

Vermont EMS Information Memorandum

TO: Vermont Advanced EMS Providers (AEMTs & Paramedics), Service Leaders, District Medical Advisors

CC: Dan Batsie, State EMS Chief; Chris Bell, State EMS Director

FROM: Daniel Wolfson, MD - State EMS Medical Director

DATE: June 6, 2017

Subject: Cardiac Epinephrine 1:10,000 (0.1 mg/mL) SHORTAGE

We have received notification that some areas in VT are experiencing shortages of Cardiac Epinephrine 1:10,000 (0.1 mg/mL). This trend reflects a national shortage. Please refer to the following alternative dose instructions. Until Cardiac Epinephrine returns to its usual availability, Vermont EMS endorses the following protocol for AEMTs and Paramedics only (not permitted for providers at other license levels). This procedure replaces prior instructions.

For Patients in Cardiac Arrest Only

**Replace Cardiac Epinephrine 1:10,000 (0.1 mg/mL), with
Epinephrine 1:1,000 (1 mg/mL) from a 1 mL Vial or Ampule**

Procedure

1. Using a filter straw or needle, withdraw 1 mL (1 mg) from a 1 mL Epinephrine 1:1,000 (1 mg/mL) ampule or vial into a 1 mL syringe. (Do NOT draw up epinephrine from the 30 mL vial)
2. The syringe now contains 1 mg of Epinephrine 1:1000 (1mg/mL) and may be administered to the patient via an IV (preferably with IV fluids running).
3. Follow immediately with two flushes of 10 cc normal saline IV.

Warnings

Epinephrine is sensitive to light, air, and pH, with a short stability time when extemporaneously prepared, making it unsuitable for long-term storage.

It cannot be stressed enough that emergency mixing or substitution of medications which are normally available in ready-to-use preparations, especially in the prehospital environment, sharply increases the chances of serious medical errors leading to morbidity and mortality.

All AEMTs & Paramedics are required to meet with the Training Director to review, demonstrate, and document proper dosing and administration procedures for cardiac Epinephrine using a 1:1,000 (1 mg/mL) concentration followed by two 10 cc normal saline flushes. Records of this training must be kept and available to State EMS upon request.