

# CLINICAL ALERT

JULY | 2022

PharMerica

## Lorazepam Injection Drug Shortage

### Issue

A national supply disruption has caused an interruption in the dependable availability of **lorazepam injection** products – a benzodiazepine used for **status epilepticus** and as a pre-op medication for the relief of **anxiety** and **tension**.

### Products Affected

All NDCs of lorazepam injection are being affected.

### Estimated Resupply Date(s)

No definitive resupply date(s) have been provided.

## Action Steps

### PharMerica Pharmacies

- Monitor for availability of product and complete orders when possible.
- Notify serviced facilities when prescription orders are unable to be fulfilled due to the drug shortage(s).

### Facilities

- Solicit recommendations from prescribers and obtain prescriptions for alternative therapy to switch patients to alternative agent(s) for their treated indication when notified by PharMerica pharmacies of drug shortage(s).
  - There are no direct dosage conversions between the benzodiazepines because each has a distinct pharmacokinetic profile that dictates the agent's therapeutic use and dosing.

### Pharmacokinetics of Injectable Benzodiazepines

Agent	Onset of Action (min) Intravenous	Onset of Action (min) Intramuscular	Duration of Action (hours) Intravenous	Duration of Action (hours) Intramuscular	Half-life (hours)	Active Metabolites
Diazepam	1 to 5	slow and erratic absorption	0.3 to 0.5	slow and erratic absorption	20 to 120	Yes
Lorazepam	5 to 20	15 to 30	6 to 8	6 to 8	8 to 15	No
Midazolam	1 to 5	5 to 15	≤ 2 <sup>a</sup>	2 <sup>a</sup>	3 to 11	Yes

If **LORAZEPAM INJECTION** ordered for **STATUS EPILEPTICUS** is unavailable, consider this [UpToDate Summary](#)

- **Benzodiazepines** — 1<sup>st</sup> line treatment for convulsive status epilepticus because they control seizures rapidly.
- 3 most commonly used benzodiazepines for status epilepticus are **diazepam**, **lorazepam**, and **midazolam**.
- In adults, choice of benzodiazepine medication varies by route of administration:
  - **Diazepam** is preferred for rectal administration.
    - Rectal diazepam is given in doses of 0.2 mg/kg up to 20 mg for an adult.
    - Intranasal diazepam given at 0.2 mg/kg is an alternative.
  - **Lorazepam** is preferred for the intravenous (IV) route.
    - 4 mg IV is the best-studied dose in this setting.
  - **Midazolam** is preferred for intramuscular (IM), intranasal, or buccal administration.
    - 10 mg IM is the best studied dose in this setting.
    - The typical dose of buccal midazolam is 0.2 mg/kg, or 10 mg in adolescents and adults. The dose of intranasal midazolam using the nasal spray formulation (5 mg/0.1 mL) is one spray (5 mg) in each nostril to give 10 mg.