NICE National Institute for Health and Care Excellence

NICE Pathways

Intrapartum care for women with existing medical conditions overview

NICE Pathways bring together everything NICE says on a topic in an interactive flowchart. NICE Pathways are interactive and designed to be used online.

They are updated regularly as new NICE guidance is published. To view the latest version of this NICE Pathway see:

http://pathways.nice.org.uk/pathways/intrapartum-care-for-women-with-existing-medical-conditions
NICE Pathway last updated: 05 March 2019

This document contains a single flowchart and uses numbering to link the boxes to the associated recommendations.

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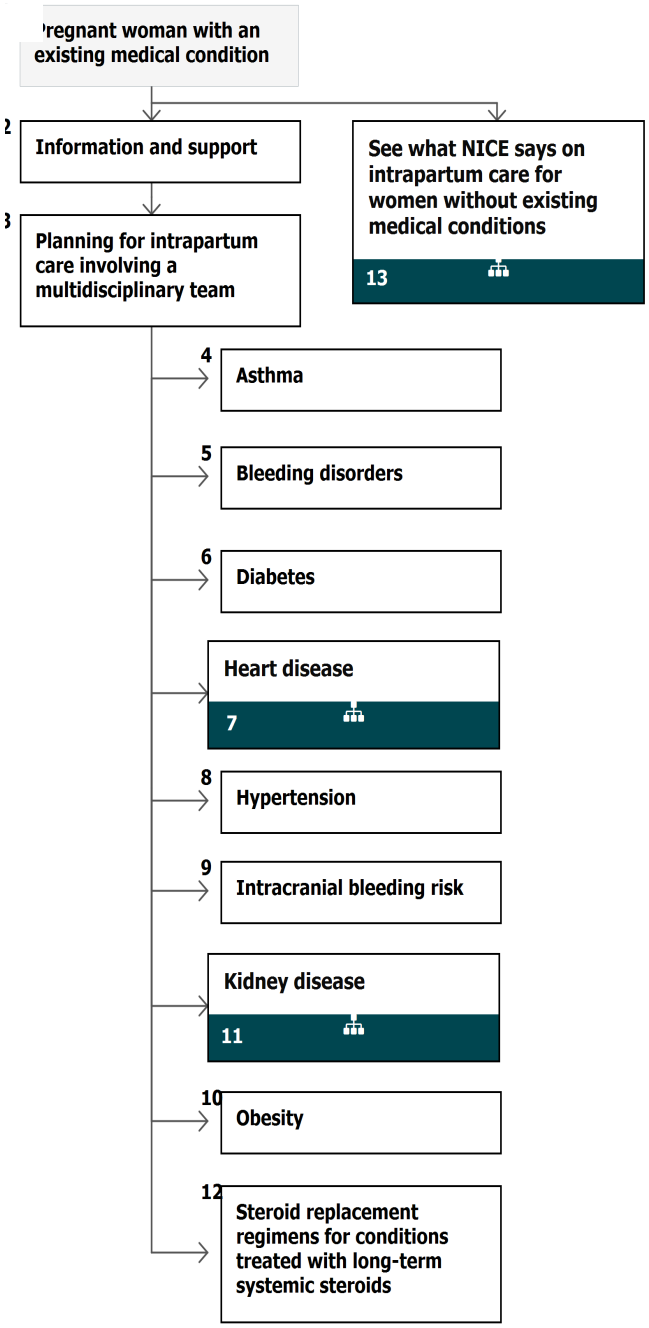

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1 Pregnant woman with an existing medical condition

No additional information

2 Information and support

Clarify with women with existing medical conditions whether and how they would like their birth companion(s) involved in discussions about care during labour and birth. Review this regularly.

Offer pregnant women with medical conditions and their birth companion(s) information about intrapartum care. This should include:

- general information as outlined in the NICE recommendations on intrapartum care for healthy women and babies
- how their medical condition may affect their care
- how labour and birth may affect their medical condition
- how their medical condition and its management may affect the baby.

Information should be presented as recommended in patient experience in adult NHS services.

Offer information about intrapartum care in consultations before conception, if possible, and as early as possible during pregnancy. Allow extra time to discuss with the woman how her medical condition may affect her care.

Information about intrapartum care should be offered to women with medical conditions by a member of the multidisciplinary team.

If a pregnant woman with a medical condition has not had any antenatal care (see no antenatal care), give her information about intrapartum care at her first contact with healthcare services during pregnancy.

NICE has written information for the public on intrapartum care for women with existing medical conditions or obstetric complications and their babies.

Rationale and impact

See the NICE guideline to find out why we made these recommendations and how they might affect practice.

