



Inland Counties Emergency Medical Agency

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Serving San Bernardino, Inyo, and Mono Counties
Daniel Munoz, Interim EMS Administrator
Reza Vaezazizi, MD, Medical Director

DATE: January 13, 2022

TO: EMS Providers - ALS, LALS, BLS, EMS Aircraft
ED Directors, Nurse Managers and PLNs

FROM: Reza Vaezazizi, MD
Medical Director

SUBJECT: DILUTION AUTHORIZATION FOR EPINEPHRINE

Inland Counties Emergency Medical Services (ICEMA) is aware of the current nationwide shortage of Epinephrine 0.1 mg/ml affecting the EMS provider's ability to maintain an adequate supply. In the event that an EMS provider is unable to maintain the required levels of Epinephrine 0.1 mg/ml as required by ICEMA Reference #7010 - BLS/LALS/ALS Standard Drug and Equipment List, submit the Drug Shortage Waiver Request form found on the ICEMA website at ICEMA.net.

Once the waiver request has been submitted and approved by ICEMA, the EMS provider must provide training and submit proof of roster to use dilution authorization. This authorization is only valid for the duration days approved on the Drug Shortage Waiver request form.

See attached Education for the Dilution of Epinephrine.

If you have any questions, please contact Michelle Hatfield, EMS Specialist, at (909) 388-5826 or via e-mail at michelle.hatfield@cao.sbcounty.gov.

RV/MH/jlm

Attachment

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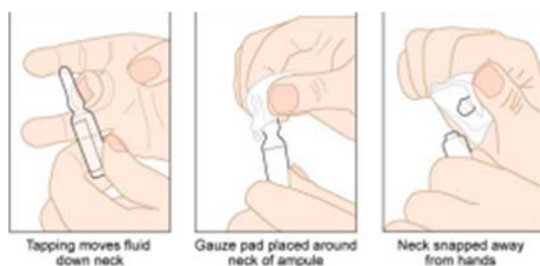
EDUCATION FOR THE DILUTION OF EPINEPHRINE

Precautions when diluting Epinephrine 1 mg/1 ml at the point of care:

1. Use of any diluted Epinephrine preparation will be single-patient use only. Any medication remaining at the conclusion of the incident will be discarded.
2. When Epinephrine 0.01 mg/ml (1:100,000 or “Push Dose Epi (PDE)”) is needed, double dilution is required. Never attempt to create PDE directly from a 1 mg/1 ml concentration.
3. To significantly reduce the incidence of inappropriate medication administration use the patient 5 rights of medication administration: right medication, right drug, right dose, right route, and the right time, prior to giving any medication, especially Epinephrine that has been diluted at the point of care. Additionally, an independent double check on scene, for process verification, is highly encouraged.
4. The individual administering the medication, and the individual performing the dilution, should be the same.

When Epinephrine is needed as an “Epi pre-load (0.1 mg/ml)”:

1. Hold the 1 mg/1 ml ampule at a 45-degree angle, then tap the neck to facilitate movement of all of the fluid into the body.
2. Firmly grasp the ampule with one hand while holding the tip of the ampule between the thumb and index finger in the other, using a piece of gauze as a barrier. Apply gentle but increasing pressure until the neck snaps and the tip is no longer attached.



3. Using empty 10 ml syringe and filtered needle (if necessary), draw up 1 ml of Epinephrine 1 mg/ml.
4. Utilizing the above syringe, draw up 9 ml of normal saline from the prefilled syringe of Normal Saline (NS).
5. Results of this process will be Epinephrine 1 mg in 10 ml or 0.1 mg/ml.
6. Ensure appropriate labeling prior to use.

Epinephrine Dilution for “PUSH DOSE” Epinephrine 0.01 mg/ml

1. First perform Steps 1 - 6, as documented above in the section titled, “When Epinephrine is Needed as an “Epi pre-load (0.1 mg/ml)””.
2. Eject 1 ml of NS from a new 10 ml pre-filled syringe, leaving 9 ml of NS.
3. Using a fluid dispensing connector (or equivalent), transfer 1 ml of the previously prepared Epinephrine 0.1 mg/1 ml preparation into the syringe with 9 ml of NS.
4. Results of this process will be Epinephrine 0.01 mg/ml (“Push Dose Epi”).
5. Ensure appropriate labeling prior to use.

Dilution of Epinephrine should occur just prior to use and should not be premixed or placed into storage.