OBSTETRICS AND GYNAECOLOGY
CLINICAL PRACTICE GUIDELINE

Pain Management – Obstetrics [NEW]

Scope (Staff):	WNHS Obstetrics and Gynaecology Directorate staff
Scope (Area):	Obstetrics and Gynaecology Directorate clinical areas at KEMH, OPH and home visiting (e.g. Visiting Midwifery Services, Community Midwifery Program and Midwifery Group Practice)

This document should be read in conjunction with this Disclaimer

Contents

Background

Effective pain management is a critical component of intrapartum care, contributing significantly to maternal satisfaction, psychological well-being, and overall birth outcomes. While pharmacological options remain essential in many clinical contexts, there is increasing emphasis within obstetric practice on the integration of complementary, non-pharmacological measures for labour pain relief. These interventions—such as hydrotherapy, massage, acupuncture, relaxation and breathing techniques, transcutaneous electrical nerve stimulation (TENS), and continuous labour support—offer evidence-based benefits including reduced perception of pain, decreased use of pharmacological analgesia, and improved maternal experiences of labour and birth.

Key points

- Labour pain is an individual experience influenced by previous experiences, psychological and physiological responses and cultural and environmental factors.
- Pain management strategies should support maternal choice, maternal and neonatal safety and the progress of labour.
- Effective pain management should be woman-centred and responsive to individual preferences and needs.
- A stepwise approach, beginning with non-pharmacological options and progressing to pharmacological methods if required, may be appropriate in many circumstances as may combination approaches.
- Maternal choice is paramount and the provision of appropriate analgesia should not be delayed unnecessarily.
- Continuous one-to-one support during labour is associated with reduced use of analgesia.

Intrapartum Pain Management Flowchart

Flowchart: Summary of intrapartum pain management

Good practice points

- Discuss labour pain management antenatally, early in labour, intermittently during labour
- Share information to support decision making and enhance sense of autonomy
- Consider values, beliefs, culture, expectations, intentions, previous experiences
- Support the woman's preferences, choices and promote a flexible approach
- Create clinical spaces that feel calm, safe and private
- Provide known carers whenever possible
- Sensitively discuss normal labour sensations as physiological and purposeful—less fear, intervention and greater self-efficacy
- Encourage support person/s to provide continuous presence, praise and advocacy
- If heightened anxiety or fear of childbirth, offer additional support/referral
- Audit feedback about pain management and impact on birth experience
- Consider environmental impact of pain relief strategies

Non-pharmacological strategies

- Align strategies with the body's physiology/psychology to alter or change response to labour sensations/pain
- Offer reduction in pain intensity with few or no adverse effects
- Combine strategies/use alongside pharmacological agents (if chosen) to increase relief

Neurotransmitter release
- Acupuncture
- Acupressure
- Distraction
- Sterile water injections

Gate control theory
- Massage, touch, warmth
- Movement, active positioning
- TENS
- Water immersion

CNS activation
- Aromatherapy
- Breathing
- Hypnosis
- Mindfulness
- Yoga

Pharmacological options

- Consider side effects and impact on labour and birth
- Efficacy and outcomes unclear due to conflicting findings and limited high quality evidence

Nitrous oxide/oxygen
- Mild inhalation analgesia
- Use in any stage of active labour
- Consider contraindications
- Side effects (e.g. nausea, vomiting, dizziness)
- Self administer only
- Coach with breathing: inhale—exhale via mask/ mouthpiece
- Combine with other strategies (e.g. TENS)
- Use in well ventilated space
- Use safety equipment (e.g. filters) and demand valve to reduce occupational exposure

Opioids
- Variable analgesic response
- Follow local prescribing protocols
- Side effects (e.g. nausea, vomiting, drowsiness, sedation, dysphoria)
- Consider anti-emetic
- Changes in FHR more likely
- Consider estimated TOB prior to administration and possible post-natal impacts
- If neuraxial analgesia isn't an option, consider remifentanil or fentanyl via PCA

