**Appendix B: Protocol for Treatment of Anaphylaxis**

1. **Early Recognition of Anaphylaxis**
2. Because anaphylaxis requires immediate treatment, diagnosis is primarily made based on recognition of clinical signs and symptoms. Signs and symptoms in adults and children include:
3. Respiratory: sensation of throat closing or tightness, stridor (high-pitched sound while breathing), hoarseness, respiratory distress (such as shortness of breath or wheezing), coughing, trouble swallowing/drooling, nasal congestion, rhinorrhea, sneezing
4. Gastrointestinal: nausea, vomiting, diarrhea, abdominal pain, or cramps
5. Cardiovascular: dizziness; fainting; tachycardia (abnormally fast heart rate); hypotension (abnormally low blood pressure); pulse difficult to find or “weak”; cyanosis (bluish discoloration); pallor; flushing
6. Skin/mucosal: generalized hives; widespread redness; itching; conjunctivitis; or swelling of eyes, lips, tongue, mouth, face, or extremities
7. Neurologic: agitation; convulsions; acute change in mental status; sense of impending doom (a feeling that something bad is about to happen)
8. Other: sudden increase in secretions (from eyes, nose, or mouth); urinary incontinence
9. Anaphylaxis should be considered when signs or symptoms are generalized (i.e., if there are generalized hives or more than one body system is involved) or are serious or life-threatening in nature, even if they involve a single body system (e.g., hypotension, respiratory distress, or significant swelling of the tongue or lips).
10. Symptoms of anaphylaxis often occur within 15-30 minutes of medication administration, though it can sometimes take several hours for symptoms to appear. Early signs of anaphylaxis can resemble a mild allergic reaction, and it is often difficult to predict whether initial, mild symptoms will progress to become an anaphylactic reaction. In addition, symptoms of anaphylaxis might be more difficult to recognize in people with communication difficulties, such as long-term care facility residents with cognitive impairment, those with neurologic disease, or those taking medications that can cause sedation. Not all symptoms listed above are necessarily present during anaphylaxis, and not all patients have skin reactions.
11. If anaphylaxis is suspected, administer epinephrine as soon as possible, contact emergency medical services, and transfer patients to a higher level of medical care. In addition, instruct patients to seek immediate medical care if they develop signs or symptoms of an allergic reaction after their observation period ends and healthcare providers have left.
12. **Management of anaphylaxis in the field**
13. If anaphylaxis is suspected, take the following steps:
14. Rapidly assess airway, breathing, circulation, and mentation (mental activity).
15. Call for emergency medical services (EMS).
16. Place the patient in a supine position (face up), with feet elevated, unless upper airway obstruction is present, or the patient is vomiting.
17. **Epinephrine (1 mg/ml aqueous solution [1:1000 dilution]) is the first-line treatment for anaphylaxis and should be administered immediately.**
18. **In adults, administer a 0.3 mg intramuscular dose using a premeasured or prefilled syringe, or an autoinjector, in the mid-outer thigh (through clothing if necessary).**
19. **The maximum adult dose is 0.5 mg per dose.**
20. **A dose of epinephrine may be repeated approximately every 5-15** **minutes** if symptoms do not improve or if they return while waiting for EMS. The number and timing of epinephrine doses should be recorded and communicated to EMS.
21. Because of the acute, life-threatening nature of anaphylaxis, there are no contraindications to epinephrine administration.
22. Antihistamines (e.g., H1 or H2 antihistamines) and bronchodilators do not treat airway obstruction or hypotension and, thus, are not first-line treatments for anaphylaxis. Although they can help provide relief for hives and itching (antihistamines) or symptoms of respiratory distress (bronchodilators), in a patient with anaphylaxis they should only be administered after epinephrine.
23. Because anaphylaxis may recur after patients begin to recover, monitoring in a medical facility for at least four hours is advised, even after complete resolution of symptoms and signs.
24. Considerations for anaphylaxis management in special populations (see below for Older Adults and Homebound People).
25. **Older Adults**

There are no contraindications to the administration of epinephrine for the treatment of anaphylaxis. Although adverse cardiac events, such as myocardial infarction or acute coronary syndrome, have been reported in some patients who received epinephrine for treatment of anaphylaxis (particularly among older adults with hypertension and/or atherosclerotic heart disease), epinephrine is the first-line treatment for anaphylaxis. It is important that locations such as long-term care facilities, have staff members available who are able to recognize the signs and symptoms of anaphylaxis. This will help not only to ensure appropriate and prompt treatment for patients with anaphylaxis, but also to avoid unnecessary epinephrine administration to patients who do not have anaphylaxis.

1. **Homebound people requiring home services**

Homebound people who might be at increased risk for anaphylaxis following anti-bacterial administration (i.e., people with those with a history of anaphylaxis due to any cause) should consider transport to a setting where medical care is immediately available in the event of anaphylaxis following administration. If home anti-bacterial administration is the only option for the identified patient, and through risk assessment, it is determined that the benefits of anti-bacterial administration at home outweigh the potential risk for anaphylaxis, healthcare providers (PHN, STI, CHR, MVO) should ensure they are able to manage anaphylaxis. This includes appropriate screening, post-administration observation, medications and supplies, staff qualifications for recognition and treatment of anaphylaxis, ability to call for EMS, and location in an area where EMS is available.

1. **Patient counseling**

Patients who experience a severe allergic reaction (e.g., anaphylaxis) after a dose of anti-bacterial medication should be instructed not to receive additional doses of the same anti-bacterial medication.

1. **Documentation**

Any severe allergic reaction should be promptly documented in the patient’s EHR for future reference.

Reference:

[Management of Anaphylaxis at COVID-19 Vaccination Sites | CDC](https://urldefense.us/v3/__https%3A/www.cdc.gov/vaccines/covid-19/clinical-considerations/managing-anaphylaxis.html__;!!Og_tST9LxTiQE1I!9Uw7wJ9YQ96BteC0M1uoJ2P5vTMu124LpbKHUNSCehEDhSNx9JmQSGRwhXG97Vvmf8bC$)