = 0.02</p> <p>AROM, %: G1: 72.1 G2: 64.9 G1/G2: RR = 1.11 (95% CI: 0.94-1.31), <i>P</i> = 0.21</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, %: G1: 81.6 G2: 84.3 G1/G2: RR = 0.97 (95% CI: 0.87-1.08), <i>P</i> = 0.55</p> <p>Maternal infection in labor, %: Maternal fever (> 100.4°F): G1: 4.4 G2: 3.0 G1/G2: RR = 1.48 (95% CI: 0.43-5.12), <i>P</i> = 0.53</p>	<p>Maternal Outcomes Cesarean birth, %: G1: 10.3 G2: 14.9 G1/G2: RR = 0.69 (95% CI: 0.36-1.31), <i>P</i> = 0.25</p> <p>Vaginal, assisted, %: G1: 5.9 G2: 9.7 G1/G2: RR = 0.61 (95% CI: 0.26-1.42), <i>P</i> = 0.24</p> <p>Vaginal, spontaneous: NR</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality, n (%): G1: 0 G2: 1 (0.8)</p> <p>Apgar score, 5 minutes, mean: G1: 8.9 G2: 8.9 G1/G2: <i>P</i> = 0.91</p> <p>Apgar score < 7, 5 minutes, n (%): G1: 0 G2: 1 (0.8) G1/G2: <i>P</i> = 0.31</p> <p>NICU admission, n (%): G1: 2 (1.5) G2: 9 (6.7) G1/G2: RR = 0.22 (95% CI: 0.05-0.99), <i>P</i> = 0.03</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Norris et al., 2001</p> <p>Country: US</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 08/1997 to 07/1998</p> <p>Funding: Intramural</p> <p>Author industry relationship disclosure: None</p> <p>Design: RCT</p>	<p>Intervention: Combined spinal-epidural analgesia for labor.</p> <p>Early labor: 10 µg intrathecal sufentanil then 45 mg lidocaine and 15 µg epinephrine via epidural catheter.</p> <p>Advanced labor: 10 µg intrathecal sufentanil and 2 mg intrathecal bupivacaine, then 45 mg lidocaine and 15 µg epinephrine via epidural catheter.</p> <p>Groups: G1: Combined spinal-epidural analgesia for labor G2: Epidural analgesia for labor</p> <p>N at enrollment: G1: 1,427 G2: 1,400</p> <p>N at birth: G1: 1,071 G2: 1,112</p> <p>Age, mean yrs ± SD: G1: 24.6 ± 6.2 G2: 24.6 ± 6.2</p> <p>Race/ethnicity: NR</p> <p>Parous, n (%): G1: 630 (58.8) G2: 644 (57.9)</p> <p>Medicaid: NR</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Singleton gestation • In labor or planning a trial of labor <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • See inclusion criteria 	<p>Cervical dilation at admission, mean cm ± SD: G1: 4.0 ± 1.5 G2: 4.0 ± 1.0</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression: Duration first stage of labor, median hours (IQR): G1: 10 (8.7) G2: 9.8 (8.5)</p> <p>Time from analgesia to full cervical dilation, median hours (IQR): G1: 3.3 (4.1) G2: 3.4 (4.2)</p> <p>Duration second stage of labor, median minutes (IQR): G1: 29.0 (44) G2: 31.0 (46)</p> <p>Labor augmented, n (%): Oxytocin: G1: 500 (46.7) G2: 522 (47.0)</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 106 (9.8) G2: 1,051 (94.5)</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 155 (14.5) G2: 149 (13.4)</p> <p>Vaginal, assisted, n (%): G1: 184 (17.2) G2: 182 (16.4)</p> <p>Vaginal, spontaneous, n (%): G1: 731 (68.3) G2: 780 (70.2)</p> <p>Maternal harms, n (%): Accidental dural puncture: G1: 14 (1.3) G2: 13 (1.2)</p> <p>Intravascular catheter: G1: 64 (6.4) G2: 49 (4.4)</p> <p>Failed epidural: G1: 8 (0.8) G2: 8 (0.7)</p> <p>Positional headache: G1: 17 (1.7) G2: 17 (1.6)</p> <p>Blood patch: G1: 4 (0.4) G2: 6 (0.6)</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality: NR</p> <p>Apgar score, mean: 1 minute: G1: 8 G2: 8</p> <p>5 minutes: G1: 9</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
Norris et al., 2001 (continued)					G2: 9 NICU admission: NR

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Ojala et al., 2006</p> <p>Country: Finland</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 01/2003 to 02/2004</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Labor monitored by STAN S21 (ST analysis of fetal electrocardiography), continuous monitoring via scalp electrode</p> <p>Groups: G1: Fetal monitoring by STAN S21 G2: Monitoring by cardiotocography (CTG; Hewlett-Packard 8030A) internal intra-uterine scalp probe or external ultrasonographic signal sensor</p> <p>N at enrollment: G1: 733 G2: 739</p> <p>N at birth: G1: 714 G2: 722</p> <p>Age, mean yrs ± SD: G1: 27.9 ± 5.4 G2: 27.6 ± 5.6</p> <p>Race/ethnicity: NR</p> <p>Parous, n (%): G1: 350 (49) G2: 344 (47.6)</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Active labor • Term ≥ 36 weeks gestational age • Singleton fetus • Cephalic presentation • Among whom amniotomy had been decided <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • If scalp electrodes contraindicated • Admitted to labor ward in the second phase of labor • Refusal to participate 	<p>Cervical dilation at admission: NR</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression: NR</p> <p>Labor augmented, n (%): G1: 144 (20.2) G2: 126 (17.5)</p> <p>AROM: NR</p> <p>Internal monitoring, n (%): Fetal blood sampling: G1: 51 (7) G2: 115 (15.6)</p> <p>STAN S21: G1: 714 (100) G2: 0</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 390 (54.6) G2: 390 (54.0)</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 47 (6.4) G2: 35 (4.7) G1/G2: RR = 1.35 (95% CI: 0.86-2.07), <i>P</i> = 0.124</p> <p>Vaginal, assisted, n (%): G1: 70 (9.5) G2: 79 (10.7) G1/G2: RR = 0.89 (95% CI: 0.66-1.21), <i>P</i> = 0.530</p> <p>Vaginal, spontaneous, n (%): G1: 686 (93.6) G2: 704 (95.3)</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality: NR</p> <p>Apgar score < 7, 5 minutes, n (%): G1: 9 (1.3) G2: 8 (1.1) G1/G2: RR = 1.14 (95% CI: 0.44-2.93), <i>P</i> = 0.776</p> <p>NICU admission, n (%): G1: 26 (3.6) G2: 26 (3.6) G1/G2: RR = 1.01 (95% CI: 0.59-1.72), <i>P</i> = 0.967</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Olofsson et al., 1998</p> <p>Country: Sweden</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: NR</p> <p>Funding: Karolinska Institute, Swedish Medical Research Council, Torsten and Ragnar Soderberg's Foundation</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Epidural anesthesia (EDA); comparison of high dose (HD) versus low dose (LD)</p> <p>Groups: G1: 0.25% bupivacaine with adrenaline G2: 0.125% bupivacaine with sufentanil 10 µg Ga: Primiparous Gb: Multiparous</p> <p>N at enrollment: G1: 435 G2: 422</p> <p>N at birth: G1: 435 G2: 422</p> <p>Age, mean yrs: G1: 29 G2: 30</p> <p>Race/ethnicity: NR</p> <p>Primiparous, n (%): G1: 284 (65.3)* G2: 282 (66.8)*</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> All parturients who requested and were found eligible to receive EDA Normal and abnormal pregnancies planned for vaginal delivery <p>Exclusion criteria:</p> <ul style="list-style-type: none"> Refusal to participate 	<p>Cervical dilation at admission, n:</p> <p>0-3 cm: G1: 70 G2: 58</p> <p>4-5 cm: G1: 205 G2: 188</p> <p>6-10 cm: G1: 156 G2: 171</p> <p>Cervical dilation at admission: NR</p>	<p>Labor progression, (total delivery time), mean hours:</p> <p>G1a: 12.4 G1b: 10.0 G2a: 12.1 G2b: 7.6</p> <p>Labor augmented, n: Oxytocin, mL: G1a: 338.7 G1b: 251.9 G2a: 279.7 G2b: 111.9</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 435 (100) G2: 422 (100)</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 64 (14.7) G2: 43 (10.2)</p> <p>Instrumental deliveries, %: Vacuum extraction and cesarean: G1: 48.9 G2: 29.7 G1/G2: RR = 1.64 (95% CI: 1.38-1.96), <i>P</i> < 0.00001</p> <p>Vaginal, assisted: NR</p> <p>Vaginal, spontaneous, n:¹ Multiparous: 210/291 Primiparous: 306/566 G1/G2: <i>P</i> < 0.00001</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality: NR</p> <p>Apgar score < 7, 5 minutes, %: G1: 4.5 G2: 3.9</p> <p>NICU admission: NR</p>

* Calculated by reviewer

¹ Adjusting for treatment effect

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: O'Sullivan et al., 2009</p> <p>Country: UK</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Hospital, labor and delivery suite</p> <p>Enrollment period: 06/2001 to 04/2006</p> <p>Funding: Obstetric Anaesthetists' Association and Special Trustees of St. Thomas' Hospital</p> <p>Author industry relationship disclosure: None</p> <p>Design: RCT</p>	<p>Intervention: Allowing women to eat during labor- advised a low fat low residue diet during labor</p> <p>Groups: G1: Eating G2: Ice chips and water only</p> <p>N at enrollment: G1: 1227 G2: 1216</p> <p>N at birth: G1: 1219 G2: 1207</p> <p>Age, mean yrs ± SD: G1: 29 ± 6 G2: 29 ± 6</p> <p>Race/ethnicity, n (%): White: G1: 751 (62) G2: 741 (61) African or Caribbean: G1: 285 (23) G2: 281 (23) Other: G1: 183 (15) G2: 185 (15)</p> <p>Parous, n: G1: 4¹ G2: 4¹</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • > 18 years old • Nulliparous • > 36 weeks gestation • Singleton • Cephalic presentation • In labor with cervical dilation < 6 cm <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Diabetes • Known obstetric or medical complication that could increase the likelihood of operative delivery • Severe pain • Intent to use parenteral opioids for analgesia during labor • Unable to understand English and no interpreter available 	<p>Cervical dilation at admission: NR</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression, (duration), mean minutes: G1: 597 G2: 612 G1/G2: RR = 0.97 (95% CI: 0.93-1.03)</p> <p>Labor augmented, n (%): Prostglandin only: G1: 117 (10) G2: 92 (8)</p> <p>Prostglandin plus oxytocin: G1: 212 (17) G2: 233 (19)</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 804 (66) G2: 813 (67)</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes Cesarean birth, n (%): G1: 362 (30) G2: 363 (30) G1/G2: RR = 0.99 (95% CI: 0.87-1.12), <i>P</i> = 0.86</p> <p>Vaginal, assisted, n (%): G1: 324 (27) G2: 310 (26) G1/G2: RR = 1.04 (95% CI: 0.91-1.19), <i>P</i> = 0.64</p> <p>Vaginal, spontaneous, n (%): G1: 533 (44) G2: 534 (44) G1/G2: RR = 0.99 (95% CI: 0.91-1.09), <i>P</i> = 0.77</p> <p>Maternal harms, n (%): Vomited: G1: 430 (35) G2: 406 (34) G1/G2: RR = 1.05 (95% CI: 0.94-1.17), <i>P</i> = 0.41</p> <p>Maternal mortality, n: G1: 0 G2: 1</p> <p>Neonatal outcomes Neonatal mortality: NR</p> <p>Apgar score ≤ 7, 5 minutes, n (%): G1: 16 (1.3) G2: 22 (1.8) G1/G2: RR = 0.72 (95% CI: 0.38-1.36), <i>P</i> = 0.33</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
O'Sullivan et al., 2009 (continued)					<p>Apgar score ≤ 4, 5 minutes, n (%): G1: 4 (0.3) G2: 9 (0.8) G1/G2: RR = 0.44 (95% CI: 0.14-1.42), <i>P</i> = 0.18</p> <p>NICU admission, n (%): G1: 61 (5.0) G2: 62 (5.2) G1/G2: RR = 0.96 (95% CI: 0.68-1.35), <i>P</i> = 0.81</p>

¹ Excluded

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Palomaki et al., 2006</p> <p>Country: Finland</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: NR</p> <p>Funding: Medical Research Fund of Tampere University Hospital, Finland</p> <p>Author Industry Relationship Disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: 2 mg propanolol IV over a 10 minute period. Repeated after 1 hour of cervix remained unchanged. Concurrent infusion of oxytocin 2.5 mIU/min raised by 2.5 mIU/min every 30 min until contractions reached 150 Montevideo units.</p> <p>Groups: G1: Propranolol with oxytocin G2: Placebo with oxytocin</p> <p>N at enrollment: G1: 55 G2: 52</p> <p>N at birth: G1: 55 G2: 52</p> <p>Age, mean yrs (range): G1: 27 (20-43) G2: 27 (18-39)</p> <p>Race/ethnicity: NR</p> <p>Parous, %: G1: 29 G2: 29</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Singleton pregnancy with cephalic presentation • Gestational age \geq 37 weeks • Estimated weight of fetus 2500-4500 g • Normal course of pregnancy • Normal CTG before augmentation • Spontaneous or artificial rupture of membranes • Heart rate of the parturient 60-120 beats per minute • Systolic blood pressure of the parturient $>$ 100 mmHg • Failure to progress in active phase of the first stage of labor <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Chronic maternal illness including hypertension, heart disease, arrhythmia, bronchial asthma, diabetes mellitus • Acute infectious disease 	<p>Cervical dilation before augmentation, median (range): G1: 4 (2-6) G2: 4 (2-7)</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression, total duration in minutes, median excluding cesarean births: G1: 810 G2: 768 G1/G2: $P = 0.486$</p> <p>Duration of augmented part of labor in minutes, median G1: 185 G2: 223 G1/G2: $P = 0.217$</p> <p>Labor augmented, n (%): G1: 55 (100) G2: 52 (100)</p> <p>AROM: NR</p> <p>Internal monitoring (intrauterine scalp electrode and intrauterine Philips catheter), n (%): G1: 55 (100) G2: 52 (100)</p> <p>Amnioinfusion: NR</p> <p>Epidural, %: G1: 82 G2: 83</p> <p>Maternal infection in labor: NR</p>	<p>Maternal Outcomes</p> <p>Cesarean birth, n (%): G1: 6 (11) G2: 2 (4) G1/G2: $P = 0.154$</p> <p>Vaginal, assisted, n (%): G1: 9 (16) G2: 6 (11) G1/G2: $P = 0.331$</p> <p>Vaginal, spontaneous, n (%): G1: 40 (73) G2: 44 (85) RR = 0.86, 95% CI 0.70-1.05</p> <p>Maternal harms (transient bradycardia), n (%): G1: 2 (4) G2: 2 (4)</p> <p>Maternal mortality: NR</p> <p>Infant outcomes</p> <p>Neonatal mortality: NR</p> <p>Apgar score, 5 minutes, median (range): G1: 9 (8-9) G2: 9 (6-10)</p> <p>NICU admission, n (%): G1: 6 (11) G2: 5 (10)</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
Palomaki et al., 2006 (continued)		<ul style="list-style-type: none">• Suspected or verified fetal abnormality or distress including fetal growth retardation, abnormal presentation, abnormal CTG before augmentation• Fetopelvic disproportion			

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Pattinson et al., 2003</p> <p>Country: South Africa</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: NR</p> <p>Funding: South African Medical Research Council</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Interventions:</p> <ul style="list-style-type: none"> Aggressive management: 1-line partogram with alert line; vaginal exam every 2 hours Expectant management: 2-line partogram with alert line and a parallel action line drawn 4 hours later; vaginal exam every 4 hours. <p>Groups:</p> <p>G1: Aggressive management G2: Expectant management</p> <p>N at enrollment: G1: 344 G2: 352</p> <p>N at birth: G1: 344 G2: 350</p> <p>Age, mean yrs ± SD: G1: 21.9 ± 4.0 G2: 21.7 ± 3.4</p> <p>Race/ethnicity: NR</p> <p>Parous, n: G1: 0 G2: 0</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> Healthy Nulliparous Active labor Singleton with cephalic presentation <p>Exclusion criteria:</p> <ul style="list-style-type: none"> Obstructed labor Fetal distress on admission Severe maternal disease (e.g., pre-eclampsia, breech, abnormal lie) Cervix > 8 cm dilated Gestational age < 36 weeks or estimated fetal weight < 2.5 kg if gestational age uncertain 	<p>Cervical dilation at admission, mean cm ± SD: G1: 4.6 ± 1.1 G2: 4.6 ± 1.1</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression: NR</p> <p>Labor augmented, n (%): Oxytocin: G1: 77 (22.4) G2: 52 (14.9) G1/G2: RR = 1.51 (95% CI: 1.10-2.07)</p> <p>AROM, n (%): G1: 19 (15.3) G2: 29 (20.1)</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 257 (74.7) G2: 256 (73.7) G1/G2: RR = 1.01 (95% CI: 0.93-1.11)</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 55 (16) G2: 82 (23.4) G1/G2: RR = 0.68 (95% CI: 0.50-0.93)</p> <p>Vaginal, assisted, n (%): Vacuum and forceps: G1: 70 (20.3) G2: 97 (27.9)</p> <p>Vaginal, spontaneous: NR</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality, n (%): G1: 3 (0.6) G2: 0 G1/G2: RR = 7.12 (95% CI: 0.37-137.37)</p> <p>Apgar score, 1 minute, n (%): 0-3: G1: 14 (4.1) G2: 11 (3.1) 4-7: G1: 69 (20.1) G2: 57 (16.3) 8-9: G1: 261 (75.8) G2: 282 (80.6) G1/G2: P = NS</p> <p>Apgar score < 8, 10 minutes, n (%): G1: 3 (0.9) G2: 0</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
Pattinson et al., 2003 (continued)					G1/G2: <i>P</i> = NS NICU admission: NR

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Phipps et al., 2009</p> <p>Country: Australia</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Antenatal class</p> <p>Enrollment period: 08/2005 to 07/2006</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Two 15-minute structured education sessions, taught by midwife one week apart: anatomy, physiology, practice pushing with midwife observing perineum then applying digital pressure and biofeedback to the levator ani muscle</p> <p>Groups: G1: Education session G2: Control/no education session</p> <p>N at enrollment: G1: 50 G2: 50</p> <p>N at birth: G1: 50 G2: 50</p> <p>N at follow-up: (3 months postnatal) G1: 45 G2: 45</p> <p>Age, mean yrs ± SD: G1: 29.04 ± 3.8 G2: 30.8 ± 4.3</p> <p>Race/ethnicity, n (%): White: G1: 37 (74) G2: 35 (70) Asian: G1: 9 (18) G2: 14 (28) Other: G1: 4 (8) G2: 1 (2)</p> <p>Parous, n: G1: 0 G2: 0</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • 35-37 weeks gestation • Nulliparous • Singleton • Cephalic presentation • English speaking • Planning a vaginal birth <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • < 18 years • Cognitive impairment • High-risk pregnancy • Contraindication to vaginal examination 	<p>Cervical dilation at admission: NR</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression, mean minutes ± SD: Duration: G1: 484.3 ± 338.3 G2: 547.9 ± 443.7 G1/G2: <i>P</i> = 0.584</p> <p>Labor augmented, n (%): G1: 22 (44) G2: 16 (32)</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural: NR</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes Cesarean birth, n (%): G1: 11 (22) G2: 13 (26) G1/G2: <i>P</i> = 0.789</p> <p>Vaginal, assisted, n (%): G1: 8 (16) G2: 6 (12)</p> <p>Vaginal, spontaneous, n (%): G1: 31 (62) G2: 31 (62)</p> <p>Maternal harms, perineum, n (%): Episiotomy: G1: 10 (20) G2: 5 (10) Intact or first degree tear: G1: 29 (58) G2: 28 (56) Second degree tear: G1: 7 (14) G2: 14 (28) Third degree tear: G1: 4 (8) G2: 3 (6) G1/G2: <i>P</i> = 0.142</p> <p>Maternal mortality, n: G1: 0 G2: 0</p> <p>Neonatal outcomes Neonatal mortality: NR</p> <p>Apgar score: NR</p> <p>NICU admission: NR</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Rathore et al., 2002</p> <p>Country: India</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: NR</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Amnioinfusion (8°F nasogastric tube inserted transcervically into uterine cavity just above head, initially 500 ml of normal saline at room temperature infused through tube over 30 minutes, then 500 ml at the rate of 3ml/min for a maximum of 1L.)</p> <p>Groups: G1: Amnioinfusion G2: Control/non-amnioinfusion</p> <p>N at enrollment: G1: 100 G2: 100</p> <p>N at birth: G1: 100 G2: 100</p> <p>Age, mean years ± SD: G1: 24.3 ± 3.3 G2: 24.2 ± 3.2</p> <p>Race/ethnicity: NR</p> <p>Parous: NR</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • ≥ 37 weeks gestation • Singleton • Cephalic presentation • Moderate or thick meconium in amniotic fluid • Meconiumcrit of > 10% <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Choriomnionitis • Indication for immediate delivery • Fetal congenital anomaly • Antepartum hemorrhage • Polyhydramnios • Maternal cardiac or pulmonary disease 	<p>Cervical dilation at admission, mean cm ± SD: G1: 4.1 ± 0.9 G2: 4.3 ± 0.9</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression (AROM to delivery interval), mean hours ± SD: G1: 2.7 ± 1.1 G2: 2.6 ± 0.7</p> <p>Labor augmented: NR</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion, n (%): G1: 100 (100) G2: 0</p> <p>Epidural: NR</p> <p>Maternal infection in labor, n: Pyrexia: G1: 6 G2: 12 G1/G2: RR = 0.47 (95% CI: 0.15-1.42)</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 21 (21) G2: 36 (36) G1/G2: RR = 0.47 (95% CI: 0.24-0.93)</p> <p>Vaginal, assisted, n (%): G1: 5 (5) G2: 14 (14)</p> <p>Vaginal, n (%): G1: 79 (79) G2: 64 (64)</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality, n (%): G1: 2 (2) G2: 5 (5)</p> <p>Apgar score < 7, n: 1 minute: G1: 2/94 G2: 8/98 G1/G2: RR = 0.24 (95% CI: 0.03-1.29)</p> <p>5 minutes: G1: 1/99 G2: 2/96 G1/G2: RR = 0.48 (95% CI: 0.02-6.89)</p> <p>NICU admission, n (%): G1: 3 (3) G2: 11 (11) G1/G2: RR = 0.25 (95% CI: 0.05-1.01)</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Regi et al., 2009</p> <p>Country: India</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 10/2003 to 09/2004</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: None</p> <p>Design: RCT</p>	<p>Intervention: Transcervical Intrapartum amnioinfusion (AI) 500 mL of warmed saline at 37°C infused over 30 minutes at rate 15-25 mL/min followed by continuous infusion 3 mL/min until delivery.</p> <p>Groups: G1: Amnioinfusion G2: Standard care, no infusion</p> <p>N at enrollment: G1: 75 G2: 75</p> <p>N at birth: G1: 73 G2: 75</p> <p>Age: NR</p> <p>Race/ethnicity: NR</p> <p>Parous, n (%): G1: 20 (27.4) G2: 23 (31.5)</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • First stage of active labor (cervical dilation < 10 cm) • Gestational age > 34 weeks • Clear or grade I meconium staining of amniotic fluid • Presence of repetitive severe (< 70 beats per minute lasting for > 60 seconds) or moderate (> 5 consecutive or following > 50% of the contractions in a 20 minute period) variable decelerations <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Variable decelerations with poor variability of delayed recovery • Baseline bradycardia or tachycardia • Repetitive late decelerations • Grade II or III meconium-stained amniotic fluid • Pervious cesarean delivery • Presence of contraindication to vaginal delivery (fetal malpresentation, placenta previa) 	<p>Cervical dilation at admission, n (%): G1: 38 (52) G2: 35 (46.7) G1: 35 (48) G2: 10 (53.3) G1/G2: <i>P</i> = 0.512</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression: Rupture of membranes until delivery, hours, mean ± SD: G1: 11.14 ± 8.3 G2: 9.52 ± 8.6</p> <p>Labor augmented, n (%): G1: 46 (63) G2: 36 (48) G1/G2: <i>P</i> = 0.066</p> <p>Oxytocin augmentation, n (%): G1: 56 (76.7) G2: 53 (70.7) G1/G2: <i>P</i> = 0.315</p> <p>AROM, n (%): G1: 35 (48) G2: 44 (58.6) G1/G2: <i>P</i> = 0.191</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion, n (%): G1: 73 (100) G2: 0</p> <p>Epidural: NR</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 28 (38) G2: 28 (37.3)</p> <p>Vaginal, assisted: NR</p> <p>Vaginal, spontaneous: NR</p> <p>Relief of variable decelerations, n (%): G1: 58 (79.5) G2: 2 (2.7) G1/G2: <i>P</i> = .001</p> <p>Maternal harms, n (%): Intrapartum temp ≥ 38.3°C: G1: 2 (2.7) G2: 0</p> <p>Postpartum temp ≥ 38.3°C: G1: 2 (2.7) G2: 2 (2.7)</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality: NR</p> <p>Apgar score ≤ 7, 5 minutes, n: Nulliparous: G1: 0 G2: 0</p> <p>Multiparous: G1: 0 G2: 0</p> <p>NICU admission: NR</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Rogers et al., 1997</p> <p>Country: US</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 08/1992 to 04/1996</p> <p>Funding: NIH</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Active management of labor. Labor defined as painful, palpable uterine contractions 2-5 minutes apart, cervical effacement of at least 80%; amniotomy performed within 2 hours of admission and augmentation of labor with oxytocin instituted if cervical dilatation of 1 cm/hr within first stage of labor or descent of 1 cm/hr in second stage failed to occur; a cervical exam every 2 hrs; if augmentation was necessary oxytocin infusion started at 6 mU/min, increased every 15 minutes, titrating to seven contractions in 15 minutes or appropriate cervical change. Maximum dose 36 mU/min.</p> <p>Groups: G1: Active management of labor G2: Usual care</p> <p>N at enrollment:¹ G1: 200 G2: 205</p> <p>N at birth: G1: 200 G2: 205</p> <p>Age, mean yrs ± SD: G1: 20.7 ± 4.2 G2: 20.5 ± 3.7</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> Nulliparous Term pregnancy Examined in antenatal testing unit Painful, palpable uterine contractions ≤ 5 minutes apart Cervical effacement of at least 80% Gestational age ≥ 37 weeks Cephalic presentation No known maternal medical complications No known fetal anomalies <p>Exclusion criteria:</p> <ul style="list-style-type: none"> Placenta previa or abruptio placentae Twin gestations Prior uterine surgery Any other obstetric or medical complications of pregnancy 	<p>Cervical dilation at admission, mean cm ± SD: G1: 2.8 ± 1.0 G2: 2.9 ± 1.1</p> <p>Cervical effacement at admission, mean % (range): G1: 90 (80-100) G2: 80 (80-100)</p>	<p>Labor progression, length of labor, mean hours ± SD: Total: G1: 9.7 ± 4.9 G2: 11.2 ± 5.4 First stage: G1: 8.5 ± 4.5 G2: 10.1 ± 5.9 Second stage: G1: 1.0 ± 1.0 G2: 1.1 ± 1.4</p> <p>Labor augmented, n (%): G1: 112 (56) G2: 105 (51)</p> <p>AROM, n (%): G1: 172 (86) G2: 164 (80)</p> <p>Internal monitoring, n (%): G1: 138 (69) G2: 137 (67)</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 118 (59) G2: 105 (51)</p> <p>Maternal infection in labor, n (%): Febrile episodes attributed to chorioamnionitis: G1: 28 (14) G2: 26 (13)</p>	<p>Maternal outcomes Cesarean birth, n (%): G1: 15 (7.5) G2: 24 (11.7) G1/G2: <i>P</i> = NS</p> <p>Vaginal, assisted, n (%): G1: 35 (19) G2: 33 (18) G1/G2: <i>P</i> = NS</p> <p>Vaginal, spontaneous, n (%): G1: 150 (81) G2: 148 (82) G1/G2: <i>P</i> = NS</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality: NR</p> <p>Apgar score < 7, 5 minutes, n: G1: 2 G2: 2</p> <p>NICU admission, n: G1: 1 G2: 4 G1/G2: <i>P</i> = NS</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
Rogers et al., 1997 (continued)	<p>Race/ethnicity, n (%) White: G1: 58 (29) G2: 51 (25) Hispanic: G1: 132 (66) G2: 140 (68) Other: G1: 10 (5) G2: 14 (7)</p> <p>Parous, n: G1: 0 G2: 0</p> <p>Medicaid: NR</p>				

¹ Two additional multiparous women were erroneously allowed in the study but excluded from analysis

