

## **1999 EMT-Intermediate: NSC Comparison Document**

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





### **TABLE OF CONTENTS**

Abstract	3
Objective	3
Method	3
Basic Assumptions	3
Using the Document	3
The Writing Team	3
Objective 1-1	
Objective 1-2	
Objective 1-3	
Objective 1-4	
Objective 2-1	
Objective 3-1	
Objective 3-2	
Objective 3-3	
Objective 3-4	
Objective 3-5	
Objective 3-6	
Objective 4-1	
Objective 4-2.	
Objective 4-3	
Objective 4-4	
Objective 4-5	
Objective 5-1	
Objective 5-2	
Objective 5-3	
Objective 5-4	
Objective 5-5.	
Objective 5-6	
Objective 5-7	
Objective 5-8	
Objective 5-9	
Objective 5-10	
Objective 6-1	
Objective 6-2	
Objective 6-3	
Objective 6-4	
Objective 7-1	
Clinical Rotations	
Psychomotor Skills	
Ages	
Pathologies	
Complaints	
Team Leader Skills.	
1 VIIII LIVIIVI DIVIIID	

#### 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 - Intermediate (EMT-I) programs compare to the revised 1999 EMT-I: 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 1999 EMT-I: 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-I 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-I, 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-I: NSC.
- > The 1999 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 outof hospital providers.

**Using the Document:** This document lists the cognitive, affective and psychomotor objectives found in the 1999 EMT-I: NSC that are not in the 1985 EMT-I: NSC. By comparing the objectives listed in this document with those being instructed in today's EMT-I program, program managers and instructors can determine what new material will need to be added to their programs to meet the 1999 standard.

#### The Writing Team:

Liza K. Burrill, Project Director NH Dept. of Safety - Division of EMS

Russell Crowley AL Dept. of Public Health - EMS Division Larry M. Weber ND Health Department - EMS

Steve Mercer IDPH - Bureau of EMS Kenneth L. Threet MT EMS & Injury Prevention Section

Dwight Corning ME EMS Division

Michael Armacost CO DPH - EMS Division Dave Bryson NHTSA EMS Division

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-INTERMEDIATE TO THE 1999 EMT-INTERMEDIATE CURRICULUM

- **1-1** At the completion of this unit, the EMT-Intermediate 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.
  - Understand the role of medical direction in the out-of-hospital environment.
  - Understand and value the importance of personal wellness in EMS and serve as a healthy role model for peers.
  - be able to identify the importance of primary injury prevention activities as an effective way to reduce death, disabilities and health care costs.
  - understand the legal issues that impact decisions made in the out-ofhospital environment.
  - value the role that ethics plays in decision making in the out-of-hospital environment.

#### **COGNITIVE OBJECTIVES**

1-1.1	Define the following terms: a. EMS Systems
1-1.5	List current state requirements for EMT-Intermediate education in his/ her state.
1-1.10	Describe the importance and benefits of quality EMS research to the future of EMS.
1-1.15	Discuss the importance of universal precautions and body substance isolation practices and develop strategies to prevent the transmission of diseases.
1-1.16	Describe the steps to take for personal protection from airborne and blood borne pathogens.
1-1.17	Explain what is meant by an exposure and describe principles for management.
1-1.18	Describe the incidence, morbidity and mortality of preventable injury and illness.
1-1.19	Identify the human, environmental, and socioeconomic impact of preventable injury and illness.
1-1.20	Describe the feasibility of EMS involvement in illness and injury prevention.
1-1.21	Develop strategies for the implementation of EMS related illness and injury prevention programs in the community.
1-1.22	Identify health hazards and potential crime areas within the community.
1-1.23	Identify local municipal and community resources available for physical and socioeconomic crises.

- 1-1.24 Identify the role of EMS in local municipal and community prevention programs.
- 1-1.26 Identify and explain the importance of laws pertinent to the EMT-Intermediate.
- 1-1.28 List the specific problems or conditions encountered while providing care that an EMT-Intermediate is required to report, and identify in each instance to whom the report is to be made.
- 1-1.29 Review the following terms:
  - b. Advance directives
  - f. Confidentiality
  - g. involuntary
  - j. Emancipated minor
  - o. Minor
  - q. Proximate cause
  - t. Standard of care
- 1-1.35 Explain the concept of liability as it might apply to EMT-Intermediate practice, including physicians providing medical direction and EMT-Intermediate supervision of other care providers.
- 1-1.37 Review the importance and necessity of patient confidentiality and the standards for maintaining patient confidentiality which apply to the EMT-Intermediate.
- 1-1.38 Review the steps to take if a patient refuses care.
- 1-1.39 Identify the legal issues involved in the decision not to transport a patient, or to reduce the level of care being provided during transportation.
- 1-1.41 Explain the purpose of advance directives relative to patient care and how the EMT-Intermediate should care for a patient who is covered by an advance directive.
- 1-1.42 Discuss the responsibilities of the EMT-Intermediate relative to resuscitation efforts for patients who are potential organ donors.
- 1-1.47 Identify the issues surrounding the use of advance directives in making an out-of-hospital resuscitation decision.
- 1-1.48 Describe the criteria necessary to honor an advance directive in your state.

- 1-1.50 Value the need to serve as the patient advocate inclusive of those with special needs, alternate life styles and cultural diversity.
- 1-1.52 Advocate the need for supporting and participating in research efforts aimed at improving EMS systems.
- 1-1.54 Advocate the need for injury prevention, including abusive situations.
- 1-1.56 Advocate the benefits of working toward the goal of total personal wellness.
- 1-1.57 Serve as a role model for other EMS providers in regard to a total wellness lifestyle.

- 1-1.58 Value the need to assess his/her own lifestyle.
- 1-1.59 Challenge him/ herself to teach wellness concept in his/ her role as an EMT-Intermediate.
- 1-1.60 Defend the need to treat each patient as an individual, with respect and dignity.
- 1-1.61 Assess his/ her own prejudices related to the various aspects of cultural diversity.
- 1-1.62 Improve personal physical well-being through achieving and maintaining proper body weight, regular exercise and proper nutrition.
- 1-1.63 Defend the need to respect the emotional needs of dying patients and their families.
- 1-1.64 Advocate and practice the use of personal safety precautions in all scene situations.
- 1-1.65 Advocate and serve as a role model for other EMS providers relative to body substance isolation practices.
- 1-1.66 Value and defend tenets of prevention for patients and communities being served.
- 1-1.67 Value personal commitment to success of prevention programs.
- 1-1.68 Advocate the need to show respect for the rights and feelings of patients.
- 1-1.69 Assess his/ her personal commitment to protecting patient confidentiality.
- 1-1.70 Defend personal beliefs about withholding or stopping patient care.
- 1-1.71 Defend the value of advance medical directives.
- 1-1.72 Reinforce the patient's autonomy in the decision-making process.
- 1-1.73 Given a scenario, defend an EMT-Intermediate's actions in a situation where a physician orders therapy the EMT-Intermediate feels to be detrimental to the patient's best interests.

#### **PSYCHOMOTOR OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

1-1.74 Demonstrate the proper procedures to take for personal protection from disease.

1-2 At the completion of this unit, the EMT-Intermediate student will understand basic anatomy and physiology and how it relates to the foundations of medicine.

#### **COGNITIVE OBJECTIVES**

- 1-2.1 Define anatomy, physiology, and pathophysiology.
- 1-2.2 Name the levels of organization of the body from simplest to most complex, and explain each.
- 1-2.3 Define homeostasis.
- 1-2.4 State the anatomical terms for the parts of the body.
- 1-2.6 Review the body cavities and the major organs within each.
- 1-2.7 Identify the anatomical planes.
- 1-2.8 Identify areas of the abdomen and underlying organs.
- 1-2.11 Describe how glucose is converted to energy during cellular respiration.
- 1-2.12 Describe the general characteristics of each of the four major categories of tissues.
- 1-2.13 Name the three major layers of the skin.
- 1-2.14 Describe the functions of the skeleton.
- 1-2.15 Explain how bones are classified.
- 1-2.16 Explain how joints are classified.
- 1-2.17 Describe the structure and function of muscles.
- 1-2.18 List the three types of muscles.
- 1-2.19 State the functions of the nervous system.
- 1-2.20 Name the divisions of the nervous system.
- 1-2.21 Explain the structure of neurons.
- 1-2.22 Describe the types of nerves.
- 1-2.23 Describe the role of polarization, depolarization, repolarization in nerve impulse transmission.
- 1-2.24 Identify the components of the central nervous system.
- 1-2.25 State the function of the meninges and cerebrospinal fluid.
- 1-2.26 Identify the divisions of the autonomic nervous system and define their functions.
- 1-2.27 Discuss the regulator processes of hormonal secretion.
- 1-2.28 State the functions of hormones.
- 1-2.29 State the function of the hormones of the pancreas.
- 1-2.30 State the functions of epinephrine and norepinephrine and explain their relationship to the sympathetic division of the autonomic nervous system.
- 1-2.31 Describe the characteristics of blood and its composition.
- 1-2.32 Explain the function of red blood cells, white blood cells and platelets.
- 1-2.33 State the importance of blood clotting.
- 1-2.39 Describe the cardiac cycle.
- 1-2.40 Explain how heart sounds are created.
- 1-2.41 Name the parts of the cardiac conduction pathway.

