PIPADOR REVISION

MRCOG Part 1 Revision Notes

Pain Relief in Labour

PHARMACOLOGY • LECTURE 393

VISUAL EXAMINATION REVISION NOTES

2026 Edition

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MRCOG PART 1 REVISION NOTES | PHARMACOLOGY

Pain Relief in Labour

Analgesic options in labour, pharmacology, neuraxial safety and complications

Epidural	Entonox	Pethidine	T10–L1 / S2–4
Most effective	50% N_2O/O_2	Neonatal depression	1st / 2nd stage pain

■ KEY FACTS: Learning objectives

- Describe pain pathways in labour and the options for analgesia.
- Describe the pharmacology, benefits and adverse effects of each method.
- Describe contraindications and complications of neuraxial analgesia.

393.1 Options

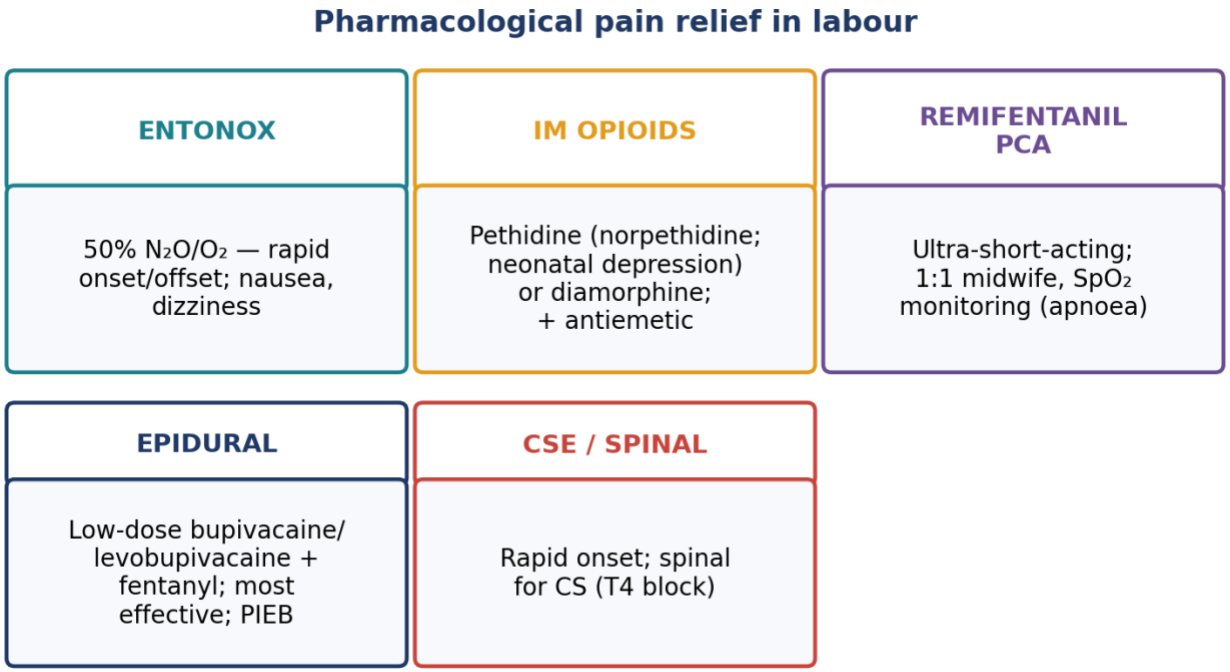


Figure 393.1 — Pharmacological pain relief in labour

Method	Key points
Non-pharmacological	Continuous support, water immersion, TENS (early labour), mobilisation, hypnobirthing
Entonox	• Self-administered • Works within 20–30 s — breathe at start of contraction • No effect on labour/neonate
IM pethidine / diamorphine	• Moderate effect, sedation, nausea (give antiemetic), maternal respiratory depression • Neonatal respiratory depression and ↓ feeding (avoid within ≈ 2–4 h of birth)

Method	Key points
Remifentanil PCA	Rapid onset/offset; risk of apnoea — continuous SpO_2, 1:1 care, O_2
Epidural	• Low-dose LA + opioid • PIEB/PCEA • ↑ 2nd stage length and instrumental birth (not CS) • Can be topped up for operative birth

393.2 Neuraxial safety

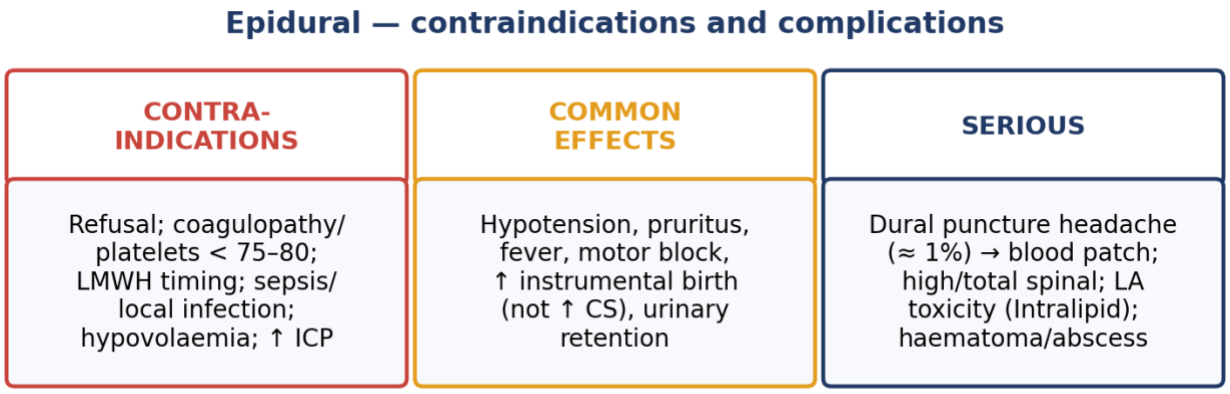


Figure 393.2 — Epidural contraindications and complications

- **Test dose and monitoring**: BP every 5 min after boluses, block height, motor block (Bromage), fetal heart rate
  - Treat hypotension with fluids/vasopressors (phenylephrine).
- **High/total spinal**: progressive weakness, hypotension, bradycardia, apnoea → airway support, vasopressors, left tilt.
- **LA systemic toxicity**: perioral tingling, tinnitus, seizures
  - Arrhythmia → stop injection, airway, benzodiazepines
  - **20% lipid emulsion**, prolonged CPR.
- **Post-dural puncture headache**: postural headache 24–72 h → analgesia, hydration, epidural blood patch.

393.3 Must-know summary

■ EXAM TIP

- 1st stage visceral T10–L1; 2nd stage somatic S2–4 (pudendal).
- Entonox, IM opioids (neonatal depression), remifentanil PCA (apnoea), epidural (most effective).
- Epidural: hypotension, fever, ↑ instrumental birth; contraindicated with coagulopathy/sepsis.
- LA toxicity → Intralipid; PDPH → blood patch.

■ MNEMONIC / MEMORY AID

Epidural complications — 'Hypotension, Headache, High block, Haematoma'.