



JANET T. MILLS
GOVERNOR

STATE OF MAINE
DEPARTMENT OF PUBLIC SAFETY
MAINE EMERGENCY MEDICAL SERVICES
152 STATE HOUSE STATION
AUGUSTA, MAINE 04333



MICHAEL SAUSCHUCK
COMMISSIONER

J. SAM HURLEY
DIRECTOR

CLINICAL BULLETIN			
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#2022-12-27-01	Midazolam Shortage Information		27 Dec 2022
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Approved By:	J. Sam Hurley, MPH, EMPS, NRP Maine EMS Director	Matthew Sholl, MD, MPH State Medical Director	

The United States continues to experience a myriad of medication shortages. Over this past summer, a particularly severe shortage of injectable lorazepam forced much higher-than-normal usage of alternate benzodiazepines and sedatives. Although the shortage of lorazepam has essentially resolved, the downstream effects are being felt in supplies of the alternative medications. This has now become a potential issue for the Maine EMS Formulary benzodiazepine, midazolam.

Certain preparations of midazolam have started to become unavailable. In particular, the 5mg/ml (1ml vial) which is carried by many services across the state.

This shortage is projected to last through much of the winter. In the interim, providers may have a variety of vial sizes or concentrations supplied to them in substitution.

Possible alternate midazolam supply options:

- 10mg / 2ml vial (5mg/ml concentration, larger vial)
- 5mg / 5ml vial (1mg/ml concentration, 5ml vial)

During this critical time of medication shortages and as always, it is of utmost importance to be mindful when using medications.

Please note that regardless of which preparation is supplied, there are important nuances to be aware of:

1. **5mg/ml** concentration may be supplied in a bigger vial, such as **2ml (10mg / 2ml)** which can lead to an inadvertent overdose of medication if the wrong volume is withdrawn and administered.
2. **5mg / 5ml (1mg/ml)** concentration may not be appropriate for *intranasal (IN)* administration as the volume quickly exceeds maximum volume of 1ml per nare. Also with this less concentrated formulation, multiple administrations

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FAX: (207) 287-6251

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may be necessary for *intramuscular (IM)* administration. A 10mg dose is 10ml, requiring multiple injection sites to administer a whole dose safely.

Please know that your pharmacy suppliers are working diligently to resolve this issue and that there are no changes to Maine Pre-Hospital Treatment Protocols.

Maine EMS and the MDPB continue to monitor this situation and will work with agencies over the coming months. Please contact Maine EMS Staff or any MDPB member for further questions or concerns.