CHI no .....
First name ..... DOB ..... /..... /.....
Last name ..... Sex: ☐ M ☐ F
Address .....
.....
.....
or attach addressograph label here

Acute Pain Service NHS Lanarkshire
University Hospital Wishaw
Ward: .....

Intravenous Ketamine Infusion Chart

Drug Prescription						
Drug	**Conc. (mg/ml)**	**Rate (range)**	**Starting Rate**	**Dr's Signature**	**Print Name**	**Intended duration before review**
Ketamine	10mg/ml					24 hours unless specified

Complication
1. Hallucination/agitation
2. Inadequate analgesia
3. Infusion problem

Action
1. Bolus opioids
2. Bolus ketamine
3. Increase opioid infusion
4. Increase ketamine infusion
5. Decrease opioid infusion
6. Decrease ketamine infusion
7. Additional analgesia
8. Other non-pharmacological analgesia
9. Contact Acute Pain Team page 021/003
10. Changed pump/infusion set/new IV

Date/Time	*Resp. Rate	*Sedation Score	*Pain Score	Functional Assessment	IV Site (p)	Infusion Rate	Total Dose Infused (mg)	Volume Remaining	Complications	Action	Initials

Sedation Score
0 - None
S - normal sleep
1 - mild, drowsy, easy to rouse
2 - moderate, constantly drowsy, easy to rouse
3 - severe, somnolent, difficult to rouse

Pain Score on movement
0 - no pain
1 - mild pain
2 - moderate pain
3 - severe pain
4 - worst pain

Functional assessment score:
A - no limitation of (relevant) activity due to pain
B - mild limitation of activity due to pain
C - unable to complete activity due to pain.

This chart is to be completed for every patient on a Ketamine infusion.

If a patient is also on a PCA, it is to be completed in addition to the PCA chart except where fields were duplicated*.

Approved by Pain Team:
S Anderson/L Steele, Page 021/Dr Slorach Page 133

NMAHP.KETAMI.22_13811.W

Pub. date: Jun. 2022 | Review date: Jun. 2027 | Issue No: 02

Patient name:	CHI No:

Acute Pain Service, University Hospital Wishaw

Guidelines for the use of Intravenous Ketamine

Ketamine is a N-Methyl-D-Aspartate (NMDA) receptor antagonist used in sub anaesthetic doses for the management of neuropathic pain, opioid resistant pain and difficult to manage pain.

Indications for Use

For neuropathic pain, vascular pain, acute episodes of cancer pain and where opioids and secondary analgesics have failed.

Intravenous ketamine infusions have been shown to be useful in the management of difficult acute pain. It is not a first-line drug and should be reserved where traditional opioid techniques and multi-modal analgesia have been unsuccessful. Before using ketamine, consider whether regional blockade, paracetamol, non-steroidal anti-inflammatory drugs or alternative opioid regimes are indicated.

Ketamine is an effective analgesic agent but has side effects, particularly of hallucinations which can be disturbing for the patient. It is wise to explain this to the patient before starting ketamine. If hallucinations become a problem, firstly reduce the infusion rate and consider a benzodiazepine, e.g. midazolam in low dose. Other complications are unusual at these low doses, but include a rise in blood pressure and tachycardia.

Please note that if the patient has received high dose opioids in an attempt to control his/her pain, after ketamine has been started respiratory depression **can** occur. **Therefore, the patient should be monitored in an appropriate environment, e.g. A.C.C.U. or Level 1 monitored bed.**

Route

This guideline is for Intravenous use only - please refer to palliative care guidelines for other routes of administration.

Doses and Preparation

Dosage: Initial bolus 0.1 mgs per kilogram (Administered by Anaesthetist)

Infusion rate: Thereafter 0.1 - 0.2 mgs/kilogram/hour (final concentration 10mg/ml in 50 ml syringe, use neat 10mg/ml vial or dilute 5 mls of 100mg/ml with 45mls of normal saline).

N.B. As Ketamine is a potent anaesthetic and potential drug of abuse the Fresenius Kabi Agilia SP lockable syringe pump should be used for its administration.

On programming pump ensure you select the correct make of Luer Lock syringe to match the syringe you are inserting. The pump default is BD Plastipak.

Side Effects

- Sedation
- Dysphoria
- Respiratory depression
- Hallucinations
- Hypertension
- Tachyphylaxis

NOTE: If pain is reduced excessive plasma opioids may remain - opioid requirement is reduced and respiratory depression can occur!

Recommended Monitoring

Check and record the following every 15 minutes for one hour, then hourly whilst the patient is on the infusion.

Starting Infusion

- Respiratory Rate, Pulse & Blood Pressure
- Sedation Score
- Pain Score
- Dysphoria/hallucinations
- IV site for leaks, tissuing, obstruction
- Total Dose infused in pump and volume remaining

After bolus

- Respiratory Rate, Pulse & Blood Pressure
- Sedation Score
- Oxygen Saturation

Note: Close monitoring should be performed hourly initially for the first 6 - 8 hours