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Sadler et al., 2000</p> <p>Country: New Zealand</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 06/1993 to 08/1997</p> <p>Funding: Auckland Health Care, Health Research Council of New Zealand, Evelyn Bond Obstetric Research Fund</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Active management of labor: women encouraged to have amniotomy at diagnosis of labor. Cervical assessment every 2 hours. Oxytocin started for delayed progress (< 1 cm/hour in the 1st stage of labor and absence of descent of baby's head after 30 minutes of pushing or contractions < one in five minutes and delivery not imminent in 2nd stage) 6mU per minute and increased by 6mU per minute every 15 minutes to maximum dose of 36 mU per minute.</p> <p>Groups: G1: Active management of labor G2: Usual care</p> <p>N at enrollment: G1: 320 G2: 331</p> <p>N at birth: G1: 320 G2: 331</p> <p>N at follow-up (6 weeks post-partum): G1: 243 G2: 225</p> <p>Age, mean yrs: G1: 25.7 G2: 25.7</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Nulliparity • Singleton pregnancy • No severe cardiac disease • No uterine scar • No proven contracted pelvis <p>Exclusion criteria: (at onset of labor prior to randomization)</p> <ul style="list-style-type: none"> • Induced labor • Noncephalic presentation • Withdrawal of consent • Gestation < 37 weeks • Abnormal cardiotocograph or thick meconium suggesting fetal distress • Involvement in study not recognized at admission • Elective CS • Intrauterine death • Multiparity 	<p>Cervical dilation at admission, mean ± SD: G1: 4.5 ± 1.8 G2: 4.5 ± 2.1</p> <p>Cervical effacement at admission: NR</p>	<p>Labor duration for vaginal deliveries only, median (interquartile range): G1: (n=290) 326 (185-485) G2: (n=299) 376 (212-543) G1/G2: <i>P</i> = 0.05</p> <p>Labor augmented, n (%): Oxytocin: G1: 168 (53) G2: 129 (39) G1/G2: RR = 1.35 (95% CI: 1.14-1.60)</p> <p>AROM, n (%): G1: 231 (72) G2: 209 (63) G1/G2: RR= 1.14 (95% CI: 1.03-1.27)</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 156 (49) G2: 149 (45)</p> <p>Maternal infection in labor, n (%): G1: 37 (12) G2: 34 (10)</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 30 (9.4) G2: 32 (9.7) G1/G2: <i>P</i> = 0.5 for mode of delivery</p> <p>Vaginal, assisted, n (%): G1: 63 (20) G2: 54 (16)</p> <p>Vaginal, spontaneous, n (%): G1: 227 (71) G2: 245 (74)</p> <p>Maternal harms (hemorrhage), n (%): G1: 48 (15) G2: 47 (14)</p> <p>Maternal mortality: NR</p> <p>Infant outcomes</p> <p>Neonatal mortality: NR</p> <p>Apgar score < 6, five minutes, n (%): G1: 1 (0.3) G2: 0</p> <p>NICU admission, n (%): G1: 17 (5) G2: 16 (5)</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
Sadler et al., 2000 (continued)	<p>Race/ethnicity, n (%): European: G1: 121 (38)G2: 110 (33)</p> <p>Maori: G1: 41 (13) G2: 51 (16)</p> <p>Pacific Island: G1: 92 (29) G2: 100 (30)</p> <p>Asian/Other: G1: 66 (20) G2: 70 (21)</p> <p>Parous, n: G1: 0 G2: 0</p> <p>Medicaid, n (%): Not applicable</p> <p>Public care giver: G1: 135 (42) G2: 137 (41)</p>				

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Saisto et al., 2001</p> <p>Country: Finland</p> <p>Participant source: Community</p> <p>Intervention setting: Clinic</p> <p>Enrollment period: 08/1996 to 07/1999</p> <p>Funding: Signe and Ane Gyllenberg Foundation, Emil Aaltonen Foundation, Helsinki University Central Hospital, Academy of Finland</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Intensive therapy: Written information (pros and cons of vaginal and cesarean births, alternative modes of pain relief), questionnaires (24 and 36 weeks, 3 months post partum); OB appointments for routine check up and cognitive therapy (24, 28, 32, 36, 38 weeks); appointment with midwife at 37 weeks (information on pain relief and possible interventions). Phone access to OB and NM. Discussion of birth plan.</p> <p>Conventional care: Routine OB check-ups (24 and 36 weeks); written information (pros and cons of vaginal and cesarean births, alternative modes of pain relief).</p> <p>Groups: G1: Intensive therapy G2: Conventional care</p> <p>N at enrollment: (at 26 weeks) G1: 85 G2: 91</p> <p>N at birth: G1: 85 G2: 91</p> <p>Age, mean yrs ± SD: G1: 31.2 ± 5.1 G2: 31.9 ± 4.8</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Women referred for antenatal consultation because of fear of childbirth • Obstetrically low risk • Physically healthy <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Contraindication to vaginal delivery at the time of randomization (two previous cesareans or vertical incision in previous cesarean) 	<p>Cervical dilation at admission: NR</p> <p>Cervical effacement at admission: NR</p> <p>Previous spontaneous abortions, n (%): G1: 19 (22.4) G2: 7 (7.7)</p> <p>Wish for cesarean (pre-intervention), n (%): G1: 58 (68.2) G2: 59 (64.8) G1/G2: <i>P</i> = NS</p>	<p>Labor progression duration, hours ± SD: G1: 6.8 ± 3.8 G2: 8.5 ± 4.8 G1/G2: <i>P</i> = 0.039</p> <p>Labor augmented: NR</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: NR (85) G2: NR (82)</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 37 (43.5) G2: 44 (48.3)</p> <p>Cesarean, elective, n (%): G1: 20/85 (23.5*) G2: 26/91 (28.5*)</p> <p>Cesarean, emergency, n (%): All women: G1: 17/85 (20.0*) G2: 18/91 (19.8*)</p> <p>Women choosing vaginal delivery: G1: 17/65 (26.1*) G2: 18/65 (27.7*)</p> <p>Vaginal, assisted: NR</p> <p>Vaginal, spontaneous: NR</p> <p>Vaginal, any, n: G1: 48 G2: 47</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality: NR</p> <p>Apgar score: NR</p> <p>NICU admission: NR</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
Saisto et al., 2001 (continued)	<p>Race/ethnicity, n (%): Finnish: G1: 85 (100) G2: 91 (100)</p> <p>Parous, n (%): G1: 41 (48.2) G2: 45 (49.5)</p> <p>Medicaid: Not applicable</p>				

*Calculated by reviewer

Parity was related to request for cesarean: 74% of parous and 59% of nulliparous women requested it in the beginning ($P = 0.003$), and of them 42% of parous and 32% of nulliparous women also finally chose it ($P < 0.05$).

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Sanchez-Ramos et al., 1996</p> <p>Country: US</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 03/1992 to 02/1994</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: 2 mg IV propranolol, repeated 1 hour later if no change in cervical dilation</p> <p>Continuous IV oxytocin in all patients, started at 1-2 mU/min, increased at 1-2 mU/min in 30 min intervals until ≥ 3 uterine contractions/10 min</p> <p>Groups: G1: Propranolol G2: Placebo</p> <p>N at enrollment: G1: 49 G2: 47</p> <p>N at birth: G1: 49 G2: 47</p> <p>Age, mean yrs \pm SD: G1: 24.3 \pm 5.2 G2: 22.5 \pm 4.2</p> <p>Race/ethnicity, n (%): White: G1: 19 (38.8) G2: 23 (48.9) Non-white: G1: 30 (61.2) G2: 24 (51.1)</p> <p>Parous, n (%): G1: 22 (44.9) G2: 19 (40.4)</p> <p>Medicaid: NR</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Singleton pregnancy • Vertex presentation at term • Active phase of labor (5-9 cm dilation) • Estimated fetal weight of 2500-4500 g • Arrest of dilation (lack of progressive cervical dilation ≥ 2 hours or deceleration phase ≥ 3 hours in nulliparas or 1 hour in multiparas) • Normal maternal heart rate (60-120 bpm) <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Systolic BP < 100 mm Hg • Hypertensive disorders of pregnancy, asthma, or diabetes 	<p>Cervical dilation at admission: NR</p> <p>Cervical effacement at admission: NR</p> <p>Cervical dilation at arrest, mean cm \pm SD: G1: 6.8 \pm 1.3 G2: 6.8 \pm 1.4</p>	<p>Labor progression, time from administration of study drug to vaginal delivery, mean minutes \pm SD: G1: 239 \pm 148 G2: 237 \pm 106</p> <p>Labor augmented, n (%): G1: 49 (100) G2: 47 (100)</p> <p>AROM: NR</p> <p>Internal monitoring, n (%): IUPC and scalp electrode: G1: 49 (100) G2: 47 (100)</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 22 (44.9) G2: 20 (42.5)</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 13 (26.5) G2: 24 (51.1) G1/G2: RR = 0.58 (95% CI: 0.35-0.93), $P = 0.02$</p> <p>Vaginal, assisted, n (%): G1: 10 (20.4) G2: 8 (17.0) G1/G2: $P = 0.79$</p> <p>Vaginal, spontaneous, n (%): G1: 26 (53.1)* G2: 15 (31.9)*</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality: NR</p> <p>Apgar score < 7, 5 minutes, n (%): G1: 1 (2.0) G2: 2 (4.2)</p> <p>NICU admission, n (%): G1: 1 (2.0) G2: 1 (2.1)</p>

* Number of spontaneous births calculated by the reviewer, subtracting the number of operative vaginal and cesarean deliveries from the number of participants

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Scheepers et al., 2002</p> <p>Country: The Netherlands</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 07/1998 to 06/2000</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Carbohydrate solution (per 100 mL, 12.6 g carbohydrates, 9.8% polysaccharides/sodium 50 mg, 280 mOsm/L) consumed by mouth as desired during labor</p> <p>Placebo solution: artificial aroma, aspartame, acesulfame</p> <p>Groups: G1: Carbohydrate solution G2: Placebo</p> <p>N at enrollment: G1: 102 G2: 99</p> <p>N at birth: G1: 102 G2: 99</p> <p>Age, mean yrs ± SD: G1: 26.3 ± 5.0 G2: 25.7 ± 5.6</p> <p>Race/ethnicity: NR</p> <p>Parous, n: G1: 0 G2: 0</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Nulliparous • In early labor (2-4 cm cervical dilation) • Fetus in cephalic position <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Elective cesarean • Multiple pregnancy • Diabetes • Women considered to have direct risk of cesarean 	<p>Cervical dilation at admission, mean ± SD: G1: 3.1 ± 1.0 G2: 3.0 ± 0.9</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression, duration, median minutes (range): G1: 370 (29-1500) G2: 300 (50-1210) G1/G2: <i>P</i> = 0.06</p> <p>Labor augmented, n (%): G1: 24 (23.5) G2: 28 (28.3)</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 26 (25.5) G2: 16 (16.2) RR = 1.56 95%CI 0.89-2.73</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 21 (20.6) G2: 7 (7.1) RR 2.91 95%CI 1.29-6.54</p> <p>Vaginal, assisted, n (%): G1: 29 (28.4) G2: 36 (36.4) RR = 0.78 95%CI 0.52-1.17</p> <p>Vaginal, spontaneous, n (%): G1: 52 (51.0) G2: 56 (56.6) RR = 0.90 95%CI 0.68-1.17</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Infant outcomes</p> <p>Neonatal mortality: NR</p> <p>Apgar score, 5 minutes, mean ± SD: G1: 9.6 ± 0.8 G2: 9.5 ± 0.9 G1/G2: <i>P</i> = 0.18</p> <p>NICU admission: NR</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Skrablin et al., 2011</p> <p>Country: Croatia</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and deliver suite</p> <p>Enrollment period: 05/2009 to 02/2010</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: None</p> <p>Design: RCT</p>	<p>Intervention: Before enrollment an initial bolus of 20 ml of levobupivacaine (0.07% concentration) with 2 mg/ml of fentanyl was given via epidural catheter (equal dose given if baseline pain VAS > 1 cm at 15 minutes after the first one); then randomized between intermittent bolus dose (20 ml of levobupivacaine with 2.5 µg/ml fentanyl given 1 hour after an initial bolus dose, then upon reported discomfort or contractions) and continuous infused epidural analgesia (20 ml levobupivacaine with fentanyl of 2.5 µg/ml at infusion rate up to 14 ml/hour until delivery)</p> <p>Groups: G1: Intermittent epidural G2: Continuous epidural</p> <p>N at enrollment: G1: 101 G2: 104</p> <p>N at birth: G1: 101 G2: 104</p> <p>Age, mean yrs: G1: 28 G2: 28</p> <p>Race/ethnicity: NR</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Low risk • Nulliparous • Term pregnancy <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Pre-term (< 37 weeks) • Cervical dilation ≤ 2 or ≥ 5 cm • Systemic disease (e.g., heart disease, renal disease, asthma, diabetes mellitus, hypertension) • Chronic analgesic use • Contraindications to neuraxial blocks (e.g., coagulopathy, thrombocytopenia) • Multiple pregnancies • Absolute indication for cesarean (e.g., strait pelvis, placenta previa) • Breech presentation or other malpresentation • Failure to achieve adequate analgesia 	<p>Cervical dilation at randomization, mean cm: G1: 4 G2: 4</p> <p>Cervical effacement at randomization, n (%): Partial: G1: 50 (49.5) G2: 49 (48.5) Full: G1: 51 (50.5) G2: 55 (52.9)</p>	<p>Labor progression, duration from epidural to delivery, mean minutes ± SD: G1: 414 ± 101 G2: 432 ± 94</p> <p>Labor augmented, n (%): Oxytocin: G1: 101 (100) G2: 104 (100)</p> <p>AROM, n (%): G1: 24 (23.5) G2: 28 (26.9) G2/G1: <i>P</i> = 0.29</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 101 (100) G2: 104 (100)</p> <p>Maternal infection in labor, n (%): Intrapartum fever: G1: 23 (22.8) G2: 21 (20.2) G2/G1: RR = 1.12 (95% CI: 0.67-1.91), <i>P</i> = 0.38</p>	<p>Maternal outcomes Cesarean birth, n (%): G1: 5 (5.0) G2: 15 (14.4) G2/G1: RR = 2.91 (95% CI: 1.09-7.72), <i>P</i> = 0.03</p> <p>Vaginal, assisted: NR</p> <p>Vaginal, spontaneous: NR</p> <p>Maternal harms: Motor blockade, n (%): G1: 1 (1.0) G2: 11 (10.6) G2/G1: RR = 10.68 (95% CI: 1.40-81.24), <i>P</i> = 0.01</p> <p>Intrapartum pain, mean VAS score (range): G1: 5.4 (1.7-31.2) G2: 4.3 (1.3-24.5) G2/G1: <i>P</i> = 0.36</p> <p>Hypotension, n (%): G1: 33 (32.7) G2: 22 (21.2) G2/G1: RR = 1.53 (95% CI: 0.78-3.78), <i>P</i> = 0.56</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality: NR</p> <p>Apgar score ≤ 7, 5 minutes, n (%): G1: 3 (3.0) G2: 2 (1.9) G2/G1: RR = 1.54 (95% CI: 0.26-9.06), <i>P</i> = 0.48</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
Skrablin et al., 2011 (continued)	Parous, n: G1: 0 G2: 0 Medicaid: Not applicable				NICU admission: NR

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Somprasit et al., 2005</p> <p>Country: Thailand</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 05/2001 to 12/2002</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Active management of labor: artificial rupture of membranes within 1 hour of admission, 2 hourly vaginal assessments, high doses of oxytocin augmentation if cervical dilatation < 1 cm/hour in the first stage of labor</p> <p>Groups: G1: Active management of labor G2: Conventional management of labor</p> <p>N at enrollment: G1: 320 G2: 640</p> <p>N at birth: G1: 320 G2: 640</p> <p>Age, mean yrs ± SD: G1: 24.4 ± 4.5 G2: 24.2 ± 4.5</p> <p>Race/ethnicity: NR</p> <p>Parous, n: G1: 0 G2: 0</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Nulliparous • Singleton • Normal fetal heart pattern at admission • Cephalic presentation • Gestational age ≥ 37 weeks • Spontaneous labor without fetal distress at admission • No contra-indications to vaginal delivery or oxytocin • No medical or surgical complications <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Diabetes • Cervical incompetence • Pregnancy-induced hypertension 	<p>Cervical dilation at admission, mean cm ± SD: G1: 3.1 ± 1.2 G2: 3.1 ± 1.4</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression, mean minutes ± SD: G1: 539.3 ± 261.4 G2: 610.3 ± 264.4 G1/G2: <i>P</i> < 0.001</p> <p>Labor augmented, n (%): Oxytocin: G1: 178 (55.6) G2: 305 (47.7) G1/G2: <i>P</i> < 0.05</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural: NR</p> <p>Maternal infection in labor, n (%): Chorioamnionitis: G1: 0 G2: 6 (0.9) G1/G2: <i>P</i> = NS</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 38 (11.9) G2: 94 (14.7) G1/G2: <i>P</i> = NS</p> <p>Vaginal, assisted, n (%): G1: 38 (11.9) G2: 91 (14.2) G1/G2: <i>P</i> = NS</p> <p>Vaginal, spontaneous, n (%): G1: 244 (76.3) G2: 455 (71.1) G1/G2: <i>P</i> = NS</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality: NR</p> <p>Apgar score < 7, 1 minute, n (%): G1: 6 (1.9) G2: 15 (2.3) G1/G2: <i>P</i> = NS</p> <p>NICU admission: NR</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Spallici et al., 2007</p> <p>Country: Brazil</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 01/1999 to 01/2000</p> <p>Funding: Cientifico e Tecnologic (CNPq); Fundacao de Amparo a Pesquisa do Estado de Sao Paulo (FAPESP), Brazil; Apsen Farmaceutica S.A.</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: 5 ml of 20,000 UI lyophilized HAase diluted in distilled water injected at two sites on the cervix (at 6 o'clock and 12 o'clock positions)</p> <p>Groups: G1: Hyaluronic acid G2: Placebo Ga: Nulliparae Gb: Multiparae</p> <p>N at enrollment: G1: 83 G1a: 46 G1b: 37 G2: 85 G2a: 48 G2b: 37</p> <p>N at birth: G1: 83 G1a: 46 G1b: 36 G2: 85 G2a: 48 G2b: 37</p> <p>Age, mean yrs ± SD: G1a: 20.5 ± 4.7 G1b: 27.4 ± 5.8 G2a: 22.3 ± 4.0 G2b: 27.9 ± 5.0</p> <p>Race/ethnicity, n (%): Caucasian: G1a: 30 (66) G1b: 17 (46) G2a: 22 (46) G2b: 22 (46)</p> <p>Parous, n (%): G1: 37 (44.6) G2: 37 (43.5)</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Gestational age between 37 weeks complete and 42 weeks incomplete • Vertex presentation • Bishop score < 5 • Normal fetal vitality • No uterine contractions <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Elective cesarean • Contra-indications to vaginal delivery 	<p>Cervical dilation at admission: NR</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression, mean hours ± SD: Patients admitted before labor: G1a: 6.8 ± 4.0 G1b: 4.3 ± 2.1 G2a: 11.0 ± 4.4 G2b: 7.6 ± 3.5 G1/G2: Δ = 3.8 (95% CI: 2.2-5.2), <i>P</i> = 0.0002</p> <p>Patients admitted in labor: G1a: 6.5 ± 1.8 G1b: 4.3 ± 1.5 G2a: 12.0 ± 2.6 G2b: 9.5 ± 3.0 G1/G2: Δ = 5.3 (95% CI: 4.9-5.7), <i>P</i> = 0.0001</p> <p>Labor augmented, n (%): G1: 83 (100) G2: 0</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural: NR</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 15 (18) G2: 42 (49) G1/G2: ARR = 31 (95% CI: 18-44), <i>P</i> < 0.0001</p> <p>Vaginal, assisted: NR</p> <p>Vaginal, spontaneous, n (%): G1: 68 (82) G2: 43 (51) G1/G2: ARR = 31 (95% CI: 19-44), <i>P</i> = 0.0007</p> <p>Maternal harms: Cramps: G1: NR G2: NR G1/G2: <i>P</i> = 0.2709</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality: NR</p> <p>Apgar score < 7, (%): G1: 2 (2.4) G2: 7 (8.4)</p> <p>Apgar score (1, 5, 10 minutes): G1: NR G2: NR G1/G2: <i>P</i> > 0.115</p> <p>NICU admission: NR</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Strong et al., 1990</p> <p>Country: US</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 10/1988 to 03/1989</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Prophylactic amnioinfusion (250 ml normal saline warmed to 37°C infused through intrauterine pressure catheter at a rate of 10-20 ml/min) to attain an amniotic fluid index \geq 8 cm</p> <p>Groups: G1: Prophylactic amnioinfusion G2: No amnioinfusion</p> <p>N at enrollment: G1: 30 G2: 30</p> <p>N at birth: G1: 30 G2: 30</p> <p>Age, mean yrs \pm SD: G1: 23.9 \pm 5.6 G2: 24 \pm 5.8</p> <p>Race/ethnicity: NR</p> <p>Parous, n (%): G1: 15 (50) G2: 11 (37)</p> <p>Medicaid: NR</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Oligohydramnios (amniotic fluid index \leq 5 cm) • Singleton • Vertex presentation • Cervical dilation \leq 4 cm • Gestation \geq 37 weeks • Normal baseline fetal heart rate (FHR) variability • Estimated fetal weight $>$ 2500 g <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Late decelerations • Moderate or severe variable decelerations • Vaginal bleeding • Choriamnionitis • Meconium-stained amniotic fluid • Fetal anomalies • Uterine anomalies 	<p>Cervical dilation at admission: NR</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression, duration from membrane rupture to delivery, mean hours \pm SD: G1: 16.8 \pm 12.1 G2: 10.1 \pm 6.5 G1/G2: $P = 0.01$</p> <p>Labor augmented: NR</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion, n (%): G1: 30 (100) G2: 0</p> <p>Epidural: NR</p> <p>Maternal infection in labor, n (%): Maternal temperature $>$ 100.4°F: G1: 6 (20) G2: 2 (7) G1/G2: $P = 0.06$</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 4 (13.3) G2: 6 (20)</p> <p>Vaginal, assisted, n (%): Forceps: G1: 5 (16.7) G2: 8 (26.7)</p> <p>Vaginal, spontaneous, n (%): G1: 21 (70)* G2: 16 (53.3)*</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality: NR</p> <p>Apgar score, 5 minutes, mean \pm SD: G1: 8.9 \pm 0.6 G2: 8.9 \pm 0.2 G1/G2: $P = NS$</p> <p>Apgar score $<$ 7, 5 minutes, n: G1: 0 G2: 0 G1/G2: $P = NS$</p> <p>NICU admission: NR</p>

* Calculated by reviewer.

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Trueba et al., 2000</p> <p>Country: Mexico</p> <p>Participant source: Community practice</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 03/1997 to 02/1998</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Support of a childbirth educator also trained as a doula</p> <p>Groups: G1: Doula support G2: Standard care (no doula support)</p> <p>N at enrollment: G1: 50 G2: 50</p> <p>N at birth: G1: 50 G2: 50</p> <p>Age: NR</p> <p>Race/ethnicity: NR</p> <p>Parous, n (%): Nulliparous: G1: 50 (100) G2: 50 (100)</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Term • Active labor • ≥ 3 cm dilation • Nulliparous • Adequate pelvis • No previous uterine incision <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • See inclusion criteria 	<p>Cervical dilation at admission: NR</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression, labor length, mean hours ± SD: G1: 14.5 ± 5.36 G2: 19.38 ± 7.3 G1/G2: <i>P</i> = NS</p> <p>Labor augmented, n (%): Pitocin: G1: 21 (42) G2: 48 (96) G1/G2: <i>P</i> = 0.001</p> <p>AROM: NR</p> <p>Internal monitoring: NR</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 4 (8) G2: 16 (32) G1/G2: <i>P</i> = NS</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 1 (2) G2: 12 (24) G1/G2: <i>P</i> = 0.003</p> <p>Vaginal, assisted: NR</p> <p>Vaginal, spontaneous: NR</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality: NR</p> <p>Apgar score: NR</p> <p>NICU admission: NR</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Vayssiere et al., 2007</p> <p>Country: France</p> <p>Participant source: Academic multi site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 02/2004 to 05/2006</p> <p>Funding: Strasbourg Regional Project in Clinical Research</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Fetal ST-segment analysis using a STAN S21 device, monitoring for nonreassuring fetal status (NRFS)</p> <p>Groups: G1: Cardiotocography with STAN G2: Cardiotocography only</p> <p>N at enrollment: G1: 399 G2: 400</p> <p>N at birth: G1: 399 G2: 400</p> <p>Age, median yrs ± SD: G1: 29.8 ± 5.7 G2: 30.1 ± 5.7</p> <p>Race/ethnicity: NR</p> <p>Parous, n (%): G1: 111 (27.8) G2: 113 (28.2)</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • In labor • ≥ 36 gestational weeks • Singleton fetus • Cephalic presentation • Abnormal cardiotocography (defined according to the International Federation of Gynecology and Obstetrics classification) or thick meconium-stained amniotic fluid (7%) during labor <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Normal cardiotocography without deceleration during labor • Maternal infection contraindicating placement of scalp electrodes (seropositive for HIV or hepatitis B or C) • Cardiac malformation • Severe decelerations with variability reduced immediately on entry into the delivery room • Refusal to participate 	<p>Cervical dilation at randomization, median ± SD: G1: 5.8 ± 2.4 G2: 5.5 ± 2.3</p> <p>Cervical effacement at admission: NR</p> <p>Prior cesarean, n (%): G1: 25 (6.3) G2: 24 (6.0)</p>	<p>Labor progression: NR</p> <p>Labor augmented: NR</p> <p>AROM: NR</p> <p>Internal monitoring (fetal scalp electrode), n (%): G1: 399 (100) G2: 0</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 364 (91.2) G2: 361 (90.3)</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes</p> <p>Cesarean birth (for NRFS), n (%): G1: 54 (13.5) G2: 65 (16.3)</p> <p>Vaginal, assisted (for NRFS), n (%): G1: 80 (20.1) G2: 83 (20.8)</p> <p>Operative delivery, total, n (%): G1: 216 (54.1) G2: 221 (55.3) G1/G2: RR = 0.98 (95%CI: 0.86-1.11)</p> <p>Vaginal, spontaneous, n (%): G1: 183 (45.9) G2: 179 (44.7)</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality, n: G1: 0 G2: 1</p> <p>Apgar score < 7, 5 minutes, n: G1: 6 G2: 6</p> <p>NICU admission, n: G1: 5 G2: 6</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Waldenstrom et al., 2001</p> <p>Country: Australia and Sweden</p> <p>Participant source: Academic single site</p> <p>Intervention setting: Clinic Labor and delivery suite</p> <p>Enrollment period: 02/1996 to 11/1997</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Team midwife care (8 midwives providing antenatal and intrapartum care) vs. usual care by patient preference (care mostly doctors; mostly by midwives in collaboration with medical staff; birth center care; shared care between local GP and hospital doctors)</p> <p>Groups: G1: Team midwife care G2: Standard care</p> <p>N at enrollment: G1: 495 G2: 505</p> <p>N at birth: G1: 464 G2: 471</p> <p>N at follow-up: (2 months) G1: 361 G2: 323</p> <p>Age, mean yrs ± SD: G1: 27.9 ± 5.2 G2: 27.9 ± 5.2</p> <p>Race/ethnicity: NR</p> <p>Parous, n (%)¹: G1: 202/494 (40.9) G2: 198/504 (39.3)</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Medical low-risk <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Non-English speaking • Gestation > 25 weeks • Previous obstetric complications, including: cesarean, difficult forceps delivery, shoulder dystocia, anal sphincter tear, severe postpartum hemorrhage (> 100 ml), preterm delivery (< 34 weeks), intrauterine growth retardation, severe preeclampsia/eclampsia, perinatal loss (habitual abortion ≥ 3 consecutively) • Significant medical disorder (e.g., cardiovascular disease, diabetes mellitus, chronic renal disease, autoimmune disease) • Drug addition • Abuse of alcohol • Long standing infertility (> 5 years) 	<p>Cervical dilation at admission: NR</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression, duration: 1st stage, mean hours ± SD: G1: 5.8 ± 4.4 G2: 6.2 ± 4.8 G1/G2: <i>P</i> = 0.17</p> <p>2nd stage, mean minutes ± SD: G1: 49.5 ± 51.8 G2: 53.9 ± 57.6 G1/G2: <i>P</i> = 0.21</p> <p>3rd stage, mean minutes ± SD: G1: 8.1 ± 15.2 G2: 9.4 ± 21.2 G1/G2: <i>P</i> = 0.90</p> <p>Labor augmented, n (%): G1: 122 (26.3) G2: 130 (27.6) G1/G2: OR = 0.94 (95% CI: 0.69-1.26)</p> <p>AROM: NR</p> <p>Internal monitoring, n (%): Fetal monitoring, scalp pH: G1: 14 (3.0) G2: 18 (3.8) G1/G2: OR = 0.78 (95% CI: 0.36-1.68)</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 141 (30.4) G2: 150 (31.8) G1/G2: OR = 0.93 (95% CI: 0.7-1.24)</p> <p>Maternal infection in labor: NR</p>	<p>Maternal outcomes Cesarean birth, n (%): G1: 55 (11.9) G2: 56 (11.9) G1/G2: OR = 1.0 (95% CI: 0.66-1.51)</p> <p>Vaginal, assisted, n (%): Forceps: G1: 66 (14.2) G2: 73 (15.5) G1/G2: OR = 0.9 (95% CI: 0.62-1.32)</p> <p>Vacuum: G1: 12 (2.6) G2: 16 (3.4) G1/G2: OR = 0.75 (95% CI: 0.33-1.71)</p> <p>Vaginal, spontaneous, n (%):¹ G1: 331 (71.3) G2: 326 (69.2.1)</p> <p>Maternal harms: NR</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality, n (%): G1: 5/466 (1.1) G2: 7/475 (1.5)</p> <p>Apgar score < 7, 5 minutes, n (%): G1: 9/461 (1.9) G2: 7/470 (1.5) G1/G2: OR = 1.32 (95% CI: 0.45-3.95)</p> <p>NICU admission, n (%): G1: 48/461 (10.4)</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
Waldenstrom et al., 2001 (continued)					G2: 36/470 (7.7) G1/G2: OR = 1.4 (95% CI: 0.87-2.26)

¹ The proportion of spontaneous vaginal delivery was calculated by the reviewer, subtracting operative deliveries from N at birth.

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Waldenstrom et al., 1997</p> <p>Country: Sweden</p> <p>Participant source: Non-academic single site</p> <p>Intervention setting: Birthing center for study group and community hospitals for control group</p> <p>Enrollment period: 10/1989 to 06/1993</p> <p>Funding: Swedish National Delegation for Social Research; Swedish Medical Research Council; Karolinska Institute; Sodertshuset, Stockholm</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Birth center: comprehensive and integrated antenatal, intrapartum and postpartum care with the same team of midwives, restricted use of medical technology and 24 hours postpartum discharge.</p> <p>Groups: G1: Birth center care G2: Standard maternity care</p> <p>N at enrollment: G1: 928 G2: 932</p> <p>N at birth:¹ G1: 912 G2: 916</p> <p>Age, mean yrs ± SD: G1: 29.9 ± 4.5 G2: 29.9 ± 4.3</p> <p>Race/ethnicity, n (%): Native Swedes: G1: 785 (86.9) G2: 767 (87.4)</p> <p>Primiparous, n (%): G1: 544 (58.6) G2: 522 (56.0)</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> Residents of Greater Stockholm One partner in couple had to be Swedish-speaking If previous cesarean, last delivery was vaginal Low risk Willingness to participate At least one antenatal visit <p>Exclusion criteria:</p> <ul style="list-style-type: none"> Diabetes Hypertension Drug abusers Current smoker Previous cesarean unless last delivery was vaginal 	<p>Cervical dilation at admission: NR</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression, (contractions to birth), mean hours (median): G1: 15.0 (12.1) G2: 14.0 (11.7) G1/G2: <i>P</i> = 0.05</p> <p>Labor augmented, n (%): Amniotomy: G1: 209 (23.3) G2: 351 (39.9) G1/G2: <i>P</i> < 0.001</p> <p>Oxytocin 1st stage: G1: 140 (15.6) G2: 223 (24.9) G1/G2: <i>P</i> < 0.001</p> <p>Oxytocin 2nd stage: G1: 160 (17.9) G2: 264 (29.5) G1/G2: <i>P</i> < 0.001</p> <p>AROM, n (%): G1: 209 (23.3) G2: 351 (39.3) G1/G2: <i>P</i> < 0.001</p> <p>Internal monitoring, n (%): Internal monitoring: G1: 165 (18.4) G2: 283 (31.7) G1/G2: <i>P</i> < 0.001</p> <p>Fetal scalp blood sampling: G1: 20 (2.2) G2: 37 (4.1) G1/G2: <i>P</i> = 0.03</p> <p>Intrauterine pressure catheter: G1: 55 (6.1) G2: 51 (5.7) G1/G2: <i>P</i> = 0.77</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 108 (12.1) G2: 135 (15.1)</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 65 (7.1) G2: 82 (8.9) G1/G2: <i>P</i> = 0.18</p> <p>Vaginal, assisted, n (%): G1: 36 (3.9) G2: 41 (4.5) G1/G2: <i>P</i> = 0.74</p> <p>Vaginal, spontaneous, n (%): G1: 811 (88) G2: 793 (86)</p> <p>Maternal harms: NR</p> <p>Maternal mortality, n: G1: 0 G2: 0</p> <p>Neonatal outcomes</p> <p>Neonatal mortality, n (%): G1: 8 (0.9) G2: 2 (0.2) G1/G2: OR = 4.04 (95% CI: 0.80-39.17), <i>P</i> = 0.11</p> <p>Apgar score < 7, 5 minutes, n (%): G1: 11 (1.29) G2: 10 (1.1) G1/G2: <i>P</i> = 0.99</p> <p>NICU admission (within first week after birth), n (%): G1: 102 (11.1) G2: 83 (9.0) G1/G2: <i>P</i> = 0.13</p> <p>NICU length of stay, mean days: G1: 9.6 G2: 10.2 G1/G2: <i>P</i> = 0.78</p> <p>Serious neonatal morbidity not</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
Waldenstrom et al., 1997 (continued)				G1/G2: $P = 0.07$ Maternal infection in labor: NR	caused by malformations or preterm birth, n: G1: 6² G2: 2

¹ Excluding miscarriages and two women lost to follow up.

² Three cases in G1 identified as possibly avoidable and related to the care at the birth center.

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
<p>Author: Windrim et al., 2007</p> <p>Country: Canada</p> <p>Participant source: Academic multi site</p> <p>Intervention setting: Labor and delivery suite</p> <p>Enrollment period: 07/1997 to 12/1999</p> <p>Funding: Physicians' Services Incorporated Foundation, Canada</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT</p>	<p>Intervention: Labor progress recorded using a bedside graphical partogram with a 2-hour alert line and no action line.</p> <p>Groups: G1: Partogram and written notes G2: Written notes only</p> <p>N at enrollment: G1: 970 G2: 962</p> <p>N at birth: G1: 970 G2: 962</p> <p>Age, mean yrs ± SD: G1: 30.1 ± 5 G2: 30.0 ± 5</p> <p>Race/ethnicity: NR</p> <p>Parous: NR</p> <p>Medicaid: Not applicable</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Nulliparous • 36 to 42 weeks gestation • Singleton pregnancy with a cephalic presentation <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • Known major fetal structural anomaly • Non-cephalic presentation • Previous uterine surgery • Acute obstetric complication, such as antepartum hemorrhage or severe hypertension 	<p>Cervical dilation at admission: NR</p> <p>Cervical effacement at admission: NR</p>	<p>Labor progression, mean hours ± SD: 1st stage spontaneous: G1: 16.8 ± 7.3 G2: 16.0 ± 7.6</p> <p>1st stage induced: G1: 14.0 ± 6.8 G2: 13.9 ± 7.0</p> <p>2nd stage spontaneous: G1: 2.4 ± 1.8 G2: 2.4 ± 1.9</p> <p>2nd stage induced: G1: 2.7 ± 1.9 G2: 2.5 ± 1.9</p> <p>Labor augmented, n (%): Oxytocin augmentation: G1: 757 (78) G2: 755 (78)</p> <p>AROM, n (%): G1: 521 (53.7) G2: 520 (54.1)</p> <p>Internal monitoring, non reassuring fetal heart tracing, n (%): G1: 399 (41) G2: 391 (41)</p> <p>Amnioinfusion: NR</p> <p>Epidural, n (%): G1: 902 (93) G2: 879 (91)</p> <p>Maternal infection in labor, n (%): Intrapartum temperature > 38°C: G1: 114 (12) G2: 78 (8) G1/G2: P = NS</p>	<p>Maternal outcomes</p> <p>Cesarean birth, n (%): G1: 240 (24) G2: 244 (25) G1/G2: P = NS</p> <p>Vaginal, assisted, n (%): Spontaneous labor: G1: 173 (30) G2: 178 (31) G1/G2: P = NS</p> <p>Induced labor: G1: 121 (31) G2: 89 (23) G1/G2: P = NS</p> <p>Vaginal, spontaneous, n (%): Spontaneous labor: G1: 282 (49) G2: 277 (48) G1/G2: P = NS</p> <p>Induced labor: G1: 154 (40) G2: 174 (45) G1/G2: P = NS</p> <p>Maternal harms, n (%): Postpartum temperature > 38°C: G1: 32 (3) G2: 24 (2) G1/G2: P = NS</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality: NR</p> <p>Apgar score < 7, n (%): 1 minute: G1: 113 (11.6) G2: 99 (10.2) G1/G2: P = NS</p>

Evidence Table C1: Strategies to reduce cesarean birth (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Factors	Clinical Events	Outcomes
Windrim et al., 2007 (continued)					5 minutes: G1: 12 (1.2) G2: 10 (1.0) G1/G2: <i>P</i> = NS NICU admission, n (%): G1: 33 (3.4) G2: 37 (3.9) G1/G2: <i>P</i> = NS

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: World Health Organization, 1994</p> <p>Country: Indonesia, Thailand, and Malaysia</p> <p>System: Eight maternity hospitals</p> <p>Baseline period: 01/1990 to 06/1990</p> <p>Evaluation period: 06/1990 to 04/1991</p> <p>Routine use period: 04/1991 to 09/1991</p> <p>Funding: World Health Organization (WHO) and ministries of health of Indonesia, Thailand, and Malaysia</p> <p>Author industry relationship disclosure: NR</p> <p>Design: Cluster randomized trial (4 matched pairs of hospitals selected; one of each randomly selected to implement use of partogram)</p>	<p>Cesarean reduction intervention: Use of the WHO partogram to inform active management of labor and decisions about need for cesarean</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • District general hospitals in urban settings • Current use of active management of labor <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • See inclusion criteria 	<p>Births, n: Baseline period: 18,254 Evaluation period: 17,230</p> <p>Births to normal¹ women, n: Baseline period: 10,049 Evaluation period: 9,130</p> <p>Births to normal¹ nulliparous women: Baseline period: 4,212 Evaluation period: 3,924</p> <p>Age, mean yrs ± SD: Baseline period: 27.23 ± 5.72 Evaluation period: 27.17 ± 5.75 EP/BL: <i>P</i> = 0.55</p> <p>Parous, %: Baseline period: 61.0 Evaluation period: 60.8 EP/BL: <i>P</i> = 0.87</p> <p>Medicaid: Not applicable</p> <p>Private insurance coverage: Not applicable</p> <p>Multiple gestations, n (%): Baseline period: 239 (1.3) Evaluation period: 247 (1.4)</p>	<p>Total providers/staff: NR</p> <p>Total providers/staff formally trained: NR</p> <p>Specialty: NR</p>	<p>Mode of birth</p> <p>Vaginal, spontaneous, n (%): Total singleton births: Baseline period: 13,186 (72.4) Evaluation period: 12,704 (73.9) EP/BL: <i>P</i> = 0.201</p> <p>Normal¹ women: Baseline period: 8,428 (83.9) Evaluation period: 7,869 (86.3) EP/BL: <i>P</i> < 0.001</p> <p>Normal¹ nulliparous women: Baseline period: 3,129 (74.3) Evaluation period: 3,069 (78.3) EP/BL: <i>P</i> < 0.001</p> <p>Vaginal, assisted, n (%): Total singleton births: Baseline period: 1,793 (9.8) Evaluation period: 1,649 (9.6) EP/BL: <i>P</i> = 0.110</p> <p>Normal¹ women: Baseline period: 995 (9.9) Evaluation period: 841 (9.2) EP/BL: <i>P</i> = NR</p> <p>Normal¹ nulliparous women: Baseline period: 668 (15.9) Evaluation period: 578 (14.7) EP/BL: <i>P</i> = NR</p> <p>Cesarean birth, n (%): Total singleton births: Baseline period: 2,278 (12.5) Evaluation period:</p>

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
World Health Organization, 1994 (continued)					<p>1,926 (11.2) EP/BL: P = 0.841</p> <p>Normal¹ women: Baseline period: 621 (6.2) Evaluation period: 409 (4.5) EP/BL: P = 0.056</p> <p>Normal¹ nulliparous women: Baseline period: 414 (9.8) Evaluation period: 271 (6.9) EP/BL: P = 0.060</p> <p><u>Maternal outcomes</u> Maternal mortality, n: Baseline period: 23 Evaluation period: 24</p> <p><u>Neonatal outcomes</u> Neonatal mortality: NR</p> <p>Apgar score: NR</p> <p>NICU admission, %: Baseline period: 6.3 Evaluation period: 5.0 EP/BL: P = 0.49</p> <p>Stillbirths, n (%): Baseline period: 516 (2.8) Evaluation period: 43 (2.4)</p>

¹ A normal woman is a woman who is less likely to require intervention.

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Althabe et al., 2004</p> <p>Country: Argentina, Brazil, Cuba, Guatemala, and Mexico</p> <p>System: 36 hospitals Argentina (18) Brazil (8) Cuba (4) Mexico (4) Guatemala (2)</p> <p>Baseline period: 6 months baseline data; followed by 1 month staff training and implementation practice in intervention sites</p> <p>Evaluation period: 6 months use of the intervention in intervention sites</p> <p>Funding: European Union, Pan American Health Organization, WHO and World Bank Special Programme of Research, multiple national contributions.</p> <p>Author industry relationship disclosure: None</p> <p>Design: Cluster randomized trial (hospitals matched by country, type of hospital, and baseline rates)</p>	<p>Cesarean reduction intervention: Implementation of policy of mandatory second opinion from person of equal or higher clinical qualifications to the attending physician. Consultations informed by use of evidence-based guidelines for reviewing cesarean birth indications.</p> <p>Groups: G1: Intervention G2: Control</p> <p>N (hospitals) at randomization: G1: 18 G2: 18</p> <p>N at baseline: G1: 17 G2: 17</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Hospital baseline cesarean rate \geq 15% • Hospitals with $>$ 1,000 births per year • Able to implement protocol • Successful completion of run-in period <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • See inclusion criteria 	<p>Births per year, n: Baseline: G1: 34,735 G2: 39,175</p> <p>Evaluation: G1: 35,675 G2: 39,638</p> <p>Parous, %: Baseline: G1: 62.2 G2: 66.5</p> <p>Medicaid: Not applicable</p> <p>Private insurance coverage: Not applicable</p> <p>Prior cesarean, %: Baseline period: G1: 13.5 G2: 13.8</p>	<p>Total providers/ staff: NR</p> <p>Total providers/ staff formally trained: Not applicable</p> <p>Specialty: NR</p> <p>Compliance with second opinion, non-emergent cesarean, %: 88</p>	<p>Mode of birth Vaginal, spontaneous: NR</p> <p>Vaginal, assisted, %: Baseline period: G1: 4.4 G2: 2.8</p> <p>Evaluation period: G1: 4.9 G2: 3.4 G1/G2: $P = 0.85$</p> <p>Total cesarean births, %: Baseline period: G1: 26.3 G2: 24.6</p> <p>Evaluation period: G1: 24.7 G2: 24.9 G1/G2: $P = 0.044$</p> <p>Maternal outcomes Maternal mortality, rate per 10,000 live births: Baseline period: G1: 3.2 G2: 5.9</p> <p>Evaluation period: G1: 4.3 G2: 7.5</p> <p>Neonatal outcomes Neonatal mortality, mean rate: Baseline period: G1: 1.1 G2: 1.1</p> <p>Evaluation period: G1: 0.9 G2: 1.0 G1/G2: $P = 0.756$</p> <p>Perinatal mortality, mean rate: Baseline period: G1: 2.6 G2: 2.8</p>

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
Althabe et al., 2004 (continued)					<p>Evaluation period: G1: 2.4 G2: 2.9 G1/G2: <i>P</i> = 0.273</p> <p>Apgar score: NR</p> <p>NICU admission, mean rate: Baseline period: G1: 8.4 G2: 8.1</p> <p>Evaluation period: G1: 8.0 G2: 8.3 G1/G2: <i>P</i> = 0.340</p>

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Berglund et al., 2010</p> <p>Country: Ukraine</p> <p>System: Three maternity units.¹ S1: Donetsk S2: Lutsk S3: Lviv</p> <p>Baseline period: S1: 4 months prior to training S2: 4 months prior S3: 2 months prior</p> <p>Evaluation period: S1: 05/2004 to 12/2006 S2: 05/2004 to 12/2006 S3: 05/2004 to 11/2006</p> <p>Funding: WHO, national and university</p> <p>Author industry relationship disclosure: None</p> <p>Design: Pre-post assessment</p>	<p>Cesarean reduction intervention: National Mothers and Infant Health Project to train maternity staff and providers implemented in nine provinces. Detailed data collected at selected maternity sites.</p> <p>Training provided by a non-governmental organization (NGO) based on the WHO Making Pregnancy Safer tools and framework focused on implementation of evidence-based routines as standard care.</p> <p>Topics included:</p> <ul style="list-style-type: none"> • Avoiding Induction • Use of partograms • Augmentation • AROM • Labor pain management • Labor support 	<p>Inclusion criteria: NR</p> <p>Exclusion criteria: NR</p>	<p>Births per year, n: Baseline period: S1: 652 S2: 742 S3: 302</p> <p>2004: S1: 1,021 S2: 2,283 S3: 1,756</p> <p>2005: S1: 1,720 S2: 3,578 S3: 2,881</p> <p>2006: S1: 1,820 S2: 4,004 S3: 2,590</p> <p>Last three month period: S1: 425 S2: 998 S3: 1,016</p> <p>Age, median yrs (range): Baseline period: S1: 24 (16-42) S2: 25 (14-44) S3: 22 (14-46)</p> <p>Evaluation period: S1: 25 (15-45) S2: 25 (15-48) S3: 23 (16-40)</p> <p>Parous, %: Primiparae: Baseline period: S1: 52.0 S2: 47.4 S3: 49.7</p> <p>Evaluation period: S1: 65.0 S2: 51.8 S3: 58.6</p> <p>Medicaid: Not applicable</p> <p>Private insurance coverage: Not applicable</p>	<p>Total providers/ staff, n: S1: 108 S2: 171 S3: 90</p> <p>Total providers/ staff formally trained, n (%): S1: 108 (100) S2: NR (36) S3: NR (49)</p> <p>Specialty: NR²</p>	<p>Mode of birth Vaginal, spontaneous: NR</p> <p>Vaginal, assisted, %: Baseline period: S1: 3.7 S2: 2.0 S3: 0.0</p> <p>Evaluation period: S1: 0.0 S2: 2.0 S3: 0.0</p> <p>Cesarean birth, %: Baseline: S1: 30.0 S2: 33.0 S3: 22.0 Total: 29.9*</p> <p>Evaluation period: S1: 17.0 S2: 12.3 S3: 19.6</p> <p>Last three month period: S1: 18.4 S2: 12.7 S3: 16.9 Total: 15.4* S1/BL: $P < 0.0001$ S2/BL: $P < 0.0001$ S3/BL: $P < 0.0606$</p> <p>Maternal outcomes Maternal mortality: NR</p> <p>Neonatal outcomes Early neonatal death, %: Baseline period: S1: 13.6 S2: 4.6 S3: 6.4</p> <p>Evaluation period: S1: 10.9 S2: 2.4 S3: 1</p>

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
Berglund et al., 2010 (continued)					<p>Apgar score: NR</p> <p>NICU admission, %: Baseline period: S1: 11.2 S2: 7.3 S3: 6.4</p> <p>Evaluation period: S1: 10.7 S2: 4.3 S3: 3.3 S1/BL: $P = 0.4153$ S2/BL: $P = 0.0015$ S3/BL: $P = 0.0015$</p>

* Calculated by reviewer.

¹ Three sites selected from among 20, method not reported.

² Those trained included obstetricians, neonatologists, midwives, pediatricians, pediatric nurses, and anesthesiologists.

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Bickell et al., 1996 Dillon et al., 1992†</p> <p>Country: US</p> <p>System: New York State hospitals</p> <p>S1: 45 reviewed hospitals S2: 120 non-reviewed hospitals</p> <p>Baseline period: 1988</p> <p>Evaluation period: 1989 to 1990† 1989 to 1993</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: Pre-post assessment</p>	<p>Cesarean reduction intervention:</p> <p>Task force developed guidelines for in-house peer review of obstetric care. Presented educational programs across the state to assist hospitals in implementation. Included a Dictionary of Terms to standardize terminology.</p> <p>External peer reviews by ACOG trained teams of 3-4 physicians and nurse. Reviewed 100 labor and delivery records to assess quality of care.</p> <p>Teams provided summary report to hospital for distribution to staff. Reviewed hospital was requested to provide implementation changes to Task Force 6-12 months later.</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Participation was voluntary • First 24 hospitals selected for geographic diversity by strata of cesarean section rates† • Second set of hospitals randomly selected from those with high cesarean rates <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • See inclusion criteria 	<p>Births per year, mean (SE):</p> <p>Baseline period: S1: 1,430 (141.4) S2: 1,720 (125.9)</p> <p>Evaluation period: S1: 1,503 (152.8) S2: 1,720 (119.2)</p> <p>Hospitals by 1988 cesarean rate, n:</p> <p>< 20: S1: 8 S2: 25</p> <p>20-24: S1: 3 S2: 30</p> <p>25-29: S1: 11 S2: 43</p> <p>≥ 30: S1: 23 S2: 22</p> <p>Medicaid: NR</p> <p>Private insurance coverage: NR</p>	<p>Total providers/ staff: NR</p> <p>Total providers/ staff formally trained: NR</p> <p>Specialty: NR</p>	<p>Mode of birth</p> <p>Vaginal, spontaneous: NR</p> <p>Vaginal, assisted: NR</p> <p>Cesarean birth, mean rate (SE):</p> <p>Total: 1988: S1: 29.1 (1.2) S2: 25.1 (0.5) S1/S2: $P < 0.01$</p> <p>1993: S1: 25.8 (0.9) S2: 24.0 (0.4) S1/S2: $P = NS^1$</p> <p>Change in total cesarean rate, by 1988 cesarean rate:</p> <p>< 20: S1: 2.5 (1.0) S2: 2.3 (0.7)</p> <p>20-24: S1: -1.0 (2.5) S2: 0.0 (0.6)</p> <p>25-29: S1: -2.4 (1.6) S2: -2.5 (0.6)</p> <p>≥ 30: S1: -6.2 (0.9) S2: -3.8 (0.9)</p> <p>Repeat cesarean: 1988: S1: 10.9 (0.5) S2: 9.8 (0.3) S1/S2: $P = NS$</p> <p>1993: S1: 24.8 (2.0) S2: 24.8 (1.1) S1/S2: $P = NS$</p> <p>Maternal outcomes</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality: NR</p>

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
Bickell et al., 1996 Dillon et al., 1992† (continued)					Apgar score: NR NICU admission: NR

¹ Although there was a significant crude difference in overall cesarean rate ($P < 0.01$), when 1988 cesarean rates were controlled for, there was no statistically significant impact of the intervention.

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Boylan et al., 1991</p> <p>Country: US</p> <p>System: Hermann Hospital in Houston, TX (affiliated with the University of Texas)</p> <p>Baseline period: 07/1/1984 to 06/30/1985</p> <p>Evaluation period: 07/1/1985 to 06/30/1986</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: Pre-post assessment</p>	<p>Cesarean reduction intervention: Introduction of active management of labor (AML), including: AROM if laboring without SROM for more than two hours. IV oxytocin augmentation if dilation < 1 cm per hour.</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Nulliparous women • Singleton • Vertex pregnancy • Presenting in labor without fetal distress • Labor defined by painful contraction at least every ten minutes with 80% effacement and 1 cm dilation. <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • See inclusion criteria 	<p>Births, n: Baseline period: 1,843 Evaluation period: 2,057</p> <p>Age, mean yrs ± SD: Baseline period: First six months: 23.9 ± 5.1 Last six months: 24.3 ± 5.1 Evaluation period: First six months: 24.1 ± 5.3 Last six months: 23.6 ± 5.4</p> <p>Race/ethnicity, %: Baseline period: First six months: White: 44.8 Black: 36.6 Hispanic: 13.1 Other: 5.5</p> <p>Second six months: White: 47.8 Black: 34.7 Hispanic: 12.9 Other: 4.5</p> <p>Evaluation period: First six months: White: 42.7 Black: 39.7 Hispanic: 14.1 Other: 3.5</p> <p>Second six months: White: 39.3 Black: 42.1 Hispanic: 14.0 Other: 4.6</p> <p>Parous, n: Total: 0</p> <p>Medicaid: NR</p>	<p>Total providers/staff: 10 obstetricians 11 University of Texas faculty members 5 autonomous private practitioners 6 residents per year supervised by faculty</p> <p>Total providers/staff formally trained: NR</p> <p>Specialty: NR (those trained included obstetricians, neonatologists, midwives, pediatricians, pediatric nurses, and anesthesiologists)</p>	<p>Mode of birth Vaginal, spontaneous, n (%): Baseline period: 735 (39.9) Evaluation period: 1,049 (51.0)</p> <p>Vaginal, assisted, n (%): Baseline period: 660 (35.8) Evaluation period: 621 (30.2)</p> <p>Cesarean birth, n (%): Baseline period: 448 (24.3) Evaluation period: 387 (18.8) EP/BL: Δ = 5.5 (95% CI: 2.9-8.1), P < 0.05</p> <p>Maternal outcomes Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality, n (%): Asphyxia: Baseline period: 1 (1.1) Evaluation period: 0</p> <p>Apgar score: NR</p> <p>NICU admissions, for asphyxia, n: Baseline period: 36 Evaluation period: 37</p>

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
Boylan et al., 1991 (continued)			Private insurance coverage: NR Prior cesarean, n: Total: 0		

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Calvo et al., 2009</p> <p>Country: Spain</p> <p>System: Two public maternity hospitals: S1: Son Llätzer S2: Menorca</p> <p>Baseline period: 01/2006 to 06/2006</p> <p>Evaluation period: 11/2006 to 04/2007</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: None</p> <p>Design: Pre-post assessment</p>	<p>Cesarean reduction intervention: Using a consensus policy for cesarean indications in a multifaceted feedback program.</p> <p>Program included: weekly “debate” of cesareans performed in clinical meetings; appropriateness review of all cesareans every two months; dissemination of results, and introduction of methods for improvement by the units.</p>	<p>Inclusion criteria: NR¹</p> <p>Exclusion criteria: NR</p>	<p>Births: NR</p> <p>Medicaid: All public patients</p> <p>Private insurance coverage: Not applicable</p>	<p>Total providers/staff: NR</p> <p>Total provider/staff formally trained: NR</p> <p>Specialty: NR</p>	<p>Mode of birth Vaginal, spontaneous: NR</p> <p>Vaginal, assisted: NR</p> <p>Cesarean birth, %: Baseline period: S1: 17.5 S2: 29.0</p> <p>Evaluation period: S1: 15.8 S2: 22.0 S1/BL: <i>P</i> = NS S2/BL: <i>P</i> = NS</p> <p>Appropriate by study criteria, %: Baseline period: S1: 68.3 S2: 80.0</p> <p>Evaluation period: S1: 84.3 S2: 92.0 S1/BL: <i>P</i> < 0.05 S2/BL: <i>P</i> < 0.05</p> <p>Maternal outcomes Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality: NR</p> <p>Apgar score: NR</p> <p>NICU admission: NR</p>

¹ Voluntary participation based on positive results at similar regional hospitals.

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Elferink-Stinkens et al., 2004</p> <p>Country: Netherlands</p> <p>System: 85 of 116 Dutch obstetric departments participating in national database</p> <p>Baseline period: 1994</p> <p>Evaluation period: 04/1995 to 09/1998</p> <p>Funding: Praeventiefonds Nederland</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT with hospitals stratified by size of department, academic vs. non-academic status, and initial cesarean rates</p>	<p>Cesarean reduction intervention: Report contextualizing departmental data in tabular and graphic form including:</p> <ul style="list-style-type: none"> No spontaneous onset (induction or planned cesarean) Planned cesarean No spontaneous birth (vacuum, forceps, or cesarean) Cesarean <p>Data also subdivided by very preterm, preterm, term, and postterm.</p> <p>1995 sent to department contacts for distribution; 1996 through 1998 sent to individual obstetricians within the intervention departments. Mailing followed up with repeat report and brief questionnaire shortly after first mailing.</p> <p>Groups: G1: Intervention G2: Control</p>	<p>Hospitals Inclusion criteria:</p> <ul style="list-style-type: none"> Participation in national perinatal database Medical ethics committee approval for newborn follow-up exams <p>Exclusion criteria:</p> <ul style="list-style-type: none"> Data excluded in a case of merger of intervention and control departments <p>Infants 1% random sample of births obtained by contacting four randomly selected hospitals per day and sampling as below for newborn neurological exam</p> <p>Inclusion criteria:</p> <ul style="list-style-type: none"> All 32 - < 37 week births 50% of term births All ≥ 42 weeks Maternal consent <p>Exclusion criteria:</p> <ul style="list-style-type: none"> Less than 32 weeks at birth 	<p>Births: NR</p> <p>Neonatal examinations, n: Baseline period: 32 - < 37 weeks: G1: 78 G2: 116 37 - < 42 weeks: G1: 406 G2: 425 ≥ 42 weeks: G1: 59 G2: 47</p> <p>Evaluation period: 32 - < 37 weeks: G1: 130 G2: 130 37 - < 42 weeks: G1: 575 G2: 554 ≥ 42 weeks: G1: 85 G2: 88</p> <p>Medicaid: Not applicable</p> <p>Private insurance coverage: Not applicable</p>	<p>Total providers/staff: NR</p> <p>Total providers/staff formally trained: NR</p> <p>Specialty: NR</p>	<p>Mode of birth Vaginal, spontaneous: NR</p> <p>Vaginal, assisted: NR</p> <p>Total cesarean births, % range: Total: 10 to 31 G1/G2: <i>P</i> = NS</p> <p>Maternal outcomes Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality: NR</p> <p>Apgar score: NR</p> <p>NICU admission: NR</p> <p>Abnormal neurological exam, %: Baseline period: 32 - < 37 weeks: G1: 17.9 G2: 23.3 37 - < 42 weeks: G1: 13.1 G2: 19.8 ≥ 42 weeks: G1: 22.0 G2: 6.4</p> <p>Evaluation period: 32 - < 37 weeks: G1: 26.9 G2: 24.6 37 - < 42 weeks: G1: 13.2 G2: 10.3 ≥ 42 weeks: G1: 5.9 G2: 19.3</p> <p>G1/G2: OR = 1.3 (95% CI: 0.89-2.00)</p>

The spread of the cesarean rates between hospitals (as measured by the mean distance of the percentiles to the median) was significantly (7%) lower in the intervention group for term births (37 to 42 weeks). The difference in the spread was not significant for other gestational ages.

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Gilstrap et al., 1984</p> <p>Country: US</p> <p>System: Wilford Hall Medical Center</p> <p>Baseline period: 1974 to 1977</p> <p>Evaluation period: 1978 to 1981</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: Pre-post assessment</p>	<p>Cesarean reduction intervention: Preliminary review of cesarean section policy in 1976, with special regard to the most common indications.</p> <p>Informal criteria and policies were established and directed toward assuring an adequate trial of labor, or ensuring fetal distress was persistent and ominous, and toward using established criteria to allow selected term frank breech presentations a trial at vaginal delivery.</p> <p>Assessment included mandatory intrauterine pressure monitoring with oxytocin usage and selected usage of scalp pH determinations.</p>	<p>Inclusion criteria: NR</p> <p>Exclusion criteria: NR</p>	<p>Total births, n: Baseline period: 6,693 Evaluation period: 6,162</p> <p>Parity, women delivered by cesarean section, n (%): Primigravidas: Baseline period: 633/1,125 (56) Evaluation period: 469/940 (50)</p> <p>Medicaid: NR</p> <p>Private insurance coverage: NR</p>	<p>Total providers/staff: NR</p> <p>Total providers/staff formally trained: NR</p> <p>Specialty: NR</p>	<p>Mode of birth Vaginal, spontaneous: NR</p> <p>Vaginal, assisted, %: Baseline period: 6.7 Evaluation period: 6.1</p> <p>Cesarean birth, n (%):* Total: Baseline period: 1,125 (16.8) Evaluation period: 940 (15.2) EP/BL: $P < 0.02$</p> <p>Primary: Baseline period: 855** (12.8) Evaluation period: 592** (9.6) EP/BL: $P < 0.0001$</p> <p>Repeat: Baseline period: 270 (4.0) Evaluation period: 348 (5.6) EP/BL: $P < 0.0001$</p> <p>Maternal outcomes Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality: NR</p> <p>Apgar score: NR</p> <p>NICU admissions: NR</p>

* The total, primary, and repeat cesarean rates by year from 1970 to 1981 are only displayed graphically.

