

**SAGINAW VALLEY  
MEDICAL CONTROL AUTHORITY  
PRACTICE PARAMETER**

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**PEDIATRIC ALLERGIC REACTION/ANAPHYLAXIS**

**I. Assessment Information**

- A. Specific Objective Findings
1. Respirations: respiratory distress, wheezing, stridor and retractions.
  2. Swelling: facial, tongue, upper airway
  3. Vital signs: hypotension, tachycardia
  4. Skin: itching, hives, swelling, flushing, rash
  5. General: nausea, weakness
  6. Medications

**FIRST RESPONDER**

**II. Management**

- A. ABC's, Oxygen @ 15 lpm via non-rebreather mask, blow-by or BVM.<sup>1</sup>
- B. Hx, IPS<sup>2</sup>
- C. Assess circulation and perfusion by measuring heart rate and observing skin color and temperature, capillary refill time, and the quality of central and peripheral pulses. Blood pressure should be measured in children older than three.
- D. Arrange for ALS intercept, if not already accomplished by MedCom.

**BASIC LIFE SUPPORT**

- E. Initiate transport toward ALS intercept, if transporting unit.

**CONTACT MEDICAL CONTROL**

- F. If indicated, administer EPINEPHRINE(Epi-Pen® Jr.) auto-injector 0.15mg for patients from age 2 to 11, and weighing at least 10 kg. Epi-Pen 0.3mg auto-injector should be used in patients weighing over 32 kg and between the ages of 11 and 70.<sup>3</sup>

**ADVANCED LIFE SUPPORT**

- G. Consider early intubation before laryngeal swelling becomes severe.

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- H. Monitor EKG
- I. IV/IO NORMAL SALINE @ TKO
  
- J. Mild Reaction<sup>4</sup>
  - 1. Administer DIPHENHYDRAMINE (BENADRYL) 1 mg/kg IV or IM (Maximum 50mg).
  
- K. Moderate Reaction<sup>5</sup>
  - 1. Administer EPINEPHRINE 0.01mg/kg 1:1000 SQ (Maximum dose 0.3mg). Massage the injection site vigorously for 30 to 60 seconds.
  - 2. If rash and wheezing persists, administer ALBUTEROL (PROVENTIL) 2.5mg , prediluted in 3cc solution via nebulizer over a 10-15 minute period. If bronchospasm persists, repeat 2.5mg albuterol via nebulizer at 15-minute intervals throughout transport.

**NOTIFY RECEIVING FACILITY**

- L. Severe Reaction<sup>6</sup>
  - 1. If patient is hypotensive, IV/IO NORMAL SALINE 20cc/kg bolus titrating to signs of adequate perfusion.<sup>7</sup>
  - 2. Administer EPINEPHRINE 0.01mg/kg 1:1000 SQ (Maximum dose 0.3mg). Massage the injection site vigorously for 30-60 seconds.
  - 3. Administer DIPHENHYDRAMINE (BENADRYL) 1 mg/kg IV or IM (Maximum 50mg).
  - 4. If rash and wheezing persists, administer ALBUTEROL (PROVENTIL) 2.5mg, prediluted in 3cc solution via nebulizer over a 10-15 minute period. If bronchospasm persists, repeat 2.5mg albuterol via nebulizer at 15-minute intervals throughout transport.

**CONTACT MEDICAL CONTROL**

- 5. Additional orders post radio contact:
  - a. EPINEPHRINE 1:10000 IVP<sup>8</sup>, 0.1 ml/kg IV to maximum dose 0.5mg (5.0 ml), as indicated.
  - b. BENADRYL 1mg/kg IV or IM (Maximum 50mg)

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<sup>1</sup> Sit patient in upright position, if not hypotensive.

<sup>2</sup> Determine substance or source of exposure; remove patient from source if known.

<sup>3</sup> The Epinephrine auto-injector is commonly prescribed for individuals who are anaphylactic-that is, who have had prior severe allergic reactions or those who may be at high risk, i.e. family history of severe reactions or a highly allergic individual. Indications to use epinephrine auto-injector include one or more of the following: hives, swelling (especially of lips and face), difficulty breathing, vomiting, diarrhea, cramping and a fall in blood pressure. Injection is to be done at the anterolateral portion of the thigh.

<sup>4</sup> Mild Reaction =Welts and Rash only

<sup>5</sup> Moderate Reaction =Rash and Wheezing.

<sup>6</sup> Severe Reaction = includes the following symptoms: Respiratory distress, wheezing, stridor, cyanosis, upper airway edema or signs of cardiovascular collapse (i.e.hypotension, pallor, diaphoresis, thready pulse, etc.).

<sup>7</sup> Patient should have large bore catheter.

<sup>8</sup> Should be given slow IVP. Given for profound anaphylactic shock (near cardiac arrest) with laryngeal edema.

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Medical Director

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