ALLERGIC REACTION / ANAPHYLAXIS (Adult / Adolescent)

Notes:

- **Allergic Reaction:** A skin-based reaction to an allergen with normal vital signs, such as hives, itching, flushing/redness and no airway involvement.
- **Anaphylaxis:** Acute onset of a systemic reaction involving two or more systems, any airway involvement or unstable vital signs.
- Diphenhydramine and Albuterol do not treat anaphylaxis. For patients with anaphylaxis, Epinephrine administration is the priority. Diphenhydramine and Albuterol may be administered in addition to Epinephrine.
- If there is a history of anaphylaxis, relay in report.

Base Hospital Contact for Anaphylaxis

BLS Interventions

- Refer to OCEMS BLS Standing Orders SO-B-001.
- Assist patients with the administration of their physician prescribed emergency devices and medications to include but not limited to bronchodilator inhaler/nebulizer or epinephrine device (autoinjector).
- Remove the stinger / injection mechanism.
- Ensure proper positioning for adequate ventilation and suction as needed.

ALS Interventions

- Cardiac monitoring if applicable.
- Capnography if applicable.
- Obtain IV / IO if applicable.
- Allergic Reaction treatment:
  - ► **Diphenhydramine (Benadryl®) 50 mg IM -** once
    *Do not administer if taken prior to arrival.
  - ► If SPO2 ≤ 95% apply **Oxygen** by mask (high flow) or nasal cannula (for nasal cannula provide 6 l/min flow rate) as tolerated.
    - Reassess VS and symptom severity. If patient is not improving or if airway involvement, consider treating as anaphylaxis.
- Anaphylaxis: Any combination of symptoms: skin-based allergic reaction, wheezing, stridor, hypoxia (<95%), signs of poor perfusion, hypotension or delay capillary refill, intra-oral swelling, or persistent GI symptoms (N/V/D or cramping), treat as follows:
  - ► **Epinephrine 0.5 mg IM** lateral thigh area (1 mg/1 mL concentration).
    *Do not administer if Epinephrine Auto-injector administered prior to arrival.
  - ► **Oxygen** by mask (high flow) or nasal cannula (for nasal cannula provide 6 l/min flow rate) as tolerated.

- Treat for hypotension (SBP < 90) or signs of shock:
  - ► **Normal Saline 250 mL IV / IO bolus –** may repeat up to 1 liter to maintain adequate perfusion.
- Treat for wheezing, stridor, or hypoxia (SPO2 ≤ 95%):
  - ► **Albuterol 6 ml (5 mg)** – continuous nebulization
- After initial IM epinephrine given as above, if after 5 minutes hypotension, respiratory distress, or impending airway obstruction continues, give:
  - ► **Epinephrine 0.5 mg IM** lateral thigh area (1 mg / 1 mL concentration)

  OR
  - ► **Epinephrine 0.3 mg IV / IO** (0.1 mg / 1 mL concentration)

► **Diphenhydramine (Benadryl®) 50 mg IM or IV** once
*Do administer if taken prior to arrival.

Transport Considerations

- Transport to the nearest ERC.
- **BASE HOSPITAL CONTACT** required for anaphylaxis.
- BLS transport acceptable for patients treated with diphenhydramine with skin-based reaction, stable vital signs, and no history of anaphylaxis.
- ALS escort required for patients with signs of angioedema, anaphylaxis, self-administration of epinephrine, or history of anaphylaxis.

Additional Considerations

- Epinephrine is the priority and first line treatment for anaphylaxis. Patients in severe anaphylaxis may require multiple doses of epinephrine. Early base hospital contact encouraged.
- Maximum dose of Diphenhydramine is 50 mg IM or IV. Diphenhydramine does not treat anaphylaxis and should only be given once other treatments are complete or in stable patients with discomfort for isolated hives.
- Wheezing caused by anaphylaxis should be treated with epinephrine prior to albuterol.

Base Hospital

- For impending airway obstruction or weak palpable pulse, consider:
  - ► **Epinephrine 0.3 mg IV / IO** (0.1 mg / 1 mL concentration)

Cross References:
SO-B-001 BLS Standing Orders