Side Effect Management for COVID-19 mRNA Vaccination

Prior COVID-19 vaccination administration, ensure no contraindications exist:
- Severe allergic reaction (e.g., anaphylaxis) after a previous dose of an mRNA COVID-19 vaccine or any of its components
- Immediate allergic reaction* of any severity to a previous dose of an mRNA COVID-19 vaccine or any of its components, including polyethylene glycol
- Immediate allergic reaction* of any severity to polysorbate

*Immediate reactions refer to any hypersensitivity-related signs/symptoms consistent with urticaria, angioedema, respiratory distress, anaphylaxis that occur within 4 hours after administration.

Any contraindications to COVID-19 mRNA vaccine? YES

Do not vaccinate. Advise referral to allergist-immunologist for clearance to obtain vaccination.

NO

Administer COVID-19 mRNA vaccination

Monitor for 15 minutes after giving vaccination, unless below risk factors.
Monitor for 30 minutes if the following risk factors are present:
- History of anaphylaxis due to any cause unrelated to mRNA COVID-19 vaccine
- History of immediate allergic reaction to any vaccine or injectable therapy (except to mRNA COVID-19 vaccine as that is contraindicated)

Vaccine reaction during observational period?

YES

If hypersensitivity reaction: Activate Rapid Response team. If anaphylactic reaction: follow Anaphylaxis Clinical Pathway (Appendix)

NO

Discharge Criteria and Instructions:
- May leave clinic if remains clinically stable.
- If any side effects occur post-vaccination, follow up with primary care doctor, and report side effects via VAMS/CDC (refer to COVID-19 FAQ sheet)
- If individual had hypersensitivity reaction post-vaccine: Advise referral to allergist-immunologist and follow up with primary care doctor for care
- If employee of CT Children’s experiences side effects: refer to Appendix E of Employee Exposure Algorithm for workplace implications
CLINICAL PATHWAY: Hypersensitivity Post COVID-19 mRNA Vaccination Management Considerations

Appendix A: Anaphylaxis Clinical Pathway

**Inclusion Criteria:**
- Child of any age with signs and/or symptoms of anaphylaxis

**Exclusion Criteria:**
- Blood transfusion and other medication infusion reactions that are not anaphylaxis
- Symptoms attributable to other causes, allergy to epinephrine

**Initial Management:**
- If outside Emergency Department (ED) or PICU: consider calling Code Blue if severe respiratory distress or hypotension
- Place on continuous cardiorespiratory monitor and perform full set of vitals
- Immediately discontinue medications that may be causing anaphylaxis
- Rapid assessment and manage ABCs:
  - Administer Epinephrine 0.01 mg/kg IM (max 0.5 mg)
  - If hypoxic: administer oxygen
  - Place patient in recumbent or supine position
  - If hypotensive 2: Place IV and administer normal saline bolus 20 mL/kg IV
  - If respiratory failure: consider intubation
- Continue to check vital signs every 15 min, or more frequent if unstable

**Hypotension:**
Low systolic blood pressure for children is defined as:
- 1 month to 1 year: Less than 70 mmHg
- 1 to 10 years: Less than 90 mmHg
- 11 to 17 years: Less than 90 mmHg

**Discharge Criteria:**
Complete resolution all serious sx (rash may persist), at least > 4 hrs from last epinephrine dose, parenteral comfort with discharge and easy access to ED, epinephrine auto-injector physically available to family (if reaction to medication administered only in hospital setting, auto-injector may not be indicated)

**Discharge meds:**
- Epinephrine auto-injector, Benadryl PRN

**Discharge instructions:**
- Epinephrine auto-injector training, avoid known allergens, consider referral to allergist, f/u with PCP in 1-2 days

**Stable vital signs and/or anaphylaxis resolved?**

**Vital signs unstable and/or anaphylaxis unresolved?**

**Does patient meet all of the below?**
- If no to one criteria, must admit to PICU
  - Required only <3 doses of ep?
  - Stable vital signs?
  - Normal mental status?

**Admit to PICU**

**Diagnostic Criteria for anaphylaxis:**
(must meet ONE of the following three criteria)

1. Acute onset of (seconds to minutes) skin and/or mucosal involvement (e.g. generalized hives, pruritus or flushing, swollen lips/tongue/uvula), AND respiratory compromise (e.g. dyspnea, wheeze/bronchospasm, stridor, hypoxemia) OR reduced blood pressure or associated symptoms of end-organ dysfunction (e.g. hypotonia, syncope, incontinence)

2. TWO OR MORE OF THE FOLLOWING that occur rapidly after exposure to a LIKELY allergen for that patient (seconds to minutes):
   - A. Skin-mucosal involvement (e.g. generalized hives, pruritus or flushing, swollen lips/tongue/uvula)
   - B. Respiratory compromise (e.g. dyspnea, wheeze/bronchospasm, stridor, hypoxemia)
   - C. Reduced blood pressure or associated symptoms (e.g. hypotonia, syncope, incontinence)
   - D. Persistent gastrointestinal symptoms (e.g. crampy abdominal pain, vomiting, diarrhea)

3. Reduced blood pressure after exposure to a KNOWN allergen for that patient (seconds to minutes):
   - A. Infants and children – Low systolic blood pressure (age-specific) or greater than 30% decrease in systolic blood pressure from baseline
   - B. Adults – Systolic BP of less than 90 mmHg or greater than 30% decrease from that person’s baseline