Ketamine Infusion
Prescription and Observation Chart - adult

A presentation prepared by the
Pain Interest Group Nursing Issues
in association with the Agency of Clinical Innovation
Pain Management Network

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Ketamine infusion
Prescription and observation- adult

The ketamine infusion prescription and observation chart for adult patients has been developed by a team of experts in the field of acute pain including clinical nurse consultants, anaesthetists and pharmacy representatives.

This chart has been designed for the use of ketamine infusions for acute and chronic pain patients. It may not be suitable for the administration of ketamine to palliative care patients.

Standardisation of this chart promotes best practice in pain assessment and management of adverse effects in those patients who are receiving a ketamine infusion for pain management.
Aim of this presentation:

This presentation aims to explain

- **how to use the chart** to record the administration of ketamine as a continuous infusion.
- **how to complete** the clinical observations.
- **guidelines on the management of patients** who are receiving ketamine as a continuous infusion including the management of adverse effects.
Ketamine infusion
Prescription and observation chart - adult

Front page:
- Ketamine Infusion
- Management Guidelines & Clinical Review Criteria

Page 2 and Page 3:
Left side: prescription (valid for 4 days)
Right side: administration & discard

Inside pages:
Observations for 4 days
### Ketamine Prescription:

- **Route**
- **Amount**
- **Additional drug & amount** (if used)
- **Diluent**
- **Total volume**
- **Concentration**
- **Infusion rate**
- **Infusion range** (if used)
- **Date, prescriber, pharmacy**

### Two Revised Prescription Options for Alterations to Concentration:

<table>
<thead>
<tr>
<th>Route</th>
<th>Drug</th>
<th>Amount (mg)</th>
<th>Additional drug</th>
<th>Amount (mg or microgram)</th>
<th>Diluent</th>
<th>Total volume (mL)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**KETAMINE PRESCRIPTION** is valid for a maximum of 4 days unless ceased earlier. Observations for this patient to be recorded: [ ] 2 hourly OR [ ] 4 hourly.
Prescription: Patient identification

Prescriber to complete patient allergy section in full

Handwrite patient details or affix patient label (First prescriber to check patient label is correct)

Private patients: require a signature from the referring Doctor to the Pain Service

The frequency of observations (hourly for 6 hours or hourly for 12 hours) must be determined by the medical officer who administered the opioid dose

KETAMINE PRESCRIPTION is valid for a maximum of 4 days unless ceased earlier. Observations for this patient to be recorded: ☑ 2 hourly OR ☐ 4 hourly

Prescription is valid for a maximum of 4 days unless ceased earlier
Ketamine prescription: Options: set rate OR infusion range

<table>
<thead>
<tr>
<th>Route</th>
<th>Drug Print 'ketamine'</th>
<th>Amount (mg)</th>
<th>Additional drug</th>
<th>Amount (mg or microgram)</th>
<th>Diluent</th>
<th>Total volume (mL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV</td>
<td>Ketamine</td>
<td>200 mg</td>
<td>NIL</td>
<td></td>
<td>0.9% sodium chloride</td>
<td>20mL</td>
</tr>
</tbody>
</table>

**Concentration mg per mL**

<table>
<thead>
<tr>
<th>Concentration</th>
<th>Infusion rate mg per hr and mL per hour</th>
<th>Infusion range (if applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 mg per mL</td>
<td>= 0.8 mg per hour</td>
<td>Range FROM: 8 mg per hour TO 12 mg per hour</td>
</tr>
<tr>
<td></td>
<td>= 0.8 mL per hour</td>
<td>= 0.8 mL per hour TO 1.2 mL per hour</td>
</tr>
</tbody>
</table>

**Date:** 01/03/13

Prescriber's signature & print name: PSmith SMITH

Pharmacy:

PLEASE REFER TO YOUR LOCAL HOSPITAL POLICY FOR PREFERRED KETAMINE DELIVERY OPTIONS

Two further prescription boxes are provided for when alterations are indicated for the ketamine dose, concentration or infusion rate.
Administration and discard of ketamine:

Any ketamine remaining from a syringe or bag MUST be recorded on the corresponding row from its administration.