Neuraxial analgesia
- Most effective pharmacological method
- Use in any stage of labour following anaesthetic assessment
- May be clinically indicated (e.g. for hypertensive or cardiac conditions)
- Gain IV access
- Low concentration LA with opioid reduces motor block
- Additional surveillance (e.g. CEFM, motor weakness, block height)
- Mobility assessment prior to active positioning
- Bladder management required
- May increase length of labour
- Increased likelihood of assisted birth, maternal hyperthermia, antibiotic use

CNS: central nervous system; **>:** greater than; **TENS:** transcutaneous electrical nerve stimulation; **TOB:** time of birth, **FHR:** fetal heart rate, **PCA:** patient controlled analgesic, **IV:** intravenous; **LA:** local anaesthetic; **CEFM:** continuous electronic fetal monitoring; **IDC:** indwelling catheter

Flowchart: F23.75-1-V1-R28

From*Queensland Clinical Guidelines*:*Intrapartum pain management MN23.75-V1-R28* . Queensland Health. 2023. Available from: Guideline: Intrapartum pain management. Reprinted with permission.

Non-pharmacological Obstetric Pain Management

Complementary Therapies

Some studies suggest that complementary therapies can help women feel in control of their labour and require less medication to reduce pain**.**

1. Hypnotherapy

Hypnotherapy supports a calm and focused birthing environment by reducing anxiety and promoting relaxation. Techniques taught in hypnobirthing classes aim to reduce fear and tension, which may otherwise hinder the effective functioning of the birthing muscles. This approach may contribute to a more positive labour experience and improve coping during contractions.

- Provide a quiet, peaceful, low-stimulation environment – this may include assisting the woman to play music or hypnotic suggestion audio files. Advise all personnel who may enter the room that the woman is practicing hypnosis. A sign on the room door may be beneficial.
- Assist women by giving suggestive reminders in labour or positive affirmations as needed.
- Refrain from interrupting the woman during contractions.
- Support the woman's autonomy and right to participate in her care. Maintain open non-judgemental communication so needs and expectations can be expressed between the woman, her support person and staff, forming a collaborative approach to care.
- The woman's affective cues to labour progress may be masked, so observe for objective measures of labour progress and be prepared for unexpected progression in dilation and descent.

2. Aromatherapy

Aromatherapy involves the use of concentrated essential oils to enhance well-being and promote emotional calm during labour. It may be used in conjunction with other pain relief methods. While current evidence suggests aromatherapy has limited direct effect on labour pain, it can improve maternal mood and reduce anxiety.

Key points

- Essential oils are for external use only and should always be diluted.
- Avoid contact with the eyes or mucous membranes.
- Common oils that are used during intrapartum care include: rose, lavender, peppermint, lemon, eucalyptus, bergamot and jasmine
- The WNHS Obstetric Medicines Information Service (Ph 6458 2723) should be contacted if the safety of an essential oil in pregnancy and breastfeeding is unknown.

- Massage oils should not be used on women with a history of skin allergies or skin disease.
- Not to be used in when woman accessing water (pool or shower).
- Aromatherapy should be used with caution in women with a history of asthma, along with assisting support staff.

Note: Clary Sage (*Salvia sclarea)* should NOT be used as it may have an effect of increasing / strengthening uterine activity. This may cause potential risk to women with threatened premature labour, or with a uterine scar

3. Massage and Reflexology

Massage and reflexology focus on stimulating specific points on the body, including the hands and feet, believed to correspond with other areas of the body. Although the mechanisms are not fully understood, these techniques have been shown to reduce labour-related anxiety and may lower the perceived intensity of pain.

4. Transcutaneous Electrical Nerve Stimulation *(TENS)*

TENS delivers mild electrical pulses to reduce labour pain through skin-surface electrodes.

Guidance for Use

- Antenatal education is recommended; monthly sessions are provided by the Physiotherapy Department at KEMH, along with a patient information brochure.

  See: https://healthpoint.hdwa.health.wa.gov.au/policies/Policies/NMAHS/WNHS/WNHS.PHYSIO.TENSUseInObstetricPhysiotherapy.pdf

- Contraindicated in women with pacemakers or when using water immersion (e.g., shower, bath).
- Not recommended before 37 weeks' gestation.
- Women with epilepsy should be supervised while using TENS as a seizure may impair their ability to discontinue electrical stimulation.

