
AUTHORIZED BY: CPC Quality of Care Committee
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CATEGORY: ACP Medications
TITLE: **Ketamine**

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- Other Names:**
- Ketalar
- Classifications:**
- General Anesthetic
- Pharmacodynamics:**
- Produces a cataleptic-like state in which the patient is dissociated from the surrounding environment by direct action on the cortex and limbic system.
 - Ketamine is a noncompetitive NMDA receptor antagonist that blocks glutamate.
 - Low (subanesthetic) doses produce analgesia, and modulate central sensitization, hyperalgesia and opioid tolerance. Reduces polysynaptic spinal reflexes.
- Onset:**
- IM:Anesthetic effect 3-4 minutes
- Peak:**
- IM:Anesthetic effect 5-30 minutes
- Duration:**
- IM:Anesthetic effect 12-25 minutes
- ALS PCS Indications:**
- Combative or violent or agitated behavior that requires sedation for patient safety
- Other Indications:**
- General anesthesia
 - Procedural sedation/analgesia
 - Status epilepticus (refractory)
- Contraindications:**
- Allergy or sensitivity
 - Known history of asthma
 - Known pregnancy
- Precautions:**
- Use with caution in patients with coronary artery disease, catecholamine depletion, hypertension, and tachycardia.
 - Use with caution in patients with Cerebrospinal fluid (CSF) pressure elevation
 - Use with caution in the chronic alcoholic or acutely alcohol-intoxicated.

- Adverse Reactions:**
- Postanesthetic emergence reaction
 - Laryngospasm
 - Respiratory depression
 - Thyroid disorders
 - Hydronephrosis, Bladder dysfunction, cystitis
 - CNS depression
 - Increased intracranial pressure
 - Drug dependence
 - Diplopia, increased intraocular pressure, nystagmus
 - Bradycardia, cardiac arrhythmia, hypotension, increased blood pressure, increased pulse
- Drug Interactions:**
- CNS depressants such as alcohol, opioids, benzodiazepines, some anti-depressants and cannabis can potentiate the effects of ketamine
- Special Considerations:**
- Do not co-administer midazolam and ketamine unless direction received from BHP.
 - If ketamine emergence reaction develops, a BHP patch is required if further sedation orders are required.
- Preparations:**
- 10 mg/mL (20 mL)
 - 50 mg/mL (10 mL)
 - 100 mg/mL (5 mL)

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- References:**
- Ontario Provincial ALS Patient Care Standards, Version 4.5
 - Ottawa Parenteral Drug Therapy Sheet
 - Lexicomp, Ketamine: Drug information. Retrieved Online from Up-to-Date on Mar 3rd, 2019

NOTE: The information contained herein does not supersede or negate the MoHLTC Provincial Medical Directives and should only serve as general information about the medication itself. For medication dosages, please refer to the current version of the Ontario Provincial ALS Patient Care Standards.