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3 Planning for intrapartum care involving a multidisciplinary team

A multidisciplinary team led by a named healthcare professional should involve a pregnant woman with a medical condition in preparing an individualised plan for intrapartum care. The plan should be:

- formulated by following the principles of shared decision making outlined in the NICE recommendations on patient experience in adult NHS services
- reviewed with the woman and her birth companion(s) as early as possible throughout pregnancy and on admission for birth
- updated with the woman if her medical condition changes during pregnancy
- shared with the woman's GP and teams providing her antenatal and intrapartum care.

For pregnant women with a medical condition, the multidisciplinary team may include, as appropriate:

- a midwife
- an obstetrician
- an obstetric anaesthetist
- an obstetric physician or clinician with expertise in caring for pregnant women with the medical condition
- a clinician with expertise in the medical condition
- a specialty surgeon
- a critical care specialist
- a neonatologist
- the woman's GP
- allied health professionals.

Rationale and impact

See the NICE guideline to find out why we made these recommendations and how they might affect practice.

4 Asthma

Analgesia

Offer women with asthma the same options for pain relief during labour as women without

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asthma, including:

- Entonox (50% nitrous oxide plus 50% oxygen)
- intravenous and intramuscular opioids
- epidural
- combined spinal–epidural analgesia.

See the NICE guideline to find out why we made this recommendation and how it might affect practice.

Prostaglandins

Do not offer prostaglandin F2 alpha (carboprost) to women with asthma because of the risk of bronchospasm.

Consider prostaglandin E1 or prostaglandin E2 as options for inducing labour in women with asthma because there is no evidence that they worsen asthma.

Consider prostaglandin E1 as an option for treating postpartum haemorrhage in women with asthma because there is no evidence it worsens asthma.

See the NICE guideline to find out why we made these recommendations and how they might affect practice.

5 Bleeding disorders

Regional anaesthesia and analgesia

Discuss the balance of benefits and risks of regional analgesia and anaesthesia with women with bleeding disorders.

When considering regional analgesia and anaesthesia for women with bleeding disorders, take into account:

- the overall risk of bleeding and opportunity for corrective treatment
- therapeutic and prophylactic anticoagulation
- the risk of bleeding associated with the technique to be used
- the difficulty of needle siting or insertion
- the comparative risks associated with no analgesia or non-regional analgesia

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- the comparative risks of general anaesthesia.

See the NICE guideline to find out why we made these recommendations and how they might affect practice.

Modifying the birth plan according to platelet count or function

For woman with known immune thrombocytopenic purpura, before admission for birth:

- plan birth in an obstetric-led unit with a neonatal unit that routinely provides high-dependency care
- plan as if the baby will be at risk of bleeding irrespective of the woman's platelet count
- consider monitoring maternal platelet count weekly from 36 weeks, and if the platelet count is below 50:
    - discuss and agree a plan for intrapartum care with the multidisciplinary team, including a haematologist
- consider giving steroids or intravenous immunoglobulin to raise the maternal platelet count.

For women with known immune thrombocytopenic purpura, on admission for birth:

- measure maternal platelet count
- manage intrapartum care according to the table on modifying the birth plan according to maternal platelet count in women with immune thrombocytopenic purpura or gestational thrombocytopenia [See page 13].

For women with known or suspected immune thrombocytopenic purpura, take the following precautions to reduce the risk of bleeding for the baby:

- inform the neonatal team of the imminent birth of a baby at risk
- do not carry out fetal blood sampling
- use fetal scalp electrodes with caution
- do not use ventouse
- use mid-cavity or rotational forceps with caution
- bear in mind that a caesarean section may not protect the baby from bleeding
- measure the platelet count in the umbilical cord blood at birth.

Modify the birth plan based on maternal platelet count, using the table on modifying the birth plan according to maternal platelet count in women with immune thrombocytopenic purpura or gestational thrombocytopenia [See page 13] as a guide, for women with:

- gestational thrombocytopenia (without pre-eclampsia and HELLP syndrome, and otherwise well)

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- an uncertain diagnosis of immune thrombocytopenic purpura.

See the NICE guideline to find out why we made these recommendations and how they might affect practice.

Management of the third stage of labour

Be aware that women with bleeding disorders are at increased risk of primary and secondary postpartum haemorrhage.

Offer active management rather than physiological management of the third stage of labour for women with bleeding disorders, in line with the NICE guidance on intrapartum care for healthy women and babies (see active and physiological management).

For women with bleeding disorders, avoid giving uterotonics by intramuscular injection.

Offer individualised postpartum care, as discussed with a senior haematologist, for women with bleeding disorders, to include:

- measurement of blood loss
- monitoring obstetric complications
- monitoring haematological parameters.