Further information available from the Australian Government (Healthdirect): *TENS (Transcutaneous electrical nerve stimulation)*.

3.1.1 TENS therapy

Table 5. TENS therapy

Aspect	Consideration
Access	• Availability according to local protocol ○ Woman may be required to bring their own TENS unit or hire privately
Benefits[44,45]:	• Reduces labour pain and delays need for pharmacological strategies • May reduce length of labour • Promotes release of endorphins and serotonin and reduces catecholamines • Non-invasive method • Easy to apply • No impact on woman's mobility • No known adverse effects on baby

Cautions[44,45]:	• Avoid use if:
	  ○ Previous history of pacemaker or spinal metal rods
	  ○ Showering or bathing
	  ○ Limited sensation (e.g. neuraxial analgesia)
	• Avoid applying electrodes over damaged skin
	• Do not use hot packs directly over the electrodes

Application and use	• Follow directions of manufacturer and/or local protocols
	• Most effective when two pairs of electrodes are placed at the paravertebral regions aligned with thoracic vertebra 10–11 and sacral vertebra 2–4[45,46]
	• A variety of TENS technologies are available, some may have several program options (e.g. labour option)[45]
	  ○ Using low voltage currents (e.g. frequency: 80–100 Hertz) and higher pulse widths (e.g. 220–350 microseconds[46]) are effective
	  ○ The woman titrates the intensity according to her pain
	  ○ Some TENS units have a boost option for application during contractions
	• Reapplication of gel may be required depending on the type of equipment

Acknowledgement: Queensland Clinical Guidelines. Intrapartum pain management MN23.75-V1-R28 . Queensland Health. 2023. Available from: http://www.health.qld.gov.au/qcg

Water for pain relief in labour

See Water Immerson during labour and birth guideline https://healthpoint.hdwa.health.wa.gov.au/policies/Policies/NMAHS/WNHS/WNHS.OG.Waterbirth.pdf

5. Sterile Water Injections (SWI)

Sterile water injections provide a safe, effective, and low-cost intervention for the relief of severe lower back pain during labour, which affects approximately 30% of women. This method utilises the body's referred pain pathways (T10–L1) and can reduce the need for pharmacological or regional analgesia, supporting active labour participation.

Evidence Summary

Research has demonstrated that SWI is more effective than placebo (saline), standard care (e.g., massage, shower), or acupuncture for back pain relief in labour.

SWI should only be administered by appropriately trained staff – completion of the relevant eLearning module.

Preparation and Administration Guidelines

1. **Consent and Explanation**
    - Obtain verbal consent after explaining the procedure, including the transient burning or stinging sensation (20–30 seconds).
    - Pain relief typically occurs within 1–3 minutes and lasts approximately 90 minutes.
    - The procedure may be repeated after 30 minutes if required.
    - Clarify that SWI targets back pain only; uterine contraction pain will persist.
2. **Equipment Required**
    - 1 mL Syringes x 4
    - 25 g needle x 4
    - Drawing up needle
    - Sterile water for injection
    - Alcohol wipes
    - Gloves
    - Pen to mark injection sites
3. **Procedure**
    - Ensure appropriate hand hygiene.
    - Position the woman to expose the sacral area; leaning forward is recommended.
    - Draw up 1 mL of sterile water into each syringe.
    - Identify four injection sites: two in the sacral dimples, and two located 3–4 cm below and 1–2 cm medial to these.
    - Clean the skin with alcohol swabs and allow to dry.
    - Place needle at a 15 degree angle to the skin (almost flat against the skin), with the bevel facing upwards and insert needle 2mm into the skin.
    - Rapidly inject sterile water while watching for a small wheal or blister to appear. If none appears, withdraw needle slightly and reduce the angle of the needle.
    - On completion, withdraw needle quickly at the same angle it was inserted.
    - Do not massage area after removing needle.
    - Do not recap used needle.

Pharmacological treatment

Nitrous Oxide and Oxygen Administration

Nitrous oxide with oxygen is a self-administered inhaled analgesic that offers rapid onset (30–60 seconds) and short duration of action. It is suitable for use at any stage of labour and may enhance relaxation and reduce anxiety.