** Calculated by reviewer.

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Gregory et al., 1999</p> <p>Country: US</p> <p>System: Cedars Sinai Medical Center</p> <p>Baseline period: 04/1993 to 12/1993</p> <p>Evaluation period: 1994 to 1998</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: Prospective observational</p>	<p>Cesarean reduction intervention: 17 sequential interventions at the administrative, clinical education, and clinical protocol/guidelines levels</p>	<p>Inclusion criteria: NR</p> <p>Exclusion criteria: NR</p>	<p>Births per year, n: Baseline: 5,134 1994: 6,960 1995: 6,987 1996: 6,528 1997: 6,595 1998: 6,427</p> <p>Age, mean yrs ± SD: Baseline: 29.6¹ ± 6.2 1994: 29.4 ± 6.3 1995: 29.4 ± 6.3 1996: 29.7 ± 6.2 1997: 29.9 ± 6.3 1998: 30.1 ± 6.3</p> <p>Race/ethnicity, %: Caucasian: Baseline: 47 1994: 45 1995: 43 1996: 45 1997: 46 1998: 46</p> <p>Latina: Baseline: 19 1994: 19 1995: 19 1996: 20 1997: 20 1998: 21</p> <p>African American: Baseline: 25 1994: 27 1995: 26 1996: 27 1997: 25 1998: 24</p> <p>Other: Baseline: 9 1994: 8 1995: 12 1996: 9 1997: 9 1998: 9</p> <p>Medicaid, %: Baseline: 15 1994: 17 1995: 18 1996: 17</p>	<p>Total providers/ staff: 9 full-time faculty 100 private physicians with obstetrical privileges</p> <p>Total providers/ staff formally trained: NR</p> <p>Specialty: NR</p>	<p>Mode of birth Vaginal, spontaneous: NR</p> <p>Vaginal, assisted: NR</p> <p>Cesarean birth, %: Baseline: 26.0 1994: NR 1995: NR 1996: NR 1997: 20.5 1998: NR</p> <p>Post evaluation: 23.5</p> <p>Maternal outcomes Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality: NR</p> <p>Apgar score: NR</p> <p>NICU admission: NR</p>

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
Gregory et al., 1999 (continued)			1997: 16 1998: 16 Private insurance coverage: Baseline: 10 1994: 6 1995: 3 1996: 3 1997: 2 1998: 2		

¹ Mean age reported as 19.6 at baseline, apparently in error as the change in mean age was not mentioned among those that were statistically significant.

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Hamilton et al., 2004</p> <p>Country: US and Canada</p> <p>System: Seven university hospitals</p> <p>Baseline period: 12/1/1998 to 01/30/1999</p> <p>Evaluation period: 02/1/1999 to 03/31/2001</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: RCT and Pre-post assessment</p>	<p>Cesarean reduction intervention: Computer assistance in evaluation of labor progress. Output given to providers in the intervention group of the RCT displayed individual labor curve plotted with addition of reference ranges (95th, 50th, and 5th percentile) that take into account contraction frequency, parity, and epidural use.</p> <p>Groups: G1: Intervention G2: Control</p> <p>N at randomization: G1: 2,478 G2: 2,515</p>	<p>Inclusion criteria: • Nulliparous</p> <p>Exclusion criteria: • See inclusion criteria</p>	<p>Births, n: Baseline period: Total: 5,753 Evaluation period: Total: 4,993 (RCT participants)</p> <p>Parous, %: Primiparous: Total: 100</p> <p>Medicaid: NR</p> <p>Private insurance coverage: NR</p>	<p>Total providers/ staff: NR</p> <p>Total providers/ staff formally trained: NR</p> <p>Specialty: NR</p>	<p>Mode of birth</p> <p>Vaginal, n (%): Evaluation period: G1: 2,038 (82.3) G2: 2,089 (83.1) G1/G2: <i>P</i> = 0.53</p> <p>Vaginal, assisted: NR</p> <p>Cesarean birth, n (%): Evaluation period: G1: 436 (17.6) G2: 425 (16.9) G1/G2: <i>P</i> = 0.53</p> <p>Cesarean rates, eligible women at all hospitals, n (%): Baseline period: Total: 1,124/5,753 (19.5)</p> <p>Evaluation period, 6th month: Total: 551/3,234 (17.0) EP/BL: <i>P</i> = 0.004</p> <p>Evaluation period, 12th month: Total: 923/5,554 (16.6) EP/BL: <i>P</i> = 0.0006</p> <p>Maternal outcomes</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality: NR</p> <p>Apgar score, 5 minutes, n (%): Evaluation period: 0-2: G1: 7 (0.3) G2: 8 (0.3) 3-4: G1: 5 (0.2) G2: 4 (0.2) 5-6: G1: 37 (1.5)</p>

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
Hamilton et al., 2004 (continued)					G2: 35 (1.4) 7-8: G1: 186 (7.5) G2: 201 (8.0) 9-10: G1: 2,239 (90.5) G2: 2,261 (90.1) NICU admission: NR

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Iglesias et al., 1991</p> <p>Country: Canada</p> <p>System: Hinton General Hospital, Alberta (44 bed community hospital)</p> <p>Baseline period: 01/1985</p> <p>Evaluation period: 01/01/1985 to 12/31/1989</p> <p>Funding: Hinton General Hospital, George Cedric Metcalf Charitable Foundation</p> <p>Author industry relationship disclosure: NR</p> <p>Design: Pre-post assessment</p>	<p>Cesarean reduction intervention: Guidelines from National Consensus Conference on Aspects of Cesarean Birth (NCCACB) for VBAC, management of breech presentation and diagnosis of dystocia requiring cesarean introduced at hospital in 1985.</p> <p>Cesarean section rate discussed annually at grand rounds.</p> <p>Consultation mandatory before primary cesarean section but not before a repeat section.</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> All births at the hospital from 01/01/1985-12/31/1989 <p>Exclusion criteria:</p> <ul style="list-style-type: none"> See inclusion criteria 	<p>Births, n: Nulliparous: 1985: 237 1986: 227 1987: 218 1988: 237 1989: 242</p> <p>Parous, n (%): Nulliparous: 1985: 102 (43.0) 1986: 91 (40.1) 1987: 90 (41.3) 1988: 84 (35.4) 1989: 89 (36.8)</p> <p>Medicaid: Not applicable</p> <p>Private insurance coverage: NR</p> <p>Prior cesarean, n (%):¹ 1985: 27 (11.3) 1986: 28 (12.3) 1987: 24 (11.0) 1988: 25 (10.5) 1989: 33 (13.6)</p>	<p>Total providers/staff:² Total: 12 (4 performed cesareans)</p> <p>Total providers/staff formally trained: NR</p> <p>Specialty: Family physicians that all practice obstetrics, and several that are trained in anesthesia and surgery</p>	<p>Mode of birth Vaginal, spontaneous: NR</p> <p>Vaginal, assisted: NR</p> <p>Cesarean birth, n (%): Total: 1985: 55 (23) 1986: 43 (19) 1987: 38 (17) 1988: 37 (16) 1989: 31 (13) EP/BL: P = 0.001</p> <p>Nulliparous: 1985: 23 (23) 1986: 19 (21) 1987: 21 (23) 1988: 14 (17) 1989: 11 (12) EP/BL: P = 0.069³</p> <p>Maternal outcomes Maternal mortality n: Total: 0</p> <p>Neonatal outcomes Neonatal mortality, n (%): Total: 1 (0.09)</p> <p>Apgar score: NR</p> <p>Neonatal transfer, n: Total: 1985: 3 (1.3) 1986: 5 (2.2) 1987: 4 (1.8) 1988: 6 (2.5) 1989: 2 (0.8)</p>

¹ Includes only the women who were eligible for VBAC.

² Medical staff started with nine physicians. During the study period two physicians left and three joined the staff.

³ The decreased cesarean rate for nulliparous women was due to a drop in the number that were dystocia-related.

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Kazandjian and Lied, 1998</p> <p>Country: US, Canada, UK, and Japan</p> <p>System: Maryland's Quality Indicator (QI) Project member hospitals S1: 110 hospitals (continuously reporting) S2: 957 hospitals (non-continuous reporting)</p> <p>Baseline period: 1991</p> <p>Evaluation period: 1992 to 1996</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: Pre-post assessment</p>	<p>Cesarean reduction intervention: QI Project: continuous reporting of total, primary, and repeat cesarean section rates.</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> Hospitals participating in the QI Project Continuous reporting of cesarean measures for 24 quarters of 6 years <p>Exclusion criteria:</p> <ul style="list-style-type: none"> Joining QI Project late in the evaluation period Failure to report cesarean measures continuously 	<p>Births per year, most recent fiscal year, mean ± SD: S1: 1,427 ± 1,287 S2: 1,238 ± 1,311 S1/S2: <i>P</i> = 0.16</p> <p>Medicaid: NR</p> <p>Private insurance coverage: NR</p>	<p>Total providers/staff: NR</p> <p>Total providers/staff formally trained: NR</p> <p>Specialty: NR</p>	<p>Mode of birth Vaginal, spontaneous: NR</p> <p>Vaginal, assisted: NR</p> <p>Cesarean birth, mean % ± SD:</p> <p>Total: 1991: S1: 22.5 ± 7.1 S2: 21.2 ± 7.8</p> <p>1992: S1: 21.7 ± 6.0 S2: 21.2 ± 7.4</p> <p>1993: S1: 20.9 ± 6.0 S2: 21.3 ± 7.4</p> <p>1994: S1: 20.0 ± 5.5 S2: 21.2 ± 6.7</p> <p>1995: S1: 19.3 ± 5.4 S2: 21.0 ± 6.9</p> <p>1996: S1: 19.4 ± 5.2 S2: 20.7 ± 6.6</p> <p>ANOVA: Year S1: <i>P</i> < 0.001 S2: <i>P</i> = NS</p> <p>Primary: 1991: S1: 15.8 ± 6.2 S2: 15 ± 7.2</p> <p>1992: S1: 15.3 ± 4.8 S2: 15.1 ± 6.6</p> <p>1993: S1: 14.6 ± 4.9 S2: 15.1 ± 6.7</p> <p>1994: S1: 14.2 ± 4.4 S2: 14.7 ± 5.5</p> <p>1995: S1: 14.1 ± 5.9 S2: 14.8 ± 5.7</p> <p>1996: S1: 13.9 ± 4.2 S2: 14.6 ± 5.5</p> <p>ANOVA: Year S1: <i>P</i> < 0.001 S2: <i>P</i> = NS</p>

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
Kazandjian and Lied, 1998 (continued)					<p><u>Maternal outcomes</u> Maternal mortality: NR</p> <p><u>Neonatal outcomes</u> Neonatal mortality: NR</p> <p>Apgar score: NR</p> <p>NICU admission: NR</p>

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Kiwanuka and Moore, 1993</p> <p>Country: UK</p> <p>System: Central Manchester Health District</p> <p>S1: Saint Mary's Hospital S2: Other hospital in district or home confinement</p> <p>Baseline period: 1982</p> <p>Evaluation period: 1986</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: Pre-post assessment</p>	<p>Cesarean reduction intervention:</p> <p>Audit and feedback of specific information, imparted in a non-directive way to resident obstetricians at Saint Mary's Hospital responsible for performing cesarean sections.</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Women resident in the Central Manchester Health District who delivered in 1986 <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • See inclusion criteria 	<p>Births per year, n:</p> <p>1982: Total: 1,895</p> <p>1986: S1: 1,881 S2: 327 Total: 2,216</p> <p>Parous, n: Primigravidas at term: 1986: S1: 703 S2: 219</p> <p>Medicaid: Not applicable</p> <p>Private insurance coverage: Not applicable</p> <p>Prior cesarean, n: 1986: 128</p>	<p>Total providers/ staff: Resident obstetricians</p> <p>Total providers/ staff formally trained: NR</p> <p>Specialty: NR</p>	<p>Mode of birth</p> <p>Vaginal, spontaneous: NR</p> <p>Vaginal, assisted: NR</p> <p>Cesarean birth, n (%): 1982: Total: 302 (15.9)</p> <p>1986: S1: 230 (12.2) S2: 51 (15.6) Total: 281 (12.7) EP/BL: $P < 0.005$</p> <p>Primigravidas at term: 1986: S1: 82 (11.7) S2: 19 (14.7)</p> <p>Maternal outcomes</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality: NR</p> <p>Apgar scores: NR</p> <p>NICU admissions: NR</p>

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Lagrew and Morgan, 1996</p> <p>Country: US</p> <p>System: Saddleback Memorial Medical Center</p> <p>Baseline period: Evaluation began in 1988</p> <p>Evaluation period: 05/15/1988 to 06/30/1994</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: Pre-post analysis</p>	<p>Cesarean reduction intervention: Clinic guideline changes including oxytocin administration for induction and augmentation of labor, cervical ripening protocols, education of nursing staff in active labor management and evaluation of fetal monitoring. Prenatal VBAC class.</p>	<p>Inclusion criteria: NR</p> <p>Exclusion criteria: NR</p>	<p>Births, n: 1988: 705¹ 1989: 1,600 1990: 2,254 1991: 2,273 1992: 2,248 1993: 1,934 1994: 1,005¹</p> <p>Age, n (%): ≤ 19 years: 1988: 16 (2.3) 1989: 51 (3.2)* 1990: 83 (3.5)* 1991: 88 (3.9)* 1992: 67 (3.0)* 1993: 61 (3.1)* 1994: 50 (4.9)</p> <p>≥ 35 years: 1988: 103 (14.6) 1989: 251 (15.7)* 1990: 346 (14.7)* 1991: 353 (15.5)* 1992: 367 (16.3)* 1993: 277 (14.3)* 1994: 162 (16.1)</p> <p>Nulliparous, n (%): 1988: 328 (46.6) 1989: 778 (48.6)* 1990: 1,186 (50)* 1991: 1,111 (48.9)** 1992: 1,048 (46.6)** 1993: 961 (49.7)* 1994: 485 (48.3)</p> <p>Medicaid: Low incidence of Medicaid deliveries</p> <p>Private insurance coverage: NR</p> <p>Multiple gestations, n (%): 1988: 11 (1.6) 1989: 26 (1.6)* 1990: 38 (1.6)* 1991: 39 (1.7)* 1992: 47 (2.1)*</p>	<p>Total providers/ staff: NR</p> <p>Total providers/ staff formally trained: Nurses Physicians</p> <p>Specialty: NR</p>	<p>Mode of birth Vaginal, spontaneous: NR</p> <p>Vaginal, assisted: NR</p> <p>Cesarean birth, %: Total: 1988: 31.1 1989-1993: NR** 1994: 15.4 EP/BL: P < 0.000001</p> <p>Primary: 1988: 17.9 1989-1993: NR** 1994: 9.8 EP/BL: P < 0.000001</p> <p>Repeat: 1988: 13.2 1989-1993: NR** 1994: 5.7 EP/BL: P < 0.000001</p> <p>Nulliparous: 1988: 28.1 1989-1993: NR** 1994: 16.9 EP/BL: P < 0.00001</p> <p>Maternal outcomes Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality, deaths per 1000 live births, n (%): 1988: 3 (4.26) 1989: 1 (0.63) 1990: 3 (1.34) 1991: 5 (2.20) 1992: 6 (2.67) 1993: 4 (2.07) 1994: 2 (2.0)</p> <p>Apgar score < 7, 5 minutes, n: 1988: 15 (2.1) 1989: 27 (1.7)*</p>

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
Lagrew and Morgan, 1996 (continued)			1993: 34 (2.3)* 1994: 15 (1.5)		1990: 53 (2.3)* 1991: 37 (1.6)* 1992: 46 (2.1)* 1993: 48 (2.5)* 1994: 21 (2.1) NICU admission: NR Stillbirths, n (%): (deaths per 1000 births) > 500 gm: 1988: 2 (1.42) 1989: 2 (1.25) 1990: 9 (3.11) 1991: 3 (1.32) 1992: 5 (1.78) 1993: 6 (2.07) 1994: 6 (2.99)

* Calculated by reviewer.

** Results only displayed graphically.

¹ The evaluation period included 7.5 months in 1988 and 6 months in 1994.

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Liang et al, 2004</p> <p>Country: Taiwan</p> <p>System: Taipei Veterans General Hospital¹</p> <p>Baseline period: 1993 to 1996</p> <p>Evaluation period: 1997 to 2000</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: Pre-post assessment</p>	<p>Cesarean reduction intervention: Established a cesarean surveillance system, held weekly departmental cesarean indication conferences to review data for all cesarean sections. Required second opinion from consultant obstetrician for all cesarean sections. Physician's section rates presented at conference.</p> <p>Guidelines for dystocia, fetal distress and breech were unchanged from 1993-2000.</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • One low transverse uterine scar • Singleton pregnancy • Vertex presentation • No medical or surgical illness • Patient consent <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • No food or drink was allowed until the baby was born 	<p>Births, n: Baseline period: 9,864 Evaluation period: 7,937</p> <p>1997: 2,082 1998: 1,776 1999: 1,928 2000: 2,151</p> <p>Medicaid: NR</p> <p>Private insurance coverage: NR</p> <p>Prior cesarean, n: Evaluation period: 1,169</p> <p>1997: 328 1998: 280 1999: 264 2000: 297</p>	<p>Total providers/ staff: NR</p> <p>Total providers/ staff formally trained: 2 board certified-obstetricians</p> <p>Specialty: Obstetrics Pediatricians</p>	<p>Mode of birth Vaginal, spontaneous: NR</p> <p>Vaginal, assisted: NR</p> <p>Cesarean births, n (%):² Total: Baseline period: 3,647 (37) Evaluation period: 2,436 (30.7) EP/BL: $P < 0.001$</p> <p>Primary: Baseline period: 2,099 (21.3) Evaluation period: 1,412 (17.8) EP/BL: $P < 0.001$</p> <p>Repeat: Baseline period: 1,548 (15.7) Evaluation period: 1,024 (12.9) EP/BL: $P < 0.001$</p> <p>Maternal outcomes Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality: NR</p> <p>Apgar scores: NR</p> <p>NICU admissions: NR</p>

¹ Authors also present data for the entire country.

² Total, primary, and repeat cesarean rates are reported for each year from 1993 to 2000.

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Maher et al., 1994</p> <p>Country: Australia</p> <p>System: Toowoomba Base Hospital</p> <p>Baseline period: 1991 to 1992</p> <p>Evaluation period: 1992 to 1993</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: Pre-post assessment</p>	<p>Cesarean reduction intervention: In July 1992, active management of labor protocol and systematically incorporating VBAC into the management of previous-cesarean patients in the resident service. Rigorous peer review.</p>	<p>Inclusion criteria: NR</p> <p>Exclusion criteria: NR</p>	<p>Births, n: Baseline period: 1,112 Evaluation period: 1,167</p> <p>Medicaid: NR</p> <p>Private insurance coverage: NR</p>	<p>Total providers/staff: NR</p> <p>Total providers/staff formally trained: NR</p> <p>Specialty: NR</p>	<p>Mode of birth Vaginal, spontaneous: NR</p> <p>Vaginal, assisted: NR</p> <p>Cesarean birth, n (%): Total: Baseline period: 228 (20.6) Evaluation period: 129 (11.0) EP/BL: OR = 0.48 (95% CI: 0.37-0.59), $P < 0.0001$</p> <p>Elective: Baseline period: 107 (9.6) Evaluation period: 59 (5.0) EP/BL: OR = 0.50 (95% CI: 0.34-0.66), $P < 0.0001$</p> <p>Emergency: Baseline period: 121 (10.9) Evaluation period: 70 (6.0) EP/BL: OR = 0.52 (95% CI: 0.36-0.68), $P < 0.0001$</p> <p>Maternal outcomes Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality, n (%): Baseline period: 5 (0.4) Evaluation period: 8 (0.7)</p> <p>Apgar score ≤ 7, 5 minutes, n: Baseline period: 93 Evaluation period: 61</p>

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
Maier et al., 1994 (continued)					NICU admissions: NR Stillbirths, n (%): Baseline period: 8 (0.7) Evaluation period: 8 (0.7)

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Main, 1999</p> <p>Country: US</p> <p>System: S1: Children’s Hospital of San Francisco (1980-1995) S2:¹ Pacific Presbyterian Medical Center; (control group from 1989-1992; intervention from 1992-1995)</p> <p>Baseline period: 1980 to 1988</p> <p>Evaluation period: 1989 to 1995</p> <p>Funding: NR Author industry relationship disclosure: NR</p> <p>Design: Pre-post assessment</p>	<p>Cesarean reduction intervention: Intensive outcomes feedback using a computerized information system. First 3 years: daily reports and coded group comparison statistics at department meetings. Those in worst quartile were bolded, and guidance provided on how to “be like” the best quartile.</p> <p>Starting in 1993, “open label” feedback: intra-departmental release of everyone’s key statistics with names. Computer algorithm introduced to review the electronic portion of cesarean births records. Standardized nuliparous and multiparous cesarean birth rates reported to facilitate comparisons between individual providers.</p>	<p>Inclusion criteria: NR</p> <p>Exclusion criteria: NR</p>	<p>Births per year, 1980s, range: S1: 3,200 to 3,600 S2: NR</p> <p>Medicaid: NR</p> <p>Private insurance coverage: NR</p>	<p>Total providers/ staff: NR</p> <p>Total providers/ staff formally trained: NR</p> <p>Specialty: Obstetrics</p>	<p>Mode of birth Vaginal, spontaneous: NR</p> <p>Vaginal, assisted: NR</p> <p>Cesarean birth, %: Baseline period: Total:[*] 23 to 25 1989: S1: NR[†] S2: NR[†] 1990: S1: NR[†] S2: NR[†] 1991: S1: 20.7 S2: 25.1 1992: S1: NR[†] S2: 24.6 1993: S1: NR[†] S2: 20.3 1994: Total: 18.3 1995: Total: 18.1</p> <p>Primary cesarean: Baseline period: S1: 15.6 to 16.9 S2: 15.2 to 17.8 Post evaluation: Total: 13.6</p> <p>Repeat cesarean: Baseline period: S1: 8.0 to 8.6 S2: 6.8 to 8.1 Post evaluation: Total: 4.4</p> <p>Maternal outcomes Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality: NR</p> <p>Apgar score: NR</p>

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
Main, 1999 (continued)					NICU admissions: NR

¹ In 1987, three groups of obstetricians left the Children's Hospital of San Francisco and opened a new obstetric service at Pacific Presbyterian Medical Center. In 1993, the two hospitals rejoined with a single obstetric unit.

* Data only presented graphically.

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Myers and Gleicher, 1988</p> <p>Myers and Gleicher, 1993†</p> <p>Country: US</p> <p>System: Mount Sinai Hospital Medical Center</p> <p>Baseline period: 1985</p> <p>Evaluation period: 1986-1987 1987-1991†</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: Pre-post assessment</p>	<p>Cesarean reduction intervention: Stringent implementation of existing departmental guidelines and implementation of new ones, including (1) a second opinion, (2) philosophy that vaginal delivery was preferred for those who had prior cesarean, (3) diagnosis of dystocia required no progress of labor with contractions of appropriate strength by intrauterine pressure catheter, (4) fetal distress, based on monitoring of the fetal heart rate, had to be corroborated by sampling of blood from the fetal scalp when feasible, (5) vaginal birth recommended for most breech fetuses, (6) comprehensive peer review of adherence to guidelines.</p> <p>All attending physicians were informed of their personal cesarean rates at quarterly intervals, and were told whether they were within two SD of the departmental rate.</p>	<p>Inclusion criteria: NR</p> <p>Exclusion criteria: NR</p>	<p>Births per year, n:¹ 1985: 1,697 1986: 2,101 1987: 2,301 1988: 2,340† 1989: 2,688† 1990: 2,817† 1991: 3,218†</p> <p>Parous, n (%): Primigravidae: 1985: 399 (22.9) 1986: 606 (28.8) 1987: 683 (29.7) 1988: 761 (31.3)† 1989: 806 (29.9)† 1990: 785 (27.8)† 1991: 941 (29.2)†</p> <p>Medicaid: NR</p> <p>Private insurance coverage: NR</p>	<p>Total providers/ staff: Teaching service supervised by full-time faculty and private attending physicians</p> <p>Total providers/ staff formally trained: NR</p> <p>Specialty: Obstetricians and perinatology staff</p>	<p>Mode of birth Vaginal, spontaneous, n (%): 1985: 1,223 (72.1) 1986: 1,685 (80.2) 1987: 1,937 (82.1) EP/BL: P < 0.05</p> <p>1988: 1,997 (82.1)† 1989: 2,262 (84.1)† 1990: 2,431 (84.8)† 1991: 2,756 (85.6)†</p> <p>Vaginal, assisted, n (%): 1985: 177 (10.4) 1986: 154 (7.3) 1987: 99 (4.3) EP/BL: P < 0.05</p> <p>1988: 78 (3.1)† 1989: 73 (2.6)† 1990: 79 (2.7)† 1991: 76 (2.4)†</p> <p>Cesarean birth, n (%): Total: 1985: 297 (17.5) 1986: 262 (12.5) 1987: 265 (11.5) EP/BL: P < 0.05</p> <p>1988: 298 (12.2)† 1989: 279 (10.3)† 1990: 293 (10.4)† 1991: 382 (11.9)†</p> <p>Primary: 1985: 204 (12) 1986: 175 (8.3) 1987: 156 (6.8) EP/BL: P < 0.05</p> <p>Repeat: 1985: 93 (5.5) 1986: 87 (4.1) 1987: 109 (4.7) EP/BL: P < 0.05</p> <p>Cesarean birth, teaching staff, %: 1985: 15.0 1986: 11.0 1987: 11.7 EP/BL: P < 0.05</p>

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
Meyers and Gleicher, 1988 Meyers and Gleicher, 1993 (continued)					<p>Cesarean birth, private staff, %:1985: 20.0 1986: 15.0 1987: 12.4 EP/BL: $P < 0.05$</p> <p><u>Maternal outcomes</u> Maternal mortality: A single maternal death occurred in 1986</p> <p><u>Neonatal outcomes</u> Neonatal mortality, n (%):² 1985: 22 (12.8) 1986: 23 (10.7) 1987: 26 (11.2) 1988: 18 (10.7)† 1989: 29 (14.5)† 1990: 46 (16.0)† 1991: 29 (9.0)†</p> <p>Apgar score, 5 minutes, n (%): < 7: 1985: 50 1986: 82 (3.8) 1987: 116 (4.9) 1988: 70 (2.8)† 1989: 54 (1.9)† 1990: 62 (2.1)† 1991: 57 (1.7)† < 3: 1985: NR 1986: 8 (0.5) 1987: 17 (0.7) 1988: 12 (0.4)† 1989: 10 (0.3)† 1990: 12 (0.4)† 1991: 13 (0.4)†</p> <p>NICU admission: NR</p>

¹ 1985 data based on total deliveries; 1986 and 1987 data based on mothers giving birth

² An analysis of birth weight specific neonatal mortality fails to demonstrate any statistical benefit from cesarean delivery.

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Oleske et al., 1992</p> <p>Country: US</p> <p>System: Illinois hospitals</p> <p>1986 to 1987: 198 hospitals</p> <p>1988: 187 hospitals</p> <p>Baseline period: 1985</p> <p>Evaluation period: 1986 to 1988</p> <p>Funding: Partial from Illinois Health Care Cost Containment Council</p> <p>Author industry relationship disclosure: NR</p> <p>Design: Pre-post assessment</p>	<p>Cesarean reduction intervention: Illinois Health Care Cost Containment Council (IHCCCC) distributed information to patients and providers on average hospital charge, average length of stay and cesarean birth rate in each hospital. Over 50,000 informational brochures distributed annually. Also annual press releases to media on state-wide cesarean birth patterns.</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Non-federal, short-stay hospital deliveries in Illinois (from hospital discharge abstract form for uniform billing) • ICD9 codes 650-699, V27 or procedure codes 72-74 • Aged 10-50 <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • See inclusion criteria 	<p>Births per year, n: 1986: 130,249 1987: 147,257 1988: 167,654</p> <p>Age, mean yrs: 1988: 26.4</p>	<p>Total providers/ staff: NR</p> <p>Total providers/ staff formally trained: Council of Teaching Hospitals member</p> <p>Specialty: NR</p>	<p>Mode of birth Vaginal, spontaneous: NR</p> <p>Vaginal, assisted: NR</p> <p>Cesarean birth, %: Baseline period: 21.2 Evaluation period: 22.4 EP/BL: P = NS</p> <p>Cesarean birth rate by age, %: < 20: 1986: 16.6 1987: 17.7 1988: 17.3</p> <p>20-24: 1986: 20.5 1987: 20.9 1988: 20.6</p> <p>25-29: 1986: 23.0 1987: 23.9 1988: 22.5</p> <p>30-34: 1986: 25.1 1987: 25.2 1988: 24.8</p> <p>> 35: 1986: 27.7 1987: 28.8 1988: 28.7</p> <p>Cesarean birth rate by expected primary payer, %: Medicaid: 1986: 20.6 1987: 20.9 1988: 20.6</p> <p>Self-pay: 1986: 16.8 1987: 17.2 1988: 16.7</p> <p>Commercial: 1986: 23.8 1987: 24.3 1988: 23.9</p>

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
Oleske et al., 1992 (continued)					HMO: 1986: 25.1 1987: 23.7 1988: 22.5 <u>Maternal outcomes</u> Maternal mortality: NR <u>Neonatal outcomes</u> Neonatal mortality: NR Apgar score: NR NICU admissions: NR

Subgroup analysis showed that the cesarean rate declined for women with a history of uterine scar or dystocia ($P < 0.05$), and increased for breech or fetal distress ($P < 0.05$).

