



# 1998 EMT-Paramedic: NSC Comparison Document

National Council of State EMS Training Coordinators, Inc.  
U.S. Department of Transportation  
U.S. Department of Health and Human Services



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## ABSTRACT

**Objective:** To develop a tool that can be used by States, regions, and local EMS education programs to measure how their current Emergency Medical Technician - Paramedic (EMT-P) programs compare to the revised 1998 EMT-P: National Standard Curriculum (NSC).

**Method:** The U.S. Department of Transportation and U.S. Department of Health and Human Services entered into a cooperative agreement with the National Council of State EMS Training Coordinators, Inc. (NCSEMSTC) to produce the 1998 EMT-Paramedic: NSC Comparison Document.

The original Partner Team for the *State Implementation Guide for the Revised EMT-I and P* project determined that comparison documents for the current and revised national standard curricula needed to be part of the implementation process for State EMS offices. A consensus-based process was again used to develop the EMT-P comparison and the NCSEMSTC was contracted to develop the initial draft and circulate it to the national EMS community for broad input. Originally the Writing Group tried to compare both the objectives and declarative material from each version of the EMT-P, but since this proved to be too subjective, the document became a comparison of only the objectives from each version.

### Basic Assumptions:

- < Current local programs are equal to, or exceed, the 1985 EMT-P: NSC.
- < The 1998 curriculum replaces the curriculum being taught today.
- < Objectives are the core material of the curriculum; declarative material is **not** part of the core material.
- < Course completion is successful upon completion of all the program objectives.
- < Comparison is between core curricula at the same scope of practice level of out-of-hospital providers.

**Using the Document:** This document lists the cognitive, affective and psychomotor objectives found in the 1998 EMT-P: NSC that are not in the 1985 EMT-P: NSC. By comparing the objectives listed in this document with those being instructed in today's EMT-P program, program managers and instructors can determine what new material will need to be added to their programs to meet the 1998 standard.

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The **National Council of State EMS Training Coordinators, Inc.** (NCSEMSTC) is a national regulatory organization whose membership is comprised of one voting member from each of the 56 United States, Commonwealths, and Territories. The Council has been in existence for 23 years. Each State, Commonwealth or territory can have up to three members, with only one from each state being designated as the voting member.

The Council's mission is to provide national leadership role and establish alliances, to develop and coordinate a system for research-driven education and training, in order to influence the design and development of EMS education and training; and develop certification and licensure standards for the express purpose of improving the quality of patient care; and promote public health while reducing injury, disability and death.

The purpose of the Council shall be to promote the training of Emergency Medical Services (EMS) personnel based on sound educational principles and current medical knowledge and practice. The Council will seek the national standardization of training curricula, certification/recertification policies and procedures, the reciprocity of certification from State to State, and the public recognition and trust of prehospital EMS personnel health care providers.

## **COMPARISON OF THE 1985 EMT-PARAMEDIC TO THE 1998 EMT-PARAMEDIC CURRICULUM**

- 1-1 At the completion of this unit, the paramedic student will understand his or her roles and responsibilities within an EMS system, and how these roles and responsibilities differ from other levels of providers.**

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 1-1.1 Define the following terms:
  - a. EMS Systems
- 1-1.2 Describe key historical events that influenced the development of national Emergency Medical Services (EMS) systems.
- 1-1.14 Identify the standards (components) of an EMS System as defined by the National Highway Traffic Safety Administration.
- 1-1.18 Describe the importance of quality EMS research to the future of EMS.
- 1-1.20 Describe what is meant by "citizen involvement in the EMS system."
- 1-1.32 Identify local health care agencies and transportation resources for patients with special needs.
- 1-1.33 Describe the role of the paramedic in health education activities related to illness and injury prevention.
- 1-1.34 Describe the importance and benefits of research.
- 1-1.35 Explain the EMS provider=s role in data collection.

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 1-1.40 Value the need to serve as the patient advocate inclusive of those with special needs, alternate life styles and cultural diversity.
- 1-1.42 Advocate the need for supporting and participating in research efforts aimed at improving EMS systems.
- 1-1.44 Value the role that family dynamics plays in the total care of patients.
- 1-1.45 Advocate the need for injury prevention, including abusive situations.

- 1-2 At the completion of this unit, the paramedic student will understand and**

**value the importance of personal wellness in EMS and serve as a healthy role model for peers.**

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 1-2.1 Discuss the concept of wellness and its benefits.
- 1-2.2 Define the components of wellness.
- 1-2.3 Describe the role of the paramedic in promoting wellness.
- 1-2.4 Discuss the components of wellness associated with proper nutrition.
- 1-2.5 List principles of weight control.
- 1-2.6 Discuss how cardiovascular endurance, muscle strength, and flexibility contribute to physical fitness.
- 1-2.7 Describe the impact of shift work on circadian rhythms.
- 1-2.8 Discuss how periodic risk assessments and knowledge of warning signs contribute to cancer and cardiovascular disease prevention.
- 1-2.9 Differentiate proper from improper body mechanics for lifting and moving patients in emergency and non-emergency situations.
- 1-2.16 Describe the benefits and methods of smoking cessation.
- 1-2.24 Describe the components of critical incident stress management (CISM).
- 1-2.25 Provide examples of situations in which CISM would likely be beneficial to paramedics.
- 1-2.29 Describe the unique challenges for paramedics in dealing with the needs of children and other special populations related to their understanding or experience of death and dying.
- 1-2.30 Discuss the importance of universal precautions and body substance isolation practices.
- 1-2.31 Describe the steps to take for personal protection from airborne and bloodborne pathogens.
- 1-2.32 Given a scenario in which equipment and supplies have been exposed to body substances, plan for the proper cleaning, disinfection, and disposal of the items.
- 1-2.33 Explain what is meant by an exposure and describe principles for management.

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 1-2.34 Advocate the benefits of working toward the goal of personal wellness
- 1-2.35 Serve as a role model for other EMS providers in regard to a total wellness lifestyle.
- 1-2.36 Value the need to assess his/ her own lifestyle.
- 1-2.37 Challenge his/ herself to each wellness concept in his/ her role as paramedic.

- 1-2.38 Defend the need to treat each patient as an individual, with respect and dignity.
- 1-2.39 Assess his/ her own prejudices related to the various aspects of cultural diversity.
- 1-2.40 Improve personal physical well-being through achieving and maintaining proper body weight, regular exercise and proper nutrition.
- 1-2.42 Defend the need to respect the emotional needs of dying patients and their families.
- 1-2.43 Advocate and practice the use of personal safety precautions in all scene situations.
- 1-2.44 Advocate and serve as a role model for other EMS providers relative to body substance isolation practices.

### **PSYCHOMOTOR OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 1-2.45 Demonstrate safe methods for lifting and moving patients in emergency and non-emergency situations.
- 1-2.46 Demonstrate the proper procedures to take for personal protection from disease.

**1-3 At the completion of this unit, the paramedic student will be able to**

**integrate the implementation of primary injury prevention activities as an effective way to reduce death, disabilities and health care costs.**

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 1.3-1 Describe the incidence, morbidity and mortality of unintentional and alleged unintentional events.
- 1.3-2 Identify the human, environmental, and socioeconomic impact of unintentional and alleged unintentional events.
- 1.3-3 Identify health hazards and potential crime areas within the community.
- 1.3-4 Identify local municipal and community resources available for physical, socioeconomic crises.
- 1.3-5 List the general and specific environmental parameters that should be inspected to assess a patient's need for preventative information and direction.
- 1.3-6 Identify the role of EMS in local municipal and community prevention programs.
- 1.3-7 Identify the local prevention programs that promote safety for all age populations.
- 1.3-8 Identify patient situations where the paramedic can intervene in a preventative manner.
- 1.3-9 Document primary and secondary injury prevention data.

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 1.3-10 Value and defend tenets of prevention in terms of personal safety and wellness.
- 1.3-11 Value and defend tenets of prevention for patients and communities being served.
- 1.3-12 Value the contribution of effective documentation as one justification for funding of prevention programs.
- 1.3-13 Value personal commitment to success of prevention programs.

**1-4 At the completion of this unit, the paramedic student will understand the**

**legal issues that impact decisions made in the out-of-hospital environment.**

**COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 1-4.22 Describe how hospitals are selected to receive patients based on patient need and hospital capability and the role of the paramedic in such selection.
- 1-4.26 Discuss the responsibilities of the paramedic relative to resuscitation efforts for patients who are potential organ donors.

