Approved by Quality & Patient Care Committee
July 2017

MORPHINE SULPHATE – SUB CUTANEOUS (NON 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

The aim of pain management with subcutaneous (SC) morphine is to provide and maintain effective analgesia to enable the patient to cough, move, roll, sit or walk without nausea and be able to rest and sleep comfortably. In order to achieve adequate serum opiate levels, SC morphine may be used after either intravenous or SC loading in recovery, or when switching from epidural analgesia or PCA.

For regular and/or PRN use the patient will have their SC morphine administered by either a SC injection or via a subcutaneous cannula which will be left insitu.

2. PATIENT

- Patients with post-operative or other form of acute pain
- Oncology and palliative care patients.
- Chronic non-malignant pain patients.
- Nil by mouth
- Unable to take oral analgesia because of intractable nausea and vomiting.
- Unconscious palliative care patients who have been taking oral morphine.
- Patients who are not suitable for PCA

Contraindications/Precautions

- Where sedation score of ≥2 or respiratory rate ≤ 10
- If they are having a reaction to the medication such as rash, or hallucinations.
- If they find the nausea too unpleasant despite at least 2 types of anti-emetic being delivered.
- In these cases call the APRS or Anaesthetist for review.

3. STAFF

- APRS
- Medical
- Midwives and Registered Nurses

4. EQUIPMENT

- Insertion of a SC cannula may be required*: (Please refer to SESLHNPD/19 - Subcutaneous Needle Insertion and Management – July 2015)*

For regular and PRN SC Morphine dosing via a SC Cannula:

- Blue ANTT Tray
- 10mL Leur lock syringe
- 24g Saf-T intima™ winged infusion set
- 2 caps (i.e. Interlink ™ bung)
- Medication order
- morphine ampoule 10mg/1mL
- Sodium Chloride 0.9%10mL
- 2% Chlorhexidine Gluconate v/v 70% Isopropyl Alcohol swab
- Occlusive dressing (e.g. Tegaderm)
- Non sterile gloves

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5. CLINICAL PRACTICE

Prescription

- Document the prescription on eMEDS
- Order the dosage according to patients, age, opioid tolerance/chronic pain, level of pain severity, type of surgery
- Calculate a baseline dosage of SC morphine for patients who are taking regular opiates pre-operatively i.e. if a patient is on an opiate medication pre-operatively the equivalent dose should be calculated as a SC morphine dose and factored as a baseline opiate before the post-operative prescription is calculated and prescribed

- **Recommended starting doses.**

20-39yrs	40-59yrs	60-69yrs	70-85yrs	>85yrs
5.0-12.5mg	5.0-10.0mg	2.5-7.5mg	2.5-5.0mg	2.0-3.0mg

- Prescribe regular doses 3-4 hourly plus prescribe 2-3 hourly breakthrough doses for strong pain
- Specify the maximum number of doses to be given for PRN doses
- Administer regular SC morphine as ordered unless contraindicated or of patient suffering an adverse effect
- Explain the rationale behind regular SC morphine dosing and the importance of compliance in the early post-operative period
- Document on both eMEDS and in the integrated notes if a patient refuses their regular SC morphine.
- Contact APRS or Anaesthetist if the patient refuses more than 2 doses of regular morphine

Procedure

- Prior to dosage record the pain score, any current adverse effects of the opioid (sedation score and respiratory rate) and manage accordingly
- Clean hands then don non-sterile gloves
- Assess cannula site and dressing
- Check patients name and MRN number
- Explain procedure and purpose
- 2 RNs to check medication against order and follow S8 handling of medications policy
- Aseptically assemble needle and syringe and draw up correct dose of medication
- Do not dilute medication
- Remove needle from syringe of prepared medication
- Scrub the hub with a 2% Chlorhexidine Gluconate v/v 70% Isopropyl Alcohol swab
- Connect syringe to cannula/infusion set then inject medication slowly
- Flush with 0.4 - 1.0mL of sodium chloride 0.9%
- Terminate encounter and discard equipment
- Remove gloves & wash hands
- Apply oxygen via nasal prongs or equivalent for the first post-operative night, unless specified otherwise by the prescribing anaesthetist
- Observe SC cannula site each shift and remove or change cannula after 7 days.
- Discuss safe mobilisation.
- Document in integrated notes.

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Observations
- Refer to Appendix 1

Adverse Events and Their Management
- Refer to Appendix 2

6. DOCUMENTATION
- eMEDS
- SAGO, SMOC or HDU Chart
- Clinical Pathways
- Integrated Clinical Notes

7. EDUCATIONAL NOTES

Registered Nurse/Midwife Education
- An RN/RM witnessed by another RN/RM can administer and check legally prescribed SC morphine for the management of pain.
- See the medication section of the RHW policy for the handling and prescribing of medications and the responsibilities of the RN/RM and for Schedule 8 medications.

