Anaphylaxis

Definition:
A severe systemic allergic reaction to external stimuli and rarely, idiopathic. Symptoms: respiratory (laryngeal edema, bronchospasms), gastrointestinal (nausea, vomiting, diarrhea, cramping), or cardiovascular (hypotension, syncope). Cutaneous symptoms in isolation (urticaria, angioedema) typically do NOT represent anaphylaxis unless a KNOWN allergen was encountered/ingested.

History
- Identification of symptoms as described above
- Attempt to determine a trigger if possible including food, drug, insect sting
  - Trigger must be consistent (occur with EVERY encounter)
  - Trigger must be chronologically consistent (symptoms occurring within 30-60 minutes of encountering the trigger)
  - Symptoms should NOT be occurring when the patient is NOT encountering the suspected trigger

Examination/Evaluation
- Physical examination and objective measurements (blood pressure, pulse oximetry) to determine evidence of cutaneous, respiratory, gastrointestinal, or cardiovascular involvement
- During an acute event, consider tryptase level to determine if patient is having true anaphylaxis (best if drawn within 60-90 minutes to onset of symptoms)

Management
- Acute management
  - Intramuscular injection of epinephrine 1:1000 (0.01 mg/kg or 0.01 mL/kg of 1:1000)
    - First line treatment for anaphylaxis
    - EpiPen JR doses 0.15 mg and approved for 15-30 kg
    - EpiPen 0.3 mg approved for >30 kg
    - Consider dose of 0.5 mg for adults over 50 kg
    - Administer every 5 minutes if symptoms fail to improve or continue to progress
    - For patients taking beta blockers, consider glucagon to improve response to epinephrine
  - Respiratory distress
    - Provide supplemental oxygen
    - Administer nebulized beta agonists
    - For upper airway stridor, consider racemic epinephrine
    - Be prepared for definitive airway (intubation)
  - Cardiovascular distress (hypotension, dizziness, lightheadedness)
    - Place patient in supine position with lower extremities elevated
- Volume resuscitation with 20 mg/kg in pediatrics and 1 L of isotonic saline infused rapidly; repeat if necessary
- For refractory hypotension consider intravenous epinephrine (infused at 1-4 mcg/minute)
  - Supplemental measures: once acute symptoms are managed, consider following
    - Systemic corticosteroids
    - Oral/intravenous antihistamines (H1 and H2 blockers)
  - Ongoing management
    - EpiPen prescription and education
    - Avoidance if trigger identified

Indications for referral
- If trigger identified (food, drug, insect): see drug, food, or venom management guidelines
- Referral indicated if concerned for idiopathic anaphylaxis for evaluation and management
  - **This diagnosis is very rare. Frequently “idiopathic anaphylaxis” is diagnosed improperly in patients with acute urticaria/angioedema with coinciding anxiety/panic/vocal cord dysfunction. Please consider this diagnosis when patient presents with “throat symptoms” in the setting of acute urticaria/angioedema

**There are very few consults that warrant ASAP or Urgent status.** If this is entered by the referring provider, it will be downgraded to Routine unless that provider calls and directly speaks with an allergist either at SAMMC or WHASC and it is confirmed as an urgent consult.