

Medical Procedure**Date: 02/01/2021****Push-Dose Epinephrine for Hypoperfusion****Policy #7060****I. Purpose:**

- A. To establish indications, guidelines, and the standard procedure for push dose epinephrine in the pre-hospital setting.

II. Authority:

- A. Health and Safety Code, Section 1797.220, 1798. Title 22, Section 100170.

III. Policy:

- A. The use of push dose epinephrine is limited by certification skill level, and requires annual maintenance and testing completion.
- B. This policy is to be used when identifying a patient with hypoperfusion per the **Shock Protocol**. This includes:
 1. Low blood pressure
 2. Anaphylaxis, refractory to IM epinephrine and IV fluids
 3. Severe reactive airway disease, COPD or asthma exacerbations, refractory to IM epinephrine
 4. Septic shock, refractory to IV fluids
 5. Undifferentiated hypotension with evidence of hypoperfusion, refractory to IV fluids
 6. Unstable bradycardia, refractory to atropine and pacing
- C. Relative contraindications:
 1. Pregnancy or active labor
 2. Elevated systolic blood pressure > 140
 3. Trauma
- D. Absolute contraindications
 1. Poor IV or IO access
 2. Infiltration of an IV or IO line
- E. Potential side effects:
 1. Systemic: Palpitations, tachycardia, arrhythmia, anxiety, panic attacks, headache, tremor, hypertension, acute pulmonary edema, myocardial infarction
 2. Local: Localized tissue damage and/or compartment syndrome

IV. Push-Dose Epinephrine Procedure

- A. Take Epinephrine 1 mg of 0.1 mg/ml preparation (Cardiac 1:10,000 Epinephrine) and waste 9 ml of Epinephrine
- B. In that syringe, draw 9 ml of normal saline from the patient's IV bag and shake well
 1. Mixture now provides 10 ml of Epinephrine at a 0.01 mg/ml (10 mcg/ml) concentration
- C. If patient fulfill indications, and has approval from Base Hospital Physician, administer **Epinephrine** 0.5 mL (5 mcg) IV/IO, every 3 minutes, titrate to a SBP > 90

V. Certification Requirements:

- A. Maintain knowledge of the indications, contraindications, technique, and possible complications of the procedure.
- B. Assessment of this knowledge may be accomplished via quality assurance mechanisms, classroom demonstrations, skills stations, or other mechanisms as deemed appropriate by the Imperial EMS System.
- C. Assessment should include direct observation at least once per certification cycle.

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APPROVED:

Signature on File

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