Guidelines for Management of Potential Anaphylactic Reactions at COVID-19 Vaccination Sites

Preparation
- Ideally, the mRNA COVID-19 vaccines should be offered at locations where emergency management of anaphylactic reactions can be performed.
- The following equipment should be available at all vaccination sites.
  - Epinephrine pre-filled syringe or auto-injector.
  - Antihistamine (H₁ receptor blockers)
  - Blood pressure cuff
  - Stethoscope
  - Timing device to assess pulse/heart rate
- If feasible, the following equipment may be included but not required.
  - Pulse oximeter
  - Oxygen
  - Bronchodilator (e.g., albuterol)
  - Antihistamine (H₂ receptor blockers)
  - Intravenous fluids
  - Intubation kit
  - Adult-sized pocket mask with one-way valve (CPR mask)
- Observation area with an area set aside to manage vaccine recipients who develop anaphylactic reactions.

Screening (See Figure 1)
- Screening questionnaire
  - Identify individuals with history of any allergic reactions
  - Identify individuals with history of reaction to vaccines or injectable therapy
  - Identify individuals with allergic reactions of any severity to a previous dose of mRNA COVID-19 vaccine
- Defer vaccination and refer to an allergist for the following. If unable to be evaluated by an allergist, the vaccine should not be given.
  - History of allergic reaction of any severity, including anaphylaxis, due to any component of an mRNA COVID-19 vaccine
  - History of immediate allergic reaction of any severity, including anaphylaxis, due to other vaccine or injectable therapy
  - History of immediate allergic reaction of any severity, including anaphylaxis, due to a previous dose of mRNA COVID-19 vaccine
- Observation period
  - 15 minutes
    - No reported allergies
    - Any reported allergy to medications, food, or environmental allergens without anaphylaxis

Updated January 14, 2021
- Prior reaction to vaccines **without anaphylaxis**
  - 30 minutes
- History of immediate allergic reaction of any severity to a vaccine or injectable therapy that **does not** contain PEG or polysorbate
- History of anaphylaxis due to any other causes, such as food, pet, insects, venom, environmental, and latex

**Recognition of Anaphylaxis**

- **Symptoms**
  - Respiratory: sensation of throat closing, stridor, cough, wheezing, dyspnea
  - Gastrointestinal: nausea, vomiting, diarrhea, abdominal pain
  - Cardiovascular: dizziness, syncope, tachycardia, hypotension
  - Skin/mucosal: generalized hives, itching, swelling of lips, face, throat
- **Symptoms onset:** typically, 15-30 minutes after vaccination but can take up to several hours

**Management**

- Assess airway, breathing, circulation, and mentation.
- Call EMS immediately.
- Place patient in supine position with feet elevated, unless airway obstruction is present, or the patient is vomiting.
- Administer epinephrine immediately to mid-lateral thigh using a premeasured or prefilled syringe, or auto-injector to mid-lateral thigh.
- The epinephrine dose may be repeated every 5-15 minutes as needed to control symptoms until EMS arrives.
- Antihistamines and bronchodilators may be given for symptomatic relief after the patient already had received epinephrine for anaphylaxis.

Figure 1. Allergy Assessment Algorithm

Allergy Screening

Is there history of allergies or anaphylaxis?

Yes

Is there history of any of the following:
(1) Allergic reaction of any severity, including anaphylaxis, to any component of an mRNA COVID-19 vaccine;
(2) Immediate allergic reaction of any severity, including anaphylaxis, to other vaccines or injectable therapy;
(3) Immediate allergic reaction of any severity to a previous dose of an mRNA COVID-19 vaccine

Defer vaccination and refer to an allergist for evaluation. If an allergist is not available, then do not vaccinate.

No

Yes

Proceed with vaccination. 15 minute observation time

No

Proceed with vaccination. 30 minute observation time

Is there history of any of the following:
(1) Immediate allergic reaction of any severity to a vaccine or injectable therapy that does not contain PEG or polysorbate;
(2) Anaphylaxis due to any other causes, such as food, pet, insects, venom, environmental, and latex

No

Yes

Proceed with vaccination.