

MORPHINE – SUBCUTANEOUS (MATERNITY)

This LOP is developed to guide clinical practice at the Royal Hospital for Women. Individual patient circumstances may mean that practice diverges from this LOP.

1. AIM

- Safely administer morphine to provide pain relief for a pregnant woman

2. PATIENT

- Antenatal or labouring woman, who requires opiate analgesia for moderate to severe pain

3. STAFF

- Medical, nursing and midwifery staff

4. EQUIPMENT

- Blue aseptic no touch technique (ANTT) tray
- 1 mL syringe
- Drawing-up needle
- 25-gauge needle
- Alcohol swab
- Personal protective equipment (PPE)
- Sharps disposal container

5. CLINICAL PRACTICE

Procedure

- Ensure woman has no contraindications to morphine use and/or precautions requiring dose adjustment as outlined below (these adjustment should be made in consultation with specialist medical team):
 - Hypersensitivity or allergy to morphine
 - Liver disease/dysfunction
 - Hepatobiliary conditions
 - Respiratory compromise
 - Raised intracranial or cerebrospinal pressure, e.g. head injury
 - Severe central nervous system (CNS) depression
 - Cardiac arrhythmias
 - Gastrointestinal obstruction
 - Status epilepticus
 - Severe renal disease
 - Monoamine oxidase inhibitors (MAOIs) such as phenezine (Nardil®) and tranylcypromine (Parnate®) concurrent or taken within the previous 14 days
 - Less than 16 years of age
- Discuss the following with the woman:
 - alternative pain relief options
 - anticipated effects and known side effects for woman and her neonate
 - safe mobilisation and awareness of increased falls risk
 - avoidance of water immersion (for two to four hours)
 - need to observe neonate for four hours postpartum
- Perform a comprehensive maternal and fetal assessment as outlined in midwifery admission and/or assessment LOP
- Assess for progress of labour if woman is contracting, prior to administration of initial or subsequent dose
- Obtain verbal consent for administration
- Obtain prescription in eMEDS following consultation with medical team

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- Adjust the dosage according to woman's age, weight, opioid tolerance, and level of pain. Usual dose for a woman in early labour or labour is 7.5mg subcutaneously. Can be administered two to four hourly to a maximum of two doses in 24 hours
- Offer antiemetic
- Ensure opioid antagonist, naloxone hydrochloride, is available
- Administer the prescribed dose
- Discuss further pain relief options with woman if analgesia is unsatisfactory
- Refer to appendix 1 for possible complications and management
- Perform maternal and fetal observations appropriate to antenatal (non-pregnant indications/early labour) or intrapartum indications:
 - antenatal
 - immediately prior to each dose, then every 30 minutes for two hours
 - be aware excessive sedation is a more accurate sign of overdose than a reduced respiratory rate
 - intrapartum
 - as outlined in first stage of labour care for woman with a low-risk pregnancy and fetal heart rate monitoring – maternity LOPs
 - be aware excessive sedation is a more accurate sign of overdose than a reduced respiratory rate
- Do not discharge home in early labour after administration of opioid analgesia unless:
 - contractions have ceased and
 - a further comprehensive maternal and fetal assessment (medical and midwifery) has been undertaken

Neonatal Observations (post-birth)

- Monitor observations in the term neonate hourly for the first four hours post-birth, followed by recommended neonatal observations (as outlined in Neonatal Observations outside Newborn Care Centre LOP)

6. DOCUMENTATION

- Medical record
- S8 Drug Register

7. EDUCATIONAL NOTES

- Opioid use for pain relief should be preceded by a thorough assessment of possible onset of active labour
- The use of opioid analgesia must never be a substitute for:
 - midwifery support and care
 - comprehensive maternal and fetal assessment (medical and midwifery)
- Promethazine can be considered intramuscular (IM) 12.5 mg if additional sedation is required and woman not in established labour (maximum of one dose)
- Following subcutaneous administration, the onset of action of morphine is after about 20 minutes with peak analgesic effect observed after about 70 minutes. The duration of analgesia is usually two to four hours. The mean elimination half-life for morphine is two to three hours, but effects may extend up to 24 hours
- Morphine binds to many opioid-receptors in the central nervous system, altering the perception of pain and the emotional response to pain. Alterations in mood can include euphoria, dysphoria, drowsiness, and mental clouding
- Morphine is rapidly transferred across the placenta, with the fetus/neonate excreting the opioids more slowly than adults due to the immaturity of the liver enzymes

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8. RELATED POLICIES / PROCEDURES / CLINICAL PRACTICE LOP

- First stage of labour care of the low-risk pregnancy
- Fetal Heart Rate Monitoring – Maternity – GL2018/025
- Naloxone – treatment of opioid induced over-sedation, respiratory depression, pruritus. and nausea
- Deteriorating Neonate Recognition and Management Outside the Newborn Care Centre
- Neonatal Observations outside Newborn Care Centre
- Neonatal Resuscitation at Delivery
- Management of the Deteriorating Neonatal Inpatient SESLHDPR/340
- Management of the Deteriorating Maternity woman SESLHDPR/705
- Clinical Emergency Response System (CERS) – management of the deteriorating patient
- Medication Handling in NSW Public Health Facilities PD2013_043
- Labelling of Injectable Medicines, fluids, and lines
- Falls prevention and management for people admitted to acute and sub-acute care SESLHDPR/380

