FRESENIUS KABI

caring for life

Midazolam
Injection, USP

2 mg per 2 mL Simplist® ready-to-administer prefilled syringes available from Fresenius Kabi

- Manufacturer prepared
- 36-month shelf life
- Preservative free
- Clear and distinct labeling

Midazolam Injection, USP

INDICATIONS AND USAGE

- intramuscularly or intravenously for preoperative sedation/anxiolysis/amnesia;
- intravenously as an agent for sedation/anxiolysis/amnesia prior to or during diagnostic, therapeutic or endoscopic procedures, such as bronchoscopy, gastroscopy, cystoscopy, coronary angiography, cardiac catheterization, oncology procedures, radiologic procedures, suture of lacerations and other procedures either alone or in combination with other CNS depressants;
- intravenously for induction of general anesthesia, before administration of other anesthetic agents. With the use of narcotic premedication, induction of anesthesia can be attained within a relatively narrow dose range and in a short period of time. Intravenous midazolam can also be used as a component of intravenous supplementation of nitrous oxide and oxygen (balanced anesthesia);
- continuous intravenous infusion for sedation of intubated and mechanically ventilated patients as a component of anesthesia or during treatment in a critical care setting.

IMPORTANT SAFETY INFORMATION:

WARNING

Personnel and Equipment for Monitoring and Resuscitation

Adults and Pediatrics: Intravenous midazolam has been associated with respiratory depression and respiratory arrest, especially when used for sedation in noncritical care settings. In some cases, where this was not recognized promptly and treated effectively, death or hypoxic encephalopathy has resulted. Intravenous midazolam should be used only in hospital or ambulatory care settings, including physicians' and dental offices, that provide for continuous monitoring of respiratory and cardiac function, e.g., pulse oximetry. Immediate availability of resuscitative drugs and age- and size-appropriate equipment for bag/valve/mask ventilation and intubation, and personnel trained in their use and skilled in airway management should be assured (see WARNINGS). For deeply sedated pediatric patients, a dedicated individual, other than the practitioner performing the procedure, should monitor the patient throughout the procedure.

Risks from Concomitant Use with Opioids

Concomitant use of benzodiazepines and opioids may result in profound sedation, respiratory depression, coma, and death. Monitor patients for respiratory depression and sedation.

Individualization of Dosage

Midazolam must never be used without individualization of dosage. The initial intravenous dose for sedation in adult patients may be as little as 1 mg, but should not exceed 2.5 mg in a normal healthy adult. Lower doses are necessary for older (over 60 years) or debilitated patients and in patients receiving concomitant narcotics or other central nervous system (CNS) depressants. The initial dose and all subsequent doses should always be titrated slowly; administer over at least 2 minutes and allow an additional 2 or more minutes to fully evaluate the sedative effect. The use of the 1 mg/mL formulation or dilution of the 1 mg/mL or 5 mg/mL formulation is recommended to facilitate slower injection. Doses of sedative medications in pediatric patients must be calculated on a mg/kg basis, and initial doses and all subsequent doses should always be titrated slowly. The initial pediatric dose of midazolam for sedation/anxiolysis/amnesia is age, procedure, and route dependent.

***Neonates:* Midazolam should not be administered by rapid injection in the neonatal population. Severe hypotension and seizures have been reported following rapid IV administration, particularly with concomitant use of fentanyl**

Midazolam Injection, USP is contraindicated in patients with a known hypersensitivity to the drug. Benzodiazepines are contraindicated in patients with acute narrow-angle glaucoma. Benzodiazepines may be used in patients with open-angle glaucoma only if they are receiving appropriate therapy. Measurements of intraocular pressure in patients without eye disease show a moderate lowering following induction with midazolam; patients with glaucoma have not been studied.

Serious cardiorespiratory adverse events have occurred after administration of midazolam. These have included respiratory depression, airway obstruction, oxygen desaturation, apnea, respiratory arrest and/or cardiac arrest, sometimes resulting in death or permanent neurologic injury.

Reactions such as agitation, involuntary movements (including tonic/clonic movements and muscle tremor), hyperactivity and combativeness have been reported in both adult and pediatric patients. These reactions may be due to inadequate or excessive dosing or improper administration of midazolam; however, consideration should be given to the possibility of cerebral hypoxia or true paradoxical reactions.

Concomitant use of barbiturates, alcohol or other central nervous system depressants may increase the risk of hypoventilation, airway obstruction, desaturation, or apnea and may contribute to profound and/or prolonged drug effect.

Adult or pediatric patients with COPD are unusually sensitive to the respiratory depressant effect of midazolam. Pediatric and adult patients undergoing procedures involving the upper airway are particularly vulnerable to episodes of desaturation and hypoventilation due to partial airway obstruction. Adult and pediatric patients with chronic renal failure and patients with congestive heart failure eliminate midazolam more slowly.

Injectable midazolam should not be administered to adult or pediatric patients in shock or coma, or in acute alcohol intoxication with depression of vital signs. Particular care should be exercised in the use of intravenous midazolam in adult or pediatric patients with uncompensated acute illnesses, such as severe fluid or electrolyte disturbances.

The safety and efficacy of midazolam following non-intravenous and non-intramuscular routes of administration have not been established. Midazolam should only be administered intramuscularly or intravenously.

Midazolam is associated with a high incidence of partial or complete impairment of recall for the next several hours.

Usage in Pregnancy: If midazolam is used during pregnancy, the patient should be apprised of the potential hazard to the fetus.

Usage in Preterm Infants Neonates: Rapid injection should be avoided in the neonatal population due to risk of severe hypotension and seizures. The neonate has reduced and/or immature organ function and is vulnerable to profound and/or prolonged respiratory effects of midazolam.

Adverse Reactions: Fluctuations in vital signs were the most frequently seen findings following parenteral administration of midazolam in adults and including decreased tidal volume, respiratory rate decrease (23.3% of patients following intravenous and 10.8% of patients following intramuscular administration), apnea (15.4% of patients following intravenous administration), as well as variations in blood pressure and pulse rate.

Additional Adverse Reactions: Adults: Intramuscular Administration: headache, injection site pain; Intravenous Administration: hiccoughs, nausea, vomiting, coughing, over sedation, headache, drowsiness, tenderness at injection site, pain at injection site, redness, induration. Pediatric: desaturation, apnea, hypotension, paradoxical reactions, hiccough, seizure-like activity, and nystagmus.

To report SUSPECTED ADVERSE REACTIONS, contact Fresenius Kabi USA, LLC, at 1-800-551-7176 or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch

Overdosage: The manifestations of midazolam overdosage reported are similar to those observed with other benzodiazepines, including sedation, somnolence, confusion, impaired coordination, diminished reflexes, coma and untoward effects on vital signs.

This Important Safety Information does not include all the information needed to use MIDAZOLAM INJECTION, USP safely and effectively. Please see accompanying full prescribing information, including BOXED WARNING, for MIDAZOLAM INJECTION, USP. Full prescribing information is also available at www.simplist-us.com.

Simplist®

Midazolam
Injection, USP

Strength	2 mg per 2 mL
Concentration	1 mg per 1 mL
Fill volume	2 mL
Unit of sale NDC	76045-001-20
Unit of sale bar code	N(01)00376045001204
Pack size	24 per Carton
Blister dimensions	5.748″ x 1.063″
Carton dimensions	6.25″ x 2.402″ x 6.575″

Wholesale numbers

AmerisourceBergen	10143564
Cardinal	5017447
McKesson	3242732
Morris & Dickson	760116

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