Key Considerations

- Provides moderate pain relief; less effective than epidural but allows for increased autonomy and mobility.
- Safe for both mother and fetus, with no known adverse neonatal effects.
- Common side effects: nausea, dizziness, drowsiness.
- May be used in combination with other analgesics.
- Avoid exposure/use for greater than 6 hours due to inactivation of vitamin B12

Administration Instructions

- Prescribed on MR810.04 'Medication Administration for Labour and Birth' & document use on PIP.
- Only the woman should self-administer to prevent overdose.
- Instruct the woman to create a firm seal around the mouthpiece and inhale deeply at the onset of contractions.
- Encourage removal of the mouthpiece once the contraction ends.
- Monitor for signs of overdose: light-headedness, sedation, bradycardia, respiratory or cardiovascular depression.
- If overdose occurs, discontinue use immediately and maintain airway until recovery.
- Resume use at a reduced concentration if needed.

First Stage of Labour: Medication Management

Paracetamol with Codeine

Consider the use of paracetamol with codeine (e.g. Panadeine Forte) during the latent phase of labour where clinically appropriate.

Clinical considerations

- Codeine is associated with a theoretical risk in individuals who are ultra-rapid metabolisers of CYP2D6.
- Increased conversion of codeine to morphine may result in:
    - Higher maternal morphine concentrations.

- Placental transfer of morphine to the fetus.
- Accumulation of morphine in colostrum and breast milk.

Practice considerations

- Despite this theoretical risk, paracetamol with codeine has a long-standing history of use during the latent phase of labour at King Edward Memorial Hospital.
- Prescribers should remain aware of the potential for increased morphine exposure when considering codeine-containing analgesia.
- If there are concerns regarding the appropriateness of codeine use, consultation with the Acute Pain Service is recommended.

Intramuscular Morphine

Consider the use of intramuscular morphine during the latent phase of labour where clinically appropriate.

Clinical considerations

- Recommended dose: 5–10 mg intramuscularly (IM).
- Onset of analgesia is typically 5–10 minutes, with peak effect at 20–30 minutes and a duration of approximately 1–2 hours.
- Maternal adverse effects may include drowsiness, nausea, and vomiting.
- Administration within 4 hours of birth is associated with an increased risk of neonatal respiratory depression. Where recent maternal opioid administration has occurred, ensure the paediatric team is informed and available at the time of birth if clinically indicated.

Practice considerations

- Following administration, undertake routine first stage of labour maternal observations:
  - Blood pressure, respiratory rate, temperature every 4 hours
  - Heart rate, level of consciousness, and oxygen saturation every 30 minutes for 3 hours post last dose
- Women should not be discharged within 4 hours of receiving intramuscular morphine.
- Consider the timing of administration in relation to labour progress and anticipated birth to minimise the risk of neonatal opioid exposure.
- If there are concerns regarding opioid use or the suitability of intramuscular morphine, consultation with the Acute Pain Service or the responsible obstetric medical officer is recommended.

Epidural & Remifentanil PCIA

See WNHS Clinical Guidelines: WNHS Anaesthesia and Pain Medicine Guidelines:

- Neuraxial Analgesia (epidural and intrathecal)
- PCIA: Remifentanil and other PCIA in labour

Procedural Pain

Methoxyflurane (not for use in active labour)

Indication

The use of Methoxyflurane (an inhaled anaesthetics agent) can provide effective analgesia in conscious stable patients for:

- Short procedures as an alternative to use of Nitrous Oxide analgesia,
  (e.g. perineal repair if other analgesia options are not effective.)
- Early trimester delivery in conjunction with the analgesia plan on MR810.07 Medication administered for pregnancy loss.

Duration

- Up to 30 minutes for continuous use
- Up to 60 minutes for intermittent use

Side Effects and Risks

- Common: drowsiness, nausea, low blood pressure, cough, unpleasant odor
- Rare but serious: kidney damage, malignant hyperthermia

Contraindications

Do not use in patients with allergy to methoxyflurane, history of malignant hyperthermia, heart or kidney disease, breathing difficulties, or head injury.

