

ANAPHYLAXIS is a severe, potentially life-threatening acute allergic reaction that involves more than one system of the body.



RISK FACTORS

- Female
- History of asthma or allergies
- History of taking high-dose drugs
- History of taking high-risk drugs (i.e., carboplatin, blinatumomab, docetaxel, oxaliplatin, paclitaxel, rituximab, trastuzumab, liposomal doxorubicin, or cetuximab)



SIGNS & SYMPTOMS

- Dermatologic changes (e.g., flushing, urticaria, angioedema) are seen in as many as 90% of all anaphylactic reactions.
- Wheezing or shortness of breath
- Chest pain, tachycardia, or hypotension
- Nausea and vomiting, or cramping
- Headache, dizziness, or blurred vision
- Sense of impending doom

DIAGNOSTIC CRITERIA

Anaphylaxis is highly likely when any 1 of the following 3 criteria are met within minutes to hours of exposure (acute onset):

- Involvement of skin, mucosal tissue, or both, and at least 1 of the following:
 - Respiratory compromise
 - Reduced blood pressure (systolic blood pressure of less than 90 mmHg or a greater than 30% decrease from baseline)
- 2 or more of the following after exposure to a likely allergen:
 - Skin/mucosal tissue reactions
 - Respiratory compromise
 - Reduced blood pressure
 - Persistent gastrointestinal symptoms
- Reduced blood pressure after exposure to a known allergen



EMERGENCY INTERVENTIONS

- Early recognition and intervention is key. Symptoms may rapidly progress to severe or life-threatening.
- Stop infusion, call for help, and notify provider.
- Assess ABCs (airway, breathing, circulation).
- Place patient in supine position.
- Epinephrine: 0.3 mg (adults) intramuscularly to mid-outer thigh as 1:1,000 solution; repeat every 5–15 minutes as needed.
 - No contraindication to epinephrine in the setting of anaphylaxis; should be administered without delay
 - Corticosteroids and H1 receptor antagonists do not stop the underlying mechanisms of anaphylaxis.
- Administer IV fluids and oxygen.
- Monitor vital signs every 5 minutes.

ADDITIONAL RESOURCES

Eisenberg, S. (2018). Infusion reactions, extravasation, and transfusion reactions. In M. Kaplan (Ed.), *Understanding and managing oncologic emergencies: A resource for nurses* (3rd ed., pp. 327–414). Oncology Nursing Society.

Lieberman, P., Nicklas, R., Randolph, C., Oppenheimer, J., Bernstein, D., Bernstein, J., . . . Tilles, S. (2015). Anaphylaxis—A practice parameter update 2015. *Annals of Allergy, Asthma, and Immunology*, 115(2015), 341–384. <https://doi.org/10.1016/j.anai.2015.07.019>

Olsen, M., LeFebvre, K., & Brassil, K. (Eds.). (2019). *Chemotherapy and immunotherapy guidelines and recommendations for practice*. Oncology Nursing Society.