

Intrapartum pain management

Clinical Guideline Presentation v 1.0



45 minutes

Towards CPD Hours

References:

Queensland Clinical Guideline: Intrapartum pain management is the primary reference for this package.

Recommended citation:

Queensland Clinical Guidelines. Intrapartum pain management clinical guideline education presentation E23.75-1-V1-R28. Queensland Health. 2023.

Disclaimer:

This presentation is an implementation tool and should be used in conjunction with the published guideline. This information does not supersede or replace the guideline. Consult the guideline for further information and references.

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Abbreviations

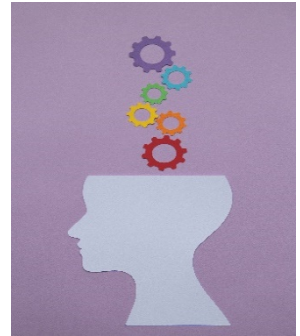
Term	Meaning
TENS	Transcutaneous electrical nerve stimulation
N ₂ O/O ₂	Nitrous oxide/oxygen
IV	Intravenous
CEFM	Continuous electronic fetal monitoring
PCA	Patient controlled analgesia
SpO ₂	Saturation of oxygen in the blood
IDC	Indwelling catheter (urinary)

Objectives

- Review physiology and neurophysiology of labour pain
- Identify the range of strategies for pain management in labour
- Discuss clinical care for pain management
- Apply the recommendations to a clinical scenario

Individualised pain response

- Feeling and perceiving pain is unique and multidimensional
- Understanding a person's views and values about labour pain is foundational to woman centred care
- Consider: genetics, culture, psychological factors, previous experiences, expectations, intentions



Discuss pain management

antenatally, in early labour, intermittently during labour, following birth

- Discuss labour pain in the context of it being a purposeful, normal, physiological event
- In a safe, supportive space with
- Support person and/or birth partners
- Communicate sensitively to encourage a flexible approach to pain management
- Use active listening to hear *their* preferences, choices, and experiences
- Share information—range of options, benefits, risks
- Satisfaction with birth experience is influenced by pain management and other feelings (e.g. feeling supported, involved in decision making, a sense of self efficacy)

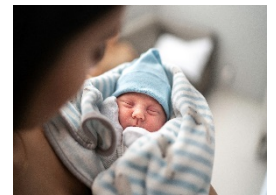
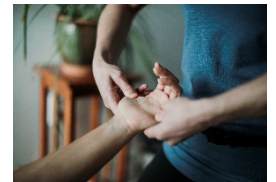
Non-pharmacological strategies

- Encourage use
 - May reduce pain, enhance relaxation, self efficacy and sense of autonomy
 - May reduce/delay use of analgesia and medical interventions
- Use strategies to enhance the body's physiological responses
 - Create pleasant stimuli to compete with painful stimuli (massage, rocking, shower)
 - Deviate attention away from the contraction (breathing, relaxation techniques, distractions)
- Use an incremental approach, start with one strategy, then add another
 - Combining strategies may improve effectiveness



Aromatherapy, Acupuncture, Acupressure, Hypnosis, Yoga

- May reduce pain intensity, anxiety and increase birth satisfaction
- Encourage engagement with qualified practitioner
- Acupressure and yoga may shorten labour length
- Insufficient evidence to recommend a specific essential oil and/or method of administration
 - Women commonly use aromatic massage oils (e.g. lavender based)
 - Consider effect on extrauterine adaptation for baby (e.g. room diffusers may be overwhelming to the newborn's sensitive olfactory system)



TENS

Transcutaneous Electrical Nerve Stimulation

- Safe for mother and baby
- May decrease labour pain and delay use of pharmacological agents
- Woman can titrate according to need
- Advise if own device is needed (hire or buy)
- 2 pairs of electrodes, aligned:
 - Thoracic vertebra 10–11
 - Sacral vertebra 2–4
- Follow manufacturers directions
(e.g. obstetric setting—frequency: 80–100 Hertz, pulse width: 220–350 microseconds)





Sterile water injections

- Safe intervention with 30–50% reduction in pain for up to 90 minutes post injection
- Repeat injections as necessary
- Techniques vary
 - o Four injection technique for back pain has longer duration
 - o Two people administering at the same time reduces administration pain

Water immersion



- Reduces intensity of labour pain
- Increases relaxation, sense of autonomy
- Higher satisfaction with birth experience
- No increase in adverse outcomes in women experiencing low risk pregnancy at term gestation
- Follow local protocols for care during water immersion



N₂O/O₂ gas

- Mild labour analgesia
- Assists relaxation, reduces anxiety
- Titrate dosage to maximise effect and minimise side effects (dizziness, light-headedness, nausea)
- If nausea, consider antiemetic
- Coach to start with, breathing in and out on mask/mouthpiece
- Woman only to hold mask/mouthpiece
- Only use in rooms with adequate air ventilation
- Use equipment to maximise safety (e.g. filters, demand valves, scavenger systems)

Opioids



- Variable results as a labour analgesic
- Best opioid is unclear (e.g. morphine, fentanyl)
 - Pethidine not recommended due to long half-life
- Consider timing of administration related to estimated time of birth to reduce impacts on baby
- Side effects may include:

Maternal	Fetal/neonatal
Nausea, vomiting, sedation	Fetal heart rate changes
Dysphoria, less engaged in decision making	Respiratory depression (influenced by administration time)
Altered maternal—baby interaction	Altered neurobehavior may impact on breast feeding

Consult a pharmacopeia for complete drug information

Remifentanyl



Remifentanyl PCA may be considered if neuraxial analgesia is contraindicated, unachievable or unwanted

- An effective opioid for analgesia
- Requires:
 - o Anaesthetic assessment prior to use
 - o One on one, **continuous** midwifery care
 - o Staff trained in administration and management
 - o Dedicated IV access with patient controlled analgesic (PCA) device
 - o CEFM
 - o SpO₂ monitoring
- Side effects: vomiting, hypotension, pruritus, sedation and respiratory depression



Neuraxial analgesia

- Effective and reliable labour analgesia
- Low concentration local anaesthetic combined with an opioid provides superior analgesia with less:
 - o Motor block
 - o Urinary retention
 - o Adverse events (prolonged second stage, assisted birth)
- Obstetric epidural risks:
 - o Hypotension
 - o Maternal hyperthermia
 - o Longer labour
 - o Increased assisted birth
 - o Urinary retention
 - o Maternal respiratory depression
 - o Inconsistent data for neonatal outcomes and breast feeding
- General complications associated with neuraxial procedures may be masked or mimicked during pregnancy by physiological changes or pregnancy complications



Bladder management following epidural

- Develop/follow local protocols
- Implement a bladder management plan within one hour of insertion
- Consider parity, stage and progress of labour, woman's preference, need for fluid balance

If IDC, plan time for removal, considering:

- Time for neuraxial medications to wear off
- Other factors that may impact on voiding dysfunction (assisted birth, perineal injury and swelling)

Use an intermittent catheter if it is estimated to be needed twice (or less), and is preferred by woman:

- Assess and insert approximately second hourly
- Male length catheter may be needed to reach bladder

If the woman requests no catheter:

- Support the woman to void second hourly
- If unable to void, or suspected bladder distention, recommend catheterisation

Neuraxial analgesia – Good practice tips

- Close midwifery care and CEFM
- Vasopressors and IV lipid emulsion readily available if emergency occurs
- Continue to promote normal birth strategies
 - Develop/follow local protocols for mobility assessment prior to supporting active positioning/mobility
- Continue epidural until after birth—early discontinuation results in inadequate analgesia and decreased maternal satisfaction

Clinical scenario 1:

Madison G1P0

- Madison has attended local birth information sessions and documented her preferences on a birth plan:
'have hired a TENS device; no opioid, would prefer an epidural if needed'
- **In early labour:** Madison is **at home** with support persons, using massage, movement and TENS and calls the midwife
- The midwife discusses her contractions, frequency and strength and checks in about baby's movements. Madison is reassured and they decide to stay home continuing with the current strategies, with a plan for a follow up phone call
- Madison arrives at the hospital a couple of hours later in **established labour**, still using the TENS device and requesting analgesia
- The midwife discusses further options and Madison decides to use the birthing ball, sterile water injections and *'the gas'* for now
- Madison progresses with lots of coaching and support from her partner, family member and midwife
- Madison states she is not sure she can continue without more analgesia and the midwife awaits her next choice

Clinical scenario 2:

Ashleigh G3P2

- Ashleigh has had two previous, uncomplicated, vaginal births
- Ashleigh intends to use natural methods (including bath) for pain relief, N₂O/O₂ mask, and prefers no epidural or opioid
- Ashleigh is in **early labour** following induction (41⁺²/40)—walking, using massage, aromatherapy and her partner is doing some acupressure
- Ashleigh slowly **establishes labour** and is becoming exhausted—has also used active positioning on the birth ball, shower, and ‘*the gas*’
- Despite effective contractions, the presenting part is not descending and caput and moulding are evident on vaginal examination
- Staff discuss the possibility of an obstructed labour and suggest an epidural
- Ashleigh consents to this and to an indwelling urinary catheter

Their births....

Madison G1P1

- Coaching and N₂O/O₂ is continued and Madison progresses to second stage and births a healthy baby
- N₂O/O₂ is also used during repair of a second degree tear



Ashleigh G3P3

- A caesarean birth is recommended following no further descent and Ashleigh has a 4400 gram healthy baby
- Ashleigh's epidural is used for anaesthesia and her partner is present for the birth



Satisfaction level with pain management

Madison G1P1

- Madison says the labour and birth were harder than what she had thought
- Madison reports that the support from her family and her midwife helped her to feel safe, as if she wasn't facing the birth on her own
- Madison recalls how painful birth is, but says she wouldn't do anything differently
- Overall Madison is satisfied with her pain management

Ashleigh G3P3

- Ashleigh and her partner feel shocked about needing a caesarean and disappointed
- Ashleigh is pleased that the epidural worked well and that her partner could stay with her
- Ashleigh says the way staff explained things was helpful in understanding the events
- Whilst it isn't what they had expected they are very satisfied with the pain management and their care experience

Summary and reflection ...

- Discussing labour pain management during the antenatal, labouring and postnatal periods supports women-centred care
- A range of pain management strategies are individualised to the woman's preferences, choices and clinical circumstances
- Level of satisfaction with pain management is multidimensional (e.g. previous experiences, expectations, involvement in decision making and feelings of support from care givers)
- What other reflections do you have?