Be aware that non-steroidal anti-inflammatory drugs can add to the risk of bleeding.

Before discharge from hospital, inform women with bleeding disorders of the risk of secondary bleeding postpartum and how to access care.

See the NICE guideline to find out why we made these recommendations and how they might affect practice.

6 Diabetes

See what NICE says on planning birth and blood glucose control during labour and birth for women with pre-existing or gestational diabetes.

7 Heart disease

See Intrapartum care for women with existing medical conditions / Intrapartum care for women

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with heart disease

8 Hypertension

See what NICE says on intrapartum care for women with hypertension in pregnancy.

9 Intracranial bleeding risk

Mode of birth and management of the second stage of labour for women with subarachnoid haemorrhage or arteriovenous malformation of the brain

Involve the multidisciplinary team in risk assessment for women with a cerebrovascular malformation or a history of intracranial bleeding. Include the woman in care planning and a clinician with expertise in managing neurovascular conditions in pregnant women.

Care for women with cerebrovascular malformation at low risk of intracranial bleeding

Classify the risk of intrapartum intracranial bleeding as low if a woman has:

- a fully treated cerebrovascular malformation **or**
- intracranial bleeding of unknown cause following investigation, which occurred more than 2 years ago.

For women with a cerebrovascular malformation at low risk of intracranial bleeding, base decisions on the mode of birth on the woman's preference and obstetric indications.

For women with a cerebrovascular malformation at low risk of intracranial bleeding, manage the second stage of labour based on the woman's preference and obstetric indications.

Care for women with cerebrovascular malformation at high risk of intracranial bleeding

Classify the risk of intrapartum intracranial bleeding as high if a woman has:

- an untreated or partially treated cerebrovascular malformation that has bled previously
- a large aneurysm (7 mm or more) or an aneurysm with other high-risk features as defined by a neuroradiologist
- a complex arteriovenous malformation
- cavernoma with high-risk features
- intracranial bleeding within the past 2 years.

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Consider caesarean section for women who are at high risk of cerebral haemorrhage, after a full discussion with the woman of the benefits and risks of all the options.

For women at high risk of cerebral haemorrhage who prefer to aim for a vaginal birth or are in the second stage of labour:

- offer regional analgesia **and**
- explain the benefits and risks of an assisted second stage of labour compared with active pushing alone.

For women who present for the first time in labour with a history of cerebrovascular malformation or intracranial bleeding and unknown risk of intracranial bleeding, manage as high risk and follow recommendations above.

Do not withhold regional analgesia or anaesthesia from women with an isolated cerebrovascular malformation unless they have a genetic predisposition to multiple vascular malformations or unknown genetic history.

Rationale and impact

See the NICE guideline to find out why we made these recommendations and how they might affect practice.

10 Obesity

Assessing fetal presentation early in labour

Consider ultrasound scanning at the start of established labour if the baby's presentation is uncertain for women with a BMI over 30 kg/m^2 at the booking appointment, particularly those with a BMI over 35 kg/m^2.

See the NICE guideline to find out why we made this recommendation and how it might affect practice.

Fetal monitoring

Base intrapartum fetal monitoring on the woman's preference and obstetric indications (including no antenatal care), in line with the NICE guidance on intrapartum care for healthy women and babies (see fetal monitoring during labour), for women with a BMI over 30 kg/m^2 at

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the booking appointment and no medical complications.

See the NICE guideline to find out why we made this recommendation and how it might affect practice.

Position in labour

For women with a BMI over 30 kg/m^2 at the booking appointment, carry out a risk assessment in the third trimester. When developing the birth plan with the woman, take into account:

- the woman's preference
- the woman's mobility
- comorbidities
- the woman's current or most recent weight.

For women with a BMI over 30 kg/m^2 at the booking appointment and reduced mobility in the third trimester, consider advising the lateral position in the second stage of labour.

For women with a BMI over 30 kg/m^2 at the booking appointment and adequate mobility, provide care in the second stage of labour in line with the NICE guidance on intrapartum care for healthy women and babies (see care in second stage of labour).

See the NICE guideline to find out why we made these recommendations and how they might affect practice.

Equipment needs

All obstetric units should have 'birthing beds' able to take a safe working load of 250 kg.

Carry out a risk assessment to ensure that essential equipment, in a size-appropriate form, is available for the intrapartum care of women with a BMI over 30 kg/m^2 at the booking appointment, including:

- surgical, obstetric and anaesthetic equipment
- blood pressure cuffs
- operating theatre tables
- lifting and lateral transfer equipment
- anti-embolism stockings
- wheelchairs

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- monitoring and measuring equipment.

For women with a BMI over 50 kg/m^2 at the booking appointment, offer referral to an obstetric unit with suitable equipment and expertise as early as possible in pregnancy, if this is not available in their current unit.

