

## Lorazepam (Ativan®) P

Lorazepam has multiple uses in EMS practice. Though primarily utilized as an anticonvulsant, it also has sedative properties that make it useful in the management of acute CNS stimulant (e.g., cocaine, amphetamines, etc.) intoxication and alcohol withdrawal.

**PREGNANCY: D**

*Lorazepam is a potent sedative that can lead to respiratory depression. Monitor the patient closely and be prepared to manage the airway. Be especially cautious in elderly patients and those with COPD.*

**CAUTION:** **Dosage warning:** Lorazepam is related to diazepam but **not** identical; it **cannot** be used interchangeably at the same dose.

**Classification:** Benzodiazepine; anticonvulsant and sedative.

### Actions:

- Interacts with the  $\gamma$ -aminobutyric acid (GABA)-benzodiazepine receptor complex. GABA is the chief inhibitory neurotransmitter in the central nervous system (CNS).
- Exerts a general calming effect on the central nervous system, causing sedation, and eventually respiratory depression.

### Indications:

- Acute seizure activity (see Grand Mal Seizures).
- Acute alcohol withdrawal. **OMCP**
- Procedural sedation, though midazolam is generally a better choice. **OMCP**
- Acute CNS stimulant (e.g., cocaine, amphetamines, etc.) intoxication, especially if associated with seizures or delirium. **OMCP**

### Contraindications:

- Known hypersensitivity to lorazepam, diazepam, or other benzodiazepines.
- Acute glaucoma.
- Alcohol intoxication or other causes of CNS depression.

### Adult Dosage and Route:

- Grand mal seizure: 2 mg IV every 5 minutes, until seizure activity stops or a total of 4 mg has been administered. Additional dosing requires Online Medical Consultation. **OMCP**
- Acute cocaine intoxication: 1-2 mg IV as directed by Online Medical Consultation. **OMCP**
- Acute alcohol withdrawal: 1-2 mg IV as directed by Online Medical Consultation. **OMCP**
- Procedural sedation: 1-2 mg IV as directed by Online Medical Consultation. **OMCP**

### Pediatric Dosage and Route:

- Grand mal seizure: 0.05 mg/kg, up to 2 mg, IV every 5 min until seizure activity stops or a total of two (2) doses has been administered. Additional dosing requires Online Medical Consultation. **OMCP**
- Procedural sedation: 0.05 mg/kg IV as directed by Online Medical Consultation. **OMCP**

### Adverse Effects:

- Respiratory depression, especially in pediatric, geriatric, and COPD patients.
- Hypotension, especially in patients with poor hemodynamic reserve.
- Vascular irritation and thrombophlebitis.

**Notes:** Flumazenil is antidotal but contraindicated if the patient has had, or is at risk for, seizure activity (see Flumazenil). **EMS use during pregnancy is permitted with Online Medical Consultation. OMCP**

**Complete Information:** <http://dailymed.nlm.nih.gov/dailymed/lookup.cfm?setid=ba5527fb-76fc-4ee5-b62e-a141c58c957d>.