**1-6 At the completion of this unit, the paramedic student will be able to apply**

**the general concepts of pathophysiology for the assessment and management of emergency patients.**

**COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 1-6.1 Discuss cellular adaptation.
- 1-6.3 Describe the factors that precipitate disease in the human body.
- 1-6.12 Describe multiple organ dysfunction syndrome.
- 1-6.17 Describe the inflammation response.
- 1-6.18 Discuss the role of mast cells as part of the inflammation response.
- 1-6.21 Describe the systemic manifestations of the inflammation response.
- 1-6.25 Describe deficiencies in immunity and inflammation.
- 1-6.27 List types of tissue.
- 1-6.28 Describe the systemic manifestations that result from cellular injury.
- 1-6.29 Describe neuroendocrine regulation.

**1-7 At the completion of this unit, the paramedic student will be able to**

**integrate pathophysiological principles of pharmacology and the assessment findings to formulate a field impression and implement a pharmacologic management plan.**

**COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

1-7.1 Describe historical trends in pharmacology.

**1-8 At the completion of this unit, the paramedic student will be able to safely**

**and precisely access the venous circulation and administer medications.**

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 1-8.4 Differentiate temperature readings between the Centigrade and Fahrenheit scales.
- 1-8.11 Discuss the "six rights" of drug administration and correlate these with the principles of medication administration.
- 1-8.14 Describe the use of universal precautions and body substance isolation (BSI) procedures when administering a medication.
- 1-8.18 Describe the indications, equipment needed, techniques used, precautions, and general principles of administering medications by gastric tube.

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 1-8.28 Comply with universal precautions and body substance isolation (BSI).

### **PSYCHOMOTOR OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 1-8.33 Use universal precautions and body substance isolation (BSI) procedures during medication administration.
- 1-8.39 Demonstrate administration of medications by the gastric tube.
- 1-8.40 Demonstrate rectal administration of medications.

**1-9 At the completion of this unit, the paramedic student will be able to**

**integrate the principles of therapeutic communication to effectively communicate with any patient while providing care.**

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 1-9.1 Define communication.
- 1-9.2 Identify internal and external factors that affect a patient/ bystander interview conducted by a paramedic.
- 1-9.3 Restate the strategies for developing patient rapport.
- 1-9.4 Provide examples of open-ended and closed or direct questions.
- 1-9.5 Discuss common errors made by paramedics when interviewing patients.
- 1-9.6 Identify the nonverbal skills that are used in patient interviewing.
- 1-9.7 Restate the strategies to obtain information from the patient.
- 1-9.8 Summarize the methods to assess mental status based on interview techniques.
- 1-9.9 Discuss the strategies for interviewing a patient who is unmotivated to talk.
- 1-9.11 Summarize developmental considerations of various age groups that influence patient interviewing.
- 1-9.12 Restate unique interviewing techniques necessary to employ with patients who have special needs.
- 1-9.13 Discuss interviewing considerations used by paramedics in cross-cultural communications.

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 1-9.14 Serve as a model for an effective communication process.
- 1-9.15 Advocate the importance of external factors of communication.
- 1-9.16 Promote proper responses to patient communication.
- 1-9.18 Advocate development of proper patient rapport.
- 1-9.19 Value strategies to obtain patient information.
- 1-9.21 Exhibit professional behaviors in communication with patient from different cultures.

**1-10 At the completion of this unit, the paramedic student will be able to integrate the physiological, psychological, and sociological changes**

**throughout human development with assessment and communication strategies for patients of all ages.**

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 1-10.1 Compare the physiological and psychosocial characteristics of an infant with those of an early adult.
- 1-10.2 Compare the physiological and psychosocial characteristics of a toddler with those of an early adult.
- 1-10.3 Compare the physiological and psychosocial characteristics of a pre-school child with those of an early adult.
- 1-10.4 Compare the physiological and psychosocial characteristics of a school-aged child with those of an early adult.
- 1-10.5 Compare the physiological and psychosocial characteristics of an adolescent with those of an early adult.
- 1-10.6 Summarize the physiological and psychosocial characteristics of an early adult.
- 1-10.7 Compare the physiological and psychosocial characteristics of a middle aged adult with those of an early adult.
- 1-10.8 Compare the physiological and psychosocial characteristics of a person in late adulthood with those of an early adult.

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 1-10.9 Value the uniqueness of infants, toddlers, pre-school, school aged, adolescent, early adulthood, middle aged, and late adulthood physiological and psychosocial characteristics.

**2-1 At the completion of this unit, the paramedic student will be able to establish and/or maintain a patent airway, oxygenate, and ventilate a**

patient.

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 2-1.2 Identify commonly neglected prehospital skills related to airway.
- 2-1.40 Describe the indications, contraindications, advantages, disadvantages, complications, equipment and technique for inserting a nasogastric tube and orogastric tube.
- 2-1.44 Explain the advantage of the two-person method when ventilating with the bag-valve-mask.
- 2-1.46 Describe indications, contraindications, advantages, disadvantages, complications and technique for ventilating a patient with an automatic transport ventilator (ATV).
- 2-1.69 Describe the indications, contraindications, advantages, disadvantages, complications, equipment and technique for nasotracheal intubation.
- 2-1.70 Describe the indications, contraindications, advantages, disadvantages and complications for performing an open cricothyrotomy.
- 2-1.72 Describe the indications, contraindications, advantages, disadvantages, complications, equipment and technique for transthyroglottic catheter ventilation (needle cricothyrotomy).

### **PSYCHOMOTOR OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 2-1.80 Perform body substance isolation (BSI) procedures during basic airway management, advanced airway management, and ventilation.
- 2-1.81 Perform pulse oximetry.
- 2-1.82 Perform end-tidal CO<sub>2</sub> detection.
- 2-1.83 Perform peak expiratory flow testing.
- 2-1.91 Demonstrate insertion of an orogastric tube.
- 2-1.95 Demonstrate ventilating a patient by the following techniques:
  - Automatic transport ventilator
  - Two-person bag-valve-mask
  - Three-person bag-valve-mask
- 2-1.97 Perform ventilation with a bag-valve-mask with an in-line small-volume nebulizer.
- 2-1.104 Intubate the trachea by the following methods:
  - Nasotracheal intubation
  - Multi-lumen airways
- 2-1.109 Perform replacement of a tracheostomy tube through a stoma.

**3-1 At the completion of this unit, the paramedic student will be able to use the appropriate techniques to obtain a medical history from a patient.**

## **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 3-1.3 Describe the use of facilitation, reflection, clarification, empathetic responses, confrontation, and interpretation.
- 3-1.4 Differentiate between facilitation, reflection, clarification, sympathetic responses, confrontation, and interpretation.

- 3-2 At the completion end of this unit, the paramedic student will be able to explain the pathophysiological significance of physical exam findings.**

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 3-2.11 Describe the assessment of visual acuity.
- 3-2.57 Describe the assessment of the cranial nerves.
- 3-2.58 Differentiate normal and abnormal findings of the cranial nerves.

### **PSYCHOMOTOR OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 3-2.68 Demonstrate the assessment of visual acuity.

- 3-3 At the end of this unit, the paramedic student will be able to integrate the principles of history taking and techniques of physical exam to perform a**

**patient assessment.**

**COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 3-3.6 Discuss common mechanisms of injury/ nature of illness.
- 3-3.7 Predict patterns of injury based on mechanism of injury.

**AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 3-3.52 Serve as a model for others explaining how patient situations affect your evaluation of mechanism of injury or illness.

- 3-4 At the end of this unit, the paramedic student will be able to apply a process of clinical decision making to use the assessment findings to help**

**form a field impression.**

**COGNITIVE OBJECTIVES**

At the end of this unit, the paramedic student will be able to:

- 3-4.4 Define the components, stages and sequences of the critical thinking process for paramedics.
- 3-4.5 Apply the fundamental elements of critical thinking for paramedics.
- 3-4.7 Summarize the six Rs of putting it all together: Read the patient, Read the scene, React, Reevaluate, Revise the management plan, Review performance.

