Epidural analgesia in labour

IMPORTANT: *Consider individual clinical circumstances. Consult a pharmacopeia for complete drug information. Read the full disclaimer at https://www.health.qld.gov.au/qcg*

Aspect	Consideration
Indications	• Women in labour: o Who request or consent to epidural analgesia for pain management o Following assessment by an anaesthetist of individual clinical circumstances • Suitable at any stage of labour[1] o No significant differences in clinical outcomes dependent on timing (early versus late initiation) of epidural analgesia (nine RCTs, n=15,752)[2]
Administration	• No other opioids or sedatives unless prescribed by an anaesthetist • May be administered via patient controlled epidural analgesia (PCEA) device, intermittent bolus or infusion • Follow local protocols for: o Concomitant anti-emetic, naloxone and oxygen prescription o Preferred drug, dose and route o Device management, training, assignment of responsibility for care and escalation procedures o Documentation
Care provision	• Prior to commencement: o Ensure ready access to resuscitation equipment including vasopressors o Secure intravenous access and commence intravenous fluids o Baseline temperature, heart rate, blood pressure (BP), oxygen saturation, respiratory rate, cardiotocograph (CTG) and level of consciousness • During establishment and after intermittent bolus—five minutely BP for 15 minutes • Position left lateral/wedge to avoid aortic-caval compression • Close midwifery care (consider one to one midwifery care) • Continuous CTG[3] • Ongoing intrapartum maternal observations every 30 minutes; additionally o Assess sedation, motor weakness, back pain and catheter site o Observe for nausea, vomiting, and pruritis o As indicated, assess block height • Monitor urinary function—indwelling urinary catheter usually required • Incorporate pressure injury prevention strategies o Avoid heat packs due to potential for altered skin sensation • Consider venous thromboembolism (VTE) prophylaxis (e.g. compression stockings)
Second stage	• Consider the influence of epidural on duration of second stage when assessing progress and/or the need for intervention in both multiparous and nulliparous women
Discontinuation	• Before discontinuing, consider requirement for continuing analgesia for perineal repair • Assess motor function and proprioception prior to mobilisation

Risks and benefits

Compared to opioids (IV or IM)	with epidural
Effectiveness of pain relief (MD) -3.36, 95% CI -5.41 to -1.31, three trials, 1166 women)[4]	Increased
Maternal satisfaction (RR 1.3, 95% CI 0.84 to 2.05 eight trials, 2929 women)[4]	No difference
Low blood pressure (RR 18.23, 95% CI 5.09 to 65.35, eight trials, 2789 women)[4]	Increased
Oxytocin administration (RR 1.19, 95% CI 1.03 to 1.39, 13 trials, 5815 women)[4]	Increased
Duration of second stage (MD 13.66 minutes, 95% CI 6.67 to 20.66, 13 trials, 4233 women)[4]	Increased
Risk of instrumental birth (RR 1.42, 95% CI 1.28 to 1.57, 23 trials, 7935 women)[4]	Increased
Fever (RR 3.34, 95% CI 2.63 to 4.23, six trials, 2741 women)[4]	Increased
Overall need for caesarean section (RR 1.10, 95% CI 0.97 to 1.25, 27 trials, 8417 women)[4]	No difference
Naloxone administration to newborn (RR 0.15, 95% CI 0.10 to 0.23, 10 trials, 2645 women)[4]	Decreased
Breastfeeding initiation or maintenance[5]	Uncertain due to mixed results
Permanent neurological injury in the woman (death or permanent injury more than 6 months)[6]	0.6 per 100,000

CI: confidence interval, **MD:** mean difference; **RR:** risk ratio
[4]Evidence relates to low risk women with cephalic presentation at term and may not be applicable to other higher risk groups. Quality of evidence generally low.

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