Contra Costa County Emergency Medical Services

Pediatric Allergic Reaction/Anaphylaxis

History
- Onset and location
- Insect sting or bite
- Food allergy / exposure
- Medication allergy / exposure
- New clothing, soap or detergent
- Past history of reactions
- Medication history

Signs and Symptoms - Mild
- Itching or hives
- Nausea or isolated vomiting
- Facial edema/swelling
- Mild abdominal cramps

Signs and Symptoms – Moderate/Severe
- Wheezing, stridor, respiratory distress
- Repetitive cough
- Throat/chest tightness/restriction
- Lightheadedness, syncope, hypotension, shock
- Repeated vomiting or severe abd cramps
- Throat swelling (edema) or moderate-severe tongue swelling

Differential
- Urticaria (rash only)
- Anaphylaxis (systemic effect)
- Angioedema
- Shock (vascular effect)
- Aspiration or airway obstruction
- Vasovagal event
- Asthma or COPD
- CHF

Assess symptom severity

Auto injector use for pediatric patient
≤ 30 kg – Pediatric
>30 kg - Adult

Mild
Skin symptoms +/- mild GI symptoms

E
- Administer **Oxygen** with goal of ≥ 94% SpO2

P
- Establish IV/IO
- Cardiac monitor
- ***Consider*** **Diphenhydramine IV/IO/IM**
  Use Pediatape and refer to dosing guide

Moderate/Severe
Any signs of airway compromise
OR
Other significant systemic signs

E
- If available, assist patient with self-prescribed **Epinephrine Auto-Injector**
- **Administer Pediatric Epinephrine Auto-Injector**
- Administer **Oxygen** with goal of ≥ 94% SpO2

P
- **Epinephrine (1 mg/ml) IM**
  Use Pediatape and refer to dosing guide
- Establish IV/IO
- Cardiac monitor

Poor perfusion or shock?
(Refer to age dependent chart)

- No → Poor perfusion persists 5-10 min post IM Epinephrine? (Refer to age dependent chart)
  - No → **P**
    - *For urticaria or angioedema consider* **Diphenhydramine IV/IO/IM**
      Use Pediatape and refer to dosing guide
    - For wheezing consider **Albuterol nebulizer 5mg**
      Repeat as needed
  - Yes → **P**
    - **Epinephrine (0.1 mg/ml) titrated in slow IV/IO**
      Use Pediatape and refer to dosing guide
- Yes → **P**
  - **Normal Saline bolus IV/IO**
    Use Pediatape and refer to dosing guide

Notify receiving facility. Contact Base Hospital for medical direction, as needed.

Age Dependent SBP for Signs of Shock
- Neonate: < 60mmHg or weak pulses
- Infant: < 70mmHg or weak pulses
- 1-10 years: < 70mmHg + (age in years x2)
- Over 10 years: <90mmHg

Pediatric Treatment Guidelines

Treatment Guideline P02

CONTRA COSTA HEALTH
EMERGENCY MEDICAL SERVICES

Effective Jan. 2023

Pediatric Allergic Reaction/Anaphylaxis

- All patients with respiratory symptoms must have continuous pulse oximetry and $EtCO_2$ measurement.
- Anaphylaxis unresponsive to repeat doses of IM Epinephrine may require IV Epinephrine administration. Contact the Base Hospital for refractory anaphylaxis.

Pearls

- Anaphylaxis is an acute and potentially lethal multisystem allergic reaction.
- Epinephrine is the drug of choice and the first drug that should be administered in acute anaphylaxis reactions with moderate or severe symptoms. IM Epinephrine should be administered as priority before or during attempts at IV or IO access.
- Allergic reactions may occur with only respiratory and gastrointestinal symptoms and have no rash or skin involvement.
- The shorter the onset of symptoms from contact with an allergen, generally the more severe the reaction.