Epinephrine

CLASS: A

CLASS B: Asthma only (> 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. 1.0 mg (1:10,000) IV every 3-5 minutes during arrest.
  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. 0.3 mg (1:1,000) IM
  b. If diminished perfusion or shock symptoms present, give 0.3 mg (1:10,000) IV over 30-60 seconds.
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 0.3 mg
  b. If diminished perfusion/shock present, 0.01mg/kg IV/IO (1:10,000)
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.