Epinephrine 1mg/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:

- Bronciodilator-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
- Moderate allergic reaction w/o anaphylaxis
- Anaphylaxis with no IV/IO (IM)
- Moderate to severe asthma
- Epiglotitis (neb)
- Pulseless arrests (ET)
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: 1 mg IM
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 up to 0.3 mg IM
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