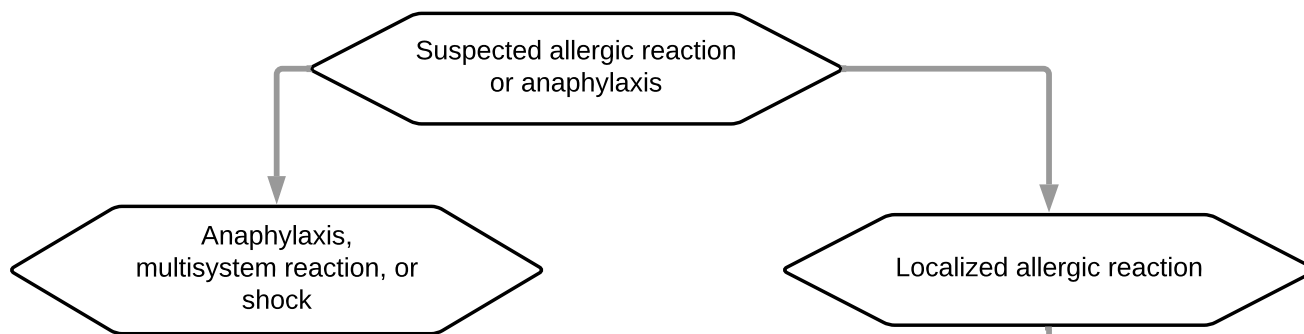


# Anaphylaxis/Allergic Reaction Administrative Guideline



History	Signs and Symptoms	Differential
<ul style="list-style-type: none"> <li>Onset and location</li> <li>Insect sting or bite</li> <li>Food or med allergy/exposure</li> <li>Past history of reactions</li> </ul>	<ul style="list-style-type: none"> <li>Dyspnea/hypoxia</li> <li>Wheezing</li> <li>Stridor</li> <li>Difficulty swallowing</li> <li>Oropharyngeal/tongue swelling</li> <li>Shock/decreased perfusion</li> <li>Urticaria</li> <li>Abdominal pain/vomiting</li> </ul>	<ul style="list-style-type: none"> <li>Urticaria (rash only)</li> <li>Anaphylaxis (systemic)</li> <li>Infection/sepsis</li> <li>Angioedema</li> <li>Airway obstruction</li> <li>Asthma/COPD</li> <li>CHF</li> </ul>



B	<p>Administer <b>epinephrine by autoinjector</b> or <b>by prepared kit</b> (if available).</p> <p>For children (&lt;30kg) <b>administer 0.15 mL (1 mg/mL concentration) IM</b></p> <p>For adults (&gt;30kg; 9 years or older by Handtevy) <b>administer 0.3 mL (1 mg/mL concentration) IM</b></p> <p>Administration should be upper lateral thigh</p>
P	<p>Administer <b>epinephrine (1 mg/mL concentration) 0.01 mg/kg IM (max dose 0.5 mg)</b> in upper lateral thigh</p> <p>May <b>repeat epinephrine</b> dose every 5-15 minutes</p>

P	Administer <b>diphenhydramine 1 mg/kg IV/IM/PO (max dose 50 mg)</b>
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B	<p>Administer <b>albuterol 2.5 mg SVN</b> for wheezing May repeat <b>albuterol</b> to max of 3 doses</p> <p>Consider administration of <b>ipratropium (Atrovent) 0.5 mg</b> nebulized with <b>albuterol x 1</b></p> <p>Administer <b>20 mL/kg NS/LR bolus</b> for hypotension</p>
P	<p>IV/IO access Cardiac Monitor, EtCO<sub>2</sub> if available Consider appropriate airway management adjuncts Assess for signs of shock (poor perfusion, decreased mental status)</p> <p>Administer <b>20 mL/kg NS/LR bolus</b> for hypotension</p> <p>Administer <b>diphenhydramine 1 mg/kg IV/IM (max dose 50 mg)</b></p> <p>Administer <b>methylprednisolone 2 mg/kg IV/IM (max dose 125 mg)</b></p>



## Education/Pearls

An allergic reaction is a systemic response to an allergen, which may be food, drugs, or other substance. The response varies from mild (one organ system, such as skin) to severe, when the condition may become life-threatening. The presence of shock or airway compromise always indicates a severe response and can lead to cardiac arrest and airway compromise.

Anaphylaxis is defined as:

- Severe, acute onset AND one of the following:
  - Respiratory compromise (dyspnea, wheeze, stridor, hypoxemia)
  - Decreased BP (SBP<90)

### OR

- A combination of 2 of the following:
  - Urticaria
  - Swollen tongue or lips
  - Nausea/Vomiting
  - Abdominal pain
  - Syncope
  - Incontinence

A non-anaphylactic allergic reaction is defined as ONE of the following:

- Localized symptoms
- Localized angioedema without airway or GI symptoms
- Urticaria alone

Medication Administration:

- Epinephrine is the drug of choice and the FIRST drug that should be administered in acute anaphylaxis (in moderate and severe symptoms).
- Intramuscular injection in the thigh (but not the upper arm) results in the fastest rise of blood levels of epinephrine. Intramuscular injection in the upper arm (deltoid) and subcutaneously in the upper arm result in a much slower absorption and should not be used as a first choice.
- IM epinephrine should be administered as a priority, before or during attempts at IV or IO access.
- If signs of anaphylaxis persist, additional doses of IM epinephrine can be repeated every 5-15 minutes
- Diphenhydramine and steroids have no proven utility in moderate or severe anaphylaxis and may be given only after epinephrine. Diphenhydramine and steroids should NOT delay repeated epinephrine administration if needed.
- In moderate and severe anaphylaxis, diphenhydramine may decrease mental status. Caution with rate of administration.
- If a patient exhibits respiratory distress with wheezing, administer nebulized albuterol and consider administration of ipratropium (Atrovent)

Any patient with concern for anaphylaxis or who has received epinephrine IM should be transported to the ED, even if symptoms have resolved.