UNIT TERMINAL OBJECTIVE

5-4 At the completion of this unit, the EMT-Critical Care Technician student will be able to utilize the assessment findings to formulate a field impression and implement a treatment plan for the patient with an allergic or anaphylactic reaction.

COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Critical Care Technician student will be able to:

- 5-4.1 Define allergic reaction. (C-1)
- 5-4.2 Define anaphylaxis. (C-1)
- 5-4.3 Define allergens. (C-1)
- 5-4.4 Describe the common methods of entry of substances into the body. (C-1)
- 5-4.5 List common antigens most frequently associated with anaphylaxis. (C-1)
- 5-4.6 Describe physical manifestations in anaphylaxis. (C-1)
- 5-4.7 Recognize the signs and symptoms related to anaphylaxis. (C-1)
- 5-4.8 Relate signs and symptoms to other body systems/functions (C-3)
- 5-4.9 Differentiate among the various treatment and pharmacological interventions used in the management of anaphylaxis. (C-3)
- 5-4.10 Integrate the pathophysiological principles of the patient with anaphylaxis. (C-3)
- 5-4.11 Correlate abnormal findings in assessment with the clinical significance in the patient with anaphylaxis. (C-3)
- 5-4.12 Develop a treatment plan based on field impression in the patient with allergic reaction and anaphylaxis. (C-3)

AFFECTIVE OBJECTIVES

None identified for this unit.

PSYCHOMOTOR OBJECTIVES

None identified for this unit.

DECLARATIVE

1	Introduction

- A. Anatomy
 - 1. Review of cardiovascular system
 - 2. Review of respiratory system
- B. Terminology
 - 1. Allergic reaction
 - 2. Anaphylaxis
 - 3. Allergen

II. Pathophysiology

- A. Routes of entry
 - 1. Oral ingestion
 - 2. Injected/ envenomation
 - 3. Inhaled
 - 4. Topical
- B. Common allergens
 - 1. Drugs
 - 2. Insects
 - 3. Foods
 - 4. Animals
 - 5. Other
- C. Allergic response
 - 1. Histamine or histamine-like substance release
 - 2. Biphasic response
 - a. Acute reaction
 - b. Delayed reaction
 - 3. Immunity
 - 4. Sensitivity
 - 5. Hypersensitivity
 - 6. Redness of skin
 - 7. Swelling/ edema of the skin
 - 8. Anaphylactic shock
 - a. Cardiovascular system
 - b. Respiratory system

III. Assessment findings

- A. Not all signs and symptoms are present in every case
- B. History
 - 1. Previous exposure
 - 2. Previous experience to exposure
 - 3. Onset of symptoms
 - 4. Dyspnea
- C. Level of consciousness
 - 1. Unable to speak
 - 2. Restless
 - 3. Decreased level of consciousness
 - 4. Unresponsive

- D. Upper airway
 - 1. Hoarseness
 - 2. Stridor
 - 3. Pharyngeal edema/ spasm
- E. Lower airway
 - 1. Tachypnea
 - 2. Hypoventilation
 - 3. Labored accessory muscle use
 - 4. Abnormal retractions
 - 5. Prolonged expirations
 - 6. Wheezes
 - 7. Diminished lung sounds
- F. Skin
 - 1. Redness
 - Rashes
 - 3. Edema
 - 4. Moisture
 - 5. Itching
 - 6. Pallor
 - 7. Cyanotic
- G. Vital signs
 - 1. Tachycardia
 - 2. Hypotension
 - Assessment tools
 - 4. Cardiac monitor
- H. Respiratory system
 - 1. Dyspnea
 - 2. Sneezing, coughing
 - 3. Respiratory distress
 - 4. Complete obstruction
- I. Cardiovascular system
 - 1. Vasodilation
 - 2. Increased heart rate
 - 3. Decreased blood pressure
- J. Gastrointestinal system
 - 1. Cramping
 - 2. Nausea/vomiting
 - 3. Diarrhea
- K. Nervous system
 - 1. Headache
 - 2. Convulsions
- IV. Management of anaphylaxis
 - A. Remove offending agent (i.e., stinger)
 - B. Airway and ventilation
 - 1. Positioning
 - 2. Oxygen
 - 3. Assist ventilation
 - 4. Advanced airway

- C. Circulation
 - 1. Venous access
 - 2. Fluid resuscitation
- D. Pharmacological interventions
 - Oxygen
 - 2. Epinephrine mainstay of treatment
 - a. Bronchodilator
 - b. Decreases vascular permeability
 - c. Vasoconstriction
 - 3. Bronchodilator
 - 4. Antihistamine
- E. Transport considerations
- F. Psychological support/ communications strategies
- V. Management of acute allergic reaction without dyspnea or hypotension
 - A. Remove offending agent (i.e., stinger)
 - B. Airway and ventilation
 - C. Circulation
 - D. Transport considerations
 - E. Psychological support/ communications strategies