8. RELATED POLICIES / PROCEDURES / CLINICAL PRACTICE LOP
- Naloxone – guidelines for use of naloxone HCL for the treatment of respiratory depression and over-sedation following opiate use
- NSW Health PD2013_043 Medication Handling in NSW Public Health Facilitates. (2013) http://www0.health.nsw.gov.au/policies/pd/2013/pdf/PD2013_043.pdf
- NSW Health PD2010_058Hand Hygiene (2010) http://www0.health.nsw.gov.au/policies/pd/2010/pdf/PD2010_058.pdf
- NSWHealthPD2007_036InfectionControl (2007) http://www0.health.nsw.gov.au/policies/pd/2007/pdf/PD2007_036.pdf
- NSWHealthPD2015_029HighRiskMedicationManagement. (2015) http://www0.health.nsw.gov.au/policies/pd/2015/pdf/PD2015_029.pdf
- NSW Health PD2013_013. Peripheral Intravenous Cannula Insertion and post Insertion Care; Adults (2013) http://www0.health.nsw.gov.au/policies/gl/2013/pdf/GL2013_013.pdf
- SESLHNPD/19 - Subcutaneous Needle Insertion and Management

9. RISK RATING
HIGH

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10. REFERENCES

Semple TJ. et al. (1990) Subcutaneous morphine, Anaesthesia and Intensive Care, Vol.18, No 2, May, 267 – 268

Macintyre, P & Ready, LB (1996) Acute Pain Management: a Practical Guide. London: WB Saunders.

Protocol for administration of subcutaneous morphine injection (1995), Acute Pain Service, Royal Adelaide Hospital.

Lamacraft, G., Cooper, M. & Cavalletto, P. (1997) Subcutaneous cannulae for morphine boluses in children: assessment of a technique. *Journal of Pain and Symptom Management*, 13 (1), 43-49.

REVISION & APPROVAL HISTORY

Reviewed and endorsed Therapeutic & Drug Utilisation Committee 13/6/17
Changed title from *Morphine – Subcutaneous (non-maternity)*
Approved Quality & Patient Safety Committee 17/9/15
Changed title from *Subcutaneous Morphine (non maternity)* October 2015
Reviewed and endorsed Therapeutic & Drug Utilisation Committee 11/8/15
Approved Quality Council 15/12/03 (titled "Sub Cutaneous Morphine Procedure and Protocol)
Therapeutic & Drug Utilisation Committee 21/10/03

FOR REVIEW : JULY 2019

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APPENDIX 1

OBSERVATIONS

- Observations to be recorded on the NSW State SAGO, SMOC or HDU chart.

OBSERVATION	FREQUENCY
Pain Score **Sedation, Respiratory Rate, and Oxygen Saturation** **Nausea, Vomiting, Pruritus**	**Prior to any dose**
Pain Score **Sedation, Respiratory Rate, and Oxygen Saturation** **Nausea, Vomiting, Pruritus**	**60 minutes after any dose**
Pain Score	**30 minutes after breakthrough dose**

APPENDIX 2
ADVERSE EVENTS AND THEIR MANAGEMENT

Adverse Event	Management
Inadequate Analgesia	• Review dose, consider alternative or add another pain medication • If all observations are satisfactory and pain score warrants, the patient may be offered PRN analgesia as per PRN orders.
Increased Sedation	**Sedation Score 2 (Constantly drowsy, unable to stay awake)** • Cease administration of all opioids. • Give oxygen • Check respiratory rate frequently • **YELLOW ZONE - Activate a PACE Tier 1** **Sedation Score 3 (Difficult to rouse)** • Cease administration of all opioids. • Give oxygen • Check respiratory rate • **RED ZONE - 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 • **RED ZONE - Activate a CODE BLUE** • Give naloxone as prescribed OR as per naloxone LOP
Respiratory Depression	**If Respiratory Rate is between 6-10 rpm** • Cease administration of all opioids. • Give oxygen via mask and support airway if necessary • Assess sedation level and if possible encourage patient to breathe deeply • **YELLOW ZONE - Activate a PACE Tier 1** • Contact APRS/Anaesthetist **If Respiratory Rate ≤ 5** • Cease administration of all opioids including PCA • Give oxygen at 10L/min via Hudson mask and support airway if necessary • **RED ZONE - Activate a PACE Tier 2/CODE BLUE** • Give IV naloxone as prescribed on PCA chart OR as per naloxone LOP • Contact APRS
Nausea or Vomiting	• Ensure antiemetic's are prescribed and offered as frequently as the PRN order permits. • If one antiemetic does not work proceed to alternative or page APRS for advice. • Anti-emetics should be ordered and recorded on eMEDS and on the pain chart in the observation comments section. • Any patient requiring more than 2 doses of antiemetic may need a regular dose ordered on their medication chart. • Identify if the woman is hypotensive and check their fluid balance
Pruritus (itch)	• Low dose naloxone as per LOP • Antihistamines may be effective but will increase the risk of respiratory depression due to their sedative effect. • Refer to APRS if treatment ineffective.
Urinary Retention	• Contact the woman's primary care team
Constipation	• Prophylactic aperients therapy is beneficial. Contact primary care team