The VBAC rate increased by 58.4% from 10.1 to 16.0 during the study ($P < 0.001$).

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Poma, 1998</p> <p>Country: US</p> <p>System: Ravenswood Hospital (Loyola University affiliated community hospital)</p> <p>Baseline period: 1991 to 1993</p> <p>Evaluation period: 1994 to 1996</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: Pre-post assessment</p>	<p>Cesarean reduction intervention: Departmental goal of 15% total cesarean rate supported by case review of cesareans using ACOG guidelines with feedback to individual providers.</p> <p>During this timeframe the departmental also implemented 24-hour in-hospital attending coverage.</p>	<p>Inclusion criteria: NR</p> <p>Exclusion criteria: NR</p>	<p>Births, n: 1991: 2,231 1992: 2,259 1993: 2,372 1994: 2,239 1995: 2,028 1996: 1,783</p> <p>Age, n (%): < 15: Baseline period: 6 (0.1) Evaluation period: 12 (0.2) 15-19: Baseline period: 1,109 (16.2) Evaluation period: 983 (16.2) 20-35: Baseline period: 5,298 (77.2) Evaluation period: 4,619 (76.4) 36-40: Baseline period: 402 (5.8) Evaluation period: 379 (6.3) > 40: Baseline period: 47 (0.7) Evaluation period: 57 (0.9)</p> <p>Race/ethnicity, n (%): Hispanic: Baseline period: 3,430 (50.0) Evaluation period: 3,086 (51.0)</p> <p>Parous, n (%): Baseline period: 4,770 (69.5) Evaluation period: 4,142 (68.5)</p> <p>Medicaid, n (%): Baseline period: 3,280 (47.8) Evaluation period: 2,638 (43.6)</p>	<p>Total providers/ staff: NR</p> <p>Total providers/ staff formally trained: NR</p> <p>Specialty: NR</p>	<p>Mode of birth Vaginal, spontaneous: NR</p> <p>Vaginal, assisted, n (%): Forceps:¹ Baseline period: 147 (2.1) Evaluation period: 104 (1.7)</p> <p>Vacuum: Baseline period: 103 (1.5) Evaluation period: 212 (3.5)</p> <p>EP/BL: P < 0.001</p> <p>Cesarean, n (%): Total: 1991: 518 (23.2) 1992: 492 (21.8) 1993: 535 (22.5) 1994: 460 (20.5) 1995: 379 (18.7) 1996: 285 (16)</p> <p>EP/BL: P < 0.001²</p> <p>Total cesarean, %: Baseline period: 22.5 Evaluation period: 18.6</p> <p>EP/BL: P = 0.001</p> <p>Primary cesarean, %: 1991: 13.8 1992: 13.4 1993: 13.4 1994: 11.2 1995: 10.8 1996: 9.7</p> <p>EP/BL: P < 0.001²</p> <p>Baseline period: 13.5 Evaluation period: 10.6</p> <p>EP/BL: P = 0.001</p> <p>Repeat cesarean, %: 1991: 9.4 1992: 8.4 1993: 9.1</p>

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
Poma, 1998 (continued)			<p>EP/BL: $P = 0.0001$</p> <p>Private insurance coverage, n (%): Baseline period: 1,277 (18.6) Evaluation period: 1,162 (19.2) EP/BL: $P = 0.016$</p> <p>HMO, n (%): Baseline period: 1,866 (27.2) Evaluation period: 1,791 (29.6) EP/BL: $P = 0.002$</p> <p>Prior cesarean, n (%): Baseline period: 617 (39.9) Evaluation period: 481 (42.8)</p>		<p>1994: 9.3 1995: 7.9 1996: 6.3 EP/BL: $P < 0.001^2$</p> <p>Baseline period: 9.0 Evaluation period: 7.9 EP/BL: $P = 0.03$</p> <p>Maternal outcomes Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality, n (%): Baseline period: 25 (3.6) Evaluation period: 14 (2.3)</p> <p>Apgar score < 7, %: 1 minute: Baseline period: 4.3 Evaluation period: 5.0 EP/BL: $P = 0.08$</p> <p>5 minutes: Baseline period: 1.5 Evaluation period: 1.2 EP/BL: $P = 0.12$</p> <p>Neonatal admissions, n (%): Baseline period: 106 (1.5) Evaluation period: 85 (1.4)</p>

¹ One mid-forceps delivery

² First compared to last year

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Porreco, 1990</p> <p>Country: US</p> <p>System: Eight hospitals in the Denver metropolitan area</p> <p>Baseline period: Intervention began in 1982</p> <p>Earliest data: 1984</p> <p>Evaluation period: 1986</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: Pre-post assessment</p>	<p>Cesarean reduction intervention: Five year community education strategy initiated in 1982 designed to reach: physicians, nurses, and interested lay group with educational presentations about:</p> <ol style="list-style-type: none"> 1) management of patients with prior cesarean; 2) diagnosis and management of fetal distress in labor, 3) indications and strategies for labor induction, 4) approach to failed progress in labor; 5) alternative management of breech and twin births; 6) increasing risk-free interval for women with genital herpes 	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Hospitals with ≥ 1,500 births per year <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • See inclusion criteria 	<p>Births, n: 1984: 22,624 1986: 23,642</p> <p>Medicaid: NR</p> <p>Private insurance coverage: NR</p>	<p>Total providers/ staff: NR</p> <p>Total providers/ staff formally trained: NR¹</p> <p>Specialty: NR</p>	<p><u>Mode of birth</u> Vaginal, spontaneous: NR</p> <p>Vaginal, assisted: NR</p> <p>Cesarean, %: Total: 1984: 17.3 1986: 19.3</p> <p>Primary: 1984: 11.8 1986: 13.7</p> <p>Repeat: 1984: 5.5 1986: 5.6</p> <p><u>Maternal outcomes</u> Maternal mortality: NR</p> <p><u>Neonatal outcomes</u> Neonatal mortality: NR</p> <p>Apgar score: NR</p> <p>NICU admission: NR</p>

¹ 30 presentations to physicians, 22 presentations to nurses and health professionals, and 15 presentations to community organizations.

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Pridjian et al., 1991</p> <p>Country: US</p> <p>System: Chicago Lying-In Hospital</p> <p>Baseline period: 1982</p> <p>Evaluation period: 1983 to 1988</p> <p>Funding: Mother's Aid Research Fund, Chicago Lying-In Hospital</p> <p>Author industry relationship disclosure: NR</p> <p>Design: Pre-post assessment</p>	<p>Cesarean reduction intervention: Systematically incorporating VBAC into the management of previous-cesarean patients in the resident service.</p>	<p>Inclusion criteria: NR</p> <p>Exclusion criteria: NR</p>	<p>Births per year, n: 1982: 2,827 1983: 3,009 1984: 2,919 1985: 2,612 1986: 2,555 1987: 2,840 1988: 3,049</p> <p>Age ≥ 35 years, %: 1982: 5.6 1983: 5.7 1984: 5.3 1985: 6.2 1986: 6.3 1987: 5.6 1988: 6.4 X²: P = 0.515</p> <p>Race/ethnicity, %: Black: 1982: 91.0 1983: 93.0 1984: 90.0 1985: 87.7 1986: 89.3 1987: 89.9 1988: 86.6 X²: P < 0.001</p> <p>Parous, %: Primiparous: 1982: 34.2 1983: 38.4 1984: 38.8 1985: 39.1 1986: 38.7 1987: 39.2 1988: 39.9 X²: P < 0.001</p> <p>Medicaid: NR</p> <p>Private insurance coverage: NR</p>	<p>Total providers/ staff: 20 residents, 6 faculty members and 2 fellows</p> <p>Total providers/ staff formally trained: NR</p> <p>Specialty: Maternal-fetal medicine</p>	<p>Mode of birth Vaginal, spontaneous: NR</p> <p>Vaginal, operative, %: 1982: 15.7 1983: 14.5 1984: 14.7 1985: 13.1 1986: 14.2 1987: 11.9 1988: 10.2</p> <p>Cesarean birth, %: Total: 1982: 12.5 1983: 14.7 1984: 16.1 1985: 17.1 1986: 17.6 1987: 17.0 1988: 15.9 EP/BL: P < 0.001*</p> <p>Primary: 1982: 7.5 1983: 8.8 1984: 9.9 1985: 10.2 1986: 11.9 1987: 11.5 1988: 10.6 EP/BL: P < 0.001*</p> <p>Repeat: 1982: 5.0 1983: 5.9 1984: 6.2 1985: 6.9 1986: 5.7 1987: 5.5 1988: 5.3 EP/BL: P = 0.776*</p> <p>Maternal outcomes Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality: NR</p> <p>Apgar scores: NR</p>

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
Pridjian et al., 1991 (continued)					NICU admission: NR

* Logistic regression, with year as the independent variable.

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Robson et al., 1996</p> <p>Country: UK</p> <p>System: Pembury Hospital</p> <p>Baseline period: 1984 to 1988</p> <p>Evaluation period: 09/1989 to 08/1992</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: Pre-post assessment</p>	<p>Cesarean reduction intervention: Introduction and completion of the medical audit cycle.</p>	<p>Inclusion criteria: NR</p> <p>Exclusion criteria: NR</p>	<p>Births, n: Baseline period: 12,628 Evaluation period: 8,497</p> <p>Parous: Nulliparous: Baseline period: 5,622 Evaluation period: 3,585</p> <p>Multiparous: Baseline period: 7,006 Evaluation period: 4,912</p> <p>Medicaid: NR</p> <p>Private insurance coverage: NR</p> <p>Multiple gestations, n: Baseline period: 157 Evaluation period: 127</p>	<p>Total providers/staff: NR</p> <p>Total providers/staff formally trained: NR</p> <p>Specialty: NR</p>	<p>Mode of birth Vaginal, spontaneous: NR</p> <p>Vaginal, assisted: NR</p> <p>Cesarean birth, n (%): Baseline period: 1,518 (12.0) Evaluation period: 1810 (9.5)</p> <p>Nulliparous: Baseline period: 744 (13.2) Evaluation period: 344 (9.6)</p> <p>Multiparous: Baseline period: 774 (11.0) Evaluation period: 466 (9.5)</p> <p>Maternal outcomes Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality: NR</p> <p>Apgar score: NR</p> <p>Admission rate to special care baby unit, spontaneously laboring nulliparous women with singleton, cephalic, n (%): Baseline period: 169/3,977 (4.2) Evaluation period: 88/2,589 (3.4)</p>

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Rust et al., 1993</p> <p>Country: US</p> <p>System: 93rd Strategic Hospital at Castle Air Force Base, California</p> <p>Baseline period: 07/1987 to 06/1988</p> <p>Evaluation period: 07/1988 to 06/1989</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: Pre-post assessment</p>	<p>Cesarean reduction intervention: Implemented protocols including: 1) policy for VBAC, including counseling and encouraging trial of labor 2) policy for management of non-vertex presentation by external cephalic version 3) protocol to document an adequate trial of labor 4) established criteria for diagnosis and documentation of fetal distress</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Delivery after 24 weeks gestation <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • See inclusion criteria 	<p>Births per year, n: Baseline period: 472 Evaluation period: 430</p> <p>Parous, n (%): 1985: 1309 (77.1) 1986: 1495 (71.2) 1987: 1618 (70.3)</p> <p>Medicaid: NR</p> <p>Private insurance coverage: NR</p>	<p>Total providers/ staff: NR</p> <p>Total providers/ staff formally trained: NR</p> <p>Specialty: NR</p>	<p><u>Mode of birth</u> Vaginal, spontaneous: NR</p> <p>Vaginal, assisted, n (%): Baseline period: 27 (5.8) Evaluation period: 20 (4.7)</p> <p>Cesarean birth, n (%): Total: Baseline period: 99 (21.2) Evaluation period: 44 (10.3) EP/BL: <i>P</i> < 0.0001</p> <p>Primary: Baseline period: 59 (12.5)* Evaluation period: 19 (4.4)* EP/BL: <i>P</i> < 0.0001</p> <p><u>Maternal outcomes:</u> Maternal mortality: NR</p> <p>Postpartum hemorrhage, n (%): Baseline period: 10 (2.1) Evaluation period: 14 (3.3)</p> <p><u>Neonatal outcomes</u> Neonatal mortality: NR</p> <p>Apgar score: NR</p> <p>NICU admission: NR</p>

* Calculated by reviewer.

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Sanchez-Ramos et al., 1990</p> <p>Country: US</p> <p>System: University Medical Center, Jacksonville FL</p> <p>Baseline period: 1986</p> <p>Evaluation period: 1987 to 1989</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: Pre-post assessment</p>	<p>Cesarean reduction intervention: New guidelines focused on intrapartum management of women with prior cesarean section.</p> <p>New guidelines were also introduced for:</p> <ul style="list-style-type: none"> • Primary cesarean • Induction • Fetal scalp pH sampling • Breech • Twins 	<p>Inclusion criteria: NR</p> <p>Exclusion criteria: NR</p>	<p>Births, n: 1986: 4,336 1987: 4,270 1988: 4,470 1989: 5,157</p> <p>Medicaid: NR</p> <p>Private insurance coverage: NR</p>	<p>Total providers/ staff: Resident physicians and nurse midwives, supervised by faculty members</p> <p>Total providers/ staff formally trained: NR</p> <p>Specialty: NR</p>	<p>Mode of birth Vaginal, spontaneous: NR</p> <p>Vaginal, assisted %: 1986: 16.2 1989: 18.5</p> <p>Cesarean birth, n (%): Total: 1986: 1,198 (27.5) 1987: 952 (22.4) 1988: 598 (13.3) 1989: 542 (10.5) EP/BL: $P < 0.0001$</p> <p>Primary: 1986: 849 (19.5) 1987: 643 (15.0) 1988: 424 (9.4) 1989: 374 (7.2) EP/BL: $P < 0.0001$</p> <p>Repeat: 1986: 349 (8.0) 1987: 319 (7.4) 1988: 174 (3.9) 1989: 168 (3.3) EP/BL: $P < 0.0001$</p> <p>Trial of labor, women with prior cesarean, n (%): 1986: 139 (31.7) 1987: 193 (41.9) 1988: 381 (76.5) 1989: 487 (83.9) EP/BL: $P < 0.0001$</p> <p>VBAC, women with prior cesarean, n (%): 1986: 90 (20.5) 1987: 142 (30.8) 1988: 342 (65.1) 1989: 403 (69.4) EP/BL: $P < 0.0001$</p> <p>Maternal outcomes Maternal mortality: NR</p>

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
Sanchez-Ramos et al., 1990 (continued)					<p>Neonatal outcomes</p> <p>Neonatal mortality, per 1000 births, n (%): 1986: 71 (16.4) 1987: 41 (9.6) 1988: 35 (7.8) 1989: 33 (6.4) EP/BL: $P < 0.001$</p> <p>Perinatal mortality rate per 1000 births: 1986: 31.8 1987: 19.7 1988: 17.4 1989: 14.9 EP/BL: $P < 0.0001$</p> <p>Apgar score < 7, n (%): 1 minute: 1986: 457 (10.5) 1987: 357 (8.4) 1988: 476 (10.6) 1989: 571 (11.0)</p> <p>5 minutes: 1986: 79 (1.8) 1987: 65 (1.5) 1988: 83 (1.9) 1989: 90 (1.7)</p> <p>NICU admission, n (%): 1986: 447 (10.3) 1987: 420 (9.8) 1988: 432 (9.7) 1989: 453 (8.8)</p> <p>NICU length of stay, days, mean: 1986: 19 1987: 15 1988: 15 1989: 16</p> <p>Neonatal seizures, n (%): 1986: 108 (2.5) 1987: 120 (2.8) 1988: 116 (2.6) 1989: 114 (2.2)</p>

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Sloan et al., 2000</p> <p>Country: Ecuador</p> <p>System: Maternidad Isidro Ayora (public hospital serving lower to middle income women)¹</p> <p>Baseline period: 1995 to 04/1996</p> <p>Evaluation period: 05/15/1996 to 12/15/1996</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: Pre-post assessment</p>	<p>Cesarean reduction intervention: Implemented policy requiring “second opinion” from supervising obstetrician or resident for all cesarean candidates (excluding mandatory situations). Consultant obstetrician trained two senior physicians one of whom subsequently trained two more physicians.</p> <p>Groups: (among women for whom detailed data was collected²)</p> <p>G1: Co-managed G2: Not co-managed Ga: Vaginal delivery Gb: Cesarean delivery</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> • Co-managed deliveries <p>Exclusion criteria:</p> <ul style="list-style-type: none"> • See inclusion criteria 	<p>Births, n: Evaluation period: Total: 7,381 G1: 1,217 G1a: 503 G1b: 714 G2: 367 G2a: 1 G2b: 366</p> <p>Age, mean ± SD: Evaluation period: Total: NR G1a: 22.6 ± 6.1 G1b: 25.0 ± 6.3 G2b: 25.4 ± 5.7 G1a/G1b: <i>P</i> < 0.001 G1a/G2b: <i>P</i> < 0.001</p> <p>Parity, mean ± SD: Evaluation period: Total: NR G1a: 0.75 ± 1.21 G1b: 0.85 ± 1.25 G2b: 1.01 ± 1.06 G1a/G2b: <i>P</i> < 0.05</p> <p>Medicaid: NR</p> <p>Private insurance coverage: NR</p> <p>Prior cesarean, %: Evaluation period: Total: NR G1a: 10.7 G1b: 29.3 G2b: 55.2 G1a/G1b: <i>P</i> < 0.001 G1a/G2b: <i>P</i> < 0.001 G1b/G2b: <i>P</i> < 0.001</p> <p>Multiple gestations, %: Evaluation period: Total: NR G1a: 0</p>	<p>Total providers/ staff: NR</p> <p>Total providers/ staff formally trained: Three trained obstetricians provided the mandatory second opinion during a six week period.</p> <p>Specialty: Obstetrics</p>	<p>Mode of birth Vaginal, spontaneous: NR</p> <p>Vaginal, assisted: NR</p> <p>Cesarean births, mean % ± SD: Baseline period: 26.6 ± 4.4 Evaluation period: 22.1 ± 4.2 EP/BL: <i>P</i> < 0.001</p> <p>Maternal outcomes Maternal mortality: NR</p> <p>Maternal postpartum infection/fever, %: G1a: 1.0 G1b: 5.2 G2b: 4.6 G1a/G1b: <i>P</i> < 0.001 G1a/G2b: <i>P</i> < 0.001</p> <p>Neonatal outcomes Neonatal mortality, %: Total: 24 G1a: 1.0 (n=501) G1b: 2.0 (n=712) G2b: 1.4 (n=363)</p> <p>Apgar score < 7, 5 minutes, %: G1a: 1.4 (n=501) G1b: 2.5 (n=712) G2b: 2.5 (n=362)</p> <p>NICU admissions, %: G1a: 10.4 (n=501) G1b: 20.8 (n=712) G2b: 18.2 (n=363) G1a/G1b: <i>P</i> < 0.001 G1a/G2b: <i>P</i> < 0.001</p> <p>Neonatal length of stay, mean days ± SD: G1a: 3.37 ± 2.69 (n=499)</p>

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
Sloan et al, 2000 (continued)			G1b: 0.4 G2b: 0		G1b: 4.57 ± 3.39 (n=709) G2b: 4.68 ± 4.07 (n=360) Stillbirth, %: G1a: 0.4 G1b: 0.3 G2b: 0.8

¹ The paper also reports cesarean rates for other major maternity hospitals in Ecuador without the intervention.

² 2111 women were identified as candidates for cesarean sections. Data were not collected on 506 women for whom cesarean was considered mandatory, and on 21 women eligible for co-management but accidentally not included.

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Smith et al., 2000</p> <p>Country: US</p> <p>System: BryanLGH Medical Center, Lincoln, NE</p> <p>Baseline period: 01/1998 to 06/1998</p> <p>Evaluation period: 07/1998 to 01/1999</p> <p>Post-evaluation period: 01/1999 to 03/1999</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: Pre-post assessment</p>	<p>Cesarean reduction intervention: Interdisciplinary team focused on educating nurses, physicians, and community about labor support measures.</p> <p>Electronic data performance measurement system adopted as part of hospital quality improvement activities</p> <p>Quality improvement team charged with decreasing total and primary cesarean rates</p> <p>Feedback of individual cesarean data to physicians</p>	<p>Inclusion criteria: NR</p> <p>Exclusion criteria: NR</p>	<p>Births: NR</p> <p>Medicaid: NR</p> <p>Private insurance coverage: NR</p>	<p>Total providers/staff: NR</p> <p>Total providers/staff formally trained: NR</p> <p>Specialty: NR</p>	<p><u>Mode of birth</u> Vaginal, spontaneous: NR</p> <p>Vaginal, assisted: NR</p> <p>Cesarean birth, %: Baseline period: 27.0 Evaluation period: 19.0 Post-evaluation: 24.5 EP/BL: P = NR</p> <p><u>Maternal outcomes</u> Maternal mortality: NR</p> <p><u>Neonatal outcomes</u> Neonatal mortality: NR</p> <p>Apgar score: NR</p> <p>NICU admission: NR</p>

* Quarterly total and primary cesarean birth rates only presented graphically.

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Socol et al., 1993</p> <p>Country: US</p> <p>System: Northwestern Memorial Hospital</p> <p>Baseline period: 1986</p> <p>Evaluation period: 1987 to 1991¹</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: Pre-post assessment</p>	<p>Cesarean reduction intervention: 1987 to 1988 vaginal birth after prior low transverse cesarean encouraged; 1988 forward cesarean birth rate of each obstetrician circulated annually to attending obstetricians; RCT of active management of labor completed and protocol recommended for routine practice.</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> All providers and births included <p>Exclusion criteria:</p> <ul style="list-style-type: none"> See inclusion criteria 	<p>Births, n: 1986: 4,240 1987: 4,219 1988: 4,271 1989: 4,391 1990: 4,829 1991: 4,669</p> <p>Race/ethnicity, n (%): White: 1986: 2,718 (64.1) 1987: 2,799 (66.3) 1988: 2,759 (64.6) 1989: 2,849 (64.9) 1990: 3,031 (62.8) 1991: 2,942 (63.0) Black: 1986: 894 (21.1) 1987: 850 (20.2) 1988: 932 (21.8) 1989: 916 (20.9) 1990: 1,009 (20.9) 1991: 888 (19.0) Other: 1986: 628 (14.8) 1987: 570 (13.5) 1988: 580 (13.6) 1989: 626 (14.2) 1990: 789 (16.3) 1991: 839 (18.0)</p> <p>Parous, n (%): 1986: 2,231 (52.6) 1987: 2,250 (53.3) 1988: 2,234 (52.3) 1989: 2,310 (52.6) 1990: 2,502 (51.8) 1991: 2,426 (52.0)</p> <p>Medicaid/Indigent, n (%): 1986: 1,330 (31.4) 1987: 1,269 (30.1) 1988: 1,235 (28.9) 1989: 1,356 (30.9) 1990: 1,446 (29.9) 1991: 1,305 (28.0)</p> <p>Private insurance coverage, n (%): 1986: 2,910 (68.6) 1987: 2,950 (69.9) 1988: 3,036 (71.1) 1989: 3,035 (69.1) 1990: 3,383 (70.1)</p>	<p>Total providers/staff: Private practice and academic obstetricians attending on labor and delivery</p> <p>Total providers/staff formally trained: NR</p> <p>Specialty: NR</p>	<p>Mode of birth Vaginal, spontaneous: NR</p> <p>Vaginal, assisted: NR</p> <p>Cesarean birth, %: Total: 1986: 27.3 1987-1990: NR* 1991: 16.9 EP/BL: P < 0.0001</p> <p>Primary: 1986: 18.2 1987-1990: NR* 1991: 10.6 EP/BL: P < 0.0001</p> <p>Repeat: 1986: 9.1 1987-1990: NR* 1991: 6.4 EP/BL: P < 0.0001</p> <p>Maternal outcomes Maternal mortality: NR</p> <p>Neonatal outcomes Neonatal mortality, n (%): 1986: 44 (1.0) 1987: 29 (0.7) 1988: 28 (0.6) 1989: 24 (0.5) 1990: 16 (0.3) 1991: 18 (0.4)</p> <p>Apgar score, 5 minutes, n (%): ≤ 3: 1986: 20 (0.4) 1987: 23 (0.5) 1988: 18 (0.4) 1989: 21 (0.5) 1990: 19 (0.4) 1991: 15 (0.3) < 7: 1986: 98 (2.2) 1987: 107 (2.5) 1988: 93 (2.1) 1989: 73 (1.6) 1990: 75 (1.5)</p>

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
Socol et al., 1993 (continued)			1991: 3,364 (72.0)		1991: 84 (1.8) NICU admission, n (%): 1986: 441 (10.3) 1987: 373 (8.7) 1988: 417 (9.6) 1989: 497 (11.2) 1990: 454 (9.3) 1991: 457 (9.7)

¹ Data provided for all years, statistical comparisons between 1986 and 1991.

* Results only displayed graphically.

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Studnicki et al., 1997</p> <p>Country: US</p> <p>System: Florida</p> <p>Baseline period: 1990 to 1992</p> <p>Evaluation period: 1990 to 1993</p> <p>Funding: NR</p> <p>Author industry relationship disclosure: NR</p> <p>Design: Pre-post assessment</p>	<p>Cesarean reduction intervention:</p> <p>State passed a law in 1991 requiring the Department of Health and Rehabilitative Services to adopt rules to establish practice parameters in provider hospitals. Provider hospitals (defined as having 30 or more births per year fully paid by state or federal funds) required to provide copies of guidelines to staff credentialed to perform cesarean section deliveries, establish peer review board to review cesareans, incorporate peer review into hospital quality assurance monitoring. Guidelines comprised of fetal evaluation, definitions of labor and labor diagnosis.</p>	<p>Inclusion criteria:</p> <ul style="list-style-type: none"> Medical discharge data DRG codes 370-375 obtained from nonfederal acute care hospitals in Florida <p>Exclusion criteria:</p> <ul style="list-style-type: none"> See inclusion criteria 	<p>Births, n:</p> <p>1990: 187,054 1991: 182,896 1992: 182,385 Baseline period: 552,335 1993: 183,291</p> <p>Medicaid: NR</p> <p>Private insurance coverage: NR</p> <p>Prior cesarean, n (%):</p> <p>1990: 22,064 (11.8) 1991: 21,655 (11.8) 1992: 22,938 (12.6) Baseline period: 66,657 (12.1) 1993: 23,127 (12.6)</p>	<p>Total providers/ staff: NR</p> <p>Total providers/ staff formally trained: Obstetricians</p> <p>Specialty: NR</p>	<p>Mode of birth</p> <p>Vaginal, spontaneous: NR</p> <p>Vaginal, assisted: NR</p> <p>Cesarean births, n (%):¹</p> <p>Total:</p> <p>1990: 49,543 (26.5) 1991: 46,176 (25.2) 1992: 45,793 (25.1) Baseline period: 141,512 (25.6) 1993: 44,082 (24.1)</p> <p>Primary:</p> <p>1990: 32,295 (17.3) 1991: 30,061 (16.4) 1992: 28,988 (15.9) Baseline period: 91,344 (16.5) 1993: 28,106 (15.3)</p> <p>Repeat:</p> <p>1990: 17,248 (9.2) 1991: 16,115 (8.8) 1992: 16,805 (9.2) Baseline period: 50,168 (9.1) 1993: 15,976 (8.7)</p> <p>Maternal outcomes</p> <p>Maternal mortality: NR</p> <p>Neonatal outcomes</p> <p>Neonatal mortality, NR</p> <p>Apgar scores: NR</p> <p>NICU admissions: NR</p>

¹ The authors report cesarean rates among all women, women with a prior cesarean, and women without a prior cesarean for each quarter in the study.

