

SECTION: PM-3

PROTOCOL TITLE: PEDIATRIC ALLERGY/ANAPHYLAXIS

REVISED: October 15, 2014

**BLS SPECIFIC CARE: See General Pediatric Care Protocol PM-1**

- Determine patient's color category on length based resuscitation tape (Broselow Tape)
- Administer epinephrine via auto-injector per State of Idaho epinephrine auto-injector program guidelines
- In the absence of this training and patient has his/her own epinephrine auto-injector, the EMT may assist with its administration per the following guidelines
  - Confirm prior to administration:
  - Is Epi-Pen prescribed to the patient (Right Patient?)
  - Is it an Epi-Pen of the correct dose (Right Dose?)
    - Patient weight < 30 kg (66 lbs)
      - Use Epi-Pen Junior: 0.15 mg 1:1,000 epinephrine
    - Patient weight > 30 kg (66 lbs)
      - Use Epi-Pen Adult: 0.3 mg 1:1,000 epinephrine
  - Is the Epi-Pen an intramuscular (IM) auto injector (Right Route?)
  - Is the Epi-Pen expired
- Re-evaluate patient's sign and symptoms every 5 minutes following administration
  - Evaluate for presence adverse effects of epinephrine
    - Chest pain
    - Headache
    - Palpitations
    - Anxiety/tremors
- Repeat in 10 minutes if no improvement
- *If signs of wheezing are present, see protocol PM - 2*

**ILS SPECIFIC CARE: See General Pediatric Care Protocol PM-1**

**ALS SPECIFIC CARE: See General Pediatric Care Protocol PM-1**

*Vasoactive Drugs*

- Epinephrine 1:1,000
  - IM: 0.01 mg/kg MAX: 0.3 mg
  - Repeat x 1 in 10 minutes if s/s do not significantly improve
- **Epinephrine Infusion** (see drug index for EPI Infusion chart)
- Epinephrine Neb (for stridor only)
  - 3 mg (3 ml) Epinephrine 1:1,000 nebulized diluted with 3 ml NS for a total of 6 ml.

*Bronchodilators*

- HHN Nebulizer
  - Albuterol 2.5 mg (0.83% in 3ml)/ Atrovent 0.5 mg (0.02% in 2.5 ml) nebulized. May use Duo-Neb preparation for initial Neb.
  - Repeat as needed with Albuterol Only
  - Do not dilute

*Antihistamine*

- Benadryl (Diphenhydramine)
  - IV/IM/IO: 1-2 mg/kg MAX of 50 mg
  - PO: (If available) 25 mg (for mild cases)
- Zantac (Ranitidine) To be used in conjunction with Benadryl
  - IV/IM/IO: 1 mg/kg to a max of 50 mg
  - PO: (If available) 150mg (for mild cases)

*Corticosteroids:*

- Solu-Medrol (methylprednisolone)
  - 1-2 mg/kg IV/IM/IO to a maximum of 125 mg

**PHYSICIAN PEARLS:**

**CAUTION: All patients receiving inhaled beta agonists and/or anticholinergic medications should be observed for a least one hour following treatment for return of symptoms.**

**Ranitidine:** Ranitidine is an adjunctive therapy to Benadryl (with or without epinephrine) in anaphylaxis & severe allergic reactions. It is not a stand-alone intervention.

**PITFALLS:** It is commonly believed that all cases of anaphylaxis present with cutaneous manifestations, such as hives or mucocutaneous swelling. In fact, as previously mentioned, up to 20% of anaphylactic episodes may not involve these signs and symptoms on presentation for emergency care. Moreover, a survey of children with food-induced anaphylaxis showed that 80% of fatal reactions were not associated with cutaneous manifestations. In one study (Sampson et al) many cases of fatal food-induced anaphylaxis occurred in a biphasic clinical pattern. In these, mild oral and gastrointestinal symptoms occurred within 30 minutes of food ingestion. These symptoms resolved, only to be followed 1–2 hours later by severe respiratory symptoms and hypotension.

Individuals at great risk for a fatal reaction include those with asthma, atopic dermatitis (eczema), a prior anaphylactic history, and those who deny symptoms and therefore delaying treatment with epinephrine.