- 3-5 At the completion of this unit, the paramedic student will be able to follow an accepted format for dissemination of patient information in verbal form,**

**either in person or over the radio.**

**COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 3-5.13 Identify technology used to collect and exchange patient and/ or scene information electronically.
- 3-5.14 Recognize the legal status of patient medical information exchanged electronically.
- 3-5.16 Identify and differentiate among the following communications systems:
  - d. Trunked
  - e. Digital communications
  - f. Cellular telephone
  - g. Facsimile
  - h. Computer

**4-1 At the completion of this unit, the Paramedic student will be able to integrate the principles of kinematics to enhance the patient assessment**

**and predict the likelihood of injuries based on the patient=s mechanism of injury.**

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the Paramedic student will be able to:

- 4-1.1 List and describe the components of a comprehensive trauma system.
- 4-1.2 Describe the role of and differences between levels of trauma centers.
- 4-1.4 Describe the criteria and procedure for air medical transport.
- 4-1.5 Define energy and force as they relate to trauma.
- 4-1.6 Define laws of motion and energy and understand the role that increased speed has on injuries.
- 4-1.7 Describe each type of impact and its effect on unrestrained victims (e.g., Adown and under,@ Aup and over,@ compression, deceleration).
- 4-1.8 Describe the pathophysiology of the head, spine, thorax, and abdomen that result from the above forces.
- 4-1.9 List specific injuries and their causes as related to interior and exterior vehicle damage.
- 4-1.10 Describe the kinematics of penetrating injuries.
- 4-1.11 List the motion and energy considerations of mechanisms other than motor vehicle crashes.
- 4-1.12 Define the role of kinematics as an additional tool for patient assessment.

**4-3 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and the assessment findings to**

**formulate a field impression and implement the treatment plan for the patient with soft tissue trauma.**

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 4-3.2 Describe the layers of the skin, specifically:
  - a. Epidermis and dermis (cutaneous)
  - b. Superficial fascia (subcutaneous)
  - c. Deep fascia
- 4-3.6 Discuss the pathophysiology of wound healing, including:
  - 3. Hemostasis
  - 4. Inflammation phase
  - 5. Epithelialization
  - 6. Neovascularization
  - 7. Collagen synthesis
- 4-3.8 Differentiate between the following types of closed soft tissue injuries:
  - c. Crush injuries
- 4-3.13 Discuss the incidence, morbidity, and mortality of blast injuries.
- 4-3.14 Predict blast injuries based on mechanism of injury, including:
  - 1. Primary
  - 2. Secondary
  - 3. Tertiary
- 4-3.16 Discuss the pathophysiology associated with blast injuries.
- 4-3.17 Discuss the effects of an explosion within an enclosed space on a patient.
- 4-3.20 Discuss the management of a patient with a blast injury.
- 4-3.21 Discuss the incidence, morbidity, and mortality of crush injuries.
- 4-3.22 Define the following conditions:
  - 1. Crush injury
  - 2. Crush syndrome
  - 3. Compartment syndrome
- 4-3.23 Discuss the mechanisms of injury in a crush injury.
- 4-3.24 Discuss the effects of reperfusion and rhabdomyolysis on the body.
- 4-3.27 Discuss the management of a patient with a crush injury.
- 4-3.38 Discuss the management of wound healing.
- 4-3.39 Discuss the pathophysiology of wound infection.
- 4-3.41 Discuss the management of wound infection.

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 4-3.51 Appreciate the importance of good follow-up care for patients receiving sutures.
- 4-4 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and the assessment findings to**

**formulate a field impression and implement the management plan for the patient with a burn injury.**

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 4-4.32 Describe the specific anatomy and physiology pertinent to a chemical burn injury and a chemical burn injury to the eye.
- 4-4.33 Describe the pathophysiology of a chemical burn injury, including types of chemicals and their burning processes and a chemical burn injury to the eye.
- 4-4.34 Identify and describe the depth classifications of a chemical burn injury.
- 4-4.35 Identify and describe the severity of a chemical burn injury.
- 4-4.36 Describe considerations which impact management and prognosis of the patient with a chemical burn injury and a chemical burn injury to the eye.
- 4-4.37 Discuss mechanisms of burn injury and conditions associated with a chemical burn injury.
- 4-4.38 Describe the management of a chemical burn injury and a chemical burn injury to the eye, including airway and ventilation, circulation, pharmacological, non-pharmacological, transport considerations, and psychological support/ communication strategies.
- 4-4.39 Describe the epidemiology of an electrical burn injury.
- 4-4.40 Describe the specific anatomy and physiology pertinent to an electrical burn injury.
- 4-4.41 Describe the pathophysiology of an electrical burn injury.
- 4-4.42 Identify and describe the depth classifications of an electrical burn injury.
- 4-4.43 Identify and describe the severity of an electrical burn injury.
- 4-4.44 Describe considerations which impact management and prognosis of the patient with an electrical burn injury.
- 4-4.45 Discuss mechanisms of burn injury and conditions associated with an electrical burn injury.
- 4-4.46 Describe the management of an electrical burn injury, including airway and ventilation, circulation, pharmacological, non-pharmacological, transport considerations, and psychological support/ communication strategies.
- 4-4.66 Develop, execute and evaluate a management plan based on the field impression for the patient with a thermal burn injury.
- 4-4.68 Develop, execute and evaluate a management plan based on the field impression for the patient with a chemical burn injury.
- 4-4.69 Develop, execute and evaluate a management plan based on the field impression for the patient with an electrical burn injury.

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 4-4.71 Value the changes of a patient's self-image associated with a burn injury.
- 4-4.72 Value the impact of managing a burn injured patient.
- 4-4.73 Advocate empathy for a burn injured patient.
- 4-4.77 Serve as a model for universal precautions and body substance isolation (BSI).

### **PSYCHOMOTOR OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 4-4.78 Take body substance isolation procedures during assessment and management of patients with a burn injury.
- 4-4.80 Perform management of a thermal burn injury, including airway and ventilation, circulation, pharmacological, non-pharmacological, transport considerations, psychological support/ communication strategies, and other management described by local protocol.
- 4-4.81 Perform management of an inhalation burn injury, including airway and ventilation, circulation, pharmacological, non-pharmacological, transport considerations, psychological support/ communication strategies, and other management described by local protocol.
- 4-4.82 Perform management of a chemical burn injury, including airway and ventilation, circulation, pharmacological, non-pharmacological, transport considerations, psychological support/ communication strategies, and other management described by local protocol.
- 4-4.83 Perform management of an electrical burn injury, including airway and ventilation, circulation, pharmacological, non-pharmacological, transport considerations, psychological support/ communication strategies, and other management described by local protocol.
- 4-4.84 Perform management of a radiation exposure, including airway and ventilation, circulation, pharmacological, non-pharmacological, transport considerations, psychological support/ communication strategies, and other management described by local protocol.

- 4-5 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and the assessment findings to**

**formulate a field impression and implement a treatment plan for the trauma patient with a suspected head injury.**

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 4-5.3 Predict facial injuries based on mechanism of injury.
- 4-5.4 Predict other injuries commonly associated with facial injuries based on mechanism of injury.
- 4-5.37 Predict head injuries based on mechanism of injury.
- 4-5.42 Define and explain the process involved with each of the levels of increasing ICP.
- 4-5.48 Explain the pathophysiology of diffuse axonal injury.
- 4-5.50 Develop a management plan for a patient with a moderate and severe diffuse axonal injury.
- 4-5.60 Describe the various types of helmets and their purposes.
- 4-5.61 Relate priorities of care to factors determining the need for helmet removal in various field situations including sports related incidents.
- 4-5.62 Develop a management plan for the removal of a helmet for a head injured patient.

**4-6 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and the assessment findings to**

**formulate a field impression and implement a treatment plan for the patient with a suspected spinal injury.**

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 4-6.3 Predict spinal injuries based on mechanism of injury.
- 4-6.13 Describe the pathophysiology of traumatic spinal injury related to:
  - Quadriplegia / paraplegia
  - Incomplete cord injury/ cord syndromes:
    - 1. Central cord syndrome
    - 2. Anterior cord syndrome
    - 3. Brown-Sequard syndrome
- 4-6.20 Describe the pathophysiology of non-traumatic spinal injury, including:
  - 1. Low back pain
  - 2. Herniated intervertebral disk
  - 3. Spinal cord tumors
- 4-6.22 Describe the management of non-traumatic spinal injuries.
- 4-6.26 Develop a patient management plan for non-traumatic spinal injury based on the field impression.

### **PSYCHOMOTOR OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 4-6.34 Demonstrate helmet removal techniques.

**4-7 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and the assessment findings to**

**formulate a field impression and implement a treatment plan for a patient with a thoracic injury.**

**COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

4-7.3 Predict thoracic injuries based on mechanism of injury.

**AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

4-7.46 Advocate the use of a thorough scene survey to determine the forces involved in thoracic trauma.

**4-8 At the completion of this unit, the paramedic student will be able to integrate pathophysiologic principles and the assessment findings to**

**formulate a field impression and implement the treatment plan for the patient with suspected abdominal trauma.**

**COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 4-8.3 Predict abdominal injuries based on blunt and penetrating mechanisms of injury.
- 4-8.13 Describe the epidemiology, including the morbidity/ mortality and prevention strategies for solid organ injuries.
- 4-8.33 Apply the epidemiologic principles to develop prevention strategies for abdominal injuries.

**AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 4-8.39 Advocate the use of a thorough scene survey to determine the forces involved in abdominal trauma.

- 4-9 **At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and the assessment findings to**

**formulate a field impression and implement the treatment plan for the patient with a musculoskeletal injury.**

**COGNITIVE OBJECTIVE**

At the completion of this unit, the paramedic student will be able to:

4-9.3 Predict injuries based on the mechanism of injury, including:

- a. Direct
- b. Indirect
- c. Pathologic

4-9.7 List the six "P"s of musculoskeletal injury assessment.

**5-1 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to**

**formulate a field impression and implement the treatment plan for the patient with respiratory problems.**

**PSYCHOMOTOR OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

5-1.15        Demonstrate the application of a CPAP/ BiPAP unit.

**5-2        At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to**

**formulate a field impression and implement the treatment plan for the patient with cardiovascular disease.**

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 5-2.25 Identify the normal characteristics of the point of maximal impulse (PMI)
- 5-2.80 List the characteristics of a patient eligible for thrombolytic therapy
- 5-2.81 Describe the  $\Delta$  window of opportunity<sup>@</sup> as it pertains to reperfusion of a myocardial injury or infraction
- 5-2.92 Explain the clinical significance of paroxysmal nocturnal dyspnea.
- 5-2.98 Identify the limiting factor of pericardial anatomy that determines intrapericardiac pressure
- 5-2.128 Specify the methods of supporting the patient with a suspected ineffective implanted defibrillation device.
- 5-2.151 Apply knowledge of the epidemiology of cardiovascular disease to develop prevention strategies.
- 5-2.153 Apply knowledge of the epidemiology of cardiovascular disease to develop prevention strategies.

### **PSYCHOMOTOR OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 5-2.206 Complete a communication patch with medical direction and law enforcement used for termination of resuscitation efforts.

**5-3 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to**

**formulate a field impression and implement the treatment plan for the patient with a neurological problem.**

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 5-3.1 Describe the incidence, morbidity and mortality of neurological emergencies.
- 5-3.21 Discuss the pathophysiology of headache.
- 5-3.23 Discuss the management/ treatment plan of headache.
- 5-3.24 Describe the epidemiology, including the morbidity/ mortality and prevention strategies, for neoplasms.
- 5-3.25 Discuss the pathophysiology of neoplasms.
- 5-3.26 Describe the types of neoplasms.
- 5-3.28 Discuss the management/ treatment plan of neoplasms.
- 5-3.29 Define neoplasms.
- 5-3.30 Recognize the signs and symptoms related to neoplasms.
- 5-3.32 Differentiate among the various treatment and pharmacological interventions used in the management of neoplasms.
- 5-3.34 Describe the epidemiology, including the morbidity/ mortality and prevention strategies, for abscess.
- 5-3.35 Discuss the pathophysiology of abscess.
- 5-3.37 Discuss the management/ treatment plan of abscess.
- 5-3.38 Define abscess.
- 5-3.39 Recognize the signs and symptoms related to abscess.
- 5-3.41 Differentiate among the various treatment and pharmacological interventions used in the management of abscess.
- 5-3.62 Describe the epidemiology, including the morbidity/ mortality and prevention strategies, for degenerative neurological diseases.
- 5-3.63 Discuss the pathophysiology of degenerative neurological diseases.
- 5-3.65 Discuss the management/ treatment plan of degenerative neurological diseases.
- 5-3.66 Define the following:
  - a. Muscular dystrophy
  - b. Multiple sclerosis
  - d. Parkinson=s disease
  - e. Trigeminal neuralgia
  - f. Bell's palsy
  - g. Amyotrophic lateral sclerosis
  - h. Peripheral neuropathy
  - i. Myoclonus
  - j. Spina bifida
- 5-3.67 Recognize the signs and symptoms related to degenerative neurological

- diseases.
- 5-3.69 Differentiate among the various treatment and pharmacological interventions used in the management of degenerative neurological diseases.
  - 5-3.71 Integrate the pathophysiological principles of the patient with a neurological emergency.
  - 5-3.74 Develop a patient management plan based on field impression in the patient with neurological emergencies.

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 5-3.75 Characterize the feelings of a patient who regains consciousness among strangers.
- 5-3.76 Formulate means of conveying empathy to patients whose ability to communicate is limited by their condition.

**5-4 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to**

**formulate a field impression and implement a treatment plan for the patient with an endocrine problem.**

**COGNITIVE OBJECTIVE**

At the completion of this unit, the paramedic student will be able to:

- 5-4.1 Describe the incidence, morbidity and mortality of endocrinologic emergencies.
- 5-4.2 Identify the risk factors most predisposing to endocrinologic disease.
- 5-4.3 Discuss the anatomy and physiology of organs and structures related to endocrinologic diseases.
- 5-4.4 Review the pathophysiology of endocrinologic emergencies.
- 5-4.49 Discuss the pathophysiology of thyrotoxicosis.
- 5-4.50 Recognize signs and symptoms of the patient with thyrotoxicosis.
- 5-4.51 Describe the management of thyrotoxicosis.
- 5-4.53 Discuss the management of the patient with thyrotoxicosis.
- 5-4.55 Discuss the pathophysiology of myxedema.
- 5-4.56 Recognize signs and symptoms of the patient with myxedema.
- 5-4.57 Describe the management of myxedema.
- 5-4.59 Discuss the management of the patient with myxedema.
- 5-4.61 Discuss the pathophysiology of Cushing's syndrome.
- 5-4.62 Recognize signs and symptoms of the patient with Cushing's syndrome.
- 5-4.63 Describe the management of Cushing's syndrome.
- 5-4.65 Discuss the management of the patient with Cushing=s syndrome.
- 5-4.67 Discuss the pathophysiology of adrenal Insufficiency.
- 5-4.68 Recognize signs and symptoms of the patient with adrenal insufficiency.
- 5-4.69 Describe the management of adrenal insufficiency.
- 5-4.71 Discuss the management of the patient with adrenal insufficiency.

**5-6 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to**

**formulate a field impression and implement the treatment plan for the patient with a gastroenterologic problem.**

**COGNITIVE OBJECTIVE**

At the conclusion of this unit, the paramedic student will be able to:

- 5-6.1 Describe the incidence, morbidity and mortality of gastrointestinal emergencies.
- 5-6.2 Identify the risk factors most predisposing to gastrointestinal emergencies.
- 5-6.5 Define somatic pain as it relates to gastroenterology.
- 5-6.6 Define visceral pain as it relates to gastroenterology.
- 5-6.7 Define referred pain as it relates to gastroenterology.
- 5-6.25 Define acute gastroenteritis.
- 5-6.26 Discuss the pathophysiology of acute gastroenteritis.
- 5-6.27 Recognize the signs and symptoms related to acute gastroenteritis.
- 5-6.28 Describe the management for acute gastroenteritis.
- 5-6.30 Define colitis.
- 5-6.31 Discuss the pathophysiology of colitis.
- 5-6.32 Recognize the signs and symptoms related to colitis.
- 5-6.33 Describe the management for colitis.
- 5-6.35 Define gastroenteritis.
- 5-6.36 Discuss the pathophysiology of gastroenteritis.
- 5-6.37 Recognize the signs and symptoms related to gastroenteritis.
- 5-6.38 Describe the management for gastroenteritis.
- 5-6.45 Define appendicitis.
- 5-6.46 Discuss the pathophysiology of appendicitis.
- 5-6.47 Recognize the signs and symptoms related to appendicitis.
- 5-6.48 Describe the management for appendicitis.
- 5-6.60 Define Crohn's disease.
- 5-6.61 Discuss the pathophysiology of Crohn's disease.
- 5-6.62 Recognize the signs and symptoms related to Crohn's disease.
- 5-6.63 Describe the management for Crohn's disease.
- 5-6.75 Define hemorrhoids.
- 5-6.76 Discuss the pathophysiology of hemorrhoids.
- 5-6.77 Recognize the signs and symptoms related to hemorrhoids.
- 5-6.78 Describe the management for hemorrhoids.
- 5-6.80 Define cholecystitis.
- 5-6.81 Discuss the pathophysiology of cholecystitis.
- 5-6.82 Recognize the signs and symptoms related to cholecystitis.
- 5-6.83 Describe the management for cholecystitis.
- 5-6.85 Define acute hepatitis.
- 5-6.86 Discuss the pathophysiology of acute hepatitis.
- 5-6.87 Recognize the signs and symptoms related to acute hepatitis.
- 5-6.88 Describe the management for acute hepatitis.