- 1-2.42 Explain the relationship between stroke volume, heart rate, and cardiac output.
- 1-2.43 Explain how the nervous system regulates heart rate and force of contraction.
- 1-2.44 Describe the structure of arteries and veins, and relate their structure to function.
- 1-2.45 Describe the structure of capillaries, and explain the exchange processes that take place in capillaries.
- 1-2.46 Describe the pathway and purpose of pulmonary circulation.
- 1-2.47 Describe the pathway and purpose of systemic circulation.
- 1-2.48 Define blood pressure.
- 1-2.49 Explain the factors that maintain and regulate blood pressure.
- 1-2.50 Describe the functions of the lymphatic system.
- 1-2.51 Describe the immune response.
- 1-2.52 State the function of the respiratory system.
- 1-2.53 Describe the structure and functions of the components of the respiratory system.
- 1-2.54 Describe normal inhalation and exhalation.
- 1-2.55 Differentiate between ventilation and respiration.
- 1-2.57 Describe how oxygen and carbon dioxide are transported in the blood.
- 1-2.58 Explain the nervous and chemical mechanisms that regulate respiration.
- 1-2.59 Describe the functions of the digestive system, and name its major divisions.
- 1-2.60 Describe the water compartments and the name for the fluid in each.
- 1-2.61 Explain how water moves between compartments.
- 1-2.62 Explain the regulation of the intake and output of water.
- 1-2.63 Describe the three buffer systems in body fluids.
- 1-2.64 Explain why the respiratory system has an effect on pH, and describe respiratory compensating mechanisms.
- 1-2.65 Explain the renal mechanisms for pH regulation of extracellular fluid.

After the completion of this unit, the EMT-Intermediate student will be able to:

1-2.67 Appreciate how anatomy and physiology are the foundation of medicine.

1-3 At the completion of this unit, the EMT-Intermediate student will be able to understand the basic principles of pharmacology and be able to develop a drug profile for common emergency medications.

#### **COGNITIVE OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

- 1-3.1 Review the specific anatomy and physiology pertinent to pharmacology.
- 1-3.2 Discuss the standardization of drugs.
- 1-3.3 Differentiate among the chemical, generic (nonproprietary), and trade (proprietary) names of a drug.
- 1-3.4 List the four main sources of drug products.
- 1-3.5 Describe how drugs are classified.
- 1-3.6 List the authoritative sources for drug information.
- 1-3.7 Discuss special consideration in drug treatment with regard to pregnant, pediatric and geriatric patients.
- 1-3.8 Discuss the EMT-Intermediate's responsibilities and scope of management pertinent to the administration of medications.
- 1-3.9 List and describe general properties of drugs.
- 1-3.10 List and describe liquid, solid, and gas drug forms.
- 1-3.11 List and differentiate routes of drug administration.
- 1-3.12 Differentiate between enteral and parenteral routes of drug administration.
- 1-3.13 Describe mechanisms of drug action.
- 1-3.14 List and differentiate the phases of drug activity, including the pharmaceutical, pharmacokinetic, and pharmacodynamic phases.
- 1-3.15 Describe pharmacokinetics, pharmacodynamics, theories of drug action, drug-response relationship, factors altering drug responses, predictable drug responses, iatrogenic drug responses, and unpredictable adverse drug responses.
- 1-3.16 Discuss considerations for storing drugs.
- 1-3.17 List the components of a drug profile. (C-1)
- 1-3.18 List and describe drugs which the EMT-Intermediate may administer in a pharmacological management plan according to local protocol.
- 1-3.19 Discuss procedures and measures to ensure security of controlled substances the EMT-Intermediate may administer.

#### AFFECTIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

1-3.20 Defend medication administration by an EMT-Intermediate to effect positive therapeutic affect.

1-4 At the completion of this unit, the EMT-Intermediate student will be able to safely and precisely access the venous circulation and administer medications.

#### **COGNITIVE OBJECTIVES**

- 1-4.1 Review the specific anatomy and physiology pertinent to medication administration.
- 1-4.2 Review mathematical principles.
- 1-4.3 Review mathematical equivalents.
- 1-4.4 Differentiate temperature readings between the Centigrade and Fahrenheit scales.
- 1-4.5 Discuss formulas as a basis for performing drug calculations.
- 1-4.6 Calculate oral and parenteral drug dosages for all emergency medications administered to adults, infants and children.
- 1-4.8 Discuss legal aspects affecting medication administration.
- 1-4.9 Discuss the "six rights" of drug administration and correlate these with the principles of medication administration.
- 1-4.10 Discuss medical asepsis and the differences between clean and sterile techniques.
- 1-4.11 Describe use of antiseptics and disinfectants.
- 1-4.12 Describe the use of universal precautions and body substance isolation (BSI) procedures when administering a medication.
- 1-4.14 Describe the indications, equipment needed, techniques utilized, precautions, and general principles of intraosseous needle placement and infusion.
- 1-4.15 Describe the indications, equipment needed, techniques utilized, precautions, and general principles of administering medications by the inhalation route.
- 1-4.16 Differentiate among the different dosage forms of oral medications.
- 1-4.17 Describe the equipment needed and general principles of administering oral medications.
- 1-4.18 Describe the indications, equipment needed, techniques utilized, precautions, and general principles of rectal medication administration.
- 1-4.19 Differentiate among the different parenteral routes of medication administration.
- 1-4.20 Describe the equipment needed, techniques utilized, complications, and general principles for the preparation and administration of parenteral medications.
- 1-4.21 Differentiate among the different percutaneous routes of medication administration.
- 1-4.22 Describe the purpose, equipment needed, techniques utilized, complications, and general principles for obtaining a blood sample.
- 1-4.23 Describe disposal of contaminated items and sharps.

- 1-4.24 Synthesize a pharmacologic management plan including medication administration.
- 1-4.25 Integrate pathophysiological principles of medication administration with patient management.

At the completion of this unit, the EMT-Intermediate student will be able to:

- 1-4.26 Comply with EMT-Intermediate standards of medication administration.
- 1-4.27 Comply with universal precautions and body substance isolation (BSI).
- 1-4.28 Defend a pharmacologic management plan for medication administration.
- 1-4.29 Serve as a model for medical asepsis.
- 1-4.30 Serve as a model for advocacy while performing medication administration.
- 1-4.31 Serve as a model for disposing of contaminated items and sharps.

#### **PSYCHOMOTOR OBJECTIVES**

- 1-4.32 Use universal precautions and body substance isolation (BSI) procedures during medication administration.
- 1-4.34 Demonstrate intraosseous needle placement and infusion.
- 1-4.35 Demonstrate clean technique during medication administration.
- 1-4.36 Demonstrate administration of medications by the inhalation route.
- 1-4.37 Demonstrate administration of oral medications.
- 1-4.38 Demonstrate rectal administration of medications.
- 1-4.39 Demonstrate preparation and administration of parenteral medications.
- 1-4.40 Demonstrate preparation and techniques for obtaining a blood sample.
- 1-4.41 Perfect disposal of contaminated items and sharps.