Discharge Advice

Patient must be accompanied home and avoid driving, operating machinery, or signing legal documents for 24 hours.

For detailed medication use, and monitoring requirement, refer to WNHS Adult Medication Guideline: Methoxyflurane

Postpartum Pain Management

After vaginal birth

The most common sources of pain in the early days after vaginal birth are perineal lacerations, uterine contractions and breast engorgement, and there can be considerable variability in individual pain experiences.

- All women should be offered pain relief. Patient leaflet: Medicines used to manage pain
- Paracetamol and ibuprofen are first-line analgesics for postpartum pain, given the efficacy of these medications in addressing pain and their low concentrations in breast milk.
- Perineal ice therapy is recommended to reduce swelling and provide pain relief. Use the ice pack for 10-20 minutes and repeat every 1-2 hours during the first 24-72 hours. This does not impair healing.
- When regular simple analgesia is insufficient – Tramadol: 50 mg PO every 4 hours (max 400 mg/day) when required.
- Consider aperients. Patient leaflet: Medicines to manage constipation

After Caesarean Section

Caesarean delivery is associated with moderate-to-severe postoperative pain that results from direct tissue trauma and subsequent inflammation.

Key points:

- Neuraxial opioids (morphine administered by spinal and epidural anaesthesia) provide analgesia for 12-24 hours.
- See WNHS Clinical Guidelines: Neuraxial Analgesia (epidural and intrathecal).
- Paracetamol 1 g QID and ibuprofen 400 mg TDS regularly
- Tramadol: 50–100 mg PO every 2 to 4 hours when required (max 400mg daily)
- Buprenorphine: 200–400 mcg subling every 2 to 4 hours when required (max 1600microg daily)
- Aperients – Macrogol with electrolytes 1 sachet BD
- Modified-release analgesia may be considered when PRN analgesia is inadequate. Only to be prescribed by the Acute Pain Service/ Anaesthetic staff
- If the caesarean is completed under a general anaesthetic, a Patient Controlled Intravenous Analgesia device may be considered.
- Please refer to the Patient Controlled Intravenous Analgesia guidelines for management.
- Rectus Sheath Catheters are an effective pain relief option when a midline laparotomy has been performed at the time of caesarean delivery. Refer to WNHS Clinical Guidelines:

  Rectus Sheath Catheter Analgesia

Opioid Analgesic Stewardship in Acute Pain

All opioid prescribing should follow the Opioid Stewardship Clinical Care Standard, ensuring safe and appropriate use with effective monitoring in the healthcare setting.

Key Practice Points:

- Document pain and functional assessment for all patients before administering opioids.
- In opioid-naïve patients, avoid co-prescribing opioids with other central nervous system depressants unless justified and documented.
- Prescribe paracetamol and an NSAID for all patients on opioids, unless contraindicated.
- Co-prescribe laxatives with opioid therapy.
- Discharge opioid quantities should reflect use in the 24 hours prior to discharge.
- Avoid routine use of modified-release opioids; document intended duration if prescribed.
- Assess and document opioid efficacy at least daily.
- Discuss opioid therapy with patients and caregivers including expected duration, potential side effects and interactions.
- Ensure patient understanding of acute pain management, supported by pharmacy counselling and Acute Pain Service review when appropriate.

Refer to Clinical Care Standard:

Opioid Analgesic Stewardship in Acute Pain Clinical Care Standard (2022) | Australian Commission on Safety and Quality in Health Care

Appendix

Non-Pharmacological Pain Management Options

Theory/Therapy		Consideration
CNS activation	**Breathing**	• Focused breathing (e.g. Lamaze method) reduces pain and anxiety[28]

	Aromatherapy	• Reduces anxiety and labour pain intensity[26,29]
		• Increased sense of calmness and wellbeing[29,30]
		• Insufficient evidence to recommend specific essential oils and/or method of administration[29]
		  ○ Women commonly self-initiate use of essences or oils (e.g. lavender)[5,26,31]
		  ○ Consider the impact on the baby's sensitive olfactory system during initial extrauterine adaptation (e.g. room diffusers may be overwhelming)[5]