5-6.90 Integrate pathophysiological principles of the patient with a gastrointestinal emergency.

**5-7 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and the assessment findings to**

**formulate a field impression and implement a treatment plan for the patient with a renal or urologic problem.**

**COGNITIVE OBJECTIVES**

At the conclusion of this unit, the paramedic student will be able to:

5-7.28      Apply the epidemiology to develop prevention strategies for urological emergencies.

**5-8      At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to**

**formulate a field impression and implement a treatment plan for the patient with a toxic exposure.**

**COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 5-8.6 List the toxic substances that are specific to your region.
  
- 5-8.56 List the clinical uses, street names, pharmacology, assessment finding and management for patient who have taken the following drugs or been exposed to the following substances:
  - k. Drugs abused for sexual purposes/ sexual gratification
  - u. Metals

**5-9 At the completion of this unit, the paramedic student will be able to integrate the pathophysiological principles of the hematopoietic system to**

**formulate a field impression and implement a treatment plan.**

### **COGNITIVE OBJECTIVES**

At the completion to this unit, the paramedic student will be able to:

- 5-9.5 Explain the significance of the hematocrit with respect to red cell size and number.
- 5-9.6 Explain the correlation of the RBC count, hematocrit and hemoglobin values.
- 5-9.7 Define anemia.
- 5-9.8 Describe normal white blood cell (WBC) production, function and destruction.
- 5-9.9 Identify the characteristics of the inflammatory process.
- 5-9.10 Identify the difference between cellular and humoral immunity.
- 5-9.11 Identify alterations in immunologic response.
- 5-9.14 Describe platelets with respect to normal function, life span and numbers.
- 5-9.15 Describe the components of the hemostatic mechanism.
- 5-9.16 Describe the function of coagulation factors, platelets and blood vessels necessary for normal coagulation.
- 5-9.17 Describe the intrinsic and extrinsic clotting systems with respect to identification of factor deficiencies in each stage.
- 5-9.18 Identify blood groups.
- 5-9.19 Describe how acquired factor deficiencies may occur.
- 5-9.20 Define fibrinolysis.
- 5-9.22 Describe the pathology and clinical manifestations and prognosis associated with:
  - 1. Anemia
  - 2. Leukemia
  - 3. Lymphomas
  - 4. Polycythemia
  - 5. Disseminated intravascular coagulopathy
  - 6. Hemophilia
  - 7. Sickle cell disease
  - 8. Multiple myeloma

**5-10 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to**

**formulate a field impression and implement the treatment plan for the patient with an environmentally induced or exacerbated medical or traumatic condition.**

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 5-10.70 Describe the function of the Divers Alert Network (DAN) and how its members may aid in the management of diving related illnesses.
- 5-10.79 Define acute mountain sickness (AMS).
- 5-10.80 Define high altitude pulmonary edema (HAPE).
- 5-10.81 Define high altitude cerebral edema (HACE).

**5-11 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to**

**formulate a field impression and implement a management plan for the patient with infectious and communicable diseases.**

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 5-11.3 Discuss public health principles relevant to infectious/ communicable disease.
- 5-11.4 Identify public health agencies involved in the prevention and management of disease outbreaks.
- 5-11.12 In specific diseases, identify and discuss the issues of personal isolation.
- 5-11.13 Describe and discuss the rationale for the various types of PPE.
- 5-11.14 Discuss what constitutes a significant exposure to an infectious agent.
- 5-11.22 Discuss Hepatitis C, including the causative agent, the organ affected, routes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization and control measures.
- 5-11.29 Discuss tetanus, including the causative organism, the body system affected, modes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization.
- 5-11.30 Discuss rabies and hantavirus as they apply to regional environmental exposures, including the causative organisms, the body systems affected, routes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization and control measures.
- 5-11.31 Identify pediatric viral diseases.
- 5-11.36 Discuss the importance of immunization, and those diseases, especially in the pediatric population, which warrant widespread immunization (MMR).
- 5-11.37 Discuss pertussis (whooping cough), including the causative organism, the body organs affected, mode of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization.
- 5-11.38 Discuss influenza, including causative organisms, the body system affected, mode of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization.
- 5-11.39 Discuss mononucleosis, including the causative organisms, the body regions, organs, and systems affected, modes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective measures, and immunization.
- 5-11.44 Discuss chlamydia, including the causative organism, the body regions, organs, and systems affected, modes of transmission, susceptibility and resistance, signs and symptoms, patient management and protective

measures, and immunization.

- 5-11.51 Articulate the pathophysiological principles of an infectious process given a case study of a patient with an infectious/ communicable disease.

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 5-11.54 Value the importance of immunization, especially in children and populations at risk.
- 5-11.56 Advocate respect for the feelings of patients, family, and others at the scene of an infectious/ communicable disease.
- 5-11.57 Advocate empathy for a patient with an infectious/ communicable disease.
- 5-11.58 Value the importance of infectious/ communicable disease control.
- 5-11.59 Consistently demonstrate the use of body substance isolation.

### **PSYCHOMOTOR OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 5-11.60 Demonstrate the ability to comply with body substance isolation guidelines.

**5-12 At the end of this unit, the paramedic student will be able to describe and demonstrate safe, empathetic competence in caring for patients with**

## **behavioral emergencies**

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 5-12.3 Discuss the prevalence of behavior and psychiatric disorders
- 5-12.5 Describe the medical legal considerations for management of emotionally disturbed patients
- 5-12.6 Discuss the pathophysiology of behavioral and psychiatric disorders
- 5-12.21 Develop a patient management plan based on the field impressions

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 5-12.22 Advocate for empathetic and respectful treatment for individuals experiencing behavioral emergencies

**5-14 At the completion of this unit, the paramedic student will be able to apply an understanding of the anatomy and physiology of the female**

**reproductive system to the assessment and management of a patient experiencing normal or abnormal labor.**

**COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

5-14.12      Establish the relationship between body substance isolation and childbirth.

**6-1      At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for a neonatal patient.**

## **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 6-1.6 Identify the factors that lead to premature birth and low birth weight newborns.
- 6-1.27 Determine when an orogastric tube should be inserted during positive-pressure ventilation.
- 6-1.31 Discuss the effects maternal narcotic usage has on the newborn.
- 6-1.32 Determine the appropriate treatment for the newborn with narcotic depression.

## **AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 6-1.91 Demonstrate and advocate appropriate interaction with a newborn/ neonate that conveys respect for their position in life.

## **PSYCHOMOTOR OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 6-1.101 Demonstrate appropriate insertion of an orogastric tube

- 6-2 At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles and assessment findings to formulate a field impression and implement a treatment plan for the pediatric patient.**

## **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 6-2.2 Discuss the paramedic's role in the reduction of infant and childhood morbidity and mortality from acute illness and injury.
- 6-2.3 Identify methods/ mechanisms that prevent injuries to infants and children.
- 6-2.4 Describe Emergency Medical Services for Children (EMSC).
- 6-2.5 Discuss how an integrated EMSC system can affect patient outcome.
- 6-2.12 Outline differences in adult and childhood anatomy and physiology.
- 6-2.31 Discuss age appropriate vascular access sites for infants and children.
- 6-2.36 Discuss anatomical features of children that predispose or protect them from certain injuries.
- 6-2.40 Determine when pain management and sedation are appropriate for infants and children.
- 6-2.45 Define children with special health care needs.
- 6-2.46 Define technology assisted children.
- 6-2.52 Discuss appropriate receiving facilities for low and high risk infants and children.
- 6-2.65 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for neurological emergencies in infants and children.
- 6-2.69 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for trauma in infants and children.
- 6-2.78 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for children with special health care needs including technology-assisted children.
- 6-2.79 Discuss the pathophysiology of children with special health care needs including technology-assisted children.
- 6-2.81 Discuss the management/ treatment plan for children with special health care needs including technology-assisted children.

## **AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 6-2.89 Recognize and appreciate the physical and emotional difficulties associated with separation of the parent/ guardian of a special needs child
- 6-2.90 Demonstrate the ability to provide reassurance, empathy and compassion for the parent/ guardian.

## **PSYCHOMOTOR OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 6-2.95 Demonstrate the use of a length-based resuscitation device for determining equipment sizes, drug doses and other pertinent information

- for a pediatric patient.
- 6-2.105 Demonstrate proper placement of a gastric tube in infants and children.
- 6-2.107 Demonstrate an appropriate technique for administration of intramuscular, inhalation, subcutaneous, rectal, endotracheal and oral medication for infants and children.
- 6-2.108 Demonstrate an appropriate technique for insertion of an intraosseous line for infants and children.
- 6-2.120 Demonstrate appropriate parent/ caregiver interviewing techniques for infant and child death situations.

