Anaphylaxis | Allergic Reaction

Distinguish between anaphylaxis and non-anaphylactic allergic reaction[1]

Consider other specific protocols – e.g. **Airway Management**, **Respiratory Distress**, **Shock**

Routine Medical Care

Determine Severity of Reaction

Non-Anaphylactic Allergic Reaction

Diphenhydramine 50 mg IV/IM

Patients with respiratory symptoms should receive IM Epinephrine – also consider giving Albuterol as outlined in **Wheezing** protocol

Anaphylaxis

Epinephrine 1mg/ml (1:1000) 0.3mg – 0.5mg IM (Thigh is preferred site) **May repeat x 1 after 5 min** ***May use EPI-PEN***

Diphenhydramine 50 mg IV/IO/IM

Crystalloid fluid bolus 1000 ml for SBP < 90 mm/Hg repeat x 1 prn

Give **Methylprednisolone** 125mg IV/IM/IO

Consider **Epinephrine Infusion** 2-30 mcg/min IV/IO as per **Sho**ck protocol

Contact **Medical Control** for additional orders or consultation

Non-Anaphylactic Allergic Reaction – symptoms involve only one organ system; generally consider a mild or moderate reaction

Anaphylaxis – more severe reaction that meets one of the following criteria:

A. Two or more body systems affected rapidly after exposure
- Skin involvement (rash, generalized itching)
- Mucosa involvement (angioedema, throat tightening sensation)
- Respiratory compromise (dyspnea, wheezing, stridor)
- Persistent GI involvement (vomiting, diarrhea, abd pain)
- Altered mental status, syncope, incontinence

or

B. Hypotension after exposure to a known allergen

Consider **Push Dose Epinephrine** while preparing vasopressor infusion

Mix in syringe 1ml of 0.1mg/ml (1:10,000) Epinephrine with 9 ml of NS (syringe = 10mcg/ml of Epinephrine)

Give 1ml IV/IO q3-5 min prn

- **The first-line treatment of anaphylaxis is epinephrine.** Consider immediate IM Epinephrine prior to IV/IO access in critically ill patients. Administration to the thigh is the fastest IM site – use either the vastus lateralus or the rectus femoris muscle. If patient has their own epinephrine auto-injector, the provider may assist them in using it. Corticosteroids are adjunctive therapy after epinephrine.
- IM administration of epinephrine is recognized as generally safe. Adverse cardiovascular events are most common when Epi is given IV. Consider the risks & benefits of Epi use in patients >60 yo or persons with a cardiac history. Consult **Medical Control** for guidance.
- Patients who take β-blockers have an increased risk of developing a more severe reaction; these patients also may have a paradoxical response to Epinephrine. The use of inhaled Ipratroprium (aka Atrovent) with Albuterol may help respiratory symptoms in these cases.
- A dystonic reaction (e.g. to phenothiazine) is NOT an allergic reaction; it is an adverse reaction. Patients may receive Diphenhydramine 50 mg IV/IM.