MIDAZOLam

Classification

HIGH ALERT MEDICATION

CONTROLLED AND TARGETED SUBSTANCE

Short-acting benzodiazepine

Indications

ACP: Sedation of agitated patients

ACP: Control of seizures

ACP: Maintenance of anesthesia in intubated patients

Contraindications

- Hypersensitivity to MIDAZOLam or other benzodiazepines
- Acute narrow-angle glaucoma
- Shock
- Decreased level of consciousness
- Hypotension

Adult dosages

ACP: All indications

- 2-5 mg IV/IO in increments to effect
- 5-10 mg IM
- May repeat as required in small increments
- Maximum dose from all sources is 30 mg
  - Contact CliniCall if higher doses or additional sedation is required

Pediatric Considerations And Dosing

Follow weight-based dosing

ACP: All indications

- 0.2 mg/kg IN, *OR*
  - Maximum dose 10 mg
  - Intranasal drug administration is recommended over intramuscular because of a more consistent absorption
  - Administer 1/2 the dose in each nare
  - Consult A07: Oxygen and Medication Administration for additional information on the use of intranasal atomizer devices.
- 0.1 mg/kg IV/IO, *OR*
  - Maximum dose 5 mg
- 0.2 mg/kg IM

Mechanism Of Action

Like other benzodiazepines, MIDAZOLam intensifies the activity of gamma aminobutyric acid, the major inhibitory neurotransmitter in the central nervous system. This action is believed to result in hyperpolarization of neuronal cells, which then take longer to reach threshold and depolarize.

Pharmocokinetics

Intravenous:

- Onset: 1-5 minutes (intramuscular onset is 5-15 minutes)
- Peak: uncertain
- Half-life: 1.5-3 hours
- Duration: 2-6 hours (dose-related)

Adverse Effects

- Sedation, headache, blurred vision
- Hypotension
- Nausea and vomiting
- Pain and tenderness if given IM
- Respiratory depression

Overdose

Benzodiazepine overdoses should be managed supportively, with oxygenation and ventilation supported as necessary, and fluids given to maintain an adequate blood pressure. Reversal agents are available in-hospital.

Warning And Precautions

Use with caution when administering other central nervous system depressants or narcotic analgesics.

Drug Interactions

Erythromycin, diltiazem, verapamil, ketoconazole, fluconazole, and itraconazole can significantly increase the bioavailability of MIDAZOLam, and may produce prolonged sedation.

Ritonavir and nelfinavir may cause deep and prolonged sedation that may progress to respiratory depression.

Rifampin, carbamazepine, and phenytoin may markedly reduce the effectiveness of MIDAZOLam.