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

#### **COGNITIVE OBJECTIVES**

- 2-1.1 Explain the primary objective of airway maintenance.
- 2-1.2 Identify commonly neglected prehospital skills related to airway.
- 2-1.6 Define normal tidal volumes for the adult, child, and infant.
- 2-1.7 Define atelectasis.
- 2-1.8 Define FiO<sub>2</sub>.
- 2-1.9 Explain the relationship between pulmonary circulation and respiration.
- 2-1.10 List factors which cause decreased oxygen concentrations in the blood.
- 2-1.11 List the factors which increase and decrease carbon dioxide production in the body.
- 2-1.12 Describe the measurement of oxygen in the blood.
- 2-1.13 Describe the measurement of carbon dioxide in the blood.
- 2-1.14 List the concentration of gases which comprise atmospheric air.
- 2-1.15 List the factors which affect respiratory rate and depth.
- 2-1.16 Describe the voluntary and involuntary regulation of respiration.
- 2-1.17 Describe causes of upper airway obstruction.
- 2-1.18 Define normal respiratory rates for adult, child, and infant.
- 2-1.19 Describe causes of respiratory distress.
- 2-1.20 Define and differentiate between hypoxia and hypoxemia.
- 2-1.21 Define pulsus paradoxus.
- 2-1.22 Describe the modified forms of respiration.
- 2-1.23 Define gag reflex.
- 2-1.24 Explain safety considerations of oxygen storage and delivery.
- 2-1.25 Identify types of oxygen cylinders and pressure regulators (including a high-pressure regulator and a therapy regulator).
- 2-1.26 List the steps for delivering oxygen from a cylinder and regulator.
- 2-1.27 Describe the indications, contraindications, advantages, disadvantages, complications, liter flow range, and concentration of delivered oxygen for supplemental oxygen delivery devices.
- 2-1.28 Describe the use, advantages and disadvantages of an oxygen humidifier.
- 2-1.29 Define, identify and describe a tracheostomy, stoma, and tracheostomy tube.
- 2-1.30 Explain the risk of infection to EMS providers associated with ventilation.
- 2-1.31 Describe the indications, contraindications, advantages, disadvantages, complications, and technique for ventilating a patient by:
  - b. Mouth-to-nose
  - c. Mouth-to-mask
  - d. Two-person bag-valve-mask
  - e. Three-person bag-valve-mask

- 2-1.32 Explain the advantage of the two-person method when ventilating with the bag-valve-mask.
- 2-1.33 Describe indications, contraindications, advantages, disadvantages, complications, and technique for ventilating a patient with an automatic transport ventilator (ATV).
- 2-1.34 Describe the Sellick (cricoid pressure) maneuver.
- 2-1.35 Describe the use of cricoid pressure during intubation.
- 2-1.36 Compare the ventilation techniques used for an adult patient to those used for pediatric patients.
- 2-1.37 Define how to ventilate a patient with a stoma, including mouth-to-stoma and bag-valve-mask-to-stoma ventilation.
- 2-1.47 Identify special considerations of suctioning the upper airway.
- 2-1.48 Describe the technique of tracheobronchial suctioning in the intubated patient.
- 2-1.49 Define gastric distention.
- 2-1.50 Describe the indications, contraindications, advantages, disadvantages, complications, equipment and technique for inserting a nasogastric tube and orogastric tube.
- 2-1.51 Describe manual airway maneuvers.
- 2-1.53 Describe the indications, contraindications, advantages, disadvantages, complications, and technique for inserting an oropharyngeal and nasopharyngeal airway
- 2-1.55 Describe the indications, contraindications, advantages, disadvantages and complications of endotracheal intubation.
- 2-1.56 Describe the visual landmarks for direct laryngoscopy.
- 2-1.57 Describe the methods of assessment for confirming correct placement of an endotracheal tube.
- 2-1.58 Describe methods for securing an endotracheal tube.
- 2-1.59 Describe the indications, contraindications, advantages, disadvantages, complications, equipment and technique for extubation.
- 2-1.60 Describe methods of endotracheal intubation in the pediatric patient.
- 2-1.62 Define, identify, and describe a laryngectomy.
- 2-1.63 Describe the special considerations in airway management and ventilation for patients with facial injuries.
- 2-1.64 Describe the special considerations in airway management and ventilation for the pediatric patient.

- 2-1.65 Defend oxygenation and ventilation.
- 2-1.66 Defend the necessity of establishing and/ or maintaining patency of a patient's airway.
- 2-1.67 Comply with standard precautions to defend against infectious and communicable diseases.

#### **PSYCHOMOTOR OBJECTIVES**

- 2-1.68 Perform body substance isolation (BSI) procedures during basic airway management, advanced airway management, and ventilation.
- 2-1.69 Perform pulse oximetry.
- 2-1.71 Perform oxygen delivery from a cylinder and regulator with an oxygen delivery device.
- 2-1.72 Deliver supplemental oxygen to a breathing patient using the following devices: nasal cannula, simple face mask, partial rebreather mask, non-rebreather mask, and venturi mask.
- 2-1.73 Perform oxygen delivery with an oxygen humidifier.
- 2-1.74 Perform medication administration with an in-line small-volume nebulizer.
- 2-1.75 Demonstrate ventilating a patient by the following techniques:
  - b. Three person bag-valve-mask
  - c. Automatic transport ventilator
  - d. Mouth-to-stoma
  - e. Bag-valve-mask-to-stoma ventilation
- 2-1.76 Perform the Sellick maneuver (cricoid pressure).
- 2-1.77 Ventilate a pediatric patient using the one and two person techniques.
- 2-1.82 Demonstrate insertion of a nasogastric tube.
- 2-1.83 Demonstrate insertion of an orogastric tube.
- 2-1.89 Intubate the trachea by direct orotracheal intubation.
- 2-1.90 Perform assessment to confirm correct placement of the endotracheal tube.
- 2-1.91 Adequately secure an endotracheal tube.
- 2-1.92 Perform extubation.
- 2-1.93 Perform endotracheal intubation in the pediatric patient.
- 2-1.96 Perform replacement of a tracheostomy tube through a stoma.

## 3-1 At the completion of this unit, the EMT-Intermediate 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 EMT-Intermediate student will be able to:

- 3-1.1 Describe the factors that influence the EMT-Intermediate's ability to collect medical history.
- 3-1.2 Describe the techniques of history taking.
- 3-1.3 Discuss the importance of using open and closed ended questions.
- 3-1.4 Describe the use of facilitation, reflection, clarification, empathetic responses, confrontation, and interpretation.
- 3-1.5 Differentiate between facilitation, reflection, clarification, sympathetic responses, confrontation, and interpretation.
- 3-1.7 Describe how to obtain a health history.
- 3-1.9 List and describe strategies to overcome situations that represent special challenges in obtaining a medical history.

#### AFFECTIVE OBJECTIVES

- 3-1.10 Demonstrate the importance of empathy when obtaining a health history.
- 3-1.11 Demonstrate the importance of confidentiality when obtaining a health history.

3-2 At the completion of this unit, the EMT-Intermediate student will be able to explain the significance of physical exam findings commonly found in emergency situations.

#### COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

- 3-2.1 Define the terms inspection, palpation, percussion, auscultation.
- 3-2.2 Describe the techniques of inspection, palpation, percussion, and auscultation.
- 3-2-3 Review the procedure for taking and significance of vital signs (pulse, respiration, and blood pressure.)
- 3-2.4 Describe the evaluation of mental status.
- 3-2.5 Evaluate the importance of a general survey.
- 3-2.7 Differentiate normal and abnormal findings of the assessment of the skin.
- 3-2.8 Distinguish the importance of abnormal findings of the assessment of the skin.
- 3-2.12 Distinguish between normal and abnormal assessment findings of the eyes.
- 3-2.14 Differentiate normal and abnormal assessment findings of the ears.
- 3-2.16 Differentiate normal and abnormal assessment findings of the nose.
- 3-2.20 Differentiate normal and abnormal assessment findings the neck and cervical spine.
- 3-2.24 Differentiate the percussion sounds and their characteristics.
- 3-2.25 Differentiate the characteristics of breath sounds.
- 3-2.26 Differentiate normal and abnormal assessment findings of the chest examination.
- 3-2.27 Describe the examination of the arterial pulse including rate, rhythm, and amplitude.
- 3-2.28 Distinguish normal and abnormal findings of arterial pulse.
- 3-2.29 Describe the assessment of jugular venous pressure and pulsations.
- 3-2.30 Distinguish normal and abnormal examination findings of jugular venous pressure and pulsations.
- 3-2.31 Describe the examination of the heart.
- 3-2.32 Differentiate normal and abnormal assessment findings of the heart.
- 3-2.33 Describe the auscultation of the heart.
- 3-2.34 Differentiate the characteristics of normal and abnormal findings associated with the auscultation of the heart.
- 3-2.36 Differentiate normal and abnormal assessment findings of the abdomen.
- 3-2.37 Describe the examination of the female external genitalia.
- 3-2.38 Differentiate normal and abnormal assessment findings of the female external genitalia.
- 3-2.39 Describe the examination of the male genitalia.
- 3-2.40 Differentiate normal and abnormal findings of the male genitalia.
- 3-2.42 Differentiate normal and abnormal findings of the extremities.
- 3-2.44 Differentiate normal and abnormal findings of the peripheral vascular system.
- 3-2.46 Differentiate normal and abnormal findings of the nervous system.
- 3-2.47 Discuss the considerations of examination of an infant or child.
- 3-2.48 Describe the general guidelines of recording examination information.