Evidence Table C2. Strategies to reduce cesarean birth—systems-level interventions (continued)

Study Description	Intervention & Population	Inclusion & Exclusion Criteria	Clinical Population	Provider Population	Outcomes
<p>Author: Tay et al., 1992</p> <p>Country: Singapore</p> <p>System: Singapore General Hospital</p> <p>Baseline period: 1987</p> <p>Evaluation period: 1988 to 1990</p> <p>Funding: NR Author industry relationship disclosure: NR</p> <p>Design: Pre-post assessment</p>	<p>Cesarean reduction intervention: Critical review of indications for cesarean delivery. Departmental audit of all cesareans.</p>	<p>Inclusion criteria: NR</p> <p>Exclusion criteria: NR</p>	<p>Births, n: 1987: 3,156 1988: 4,658 1989: 3,823 1990: 5,238</p> <p>Parous, %: Primiparae: 1987: NR 1988: NR 1989: 52 1990: NR</p> <p>Medicaid: Not applicable</p> <p>Private insurance coverage: Not applicable</p>	<p>Total providers/staff: NR</p> <p>Total providers/staff formally trained: NR</p> <p>Specialty: NR</p>	<p><u>Mode of birth</u> Vaginal, spontaneous, n (%): 1987: 2,244 (71.1) 1988: 3,667 (78.7) 1989: 2,759 (72.2) 1990: 3,787 (72.5)</p> <p>Vaginal, assisted, n (%): 1987: 525 (16.6) 1988: 473 (10.2) 1989: 634 (16.6) 1990: 835 (15.9)</p> <p>Cesarean birth, n (%): 1987: 387 (12.3) 1988: 518 (11.1) 1989: 430 (11.2) 1990: 616 (11.7)</p> <p><u>Maternal outcomes</u> Maternal mortality: NR</p> <p><u>Neonatal outcomes</u> Perinatal mortality, rate per 1000 births: > 500 grams: 1987: 8.25 1988: 7.05 1989: 9.39 1990: 5.83 > 1000 grams: 1987: 7.58 1988: 5.77 1989: 6.25 1990: 4.89</p> <p>Apgar scores: NR</p> <p>NICU admission: NR</p>

Appendix D. Sample Data Abstraction Forms

Strategies to Reduce Cesarean Birth CER Abstract Review Form

First Author, Year: _____

Endnote Reference ID #: _____

Abstractor Initials: ___ ___ ___

Primary Inclusion/Exclusion Criteria			
1. Eligible Study Type? a. ___ RCT/System Intervention	Yes	No	Cannot Determine
2. Original research (exclude reviews, editorials, commentaries, letters to editor, etc.)	Yes	No	Cannot Determine
3. Pregnant women in labor	Yes	No	Cannot Determine
4. Relevant to CER topic If "No", select at least one of the following reasons: a. ___ Exclusively related to labor b. ___ Elective or prior cesarean c. ___ Breech delivery only d. ___ Other _____	Yes	No	Cannot Determine

Retain for:

___ BACKGROUND/DISCUSSION

___ REVIEW OF REFERENCES

___ Other _____

COMMENTS:

Strategies to Reduce Cesarean Birth CER Full Text Review Form

First Author, Year: _____

Endnote Reference ID #: _____

Abstractor Initials: _____

Retain for:

Primary Inclusion/Exclusion Criteria		
1. Eligible Study Type? RCT/System Intervention	Yes	No
2. Original research (exclude reviews, editorials, commentaries, letters to editor, etc.)	Yes	No
3. Pregnant women intending a vaginal birth	Yes	No
4. Relevant to CER topic If "No", select at least one of the following reasons: a. ___ Exclusively related to labor (does not include route of birth data) b. ___ Elective or prior cesarean c. ___ Breech delivery only d. ___ Comparison of two or more agents of induction e. ___ Other _____	Yes	No
5. Do the authors state that the intent is to improve/reduce cesarean rates?	Yes	No
6. If "Yes" to all, select which of the following describes the intent: ___ Introduction includes literature review of improving or reducing cesarean risk/rate OR influencing route of birth as an outcome that would be influenced by the intervention ___ Stated primary and secondary aims indicate intention to examine influence of the intervention on cesarean risk/rate or route of birth ___ Analytic models indicate they conducted data analysis of the effect of the intervention as it relates to cesarean risk/rate or route of birth ___ Results feature data about the relationship of the intervention to cesarean risk/rate or route of birth as reporting of a primary or secondary aim ___ Tables in the results section feature data about the relationship of the intervention to cesarean risk/rate or route of birth as reporting of a primary or secondary aim ___ Discussion interprets the intervention as potentially having value for modifying cesarean risk/rates or influencing route of delivery ___ Authors express dismay that did not find it had value for modifying cesarean risk/rates or influencing route of delivery		

___ **BACKGROUND/DISCUSSION**

___ **REVIEW OF REFERENCES**

Other _____

COMMENTS:

Appendix E. Quality of the Literature

The Cochrane Risk of Bias Tool for Randomized Controlled Trials

RANDOM SEQUENCE GENERATION Selection bias (biased allocation to interventions) due to inadequate generation of a randomised sequence.	
<p>Criteria for a judgment of 'Low risk' of bias.</p>	<p>The investigators describe a random component in the sequence generation process such as:</p> <ul style="list-style-type: none"> • Referring to a random number table; • Using a computer random number generator; • Coin tossing; • Shuffling cards or envelopes; • Throwing dice; • Drawing of lots; • Minimization*. <p>*Minimization may be implemented without a random element, and this is considered to be equivalent to being random.</p>
<p>Criteria for the judgment of 'High risk' of bias.</p>	<p>The investigators describe a non-random component in the sequence generation process. Usually, the description would involve some systematic, non-random approach, for example:</p> <ul style="list-style-type: none"> • Sequence generated by odd or even date of birth; • Sequence generated by some rule based on date (or day) of admission; • Sequence generated by some rule based on hospital or clinic record number. <p>Other non-random approaches happen much less frequently than the systematic approaches mentioned above and tend to be obvious. They usually involve judgement or some method of non-random categorization of participants, for example:</p> <ul style="list-style-type: none"> • Allocation by judgement of the clinician; • Allocation by preference of the participant; • Allocation based on the results of a laboratory test or a series of tests; • Allocation by availability of the intervention.
<p>Criteria for the judgment of 'Unclear risk' of bias.</p>	<p>Insufficient information about the sequence generation process to permit judgement of 'Low risk' or 'High risk'.</p>

ALLOCATION CONCEALMENT	
Selection bias (biased allocation to interventions) due to inadequate concealment of allocations prior to assignment.	
Criteria for a judgment of 'Low risk' of bias.	<p>Participants and investigators enrolling participants could not foresee assignment because one of the following, or an equivalent method, was used to conceal allocation:</p> <ul style="list-style-type: none"> • Central allocation (including telephone, web-based and pharmacy-controlled randomization); • Sequentially numbered drug containers of identical appearance; • Sequentially numbered, opaque, sealed envelopes.
Criteria for the judgment of 'High risk' of bias.	<p>Participants or investigators enrolling participants could possibly foresee assignments and thus introduce selection bias, such as allocation based on:</p> <ul style="list-style-type: none"> • Using an open random allocation schedule (e.g. a list of random numbers); • Assignment envelopes were used without appropriate safeguards (e.g. if envelopes were unsealed or non-opaque or not sequentially numbered); • Alternation or rotation; • Date of birth; • Case record number; • Any other explicitly unconcealed procedure.
Criteria for the judgment of 'Unclear risk' of bias.	<p>Insufficient information to permit judgement of 'Low risk' or 'High risk'. This is usually the case if the method of concealment is not described or not described in sufficient detail to allow a definite judgement – for example if the use of assignment envelopes is described, but it remains unclear whether envelopes were sequentially numbered, opaque and sealed.</p>
SELECTIVE REPORTING	
Reporting bias due to selective outcome reporting.	
Criteria for a judgment of 'Low risk' of bias.	<p>Any of the following:</p> <ul style="list-style-type: none"> • The study protocol is available and all of the study's pre-specified (primary and secondary) outcomes that are of interest in the review have been reported in the pre-specified way; • The study protocol is not available but it is clear that the published reports include all expected outcomes, including those that were pre-specified (convincing text of this nature may be uncommon).
Criteria for the judgment of 'High risk' of bias.	<p>Any one of the following:</p> <ul style="list-style-type: none"> • Not all of the study's pre-specified primary outcomes have been reported; • One or more primary outcomes is reported using measurements, analysis methods or subsets of the data (e.g. subscales) that were not pre-specified; • One or more reported primary outcomes were not pre-specified (unless clear justification for their reporting is provided, such as an unexpected adverse effect); • One or more outcomes of interest in the review are reported incompletely so that they cannot be entered in a meta-analysis; • The study report fails to include results for a key outcome that would be expected to have been reported for such a study.
Criteria for the judgment of 'Unclear risk' of bias.	<p>Insufficient information to permit judgement of 'Low risk' or 'High risk'. It is likely that the majority of studies will fall into this category.</p>

OTHER BIAS Bias due to problems not covered elsewhere in the table.	
Criteria for a judgment of 'Low risk' of bias.	The study appears to be free of other sources of bias.
Criteria for the judgment of 'High risk' of bias.	There is at least one important risk of bias. For example, the study: <ul style="list-style-type: none"> • Had a potential source of bias related to the specific study design used; or • Has been claimed to have been fraudulent; or • Had some other problem.
Criteria for the judgment of 'Unclear risk' of bias.	There may be a risk of bias, but there is either: <ul style="list-style-type: none"> • Insufficient information to assess whether an important risk of bias exists; or • Insufficient rationale or evidence that an identified problem will introduce bias.
BLINDING OF PARTICIPANTS AND PERSONNEL Performance bias due to knowledge of the allocated interventions by participants and personnel during the study.	
Criteria for a judgment of 'Low risk' of bias.	Any one of the following: <ul style="list-style-type: none"> • No blinding or incomplete blinding, but the review authors judge that the outcome is not likely to be influenced by lack of blinding; • Blinding of participants and key study personnel ensured, and unlikely that the blinding could have been broken.
Criteria for the judgment of 'High risk' of bias.	Any one of the following: <ul style="list-style-type: none"> • No blinding or incomplete blinding, and the outcome is likely to be influenced by lack of blinding; • Blinding of key study participants and personnel attempted, but likely that the blinding could have been broken, and the outcome is likely to be influenced by lack of blinding.
Criteria for the judgment of 'Unclear risk' of bias.	Any one of the following: <ul style="list-style-type: none"> • Insufficient information to permit judgment of 'Low risk' or 'High risk'; • The study did not address this outcome.

BLINDING OF OUTCOME ASSESSMENT Detection bias due to knowledge of the allocated interventions by outcome assessors.	
Criteria for a judgment of 'Low risk' of bias.	Any one of the following: <ul style="list-style-type: none"> No blinding of outcome assessment, but the review authors judge that the outcome measurement is not likely to be influenced by lack of blinding; Blinding of outcome assessment ensured, and unlikely that the blinding could have been broken.
Criteria for the judgment of 'High risk' of bias.	Any one of the following: <ul style="list-style-type: none"> No blinding of outcome assessment, and the outcome measurement is likely to be influenced by lack of blinding; Blinding of outcome assessment, but likely that the blinding could have been broken, and the outcome measurement is likely to be influenced by lack of blinding.
Criteria for the judgment of 'Unclear risk' of bias.	Any one of the following: <ul style="list-style-type: none"> Insufficient information to permit judgment of 'Low risk' or 'High risk'; The study did not address this outcome.
INCOMPLETE OUTCOME DATA Attrition bias due to amount, nature or handling of incomplete outcome data.	
Criteria for a judgment of 'Low risk' of bias.	Any one of the following: <ul style="list-style-type: none"> No missing outcome data; Reasons for missing outcome data unlikely to be related to true outcome (for survival data, censoring unlikely to be introducing bias); Missing outcome data balanced in numbers across intervention groups, with similar reasons for missing data across groups; For dichotomous outcome data, the proportion of missing outcomes compared with observed event risk not enough to have a clinically relevant impact on the intervention effect estimate; For continuous outcome data, plausible effect size (difference in means or standardized difference in means) among missing outcomes not enough to have a clinically relevant impact on observed effect size; Missing data have been imputed using appropriate methods.
Criteria for the judgment of 'High risk' of bias.	Any one of the following: <ul style="list-style-type: none"> Reason for missing outcome data likely to be related to true outcome, with either imbalance in numbers or reasons for missing data across intervention groups; For dichotomous outcome data, the proportion of missing outcomes compared with observed event risk enough to induce clinically relevant bias in intervention effect estimate; For continuous outcome data, plausible effect size (difference in means or standardized difference in means) among missing outcomes enough to induce clinically relevant bias in observed effect size; 'As-treated' analysis done with substantial departure of the intervention received from that assigned at randomization; Potentially inappropriate application of simple imputation.
Criteria for the judgment of 'Unclear risk' of bias.	Any one of the following: <ul style="list-style-type: none"> Insufficient reporting of attrition/exclusions to permit judgement of 'Low risk' or 'High risk' (e.g. number randomized not stated, no reasons for missing data provided); The study did not address this outcome.

Thresholds for converting the Cochrane Risk of Bias tool to AHRQ standards (good, fair, and poor):

Good quality: All criteria met (i.e. low for each domain)

Using the Cochrane ROB tool, it is possible for a criterion to be met even when the element was technically not part of the method. For instance, a judgment that knowledge of the allocated interventions was adequately prevented can be made even if the study was not blinded, if EPC team members judge that the outcome and the outcome measurement are not likely to be influenced by lack of blinding.

Fair quality: One criterion not met (i.e. high risk of bias for one domain) or two criteria unclear, and the assessment that this was **unlikely** to have biased the outcome, and there is no known important limitation that could invalidate the results

Poor quality: One criterion not met (i.e. high risk of bias for one domain) or two criteria unclear, and the assessment that this was **likely** to have biased the outcome, and there are important limitations that could invalidate the results

Poor quality: Two or more criteria listed as high or unclear risk of bias

Newcastle-Ottawa Quality Assessment Form for Cohort Studies

Note: A study can be given a maximum of one star for each numbered item within the Selection and Outcome categories. A maximum of two stars can be given for Comparability.

Selection

- 1) Representativeness of the exposed cohort
 - a) Truly representative **(one star)**
 - b) Somewhat representative **(one star)**
 - c) Selected group
 - d) No description of the derivation of the cohort
- 2) Selection of the non-exposed cohort
 - a) Drawn from the same community as the exposed cohort **(one star)**
 - b) Drawn from a different source
 - c) No description of the derivation of the non exposed cohort
- 3) Ascertainment of exposure
 - a) Secure record/institutional documentation of the intervention (e.g., surgical record) **(one star)**
 - b) Structured interview **(one star)**
 - c) Written self report
 - d) No description
 - e) Other
- 4) Demonstration that outcome of interest was not present at start of study
 - a) Yes **(one star)**
 - b) No

Comparability

- 1) Comparability of cohorts on the basis of the design or analysis controlled for confounders
 - a) The study controls for vaginal parity and prior cesarean status **(one star)**
 - b) Study controls for other factors (list) _____ **(one star)**
 - c) Cohorts are not comparable on the basis of the design or analysis controlled for confounders
 - d) No comparison group*
 - e) N/A*

Outcome

- 1) Assessment of outcome
 - a) Independent blind assessment **(one star)**
 - b) Record linkage **(one star)**
 - c) Self report
 - d) No description
 - e) Other
- 2) Was follow-up long enough for outcomes to occur
 - a) Yes **(one star)**
 - b) No

Indicate the median duration of follow-up and a brief rationale for the assessment above: _____

- 3) Adequacy of follow-up of cohorts
 - a) Complete follow up- all subject accounted for **(one star)**
 - b) Subjects lost to follow up unlikely to introduce bias- number lost less than or equal to 20% or description of those lost suggested no different from those followed. **(one star)**
 - c) Follow up rate greater than 80% and no description of those lost
 - d) No statement

*Added by Vanderbilt EPC

Thresholds for converting the Newcastle-Ottawa scales to AHRQ standards (good, fair, and poor):

Good quality: 3 or 4 stars in selection domain AND 1 or 2 stars in comparability domain AND 2 or 3 stars in outcome/exposure domain

Fair quality: 2 stars in selection domain AND 1 or 2 stars in comparability domain AND 2 or 3 stars in outcome/exposure domain

Poor quality: 0 or 1 star in selection domain OR 0 stars in comparability domain OR 0 or 1 stars in outcome/exposure domain

The Vanderbilt EPC included two additional options in the comparability domain not generally included in the Newcastle-Ottawa scales: “no comparison group” and “not applicable”. This was necessary because the review included single-arm studies for both the effectiveness and harms assessments.

Studies of the effectiveness of strategies to reduce cesarean birth that included only one study arm were marked as “no comparison group”, which equates to receiving no stars and an automatic rating of poor quality.

Cross sectional studies used to identify potential harms and measures of environmental exposure could appropriately have no comparison group, and were marked for comparability as “not applicable.” The quality scores for these studies were downgraded to account for their non-comparative study designs. For example, a study with three or four stars in the selection domain and two or three stars in the outcome/exposure domain, which would normally equate to a “good” quality rating, would be deemed “fair” quality if the comparability domain response was “not applicable”.

Quality Tables

Table E1. Risk of bias of RCTs of strategies to reduce cesarean births

Author, Year	Adequate sequence generation	Allocation concealment	Blinding of (Route of delivery)	Blinding (Maternal morbidity/mortality)	Blinding (Neonatal morbidity/mortality)	Incomplete outcome data (Route of delivery)	Incomplete outcome data (Maternal morbidity/mortality)	Incomplete outcome data (Neonatal morbidity/mortality)	Free of selective reporting	Free of other bias	Quality
World Health Organization, 1994 ¹	+	?	-	+	+	+	+	+	+	+	Fair
Abdel-Aleem et al., 2005 ²	+	+	?	+	+	+	+	+	+	+	Fair
Adamsons et al., 1999 ³	?	?	-	+	+	+	+	+	+	?	Poor
Ajadi et al., 2006 ⁴	+	+	?	+	+	+	+	+	?	+	Fair
Althabe et al., ⁵	+	+	-	+	+	?	?	?	+	?	Poor
Asher et al., 2009 ⁶	+	+	?	+	+	+	+	+	+	+	Fair
Barakat et al., 2009 ⁷	?	+	+	+	+	+	+	+	+	-	Fair
Bernitz et al., 2011 ⁸	+	+	?	?	?	+	+	+	+	?	Poor
Bidgood et al., 1987 ⁹	+	+	-	+	+	+	+	+	+	+	Fair
Bloom et al., 2006 ¹⁰	+	+	+	+	+	+	+	+	+	+	Good
Bloom et al., 1998 ¹¹	?	?	-	+	+	+	+	+	+	?	Poor
Campbell et al., 2006 ¹²	+	+	?	+	+	+	+	+	-	+	Poor
Choudhary et al., 2010 ¹³	+	+	-	-	-	+	+	+	+	+	Poor
Cohen et al., 1987 ¹⁴	-	-	-	+	+	+	+	+	+	+	Poor
Cox et al., 1999 ¹⁵	+	+	+	+	+	+	+	+	+	+	Good
East et al., 2006 ¹⁶	+	+	+	+	+	?	+	+	+	+	Fair
Elferink-Stinkens et al., 2004 ¹⁷	?	?	+	+	+	+	+	+	+	+	Poor
Frigoletto et al., 1995 ¹⁸	+	+	-	-	?	+	+	+	+	?	Poor
Gagnon, 1997 ¹⁹	+	+	?	+	+	+	+	+	+	+	Poor
Gambling et al., 1998 ²⁰	+	+	+	+	+	+	+	+	+	-	Fair
Garite et al., 2000 ²¹	+	+	-	+	+	+	+	+	+	?	Fair
Garite et al., 2000 ²²	+	+	+	+	+	+	+	+	+	+	Good
Hamilton et al., 2004 ²³	+	?	?	+	+	+	+	+	+	?	Poor
Harper et al., 2006 ²⁴	+	+	+	+	+	+	+	+	+	?	Fair
Harvey et al., 1996 ²⁵	+	?	+	+	+	+	+	+	+	+	Fair
Hemminki et al., 1990 ²⁶	?	+	-	+	+	+	+	?	+	?	Poor
Hinshaw et al., 2008 ²⁷	+	+	-	+	+	+	+	+	+	+	Poor
Hodnett et al., 2002 ²⁸	+	+	?	+	+	+	+	+	+	+	Fair

+ = Low risk of bias; - = High risk of bias; ? = Unclear risk of bias

Table E1. Risk of bias of RCTs of strategies to reduce cesarean births (continued)

Author, Year	Adequate sequence generation	Allocation concealment	Blinding of (Route of delivery)	Blinding (Maternal morbidity/mortality)	Blinding (Neonatal morbidity/mortality)	Incomplete outcome data (Route of delivery)	Incomplete outcome data (Maternal morbidity/mortality)	Incomplete outcome data (Neonatal morbidity/mortality)	Free of selective reporting	Free of other bias	Quality
Hofmeyr et al., 1998 ²⁹	+	+	-	+	+	+	+	+	+	?	Poor
Homer et al., 2011 ³⁰	+	?	-	-	+	+	+	+	+	?	Poor
Jalil et al., 2009 ³¹	?	+	-	+	+	+	+	+	+	+	Fair
Janssen et al., 2006 ³²	+	+	-	+	+	+	+	+	+	+	Fair
Karraz, 2003 ³³	?	?	-	+	+	+	+	+	+	+	Poor
Kennell et al., 1991 ³⁴	?	?	-	+	+	+	+	+	+	+	Poor
Kuhnert et al., 2004 ³⁵	?	?	+	+	+	+	+	+	+	+	Fair
Lavender et al., 1998 ³⁶	+	+	+	+	+	+	+	+	+	+	Good
Lavender et al., 2006 ³⁷	+	+	+	+	+	+	+	+	+	+	Good
Lopez-Zeno et al., 1992 ³⁸	+	+	-	+	+	+	+	+	+	+	Poor
Mahomed et al., 1998 ³⁹	+	+	?	+	+	+	+	+	+	+	Fair
Matsuo et al., 2009 ⁴⁰	?	+	-	-	+	+	+	+	+	+	Poor
McGrath and Kennell, 2008 ⁴¹	?	+	+	+	+	+	+	+	+	-	Poor
McNiven et al., 1998 ⁴²	?	+	+	+	+	+	+	+	+	+	Fair
Mehrangiz et al., 2004 ⁴³	?	?	-	+	+	+	+	+	+	?	Poor
Moodley et al., 1998 ⁴⁴	+	+	-	+	+	+	+	+	+	?	Poor
Nicholson et al., 2008 ⁴⁵	+	+	+	+	+	+	+	+	+	-	Fair
Norris et al., 2001 ⁴⁶	-	-	?	+	+	-	+	+	+	+	Poor
Ojala et al., 2006 ⁴⁷	+	+	-	+	+	+	+	+	+	+	Fair
Olofsson et al., 1998 ⁴⁸	+	+	-	+	+	+	+	+	+	+	Poor
O'Sullivan et al., 2009 ⁴⁹	+	+	+	+	+	+	+	+	+	+	Good
Palomäki et al., 2006 ⁵⁰	+	?	+	+	+	+	+	+	+	+	Fair
Pattinson et al., 2003 ⁵¹	+	+	+	+	+	+	+	+	+	+	Good
Phipps et al., 2009 ⁵²	+	+	-	+	+	+	+	+	+	+	Fair
Rathor et al., 2002 ⁵³	+	+	-	+	+	+	+	+	+	+	Fair
Regi et al., 2009 ⁵⁴	+	+	-	?	?	+	+	+	+	-	Poor
Rogers et al., 1997 ⁵⁵	+	+	+	+	+	+	+	+	+	+	Good

+ = Low risk of bias; - = High risk of bias; ? = Unclear risk of bias

Table E1. Risk of bias of RCTs of strategies to reduce cesarean births (continued)

Author, Year	Adequate sequence generation	Allocation concealment	Blinding of (Route of delivery)	Blinding (Maternal morbidity/mortality)	Blinding (Neonatal morbidity/mortality)	Incomplete outcome data (Route of delivery)	Incomplete outcome data (Maternal morbidity/mortality)	Incomplete outcome data (Neonatal morbidity/mortality)	Free of selective reporting	Free of other bias	Quality
Sadler et al., 2000 ⁵⁶	+	+	?	?	?	+	+	+	+	?	Poor
Saisto et al., 2001 ⁵⁷	?	+	-	+	+	+	+	?	+	?	Poor
Sanchez-Ramos et al., 1996 ⁵⁸	+	+	+	+	+	+	+	+	+	+	Good
Scheepers et al., 2002 ⁵⁹	+	+	+	+	+	+	+	+	+	-	Fair
Skrablin et al., 2011 ⁶⁰	-	-	+	+	+	+	+	+	+	?	Poor
Somprasit et al., 2005 ⁶¹	+	+	-	+	+	+	+	+	+	+	Poor
Spallicci et al., 2007 ⁶²	+	+	+	+	+	+	+	+	+	-	Fair
Strong et al., 1990 ⁶³	+	+	-	+	+	+	+	+	+	+	Poor
Trueba et al., 2000 ⁶⁴	?	?	-	+	+	+	+	+	+	+	Poor
Vayssiere et al., 2007 ⁶⁵	?	+	?	+	+	+	+	+	+	+	Fair
Waldenstrom et al., 1997 ⁶⁶	+	+	+	-	+	+	+	+	+	+	Fair
Waldenstrom et al., 2001 ⁶⁷	?	+	-	+	+	+	+	+	+	+	Fair
Windrim et al., 2007 ⁶⁸	+	+	?	+	+	+	+	+	+	+	Fair

+ = Low risk of bias; - = High risk of bias; ? = Unclear risk of bias

Table E2. Newcastle-Ottawa quality rating systems-level strategies to reduce cesarean births

Author, Year	Selection (0-4)				Comparability	Outcome (0-3)			Quality
	Representativeness of the exposed cohort	Selection of the non exposed cohort	Ascertainment of exposure	Outcome of interest was not present at start of study		Assessment of outcome	Follow-up long enough for outcomes to occur	Adequacy of follow up of cohorts	
Berglund et al., 2010 ⁶⁹	★	★	★	★	N/A	★	★	★	Poor (4+0+3)
Bickell et al., 1996 ⁷⁰	★	★	★	★	★	★	★	★	Good (4+1+3)
Boylan et al., 1991 ⁷¹	★	★	★	★	★	★	★	★	Good (4+1+3)
Calvo et al., 2009 ⁷²	★	★	★	★	N/A	★	★	No statement	Poor (4+0+2)
Dillon et al., 1992 ⁷³	★	★	★	★	N/A	★	★	★	Poor (4+0+3)
Gilstrap et al., 1984 ⁷⁴	★	★	★	★	N/A	★	★	★	Poor (4+0+3)
Gregory et al., 1999 ⁷⁵	★	★	★	★	N/A	★	★	★	Poor (4+0+3)
Iglesias et al., 1991 ⁷⁶	★	★	★	★	★	★	★	★	Good (4+1+3)
Kazandjian and Lied, 1998 ⁷⁷	★	★	★	★	★	★	★	★	Good (4+1+3)
Kim et al., 2005 ⁷⁸	★	★	★	★	★	★	★	★	Good (4+1+3)
Kiwanuka and Moore, 1993 ⁷⁹	★	★	★	★	N/A	★	★	★	Poor (4+0+3)
Langrew et al., 1996 ⁸⁰	★	★	★	★	N/A	★	★	★	Poor (4+0+3)
Liang et al., 2004 ⁸¹	★	★	★	★	N/A	★	★	No statement	Poor (4+0+2)
Maher et al., 1994 ⁸²	★	★	★	★	N/A	★	★	★	Poor (4+0+3)
Main et al., 1999 ⁸³	★	★	★	★	N/A	★	★	★	Poor (4+0+3)
Meyers and Gleicher, 1988, 1993 ⁸⁴⁻⁸⁵	★	★	★	★	N/A	★	★	★	Poor (4+0+3)
Oleske et al., 1992 ⁸⁶	★	★	★	★	N/A	★	★	★	Poor (4+0+3)
Poma, 1998 ⁸⁷	★	★	★	★	N/A	★	★	★	Poor (4+0+3)
Porreco, 1990 ⁸⁸	★	★	★	★	N/A	★	★	No statement	Poor (4+0+2)
Pridjian et al., 1991 ⁸⁹	★	★	★	★	N/A	★	★	★	Poor (4+0+3)

N/A=Not applicable

Table E2. Newcastle Ottawa Quality Rating Systems-level strategies to reduce cesarean births (continued)

Author, Year	Selection (0-4)				Comparability	Outcome (0-3)			Quality
	Representativeness of the exposed cohort	Selection of the non exposed cohort	Ascertainment of exposure	Outcome of interest was not present at start of study		Assessment of outcome	Follow-up long enough for outcomes to occur	Adequacy of follow up of cohorts	
Robson et al., 1996 ⁹⁰	★	★	★	★	★	★	★	★	Good (4+1+3)
Rust et al., 1993 ⁹¹	★	★	★	★	N/A	★	★	★	Poor (4+0+3)
Sanchez-Ramos et al., 1990 ⁹²	★	★	★	★	N/A	★	★	★	Poor (4+0+3)
Sloan et al., 2000 ⁹³	★	★	★	★	N/A	★	★	★	Poor (4+0+3)
Smith et al., 2000 ⁹⁴	★	★	★	★	N/A	★	★	★	Poor (4+0+3)
Socol et al., 1993 ⁹⁵	★	★	★	★	★	★	★	★	Good (4+1+3)
Studnicki et al., 1997 ⁹⁶	★	★	★	★	N/A	★	★	★	Poor (4+0+3)
Tay et al., 1992 ⁹⁷	★	★	★	★	N/A	★	★	No statement	Poor (4+0+2)

N/A=Not applicable

References

- World Health Organization partograph in management of labour. World Health Organization Maternal Health and Safe Motherhood Programme. *Lancet*. 1994 Jun 4;343(8910):1399-404. PMID: 7910888.
- Abdel-Aleem H, Amin AF, Shokry M, et al. Therapeutic amnioinfusion for intrapartum fetal distress using a pediatric feeding tube. *Int J Gynaecol Obstet*. 2005 Aug;90(2):94-8. PMID: 15913621.
- Adamsons K, de la Vega A, Santiago P. Reduction in the cesarean section rate in nulliparous patients after administration of intravenous propranolol. *P R Health Sci J*. 1999 Mar;18(1):5-8. PMID: 10343980.
- Ajadi MA, Kuti O, Orji EO, et al. The effect of amniotomy on the outcome of spontaneous labour in uncomplicated pregnancy. *J Obstet Gynaecol*. 2006 Oct;26(7):631-4. PMID: 17071428.
- Althabe F, Belizan JM, Villar J, et al. Mandatory second opinion to reduce rates of unnecessary caesarean sections in Latin America: a cluster randomised controlled trial. *Lancet*. 2004 Jun 12;363(9425):1934-40. PMID: 15194252.
- Asher GN, Coeytaux RR, Chen W, et al. Acupuncture to initiate labor (Acumoms 2): a randomized, sham-controlled clinical trial. *J Matern Fetal Neonatal Med*. 2009 Oct;22(10):843-8. PMID: 19526433.
- Barakat R, Ruiz JR, Stirling JR, et al. Type of delivery is not affected by light resistance and toning exercise training during pregnancy: a randomized controlled trial. *Am J Obstet Gynecol*. 2009 Dec;201(6):590 e1-6. PMID: 19608151.
- Bernitz S, Rolland R, Blix E, et al. Is the operative delivery rate in low-risk women dependent on the level of birth care? A randomised controlled trial. *BJOG*. 2011 Oct;118(11):1357-64. PMID: 21749629.
- Bidgood KA, Steer PJ. A randomized control study of oxytocin augmentation of labour. 1. Obstetric outcome. *Br J Obstet Gynaecol*. 1987 Jun;94(6):512-7. PMID: 3620398.
- Bloom SL, Spong CY, Thom E, et al. Fetal pulse oximetry and cesarean delivery. *N Engl J Med*. 2006 Nov 23;355(21):2195-202. PMID: 17124017.
- Bloom SL, McIntire DD, Kelly MA, et al. Lack of effect of walking on labor and delivery. *N Engl J Med*. 1998 Jul 9;339(2):76-9. PMID: 9654537.

