

Benefits and Risks of Pharmaceutical Pain Management Options in Labour

Pain Relief Option	Benefits	Risks
<p>Nitrous oxide: gas mix of nitrous oxide and oxygen, aka laughing gas</p>	<ul style="list-style-type: none"> - Predictable - Reliable - Effective pain relief and sedative effect without loss of consciousness - Calming, reduces anxiety - Effect is rapid and quickly reversed - No cardiac or respiratory depression - Self-administered = sense of control - Comparable to effectiveness of narcotics injected in the muscle but without the risks associated with narcotic use 	<ul style="list-style-type: none"> - Disorientation or detachment - Sedation - Generalized tingling - Nausea - Vomiting - Dizziness
<p>Injectable Narcotics: opioid analgesics that attach to opioid receptors in brain</p>	<ul style="list-style-type: none"> - Reduced pain sensation and boost feelings of pleasure - Pain relief without losing sensation or movement - Intramuscular use for prodromal/long latent labour helps mother rest 	<ul style="list-style-type: none"> - Nausea and vomiting - Dizziness - Confusion - Itching - Newborn respiratory depression (baby doesn't breathe when it is born) - Poor breastfeeding due to poor suckling reflex - Fetal heart rate changes: use of cEFM is recommended - IV use can depress maternal heart and lung function = increased monitoring

<p>Epidural: needle used to insert catheter into lower back, continuous mix of meds is run to numb motor and sensory nerves exiting the spinal cord</p>	<ul style="list-style-type: none"> - Most effective means of pain relief in labour - Less nausea and vomiting and breathing problems than narcotics - Mother can sleep - If at high risk of a CS, having epidural in place allows for a quick top-up if needed and avoids General Anaesthesia - Safer for baby when compared to IV narcotics - Same amounts of postnatal depression, headaches, itching, shivering or drowsiness as narcotics - Intermittent auscultation can be used for monitoring fetal heart 	<ul style="list-style-type: none"> - Package of intervention: IV, frequent vital assessments, bed ridden, urinary catheter, increased fetal monitoring - Most common risk: drop in blood pressure = makes mother feel sick and affects fetal heart rate - Itching - Fever - Heavy motor-blockade - Sometimes epidural doesn't work! - Longer 1st and 2nd stages of labor - Oxytocin augmentation due to longer labour = potential fetal heart rate issues - Higher rates forceps/vacuum - Higher incidence of posterior (malpositioned) babies - Higher risk of CS if care provider doesn't allow for longer 1st and 2nd stages of labour - Increased chance of hindering breastfeeding - Less common: slowed breathing and drowsiness, spinal headache (1%), infection at the site, temporary sore back from insertion - Extremely rare: nerve damage, seizures, severe breathing difficulty, death
<p>Spinal: similar to epidural but thinner needle injects meds into the spinal fluid</p>	<ul style="list-style-type: none"> - Effective and immediate loss of feeling in the lower half - Only lasts an hour or two - Generally used for CS if time permits and epidural not in place - Same benefits as epidural 	<ul style="list-style-type: none"> - Same risks as epidural
<p>Combined Spinal Epidural</p>	<ul style="list-style-type: none"> - Benefits of both epidural and spinal: immediate pain relief with ongoing pain control via catheter in place hooked to a pump 	<ul style="list-style-type: none"> - Same risks as epidural - Spinal opioids: increased risk of dropping fetal heart rate thus guidelines suggest use of continuous electronic fetal monitoring

<p>General Anaesthetic: mix of meds to put mother to sleep, interrupts pain signals to brain</p>	<ul style="list-style-type: none"> - Quickest option for pain relief = used in emergencies for CS - Less nausea and vomiting than epidural/spinal 	<ul style="list-style-type: none"> - No memory of birth - Support team not allowed in OR - Mother is intubated, tape placed over eyes to prevent from drying out - Increased blood loss (about 100ml) but doesn't increase risk of transfusion - Sooner need for postpartum pain relief sooner than regional - No research on recovery time, impacts on bonding, breastfeeding, etc.
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