#### AFFECTIVE OBJECTIVES

3-2.49 Demonstrate a caring attitude when performing physical examination skills.

#### **PSYCHOMOTOR OBJECTIVES**

- 3-2.68 Demonstrate the external visual examination of the female external genitalia.
- 3-2.69 Demonstrate the examination of the male genitalia.

# 3-3 At the completion of this unit, the EMT-Intermediate student will be able to integrate the principles of history taking and techniques of physical exam to perform patient assessment on an emergency patient.

#### COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

- 3-3.6 Discuss common mechanisms of injury/ nature of illness.
- 3-3.7 Recognize the importance of determining the mechanism of injury.
- 3-3.8 Discuss the reason for identifying the total number of patients at the scene.
- 3-3.9 Organize the management of a scene following size-up.
- 3-3.10 Explain the reasons for identifying the need for additional help or assistance.
- 3-3.11 Summarize the reasons for forming a general impression of the patient.
- 3-3.12 Discuss methods of assessing mental status.
- 3-3.13 Categorize levels of consciousness.
- 3-3.15 Describe why the cervical spine is immobilized during the assessment of the trauma patient.
- 3-3.16 Analyze a scene to determine if spinal precautions are required.
- 3-3.18 Differentiate between a patient with adequate and inadequate minute ventilation.
- 3-3.19 Discuss the need for assessing the patient for external bleeding.
- 3-3.20 Describe normal and abnormal findings when assessing skin color.
- 3-3.21 Describe normal and abnormal findings when assessing skin temperature.
- 3-3.22 Describe normal and abnormal findings when assessing skin condition.
- 3-3.24 Identify patients who require expeditious transport.
- 3-3.26 Apply the techniques of physical examination to the medical patient.
- 3-3.27 Differentiate between the assessment that is performed for a patient who is has an altered mental status and other medical patients.
- 3-3.28 Discuss the reasons for reconsidering the mechanism of injury.
- 3-3.29 State the reasons for performing a rapid trauma assessment.
- 3-3.30 Recite examples and explain why patients should receive a rapid trauma assessment.
- 3-3.31 Apply the techniques of physical examination to the trauma patient.
- 3-3.32 Describe the areas included in the rapid trauma assessment and discuss what should be evaluated.
- 3-3.33 Differentiate cases when the rapid assessment may be altered in order to provide patient care.
- 3-3.41 Discuss the reasons for repeating the initial assessment as part of the on-going assessment.
- 3-3.44 Discuss medical identification devices/ systems.

#### AFFECTIVE OBJECTIVES

- 3-3.45 Explain the rationale for crew members to evaluate scene safety prior to entering.
- 3-3.46 Serve as a model for others explaining how patient situations affect your evaluation of mechanism of injury or illness.
- 3-3.47 Explain the importance of forming a general impression of the patient.
- 3-3.50 Attend to the feelings that patients with medical conditions might be experiencing.

- 3-3.52 Explain the rationale for the feelings that these patients might be experiencing.
- 3-3.53 Demonstrate a caring attitude when performing a detailed physical examination.
- 3-3.56 Explain the value of trending assessment components to other health professionals who assume care of the patient.

#### **PSYCHOMOTOR OBJECTIVES**

- 3-3.57 Demonstrate the techniques for assessing mental status.
- 3-3.58 Demonstrate the techniques for assessing the airway.
- 3-3.59 Demonstrate the techniques for determining if the patient is breathing.
- 3-3.60 Demonstrate the techniques for determining if the patient has a pulse.
- 3-3.61 Demonstrate the techniques for determining the patient for external bleeding.
- 3-3.62 Demonstrate the techniques for determining the patient's skin color, temperature, and condition.
- 3-3.63 Using the techniques of examination, demonstrate the assessment of a medical patient.
- 3-3.64 Demonstrate the techniques for assessing a patient who is responsive with no known history.
- 3-3.65 Demonstrate the techniques for assessing a patient who has an altered metal status.
- 3-3.67 Perform a focused history and physical exam of the medical patient.
- 3-3.68 Using the techniques of physical examination, demonstrate the assessment of a trauma patient.
- 3-3.70 Perform a focused history and physical exam on a non-critically injured patient.
- 3-3.71 Perform a focused history and physical exam on a patient with life-threatening injuries.
- 3-3.72 Perform a detailed physical examination.
- 3-3.73 Demonstrate the skills involved in performing the on-going assessment.

# 3-4 At the completion of this unit, the EMT-Intermediate student will be able to apply a process of decision making to use the assessment findings to help form a field impression.

#### **COGNITIVE OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

- 3-4.2 Differentiate between critical life-threatening, potentially life- threatening, and non life-threatening patient presentations.
- 3-4.4 Define the components, stages, and sequences of the critical thinking process for EMT-Intermediates.
- 3-4.5 Apply the fundamental elements of critical thinking for EMT-Intermediates.
- 3-4.6 Describe the effects of the "fight or flight" response and the positive and negative effects on a EMT-Intermediate's decision making.
- 3-4.7 Develop strategies for effective thinking under pressure.
- 3-4.8 Summarize the "six Rs" of putting it all together: Read the patient, Read the scene, React, Reevaluate, Revise the management plan, Review performance.

#### **AFFECTIVE OBJECTIVES**

- 3-4.9 Defend the position that clinical decision-making is the cornerstone of effective EMT-Intermediate practice.
- 3-4.10 Practice facilitating behaviors when thinking under pressure.

3-5 At the completion of this unit, the EMT-Intermediate student will be able to follow an accepted format for the dissemination of patient information in verbal form, either in person or over the radio.

#### COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

- 3-5.4 Identify the importance of proper terminology when communicating during an EMS event.
- 3-5.6 List factors that impede effective verbal communications.
- 3-5.7 List factors which enhance verbal communications.
- 3-5.9 List factors which impede effective written communications.
- 3-5.10 List factors which enhance written communications.
- 3-5.11 Recognize the legal status of written communications related to an EMS event.
- 3-5.12 State the importance of data collection during an EMS event.
- 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.
- 3-5.15 Identify and differentiate among the following communications systems:
  - a. Simplex
  - b. Multiplex
  - c. Duplex
  - d. Trunked
  - e. Digital communications
  - f. Cellular telephone
  - g. Facsimile
  - h. Computer
- 3-5.21 Identify the importance of pre-arrival instructions in a typical EMS event.
- 3-5.24 Diagram a basic model of communications.
- 3-5.25 Organize a list of patient assessment information in the correct order for electronic transmission to medical direction according to the format used locally.

#### AFFECTIVE OBJECTIVES

At the end of this unit, the EMT-Intermediate student will be able to:

3-5.26 Show appreciation for proper terminology when describing a patient or patient condition.

#### **PSYCHOMOTOR OBJECTIVES**

At the end of this unit, the EMT-Intermediate student will be able to:

3-5.29 Demonstrate the ability to use the biotelemetry equipment used locally.

# 3-6 At the completion of this unit, the EMT-Intermediate student will be able to effectively document the essential elements of patient assessment, care and transport.

#### COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

- 3-6.4 Record all pertinent administrative information.
- 3-6.5 Explain the role of documentation in agency reimbursement.
- 3-6.8 Describe the differences between subjective and objective elements of documentation.
- 3-6.9 Evaluate a finished document for errors and omissions.
- 3-6.11 Evaluate the confidential nature of an EMS report.
- 3-6.13 Describe the special considerations concerning patient refusal of transport.
- 3-6.14 Record pertinent information using a consistent narrative format.
- 3-6.15 Explain how to properly record direct patient or bystander comments.
- 3-6.16 Describe the special considerations concerning mass casualty incident documentation.
- 3-6.17 Apply the principles of documentation to computer charting, as access to this technology becomes available.
- 3-6.18 Identify and record the pertinent, reportable clinical data of each patient interaction.
- 3-6.19 Note and record "pertinent negative" clinical findings.
- 3-6.20 Correct errors and omissions using proper procedures as defined under local protocol.
- 3-6.21 Revise documents, when necessary, using locally-approved procedures.
- 3-6.22 Assume responsibility for self-assessment of all documentation.
- 3-6.23 Demonstrate proper completion of an EMS event record used locally.

#### AFFECTIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

3-6.25 Resolve the common negative attitudes toward the task of documentation.

