

## Comparison 2: Parenteral opioids (various types) compared with pethidine

### Comparison 2.a. Meptazinol intramuscular (IM) compared with pethidine (IM)

Source:† Ullman R, Smith LA, Burns E, Mori R, Dowswell T. Parenteral opioids for maternal pain management in labour. Cochrane Database Syst Rev. 2010;(9):CD007396.

No. of studies	Study design	Quality assessment					No. of participants		Effect		Certainty (GRADE)	Importance
		Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Meptazinol IM	Pethidine IM	Relative (95% CI)	Absolute (95% CI)		
<b>Pain intensity 4 or 5 on 5-point scale (1 hour after administration)</b>												
2	RCTs	serious <sup>a</sup>	not serious	not serious	very serious <sup>b</sup>	none	89/121 (73.6%)	85/118 (72.0%)	RR 1.11 (0.69-1.80)	79 more per 1000 (from 223 fewer to 576 more)	⊕○○○ VERY LOW	critical
<b>Maternal pain relief poor or none (measured 3-5 hours postnatally)</b>												
1	RCT	serious <sup>c</sup>	not serious	not serious	serious <sup>d</sup>	none	255/394 (64.7%)	260/407 (63.9%)	RR 1.01 (0.91-1.12)	6 more per 1000 (from 57 fewer to 77 more)	⊕⊕○○ LOW	critical
<b>Additional analgesia required</b>												
2	RCT	serious <sup>a</sup>	not serious	not serious	very serious <sup>b</sup>	none	81/117 (69.2%)	78/116 (67.2%)	RR 1.03 (0.88-1.20)	20 more per 1000 (from 81 fewer to 134 more)	⊕○○○ VERY LOW	critical
<b>Epidural</b>												
4	RCTs	very serious <sup>e</sup>	not serious	not serious	serious <sup>d</sup>	none	70/401 (17.5%)	70/387 (18.1%)	RR 0.96 (0.71-1.29)	7 fewer per 1000 (from 52 fewer to 52 more)	⊕○○○ VERY LOW	critical
<b>Assisted vaginal delivery</b>												
3	RCTs	serious <sup>a</sup>	not serious	not serious	serious <sup>d</sup>	none	139/629 (22.1%)	141/637 (22.1%)	RR 1.00 (0.81-1.22)	0 fewer per 1000 (from 42 fewer to 49 more)	⊕⊕○○ LOW	critical
<b>Caesarean section</b>												
3	RCTs	serious <sup>a</sup>	serious <sup>f</sup>	not serious	serious <sup>d</sup>	none	38/629 (6.0%)	43/637 (6.8%)	RR 0.56 (0.16-2.00)	30 fewer per 1000 (from 57 fewer to 68 more)	⊕○○○ VERY LOW	critical
<b>Nausea and vomiting</b>												
3	RCTs	serious <sup>a</sup>	not serious	not serious	not serious	none	235/797 (29.5%)	188/792 (23.7%)	RR 1.25 (1.06-1.47)	59 more per 1000 (from 14 more to 112 more)	⊕⊕⊕○ MODERATE	critical

† Updated for the purpose of this guideline.

No. of studies	Study design	Quality assessment					No. of participants		Effect		Certainty (GRADE)	Importance
		Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Meptazinol IM	Pethidine IM	Relative (95% CI)	Absolute (95% CI)		
<b>Maternal sleepiness</b>												
3	RCTs	serious <sup>a</sup>	not serious	not serious	serious <sup>d</sup>	none	153/797 (19.2%)	220/793 (27.7%)	RR 0.55 (0.28-1.07)	125 fewer per 1000 (from 19 more to 200 fewer)	⊕⊕○○ LOW	critical
<b>Breastfeeding problems</b>												
1	RCT	serious <sup>c</sup>	not serious	not serious	very serious <sup>g</sup>	none	3/98 (3.1%)	4/99 (4.0%)	RR 0.76 (0.17-3.30)	10 fewer per 1000 (from 34 fewer to 93 more)	⊕○○○ VERY LOW	critical
<b>Fetal heart rate changes (decelerations)</b>												
1	RCT	serious <sup>c</sup>	not serious	not serious	very serious <sup>g</sup>	none	16/17 (94.1%)	13/17 (76.5%)	RR 1.23 (0.92-1.64)	176 more per 1000 (from 61 fewer to 489 more)	⊕○○○ VERY LOW	critical
<b>Low Apgar score (≤ 7) at 5 minutes</b>												
3	RCTs	serious <sup>a</sup>	not serious	not serious	very serious <sup>h</sup>	none	1/316 (0.3%)	2/300 (0.7%)	RR 0.49 (0.05-5.37)	3 fewer per 1000 (from 6 fewer to 29 more)	⊕○○○ VERY LOW	critical
<b>Naloxone administration - gestation &lt; 36 weeks</b>												
1	RCT	serious <sup>c</sup>	not serious	not serious	very serious <sup>g</sup>	none	9/15 (60.0%)	5/8 (62.5%)	RR 0.96 (0.49-1.89)	25 fewer per 1000 (from 319 fewer to 556 more)	⊕○○○ VERY LOW	critical
<b>Naloxone administration - gestation ≥ 36 weeks</b>												
1	RCT	serious <sup>c</sup>	not serious	not serious	serious <sup>d</sup>	none	198/479 (41.3%)	231/496 (46.6%)	RR 0.89 (0.77-1.02)	51 fewer per 1000 (from 9 more to 107 fewer)	⊕⊕○○ LOW	critical
<b>Neonatal resuscitation - gestation &lt; 36 weeks</b>												
1	RCT	serious <sup>c</sup>	not serious	not serious	very serious <sup>g</sup>	none	13/15 (86.7%)	8/8 (100.0%)	RR 0.89 (0.69-1.16)	110 fewer per 1000 (from 160 more to 310 fewer)	⊕○○○ VERY LOW	critical
<b>Neonatal resuscitation - gestation ≥ 36 weeks</b>												
2	RCTs	serious <sup>a</sup>	not serious	not serious	serious <sup>d</sup>	none	450/665 (67.7%)	464/668 (69.5%)	RR 1.00 (0.95-1.05)	0 fewer per 1000 (from 35 fewer to 35 more)	⊕⊕○○ LOW	critical

CI: confidence interval; RCT: randomized controlled trial; RR: risk ratio.

<sup>a</sup> Pooled effect derived from studies with a moderate risk of bias

<sup>b</sup> Wide confidence interval crossing the line of no effect and small sample size.

<sup>c</sup> Effect estimate derived from a single study with a moderate risk of bias.

- <sup>d</sup> Wide confidence interval crossing the line of no effect.
- <sup>e</sup> Pooled effect derived from studies with a high risk of bias.
- <sup>f</sup> Severe unexplained heterogeneity.
- <sup>g</sup> Wide confidence interval crossing the line of no effect, small sample size and few events.
- <sup>h</sup> Wide confidence interval crossing the line of no effect and few events.