12. Campbell DA, Lake MF, Falk M, et al. A randomized control trial of continuous support in labor by a lay doula. *J Obstet Gynecol Neonatal Nurs*. 2006 Jul-Aug;35(4):456-64. PMID: 16881989.
13. Choudhary D, Bano I, Ali SM. Does amnioinfusion reduce caesarean section rate in meconium-stained amniotic fluid. *Arch Gynecol Obstet*. 2010 Jul;282(1):17-22. PMID: 19685066.
14. Cohen GR, O'Brien WF, Lewis L, et al. A prospective randomized study of the aggressive management of early labor. *Am J Obstet Gynecol*. 1987 Nov;157(5):1174-7. PMID: 3688070.
15. Cox J, Cotzias CS, Siakpere O, et al. Does an inflatable obstetric belt facilitate spontaneous vaginal delivery in nulliparae with epidural analgesia? *Br J Obstet Gynaecol*. 1999 Dec;106(12):1280-6. PMID: 10609722.
16. East CE, Brennecke SP, King JF, et al. The effect of intrapartum fetal pulse oximetry, in the presence of a nonreassuring fetal heart rate pattern, on operative delivery rates: a multicenter, randomized, controlled trial (the FOREMOST trial). *Am J Obstet Gynecol*. 2006 Mar;194(3):606 e1-16. PMID: 16522387.
17. Elferink-Stinkens PM, Brand R, Amelink-Verburg MP, et al. Randomised clinical trial on the effect of the Dutch obstetric peer review system. *Eur J Obstet Gynecol Reprod Biol*. 2002 Apr 10;102(1):21-30. PMID: 12039085.
18. Frigoletto FD, Jr., Lieberman E, Lang JM, et al. A clinical trial of active management of labor. *N Engl J Med*. 1995 Sep 21;333(12):745-50. PMID: 7643880.
19. Gagnon AJ, Waghorn K, Covell C. A randomized trial of one-to-one nurse support of women in labor. *Birth*. 1997 Jun;24(2):71-7. PMID: 9271971.
20. Gambling DR, Sharma SK, Ramin SM, et al. A randomized study of combined spinal-epidural analgesia versus intravenous meperidine during labor: impact on cesarean delivery rate. *Anesthesiology*. 1998 Dec;89(6):1336-44. PMID: 9856707.
21. Garite TJ, Dildy GA, McNamara H, et al. A multicenter controlled trial of fetal pulse oximetry in the intrapartum management of nonreassuring fetal heart rate patterns. *Am J Obstet Gynecol*. 2000 Nov;183(5):1049-58. PMID: 11084540.
22. Garite TJ, Weeks J, Peters-Phair K, et al. A randomized controlled trial of the effect of increased intravenous hydration on the course of labor in nulliparous women. *Am J Obstet Gynecol*. 2000 Dec;183(6):1544-8. PMID: 11120525.
23. Hamilton E, Platt R, Gauthier R, et al. The effect of computer-assisted evaluation of labor on cesarean rates. *J Healthc Qual*. 2004 Jan-Feb;26(1):37-44. PMID: 14763319.
24. Harper TC, Coeytaux RR, Chen W, et al. A randomized controlled trial of acupuncture for initiation of labor in nulliparous women. *J Matern Fetal Neonatal Med*. 2006 Aug;19(8):465-70. PMID: 16966110.
25. Harvey S, Jarrell J, Brant R, et al. A randomized, controlled trial of nurse-midwifery care. *Birth*. 1996 Sep;23(3):128-35. PMID: 8924098.
26. Hemminki E, Virta A, Koponen P. A trial on continuous human support during labor; Feasibility, interventions and mothers' satisfaction. *J Psychosom Obstet Gynaecol*. 1990;11(4):239-50.
27. Hinshaw K, Simpson S, Cummings S, et al. A randomised controlled trial of early versus delayed oxytocin augmentation to treat primary dysfunctional labour in nulliparous women. *BJOG*. 2008 Sep;115(10):1289-95; discussion 95-6. PMID: 18715415.
28. Hodnett ED, Lowe NK, Hannah ME, et al. Effectiveness of nurses as providers of birth labor support in North American hospitals: a randomized controlled trial. *JAMA*. 2002 Sep 18;288(11):1373-81. PMID: 12234231.
29. Hofmeyr GJ, Gulmezoglu AM, Buchmann E, et al. The Collaborative Randomised Amnioinfusion for Meconium Project (CRAMP): 1. South Africa. *Br J Obstet Gynaecol*. 1998 Mar;105(3):304-8. PMID: 9532991.
30. Homer CS, Davis GK, Brodie PM, et al. Collaboration in maternity care: a randomised controlled trial comparing community-based continuity of care with standard hospital care. *BJOG*. 2001 Jan;108(1):16-22. PMID: 11212998.
31. Jalil NA, Omar M. Does ropivacaine 0.2% with fentanyl change the labour epidural profile? *Int Med J*. 2009;16(2):149-55. PMID: 2010326522.
32. Janssen PA, Still DK, Klein MC, et al. Early labor assessment and support at home versus telephone triage: a randomized controlled trial. *Obstet Gynecol*. 2006 Dec;108(6):1463-9. PMID: 17138781.
33. Karraz MA. Ambulatory epidural anesthesia and the duration of labor. *Int J Gynaecol Obstet*. 2003 Feb;80(2):117-22. PMID: 12566183.
34. Kennell J, Klaus M, McGrath S, et al. Continuous emotional support during labor in a US hospital. A randomized controlled trial. *JAMA*. 1991 May 1;265(17):2197-201. PMID: 2013951.
35. Kuhnert M, Schmidt S. Intrapartum management of nonreassuring fetal heart rate patterns: a randomized controlled trial of fetal pulse oximetry. *Am J Obstet Gynecol*. 2004 Dec;191(6):1989-95. PMID: 15592281.
36. Lavender T, Alfirevic Z, Walkinshaw S. Partogram action line study: a randomised trial. *Br J Obstet Gynaecol*. 1998 Sep;105(9):976-80. PMID: 9763048.
37. Lavender T, Alfirevic Z, Walkinshaw S. Effect of different partogram action lines on birth outcomes: a randomized controlled trial. *Obstet Gynecol*. 2006 Aug;108(2):295-302. PMID: 16880298.
38. Lopez-Zeno JA, Peaceman AM, Adashek JA, et al. A controlled trial of a program for the active management of labor. *N Engl J Med*. 1992 Feb 13;326(7):450-4. PMID: 1732771.
39. Mahomed K, Mulambo T, Woelk G, et al. The Collaborative Randomised Amnioinfusion for Meconium Project (CRAMP): 2. Zimbabwe. *Br J Obstet Gynaecol*. 1998 Mar;105(3):309-13. PMID: 9532992.

40. Matsuo K, Mudd JV, Kopelman JN, et al. Duration of the second stage of labor while wearing a dental support device: a pilot study. *J Obstet Gynaecol Res.* 2009 Aug;35(4):672-8. PMID: 19751326.
41. McGrath SK, Kennell JH. A randomized controlled trial of continuous labor support for middle-class couples: effect on cesarean delivery rates. *Birth.* 2008 Jun;35(2):92-7. PMID: 18507579.
42. McNiven PS, Williams JI, Hodnett E, et al. An early labor assessment program: a randomized, controlled trial. *Birth.* 1998 Mar;25(1):5-10. PMID: 9534499.
43. Mehrangiz Z, Sogra R, Malihe A. Randomized clinical trial to study the effect of paracervical block on reducing pain, improving APGAR Score and on accelerating the active phase of labor. *Internet J Pain, Symptom Control & Palliative Care.* 2004;3(1):7p. PMID: 2004164008.
44. Moodley J, Matchaba P, Payne AJ. Intrapartum amnioinfusion for meconium-stained liquor in developing countries. *Trop Doct.* 1998 Jan;28(1):31-4. PMID: 9481194.
45. Nicholson JM, Parry S, Caughey AB, et al. The impact of the active management of risk in pregnancy at term on birth outcomes: a randomized clinical trial. *Am J Obstet Gynecol.* 2008 May;198(5):511 e1-15. PMID: 18455526.
46. Norris MC, Fogel ST, Conway-Long C. Combined spinal-epidural versus epidural labor analgesia. *Anesthesiology.* 2001 Oct;95(4):913-20. PMID: 11605932.
47. Ojala K, Vaarasmaki M, Makikallio K, et al. A comparison of intrapartum automated fetal electrocardiography and conventional cardiotocography--a randomised controlled study. *BJOG.* 2006 Apr;113(4):419-23. PMID: 16553653.
48. Olofsson C, Ekblom A, Ekman-Ordeberg G, et al. Obstetric outcome following epidural analgesia with bupivacaine-adrenaline 0.25% or bupivacaine 0.125% with sufentanil--a prospective randomized controlled study in 1000 parturients. *Acta Anaesthesiol Scand.* 1998 Mar;42(3):284-92. PMID: 9542554.
49. O'Sullivan G, Liu B, Hart D, et al. Effect of food intake during labour on obstetric outcome: randomised controlled trial. *BMJ.* 2009;338:b784. PMID: 19318702.
50. Palomaki O, Uotila J, Tammela O, et al. A double blind, randomized trial on augmentation of labour with a combination of intravenous propranolol and oxytocin versus oxytocin only. *Eur J Obstet Gynecol Reprod Biol.* 2006 Mar 1;125(1):44-9. PMID: 16051416.
51. Pattinson RC, Howarth GR, Mdluli W, et al. Aggressive or expectant management of labour: a randomised clinical trial. *BJOG.* 2003 May;110(5):457-61. PMID: 12742329.
52. Phipps H, Charlton S, Dietz HP. Can antenatal education influence how women push in labour? *Aust N Z J Obstet Gynaecol.* 2009 Jun;49(3):274-8. PMID: 19566559.
53. Rathor AM, Singh R, Ramji S, et al. Randomised trial of amnioinfusion during labour with meconium stained amniotic fluid. *BJOG.* 2002 Jan;109(1):17-20. PMID: 11843370.
54. Regi A, Alexander N, Jose R, et al. Amnioinfusion for relief of recurrent severe and moderate variable decelerations in labor. *J Reprod Med.* 2009 May;54(5):295-302. PMID: 19517694.
55. Rogers R, Gilson GJ, Miller AC, et al. Active management of labor: does it make a difference? *Am J Obstet Gynecol.* 1997 Sep;177(3):599-605. PMID: 9322630.
56. Sadler LC, Davison T, McCowan LM. A randomised controlled trial and meta-analysis of active management of labour. *BJOG.* 2000 Jul;107(7):909-15. PMID: 10901564.
57. Saisto T, Salmela-Aro K, Nurmi JE, et al. A randomized controlled trial of intervention in fear of childbirth. *Obstet Gynecol.* 2001 Nov;98(5 Pt 1):820-6. PMID: 11704175.
58. Sanchez-Ramos L, Quillen MJ, Kaunitz AM. Randomized trial of oxytocin alone and with propranolol in the management of dysfunctional labor. *Obstet Gynecol.* 1996 Oct;88(4 Pt 1):517-20. PMID: 8841209.
59. Scheepers HC, Thans MC, de Jong PA, et al. A double-blind, randomised, placebo controlled study on the influence of carbohydrate solution intake during labour. *BJOG.* 2002 Feb;109(2):178-81. PMID: 11911101.
60. Skrablin S, Grgic O, Mihaljevic S, et al. Comparison of intermittent and continuous epidural analgesia on delivery and progression of labour. *J Obstet Gynaecol.* 2011;31(2):134-8. PMID: 21281028.
61. Somprasit C, Tanprasertkul C, Kamudhamas A. Reducing cesarean delivery rates: an active management labor program in a setting with limited resources. *J Med Assoc Thai.* 2005 Jan;88(1):20-5. PMID: 15960212.
62. Spallicci MD, Chiea MA, Singer JM, et al. Use of hyaluronidase for cervical ripening: a randomized trial. *Eur J Obstet Gynecol Reprod Biol.* 2007 Jan;130(1):46-50. PMID: 16324780.
63. Strong TH, Jr., Hetzler G, Sarno AP, et al. Prophylactic intrapartum amnioinfusion: a randomized clinical trial. *Am J Obstet Gynecol.* 1990 Jun;162(6):1370-4; discussion 4-5. PMID: 2193511.
64. Trueba G, Contreras C, Velazco MT, et al. Alternative strategy to decrease cesarean section: support by Doulas during labor. *J Perinat Educ.* 2000;9(2):8-13. PMID: 17273201.
65. Vayssiere C, David E, Meyer N, et al. A French randomized controlled trial of ST-segment analysis in a population with abnormal cardiotocograms during labor. *Am J Obstet Gynecol.* 2007 Sep;197(3):299 e1-6. PMID: 17826428.
66. Waldenstrom U, Nilsson CA, Winblad B. The Stockholm birth centre trial: maternal and infant outcome. *Br J Obstet Gynaecol.* 1997 Apr;104(4):410-8. PMID: 9141576.
67. Waldenstrom U, McLachlan H, Forster D, et al. Team midwife care: maternal and infant outcomes. *Aust N Z J Obstet Gynaecol.* 2001 Aug;41(3):257-64. PMID: 11592538.
68. Windrim R, Seaward PG, Hodnett E, et al. A randomized controlled trial of a bedside partogram in the active management of primiparous labour. *J Obstet Gynaecol Can.* 2007 Jan;29(1):27-34. PMID: 17346475.

69. Berglund A, Lefevre-Cholay H, Bacci A, et al. Successful implementation of evidence-based routines in Ukrainian maternities. *Acta Obstet Gynecol Scand.* 2010;89(2):230-7. PMID: 20121338.
70. Bickell NA, Zdeb MS, Applegate MS, et al. Effect of external peer review on cesarean delivery rates: a statewide program. *Obstet Gynecol.* 1996 May;87(5 Pt 1):664-7. PMID: 8677064.
71. Boylan P, Frankowski R, Rountree R, et al. Effect of active management of labor on the incidence of cesarean section for dystocia in nulliparas. *Am J Perinatol.* 1991 Nov;8(6):373-9. PMID: 1814299.
72. Calvo A, Campillo C, Juan M, et al. Effectiveness of a multifaceted strategy to improve the appropriateness of cesarean sections. *Acta Obstet Gynecol Scand.* 2009;88(7):842-5. PMID: 19488884.
73. Dillon WP, Choate JW, Nusbaum ML, et al. Obstetric care and cesarean birth rates: a program to monitor quality of care. *Obstet Gynecol.* 1992 Nov;80(5):731-7. PMID: 1407907.
74. Gilstrap LC, 3rd, Hauth JC, Toussaint S. Cesarean section: changing incidence and indications. *Obstet Gynecol.* 1984 Feb;63(2):205-8. PMID: 6694814.
75. Gregory KD, Hackmeyer P, Gold L, et al. Using the continuous quality improvement process to safely lower the cesarean section rate. *Jt Comm J Qual Improv.* 1999 Dec;25(12):619-29. PMID: 10605652.
76. Iglesias S, Burn R, Saunders LD. Reducing the cesarean section rate in a rural community hospital. *CMAJ.* 1991 Dec 1;145(11):1459-64. PMID: 1959105.
77. Kazandjian VA, Lied TR. Cesarean section rates: effects of participation in a performance measurement project. *Jt Comm J Qual Improv.* 1998 Apr;24(4):187-96. PMID: 9589331.
78. Kim CY, Ko SK, Kim KY. Are league tables controlling epidemic of caesarean sections in South Korea? *BJOG.* 2005 May;112(5):607-11. PMID: 15842285.
79. Kiwanuka AI, Moore WM. Influence of audit and feedback on use of caesarean section in a geographically-defined population. *Eur J Obstet Gynecol Reprod Biol.* 1993 Jun;50(1):59-64. PMID: 8365537.
80. Lagrew DC, Jr., Morgan MA. Decreasing the cesarean section rate in a private hospital: success without mandated clinical changes. *Am J Obstet Gynecol.* 1996 Jan;174(1 Pt 1):184-91. PMID: 8572004.
81. Liang WH, Yuan CC, Hung JH, et al. Effect of peer review and trial of labor on lowering cesarean section rates. *J Chin Med Assoc.* 2004 Jun;67(6):281-6. PMID: 15366405.
82. Maher CF, Cave DG, Haran MV. Cesarean section rate reduced. *Aust N Z J Obstet Gynaecol.* 1994 Aug;34(4):389-92. PMID: 7848224.
83. Main EK. Reducing cesarean birth rates with data-driven quality improvement activities. *Pediatrics.* 1999 Jan;103(1 Suppl E):374-83. PMID: 9917479.
84. Myers SA, Gleicher N. The Mount Sinai cesarean section reduction program: an update after 6 years. *Soc Sci Med.* 1993 Nov;37(10):1219-22. PMID: 8272900.
85. Myers SA, Gleicher N. A successful program to lower cesarean-section rates. *N Engl J Med.* 1988 Dec 8;319(23):1511-6. PMID: 3185675.
86. Oleske DM, Glandon GL, Tancredi DJ, et al. Information dissemination and the cesarean birth rate. The Illinois experience. *Int J Technol Assess Health Care.* 1992 Fall;8(4):708-18. PMID: 1464490.
87. Poma PA. Effect of departmental policies on cesarean delivery rates: a community hospital experience. *Obstet Gynecol.* 1998 Jun;91(6):1013-8. PMID: 9611015.
88. Porreco RP. Meeting the challenge of the rising cesarean birth rate. *Obstet Gynecol.* 1990 Jan;75(1):133-6. PMID: 2296410.
89. Pridjian G, Hibbard JU, Moawad AH. Cesarean: changing the trends. *Obstet Gynecol.* 1991 Feb;77(2):195-200. PMID: 1988880.
90. Robson MS, Scudamore IW, Walsh SM. Using the medical audit cycle to reduce cesarean section rates. *Am J Obstet Gynecol.* 1996;174(1):199-205. PMID: 8572006.
91. Rust OA, Place JC, Melendez D, et al. Lowering the cesarean rate at a small USAF hospital. *Mil Med.* 1993 Jan;158(1):22-6. PMID: 8437736.
92. Sanchez-Ramos L, Kaunitz AM, Peterson HB, et al. Reducing cesarean sections at a teaching hospital. *Am J Obstet Gynecol.* 1990 Sep;163(3):1081-7; discussion 7-8. PMID: 2403133.
93. Sloan NL, Pinto E, Calle A, et al. Reduction of the cesarean delivery rate in Ecuador. *Int J Gynaecol Obstet.* 2000 Jun;69(3):229-36. PMID: 10854864.
94. Smith JE, Fisher DL, Endorf-Olson JJ. Integrating patient satisfaction into performance measurement to meet improvement challenges. *Jt Comm J Qual Improv.* 2000 May;26(5):277-86. PMID: 18350772.
95. Socol ML, Garcia PM, Peaceman AM, et al. Reducing cesarean births at a primarily private university hospital. *Am J Obstet Gynecol.* 1993 Jun;168(6 Pt 1):1748-54; discussion 54-8. PMID: 8317517.
96. Studnicki J, Rimmel R, Campbell R, et al. The impact of legislatively imposed practice guidelines on cesarean section rates: the Florida experience. *Am J Med Qual.* 1997 Spring;12(1):62-8. PMID: 9116534.
97. Tay SK, Tsakok FH, Ng CS. The use of intradepartmental audit to contain cesarean section rate. *Int J Gynaecol Obstet.* 1992 Oct;39(2):99-103. PMID: 1358722.

Appendix F. Applicability Summary Tables

- Table F1. Key Question 1—Applicability for Antenatal Care
- Table F2. Key Question 2—Applicability for Management of Labor
- Table F3. Key Question 2—Applicability for Psychosocial Support
- Table F4. Key Question 2—Applicability for Pain Management
- Table F5. Key Question 2—Applicability for Fetal Assessments
- Table F6. Key Question 2—Applicability for Amnioinfusion
- Table F7. Key Question 2—Applicability for Other Interventions

Table F1. Key Question 1—applicability for antenatal care

Domain	Description of applicability of evidence compared to question
Population	<p>The populations of patients from which the study participants were selected varied considerably across the studies. The control group CS rate (surrogate for baseline event rate) ranged from 9-49% - the rate was high in women with fear of vaginal birth (48%) and in women with a low Bishop score (49%); the control group rate in 5 studies of women with a low risk pregnancy ranged from 9-26%. The control group rate in a study of women at high risk for CS was 15%.</p> <p>Only one of the eight studies conducted in USA.</p> <p>The target population is likely to differ in many characteristics, including baseline risk of Cesarean, willingness to accept risk, pregnancy complications, and demographics.</p>
Intervention	<p>The interventions differed considerably. The antenatal care model studies were conducted in Australia and Sweden; the intervention in the antenatal care model studies might be unavailable to difficult to implement in U.S. settings because of the requirements for trained experienced midwives who are integrated into a system of care.</p> <p>The other interventions could be replicated in the U.S. in many target populations and settings.</p>
Comparators	<p>The antenatal care model studies were conducted in Australia and Sweden, where the standard care model differs from the standard care model at many U.S. centers.</p> <p>The comparator in the other intervention studies was consistent with usual care in U.S. settings.</p>
Outcomes	<p>The outcome of interest was the Cesarean section procedure. The definition and validation of this outcome would apply to any target population. However, the classification of indications for Cesarean may differ considerably in different countries and different regions and centers.</p>
Setting	<p>The studies were international; only one of eight studies conducted in USA.</p> <p>All of the antenatal care model studies were conducted 12-20 years ago, and standards may have changed. The other studies were conducted within the last 5-12 years.</p>

Table F2. Key Question 2—applicability for management of labor

Domain	Description of applicability of evidence compared to question
Population	Most of the studies (15 of 17) only included nulliparous women. Five of the studies focused on women whose labors had become abnormal. The control group cesarean rate (surrogate for baseline event rate) ranged from 1.6% to 51.1%.
Intervention	The interventions differed considerably and were categorized as early labor assessment, measurement of labor progress, active management of labor, management of abnormal labor, amniotomy, and increased intravenous fluids. Even within categories, interventions were not consistent. For example, what constituted active management of labor varied across studies. All of the interventions could be replicated in the United States in many target populations and settings.
Comparators	Partograms are not commonly used in the United States and were used as the comparator in some studies. The comparators in the other studies were consistent with usual care in U.S. settings.
Outcomes	The outcome of interest was cesarean. The definition and validation of this outcome would apply to any target population. However, the classification of indications for cesarean may differ considerably in different countries and different regions and centers.
Setting	Many of the studies were international; only 6 of 17 studies were conducted in the United States. The most recent U.S. study, which also included study sites in Canada, was conducted 7 years ago. The other U.S. studies were conducted 11-24 years ago. Seven of the 11 international studies were conducted in the past 8 years.

Table F3. Key Question 2—applicability for psychosocial support

Domain	Description of applicability of evidence compared to question
Population	<p>The baseline cesarean rates for the population from which participants were selected varied across studies. The baseline cesarean rate in three of the doula support studies ranged from 18 to 40 percent. The baseline cesarean rate in the nursing support studies ranged from 9.8 to 20 percent.</p> <p>There was some variation in the countries in which studies were conducted. Three of the four doula studies were conducted in the US and one in Mexico. The nursing labor support studies were held in Canada, Canada and the US and in Finland.</p> <p>All participants in the doula support studies were nullips. Two of the nursing support studies included both nullips and multips.</p> <p>The mean age for one doula support study was higher than mean age for the other studies. The mean age for the nursing support studies were similar.</p> <p>The race/ethnicity and socio-economic backgrounds of study populations varied significantly across studies.</p>
Intervention	The type of training and experience levels of labor support persons varied considerably across studies.
Comparators	The comparator groups received usual labor care. The studies did not uniformly describe usual labor care. Usual labor care may differ considerably by country.
Outcomes	The outcome of interest was cesarean births, which is defined uniformly across studies.
Setting	Study settings varied somewhat. Two doula support studies were conducted at academic hospitals and two at community hospitals. Two hospitals served were tertiary care facilities. Two of the nursing support studies were conducted at academic hospitals and one at 9 academic and 4 community hospitals. Some of these sites were reported to be tertiary care facilities.

Table F4. Key Question 2—applicability for pain management

Domain	Description of applicability of evidence compared to question
Population	The populations of patients varied considerably in the seven studies. The percent of nulliparous women ranged from 0 to 100%. The rates of Cesarean sections in these studies ranged from 2 to 16 percent Only two of the seven studies were conducted in the USA. The target population is likely to differ in many characteristics, including baseline risk of Cesarean, willingness to accept risk, pregnancy complications, and demographics.
Intervention	Six studies used epidural analgesia but the medications and dosages were unique in each study. Drugs, dosages and methods of administration have changed over time. There are regional differences in analgesia use (i.e. meperidine is widely used worldwide but not popular in the US).
Comparators	The comparators used in these studies was another form of analgesia (either different medication or dose).Drugs and dosages, as well as method of administration have changed over time (i.e meperidine is now less popular in the US)
Outcomes	The outcome of interest was the Cesarean section procedure. The definition and validation of this outcome would apply to any target population. However, the classification of indications for Cesarean may differ considerably in different countries and different regions and centers.
Setting	The studies were international; only two of seven studies were conducted in the USA. All of the studies were conducted within the past 2 decades.

Table F5. Key Question 2—applicability for fetal assessments

Domain	Description of applicability of evidence compared to question
Population	<p>The populations of patients from which the study participants were selected varied considerably across the studies. The control group CS rate (surrogate for baseline event rate) ranged from 4.7- 48.1%.</p> <p>Two of six studies conducted in USA.</p> <p>The target population is likely to differ from the remaining studies in baseline risk of Cesarean, demographics, willingness to accept risk, and pregnancy complications.</p>
Intervention	<p>The interventions using fetal pulse oximetry were similar among studies. Although the fetal pulse oximetry intervention has been utilized in 2 multi-center U.S. trials, and could be replicated in the U.S. in many target populations and settings, it might prove challenging to implement for routine use in U.S. settings because of the requirements for trained experienced hospital personnel.</p> <p>The interventions using STAN monitoring were similar among studies. The use of STAN might also be difficult to implement in U.S. settings because of the requirements for trained experienced hospital personnel.</p>
Comparators	<p>Two of the studies were conducted in the U.S. The remaining four studies were conducted in Germany, France, Australia, and Finland, where the standard care model does not appear consistent with usual care in U.S. settings.</p>
Outcomes	<p>The outcome of interest was the Cesarean section procedure. The definition and validation of this outcome would apply to any target population. However, the classification of indications for Cesarean may differ considerably in different countries and different regions and centers.</p>
Setting	<p>Four studies were international; only two of six studies conducted in USA.</p> <p>All of the fetal monitoring studies were conducted within the last 4-11 years.</p>

Table F6. Key Question 2—applicability for amnioinfusion

Domain	Description of applicability of evidence compared to question
Population	<p>The populations of patients from which the study participants were selected varied considerably across the studies. The control group CS rate (surrogate for baseline event rate) ranged from 12.3-68%.</p> <p>Only one of the eight studies was conducted in USA. The remaining seven studies were conducted in India, Egypt, South Africa and Zimbabwe.</p> <p>The actual target population is likely to differ in many characteristics, including baseline risk of cesarean, demographics, access to standard care, willingness to accept risk, and pregnancy complications.</p>
Intervention	<p>The intervention differed slightly between studies in terms of rates of infusion and total fluid goals of the transcervical amnioinfusion. The amnioinfusion studies appear easy to implement in the U.S. in many target populations and settings because the materials needed are tend to be readily available and the intervention appears simple and relatively easy to perform.</p>
Comparators	<p>Three of the amnioinfusion studies were conducted in India (2) and Zimbabwe (1), where the standard care model differs from the standard care model at many U.S. centers. The comparator in the remaining five intervention studies were consistent with usual care in U.S. settings.</p>
Outcomes	<p>The outcome of interest was the Cesarean section procedure. The definition and validation of this outcome would apply to any target population. However, the classification of indications for Cesarean may differ considerably in different countries and different regions and centers.</p>
Setting	<p>The studies were international; only one of eight studies conducted in USA. Seven of the amnioinfusion studies were conducted within the last 1-13 years. The remaining study, performed in the U.S. was conducted 21 years ago during which time standards may have changed.</p>

Table F7. Key Question 2—applicability for other interventions

Domain	Description of applicability of evidence compared to question
Population	Six of the studies were limited to nulliparous women, with only the walking study including both parous and nulliparous women. The control group cesarean rate (surrogate for baseline event rate) varied widely, ranging from 6-57%. Four of the seven studies were conducted in USA.
Intervention	The interventions differed considerably, including devices, activities, acupuncture, and one medical intervention. With the exception of the obstetric belt tested in a UK study which may not be available commercially in the US, the other interventions could likely be replicated in the United States
Comparators	Four studies were conducted in the United States, two in the United Kingdom, and one in Puerto Rico. The comparators in the other intervention studies were consistent with usual care in U.S. settings. The studies were published within the last fifteen years, with four published in the last five years.
Outcomes	The outcome of interest was the cesarean section procedure. The definition and validation of this outcome would apply to any target population. However, the classification of indications for cesarean may differ considerably in different countries and different regions and centers.
Setting	Three of the studies were international and four were conducted in the United States. Five studies focused on an academic health care setting and two included nonacademic centers.

