



REGIONAL ADULT PARENTERAL DRUG MONOGRAPH

GENERIC NAME

ketamine (high dose)
 (sedation/analgesia, rapid sequence intubation (RSI),
 procedural/conscious sedation)



Effective Date: Dec 2011

CLASSIFICATION
Anesthetic Agent

OTHER NAMES
Ketalar

PAGE

Revised Date: Dec 2022

1 of 2

ADMINISTRATION POLICY:

- IV Infusion – May be administered by a nurse under direct supervision of a prescriber
- IV Bolus – May be administered by a nurse under direct supervision of a prescriber
- IM Injection – May be administered by a nurse under direct supervision of a prescriber

RECONSTITUTION/DILUTION/ADMINISTRATION:

Available as: 10 mg/mL – 20 mL multidose vial, 50 mg/mL – 10 mL multidose vial

IV Bolus: Administer undiluted over 1 to 3 minutes

IM Injection: Administer undiluted

IV Infusion: Pump Library:

Ketamine HI

Drug Library	Dose Rate	Short Name	Care Unit
Yes	mg/kg/h	keta500	Critical Care
Drug	Diluent	Final Volume (VTBI)	Final Concentration
500 mg (10 mL of 50 mg/mL)	100 mL NS	110 mL	4.546 mg/mL
Clinical Advisory: High Alert			
Soft Low Dose Limit: 0.05 mg/kg/h		Soft High Dose Limit: 1 mg/kg/h	

DOSAGE:

Sedation & Acute pain: IV bolus: 0.25 to 0.5 mg/kg (maximum bolus: 35 mg) followed by IV continuous: 0.05 to 0.25 mg/kg/h Titrate to pain goal and tolerability; usual dosing range 0.05 to 1 mg/kg/h; may need higher doses in opioid-tolerant or opioid-induced hyperalgesia; duration of infusion 48 to 72 hours.

Rapid Sequence Intubation: IV bolus: 1 to 2 mg/kg

Procedural sedation: IV bolus: 1 to 2 mg/kg may repeat dose 0.5 to 1 mg/kg every 5 to 10 minutes
 IM: 4 to 5 mg/kg as a single dose; if sedation is inadequate after 5 to 10 minutes, repeat dose (2 to 5 mg/kg)

Induction of anesthesia: IV bolus: 0.5 to 2 mg/kg or 0.5 to 1 mg/kg in patients with shock

Maximum single dose: IV bolus: 2 mg/kg

Maximum rate: IV bolus: over at least 1 minute

IV continuous: 1 mg/kg/h

Maximum concentration: IV bolus: 50 mg/mL

IV continuous: 10 mg/mL



REGIONAL ADULT PARENTERAL DRUG MONOGRAPH

GENERIC NAME

ketamine (high dose)
(sedation/analgesia, rapid sequence intubation (RSI),
procedural/conscious sedation)



Effective Date: Dec 2011	CLASSIFICATION Anesthetic Agent	OTHER NAMES Ketalar	PAGE 2 of 2
Revised Date: Dec 2022			

STABILITY/COMPATIBILITY:

Stability of multidose vial: 28 days after first use
Stability of Final Admixture: 24 hours at room temperature

Compatibility: Compatible with normal saline and D5W

PRECAUTIONS, POTENTIAL ADVERSE REACTIONS:

- Resuscitative equipment should be readily available
- Increased heart rate and blood pressure
- Moderate respiratory depression (severe in overdose or rapid rate of administration)
- May increase intracranial and intraocular pressure. Caution advised in glaucoma or head injury.
- Vivid dreams, dissociative or extra corporeal (out of body) experiences, floating sensations, hallucinations, delirium and confusion. Caution advised when used in patients with psychiatric illness.
- Laryngospasm, hypersalivation and increased tracheobronchial secretions
- Muscle hyperactivity, rigidity and myoclonus

ADDITIONAL NOTES AND NURSING CONSIDERATIONS:

- Monitor blood pressure, respiratory rate, SpO₂ and sedation
- Cardiac monitoring and resuscitative equipment should be readily available
- CNS depressants (e.g. Benzodiazepines) may prolong recovery time and increase risk of apnea
- Purposeless movements of extremities may occur. These are not indicative of a need for an additional or higher dose
- Onset of anesthesia: 1 to 2 minutes. Duration of anesthesia: 5 to 15 minutes. Note that analgesia outlasts anesthesia.
- Elderly patients: Because of risk of respiratory depression may be greater, dose increments should be smaller and rate of injection slower.