



EMS Special Memorandum - #22-002

Date: May 12, 2022

To: Mendocino/ Sonoma County ALS Provider Agencies

From: Bryan Cleaver
Regional EMS Administrator

Mark Luoto, MD
Regional EMS Medical Director

Re: Drug Shortages and Substitutions

EMS service providers, both regionally and nationally, are facing critical drug shortages. To date, there are no universally accepted approaches to this problem. The Coastal Valleys EMS Agency is requesting ALS Providers regularly update the EMS Agency on medication supply problems. The EMS Agency is also providing the following direction in regard to the shortages.

1. Designated shortage medications should be limited to truly critical situations (Midazolam for seizures, not anxiety).
2. It may become necessary to use medications that have different packaging and/or concentrations. This creates the real potential for dosing errors. Any changes must be accompanied by training and labeling that communicates on each dose that it is different than the usual concentration.
3. Expired drugs should be stored and monitored in a separate, clearly designated area according to manufacturer's recommendations. If medications cannot be procured, despite extensive efforts including using alternative sources, drugs can be used up to 6 months after their expiration date.
4. Providers using medications past manufacturer's expiration date must advise the EMS agency weekly in writing of:
 - a. efforts made to resupply with non-expired medications
 - b. total volume and type of expired medications administered
5. Providers using medications past manufacturer's expiration date must maintain a log documenting instances such medications were administered.

Please note the following drug substitution information:

Lactated Ringers (LR) solution is an acceptable substitute for Normal Saline **EXCEPT** as follows:

- a. LR may not be used for IV drip administration of Amiodarone. LR may be used in cardiac arrest situations where the Amiodarone is administered via IV push through an established IV line.

- b. LR has not been verified as compatible with Ketamine, and is not approved as a substitute for Normal Saline for the administration of the medication. If Normal Saline is not available, Ketamine must be withheld.

Please contact the Coastal Valleys EMS Agency for any needed clarification.