



Hudson Valley Regional Emergency Medical Services Council

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R E M A C A D V I S O R Y

2017 – 06: Epinephrine Supply – 1:10,000 Shortage

Issued: June 5, 2017

Effective Date: Immediately

Background

The Hudson Valley Regional Emergency Medical Advisory Committee (REMAC) continues to receive notifications of shortages of pharmaceuticals commonly found in the pre-hospital care environment. One of the vital medications that are now currently experiencing serious supply issues in our area is Epinephrine, 1:10,000 concentrations.

As a result of this shortage, this advisory is being issued to all authorized ALS agencies and Paramedics.

Procedure

In accordance with New York State Department of Health Bureau of EMS Policy Statement 13-04: *Alternative Medication Formulary for Prehospital Drug Shortagesⁱ*, the REMAC recommends the following alternatives when Epinephrine 1:10,000 is not available:

Alternative 1: Epinephrine 1:1,000 30mL Vial

1. Expel 1mL of normal saline from a 10mL syringe (pre-filled)
2. Instill 1mg(mL) of Epinephrine 1:1,000 from 30 mL vial in to pre-filled syringe
3. 30mL vials are to be single patient use **ONLY**

Alternative 2: Epinephrine 1:1,000 1mg/ml Ampule

1. Expel 1mL of normal saline from a 10mL syringe (pre-filled)
2. Instill 1mg(mL) of Epinephrine 1:1,000 from ampule in to pre-filled syringe

Warnings

There is no option for a hospital pharmacy to prepare doses for EMS use as epinephrine is sensitive to light, air, and pH, with a short stability time when extemporaneously prepared, making it unsuitable for bulk compounding by pharmacy departments.ⁱⁱ

It cannot be stressed enough that emergency mixing 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. For instance, the 30 mL vial more easily facilitates an accidental overdose by providing enough volume of drug to allow a 10-fold overdose of epinephrine.

All agencies are urged to review drug calculations procedures with their Paramedics to ensure that these alternate medication preparations are utilized accurately and safely. When placing ampules or vials into service in lieu of the usual pre-filled emergency syringes, package the ampule/vial, diluent, and syringe in a clear plastic bag prominently labeled with the drug name and strength. Include instructions on preparing a dilution equivalent to a prefilled 1 mg/10 mL emergency syringe (i.e., Epinephrine 1 mg - dilute in 9 mL of sodium chloride 0.9%)

If either of the alternative care directives is used by your ALS providers, notation of the lack of supply due to the shortage and reference to this REMAC Advisory shall be documented in all related patient care reports. Agencies shall flag any occurrence as an automatic QA/QI metric and report same to the Regional EMS Office on a monthly basis for discussion by the REMAC.

Based upon projected dates of shipping from manufacturers, it is hoped that this particular shortage will be cleared soon.ⁱⁱⁱ When that occurs, agencies and providers will be advised that this advisory has been revoked.

Please refer all questions regarding this advisory to the Regional EMS office. Thank you for your attention to this matter.

Dr. Pamela Murphy, MD

Chair, Hudson Valley Regional Emergency Medical Advisory Committee

Resources

ⁱ NYSDOH EMS Policy Statement 13-04: Alternative Medication Formulary For Prehospital Drug Shortages, <http://www.health.ny.gov/professionals/ems/policy/13-04.htm>

ⁱⁱ Institute for Safe Medication Practices, National Alert Network message re Epinephrine pre-filled syringe shortage, <http://www.ismp.org/NAN/files/NAN-201006.pdf>

ⁱⁱⁱ American Society of Health-System Pharmacists, Current Shortages – Epinephrine, <http://www.ashp.org/menu/DrugShortages/CurrentShortages/Bulletin.aspx?id=685>