9. RISK RATING

- High

10. NATIONAL STANDARD

- Standard 4 – Medication Safety
- Standard 5 – Comprehensive Care
- Standard 8 – Recognising and Responding to clinical deterioration

11. REFERENCES

1. Anderson D. A review of systemic opioids commonly used for labor pain relief. *Journal of Midwifery and Women's Health* 2011; 56(3):222-39.
2. Australian Medicines Handbook. Morphine. Adelaide, South Australia. Australian Handbook 2019. <http://amhonline.net.au>
3. The Royal Women's Hospital. Morphine: In pregnancy and breastfeeding Medicines Guide. Parkville, Victoria. 2018
4. King Edward Memorial Hospital Clinical Guideline: Intramuscular administration of morphine; 2015.
5. National Institute for Health and Care Excellence (NICE). Intrapartum care for healthy women and babies. Clinical Guideline 190. 2017
6. Schug SA, Palmer GM, Scott DA, Halliwell R, Trinca J, APM:SE Working Group of the Australian and New Zealand College of Anaesthetists and Faculty of Pain Medicine. Acute pain management: Scientific evidence (4th edition). 2015
7. The Royal Australian and New Zealand College of Obstetricians and Gynecologists. Pain relief in labour and childbirth. 2016

REVISION & APPROVAL HISTORY

Reviewed and endorsed Maternity Services LOPs group 24/8/21
Approved Quality & Patient Safety Committee March 2019
Reviewed and endorsed Therapeutic & Drug Utilisation Committee 12/3/19
Approved Quality & Patient Care Committee 2/6/16
Reviewed and endorsed Therapeutic & Drug Utilisation Committee 12/4/16
Previously titled *Morphine Sulphate (Subcutaneous Injections) for antenatal and labour pain*
Approved Quality & Patient Safety Committee 19/11/09
Endorsed Therapeutic & Drug Utilisation Committee 18/8/09

FOR REVIEW: SEPTEMBER 2023

Possible complications and their management

Complication	Management
MATERNAL	
Inadequate analgesia	Review dose, consider alternative, or add another pain medication
Respiratory Depression	<p>If Respiratory Rate (RR) 6-10 bpm and/or SpO² < 90%</p> <ul style="list-style-type: none"> • Cease administration of all opioids • Give oxygen via mask and support airway if necessary • Assess sedation level and if possible, encourage woman to breathe deeply • Activate a Clinical Emergency Response System (CERS) – rapid response <p>If Respiratory Rate ≤ 5</p> <ul style="list-style-type: none"> • Cease administration of all opioids including patient-controlled analgesia (PCA) • Give oxygen at 10L/min via Hudson mask and support airway if necessary • Activate a CODE BLUE • Give naloxone as prescribed OR as outlined in <i>Naloxone – treatment of Opioid induced over-sedation, respiratory depression, pruritus, and nausea</i> LOP
Increased Sedation	<p>Sedation Score 2 (Constantly drowsy)</p> <ul style="list-style-type: none"> • Cease administration of all opioids • Give oxygen • Check respiratory rate frequently • Activate a CERS – clinical review <p>Sedation Score 3 (Difficult to rouse)</p> <ul style="list-style-type: none"> • Cease administration of all opioids • Give oxygen • Check respiratory rate • Activate a CERS – rapid response • Give naloxone as prescribed OR as outlined in <i>Naloxone – treatment of Opioid induced over-sedation, respiratory depression, pruritus, and nausea</i> LOP <p>Sedation Score 3 (Unresponsive)</p> <ul style="list-style-type: none"> • Cease administration of all opioids • Give oxygen • Check respiratory rate • Activate a CODE BLUE • Give naloxone as prescribed OR as outlined in <i>Naloxone – treatment of Opioid induced over-sedation, respiratory depression, pruritus, and nausea</i> LOP
Nausea	<ul style="list-style-type: none"> • Ensure antiemetic has been prescribed and offer as frequently as the PRN order permits • If one antiemetic does not work, proceed to alternative, or contact medical officer for advice • Antiemetic medication should be ordered and recorded on eMEDS • Any woman requiring more than two doses of antiemetic will need a regular dose ordered on eMEDS
Pruritus (itch)	<ul style="list-style-type: none"> • DO NOT use sedative antihistamines – consider naloxone, remembering this will reverse analgesic effect • If persistent, contact anaesthetist
Urinary Retention	May require the insertion of an indwelling catheter (IDC) during labour and further assessment by primary care team
Constipation	Prophylactic aperient therapy is beneficial. Contact primary care team
FETAL	
Abnormal cardiotocograph (CTG)	Manage as outlined in <i>Fetal heart rate monitoring – Maternity – MoH GL2018/025</i>
NEONATAL	
Respiratory Depression	<p>Manage as outlined in:</p> <ul style="list-style-type: none"> • <i>Neonatal Resuscitation at Delivery</i> LOP • <i>Neonatal Observations outside the Newborn Care Centre</i> • <i>Deteriorating Neonate Recognition and Management Outside Newborn Care Centre</i>