**6-3 At the completion of this unit, the paramedic student will be able to integrate the pathophysiological principles and the assessment findings to formulate and implement a treatment plan for the geriatric patient.**

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 6-3.8 Discuss the problems with mobility in the elderly and develop strategies to prevent falls.
- 6-3.12 Describe principles that should be employed when assessing and communicating with the elderly.
- 6-3.27 Describe the epidemiology for cardiovascular diseases in the elderly, including incidence, morbidity/ mortality, risk factors, and prevention strategies for patients with myocardial infarction, heart failure, dysrhythmias, aneurism, and hypertension.
- 6-3.39 Describe the epidemiology for endocrine diseases in the elderly, including incidence, morbidity/ mortality, risk factors, and prevention strategies for patients with diabetes and thyroid diseases.
- 6-3.40 Compare and contrast the pathophysiology of diabetes and thyroid diseases in the elderly with that of a younger adult.
- 6-3.54 Describe the epidemiology in the elderly, including the incidence, morbidity/ mortality, risk factors, and prevention strategies, for patients with drug toxicity.
- 6-3.75 Describe the epidemiology for pressure ulcers in the elderly, including incidence, morbidity/ mortality, risk factors, and prevention strategies.
- 6-3.76 Compare and contrast the pathophysiology of pressure ulcers in the elderly with that of a younger adult.
- 6-3.86 Describe the epidemiology for trauma in the elderly, including incidence, morbidity/ mortality, risk factors, and prevention strategies for patients with orthopedic injuries, burns and head injuries.

**6-4 At the completion of this unit, the paramedic student will be able to integrate the assessment findings to formulate a field impression and implement a treatment plan for the patient who has sustained abuse or assault.**

## **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 6-4.1 Discuss the incidence of abuse and assault.
- 6-4.2 Describe the categories of abuse.
- 6-4.3 Discuss examples of spouse abuse.
- 6-4.7 Describe the characteristics associated with the profile of the typical abuser of a spouse.
- 6-4.11 Identify the profile of the "at-risk" spouse.
- 6-4.15 Discuss the legal aspects associated with abuse situations.
- 6-4.16 Identify community resources that are able to assist victims of abuse and assault.
- 6-4.17 Discuss the documentation associated with abused and assaulted patient.

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 6-4.18 Demonstrate sensitivity to the abused patient.
- 6-4.19 Value the behavior of the abused patient.
- 6-4.20 Attend to the emotional state of the abused patient.
- 6-4.21 Recognize the value of non-verbal communication with the abused patient.
- 6-4.22 Attend to the needs for reassurance, empathy and compassion with the abused patient.
- 6-4.23 Listen to the concerns expressed by the abused patient.

### **PSYCHOMOTOR OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 6-4.25 Demonstrate the ability to assess a spouse, elder or child-abused patient.

**6-5 At the completion of this unit the paramedic student will be able to integrate pathophysiological and psychosocial principles to adapt the assessment and treatment plan for diverse patients and those who face physical, mental, social and financial challenges.**

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 6-5.1 Describe the various etiologies and types of hearing impairments.
- 6-5.2 Recognize the patient with a hearing impairment.
- 6-5.3 Anticipate accommodations that may be needed in order to properly manage the patient with a hearing impairment.
- 6-5.4 Describe the various etiologies of visual impairments.
- 6-5.5 Recognize the patient with a visual impairment.
- 6-5.6 Anticipate accommodations that may be needed in order to properly manage the patient with a visual impairment.
- 6-5.7 Describe the various etiologies and types of speech impairments.
- 6-5.8 Recognize the patient with a speech impairment.
- 6-5.9 Anticipate accommodations that may be needed in order to properly manage the patient with a speech impairment.
- 6-5.10 Describe the various etiologies of obesity.
- 6-5.11 Anticipate accommodations that may be needed in order to properly manage the patient with obesity.
- 6-5.12 Describe paraplegia/ quadriplegia.
- 6-5.13 Anticipate accommodations that may be needed in order to properly manage the patient with paraplegia/ quadriplegia.
- 6-5.14 Define mental illness.
- 6-5.15 Describe the various etiologies of mental illness.
- 6-5.16 Recognize the presenting signs of the various mental illnesses.
- 6-5.17 Anticipate accommodations that may be needed in order to properly manage the patient with a mental illness.
- 6-5.18 Define the term developmentally disabled.
- 6-5.19 Recognize the patient with a developmental disability.
- 6-5.20 Anticipate accommodations that may be needed in order to properly manage the patient with a developmental disability.
- 6-5.21 Describe Down=s syndrome.
- 6-5.22 Recognize the patient with Down=s syndrome.
- 6-5.23 Anticipate accommodations that may be needed in order to properly manage the patient with Down=s syndrome.
- 6-5.24 Describe the various etiologies of emotional impairment.
- 6-5.25 Recognize the patient with an emotional impairment.
- 6-5.26 Anticipate accommodations that may be needed in order to properly manage the patient with an emotional impairment.
- 6-5.27 Define emotional/ mental impairment (EMI).
- 6-5.28 Recognize the patient with an emotional or mental impairment.
- 6-5.29 Anticipate accommodations that may be needed in order to properly manage patients with an emotional or mental impairment.
- 6-5.30 Describe the following diseases/ illnesses:
  - 1. Arthritis
  - 2. Cancer

3. Cerebral palsy
  4. Cystic fibrosis
  5. Multiple sclerosis
  6. Muscular dystrophy
  7. Myasthenia gravis
  8. Poliomyelitis
  9. Spina bifida
  10. Patients with a previous head injury
- 6-5.31 Identify the possible presenting sign(s) for the following diseases/illnesses:
1. Arthritis
  2. Cancer
  3. Cerebral palsy
  4. Cystic fibrosis
  5. Multiple sclerosis
  6. Muscular dystrophy
  7. Myasthenia gravis
  8. Poliomyelitis
  9. Spina bifida
  10. Patients with a previous head injury
- 6-5.32 Anticipate accommodations that may be needed in order to properly manage the following patients:
1. Arthritis
  2. Cancer
  3. Cerebral palsy
  4. Cystic fibrosis
  5. Multiple sclerosis
  6. Muscular dystrophy
  7. Myasthenia gravis
  8. Poliomyelitis
  9. Spina bifida
  10. Patients with a previous head injury
- 6-5.33 Define cultural diversity.
- 6-5.34 Recognize a patient who is culturally diverse.
- 6-5.35 Anticipate accommodations that may be needed in order to properly manage a patient who is culturally diverse.
- 6-5.36 Identify a patient that is terminally ill.
- 6-5.37 Anticipate accommodations that may be needed in order to properly manage a patient who is terminally ill.
- 6-5.38 Identify a patient with a communicable disease.
- 6-5.39 Recognize the presenting signs of a patient with a communicable disease.
- 6-5.40 Anticipate accommodations that may be needed in order to properly manage a patient with a communicable disease.
- 6-5.41 Recognize sign(s) of financial impairments.

6-5.42 Anticipate accommodations that may be needed in order to properly manage the patient with a financial impairment.

**6-6 At the completion of this unit, the paramedic student will be able to integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the acute deterioration of a chronic care patient.**

## **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 6-6.1 Compare and contrast the primary objectives of the ALS professional and the home care professional.
- 6-6.2 Identify the importance of home health care medicine as related to the ALS level of care.
- 6-6.3 Differentiate between the role of EMS provider and the role of the home care provider.
- 6-6.4 Compare and contrast the primary objectives of acute care, home care and hospice care.
- 6-6.5 Summarize the types of home health care available in your area and the services provided.
- 6-6.6 Discuss the aspects of home care that result in enhanced quality of care for a given patient.
- 6-6.7 Discuss the aspects of home care that have a potential to become a detriment to the quality of care for a given patient.
- 6-6.8 List complications commonly seen in the home care patients which result in their hospitalization.
- 6-6.9 Compare the cost, mortality and quality of care for a given patient in the hospital versus the home care setting.
- 6-6.10 Discuss the significance of palliative care programs as related to a patient in a home health care setting.
- 6-6.11 Define hospice care, comfort care and DNR/DNARs as they relate to local practice, law and policy
- 6-6.12 List the stages of the grief process and relate them to an individual in hospice care
- 6-6.13 List pathologies and complications typical to home care patients.
- 6-6.14 Given a home care scenario, predict complications requiring ALS intervention.
- 6-6.15 Given a series of home care scenarios, determine which patients should receive follow-up home care and which should be transported to an emergency care facility.
- 6-6.16 Describe airway maintenance devices typically found in the home care environment.
- 6-6.17 Describe devices that provide or enhance alveolar ventilation in the home care setting.
- 6-6.18 List modes of artificial ventilation and an out-of-hospital situation where each might be employed.
- 6-6.19 List vascular access devices found in the home care setting.
- 6-6.20 Recognize standard central venous access devices utilized in home health care.
- 6-6.21 Describe the basic universal characteristics of central venous catheters.
- 6-6.22 Describe the basic universal characteristics of implantable injection devices.
- 6-6.23 List devices found in the home care setting that are used to empty, irrigate