	Relaxation	• Reduces pain intensity particularly in the latent phase and increased satisfaction with pain relief[32]
	Music	• Lowers anxiety and pain intensity in early labour[32,33]
	Mindfulness	• Increases a woman's sense of autonomy[32]
	Hypnosis	• Associated with a reduction in overall use of analgesia (except epidural) with no increase in adverse events[30,34]
	Yoga	• Reduces pain[26] and increases satisfaction[32] • May shorten length of labour[26]
Neurotransmitter release	**Distraction**	• Distractive strategies reduce pain (e.g. virtual reality, chewing gum)[35]

	Sterile water injections	• Safe intervention associated with reduced pain[30,36]
		  ○ 30–50% reduction in back pain for up to 90 minutes post injection[36]
		  ○ Variation in techniques exist (e.g. single, paired, four—four injection technique for back pain has longer duration[37])
		  ○ Two people administering injections at the same time may reduce administration pain[38]

	Acupuncture	• May reduce pain and use of pharmacological options, whilst increasing maternal satisfaction[39]
	Acupressure	• May reduce labour pain intensity[39,26] • May shorten length of labour[26]
Gate control	**Massage and touch**	• Reduces severity of pain and anxiety in first stage labour[26,28,40] • Increased sense of autonomy and overall satisfaction[40]

	Water and warmth	• Superficial heat from hot packs, moist towels, heated silica packs, shower and bath—to avoid burns:
		  ○ Test heat on caregiver's skin
		  ○ If using hot pack, apply one or two layers of cloth between woman's skin and pack[30]
		  ○ Avoid if neuraxial analgesia administered
		• Warm showers relieve labour pain, release tension and ease backache[40], encourage relaxation and mobilisation[30]
		• Perineal warm compresses in second stage are associated with reduced pain, increased birth satisfaction[30]and fewer third and fourth degree tears[41]
		  ○ Refer to Queensland Clinical Guidelines: Perineal care[42]
		• Refer to Section3.1.2 Water immersion

	Movement, positioning, birth ball	• Provide space and equipment to support use of active positioning and movement • Promotes comfort, relaxation, mobility, active birth positioning, increase pelvic dimensions and builds confidence to manage pain[43] • Less pain reported in the first stage of labour with use of birth ball[30]
	TENS	• Transcutaneous electrical nerve stimulation (TENS) • Refer to Table 5. TENS therapy

Acknowledgement: Queensland Clinical Guidelines. Intrapartum pain management MN23.75-V1-R28 . Queensland Health. 2023. Available from: http://www.health.qld.gov.au/qcg

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Related external policies, legislation and standards

Legislation- Health Practitioner Regulation National Law (WA) Act 2010

Clinical Care Standard - Opioid Analgesic Stewardship Acute Pain

NMHS Policy Work Health and Safety

Related WNHS policies, guidelines and procedures

Obstetrics and Gynaecology: Water immersion during labour and birth

Anaesthetics:
Remifentanil and other patient controlled intravenous analgesia (PCIA): In labour.

Neuraxial Analgesia (epidural and intrathecal)

Patient Controlled Intravenous Analgesia (PCIA): Postoperative

Rectus Sheath Catheter Analgesia

Pharmacy: A-Z Adult (Obstetrics and Gynaecology) Medication Protocols:
WNHS Adult Medication Guideline: Morphine

WNHS Adult Medication Guideline: Methoxyflurane

Women's Health: Physiotherapy: Physiotherapy Use of Dry Needling and Western Acupuncture

Useful resources and related forms

ANZCA 2020 Acute Pain Management (5th ed.)

Nursing and Midwifery Board: Code of Conduct 2018 (updated 2022)

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Version history

Version number	Date	Summary
1	July 2026	• First version – this guideline was separated from Clinical Practice Guideline *Pain management (including labour non-pharmacological)* and was developed as a standalone document for Obstetrics

This document can be made available in alternative formats on request for a person with a disability.

Within the Department of Health WA, the term Aboriginal is used in preference to Aboriginal and Torres Strait Islander, in recognition that Aboriginal people are the original inhabitants of Western Australia. No disrespect is intended to our Torres Strait Islander colleagues and community.