Appendix G. Strength of the Evidence Calculator

Table G1. Strength of the evidence calculator

Domain:	Risk of Bias judgment (aggregate quality of studies)			Consistency			Directness			Precision		Subtotal numeric
Category	Low	Mod	High	Consistent	Inconsistent	NA (single study)	Direct	Indirect		Precise	Imprecise	
Subcategory								Surrogate outcome	Indirect comparator			
Numeric rating	4	3	2	0	-1	-0.5 or -1	0	-1	-1	0	-0.5 or -1	
Study A												

Table G2. Interpretation of results

Numeric Score	Strength of Evidence	Interpretation
3.5-4	High	Highly confident of true effect, further research unlikely to change confidence
2.5-3.5	Moderate	Moderately confident of true effect, further research may change confidence and may change effect estimate
1-2.5	Low	Not confident of true effect, further research likely to change confidence and estimate of effect
1-2.5 or NA	Insufficient	Available evidence inadequate for conclusion: too weak, too sparse, too inconsistent

Appendix H. Summary PICOTS Table

Table H1. Summary of PICOTS (population, intervention, comparator, timing and setting) of cesarean reduction strategies in RCTs

Author, Year Country	Population	Intervention/ Comparator (n)	Timing	Setting
World Health Organization, 1994 ¹ Indonesia, Thailand, Malaysia	NR	Baseline (10,049)	During Labor	NR
		Use of WHO partogram to guide active management of labor and decisions about cesarean (9,130)		
Abdel-Aleem et al., 2005 ² Egypt	Academic single site	Standard obstetric care without amnioinfusion (219)	During Labor	Labor and delivery suite
		Transcervical amnioinfusion (219)		
Adamsons et al., 1999 ³ Puerto Rico	Academic single site	Usual care (23)	During Labor	Labor and delivery suite
		Propranolol labor (34)		
Ajadi et al., 2006 ⁴ Nigeria	Academic single site	No amniotomy on admission (64)	During Labor	Labor and delivery suite
		Amniotomy on admission (64)		
Althabe et al., 2004 ⁵ South America	NR	Usual care (39,175)	During Labor	NR
		Mandatory second opinion by evidence-based guidelines for indications (34,735)		
Asher et al., 2009 ⁶ US	Academic single site	Acupuncture (30)	During Labor	Clinic
		Usual care (no acupuncture) (30)		
		Sham acupuncture (29)		
Barakat et al., 2009 ⁷ Spain	Academic single site	No exercise training (80)	During Pregnancy	Other
		Exercise training (80)		
Bernitz et al., 2011 ⁸ Norway	Academic single site	Special unit (282)	During Labor	Labor and delivery suite
		Normal unit (417)		
		Midwife-led unit (412)		
Bidgood et al., 1987 ⁹ UK	Academic single site	Observation (20)	During Labor	Antenatal clinic Labor and delivery suite
		High-dose oxytocin (19)		
		Low-dose oxytocin (21)		
Bloom et al., 1998 ¹⁰ US	Non-academic single site Community	Usual care (531)	During Labor	Labor and delivery suite
		Walking during 1 st stage of labor (536)		
Bloom et al., 2006 ¹¹ US	Academic multisite	Fetal pulse oximetry with oxygen saturation not displayed to clinician (2,712)	During Labor	Labor and delivery suite
		Fetal pulse oximetry with oxygen saturation displayed to clinician (2,629)		

Table H1. Summary of PICOTS (population, intervention, comparator, timing and setting) of cesarean reduction strategies in RCTs (continued)

Author, Year Country	Population	Intervention/ Comparator (n)	Timing	Setting
Campbell et al., 2006 ¹² US	Academic single site	Standard Care (300) Lay doula support (298)	During Labor	Ambulatory care center, diner, homes, various locations
Choudhary et al., 2010 ¹³ India	Academic single site	Standard obstetric care without amnioinfusion (146) Transcervical amnioinfusion (146)	During Labor	Hospital, labor and delivery suite
Cohen et al., 1987 ¹⁴ US	Community Practice	Control (75) Early aggressive management (75)	During Labor	Labor and delivery suite
Cox et al., 1999 ¹⁵ UK	Non-academic single site	Usual Care (240) Inflatable obstetric belt (260)	During Labor	Labor and delivery suite
East et al., 2006 ¹⁶ Australia	Academic multisite	Fetal monitoring with cardioocography only (295) Fetal monitoring without cardiotocography and fetal pulse oximetry (306)	During Labor	Labor and delivery suite
Elferink-Stinkens et al., 2004 ¹⁷ Netherlands	NR	Unusual care (>130,000) Report of departmental data with table and graph form with follow-up (130,000)	During Labor	NR
Frigoletto et al., 1995 ¹⁸ US	Academic single site	Active management (1,009) Usual care (906)	During Labor	Labor and delivery suite
Gagnon et al., 1997 ¹⁹ Canada	Academic single site	Usual nursing care (204) One-to-one nursing care (209)	During Labor	Labor and delivery suite
Gambling et al., 1998 ²⁰ US	Academic single site	Intravenous meperidine analgesia (607) Combined spinal-epidural anesthesia (616)	During Labor	Labor and delivery suite
Garite et al., 2000 ²¹ US	Academic single site	Standard intravenous fluids of 125 ml/hr (94) Increased intravenous fluids (101)	During Labor	Labor and delivery suite
Garite et al., 2000 ²² US	Academic multisite	Fetal monitoring with cardiotocography only (502) Fetal monitoring with cardiotocography and fetal pulse oximetry (508)	During Labor	Labor and delivery suite

Table H1. Summary of PICOTS (population, intervention, comparator, timing and setting) of cesarean reduction strategies in RCTs (continued)

Author, Year Country	Population	Intervention/ Comparator (n)	Timing	Setting
Hamilton et al., 2004 ²³ US & Canada	NR	Labor progress evaluated by plotting cervical dilatation against time (2,514) Computerized reference range used to evaluate labor progress (2,474)	During Labor	NR
Harper et al., 2006 ²⁴ US	Academic single site	Usual care (26) Acupuncture sessions (30)	During Labor	Clinic
Harvey et al., 1996 ²⁵ Canada	Non-academic multi site	Physician care (93) Nurse-midwife care (101)	During Labor	Clinic, labor and delivery suite
Hemminki et al., 1990 ²⁶ Finland	Academic single site	Usual care (118) Midwifery student support (122)	During Labor	Labor and delivery suite
Hinshaw et al., 2008 ²⁷ UK	Non-academic multi site	Delayed oxytocin (204) Early oxytocin (208)	During Labor	Clinic
Hodnett et al., 2002 ²⁸ US & Canada	Multi-site (9 academic and 4 non-academic)	Usual care (3,461) Nurse support (3,454)	During Labor	Labor and delivery suite
Hofmeyr et al., 1998 ²⁹ South Africa	Academic multisite	Standard obstetric care without amnioinfusion (176) Transcervical amnioinfusion (176)	During Labor	Labor and delivery suite
Homer et al., 2001 ³⁰ Australia	NR	Standard hospital-based care(539) Community-based model care (550)	During Pregnancy	Antenatal clinics, public hospital labor and delivery suite
Jalil et al., 2009 ³¹ Malaysia	Academic single site	IM pethidine analgesia (98) Epidural ropivacaine 0.2% with fentanyl 2 µg/ml (94)	During Labor	Labor and delivery suite
Janssen et al., 2006 ³² Canada	Multi site	Telephone triage (731) Home-based triage (728)	During Labor	Other

Table H1. Summary of PICOTS (population, intervention, comparator, timing and setting) of cesarean reduction strategies in RCTs (continued)

Author, Year Country	Population	Intervention/ Comparator (n)	Timing	Setting
Karraz, 2003 ³³ France	Non-academic single site	Intermittent epidural bolus injections of 0.1% ropivacaine with 0.6 µg/ml sufentanil, non-ambulatory (74)	During Labor	Labor and delivery suite
		Intermittent epidural bolus injections of 0.1% ropivacaine with 0.6 µg/ml sufentanil, ambulatory (141)		
Kennell et al., 1991 ³⁴ US	Community practice	Control group assigned after birth (204)	During Labor	Labor and delivery suite
		Received support of a doula (212)		
		Observed by an inconspicuous observer (200)		
Kuhnert et al., 2004 ³⁵ Germany	NR	Fetal monitoring with cardiotocography and fetal scalp blood sampling only (73)	During Labor	NR
		Fetal monitoring with cardiotocography and fetal pulse oximetry and fetal scalp blood sampling (73)		
Lavender et al., 1998 ³⁶ UK	Academic single site	3-hour partogram (302)	During Labor	Labor and delivery suite
		4-hour partogram (311)		
		2-hour partogram (315)		
Lavender et al., 2006 ³⁷ UK	Academic single site	4-hour partogram (1,485)	During Labor	Labor and delivery suite, birthing center
		2-hour partogram (1,490)		
Lopez-Zeno et al., 1992 ³⁸ US	Community practice	Traditional management (354)	During Labor	Labor and delivery suite
		Active management (351)		
Mahomed et al., 1998 ³⁹ Zimbabwe	Academic multisite	Standard obstetric care without amnioinfusion (336)	During Labor	Labor and delivery suite
		Transcervical amnioinfusion (325)		
Matsuo et al., 2009 ⁴⁰ US	Academic single site	Usual care (32)	During Labor	Hospital, labor and delivery suite
		Dental support device during active pushing (32)		
McGrath and Kennell, 2008 ⁴¹ US	Community practice (childbirth education classes in the greater Cleveland area)	Routine care (196)	During Labor	Labor and delivery suite
		Doula support (224)		
McNiven et al., 1998 ⁴² Canada	Academic single site	Direct admission (104)	During Labor	Labor and delivery suite
		Early labor assessment (105)		

Table H1. Summary of PICOTS (population, intervention, comparator, timing and setting) of cesarean reduction strategies in RCTs (continued)

Author, Year Country	Population	Intervention/ Comparator (n)	Timing	Setting
Mehrangiz et al., 2004 ⁴³ Iran	Academic single site	Promethazine only (50) Paracervical block with promethazine (50)	During Labor	Labor and delivery suite
Moodley et al., 1998 ⁴⁴ South Africa	Academic single site	Standard obstetric care without amnioinfusion (30) Transcervical amnioinfusion (30)	During Labor	Labor and delivery suite
Nicholson et al., 2008 ⁴⁵ US	Academic multisite	Standard care (134) Induction of labor (136)	During Pregnancy	Labor and delivery suite
Norris et al., 2001 ⁴⁶ US	Academic single site	Epidural analgesia (1112) Combined spinal-epidural anesthesia (1071)	During Labor	Labor and delivery suite
Ojala et al., 2006 ⁴⁷ Finland	Academic single site	Fetal monitoring with cardiotocography only (739) Fetal monitoring with STAN (733)	During Labor	Labor and delivery suite
Olofsson et al., 1998 ⁴⁸ Sweden	Academic single site	Epidural anesthesia with high dose local anesthetic (0.25% bupivacaine with adrenaline) (435) Epidural anesthesia with low dose (0.125% bupivacaine with sufentanil 10 µg) (422)	During Labor	Labor and delivery suite
O'Sullivan et al., 2009 ⁴⁹ UK	Academic single site	Usual care (1,216) Allowed to eat during labor (1,227)	During Labor	Hospital, labor and delivery suite
Palomäki et al., 2006 ⁵⁰ Finland	Academic single site	Oxytocin plus placebo (55) Oxytocin plus propranolol (55)	During Labor	Labor and delivery suite
Pattinson et al., 2003 ⁵⁰ South Africa	Academic single site	Expectant management (350) Aggressive management (344)	During Labor	Labor and delivery suite
Phipps et al., 2009 ⁵¹ Australia	Academic single site	Standard care (50) Structured education for pushing (50)	During Pregnancy	Antenatal Class
Rathor et al., 2002 ⁵³ India	Academic single site	Standard obstetric care without amnioinfusion (100) Transcervical amnioinfusion (100)	During Labor	Labor and delivery suite

Table H1. Summary of PICOTS (population, intervention, comparator, timing and setting) of cesarean reduction strategies in RCTs (continued)

Author, Year Country	Population	Intervention/ Comparator (n)	Timing	Setting
Regi et al., 2009 ⁵⁴ India	Academic single site	Standard obstetric care without amnioinfusion (75) Transcervical amnioinfusion (75)	During Labor	Labor and delivery suite
Rogers et al., 1997 ⁵⁵ US	Academic single site	Usual care (205) Active management (200)	During Labor	Labor and delivery suite
Sadler et al., 2000 ⁵⁶ New Zealand	Academic single site	Routine management (331) Active management (320) Usual care (906)	During Labor	Labor and delivery suite
Saisto et al., 2001 ⁵⁷ Finland	Community	Conventional therapy (91) Intensive therapy (85)	During Pregnancy	Clinic
Sanchez-Ramos et al., 1996 ⁵⁸ US	Academic single site	Oxytocin plus placebo (47) Oxytocin plus propranolol (49)	During Labor	Labor and delivery suite
Scheepers et al., 2002 ⁵⁹ Netherlands	Academic single site	Placebo (99) Oral carbohydrate solution (102)	During Labor	Labor and delivery suite
Skrablin et al., 2011 ⁶⁰ Croatia	Academic single site	Continuous epidural (104) Intermittent epidural (101)	During Labor	Labor and delivery suite
Somprasit et al., 2005 ⁶¹ Thailand	Academic single site	Conventional management (640) Active management (320)	During Labor	Labor and delivery suite
Spallicci et al., 2007 ⁶² Brazil	Academic single site	Placebo cervical injection (85) Hyaluronidase injection in cervix (83)	During Pregnancy	Labor and delivery suite
Strong et al., 1990 ⁶³ US	Academic single site	Standard care (30) Amnioinfusion (30)	During Labor	Labor and delivery suite
Trueba et al., 2000 ⁶⁴ Mexico	Community Practice	Standard care (50) Childbirth educator trained as doula (50)	During Labor	Labor and delivery suite

Table H1. Summary of PICOTS (population, intervention, comparator, timing and setting) of cesarean reduction strategies in RCTs (continued)

Author, Year Country	Population	Intervention/ Comparator (n)	Timing	Setting
Vayssiere et al., 2007 ⁶⁵ France	Academic multisite	Fetal monitoring with cardiotocography only (400) Fetal monitoring with cardiotocography and STAN (399)	During Labor	Labor and delivery suite
Waldenstrom et al., 1997 ⁶⁶ Sweden	Non-academic single site	Standard maternity care (932) Birth center care (928)	During Pregnancy	Labor and delivery suite
Waldenstrom et al., 2001 ⁶⁷ Sweden	Non-academic single site	Standard care (505) Team midwife care (495)	During Pregnancy	Clinic, labor and delivery suite
Windrim et al., 2007 ⁶⁸ Canada	Academic multisite	Labor progress documented by standard sequential notes (962) Partogram added to standard written labor progress notes (970)	During Labor	Labor and delivery suite

References

1. World Health Organization partograph in management of labour. World Health Organization Maternal Health and Safe Motherhood Programme. *Lancet*. 1994 Jun 4;343(8910):1399-404. PMID: 7910888.
2. Abdel-Aleem H, Amin AF, Shokry M, et al. Therapeutic amnioinfusion for intrapartum fetal distress using a pediatric feeding tube. *Int J Gynaecol Obstet*. 2005 Aug;90(2):94-8. PMID: 15913621.
3. Adamsons K, de la Vega A, Santiago P. Reduction in the cesarean section rate in nulliparous patients after administration of intravenous propranolol. *P R Health Sci J*. 1999 Mar;18(1):5-8. PMID: 10343980.
4. Ajadi MA, Kuti O, Orji EO, et al. The effect of amniotomy on the outcome of spontaneous labour in uncomplicated pregnancy. *J Obstet Gynaecol*. 2006 Oct;26(7):631-4. PMID: 17071428.
5. Althabe F, Belizan JM, Villar J, et al. Mandatory second opinion to reduce rates of unnecessary caesarean sections in Latin America: a cluster randomised controlled trial. *Lancet*. 2004 Jun 12;363(9425):1934-40. PMID: 15194252.
6. Asher GN, Coeytaux RR, Chen W, et al. Acupuncture to initiate labor (Acumoms 2): a randomized, sham-controlled clinical trial. *J Matern Fetal Neonatal Med*. 2009 Oct;22(10):843-8. PMID: 19526433.
7. Barakat R, Ruiz JR, Stirling JR, et al. Type of delivery is not affected by light resistance and toning exercise training during pregnancy: a randomized controlled trial. *Am J Obstet Gynecol*. 2009 Dec;201(6):590 e1-6. PMID: 19608151.
8. Bernitz S, Rolland R, Blix E, et al. Is the operative delivery rate in low-risk women dependent on the level of birth care? A randomised controlled trial. *BJOG*. 2011 Oct;118(11):1357-64. PMID: 21749629.
9. Bidgood KA, Steer PJ. A randomized control study of oxytocin augmentation of labour. 1. Obstetric outcome. *Br J Obstet Gynaecol*. 1987 Jun;94(6):512-7. PMID: 3620398.
10. Bloom SL, McIntire DD, Kelly MA, et al. Lack of effect of walking on labor and delivery. *N Engl J Med*. 1998 Jul 9;339(2):76-9. PMID: 9654537.
11. Bloom SL, Spong CY, Thom E, et al. Fetal pulse oximetry and cesarean delivery. *N Engl J Med*. 2006 Nov 23;355(21):2195-202. PMID: 17124017.
12. Campbell DA, Lake MF, Falk M, et al. A randomized control trial of continuous support in labor by a lay doula. *J Obstet Gynecol Neonatal Nurs*. 2006 Jul-Aug;35(4):456-64. PMID: 16881989.
13. Choudhary D, Bano I, Ali SM. Does amnioinfusion reduce caesarean section rate in meconium-stained amniotic fluid. *Arch Gynecol Obstet*. 2010 Jul;282(1):17-22. PMID: 19685066.
14. Cohen GR, O'Brien WF, Lewis L, et al. A prospective randomized study of the aggressive management of early labor. *Am J Obstet Gynecol*. 1987 Nov;157(5):1174-7. PMID: 3688070.
15. Cox J, Cotzias CS, Siakpere O, et al. Does an inflatable obstetric belt facilitate spontaneous vaginal delivery in nulliparae with epidural analgesia? *Br J Obstet Gynaecol*. 1999 Dec;106(12):1280-6. PMID: 10609722.
16. East CE, Brennecke SP, King JF, et al. The effect of intrapartum fetal pulse oximetry, in the presence of a nonreassuring fetal heart rate pattern, on operative delivery rates: a multicenter, randomized, controlled trial (the FOREMOST trial). *Am J Obstet Gynecol*. 2006 Mar;194(3):606 e1-16. PMID: 16522387.
17. Elferink-Stinkens PM, Brand R, Amelink-Verburg MP, et al. Randomised clinical trial on the effect of the Dutch obstetric peer review system. *Eur J Obstet Gynecol Reprod Biol*. 2002 Apr 10;102(1):21-30. PMID: 12039085.
18. Frigoletto FD, Jr., Lieberman E, Lang JM, et al. A clinical trial of active management of labor. *N Engl J Med*. 1995 Sep 21;333(12):745-50. PMID: 7643880.
19. Gagnon AJ, Waghorn K, Covell C. A randomized trial of one-to-one nurse support of women in labor. *Birth*. 1997 Jun;24(2):71-7. PMID: 9271971.
20. Gambling DR, Sharma SK, Ramin SM, et al. A randomized study of combined spinal-epidural analgesia versus intravenous meperidine during labor: impact on cesarean delivery rate. *Anesthesiology*. 1998 Dec;89(6):1336-44. PMID: 9856707.
21. Garite TJ, Weeks J, Peters-Phair K, et al. A randomized controlled trial of the effect of increased intravenous hydration on the course of labor in nulliparous women. *Am J Obstet Gynecol*. 2000 Dec;183(6):1544-8. PMID: 11120525.
22. Garite TJ, Dildy GA, McNamara H, et al. A multicenter controlled trial of fetal pulse oximetry in the intrapartum management of nonreassuring fetal heart rate patterns. *Am J Obstet Gynecol*. 2000 Nov;183(5):1049-58. PMID: 11084540.
23. Hamilton E, Platt R, Gauthier R, et al. The effect of computer-assisted evaluation of labor on cesarean rates. *J Healthc Qual*. 2004 Jan-Feb;26(1):37-44. PMID: 14763319.
24. Harper TC, Coeytaux RR, Chen W, et al. A randomized controlled trial of acupuncture for initiation of labor in nulliparous women. *J Matern Fetal Neonatal Med*. 2006 Aug;19(8):465-70. PMID: 16966110.
25. Harvey S, Jarrell J, Brant R, et al. A randomized, controlled trial of nurse-midwifery care. *Birth*. 1996 Sep;23(3):128-35. PMID: 8924098.
26. Hemminki E, Virta A, Koponen P. A trial on continuous human support during labor; Feasibility, interventions and mothers' satisfaction. *J Psychosom Obstet Gynaecol*. 1990;11(4):239-50.
27. Hinshaw K, Simpson S, Cummings S, et al. A randomised controlled trial of early versus delayed oxytocin augmentation to treat primary dysfunctional labour in nulliparous women. *BJOG*. 2008 Sep;115(10):1289-95; discussion 95-6. PMID: 18715415.

28. Hodnett ED, Lowe NK, Hannah ME, et al. Effectiveness of nurses as providers of birth labor support in North American hospitals: a randomized controlled trial. *JAMA*. 2002 Sep 18;288(11):1373-81. PMID: 12234231.
29. Hofmeyr GJ, Gulmezoglu AM, Buchmann E, et al. The Collaborative Randomised Amnioinfusion for Meconium Project (CRAMP): 1. South Africa. *Br J Obstet Gynaecol*. 1998 Mar;105(3):304-8. PMID: 9532991.
30. Homer CS, Davis GK, Brodie PM, et al. Collaboration in maternity care: a randomised controlled trial comparing community-based continuity of care with standard hospital care. *BJOG*. 2001 Jan;108(1):16-22. PMID: 11212998.
31. Jalil NA, Omar M. Does ropivacaine 0.2% with fentanyl change the labour epidural profile? *Int Med J*. 2009;16(2):149-55. PMID: 2010326522.
32. Janssen PA, Still DK, Klein MC, et al. Early labor assessment and support at home versus telephone triage: a randomized controlled trial. *Obstet Gynecol*. 2006 Dec;108(6):1463-9. PMID: 17138781.
33. Karraz MA. Ambulatory epidural anesthesia and the duration of labor. *Int J Gynaecol Obstet*. 2003 Feb;80(2):117-22. PMID: 12566183.
34. Kennell J, Klaus M, McGrath S, et al. Continuous emotional support during labor in a US hospital. A randomized controlled trial. *JAMA*. 1991 May 1;265(17):2197-201. PMID: 2013951.
35. Kuhnert M, Schmidt S. Intrapartum management of nonreassuring fetal heart rate patterns: a randomized controlled trial of fetal pulse oximetry. *Am J Obstet Gynecol*. 2004 Dec;191(6):1989-95. PMID: 15592281.
36. Lavender T, Alfirevic Z, Walkinshaw S. Partogram action line study: a randomised trial. *Br J Obstet Gynaecol*. 1998 Sep;105(9):976-80. PMID: 9763048.
37. Lavender T, Alfirevic Z, Walkinshaw S. Effect of different partogram action lines on birth outcomes: a randomized controlled trial. *Obstet Gynecol*. 2006 Aug;108(2):295-302. PMID: 16880298.
38. Lopez-Zeno JA, Peaceman AM, Adashek JA, et al. A controlled trial of a program for the active management of labor. *N Engl J Med*. 1992 Feb 13;326(7):450-4. PMID: 1732771.
39. Mahomed K, Mulambo T, Woelk G, et al. The Collaborative Randomised Amnioinfusion for Meconium Project (CRAMP): 2. Zimbabwe. *Br J Obstet Gynaecol*. 1998 Mar;105(3):309-13. PMID: 9532992.
40. Matsuo K, Mudd JV, Kopelman JN, et al. Duration of the second stage of labor while wearing a dental support device: a pilot study. *J Obstet Gynaecol Res*. 2009 Aug;35(4):672-8. PMID: 19751326.
41. McGrath SK, Kennell JH. A randomized controlled trial of continuous labor support for middle-class couples: effect on cesarean delivery rates. *Birth*. 2008 Jun;35(2):92-7. PMID: 18507579.
42. McNiven PS, Williams JI, Hodnett E, et al. An early labor assessment program: a randomized, controlled trial. *Birth*. 1998 Mar;25(1):5-10. PMID: 9534499.
43. Mehrangiz Z, Sogra R, Malihe A. Randomized clinical trial to study the effect of paracervical block on reducing pain, improving APGAR Score and on accelerating the active phase of labor. *Internet J Pain, Symptom Control & Palliative Care*. 2004;3(1):7p. PMID: 2004164008.
44. Moodley J, Matchaba P, Payne AJ. Intrapartum amnioinfusion for meconium-stained liquor in developing countries. *Trop Doct*. 1998 Jan;28(1):31-4. PMID: 9481194.
45. Nicholson JM, Parry S, Caughey AB, et al. The impact of the active management of risk in pregnancy at term on birth outcomes: a randomized clinical trial. *Am J Obstet Gynecol*. 2008 May;198(5):511 e1-15. PMID: 18455526.
46. Norris MC, Fogel ST, Conway-Long C. Combined spinal-epidural versus epidural labor analgesia. *Anesthesiology*. 2001 Oct;95(4):913-20. PMID: 11605932.
47. Ojala K, Vaarasmaki M, Makikallio K, et al. A comparison of intrapartum automated fetal electrocardiography and conventional cardiotocography--a randomised controlled study. *BJOG*. 2006 Apr;113(4):419-23. PMID: 16553653.
48. Olofsson C, Eklom A, Ekman-Ordeberg G, et al. Obstetric outcome following epidural analgesia with bupivacaine-adrenaline 0.25% or bupivacaine 0.125% with sufentanil--a prospective randomized controlled study in 1000 parturients. *Acta Anaesthesiol Scand*. 1998 Mar;42(3):284-92. PMID: 9542554.
49. O'Sullivan G, Liu B, Hart D, et al. Effect of food intake during labour on obstetric outcome: randomised controlled trial. *BMJ*. 2009;338:b784. PMID: 19318702.
50. Palomaki O, Uotila J, Tammela O, et al. A double blind, randomized trial on augmentation of labour with a combination of intravenous propranolol and oxytocin versus oxytocin only. *Eur J Obstet Gynecol Reprod Biol*. 2006 Mar 1;125(1):44-9. PMID: 16051416.
51. Pattinson RC, Howarth GR, Mdluli W, et al. Aggressive or expectant management of labour: a randomised clinical trial. *BJOG*. 2003 May;110(5):457-61. PMID: 12742329.
52. Phipps H, Charlton S, Dietz HP. Can antenatal education influence how women push in labour? *Aust N Z J Obstet Gynaecol*. 2009 Jun;49(3):274-8. PMID: 19566559.
53. Rathor AM, Singh R, Ramji S, et al. Randomised trial of amnioinfusion during labour with meconium stained amniotic fluid. *BJOG*. 2002 Jan;109(1):17-20. PMID: 11843370.
54. Regi A, Alexander N, Jose R, et al. Amnioinfusion for relief of recurrent severe and moderate variable decelerations in labor. *J Reprod Med*. 2009 May;54(5):295-302. PMID: 19517694.
55. Rogers R, Gilson GJ, Miller AC, et al. Active management of labor: does it make a difference? *Am J Obstet Gynecol*. 1997 Sep;177(3):599-605. PMID: 9322630.
56. Sadler LC, Davison T, McCowan LM. A randomised controlled trial and meta-analysis of active management of labour. *BJOG*. 2000 Jul;107(7):909-15. PMID: 10901564.

57. Saisto T, Salmela-Aro K, Nurmi JE, et al. A randomized controlled trial of intervention in fear of childbirth. *Obstet Gynecol.* 2001 Nov;98(5 Pt 1):820-6. PMID: 11704175.
58. Sanchez-Ramos L, Quillen MJ, Kaunitz AM. Randomized trial of oxytocin alone and with propranolol in the management of dysfunctional labor. *Obstet Gynecol.* 1996 Oct;88(4 Pt 1):517-20. PMID: 8841209.
59. Scheepers HC, Thans MC, de Jong PA, et al. A double-blind, randomised, placebo controlled study on the influence of carbohydrate solution intake during labour. *BJOG.* 2002 Feb;109(2):178-81. PMID: 11911101.
60. Skrablin S, Grgic O, Mihaljevic S, et al. Comparison of intermittent and continuous epidural analgesia on delivery and progression of labour. *J Obstet Gynaecol.* 2011;31(2):134-8. PMID: 21281028.
61. Somprasit C, Tanprasertkul C, Kamudhamas A. Reducing cesarean delivery rates: an active management labor program in a setting with limited resources. *J Med Assoc Thai.* 2005 Jan;88(1):20-5. PMID: 15960212.
62. Spallicci MD, Chiea MA, Singer JM, et al. Use of hyaluronidase for cervical ripening: a randomized trial. *Eur J Obstet Gynecol Reprod Biol.* 2007 Jan;130(1):46-50. PMID: 16324780.
63. Strong TH, Jr., Hetzler G, Sarno AP, et al. Prophylactic intrapartum amnioinfusion: a randomized clinical trial. *Am J Obstet Gynecol.* 1990 Jun;162(6):1370-4; discussion 4-5. PMID: 2193511.
64. Trueba G, Contreras C, Velazco MT, et al. Alternative strategy to decrease cesarean section: support by Doulas during labor. *J Perinat Educ.* 2000;9(2):8-13. PMID: 17273201.
65. Vayssiere C, David E, Meyer N, et al. A French randomized controlled trial of ST-segment analysis in a population with abnormal cardiotocograms during labor. *Am J Obstet Gynecol.* 2007 Sep;197(3):299 e1-6. PMID: 17826428.
66. Waldenstrom U, Nilsson CA, Winbladh B. The Stockholm birth centre trial: maternal and infant outcome. *Br J Obstet Gynaecol.* 1997 Apr;104(4):410-8. PMID: 9141576.
67. Waldenstrom U, McLachlan H, Forster D, et al. Team midwife care: maternal and infant outcomes. *Aust N Z J Obstet Gynaecol.* 2001 Aug;41(3):257-64. PMID: 11592538.
68. Windrim R, Seaward PG, Hodnett E, et al. A randomized controlled trial of a bedside partogram in the active management of primiparous labour. *J Obstet Gynaecol Can.* 2007 Jan;29(1):27-34. PMID: 17346475.