- or deliver nutrition or medication to the GI/ GU tract.
- 6-6.24 Describe complications of assessing each of the airway, vascular access, and GI/ GU devices described above.
  - 6-6.25 Given a series of scenarios, demonstrate the appropriate ALS interventions.
  - 6-6.26 Given a series of scenarios, demonstrate interaction and support with the family members/ support persons for a patient who has died.
  - 6-6.27 Describe common complications with central venous access and implantable drug administration ports in the out-of-hospital setting.
  - 6-6.28 Describe the indications and contraindications for urinary catheter insertion in an out-of-hospital setting.
  - 6-6.29 Identify the proper anatomy for placement of urinary catheters in males or females.
  - 6-6.30 Identify failure of GI/ GU devices found in the home care setting.
  - 6-6.31 Identify failure of ventilatory devices found in the home care setting.
  - 6-6.32 Identify failure of vascular access devices found in the home care setting.
  - 6-6.33 Identify failure of drains.
  - 6-6.34 Differentiate between home care and acute care as preferable situations for a given patient scenario.
  - 6-6.35 Discuss the relationship between local home care treatment protocols/ SOPs and local EMS Protocols/ SOPs.
  - 6-6.36 Discuss differences in individuals ability to accept and cope with their own impending death.
  - 6-6.37 Discuss the rights of the terminally ill.

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 6-6.38 Value the role of the home-care professional and understand their role in patient care along the life-span continuum.
- 6-6.39 Value the patient=s desire to remain in the home setting.
- 6-6.40 Value the patient=s desire to accept or deny hospice care.
- 6-6.41 Value the uses of long term venous access in the home health setting, including but not limited to:
  - a. Chemotherapy
  - b. Home pain management
  - c. Nutrition therapy
  - d. Congestive heart therapy
  - e. Antibiotic therapy

### **PSYCHOMOTOR OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 6-6.42 Observe for an infected or otherwise complicated venous access point.

- 6-6.43 Demonstrate proper tracheotomy care.
- 6-6.46 Demonstrate the method of accessing vascular access devices found in the home health care setting.

**7-1 At the completion of this unit, the paramedic student will be able to integrate the principles of assessment-based management to perform an appropriate assessment and implement the management plan for patients with common complaints.**

## **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

7-1.4 Explain strategies to prevent labeling and tunnel vision.

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

7-1.14 Appreciate the use of scenarios to develop high level clinical decision making skills.

### **PSYCHOMOTOR OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

7-1.19 While serving as team leader, assess a programmed patient or mannequin, consider differentials, make decisions relative to interventions and transportation, provide the interventions, patient packaging and transportation, work as a team and practice various roles for the following common emergencies:

- a. Chest Pain
- b. Cardiac Arrest
  1. Traumatic Arrest
  2. Medical Arrest
- c. Acute abdominal pain
- d. GI Bleed
- e. Altered mental status
- f. Dyspnea
- g. Syncope
- h. Seizure
- i. Thermal / environmental problem
- j. Hazardous materials/ toxicology
- k. Trauma
  1. Isolated extremity fracture (tibia, fibula, or radius, ulna)
  2. Femur fracture
  3. Shoulder dislocation
  4. Clavicular fracture or A-C separation
  5. Minor wound (no sutures required, high risk wounds, with tendon and/or nerve injury)
  6. Spine injury (no neurologic deficit, with neurologic deficit)
  7. Multiple trauma-blunt
  8. Penetrating trauma
  9. Impaled object
  10. Elderly fall
  11. Athletic injury
  12. Head Injury (concussion, subdural/epidural)

- I. Allergic reactions/bites/envenomation
  - 1. Local allergic reaction
  - 2. Systemic allergic reaction
  - 3. Envenomation
- m. Behavioral
  - 1. Mood disorders
  - 2. Schizophrenic and delusional disorders
  - 3. Suicidal

**8-1 At the completion of this unit, the paramedic will understand standards and guidelines that help ensure safe and effective ground and air medical transport.**

**COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 8-1.4 Describe the advantages and disadvantages of air medical transport.
- 8-1.5 Identify the conditions/ situations in which air medical transport should be considered.

### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 8-1.7 Serve as a role model for others relative to the operation of ambulances.
- 8-1.8 Value the need to serve as the patient advocate to ensure appropriate patient transportation via ground or air.

- 8-2 At the completion of this unit, the paramedic student will be able to integrate the principles of general incident management and multiple casualty incident (MCI) management techniques in order to function effectively at major incidents.**

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

8-2.18 Describe the START (simple triage and rapid treatment) method of initial triage.

**8-3 At the completion of this unit, the paramedic student will be able to integrate the principles of rescue awareness and operations to safely rescue a patient from water, hazardous atmospheres, trenches, highways, and hazardous terrain.**

## **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 8-3.8 Explain the phenomenon of the cold protective response in cold water drowning situations.
- 8-3.9 Identify the risks associated with low head dams and the rescue complexities they pose.
- 8-3.10 Given a picture of moving water, identify and explain the following features and hazards associated with:
  - a. Hydraulics
  - b. Strainers
  - c. Dams/ hydro-electric sites
- 8-3.11 Explain why water entry or go techniques are methods of last resort.
- 8-3.12 Explain the rescue techniques associated with reach-throw-row-go.
- 8-3.13 Given a list of rescue scenarios, identify the victim survivability profile and which are rescue versus body recovery situations.
- 8-3.14 Explain the self rescue position if unexpectedly immersed in moving water.
- 8-3.15 Given a series of pictures identify which would be considered "confined spaces" and potentially oxygen deficient.
- 8-3.16 Identify the hazards associated with confined spaces and risks posed to potential rescuers to include:
  - a. Oxygen deficiency
  - b. Chemical/ toxic exposure/ explosion
  - c. Engulfment
  - d. Machinery entrapment
  - e. Electricity
- 8-3.18 Identify the poisonous gases commonly found in confined spaces to include:
  - a. Hydrogen sulfide (H<sub>2</sub>S)
  - b. Carbon dioxide (CO<sub>2</sub>)
  - c. Carbon monoxide (CO)
  - d. Low/ high oxygen concentrations (FiO<sub>2</sub>)
  - e. Methane (CH<sub>4</sub>)
  - f. Ammonia (NH<sub>3</sub>)
  - g. Nitrogen dioxide (NO<sub>2</sub>)
- 8-3.19 Explain the hazard of cave-in during trench rescue operations.
- 8-3.20 Describe the effects of traffic flow on the highway rescue incident including limited access superhighways and regular access highways.
- 8-3.22 List and describe the hazards associated with the following auto/ truck components:
  - a. Energy absorbing bumpers
  - b. Air bag/ supplemental restraint systems
  - c. Catalytic converters and conventional fuel systems
  - d. Stored energy
  - e. Alternate fuel systems

- 8-3.23 Given a diagram of a passenger auto, identify the following structures:
- A, B, C, D posts
  - Fire wall
  - Unibody versus frame designs
- 8-3.26 Explain the difference between tempered and safety glass, identify its locations on a vehicle and how to break it safely.
- 8-3.28 Explain SRS or "air bag" systems and methods to neutralize them.
- 8-3.29 Define the following terms:
- Low angle
  - High angle
  - Belay
  - Rappel
  - Scrambling
  - Hasty rope slide
- 8-3.31 Explain the procedures for low angle litter evacuation to include:
- Anchoring
  - Litter/ rope attachment
  - Lowering and raising procedures
- 8-3.32 Explain techniques to be used in non-technical litter carries over rough terrain.
- 8-3.33 Explain non-technical high angle rescue procedures using aerial apparatus.
- 8-3.38 Explain the indications, contraindications and methods of pain control for entrapped patients.
- 8-3.40 Explain the pathophysiology of "crush trauma" syndrome.

