

**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 O<sub>2</sub> 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/IO** 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 **0.5 mg (50 cc) of 1:100,000 IV/IO** over 60-120 seconds. Repeat prn every 5 minutes to maintain systolic BP of at least 100 mmHg. Make 1:100,000 by diluting 1 mg (1:1,000) in 100cc bag 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 **0.01 mg/kg (1:100,000) IV/IO** over 60-120 seconds. Repeat every 5 minutes prn. Make 1:100,000 by diluting 1 mg (1:1,000) in 100cc bag of NS or LR.

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**.