4-1 At the completion of this unit, the EMT-Intermediate student will be able to apply 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

- 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.
- 4-1.3 Describe the criteria for transport to a trauma center.
- 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., frontal impacts, lateral impacts, rear impacts, rotational impacts, rollover).
- 4-1.8 Describe the pathophysiology of the head, spine, thorax, and abdomen that results from the above forces.
- 4-1.9 Describe the organ collisions that occur in blunt trauma and vehicular collisions.
- 4-1.10 Describe the effects that restraint systems (including seat belts, airbags, and child safety seats) have on the injury patterns found in motor vehicle crashes.
- 4-1.11 List specific injuries and their causes as related to interior and exterior vehicle damage.
- 4-1.12 Describe the kinematics of penetrating injuries.
- 4-1.13 List the motion and energy considerations of mechanisms other than motor vehicle crashes.
- 4-1.14 Define the role of kinematics as an additional tool for patient assessment.

4-2 At the completion of this unit, the EMT-Intermediate student will be able to utilize the assessment findings to formulate a field impression and implement the treatment plan for the patient with hemorrhage or shock.

#### **COGNITIVE OBJECTIVES**

- 4-2.1 Describe the epidemiology, including the morbidity, mortality and prevention strategies for shock and hemorrhage.
- 4-2.6 Discuss the treatment plan and management of hemorrhage and shock.
- 4-2.7 Discuss the management of external and internal hemorrhage.
- 4-2.8 Differentiate between controlled and uncontrolled hemorrhage.
- 4-2.35 Apply epidemiology to develop prevention strategies for hemorrhage and shock.

4-3 At the completion of this unit, the EMT-Intermediate student will be able to utilize the assessment findings to formulate a field impression and implement the management plan for the patient with a burn injury.

#### COGNITIVE OBJECTIVES

- 4-3.1 Describe the anatomy and physiology pertinent to burn injuries.
- 4-3.2 Describe the epidemiology, including incidence, morbidity/ mortality, risk factors, and prevention strategies for the patient with a burn injury.
- 4-3.3 Describe the pathophysiologic complications and systemic complications of a burn injury.
- 4-3.4 Identify and describe types of burn injuries, including a thermal burn, an inhalation burn, a chemical burn, an electrical burn, and a radiation exposure.
- 4-3.5 Identify and describe the depth classifications of burn injuries, including a superficial burn, a partial-thickness burn, a full-thickness burn, and other depth classifications described by local protocol.
- 4-3.6 Identify and describe methods for determining body surface area percentage of a burn injury including the "rules of nines," the "rules of palms," and other methods described by local protocol.
- 4-3.7 Identify and describe the severity of a burn including a minor burn, a moderate burn, a severe burn, and other severity classifications described by local protocol.
- 4-3.8 Differentiate criteria for determining the severity of a burn injury between a pediatric patient and an adult patient.
- 4-3.9 Describe special considerations for a pediatric patient with a burn injury.
- 4-3.10 Discuss considerations which impact management and prognosis of the burn injured patient.
- 4-3.11 Discuss mechanisms of burn injuries.
- 4-3.12 Discuss conditions associated with burn injuries, including trauma, blast injuries, airway compromise, respiratory compromise, and child abuse.
- 4-3.13 Describe the management of a burn injury, including airway and ventilation, circulation, pharmacologic, non-pharmacologic, transport considerations, psychological support/ communication strategies, and other management described by local protocol.
- 4-3.14 Describe the epidemiology of a thermal burn injury.
- 4-3.15 Describe the specific anatomy and physiology pertinent to a thermal burn injury.
- 4-3.16 Describe the pathophysiology of a thermal burn injury.
- 4-3.17 Identify and describe the depth classifications of a thermal burn injury.
- 4-3.18 Identify and describe the severity of a thermal burn injury.
- 4-3.19 Describe considerations which impact management and prognosis of the patient with a thermal burn injury.
- 4-3.20 Discuss mechanisms of burn injury and conditions associated with a thermal burn injury.
- 4-3.21 Describe the management of a thermal burn injury, including airway and ventilation, circulation, pharmacologic, non-pharmacologic, transport considerations, and psychological support/ communication strategies.
- 4-3.22 Describe the epidemiology of an inhalation burn injury.

	27
4-3.23	Describe the specific anatomy and physiology pertinent to an inhalation burn injury.
4-3.24	Describe the pathophysiology of an inhalation burn injury.
4-3.25	Differentiate between supraglottic and infraglottic inhalation injuries.
4-3.26	Identify and describe the severity of an inhalation burn injury.
4-3.27	Describe considerations which impact management and prognosis of the patient with an inhalation burn injury.
4-3.28	Discuss mechanisms of burn injury and conditions associated with an inhalation burn injury.
4-3.29	Describe the management of an inhalation burn injury, including airway and ventilation, circulation, pharmacologic, non-pharmacologic, transport considerations, and psychological support/ communication strategies.
4-3.30	Describe the epidemiology of a chemical burn injury and a chemical burn injury to the eye.
4-3.31	Describe the specific anatomy and physiology pertinent to a chemical burn injury and a chemical burn injury to the eye.
4-3.32	Describe the pathophysiology of a chemical burn injury, including types of chemicals and their burning processes and a chemical burn injury to the eye.
4-3.33	Identify and describe the depth classifications of a chemical burn injury.
4-3.34	Identify and describe the severity of a chemical burn injury.
4-3.35	Describe considerations which impact management and prognosis of the patient
	with a chemical burn injury and a chemical burn injury to the eye.
4-3.36	Discuss mechanisms of burn injury and conditions associated with a chemical burn injury.
4-3.37	Describe the management of a chemical burn injury and a chemical burn injury to the eye, including airway and ventilation, circulation, pharmacologic, non-pharmacologic, transport considerations, and psychological support/ communication strategies.
4-3.38	Describe the epidemiology of an electrical burn injury.
4-3.39	Describe the specific anatomy and physiology pertinent to an electrical burn injury.
4-3.40	Describe the pathophysiology of an electrical burn injury.
4-3.41	
	Identify and describe the depth classifications of an electrical burn injury.
4-3.42	Identify and describe the severity of an electrical burn injury.
4-3.43	Describe considerations which impact management and prognosis of the patient with an electrical burn injury.
4-3.44	Discuss mechanisms of burn injury and conditions associated with an electrical burn injury.
4-3.45	Describe the management of an electrical burn injury, including airway and ventilation, circulation, pharmacologic, non-pharmacologic, transport considerations, and psychological support/ communication strategies.
4-3.46	Describe the epidemiology of a radiation exposure.
4-3.47	Describe the specific anatomy and physiology pertinent to a radiation exposure.
4-3.48	Describe the pathophysiology of a radiation exposure, including the types and
	characteristics of ionizing radiation.
4-3.49	Identify and describe the depth classifications of a radiation exposure.
4-3.50	Identify and describe the severity of a radiation exposure.
4-3.51	Describe considerations which impact management and prognosis of the patient with a radiation exposure.

- 4-3.52 Discuss mechanisms of burn injury associated with a radiation exposure.
- 4-3.53 Describe the management of a radiation exposure, including airway and ventilation, circulation, pharmacologic, non-pharmacologic, transport considerations, and psychological support/ communication strategies.
- 4-3.54 Apply the to formulate a field impression and implement the management plan for a thermal burn injury.
- 4-3.55 Apply the to formulate a field impression and implement the management plan for an inhalation burn injury.
- 4-3.56 Apply the to formulate a field impression and implement the management plan for a chemical burn injury.
- 4-3.57 Apply the to formulate a field impression and implement the management plan for an electrical burn injury.
- 4-3.58 Apply the to formulate a field impression and implement the management plan for a radiation exposure.

At the completion of this unit, the EMT-Intermediate student will be able to:

- 4-3.59 Value the changes of a patient's self-image associated with a burn injury.
- 4-3.60 Value the impact of managing a burn injured patient.
- 4-3.61 Advocate empathy for a burn injured patient.
- 4-3.62 Value and defend the sense of urgency in burn injuries.

#### **PSYCHOMOTOR OBJECTIVES**

- 4-3.63 Take body substance isolation procedures during assessment and management of patients with a burn injury.
- 4-3.64 Perform assessment of a patient with a burn injury.

4-4 At the completion of this unit, the EMT-Intermediate student will be able to utilize the assessment findings to formulate a field impression and implement a treatment plan for a patient with a thoracic injury.