See the NICE guideline to find out why we made these recommendations and how they might affect practice.

11 Kidney disease

See Intrapartum care for women with existing medical conditions / Intrapartum care for women with kidney disease

12 Steroid replacement regimens for conditions treated with long-term systemic steroids

Be aware that maternal corticosteroids given antenatally for fetal lung maturation should not affect the advice given in recommendations below

For women planning a vaginal birth who have adrenal insufficiency or who are taking long-term oral steroids (equivalent to 5 mg or more prednisolone daily for more than 3 weeks):

- continue their regular oral steroids **and**
- when they are in established first stage of labour, add intravenous or intramuscular hydrocortisone and consider a minimum dose of 50 mg every 6 hours until 6 hours after the baby is born.

For women having a planned or emergency caesarean section who have adrenal insufficiency or who are taking long-term oral steroids (equivalent to 5 mg or more prednisolone daily for more than 3 weeks):

- continue their regular oral steroids **and**
- give intravenous hydrocortisone when starting anaesthesia; the dose will depend on whether the woman has received hydrocortisone in labour, for example:
    - consider giving 50 mg if she has had hydrocortisone in labour
    - consider giving 100 mg if she has not had hydrocortisone in labour
- give a further dose of hydrocortisone 6 hours after the baby is born (for example, 50 mg intravenously or intramuscularly).

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Do not offer supplemental hydrocortisone in the intrapartum period to women taking inhaled or topical steroids.

Rationale and impact

See the NICE guideline to find out why we made these recommendations and how they might affect practice.

13 See what NICE says on intrapartum care for women without existing medical conditions

See Intrapartum care

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Modifying the birth plan according to maternal platelet count in women with immune thrombocytopenic purpura or gestational thrombocytopenia

Maternal platelet count	Maternal care	Fetal and neonatal care
Platelet count above 80 × 10^9/l	Treat the woman as healthy for the purpose of considering regional analgesia and anaesthesia	If the woman has ITP or suspected ITP, assume the baby is at risk of bleeding and take the following precautions: • inform the neonatal team of the imminent birth of a baby at risk • do not carry out fetal blood sampling • use fetal scalp electrodes with caution • do not use ventouse • use mid-cavity or rotational forceps with caution • bear in mind that a caesarean section may not protect the baby from bleeding • measure the platelet count in the umbilical cord blood at birth. If the woman has gestational thrombocytopenia, assume the baby has a normal risk of bleeding
Platelet count 50 to 80 × 10^9/l	Before considering regional analgesia and anaesthesia, take into account: • clinical history • the woman's preferences • anaesthetic expertise	
Platelet count below 50 × 10^9/l	Avoid regional analgesia and anaesthesia under most circumstances	

Glossary

aPTT

activated partial thromboplastin time

ECG

electrocardiogram

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INR

international normalised ratio

intrapartum period

(from the onset of labour [spontaneous or induced] to 24 hours after birth)

ITP

immune thrombocytopenic purpura

mechanical heart valves

(prosthetic heart valves that require long-term anticoagulation to prevent heart valve thrombosis [this is different from bioprosthetic heart valves, which do not need long-term anticoagulation])

NT-proBNP

N-terminal pro-brain natriuretic peptide

NYHA

New York Heart Association

regional anaesthesia

(includes spinal, epidurals and combined spinal–epidural techniques)

regional analgesia

(includes spinal, epidurals and combined spinal–epidural techniques)

WHO

World Health Organization

Sources

Intrapartum care for women with existing medical conditions or obstetric complications and their

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babies (2019) NICE guideline NG121

Your responsibility

Guidelines

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.

Local commissioners and providers of healthcare have a responsibility to enable the guideline to be applied when individual professionals and people using services wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with complying with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Technology appraisals

The recommendations in this interactive flowchart represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, health professionals are expected to take these recommendations fully into account, alongside the individual needs, preferences and values of their patients. The application of the recommendations in this interactive flowchart is at the discretion of health professionals and their individual patients and do not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with

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the patient and/or their carer or guardian.

Commissioners and/or providers have a responsibility to provide the funding required to enable the recommendations to be applied when individual health professionals and their patients wish to use it, in accordance with the NHS Constitution. They should do so in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Medical technologies guidance, diagnostics guidance and interventional procedures guidance

The recommendations in this interactive flowchart represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, healthcare professionals are expected to take these recommendations fully into account. However, the interactive flowchart does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

Commissioners and/or providers have a responsibility to implement the recommendations, in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity, and foster good relations. Nothing in this interactive flowchart should be interpreted in a way that would be inconsistent with compliance with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

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