Ketamine Infusion
Prescription and Observation Chart - adult
Education Slide Presentation

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 Chart - 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 administration of subcutaneous or intravenous ketamine infusions for patients who may have acute or chronic pain. This chart may not be appropriate for ketamine infusion administration in palliative care.

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 prescription, administration and discarding 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

**KETAMINE INFUSION (ADULT)**

**Ketamine Infusion Management Guidelines**
- Observations on this form to be recorded either 2 hourly or 4 hourly as indicated on the prescription section of the form or more frequently if patient’s clinical condition warrants.
- If PCA (Patient controlled analgesia) is in use, document pain scores on the PCA chart only. Record observations according to PCA management guidelines.
- Managing dystonic effects such as halokinetics, unpleasant dreams or visual hallucinations: obtain the relevant pain service or equivalent medical officer. A medical officer may consider a decrease in the ketamine Infusion or the addition of a benzodiazepine (e.g. midazolam).

**Managing Adverse Effects**

**YELLOW ZONE RESPONSE**

IF YOUR PATIENT HAS ANY YELLOW ZONE OBSERVATIONS YOU MUST FOLLOW THE YELLOW ZONE RESPONSE INSTRUCTIONS ON THE FRONT STANDARD OBSERVATION CHARTS AND INITIATE APPROPRIATE CLINICAL CARE AS STATED ABOVE.

**Page 2:**

- Ketamine infusion prescriptions (valid for up to 7 days)

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**Page 1:**

- Ketamine Infusion
- Management Guidelines
- Yellow Zone Response instructions
**KETAMINE INFUSION (ADULT)**

**Record of ketamine administration and ketamine discarded**

<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>1</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

**PAIN SCORE**

<table>
<thead>
<tr>
<th>Pain score</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe pain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moderate pain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mild pain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No pain</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**INFUSION RATE**

- mg or mL per hour (circle one)
- Cumulative dose mg or mL (circle one)
- Two hours for changes of ketamine program
- Ketamine program checked (initially given at 5 mg/mL, on patient transfer and on change of bag or syringe)
- Subsequently or IV fluids for sepsis, no significant deviation between 8 hours

**COMMENTS**

**INITIAL:**

**Observation pages**

**Page 3:** Administration / discard
Ketamine Infusion Management Guidelines:

- Managing adverse effects
- Yellow Zone Response instructions
## Ketamine Prescription:

<table>
<thead>
<tr>
<th>Route</th>
<th>Amount (mg)</th>
<th>Diluent</th>
<th>Total Volume (mL)</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infusion start rate</td>
<td>Infusion range (if applicable)</td>
<td>mg per hour = mL per hour</td>
<td>mg per hour = mL per hour</td>
<td></td>
</tr>
</tbody>
</table>

- **Patient allergy status**
- **Patient label**

### Ketamine prescription:
- Route
- Amount
- Diluent
- Total volume
- Concentration
- Infusion start rate
- Infusion range (if used)
- Date, prescriber, pharmacy

### Three revised prescription options for alterations to ketamine prescription

### CEASE instructions
Prescription: Patient identification

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

Prescriber to complete patient allergy and ADR section in full

Private Patients:
For Medicare billing purposes: A pain specialist referral from the referring doctor (name), signature and date

Ketamine Infusion (Adult)

Prescription is valid for a maximum of 7 days unless ceased earlier. Refer to local hospital policy for standardised Ketamine solutions.

Observations for this patient to be recorded:  

2 hourly OR 4 hourly.

The frequency of observations (2 hourly or 4 hourly) to be determined by the medical officer.

Attach ADR Sticker

Smith SMITH 5/4/17
Ketamine prescription:

<table>
<thead>
<tr>
<th>Route</th>
<th>Drug (print ‘ketamine’)</th>
<th>Amount (mg)</th>
<th>Diluent</th>
<th>Total Volume (mL)</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV</td>
<td>Ketamine</td>
<td>200 mg</td>
<td>Sodium chloride 0.9%</td>
<td>50mL</td>
<td>4 (mg per mL)</td>
</tr>
</tbody>
</table>

Infusion start rate:

- 4 mg per hour = 1 mL per hour

Infusion range (if applicable):

- FROM: 4 mg per hour = 1 mL per hour
- TO: 8 mg per hour = 2 mL per hour

Date: 04/4/17
Prescriber’s signature: TSmith
Print your name: SMITH
Contact: 7511
Pharmacy

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

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

<table>
<thead>
<tr>
<th>Record of ketamine administration</th>
<th>Record of ketamine discarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>Time</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>1</td>
<td>4/4/17</td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

Any ketamine remaining from a syringe or bag to be recorded on the discard section.

There are 13 more rows provided for more than one syringe or bag of ketamine that is commenced.
The ketamine chart can provide observations for a maximum of:

- 7 days when frequency of observations are 4 hourly
- 4 days when frequency of observations are 2 hourly

If the infusion continues beyond 4 or 7 days, a new chart must be started and a new prescription written.
A patient label must be affixed or details handwritten on each page that has recorded observations.

### Pain assessment:
- R = Rest, M = movement
- (If a PCA chart is in use – record pain score on the PCA chart)

### Yellow Zone Response:
- Have pain scores previously been in the White Zone (0 to 6)?
- Have additional prescribed analgesics been administered?
- Has the patient been reviewed by the Acute Pain Service or equivalent Medical officer?
- The assessing nurse may need to consult with the NURSE IN CHARGE to decide whether a CLINICAL REVIEW (or other CERS – Clinical Emergency Response) call should be made.

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<table>
<thead>
<tr>
<th>DATE</th>
<th>04/04/2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIME</td>
<td>10 00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PAIN SCORE</th>
<th>Severe pain</th>
<th>Moderate pain</th>
<th>Mild pain</th>
<th>No pain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10</td>
<td>8</td>
<td>6</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INFUSION RATE</th>
<th>6 mg</th>
<th>6 mg</th>
<th>8 mg</th>
<th>8 mg</th>
<th>8 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulative dose</td>
<td>12 mg</td>
<td>24 mg</td>
<td>40 mg</td>
<td>56 mg</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Two initials for change of ketamine program</th>
<th>SH</th>
<th>KL</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Ketamine program checked (initial)</th>
<th>SH</th>
<th>SH</th>
<th>NH</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Subcutaneous or IV cannula site secure, no signs of inflammation (check 8 hourly)</th>
<th>SH</th>
<th>NH</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
</tr>
</tbody>
</table>
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: