

Epinephrine

Formulary

Douglas County Kansas EMS System

March 2021

Approved Provider: AEMT, Paramedic

Referenced Protocols: [Anaphylaxis/Allergic reaction](#), [Breathing Difficulty](#), [CAPE](#), [Dysrhythmias](#), [Neonatal Resuscitation](#)

Dosing and Administration	
ADULT Medications: • Cardiac arrest (1/10,000): 1 mg every 5 min. IV/IO • Asthma/ Anaphylaxis (1/1,000): 0.3 mg IM ☎ If hypotension <90 or severe respiratory distress, 0.3 mg (1/10,000) <u>IVSP</u> • Bradycardia: 2-10 mcg/min infusion ○ (10-50 gtts/min, 1mg 1:1,000 in 500 ML NS with 10 drop set)	PEDIATRIC Medications: Refer to HandTevy • Cardiac arrest (1/10,000): 0.01 mg/kg every 3-5 min. IV/IO • Asthma/ Anaphylaxis (1/1,000): 0.01 mg/kg IM (max 0.3 mg) ☎ If hypotension < age x 2 plus 70 or severe respiratory distress, 0.01 mg/kg (1/10,000) <u>IVSP</u> • Bradycardia: 0.01 mg/kg IVSP

Pharmacology and Actions:

- Epinephrine is a natural catecholamine that acts to stimulate (i.e., fight or flight) activity therefore increasing coronary blood flow, cardiac electrical activity, and strength of contraction.
- Beta- Smooth muscle relaxation, Bronchodilation

Indications:

- Used in cardiac arrest for
 - Ventricular fibrillation
 - Pulseless v-tachycardia
 - Asystole
 - PEA (pulseless electrical activity)
- Severe bronchospasm or laryngospasm as seen in asthma and anaphylaxis
- Bradycardia

Contraindications:

- None

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Precautions:

- Patients with history of coronary artery disease, or age greater than 50
- In patients taking digitalis, epinephrine may exacerbate ventricular ectopy
- Glaucoma

Administration:

- Acceptable routes of administration include intravenous (IV), intraosseous (IO) and intramuscular (IM).

Side Effects:

- Hypertension
- Tachycardia
- Angina
- Tremor