

# ALLERGIC REACTION / ANAPHYLAXIS

## ALL PROVIDERS / EMT

- ☐ Focused history and physical exam.
- ☐ Cardiac monitor, ETCO<sub>2</sub>, and pulse oximetry monitoring, when available.
- ☐ **Treatment Plan**
  - Eliminate the source of exposure, if possible. May require moving the patient to another location
  - Maintain airway.
  - Apply cold pack to bite or sting site as necessary.
  - Monitor closely for hypotension.
- ☐ **Key Considerations**
  - If the patient has any respiratory distress and is conscious, treat and transport them in a position of comfort, including leaving a child in parent's lap.
  - Determine if anaphylaxis is present:
    - **Non-anaphylactic Allergic Reaction:** Symptoms involving only **one** organ system (i.e. itching, rash, or localized angioedema that does not involve the airway or is not associated with vomiting)
    - **Anaphylaxis:** More severe and is characterized by an acute onset involving:
      - **Hypotension** after exposure to a likely allergen OR
      - **Two or more** of the following occurring rapidly after exposure to a likely allergen:
        - Skin and/or mucosal involvement (urticaria, itching, face/lips/tongue swelling)
        - Respiratory compromise (dyspnea, wheezing, stridor, hypoxemia)
        - Persistent gastrointestinal symptoms, particularly in infants/young children (vomiting, abdominal pain)
  - **Do not delay administering epinephrine.** Give IM epinephrine as soon as the diagnosis of anaphylaxis has been established.

**ADULT**  
(>25 kg / 55lbs)

**PEDIATRIC**  
(< 25 kg / 55 lbs)

### EMT

- Give or assist patient with **epinephrine autoinjector (0.3 cc)** IM for anaphylaxis
- **OR** administer **epinephrine (1:1000) 0.3 cc** IM, as per AEMT guideline below
- Assist patient with using own albuterol inhaler for wheezing
- O<sub>2</sub> as needed to maintain SaO<sub>2</sub> above 90%.

### EMT

- Give or assist patient with **epinephrine autoinjector ("Jr." 0.15 cc)** IM for severe respiratory distress and/or shock from anaphylaxis.
  - If >25kg then use adult autoinjector (0.3 cc) IM
- **OR** administer **epinephrine (1:1000) 0.15 cc** IM, as per AEMT guideline below.
  - If > 25 kg, then give 0.3 cc IM
- Assist patient with own albuterol inhaler if wheezing is present
- O<sub>2</sub> as needed to maintain SaO<sub>2</sub> above 90%.

### AEMT

### AEMT

- ❑ **Epinephrine (1:1000) 0.3 cc IM**
  - May repeat every 10 minutes until symptoms improved
- ❑ Advanced airway, vascular access and fluid therapy per ***IV/IO Access and Fluid Therapy Guideline***
- ❑ **Diphenhydramine 50 mg IV/IO/IM** for allergic reaction with urticaria/itching
- ❑ If **WHEEZING** is present:
  - **Albuterol 2.5 mg** nebulized every 10 minutes until symptoms improve
- ❑ If **STRIDOR** is present:
  - **Epinephrine (1:1000) 2mL** mixed with 3 mL of NS nebulized every 10 minutes until symptoms improve

### PARAMEDIC

- **Epinephrine (1:10,000) 1mg IV/IO** may be used for severe or persistent hypotension, despite multiple doses of IM epinephrine

**May repeat every 5 min if shock persists**

- ❑ **Epinephrine (1:1000) 2–10 mcg/min IV/IO** infusion for hypoperfusion. Titrate to maintain a SBP >100 mmHg (Consider Push-dose Epi)

- ❑ **Epinephrine (1:1000) 0.15 cc IM**
  - May repeat every 10 minutes until symptoms improved
  - If >25 kg, then use **0.3 cc IM**
- ❑ Advanced airway, vascular access and fluid therapy per ***IV/IO Access and Fluid Therapy Guideline***
- ❑ **Diphenhydramine 1 mg/kg to max of 50 mg IV/IO/IM** for allergic reaction with urticaria/itching
- ❑ If **WHEEZING** is present:
  - **Albuterol 2.5 mg** nebulized every 10 minutes until symptoms improve
  - Start with **1.25 mg** if patient is <1 yr in age.
- ❑ If **STRIDOR** is present:
  - ❑ **Epinephrine (1:1000) 2mL** mixed with 3 mL of NS nebulized every 10 minutes until symptoms improve

### PARAMEDIC

- **Epinephrine (1:10,000) 0.01 mg/kg or 0.1ml/kg IV/IO** for severe or persistent hypotension, despite multiple doses of IM epinephrine

**May repeat every 5 min if shock persists**

- ❑ **Epinephrine (1:1000) 0.1–2 mcg/kg/min IV/IO** infusion for hypoperfusion. Titrate to maintain a SBP >70 + (age in years x 2) mmHg. (Consider Push-dose Epi)