### **PSYCHOMOTOR OBJECTIVES**

At the completion of this lesson, the paramedic student should be able to:

- 8-3.49 Demonstrate litter securing techniques for patients being evacuated by aerial apparatus.
- 8-3.51 Demonstrate donning and properly adjusting a PFD.
- 8-3.52 Demonstrate use of a throw bag.

**8-4 At the completion of this unit, the paramedic student will be able to evaluate hazardous materials emergencies, call for appropriate resources, and work in the cold zone.**

### **COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

- 8-4.2 Size-up a hazardous materials (hazmat) incident and determine the following:
1. Potential hazards to the rescuers, public and environment
  2. Potential risk of primary contamination to patients
  3. Potential risk of secondary contamination to rescuers
- 8-4.3 Identify resources for substance identification, decontamination and treatment information including the following:
1. Poison control center
  2. Medical control
  3. Material safety data sheets (MSDS)
  4. Reference textbooks
  5. Computer databases (CAMEO)
  6. CHEMTREC
  7. Technical specialists
  8. Agency for toxic substances and disease registry
- 8-4.4 Explain the following terms/ concepts:
1. Primary contamination risk
  2. Secondary contamination risk
- 8-4.5 List and describe the following routes of exposure:
1. Topical
  2. Respiratory
  3. Gastrointestinal
  4. Parenteral
- 8-4.6 Explain the following toxicologic principles:
1. Acute and delayed toxicity
  2. Route of exposure
  3. Local versus systemic effects
  4. Dose response
  5. Synergistic effects
- 8-4.7 Explain how the substance and route of contamination alters triage and decontamination methods.
- 8-4.8 Explain the limitations of field decontamination procedures.
- 8-4.13 Identify local facilities and resources capable of treating patients exposed to hazardous materials.
- 8-4.14 Determine the hazards present to the patient and paramedic given an incident involving hazardous materials.
- 8-4.15 Define the following and explain their importance to the risk assessment process:
1. Boiling point
  2. Flammable/ explosive limits
  3. Flash point
  4. Ignition temperature
  5. Specific gravity
  6. Vapor density
  7. Vapor pressure

8. Water solubility
  9. Alpha radiation
  10. Beta radiation
  11. Gamma radiation
- 8-4.16 Define the toxicologic terms and their use in the risk assessment process:
1. Threshold limit value (TLV)
  2. Lethal concentration and doses (LD)
  3. Parts per million/ billion (ppm/ ppb)
  4. Immediately dangerous to life and health (IDLH)
  5. Permissible exposure limit (PEL)
  6. Short term exposure limit (TLV-STEL)
  7. Ceiling level (TLV-C)
- 8-4.17 Given a specific hazardous material, be able to do the following:
1. Research the appropriate information about it's physical and chemical characteristics and hazards
  2. Suggest the appropriate medical response
  3. Determine risk of secondary contamination
- 8-4.18 Determine the factors that determine where and when to treat a patient to include:
1. Substance toxicity
  2. Patient condition
  3. Availability of decontamination
- 8-4.24 Explain the medical monitoring procedures of hazardous material team members to be used both pre and post entry, to include:
1. Vital signs
  2. Body weight
  3. General health
  4. Neurologic status
  5. ECG
- 8-4.25 Explain the factors that influence heat stress of hazardous material team personnel to include:
1. Hydration
  2. Physical fitness
  3. Ambient temperature
  4. Activity
  5. Level of PPE
  6. Duration of activity
- 8-4.26 Explain the documentation necessary for HAZMAT medical monitoring and rehabilitation operations.
1. The substance
  2. The toxicity and danger of secondary contamination
  3. Appropriate PPE and suit breakthrough time
  4. Appropriate level of decontamination
  5. Appropriate antidote and medical treatment

6. Transportation method

8-4.27 Given a simulated hazardous substance, use reference material to determine the appropriate actions.

8-4.28 Integrate the principles and practices of hazardous materials response in an effective manner to prevent and limit contamination, morbidity, and mortality

**8-5 At the completion of this unit, the paramedic student will have an awareness of the human hazard of crime and violence and the safe operation at crime scenes and other emergencies.**

**COGNITIVE OBJECTIVES**

At the completion of this unit, the paramedic student will be able to:

8-5.1 Explain how EMS providers are often mistaken for the police.

8-5.7 Describe police evidence considerations and techniques to assist in evidence preservation.

### **Clinical Rotations**

The following goals must be successfully accomplished within the context of the learning environment. Clinical experiences should occur after the student has demonstrated competence in skills and knowledge in the didactic and laboratory components of the course. Items in **bold** are essentials and must be completed. Items in *italics* are recommendations to achieve the essential and should be performed on actual patients in a clinical setting. Recommendations are not the only way to achieve the essential. If the

program is unable to achieve the recommendations on live patients, alternative learning experiences (simulations, programmed patient scenarios, etc.) can be developed. If alternatives to live patient contact are used, the program should increase the number of times the skill must be performed to demonstrate competence.

These recommendations are based on survey data from Paramedic Program Directors and expert opinion. Programs are encouraged to adjust these recommendations based on thorough program evaluation. For example, if the program finds that graduates perform poorly in airway management skills, they should increase the number of intubations and ventilations required for graduation and monitor the results.

### PSYCHOMOTOR SKILLS

**The student must demonstrate the ability to safely administer medications.**

*The student should safely, and while performing all steps of each procedure, properly administer medications at least 15 times to live patients.*

**The student must demonstrate the ability to safely perform endotracheal intubation.**

*The student should safely, and while performing all steps of each procedure, successfully intubate at least 5 live patients.*

**The student must demonstrate the ability to safely gain venous access in all age group patients.**

*The student should safely, and while performing all steps of each procedure, successfully access the venous circulation at least 25 times on live patients of various age groups.*

**The student must demonstrate the ability to effectively ventilate unintubated patients of all age groups.**

*The student should effectively, and while performing all steps of each procedure, ventilate at least 20 live patients of various age groups.*

### AGES

**The student must demonstrate the ability to perform a comprehensive assessment on pediatric patients.**

*The student should perform a comprehensive patient assessment on at least 30 (including newborns, infants, toddlers, and school age) pediatric patients.*

**The student must demonstrate the ability to perform a comprehensive assessment on adult patients.**

*The student should perform a comprehensive patient assessment on at least 50 adult patients.*

**The student must demonstrate the ability to perform a comprehensive assessment on geriatric patients.**

*The student should perform a comprehensive patient assessment on at least*

30 geriatric patients.

### PATHOLOGIES

**The student must demonstrate the ability to perform a comprehensive assessment on obstetric patients.**

*The student should perform a comprehensive patient assessment on at least 10 obstetric patients.*

**The student must demonstrate the ability to perform a comprehensive assessment on trauma patients.**

*The student should perform a comprehensive patient assessment on at least 40 trauma patients.*

**The student must demonstrate the ability to perform a comprehensive assessment on psychiatric patients.**

*The student should perform a comprehensive patient assessment on at least 20 psychiatric patients.*

### COMPLAINTS

**The student must demonstrate the ability to perform a comprehensive assessment, formulate and implement a treatment plan for patients with chest pain.**

*The student should perform a comprehensive patient assessment, formulate and implement a treatment plan on at least 30 patients with chest pain.*

**The student must demonstrate the ability to perform a comprehensive assessment, formulate and implement a treatment plan for patients with dyspnea/respiratory distress.**

*The student should perform a comprehensive patient assessment, formulate and implement a treatment plan on at least 20 adult patients with dyspnea/respiratory distress.*

*The student should perform a comprehensive patient assessment, formulate and implement a treatment plan on at least 8 pediatric patients (including infants, toddlers, and school age) with dyspnea/respiratory distress.*

**The student must demonstrate the ability to perform a comprehensive assessment, formulate and implement a treatment plan for patients with syncope.**

*The student should perform a comprehensive patient assessment, formulate and implement a treatment plan on at least 10 patients with syncope.*

**The student must demonstrate the ability to perform a comprehensive assessment, formulate and implement a treatment plan for patients with abdominal complaints.**

*The student should perform a comprehensive patient assessment, formulate*

*and implement a treatment plan on at least 20 patients with abdominal complains (for example: abdominal pain, nausea/vomiting, GI bleeding, gynecological complaint, etc.)*

**The student must demonstrate the ability to perform a comprehensive assessment, formulate and implement a treatment plan for patients with altered mental status.**

*The student should perform a comprehensive patient assessment, formulate and implement a treatment plan on at least 20 patients with altered mental status.*

#### TEAM LEADER SKILLS

**The student must demonstrate the ability to serve as a team leader in variety of prehospital emergency situations.**

*The student should serve as the team leader for at least 50 prehospital emergency responses.*