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

- To provide pain relief for a pregnant woman expressing distress from moderate to severe pain.

2. PATIENT

- Pregnant or labouring woman, who requires an opiate analgesic for moderate to severe pain.

3. STAFF

- Medical, nursing and midwifery staff

4. EQUIPMENT

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

5. CLINICAL PRACTICE

Procedure

- Ensure woman meets criteria for receiving morphine *(refer to contraindications in Educational Notes)*
- Discuss the following with the woman:
    - alternative pain relief options
    - anticipated effects and known side effects to woman and neonate
    - safe mobilisation
    - need to observe neonates for four hours postpartum
- Obtain verbal consent for administration
- Obtain prescription in eMEDS
- Adjust the dosage according to woman's age, weight, opioid tolerance and level of pain. Appropriate dosage may be calculated using 0.1mg/kg to a maximum of 10mg every four hours
- Assess progress of labour prior to administration
- Offer intramuscular (IM) 12.5 mg promethazine if additional sedation is required i.e. not in established labour (maximum of 12.5mg in 12 hours)
- Offer antiemetic if in established labour
- 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 observations immediately prior to each dose then every 30 minutes for two hours (excessive sedation is a more accurate sign of overdose than a reduced respiratory rate)

Neonatal Observations (post-delivery)

- Monitor observations in the term neonate hourly for the first four hours post-delivery, followed by normal observations

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6. DOCUMENTATION

- Medical record
- eMEDS
- SMOC Chart
- S8 Drug Register

7. EDUCATIONAL NOTES

- 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. For this reason, morphine should ideally be avoided during labour for delivery of a premature neonate.

Contraindications and Precautions requiring dose adjustments

- 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

8. RELATED POLICIES / PROCEDURES / CLINICAL PRACTICE LOP

- Medication Handling in NSW Public Health Facilitates PD2013_043
- Labelling of Injectable Medicines, fluids and lines
- Neonatal Resuscitation at Delivery
- Patient with Acute Condition for Escalation (PACE): Management of the Deteriorating ADULT and MATERNITY Inpatient
- Neonatal Observations outside Newborn Care Centre
- Intrapartum Fetal Heart Rate Monitoring
- Falls Prevention and Management for People admitted to Acute and Sub Acute Care SESLHDPR/380

9. RISK RATING

- High

10. NATIONAL STANDARD

- Standard 5 – Comprehensive Care

MORPHINE – SUBCUTANEOUS (MATERNITY) cont'd

11. REFERENCES

1. Anderson D. A review of systemic opioids commonly used for labor pain relief. Journal of Midwifery & Women's Health 2011; 56(3):222-39.
2. King Edward Memorial Hospital Clinical Guideline: Intramuscular administration of morphine; 2015.
3. Royal Hospital for Women Standing Order: Morphine for the relief of antenatal and labour pain 2016
4. Schug SA, Palmer GM, Scott DA, Halliwell R, J; T, 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
5. The Royal Australian and New Zealand College of Obstetricians and Gynecologists. Pain relief in labour and childbirth. 2016

REVISION & APPROVAL HISTORY
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

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…./Appendix 1

APPENDIX 1

Possible complications and their management

Complication	Management
MATERNAL	
Inadequate analgesia	Review dose, consider alternative, or add another pain medication
Respiratory Depression	**If Respiratory Rate (RR) 6-10 bpm and/or SpO^2 < 90%** • 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 PACE Tier 1 **If Respiratory Rate ≤ 5** • 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 per naloxone LOP
Increased Sedation	**Sedation Score 2 (Constantly drowsy)** • Cease administration of all opioids • Give oxygen • Check respiratory rate frequently • Activate a PACE Tier 1 **Sedation Score 3 (Difficult to rouse)** • Cease administration of all opioids • Give oxygen • Check respiratory rate • Activate a PACE Tier 2 • Give naloxone as prescribed OR as per naloxone LOP **Sedation Score 3 (Unresponsive)** • Cease administration of all opioids • Give oxygen • Check respiratory rate • Activate a CODE BLUE • Give naloxone as prescribed OR as per naloxone LOP
Nausea	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 MO 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)	DO NOT use sedative antihistamines – consider naloxone 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 per *Intrapartum Fetal Monitoring LOP*
NEONATAL	
Respiratory Depression	Manage as per: • *RHW Neonatal Resuscitation at Delivery LOP* • *NSW Health - Patient with Acute Condition for Escalation (PACE): Management of the Deteriorating NEONATE Inpatient in Maternity Services and Nurseries*