

Initial Date: 07/19/2023  
Revised Date: 07/28/2023

Section: 9-29R

## ***Ketamine***

**Pharmacological Category:** Antidepressant; General Anesthetic

**Routes:** IV/IO/IM/IN

**Indications:**

1. Pain Management
2. Sedation

**Precautions:**

1. Ketamine IV should be diluted to prevent ketamine dissociation.

**Expected effects:**

1. Sedation
2. Decreased agitation
3. Decreased pain

**Side effects:**

1. Nausea/vomiting
2. Nystagmus
3. Dysphoria

**Notes:**

1. IM Ketamine has a 3–5-minute onset
2. Diluting ketamine
  - a. Mix the patient specific dose into 100 mL NS and administer slow infusion over 5-10 minutes.
3. Ketamine is an MCA optional medication and may not be available.

### **Dosing: HYPERACTIVE DELIRIUM SYNDROME WITH SEVERE AGITATIONS**

Indication: Patients demonstrating signs and symptoms of hyperactive delirium syndrome with severe agitation that are in imminent physical threat to themselves and/or personnel.

Adults administer:

1. Ketamine 4 mg/kg IM. Maximum single dose 500 mg

### **Dosing: PAIN MANGEMENT**

Indication: For patients with severe pain (described as 7 or greater on the Wong Pain Scale)

Adults administer:

1. Ketamine 0.2 mg/kg IV/IO (diluted) slow infusion. Maximum single dose 25 mg.
2. Ketamine 0.5 mg/kg IN (undiluted). Maximum single dose 50 mg.
3. May repeat after 10 minutes.

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### Pediatrics

1. Ketamine according to MI MEDIC cards
2. If MI MEDIC cards are not available administer:
  - a. Pediatrics (> 6 years of age and  $\leq$  14 years of age):
    - i. Ketamine 0.2 mg/kg IV/IO (diluted) slow infusion, maximum single dose 7.2 mg
    - ii. Ketamine 0.5 mg/kg IN (undiluted) maximum single dose 18 mg
    - iii.. May repeat after 10 minutes.
  - b. Pediatrics (> 6 months of age and  $\leq$  6 years of age)
    - i. 0.5 mg/kg IN (undiluted) maximum single dose 18 mg
    - ii.. May repeat after 10 minutes.

### Used in the Following Protocols

Hyperactive Delirium Syndrome with Severe Agitation (Section 3 Adult Treatment)  
Pain Management (Section 7 Procedures)