

ACTIVE LEARNING TEMPLATE: *System Disorder*

STUDENT NAME _____

DISORDER/DISEASE PROCESS Anaphylaxis

REVIEW MODULE CHAPTER _____

Alterations in Health (Diagnosis)

Anaphylaxis

Pathophysiology Related to Client Problem

Acute, potentially fatal, multi-organ system reaction caused by the release of chemical mediators from mast cells and basophils following re-exposure to an allergen, producing symptoms via an immunologic mechanism.

Health Promotion and Disease Prevention

Prevent or minimize exposure to allergen (Avoidance)

ASSESSMENT

Risk Factors

Re-exposure to allergen in which an individual is already sensitized to.

Expected Findings

Dermatologic/ocular: Flushing, urticaria, erythema, pruritus, or angioedema
Respiratory: Severe angioedema of the tongue and lips; tachypnea; stridor; loss of voice; hoarseness, and/or dysphonia; wheezing
Cardiovascular: Weakness, syncope, palpitations, tachycardia, hypotension, shock
GIT: Dysphagia, nausea, vomiting, diarrhea, bloating, cramps
Neurologic: Dizziness, blurred vision, and seizure associated with hypotension

Laboratory Tests

Serum tryptase to confirm the diagnosis
Urinary 24-hour histamine (diagnosis of recurrent anaphylaxis)
Urinary 24-hour 5-hydroxyindoleacetic acid levels if carcinoid syndrome is consideration
Skin testing, in vitro immunoglobulin E (IgE) tests or both for food and medication allergies, or the cause of IgE-independent reaction

Diagnostic Procedures

Physical examination

SAFETY CONSIDERATIONS

Avoid exposure to allergen
Appropriate and prompt use of medication
Consider wearing a medic alert bracelet for patients with recurrent anaphylaxis
Avoid use of beta blockers as they block the effects of epinephrine

PATIENT-CENTERED CARE

Nursing Care

Cardiac monitoring/pulse oximetry
Positioning of patient in comfortable position
Administration of medication
Patient education

Medications

- 1) Adrenergic agonists
- 2) Antihistamines
H2 receptor antagonists
- 3) Bronchodilator
- 4) Corticosteroids
- 5) Positive inotropic agents
- 6) Vasopressors

Client Education

Avoidance education especially in younger patients with food anaphylaxis regarding important issues such as cross-contamination and inadequate labeling of foods. Providing a list of medication that they should avoid and present to their primary care physicians when antibiotic therapy is required.
Importance of carrying medication prophylactically

Therapeutic Procedures

High-flow oxygen
Intravenous access (large bore)
Fluid resuscitation with isotonic crystalloid solution
Cricothyrotomy or catheter jet ventilation

Interprofessional Care

Airway management (e.g. ventilator support with bag/valve/mask, endotracheal intubation)

Complications

Multi organ system failure
Death