



City and County of San Francisco
Mark Farrell, Mayor

Department of Public Health
Emergency Medical Services Agency

2018-01

Date: January 30, 2018

To: 911 EMS Providers

From: John Brown MD Medical Director

JAB

Subject: Epinephrine use as alternative medication for use during Dopamine shortage.

The San Francisco EMSA is aware of the Dopamine shortages that prehospital providers are experiencing, nationwide. We will be pursuing a long-term solution with another vasopressor, however due to the immediate need to replace dopamine we are offering this alternative:

Epinephrine alternative to Dopamine administration:

Put ONLY 1 mg of epinephrine 1:1000 (from ampule or multi-dose vial) OR 1:10,000 (the entire volume of one ACLS "Pre-Load" syringe) into a 1000ml NS bag (concentration then = 1mcg/ml) and run it at ~10-20ml/min using the drip chamber. That is roughly equivalent to the current dopamine doses in relevant protocols.

This alternative may be used until the Dopamine shortage is resolved or we introduce a protocol using an alternative vasopressor agent.

A dosage guide is attached to this memo.

Please contact EMS Agency EMS Specialist Aram Bronston at aram.bronston@sfdph.org if you have any questions regarding this directive. Thank you for your continuing support of quality EMS care in our system.

Respectfully,

San Francisco EMS Agency

CC:

EMSAC Members

EMSAC Interest Group

Tomas Aragon, MD

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**EPINEPHRINE 1MG/1000ML (1MCG/ML) INFUSION
FOR USE ONLY WHEN DOPAMINE ON SHORTAGE**

ACTION: Inotropic, Chronotropic

- Catecholamine (sympathomimetic)
- Dose dependent stimulation of alpha, beta and dopaminergic receptors.

INDICATIONS Hypotension due to:

- **Cardiogenic shock.**
- **Distributive shock:** Neurogenic and anaphylactic shock.
- **Symptomatic bradycardias** unresponsive to other treatments such as atropine and pacing.

CONTRAINDICATIONS:

- None in life threatening situation

POTENTIAL SIDE EFFECTS:

- Tachydysrhythmias including V-Tach and V-Fib
- Hypertension
- Nausea and vomiting
- Chest pain, ischemia and acute MI exacerbation
- Extravasation causes tissue necrosis

ADULT DOSE/ROUTE:

⇒ **Cardiogenic or distributive shock:** Inject 1mg (1:1000 OR 1:10,000) epinephrine into 1000ml of 0.9% sodium chloride. **DO NOT USE PRESSURE BAG**, run it at ~10-20ml/min using the drip chamber. If SBP>90mm Hg, use roller clamp to slow rate.

PEDIATRIC DOSE/ROUTE:

⇒ **NOT FOR PEDIATRIC USE. Contact Base Hospital MD.**

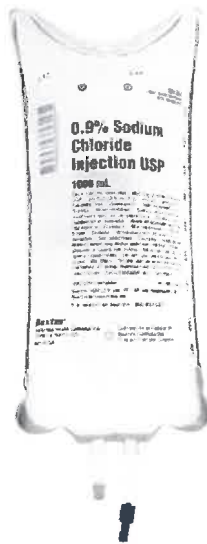
NOTES:

- Do not infuse in same line with sodium bicarbonate
- Ensure that the patient is not hypovolemic before infusing
- Label bag clearly to prevent rapid infusion

Epinephrine 1mcg/ml infusion preparation



Add 1ml of 1:1000 = 1mg **OR** 10ml of 1:10,000 = 1mg
to 1000ml 0.9% sodium chloride



And run at 10-20ml/min on largest gauge IV site

DO NOT PRESSURE BAG