#### COGNITIVE OBJECTIVES

- 4-4.1 Describe the incidence, morbidity, and mortality of thoracic injuries in the trauma patient.
- 4-4.2 Discuss the anatomy and physiology of the organs and structures related to thoracic injuries.
- 4-4.3 Predict thoracic injuries based on mechanism of injury.
- 4-4.4 Discuss the types of thoracic injuries.
- 4-4.5 Discuss the pathophysiology of thoracic injuries.
- 4-4.6 Discuss the assessment findings associated with thoracic injuries.
- 4-4.7 Discuss the management of thoracic injuries.
- 4-4.8 Identify the need for rapid intervention and transport of the patient with thoracic injuries.
- 4-4.9 Discuss the epidemiology and pathophysiology of specific chest wall injuries, including:
  - a. Rib fracture
  - b. Sternal fracture
- 4-4.10 Discuss the assessment findings associated with chest wall injuries.
- 4-4.11 Identify the need for rapid intervention and transport of the patient with chest wall injuries.
- 4-4.12 Discuss the management of chest wall injuries.
- 4-4.13 Discuss the pathophysiology of injury to the lung, including:
  - a. Hemothorax
  - b. Hemopneumothorax
  - c. Pulmonary contusion
- 4-4.14 Discuss the assessment findings associated with lung injuries.
- 4-4.15 Discuss the management of lung injuries.
- 4-4.16 Identify the need for rapid intervention and transport of the patient with lung injuries.
- 4-4.17 Discuss the pathophysiology of myocardial injuries, including:
  - a. Pericardial tamponade
  - b. Myocardial contusion
- 4-4.18 Discuss the assessment findings associated with myocardial injuries.
- 4-4.19 Discuss the management of myocardial injuries.
- 4-4.20 Identify the need for rapid intervention and transport of the patient with myocardial injuries.
- 4-4.21 Discuss the pathophysiology of vascular injuries, including injuries to:
  - a. Aorta disection/rupture
  - b. Vena cava
  - c. Pulmonary arteries/ veins
- 4-4.22 Discuss the assessment findings associated with vascular injuries.
- 4-4.23 Discuss the management of vascular injuries.
- 4-4.27 Discuss the pathophysiology of esophageal injuries.
- 4-4.28 Discuss the assessment findings associated with esophageal injuries.

- 4-4.29 Discuss the management of esophageal injuries.
- 4-4.30 Discuss the pathophysiology of tracheo-bronchial injuries.
- 4-4.31 Discuss the assessment findings associated with tracheo-bronchial injuries.
- 4-4.32 Discuss the management of tracheo-bronchial injuries.
- 4-4.33 Discuss the pathophysiology of traumatic asphyxia.
- 4-4.34 Discuss the assessment findings associated with traumatic asphyxia.
- 4-4.35 Discuss the management of traumatic asphyxia.
- 4-4.36 Differentiate between thoracic injuries based on the assessment and history.
- 4-4.37 Formulate a field impression based on the assessment findings.
- 4-4.38 Develop a patient management plan based on the field impression.

At the completion of this unit, the EMT-Intermediate student will be able to:

- 4-4.39 Advocate the use of a thorough assessment to determine a differential diagnosis and treatment plan for thoracic trauma.
- 4-4.40 Advocate the use of a thorough scene survey to determine the forces involved in thoracic trauma.
- 4-4.41 Value the implications of failing to properly diagnose thoracic trauma.
- 4-4.42 Value the implications of failing to initiate timely interventions to patients with thoracic trauma.

### **PSYCHOMOTOR OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

4-4.43 Demonstrate a clinical assessment for a patient with suspected thoracic trauma.

4-4.44 Demonstrate the following techniques of management for thoracic injuries:

- a. Needle decompression
- b. Fracture stabilization
- c. ECG monitoring
- d. Oxygenation and ventilation

## 4-5 At the completion of this unit, the EMT-Intermediate student will be able to demonstrate the practical skills of managing trauma patients.

#### **PSYCHOMOTOR OBJECTIVES**

- 4-5.11 Demonstrate a clinical assessment for a patient with suspected thoracic trauma.
- 4-5.12 Demonstrate the following techniques of management for thoracic injuries:
  - a. Needle decompression
  - b. Fracture stabilization
  - c. ECG monitoring
  - d. Oxygenation and ventilation
- 4-5.13 Demonstrate a clinical assessment to determine the proper treatment plan for a patient with a suspected musculoskeletal injury.
- 4-5.14 Demonstrate the proper use of fixation, soft and traction splints for a patient with a suspected fracture.
- 4-5.15 Demonstrate the assessment and management of a patient with signs and symptoms of soft tissue injury, including:
  - a. Contusion
  - b. Hematoma
  - c. Crushing
  - d. Abrasion
  - e. Laceration
  - f. Avulsion
  - g. Amputation
  - h. Impaled object
  - i. Penetration/ puncture
  - j. Blast
- 4-5.16 Demonstrate a clinical assessment to determine the proper management modality for a patient with a suspected traumatic spinal injury.
- 4-5.17 Demonstrate a clinical assessment to determine the proper management modality for a patient with a suspected non-traumatic spinal injury.
- 4-5.18 Demonstrate immobilization of the urgent and non-urgent patient with assessment findings of spinal injury from the following presentations:
  - a. Supine
  - b. Prone
  - c. Semi-prone
  - d. Sitting
  - e. Standing
- 4-5.19 Demonstrate preferred methods for stabilization of a helmet from a potentially spine injured patient.
- 4-5.20 Demonstrate helmet removal techniques.
- 4-5.21 Demonstrate alternative methods for stabilization of a helmet from a potentially spine injured patient.
- 4-5.22 Demonstrate documentation of assessment before spinal immobilization.
- 4-5.23 Demonstrate documentation of assessment during spinal immobilization.
- 4-5.24 Demonstrate documentation of assessment after spinal immobilization.

5-1 At the end of this unit, the EMT-Intermediate student will be able to utilize the assessment findings to formulate a field impression and implement the treatment plan for the patient with respiratory emergencies.

#### COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

- 5-1.4 Discuss abnormal assessment findings associated with pulmonary diseases and conditions.
- 5-1.5 Compare various airway and ventilation techniques used in the management of pulmonary diseases.
- 5-1.6 Review the pharmacological preparations that EMT-Intermediates use for management of respiratory diseases and conditions.
- 5-1.7 Review the use of equipment used during the physical examination of patients with complaints associated with respiratory diseases and conditions.
- 5-1.8 Describe the epidemiology, pathophysiology, assessment findings, and management for the following respiratory diseases and conditions:
  - a. Bronchial asthma
  - b. Chronic bronchitis
  - c. Emphysema
  - d. Pneumonia
  - e. Pulmonary edema
  - f. Spontaneous pneumothorax
  - g. Hyperventilation syndrome
  - h. Pulmonary thromboembolism

#### **AFFECTIVE OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

- 5-1.9 Recognize and value the assessment and treatment of patients with respiratory diseases.
- 5-1.10 Indicate appreciation for the critical nature of accurate field impressions of patients with respiratory diseases and conditions.

#### **PSYCHOMOTOR OBJECTIVES**

- 5-1.11 Demonstrate and record pertinent assessment findings associated with pulmonary diseases and conditions.
- 5-1.12 Review proper use of airway and ventilation devices.
- 5-1.13 Conduct a simulated history and patient assessment, record the findings, and report appropriate management of patients with pulmonary diseases and conditions.

5-2 At the completion of this unit, the EMT-Intermediate student will be able to utilize the assessment findings to formulate a field impression, implement and evaluate the management plan for the patient experiencing a cardiac emergency.

#### COGNITIVE OBJECTIVES

- 5-2.1 Describe the incidence, morbidity, and mortality of cardiovascular disease.
- 5-2.3 Discuss prevention strategies that may reduce morbidity and mortality of cardiovascular disease.
- 5-2.4 Identify the risk factors most predisposing to coronary artery disease.
- 5-2.5 Identify and describe the components of assessment as it relates to the patient with cardiovascular compromise.
- 5-2.6 Describe how ECG wave forms are produced.
- 5-2.7 Correlate the electrophysiological and hemodynamic events occurring throughout the entire cardiac cycle with the various ECG wave forms, segments and intervals.
- 5-2.8 Identify how heart rates may be determined from ECG recordings.
- 5-2.9 List the limitations to the ECG.
- 5-2.10 Describe a systematic approach to the analysis and interpretation of cardiac arrhythmias.
- 5-2.11 Explain how to confirm asystole using more than one lead.
- 5-2.12 List the clinical indications for defibrillation.
- 5-2.13 Identify the specific mechanical, pharmacological and electrical therapeutic interventions for patients with arrhythmias causing compromise.
- 5-2.14 List the clinical indications for an implanted defibrillation device.
- 5-2.15 Define angina pectoris and myocardial infarction (MI).
- 5-2.16 List other clinical conditions that may mimic signs and symptoms of angina pectoris and myocardial infarction.
- 5-2.17 List the mechanisms by which an MI may be produced by traumatic and non-traumatic events.
- 5-2.18 List and describe the assessment parameters to be evaluated in a patient with chest pain.
- 5-2.19 Identify what is meant by the OPQRST of chest pain assessment.
- 5-2.20 List and describe the initial assessment parameters to be evaluated in a patient with chest pain that may be myocardial in origin.
- 5-2.21 Identify the anticipated clinical presentation of a patient with chest pain that may be angina pectoris or myocardial infarction.
- 5-2.22 Describe the pharmacological agents available to the EMT-Intermediate for use in the management of arrhythmias and cardiovascular emergencies.
- 5-2.23 Develop, execute, and evaluate a treatment plan based on the field impression for the patient with chest pain that may be indicative of angina or myocardial infarction.
- 5-2.24 Define the terms "congestive heart failure" and "pulmonary edema."
- 5-2.25 Define the cardiac and non-cardiac causes and terminology associated with pulmonary edema and pulmonary edema.
- 5-2.26 Describe the early and late signs and symptoms of pulmonary edema.
- 5-2.27 Explain the clinical significance of paroxysmal nocturnal dyspnea.

