

Allergic Reaction / Anaphylaxis



History

- * Onset and location
- * Insect sting or bite
- * Food allergy / exposure
- * Medication allergy / exposure
- * New clothing, soap, detergent
- * Past history of reactions
- * Past medical history
- * Medication history

Signs and Symptoms

- * Itching or hives
- * Coughing / wheezing or respiratory distress
- * Chest or throat constriction
- * Difficulty swallowing
- * Hypotension or shock
- * Edema
- * N/V

Differential

- * Urticaria (rash only)
- * Anaphylaxis (systemic effect)
- * Shock (vascular effect)
- * Angioedema (drug induced)
- * Aspiration / Airway obstruction
- * Vasovagal event
- * Asthma or COPD
- * CHF

Assess Symptom Severity / Suspected Exposure to Allergen

MILD
Skin Only

B	Diphenhydramine 50 mg PO <i>If not given PO prior to arrival</i>
	IV or IO Access Protocol UP 6 if indicated
A	Diphenhydramine 50 mg PO / IV / IM / IO
	Famotidine 20 mg PO or IV/IO Drip 60gtt set over 5-10 minutes

Monitor and Reassess
Monitor for Worsening
Signs and Symptoms

MODERATE
2 + Body Systems

B	Epinephrine 1:1000 0.3 – 0.5 mg IM Repeat every 5 minutes if no improvement <i>Autoinjector preferred if available</i>
	Diphenhydramine 50 mg PO <i>See Pearls</i>
	Albuterol Nebulizer 2.5 – 5 mg Repeat as needed x 3 if indicated

A	IV or IO Access Protocol UP 6
	Diphenhydramine 50 mg IV/IM/IO <i>if not given PO (See Pearls)</i>
	Albuterol Nebulizer 2.5 – 5 mg +/- Ipratropium 0.5 mg (DuoNeb) Repeat as needed x 3 if indicated
	Famotidine 20mg IV/IO Drip 60 gtt set over 5-10 minutes
P	Normal Saline Bolus 500 mL IV/IO Repeat as needed Maximum 2 Liters
	<u>Worsening despite IM Epinephrine</u> Push-Dose Epinephrine 10 mcg IV / IO <i>May repeat every 2 minutes and/or</i>
	Epinephrine 1:1,000,000 1-10 mcg/min IV / IO
	<i>If peri-arrest consider</i> Epinephrine 1:10,000 0.1 mg IV/IO
	Methylprednisolone 125 mg IV / IO / IM

Notify Destination or
Contact Medical Control

SEVERE
2 + Body Systems + hypotension
Or Isolated Hypotension

B	Epinephrine 1:1000 0.3 – 0.5 mg IM Repeat every 5 minutes if no improvement <i>Autoinjector preferred if available</i>
	Albuterol 2.5 – 5 mg Nebulizer Repeat as needed x 3 if indicated
	Airway Protocol(s) AR 1 - 4 if indicated
	Hypotension / Shock Protocol AM 5 if indicated

Adult Medical Protocol Section

Allergic Reaction / Anaphylaxis



Pearls

- * **Recommended Exam:** Mental Status, Skin, Heart, Lungs, Abdominal
- * **Anaphylaxis is an acute and potentially lethal multisystem allergic reaction.**
- * **Epinephrine administration:**
Drug of choice and the **FIRST** drug that should be administered in acute anaphylaxis (Moderate / Severe Symptoms.)
IM Epinephrine should be administered in priority before or during attempts at IV or IO access.
- * **Diphenhydramine and steroid administration:**
Diphenhydramine and steroids should **NOT** delay initial or repeated Epinephrine administration.
Diphenhydramine and steroids have no proven utility in Moderate / Severe anaphylaxis.
In Moderate and Severe anaphylaxis Diphenhydramine may decrease mental status.
Diphenhydramine should **NOT** be given to a patient with decreased mental status and / or a hypotensive patient as this may cause nausea and / or vomiting.
- * **Anaphylaxis unresponsive to repeat doses of IM epinephrine may require IV epinephrine administration by IV push or epinephrine infusion. Contact Medical Control for appropriate dosing.**
- * **EtCO₂ & SpO₂ are MANDATORY but should not delay epinephrine administration.**
- * **Symptom Severity Classification:**
 - Mild symptoms:**
Flushing, hives, itching, erythema with normal blood pressure and perfusion.
 - Moderate symptoms:**
Flushing, hives, itching, erythema plus respiratory (wheezing, dyspnea, hypoxia) or gastrointestinal symptoms (nausea, vomiting, abdominal pain) with normal blood pressure and perfusion.
 - Severe symptoms:**
Flushing, hives, itching, erythema plus respiratory (wheezing, dyspnea, hypoxia) or gastrointestinal symptoms (nausea, vomiting, abdominal pain) with hypotension/poor perfusion or isolated hypotension.
- * **Allergic reactions may occur with only respiratory and gastrointestinal symptoms and have no rash / skin involvement.**
- * **Angioedema** is seen in moderate to severe reactions and is swelling involving the face, lips or airway structures. This can also be seen in patients taking blood pressure medications like Prinivil / Zestril (lisinopril)-typically end in -il.
- * **Hereditary Angioedema** involves swelling of the face, lips, airway structures, extremities, and may cause moderate to severe abdominal pain. Some patients are prescribed specific medications to aid in reversal of swelling.
Paramedic may assist or administer this medication per patient / package instructions.
- * **Patients with moderate and severe reactions should receive a 12 lead ECG and should be continually monitored, but this should NOT delay administration of epinephrine.**
- * **EMR / EMT may administer Epinephrine IM and may administer from EMS supply.**
- * **EMR / EMT may administer Epinephrine IM via Autoinjector or manual draw-up per IM Epi Procedure USP 4.**
- * **EMR / EMT may administer diphenhydramine by oral route only and may administer from EMS supply.**
- * **EMT may administer Albuterol from EMS supply.**
- * **The shorter the onset from exposure to symptoms the more severe the reaction.**