# Ketamine

MEDICATION

## THE DRUG

Class: Nonbarbiturate / Dissociative Anesthetic

Mechanism: cyclohexanone derivative; noncompetitive NMDA and glutamate receptor antagonist (blocks HCN1); produces profound anesthesia and analgesia

## USE IT FOR

- RSI when etomidate is unavailable; RSI with asthmatic, septic, and burn patients
- Tube tolerance after RSI
- Extreme cases and prolonged/chemical extrication
- Severe pain refractory to narcotics
- Acute delirium with patient harm risk

## DON'T GIVE / CAUTION

- Hypersensitivity to the drug
- Conditions where elevation in blood pressure would be hazardous
- Respiratory depression may occur if rapidly administered

## DOSE

**Adult:** **Behavioral/Procedural: 4 mg/kg IM or 1 mg/kg IV/IO. Pain: 20 mg in 100 mL D5W over 10–15 min (one-time). RSI: 1 mg/kg IV/IO**

**Peds:** **Refer to Handtevy for dosage**

**Repeat:** **RSI: may repeat 0.5 mg/kg as needed**

## WATCH FOR

- Emergence reactions: vivid dreams, hallucinations, delirium, confusion — up to 24 hours
- Hypertension, bradycardia, arrhythmias; respiratory depression, apnea, laryngospasm
- Nausea and vomiting; increased secretions
- Muscle stiffness/spasms, tonic-clonic movements; nystagmus, diplopia
- Anaphylaxis and angioedema (allergic)

## PEARLS

- Patients given ketamine are placed on the monitor and capnography
- Full side-effect list on the original runs to nine body systems — compressed here to the field-relevant items

**Take Home Message:**

Ketamine covers RSI, tube tolerance, refractory pain, and dangerous delirium — and every patient who gets it goes on the monitor and capnography.