

CLASS: A**CLASS B: Asthma
(> 3 doses, >40 y/o, and/or pmhx of CAD)****PROTOCOL(S) USED IN:** Anaphylaxis, Cardiac Arrest protocols, Cardiac Dysrhythmias
Bradycardia, Neonatal Resuscitation, Respiratory Distress**PHARMACOLOGY AND ACTIONS:**

- A. Catecholamine with alpha and beta effects.
- B. Increased heart rate, arterial blood pressure, systemic vascular resistance, automaticity, myocardial O₂ consumption and myocardial contractile force.
- C. Potent bronchodilator.

INDICATIONS:

- A. Ventricular fibrillation/Pulseless Ventricular Tachycardia
- B. Asystole
- C. Pulseless Electrical Activity
- D. Symptomatic Bradycardia
- E. Systemic allergic reactions, croup and epiglottitis
- F. Severe Asthma (> 3 doses, patients >40 years of age, and/or pmhx of CAD require OLMC)

CONTRAINDICATIONS:**Use caution in patients with peripheral vascular insufficiency.****SIDE EFFECTS AND NOTES:**

- A. Anxiety, tremor, headache, tachycardia, palpitations, PVCs, angina and HTN
- B. Should not be added directly bicarbonate infusion; catecholamine may be partially deactivated by alkaline solutions.
- C. When used for allergic reactions, increased cardiac work may precipitate angina and/or MI in susceptible individuals.
- D. Wheezing in an elderly patient is considered pulmonary edema or pulmonary embolus until proven otherwise.

ADULT DOSING:

Cardiac Arrest Dosing Options:

- a. **1.0mg (1:10,000) IV** every 3-5 minutes during arrest. Every 8-10 minutes after first 3 doses.
- b. May be given via ET at 2-2.5 times IV dose if IV and IO are unsuccessful.

Allergic reaction, anaphylaxis shock, laryngeal edema, severe asthma:

- a. **0.5 mg (1:1,000) IM**
- b. If diminished perfusion or shock symptoms present, give **(1:100,000) IV** over 60-120 seconds. Titrate to maintain systolic BP of at least 90mmHg. Make 1:100,000 by diluting 1 ml (1:10,000) with 9 ml of NS or LR.

Croup/Epiglottitis:

3 ml (1:1,000) via nebulizer**PEDIATRIC DOSING:**

Cardiac Arrest -

- a. **0.01 mg/kg (1:10,000) IV/IO** every 3-5 minutes

Allergic reaction, anaphylaxis shock, severe asthma -

- a. **0.01 mg/kg (1:1,000) IM** to max single dose of 0.5 mg
- b. If diminished perfusion or shock symptoms present, give **(1:100,000) IV** over 60-120 seconds. Titrate to effect. Make 1:100,000 by diluting 1 ml (1:10,000) with 9 ml of NS or LR. Titrate as needed.

Croup/Epiglottitis- In patients 6 months to 6 years of age with audible stridor at rest, give **3 ml Epinephrine 1:1,000 via nebulizer.**