- 5-2.28 List and describe the pharmacological agents available to the EMT-Intermediate for use in the management of a patient with cardiac compromise.
- 5-2.29 Define the term "hypertensive emergency."
- 5-2.30 Describe the clinical features of the patient in a hypertensive emergency.
- 5-2.31 List the interventions prescribed for the patient with a hypertensive emergency.
- 5-2.34 Define the term "cardiac arrest."
- 5-2.35 Define the term "resuscitation."
- 5-2.36 Identify local protocol dictating circumstances and situations where resuscitation efforts would not be initiated.
- 5-2.37 Identify local protocol dictating circumstances and situations where resuscitation efforts would be discontinued.
- 5-2.38 Identify the critical actions necessary in caring for the patient in cardiac arrest.
- 5-2.39 Synthesize patient history, assessment findings to form a field impression for the patient with chest pain and cardiac arrhythmias that may be indicative of a cardiac emergency.

At the completion of this unit the EMT-Intermediate will be able to:

- 5-2.40 Value the sense of urgency for initial assessment and intervention as it contributes to the treatment plan for the patient experiencing a cardiac emergency.
- 5-2.41 Defend patient situations where ECG rhythm analysis is indicated.
- 5-2.42 Value and defend the sense of urgency necessary to protect the window of opportunity for reperfusion in the patient with chest pain and arrhythmias that may be indicative of angina or myocardial infarction.
- 5-2.43 Value and defend the urgency in rapid determination and rapid intervention of patients in cardiac arrest.

#### **PSYCHOMOTOR OBJECTIVES**

- 5-2.44 Demonstrate a working knowledge of various ECG lead systems.
- 5-2.45 Set up and apply a transcutaneous pacing system.
- 5-2.46 Given the model of a patient with signs and symptoms of pulmonary edema, position the patient to afford comfort and relief. (P-2)

5-3 At the completion of this unit, the EMT-Intermediate student will be able to utilize the assessment findings to formulate a field impression and implement a treatment plan for the patient with a diabetic emergency.

#### COGNITIVE OBJECTIVE

- 5-3.1 Describe the pathophysiology of diabetes mellitus.
- 5-3.2 Describe the effects of decreased levels of insulin on the body.
- 5-3.3 Correlate abnormal findings in assessment with clinical significance in the patient with a diabetic emergency.
- 5-3.4 Discuss the management of diabetic emergencies.
- 5-3.5 Describe the mechanism of ketone body formation and its relationship to ketoacidosis.
- 5-3.6 Describe the effects of decreased levels of insulin on the body.
- 5-3.7 Discuss the pathophysiology of hypoglycemia.
- 5-3.8 Recognize the signs and symptoms of the patient with hypoglycemia.
- 5-3.9 Describe the management of a hypoglycemic patient.
- 5-3.10 Integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient with hypoglycemia.
- 5-3.11 Discuss the pathophysiology of hyperglycemia.
- 5-3.12 Recognize the signs and symptoms of the patient with hyperglycemia.
- 5-3.13 Describe the management of the hyperglycemic patient.
- 5-3.14 Differentiate between diabetic emergencies based on assessment and history.
- 5-3.15 Correlate abnormal findings in the assessment with clinical significance in the patient with a diabetic emergencies.
- 5-3.16 Develop a patient management plan based on field impression in the patient with a diabetic emergency.

5-4 At the completion of this unit, the EMT-Intermediate 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

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

5-5 At the completion of this unit, the EMT-Intermediate student will be able to utilize 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 EMT-Intermediate student will be able to:

- 5-5.1 Identify appropriate personal protective equipment and scene safety awareness concerns in dealing with toxicologic emergencies.
- 5-5.2 Identify the appropriate situations in which additional non-EMS resources need to be contacted.
- 5-5.3 Review the routes of entry of toxic substances into the body.
- 5-5.4 Discuss the role of the Poison Control Center in the United States.
- 5-5.5 List the toxic substances that are specific to your region.
- 5-5.6 Identify the need for rapid intervention and transport of the patient with a toxic substance emergency.
- 5-5.7 Review the management of toxic substances.
- 5-5.8 Differentiate among the various treatments and pharmacological interventions in the management of the most common poisonings by inhalation, ingestion, absorption, and injection.
- 5-5.9 Utilize assessment findings to formulate a field impression and implement a treatment plan for patients with the most common poisonings by inhalation, ingestion, absorption, and injection.
- 5-5.10 Review poisoning by overdose.
- 5-5.11 Review the signs and symptoms related to the most common poisonings by overdose.
- 5-5.12 Correlate the abnormal findings in assessment with the clinical significance in patients with the most common poisonings by overdose.
- 5-5.13 Differentiate among the various treatments and pharmacological interventions in the management of the most common poisonings by overdose.
- 5-5.14 Utilize assessment findings to formulate a field impression and implement a treatment plan for patients with the most common poisonings by overdose.

## AFFECTIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

5-5.15 Appreciate the psychological needs or victims of drug abuse or overdose.

## **COGNITIVE OBJECTIVES**

5-6

At the completion of this unit, the EMT-Intermediate student will be able to:

- 5-6.1 Discuss the general pathophysiology of non-traumatic neurologic emergencies.
- 5-6.2 Discuss the general assessment findings associated with non-traumatic neurologic emergencies.
- 5-6.3 Identify the need for rapid intervention and transport of the patient with nontraumatic emergencies.
- 5-6.4 Discuss the epidemiology, assessment findings, and management for stroke and intracranial hemorrhage.
- 5-6.5 Discuss the epidemiology, assessment findings, and management for transient ischemic attack.
- 5-6.6 Discuss the epidemiology, assessment findings, and management of epilepsy/seizure.
- 5-6.7 Discuss the epidemiology, assessment findings, and management for nonspecific coma or altered level consciousness/ syncope/ weakness/ headache.
- 5-6.8 Develop a patient management plan based on field impression in the patient with neurological emergencies.

## AFFECTIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

- 5-6.9 Characterize the feelings of a patient who regains consciousness among strangers.
- 5-6.10 Formulate means of conveying empathy to patients whose ability to communicate is limited by their condition.

## **PSYCHOMOTOR OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

5-6.11 Perform an appropriate assessment of a patient with a non-traumatic neurological emergency.

5-7 At the completion of this unit, the EMT-Intermediate student will be able to utilize the assessment findings to formulate a field impression and implement the treatment plan for the patient with non-traumatic abdominal pain.

## **COGNITIVE OBJECTIVE**

- 5-7.1 Discuss the pathophysiology of non-traumatic abdominal emergencies.
- 5-7.2 Discuss the signs and symptoms of non-traumatic acute abdominal pain.
- 5-7.4 Describe the management of the patient with non-traumatic abdominal pain. C-1)

vill be able to utili

40

5-8 At the completion of this unit, the EMT-Intermediate student will be able to utilize the assessment findings to formulate a field impression and implement the treatment plan for the patient with an environmentally-induced or exacerbated emergency.

