Outpatient Management of Allergic Reactions / Anaphylaxis

Inclusion Criteria: Patients ≥ 3 months with suspected allergic reaction.

Exclusion Criteria: Blood transfusion reactions that are not anaphylactic in nature (Refer to Patient Care Policy F933 – Transfusion Reaction: Management) or symptoms are clearly attributable to other causes.

Any signs or symptoms of allergic reaction, **STOP infusion.**

Notify on call provider and follow algorithm. If patient's condition deteriorates and/or patient becomes unresponsive, activate EMS.

Recommendations/ Considerations

- Epinephrine is the medication of choice for the initial treatment of anaphylaxis. If injected promptly, it is nearly always effective. Delayed injection can be associated with poor outcomes, including fatality
- Refer to Standardized Procedure Policy SP217 – Outpatient Management of Allergic Reactions/Anaphylaxis

Mild to Moderate Allergic Reaction

- Itching
- Hives or welts
- Tingling mouth
- Abdominal pain, cramping, vomiting

NOTE: Mild to moderate allergic reactions may not always precede anaphylaxis.

- Consider Diphenhydramine 1 mg/kg (max dose – 50 mg) for itching, facial flushing and/or hives
- If no improvement, consider hydrocortisone 2mg/kg (max dose – 100 mg)

Note: If at any point evidence of respiratory distress or hemodynamic instability, shift to anaphylaxis treatment pathway.

Severe Allergic Reaction/Anaphylaxis

Clinical Criteria is highly likely when any ONE of the following are met:

1. Acute onset of illness (minutes to several hours) with involvement of skin/mucosal tissues *AND* at least one of the following:
   a. Respiratory compromise (dyspnea, wheeze, bronchospasm, stridor, hypoxemia)
   b. Reduced BP or associated symptoms of end-organ dysfunction (syncope, hypotonia, incontinence)
2. *TWO* or more of the following that occur rapidly after exposure to a *LIKELY* allergen:
   a. Involvement of skin/mucosal tissue
   b. Respiratory compromise
   c. Reduced BP or associated symptoms
   d. Persistent GI symptoms (abdominal pain or vomiting)
3. Reduced BP after exposure to *KNOWN* allergen for that patient.

Patient Education

- Provide counseling regarding allergen avoidance.
- Allergic reaction discharge instructions:
  - s/s to watch for
  - Potential for biphasic reactions
- Instructions for continued diphenhydramine/corticosteroids, per-provider discretion.

Anaphylaxis Management

1. Administer **IM Epinephrine immediately.**
   - **Dose:** 0.01 mg/kg (1:1000 = 1 mg/mL) IM
   - Repeat dose as clinically indicated ever 5-15 minutes.
     - **Max dose: 0.3 mg**
   - Use EpiPen or EpiPen Jr for patients > 15 kg, when available.
   - **Weight-based dosing:**
     - **≥ 30kg**: 0.3 mg IM (EpiPen) x 1 dose
     - **15 to < 30 kg:** 0.15mg IM (EpiPen Jr) x 1 dose
     - **<15 kg:** 0.01 mg/kg IM (max: 0.3mg) x 1 dose
2. **Obtain IV access** (if not already in place).
3. **Position & monitoring:**
   - Place patient **supine** (unless contraindicated).
   - Place on **continuous monitor.**
   - Check **vital signs every 5 minutes** until return to baseline.
4. **Administer oxygen** to maintain **SpO2 > 90%.**
5. **Consider adjunct medications** as indicated:
   - Antihistamines
   - Corticosteroids
   - Bronchodilators

Escalation of Care

Outpatient areas: Activate EMS with first dose of epinephrine.

Infusion Center: If a 2nd dose of epinephrine is required, activate EMS.

Discharge Criteria

- Complete clinical resolution of all severe symptoms.
- Observe at least 2 - 4 hours:
  - After IM Epinephrine administration
  - Since latest, worsening symptoms
  - At least 2 hours with no oxygen needs
- Ensure caregiver comfort with discharge with good access to ED if symptoms re-occur.
- If above discharge criteria not met, transfer to higher level of care.

Approved Evidence Based Medicine Committee
Original – 9/16/2020
Reviewed/Revised – 11/19/2025; 2022

Outpatient Management of Allergic Reactions/Anaphylaxis References

Campbell, R. L., Li, J. T. C., Nicklas, R. A., & Sadosty, A. T. (2014). Emergency department diagnosis and treatment of anaphylaxis: a practice parameter. *Annals of Allergy, Asthma & Immunology*, *113*(6), 599–608. https://doi.org/10.1016/j.anai.2014.10.007 (Level I)

Lieberman, P., Nicklas, R. A., Randolph, C., Oppenheimer, J., Bernstein, D., Bernstein, J., Ellis, A., Golden, D. B. K., Greenberger, P., Kemp, S., Khan, D., Ledford, D., Lieberman, J., Metcalfe, D., Nowak-Wegrzyn, A., Sicherer, S., Wallace, D., Blessing-Moore, J., Lang, D., … Tilles, S. A. (2015). Anaphylaxis—a practice parameter update 2015. *Annals of Allergy, Asthma & Immunology*, *115*(5), 341–384. https://doi.org/10.1016/j.anai.2015.07.019 (Level I)

Sampson, H. A., Muñoz-Furlong, A., Campbell, R. L., Adkinson, N. F., Jr, Allan Bock, S., Branum, A., Brown, S. G. A., Camargo, C. A., Jr, Cydulka, R., Galli, S. J., Gidudu, J., Gruchalla, R. S., Harlor, A. D., Jr, Hepner, D. L., Lewis, L. M., Lieberman, P. L., Metcalfe, D. D., O, C. R., Muraro, A., … Decker, W. W. (2006). Second symposium on the definition and management of anaphylaxis: Summary report—Second National Institute of Allergy and Infectious Disease/Food Allergy and Anaphylaxis Network Symposium. *Annals of Emergency Medicine*, *47*(4), 373–380. https://doi.org/10.1016/j.annemergmed.2006.01.018 (Level V)

Sicherer, S. H., & Simons, F. E. R. (2017). Epinephrine for first-aid management of anaphylaxis. *Pediatrics*, *139*(3), e1–e9. https://doi.org/10.1542/peds.2016-4006 (Level V)

Clinical Pathways:
Seattle Children's: CSW Anaphylaxis Pathway
CHOP: Anaphylaxis Clinical Pathway — Emergency Department | Children's Hospital of Philadelphia
MD Anderson: Visio-clin-management-hsr-pedi.vsd