Form Title  Low Dose Ketamine Infusion for Analgesia Adult Orders

Form Number  frm-20993

© 2018, Alberta Health Services, CKCM

This work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License. The license does not apply to content for which the Alberta Health Services is not the copyright owner.

To view a copy of this license, visit

https://creativecommons.org/licenses/by-nc-nd/4.0/

**Disclaimer:** This material is intended for use by clinicians only and is provided on an "as is", "where is" basis. Although reasonable efforts were made to confirm the accuracy of the information, Alberta Health Services does not make any representation or warranty, express, implied or statutory, as to the accuracy, reliability, completeness, applicability or fitness for a particular purpose of such information. This material is not a substitute for the advice of a qualified health professional. Alberta Health Services expressly disclaims all liability for the use of these materials, and for any claims, actions, demands or suits arising from such use.
Low Dose Ketamine Infusion for Analgesia Adult Orders

Select orders by replacing a (√) in the associated box

Order Set Restrictions: Restricted to Acute Pain Services (APS) and/or Pain Consultant. The acute care ‘Pain Consultant’ includes all physicians practicing within Acute Pain Service roles, and will include on-call anesthesiologists responsible for providing pain management options for patients, or other designated clinicians.

Warnings and Cautions: Relative contraindications include: hypersensitivity to ketamine, increased intracranial pressure, seizure disorder, increased intraocular pressure, porphyria, significant cardiovascular disease, severe hypertension, myocardial ischemia, stroke, pulmonary hypertension, psychiatric conditions.

Weight (kg)

Patient Care

☑️ Clinical Communication: Prior to starting low-dose ketamine infusion; review all previous analgesic, antiemetic, antipruritic and sedation orders with ordering service.

☑️ Clinical Communication: Low-dose ketamine infusion for analgesia, analgesics, sedatives, antipruritics and antiemetics must be ordered by the Acute Pain Service/Pain Consultant.

☑️ Clinical Communication: Use designated pain assessment documentation to monitor and document status related to analgesic administration.

☑️ Notify Acute Pain Service/Pain Consultant for all problems and orders related to pain, sedation, nausea and vomiting, and pruritus.

☑️ Notify Acute Pain Service/Pain Consultant if patient continues to experience agitation/psychotomimetic effects despite administration of benzodiazepine and reduction of ketamine infusion.

☑️ Notify: Stop Low-Dose Ketamine infusion and notify Acute Pain Service/Pain Consultant if heart rate greater than 110 beats per minute, respiratory rate less than or equal to 8 per minute or oxygen saturation less than or equal to 92% despite oxygen administration

Monitoring

Consider patient characteristics/infusion duration and dose when selecting post discontinuation monitoring duration.

☑️ Vital Signs Protocol for duration of infusion and 12 hour post discontinuation of Low-Dose Ketamine Infusion for Analgesia – Monitor as follows:
  Every 15 minutes for one hour, every 2 hours for 4 hours, then every 4 hours for duration of infusion and 12 hours post discontinuation of infusion. Repeat monitoring sequence with any rate increase of the low-dose ketamine infusion for analgesia.

☐️ Vital Signs Protocol for duration of infusion and 8 hour post discontinuation of Low-Dose Ketamine Infusion for Analgesia – Monitor as follows:
  Every 15 minutes for one hour, every 2 hours for 4 hours, then every 4 hours for duration of infusion and 8 hours post discontinuation of infusion. Repeat monitoring sequence with any rate increase of the low-dose ketamine infusion for analgesia.

☐️ Weigh patient prior to starting infusion

☐️ Monitor Cardiorespiratory: Continuous oxygen saturation and pulse monitoring. Document every four hours and PRN

Intravenous Therapy

☑️ Maintain Intravenous Access for duration of therapy and for 8 to 12 hours post discontinuation of Low-Dose Ketamine Infusion for Analgesia.

Prescriber Signature | Date (dd-Mon-yyyy) | Time (hh:mm)
Medications

**Recommended Dose** is 0.05 to 0.2 mg/kg/hour. Select patient populations may require a dose range of 0.05 to 0.3 mg/kg/hour. It is reasonable to use actual body weight up to a weight to 100 kg. Maximum recommended infusion 30 mg/hour.

- **Induction**: ketamine infusion ______ mg/kg/hour, IV, Continuous. Titration instructions to be provided by APS/Pain Consultant. Additional Information: ______________________

### Treatment of Side Effects of Low Dose Ketamine Infusion

#### Patient Care

- In and Out catheter every 6 hours PRN for urinary retention.

#### Respiratory Care

- **Oxygen therapy**: Titrate saturation as needed to maintain SpO2 greater than or equal to 92%.
- **Assess patient as needed for excessive secretions. Ensure respiratory suction is available at bedside**

#### Medications

**Antipruritics – PRN**

- Nalbuphine 2.5 mg IV every 3 hours PRN for pruritus.
  - **Recommended dose range**: 0.02 to 0.04 mg

- Naloxone ______ mg IV every 2 hours PRN for pruritus.
  - **Recommended dose range**: 12.5 to 50 mg

- Diphenhydramine ______ mg IV every 4 hours PRN for pruritus or nausea.

- Naltrexone 5 mg PO/NG/OG every 12 hours PRN for pruritus.

**Antiemetics – PRN**

- Metoclopramide 10 mg IV every 4 hours PRN for nausea
- Ondansetron 4 mg IV every 8 hours PRN for nausea

**Psychotomimetic Effects – PRN**

- Midazolam ______ mg IV every 2 hours PRN for agitation/psychotomimetic effects.
  - **Recommended dose range**: 1 to 2 mg

- Lorazepam SL ______ mg PO/SL every 4 hours PRN for agitation/psychotomimetic effects.
  - **Recommended dose range**: 0.5 to 1 mg

### Naloxone Protocol

#### Patient Care

- **Notify – Attending Service** when Respiratory rate less than 8 per minute and Sedation Level 3.
- **Vital Signs – When respirations less than 8 per minute and Sedation Level 3 as per local Naloxone Protocol** monitor pulse, respirations, oxygen saturation, pain score, sedation level, blood pressure every 5 minutes for 30 minutes and then every 15 minutes for one hour and then when required.

#### Medication

- Naloxone 0.1 mg Direct IV every 3 minutes PRN for respiratory rate less than 8 per minute and sedation level 3. Maximum 4 doses. Give first dose STAT.
- If no IV access, naloxone 0.2 mg subcutaneously/intramuscularly (IM) every 10 minutes PRN for respiratory rate less than 8 per minute and sedation level 3. Maximum 4 doses. Give first dose STAT.

---

<table>
<thead>
<tr>
<th>Prescriber Signature</th>
<th>Date (dd-Mon-yyyy)</th>
<th>Time (hh:mm)</th>
</tr>
</thead>
</table>

---

20993Bond(2018-02)