



State of Maryland

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To: ALS Clinicians

From: Timothy Chizmar, MD
State EMS Medical Director

Date: January 20, 2022

Re: Epinephrine 0.1 mg/mL (1:10,000) Shortage

Several Maryland EMS agencies have indicated that they are currently experiencing a shortage of prefilled epinephrine 0.1 mg/mL (previously known as 1:10,000). One strategy to address this challenge entails diluting epinephrine 1 mg/mL to make epinephrine 0.1 mg/mL.

In order to make epinephrine 0.1 mg/mL (previously known as 1:10,000), please take the following steps:

- Start with a 10 mL normal saline flush
- Remove/push out 1 mL from the flush
- Draw 1 mL of epinephrine 1 mg/mL (previously known as 1:1,000) into the flush and mix
- Remove any air bubbles prior to IV administration

This process yields a 10 mL syringe of epinephrine 0.1 mg/mL, which is the same concentration and volume as the prefilled epinephrine syringe. This concentration is suitable for IV/IO administration for patients in cardiac arrest. Please refer to the protocols for appropriate adult and pediatric dosing.

Due to stability and contamination concerns, these epinephrine syringes should not be mixed “ahead of time” or stored in this fashion. If this method is used, the epinephrine should be mixed and administered to the patient immediately.

Please direct any questions regarding this memo to the MIEMSS Office of the Medical Director.

CC:

Highest Jurisdictional Officials
Medical Directors
Regional Coordinators
SOCALR