Anaphylaxis (Pediatric)

CFR AND ALL PROVIDER LEVELS

1. ABCs.
2. Airway management.
3. Administer oxygen.
4. Assess cardiac and respiratory status:
   a. If either is **abnormal (e.g. severe respiratory distress or shock)**:
      i. Assist the patient with administration of prescribed Epinephrine auto-injector.
      ii. If Epinephrine has not been prescribed, administer Epinephrine via auto-injector. (for CFR: Only if available and trained to do so.)
      iii. NOTE: Patients 9 years of age and older or weighing more than 30 kg (66 lbs), use adult Epi-auto injector (0.3 mg); patients younger than 9 years of age or weighing less than 30 kg (66 lbs) use pediatric Epi-auto injector (0.15 mg).
5. Refer immediately to the Respiratory Distress / Failure / Arrest (Pediatric), Obstructed Airway (Pediatric), or Shock / Sepsis (Pediatric) protocols as appropriate.
6. If cardiac arrest occurs, refer immediately to the /Non-Traumatic Cardiac Arrest and Severe Bradycardia (Pediatric) protocol.

CFR STOP

EMT

7. Request ALS assistance.
   a. Do not delay transport for any reason, including waiting for a potential second dose of epinephrine.
8. Assess cardiac and respiratory status:
   a. If both are normal, initiate transport.
      i. If either is **abnormal (e.g. severe respiratory distress or shock)**:
         1. Administer Epinephrine as directed above. (Epinephrine may be administered IM using a syringe, if trained and approved by agency medical director to do so.)
9. Initiate transport if not previously done.
10. Contact Online Medical Control for authorization to administer a second dose of Epinephrine IM, if needed and if available.
11. For wheezing, administer Albuterol Sulfate 0.083%, one (1) unit dose or 3 ml via nebulizer at a flow rate that will deliver the solution over 5 minutes to 15 minutes.
    a. If symptoms persist, Albuterol Sulfate 0.083%, one (1) unit dose or 3 ml via nebulizer at a flow rate that will deliver the solution over 5 minutes to 15 minutes, may be repeated twice for a total of three (3) doses.

EMT STOP

Paramedic

12. If the patient is exhibiting airway compromise:
    a. Perform Advanced Airway Management.
    b. Consider procedural sedation options, if appropriate. (see GOP: Prehospital Sedation.)

13. **For patients with signs of shock OR history of anaphylaxis:**
    a. If not already given, administer Epinephrine (1:1,000 solution / 1 mg/ml) 0.01 mg/kg IM; max dose 0.3 mg.
    b. Intravascular access.
    c. Crystalloid fluid, 20 ml/kg (Maximum of 3 liters).
14. **For patients with NO Signs of shock, and who do not have a history of anaphylaxis:**
    a. Intravascular access.
15. For patients over 2 years of age, administer ONE of the following:
    a. Methylprednisolone 2 mg/kg IV/IM. (Maximum dose is 125 mg.)
    OR
    b. Dexamethasone 0.6 mg/kg IV/IM. (Maximum dose is 12 mg.)
16. Administer Diphenhydramine*, 1 mg/kg IV/IM (maximum total dose is 50 mg).
17. Administer Ipratropium Bromide 0.02%, by nebulizer, in conjunction with the first three (3) doses of Albuterol Sulfate. Use the following doses of Ipratropium Bromide:
    a. For Children 6 years of age or older: one-unit dose of 2.5 ml.
    b. For children under 6 years of age: ½ unit dose of 2.5 ml (1.25 ml).
18. Monitor vital signs every 5 minutes.
19. Begin cardiac monitoring.

Paramedic STOP

Medical Control Options

1. **EMT:**
    a. Administration of a second dose of Epinephrine IM, if indicated and if available.
        i. Patients 9 years of age and older or weighing more than 30 kg (66 lbs), use adult Epinephrine (0.3 mg) IM.
        ii. Patients younger than 9 years of age or weighing less than 30 kg (66 lbs) use pediatric Epinephrine (0.15 mg) IM.
2. **Paramedic:**
    a. Repeat any of the above Standing Orders.
    b. For patients less than 2 years old: Administer Dexamethasone 0.6 mg/kg IV/IM.
    c. For patients who remain in shock after the administration of crystalloid bolus, either by clinical symptoms or by persistent hypotension (mean arterial pressure less than 65 mmHg), see the Shock / Sepsis (Pediatric) protocol Medical Control Options for vasopressors.

Key Points / Considerations

1. Do not delay transport to the hospital.
2. Anaphylaxis can be a potentially life-threatening situation most often associated with a history of exposure to:
    a. An inciting agent/allergen (bee sting or other insect venom)
    b. Medications/drugs
    c. Foods such as peanuts, seafood, etc
3. Patients with an allergic reaction and signs of bronchospasm may require treatment for anaphylaxis.
4. Albuterol Sulfate and Ipratropium Bromide shall be mixed and administered simultaneously, for a maximum of three doses.

5. CFR administration of epinephrine via auto-injector must be reported to your agency's medical director as soon as possible.
6. The presence of any of the following symptoms characterizes the clinical findings that authorize and require treatment according to this protocol:
   a. Respiratory distress:
      i. Upper airway obstruction (Stridor)
      ii. Severe bronchospasm (wheezing)
   b. Cardiovascular collapse / hypotensive shock.
7. Refer all weight based fluids/medications for pediatric patients to a Length Based Dosing Device.
8. ***Drug Advisories:**
   a. **Diphenhydramine Hydrochloride** – has an atropine-like action and must be used with caution in patients with a history of increased intraocular pressure, hyperthyroidism, cardiovascular disease, and/or hypotension.