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Make Your Own Assessment

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Definition

• A rapid onset allergic reaction which may be life threatening

• True emergency – requires immediate diagnosis and Rx
Terminology

• Anaphylaxis - IgE mediated after previous exposure
• Anaphylactoid - not IgE but immune complex complement mediated; no prior exposure required
• Therapeutically identical
Common Causes

• Drugs
  - β-lactam antibiotics: penicillins and cephalosporins
  - aspirin and other NSAIDs
  - sulfa drugs
  - aminoglycosides
Common Causes

• Foods and additives – more common in children
  shellfish
  nuts
  milk
  eggs
  sulfites
  wheat
  soybeans
Common Causes

• Stings
• Vaccines
• Latex
• X-Ray contrast material
Pathophysiology

• Release of vasoactive and bronchial mediators from mast cells and basophils (histamines, prostaglandins, leukotrienes, etc.)
Clinical Picture

• 2 or more of following:

  skin
  pruritus
  urticaria

  respiratory
  upper airway
    lump in throat
    hoarseness
    stridor
  lower airway
    bronchoconstriction
    wheezing
Clinical Picture

• Hypotension - distributive shock

• GI - cramps and vomiting
Clinical Picture

• Rapid onset - minutes to hours, most within 1 hour
Recurrence

• Up to 20% recur within 8 hours
Treatment

• 1st line:
• Epinephrine
  - has both alpha and beta-2 effects
  - reduces mucosal edema, reduces capillary leakage, vasoconstricts, bronchodilates
Treatment

• Epinephrine dosing and administration
  o 0.3 (kids) to 0.5 mg (adults); (0.3-0.5ml of 1:1000) IM in thigh
  o Repeat q 5 min as necessary
  o Epinephrine auto injector (EpiPen) is easiest and safest (comes in 0.3 and 0.5 mg dosages)
Treatment

- Epinephrine – if refractory to IM Rx or cardiovascular collapse – 0.1 mg IV epi over 5-10 minutes (0.1 mg of the 1:10,000)
Treatment

• Shock – IV fluids wide open
Treatment

- IV steroids and antihistamines (H1 and H2 blockers) to prevent recurrence
Observation

- Admit or observe for 8 hours to watch for recurrence