Epinephrine1mg/1ml (Adrenalin)

McHenry Western Lake County EMS

Objectives

- During this session we will discuss:
- Class
- Actions
- Indications
- Contraindications
- Dosing/Routes
- How supplied
- Precautions
- Side effects

Class:

Broncodilator-adrenergic

Actions:

- Catecholemine with potent alpha and beta stimulating properties.
- Low dose: (<0.3 mcg/kg/min) Beta dominates;
- Bronchodilator
- Increased HR (+ chronotropic)
- Increased CO (+ inotropic)
- Increased AV conduction (+ domotropic)

Conduction System

Chronotropic = relates to heart rate

Inotropy = relates to force of contraction

Dromotropy = relates to conduction velocity

Indications:

- 1mg/1ml
- Adult Emergent allergic reaction / critical asthma
- Anaphylaxis with no IV/IO (IM)
- Moderate to severe asthma
- Epiglotitis (neb)

Dosing/Routes:

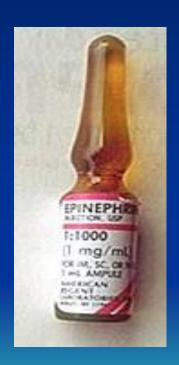
- Adults:
- 1mg/1ml
- Moderate allergic reaction/severe asthma:
 0.3 mg IM. May repeat x1 in 5-10 min.
- Anaphylaxis: with no IV/IO: 0.5 mg IM;
 Repeat X1

Dosing/Routes

- Pediatrics
- 1mg/1ml
- Peds allergic reaction/severe asthma 0.01 mg/kg (0.01ml/kg)(max 0.3 mg) IM
- Peds anaphylaxis: 0.01 mg/kg (0.1 ml/kg) doses
 q 1 min to max total 1mg (IM/IVP/IO)

How supplied:

1mg in 1ml ampule



Contraindications:

Hypersensitivity to sympathomimetics

 Sympathomimetic drugs mimic the effects of sympathetic activation on the heart and circulation.

Precautions:

Use with caution in patient with HR >100.

Side effects/adverse reactions:

- CNS: Headache, dizziness, tremors, restless, anxiety, palpitations.
- CV: Increased HR, tachyarrythmias
- GI: Nausea and vomiting
- Skin: Pallor
- Ref: MWLCEMS Protocol and 2000 Mosby's Nursing Drug Reference Book

Case Study

- You have been called to the local park for a bee sting. Your patient is a 26 y/o female and is in moderate respiratory distress.
- She tells you that she is allergic to bee's but has never been given an Epi pen.

Case Study

- She is very pale, coughing and having a hard time breathing.
- The correct dose of Epinephrine would be?

Answer

• 0.3 mg IM

Question

 What other medication would be given if the patients continues to have trouble.

Answer

- May repeat the Epinephrine in 5-10 minutes.
- Benadryl 50mg IM