Health ONE EMS
Emergency Medical Services

Allergic Reactions

Allergic Reaction

An exaggerated reaction by the body's immune system to any substance

Anaphylaxis

A life-threatening allergic reaction which causes shock (hypoperfusion) and airway swelling

Signs and Symptoms

- Itching
- Hives
- Flushing
- Warm, tingling feeling
- Swelling (especially face, neck, hands, feet, tongue)
- Tightness in throat/chest
- Cough
- Rapid, labored, noisy breathing
- Hoarseness
- Stridor and wheezing
- Increased heart rate
- Low blood pressure
- Itchy, watery eyes and runny nose
- Headache
- Sense of impending doom
- Decreasing mental status
- Signs and symptoms of shock (hypoperfusion) or respiratory distress

Assessing Allergic Reactions

- Initial assessment
- Focused history and physical exam
- Baseline vital signs
- SAMPLE history

Health ONE EMS
Emergency Medical Services

- Any history of allergies?
- *What* was the patient exposed to?
- *How* was the patient exposed?
- What signs and symptoms does the patient have?
- Any *progression* of the signs and symptoms?
- Have any *interventions* been performed on the patient?

Emergency Care of Allergic Reactions

- Reassess in 2 minutes
- Record reassessment findings
- If patient does not have epinephrine auto-injector, transport immediately
- Epinephrine needed if the patient:
  - Has come in contact with something that caused an allergic reaction in the past, AND IF
  - The patient has a prescribed epinephrine auto-injector, AND IF
  - Patient shows signs and symptoms of shock (hypoperfusion) OR
  - Complains of respiratory distress (sometimes BOTH)

- When the patient does not have a prescribed epinephrine auto-injector:
  - Treat for shock
  - Request ALS
  - Transport immediately

- When the patient does not have respiratory distress or shock

(hypoperfusion):
- Continue with focused assessment
- Consult medical direction for possible administration of epinephrine

Relationship to Airway Management

Note

- The patient may need aggressive airway management immediately because of swelling in the airway or respiratory compromise
- The patient's condition may be stable initially but deteriorate to the point where he/she needs aggressive management

Use of Epinephrine Auto-Injector

Indications:

- Signs of allergic reaction
- Physician has prescribed epinephrine to patient
- Medical direction authorizes epinephrine

Contraindications:

- NONE, when used in life-threatening situations

Medication Form:

- Auto-injector

Dosage:

- Adult: - one auto-injector
- Child: - one pediatric auto-injector

Administration:

Injector prescribed for THIS patient?

- Expiration date?
- Liquid cloudy or discolored?

Actions:

- Dilates bronchioles
- Constricts blood vessels

Side Effects:

- Increased heart rate
- Pallor and dizziness
- Chest pain
- Headache, excitability, and anxiety
- Nausea and vomiting
- Reassessment Strategies
- Transport
- Continue focused assessment of airway, breathing, and circulation

If patient's condition WORSENS:

- Consult medical direction about another dose
- Treat for shock
- Be prepared to use CPR/AED

If patient's condition IMPROVES:

- Continue oxygen
- Treat for shock (hypoperfusion)

Review Questions

- Define an allergic reaction.
- List some common causes of allergic reactions.
- List signs and symptoms of an anaphylactic reaction associated with the skin, respiratory system, and cardiovascular system.
- Tell how to determine whether the patient needs epinephrine
- Explain how to administer epinephrine.
- Describe the actions and side effects of epinephrine.

Street Scenes

- What is your impression of Mr. Meeker's condition?
- What do you think might be happening to him?
- What do you suspect is beginning to happen to your patient?
- What further treatment should you render?