IF a ketamine syringe or bag is empty when the next is commenced, document ‘NIL’ discarded.

There are 12 more rows provided for more than one syringe or bag of ketamine that is commenced.

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Signature 1</th>
<th>Signature 2</th>
<th>Date</th>
<th>Time</th>
<th>Total ketamine discarded (mL or mg)</th>
<th>Signature 1</th>
<th>Signature 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>01/03/13</td>
<td>10:00</td>
<td>THall</td>
<td>SROse</td>
<td>01/03/13</td>
<td>20:00</td>
<td>NIL</td>
<td>BLoh</td>
<td>JLucas</td>
</tr>
<tr>
<td>01/03/13</td>
<td>20:00</td>
<td>BLoh</td>
<td>JLucas</td>
<td>02/03/13</td>
<td>09:00</td>
<td>5 mL</td>
<td>Plambert</td>
<td>TK Buckley</td>
</tr>
</tbody>
</table>
Ketamine Infusion Management Guidelines
(Refer to local hospital policy for ketamine infusion management information)

1. **Observations** on this form to be recorded either 2 hourly or 4 hourly as indicated on the prescription section of this form or more frequently if patient’s clinical condition warrants.
   - If PCA (Patient controlled analgesia) in use, document pain scores on the PCA chart only. Record observations according to PCA management guidelines.

2. **The infusion pump settings** to be checked at the commencement of each shift, on patient transfer and when the syringe or bag is changed.

3. **Managing dysphoric effects** such as hallucinations, unpleasant dreams or visual disturbances: contact the relevant pain service or equivalent medical officer. Patients usually respond to dose reduction of the ketamine infusion or the addition of a benzodiazepine (e.g. midazolam).

4. **The cannula site (subcutaneous or intravenous)** must be checked each shift for signs of redness, swelling or tenderness

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**Clinical Review Criteria:**
- New, increasing or uncontrolled pain
- Dysphoric adverse effects such as hallucinations, unpleasant dreams or visual disturbances.

**IF A PATIENT HAS ANY ONE (1) OR MORE CLINICAL REVIEW CRITERIA PRESENT, YOU MUST CONSULT PROMPTLY WITH THE NURSE OR MIDWIFE IN CHARGE AND ASSESS WHETHER A CLINICAL REVIEW IS NEEDED (REFER TO YOUR LOCAL ESCALATION PROTOCOL) AND**

1. You must initiate appropriate clinical care
2. Contact the relevant pain service or equivalent medical officer
3. Repeat and record observations as indicated by the patient’s condition, but at least within 30 minutes
4. You may call for a clinical review at any time if worried about a patient or unsure whether to call

**IN THE EVENT THAT A REVIEW BY THE RELEVANT PAIN TEAM OR EQUIVALENT MEDICAL OFFICER IS NOT POSSIBLE, CALL FOR A CLINICAL REVIEW**

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Ketamine infusion to be ceased according to instructions in the medical record:

Date: .................................. Time: ..........................

(check local policy for use of this prompt)
Observations

The ketamine chart can provide observations for a maximum of 4 days. If the infusion continues beyond 4 days, a new chart must be started and a new prescription written.

A patient label must be affixed or details written on each page that records observations.

Inside pages
### Pain assessment:
- **R** = Rest
- **M** = Movement

(If a PCA chart is in use – record pain score on the PCA chart)

### Dysphoric adverse effects assessment
(A score in the yellow zone requires a clinical review by the pain service)

### Infusion rate (in mg or mL)

### Ketamine pump program check

### Subcutaneous or IV cannula site check

### Comments for free text

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**Initial prompt**

**SH**

**KL**

**SH**

**SH**

**SH**

**KL**

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A patient label must be affixed or details written on each page that has recorded observations.
The standardisation of this chart promotes best practice in prescribing, pain assessment and management of adverse effects in those patients receiving a ketamine infusion.

Comments or questions can be directed to your implementation officer or the project leaders Emily Edmonds or Jenni Johnson.

The feedback register can be located on the ACI website: