ADRENALIN CHLORIDE 1:10,000 (EPINEPHRINE)

ACTIONS

Epinephrine is a sympathomimetic, which stimulates both Alpha and Beta-receptors.

As a result of its effects, myocardial and cerebral blood flow is increased during ventilation and chest compression.

Epinephrine increases systemic vascular resistance and thus may enhance defibrillation.

INDICATIONS

Asystole, ventricular fibrillation unresponsive to defibrillation; PEA.

Other pediatric indications: hypotension in patients with circulatory instability, bradycardia (before Atropine).

Anaphylactic Shock

CONTRAINDICATIONS

None in the cardiac arrest situation.

ADVERSE REACTIONS AND SIDE EFFECTS

CNS: Anxiety, headache, cerebral hemorrhage.

Cardio: Tachycardia, ventricular dysrhythmias, hypertension, angina, palpitations.

GI: Nausea and vomiting.

WARNINGS

Epinephrine is inactivated by alkaline solutions - never mix with Sodium Bicarbonate.

Do not mix isoproterenol and epinephrine - results in exaggerated response.

Action of catecholamines is depressed by acidosis - attention to ventilation and circulation is essential.

Antidepressants potentiate the effects of epinephrine.

DOSAGE

Adult: IV/IO push - (1:10,000) 1 mg (10 ml) IV, repeat every 3-5 minutes.

Via ETT (1:1,000) 2 mg (2 ml diluted with 8 ml of NS) ET, repeat every 3-5 minutes. (Only when IV/IO access not available).

In anaphylactic shock (1:10,000), give 0.3mg IV (over 3 minutes in 0.1mg increments, observing response.)

or

As a “pressor” infusion: Mix 1 mg/250 ml D5W, start 1 mcg/min and titrate to effect.

Pediatric: 0.01 mg/kg, (0.1 ml/kg IV or IO).

NOTES

Mix 1 mg of 1:10,000 in 250 ml Normal Saline Concentration = 4 mcg/ml

Dosage: 2-10 mcg/min

Using a microdrip (60gtt/ml):

15 gtt/min = 1 mcg/min

30 gtt/min = 2 mcg/min

45 gtt/min = 3 mcg/min

60 gtt/min = 4 mcg/min

75 gtt/min = 5 mcg/min

90 gtt/min = 6 mcg/min

105 gtt/min = 7 mcg/min

120 gtt/min = 8 mcg/min

135 gtt/min = 9 mcg/min

150 gtt/min = 10 mcg/min