

**MIDAZOLAM (Versed®)****Classification:** Benzodiazepine**Actions:**

1. Hypnotic, amnesiac, sedative, anticonvulsant
2. Potent but short-acting, 3-4 times more potent than diazepam
3. Has NO effect on pain

**Indications:**

1. Active, continuous seizure
2. Status epilepticus
3. Sedation prior to cardioversion
4. Acute behavior disorder (agitated patient danger to self or others)
5. Severe muscle spasms (base physician order only)

**Contraindications (Relative):**

1. **History of hypersensitivity to benzodiazepines**
2. **Shock with depressed vital signs**
3. **ALOC of unknown etiology / polypharmacy ingestion**
4. **Narrow-angle glaucoma**
5. **Eclampsia (Base Hospital order only)**

**Adverse Effects (Precautions, Side Effects and Notes):**

**Midazolam may cause respiratory depression and/or hypotension especially if administered rapidly. Monitor patient closely.**

1. Common side effects include drowsiness, hypotension, respiratory depression and apnea. These are more likely to occur in the very young and the very elderly. Rarely, patients may experience paradoxical agitation.
2. Respiratory depression is more likely in patients who have taken other CNS depressant drugs such as opioids, alcohol, other benzodiazepines or barbiturates, or when given rapidly.
3. Midazolam is metabolized in the liver and excreted by the kidneys. **Doses should be adjusted accordingly in patients with underlying hepatic or renal diseases or cardiac diseases with low flow states such as CHF.**
4. GI effects include nausea, vomiting, hiccough/hiccup
5. Pain at injection site (IV/IM), intranasal irritation if given IN

**Administration:****ADULT DOSE****1. Seizure:**

- 5 mg SLOW IV or
- 5 mg IM or IN (split dose between nares)
- **May repeat once after 5 minutes for persistent or recurrent seizures**

**MIDAZOLAM (Versed®) - continued****2. Agitated patient sedation** (danger to self or others):

- Up to 5 mg SLOW IV
- 5 mg IM or IN (IN split dose between nares)
- **May repeat once after 5 minutes for significant agitation / threat to self or others**

**3. Pre-cardioversion sedation:**

- Up to 2 mg SLOW IV
- 5 mg IM or IN (IN split dose between nares)
- **May repeat once after 10 minutes**

**\*\*\*EKG, Pulse oximetry, and ETCO2 (when equipment is available) monitoring will be used at all times.**

**PEDIATRIC DOSE****1. Seizure**

- 0.2 mg/kg SLOW IV not to exceed 5 mg
- 0.2 mg/kg IM/IN not to exceed 5 mg
- **May repeat once after 5 minutes for persistent or recurrent seizures**
- **Not to exceed 5 mg TOTAL**

**2. Agitated Patient Sedation:**

- Up to 0.2 mg/kg not to exceed 5 mg
- Up to 0.2 mg/kg IM/IN not to exceed 5 mg
- **May repeat once after 5 minutes for significant agitation/threat to self or others**
- **Not to exceed 5 mg TOTAL**

(IN **volume** for pediatric patient up to 1ml per nostril)

Pediatric maximum **volume** of one (1) mL per nostril per atomization (0.2-0.3 mL per nostril is ideal)

- volumes > 1 mL are more likely to saturate the mucosal surface causing medication runoff into the proximal pharynx

**3. Pre-cardioversion:**

- 0.1 mg / kg IN or SLOW IV.
- **Max 2mg**

**\*\*\*EKG, Pulse oximetry, and ETCO2 (when equipment is available) monitoring will be used at all times.**

**Onset:** 1.5 - 5 minutes IV  
2 - 6 minutes IN  
15 minutes IM

**Duration:** 2 - 6 hours for IV/IN/IM