

# COUNTY OF EL DORADO

## HEALTH & HUMAN SERVICES

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**\*\*\* PARAMEDIC ALERT \*\*\***

**No. 2017-02**

Date: June 23, 2017

Topic: Epinephrine Shortage

Effective: Immediately

Attention: All El Dorado County ALS Service Agencies/Base Hospitals

Due to manufacturing issues, prefilled one (1) mg epinephrine syringes 1:10,000 are not presently available for purchase. There is an unknown time period for this shortage.

## CARDIAC ARREST

If you do not have Epinephrine prefills for IV use, please follow these procedures for dilution of Epinephrine to obtain 1:10,000 concentrations for use in cardiac arrest:

- a. Using a 10 mL syringe draw up one (1) mg of Epinephrine from a 1:1,000 multi-dose vial. **(1 mg = 1 mL). Do not discard this multi-dose vial. Save it for further usage.**
- b. Add nine (9) mL of Normal Saline from a vial or the IV line to the Epinephrine.
- c. The resulting ten (10) mL solution may be used in place of an Epinephrine prefill.

**Epinephrine is a high alert medication and may cause significant patient harm when used in error; the following steps should be followed to minimize the potential for error.**

- Have another crew member confirm the dilution.
- Do not save the solution or prepare it in advance.
- It is better if you always prepare the dilution using the same source of Epinephrine to avoid confusion.
- When using multidose vials of Epinephrine make sure you DO NOT draw up nine (9) mL of Epinephrine solution. It is recommended that the Epinephrine solution for dilution and normal saline should be kept together in a clear plastic "baggie" with a label on the Epinephrine that says one mL use, along with the 10 mL syringe and brief instructions for dilution.

## ANAPHYLAXIS

If intravenous (IV) Epinephrine is needed in the anaphylaxis patient, follow the intravenous (IV) route directions for dilution.

First Step: From the multi-dose vial of Epinephrine 1:1,000, take (1) mL diluted with (9) mL NS = 1 : 10,000 (0.1) mg solution.

Second Step: Take (1) mL of the above 1 : 10,000 (0.1) mg diluted with (9) mL NS = 1 : 100,000 Epinephrine solution.

Third Step: Then SLOW IV Push this (10) mL Epinephrine 1 : 100,000 over 5 minutes.

Please contact the Emergency Medical Services Agency with any questions or clarifications.

Thank you for your work in the EMS system.



David Brazzel, MD  
Medical Director, El Dorado County EMS Agency