## COGNITIVE OBJECTIVES

- 5-8.1 Define "environmental emergency."
- 5-8.2 Identify risk factors most predisposing to environmental emergencies.
- 5-8.3 Identify environmental factors that may cause illness or exacerbate a pre-existing illness.
- 5-8.4 Identify environmental factors that may complicate treatment or transport decisions.
- 5-8.5 List the principal types of environmental illnesses.
- 5-8.6 Identify normal, critically high and critically low body temperatures.
- 5-8.7 Describe several methods of temperature monitoring.
- 5-8.8 Describe the bodys compensatory process for over heating.
- 5-8.9 Describe the bodys compensatory process for excess heat loss.
- 5-8.10 List the common forms of heat and cold disorders.
- 5-8.11 List the common predisposing factors associated with heat and cold disorders.
- 5-8.12 List the common preventative measures associated with heat and cold disorders.
- 5-8.13 Define heat illness.
- 5-8.14 Identify signs and symptoms of heat illness.
- 5-8.15 List the predisposing factors for heat illness.
- 5-8.16 List measures to prevent heat illness.
- 5-8.17 Relate symptomatic findings to the commonly used terms: heat cramps, heat exhaustion, and heat stroke.
- 5-8.18 Discuss how one may differentiate between fever and heat stroke.
- 5-8.19 Discuss the role of fluid therapy in the treatment of heat disorders.
- 5-8.20 Differentiate among the various treatments and interventions in the management of heat disorders.
- 5-8.21 Integrate the pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient who has dehydration, heat exhaustion, or heat stroke.
- 5-8.22 Define hypothermia.
- 5-8.23 List predisposing factors for hypothermia.
- 5-8.24 List measures to prevent hypothermia.
- 5-8.25 Identify differences between mild and severe hypothermia.
- 5-8.26 Describe differences between chronic and acute hypothermia.
- 5-8.27 List signs and symptoms of hypothermia.
- 5-8.28 Correlate abnormal findings in assessment with their clinical significance in the patient with hypothermia.
- 5-8.29 Discuss the impact of severe hypothermia on standard BCLS and ACLS algorithms and transport considerations.
- 5-8.30 Integrate pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the patient who has either mild or severe hypothermia.
- 5-8.31 Define near drowning.

- 5-8.32 List signs and symptoms of near drowning.
- 5-8.33 Discuss the complications and protective role of hypothermia in the context of near drowning.
- 5-8.34 Correlate the abnormal findings in assessment with the clinical significance in the patient with near drowning.
- 5-8.35 Differentiate among the various treatments and interventions in the management of near drowning.
- 5-8.36 Integrate pathophysiological principles and the assessment findings to formulate a field impression and implement a treatment plan for the near-drowning patient.
- 5-8.37 Integrate pathophysiological principles of the patient affected by an environmental emergency.
- 5-8.38 Differentiate between environmental emergencies based on assessment findings.
- 5-8.39 Correlate abnormal findings in the assessment with the clinical significance in the patient affected by an environmental emergency.
- 5-8.40 Develop a patient management plan based on the field impression the patient affected by an environmental emergency.

5-9 At the end of this unit, the EMT-Intermediate student will be able to utilize assessment findings to form a field impression and implement a management plan for patients with behavioral emergencies.

## COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

- 5-9.1 Distinguish between normal and abnormal behavior.
- 5-9.2 Discuss the pathophysiology of behavioral emergencies.
- 5-9.3 Discuss appropriate measures to ensure the safety of the patient, EMT-Intermediate, and others.
- 5-9.4 Identify techniques for a physical assessment in a patient with behavioral problems.
- 5-9.5 Describe therapeutic interviewing techniques for gathering information from a patient with a behavioral emergency.
- 5-9.6 List factors that may indicate a patient is at increased risk for suicide.
- 5-9.7 Describe circumstances in which relatives, bystanders, and others should be removed from the scene.
- 5-9.8 Describe medical/ legal considerations for managing a patient with a behavioral emergency.
- 5-9.9 List situations in which the EMT-Intermediate is expected to transport a patient against his will.
- 5-9.11 Formulate a field impression based on the assessment findings for patients with behavioral emergencies.
- 5-9.12 Develop a patient management plan based on the field impression for patients with behavioral emergencies.

## **AFFECTIVE OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

5-9.13 Advocate for empathetic and respectful treatment for individuals experiencing behavioral emergencies.

## **PSYCHOMOTOR OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

5-9.14 Demonstrate safe techniques for managing and restraining a violent patient.

## **COGNITIVE OBJECTIVES**

At the completion of this unit, the EMT-Intermediate student will be able to:

- 5-10.1 Review the anatomic structures and physiology of the female reproductive system.
- 5-10.2 Describe how to assess a patient with a gynecological complaint.
- 5-10.3 Explain how to recognize a gynecological emergency.
- 5-10.4 Describe the general care for any patient experiencing a gynecological

emergency.

- 5-10.5 Describe the pathophysiology, assessment, and management of specific gynecological emergencies, including:
  - a. Pelvic inflammatory disease
  - b. Ruptured ovarian cyst
  - c. Ectopic pregnacy
  - d. Vaginal bleeding
- 5-10.6 Describe the general findings and management of the sexually assaulted patient.

## AFFECTIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

- 5-10.7 Value the importance of maintaining a patient's modesty and privacy while still obtaining necessary information.
- 5-10.8 Defend the need to provide care for a patient of sexual assault, while still preventing destruction of crime scene information.
- 5-10.9 Serve as a role model for other EMS providers when discussing or caring for patients with gynecological emergencies.

## **PSYCHOMOTOR OBJECTIVES**

- 5-10.10 Demonstrate how to assess a patient with a gynecological complaint.
- 5-10.11 Demonstrate how to provide care for a patient with:
  - f. Excessive vaginal bleeding
  - g. Abdominal pain
  - h. Sexual assault

6-1 At the completion of this unit, the EMT-Intermediate student will be able to utilize the assessment findings to formulate and implement a treatment plan for a normal or abnormal labor.

## COGNITIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

- 6-1.1 Review the anatomic structures and physiology of the reproductive system.
- 6-1.2 Identify the normal events of pregnancy.
- 6-1.3 Describe how to assess an obstetrical patient.
- 6-1.4 Identify the stages of labor and the EMT-Intermediate's role in each stage.
- 6-1.5 Differentiate between normal and abnormal delivery.
- 6-1.6 Identify and describe complications associated with pregnancy and delivery.
- 6-1.7 Identify predelivery emergencies.
- 6-1.8 State indications of an imminent delivery.
- 6-1.9 Differentiate the management of a patient with predelivery emergencies from a normal delivery.
- 6-1.10 State the steps in the predelivery preparation of the mother.
- 6-1.11 State the steps to assist in the delivery of a newborn.
- 6-1.12 Describe how to care for the newborn.
- 6-1.13 Describe how and when to cut the umbilical cord.
- 6-1.14 Discuss the steps in the delivery of the placenta.
- 6-1.15 Describe the management of the mother post-delivery.
- 6-1.16 Describe the procedures for handling abnormal deliveries.
- 6-1.17 Describe the procedures for handling complications of pregnancy.
- 6-1.18 Describe the procedures for handling maternal complications of labor.
- 6-1.19 Describe special considerations when meconium is present in amniotic fluid or during delivery.
- 6-1.20 Describe special considerations of a premature baby.

## AFFECTIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

- 6-1.21 Advocate the need for treating two patients (mother and baby).
- 6-1.22 Value the importance of maintaining a patient's modesty and privacy during assessment and management.
- 6-1.23 Serve as a role model for other EMS providers when discussing or performing the steps of childbirth.
- 6-1.24 Value the importance of body substance insolation.

## **PSYCHOMOTOR OBJECTIVES**

- 6-1.25 Demonstrate how to assess an obstetric patient.
- 6-1.26 Demonstrate how to provide care for a patient with:
  - i. Excessive vaginal bleeding
  - j. Abdominal pain
- 6-1.27 Demonstrate how to prepare the obstetric patient for delivery.
- 6-1.28 Demonstrate how to assist in the normal cephalic delivery of the fetus.

- 6-1.29
- Demonstrate how to deliver the placenta. Demonstrate how to provide post-delivery care of the mother. Demonstrate how to assist with abnormal deliveries. 6-1.30
- 6-1.31
- Demonstrate how to care for the mother with delivery complications. 6-1.32

## COGNITIVE OBJECTIVES

- 6-2.1 Define the term newborn.
- 6-2.2 Define the term neonate.
- 6-2.3 Identify important antepartum factors that can affect childbirth.
- 6-2.4 Identify important intrapartum factors that can term the newborn high risk.
- 6-2.5 Identify the primary signs utilized for evaluating a newborn during resuscitation.
- 6-2.6 Formulate an appropriate treatment plan for providing initial care to a newborn.
- 6-2.7 Identify the appropriate use of the APGAR score in caring for a newborn.
- 6-2.8 Calculate the APGAR score given various newborn situations.
- 6-2.9 Determine when ventilatory assistance is appropriate for a newborn.
- 6-2.10 Prepare appropriate ventilation equipment, adjuncts and technique for a newborn.
- 6-2.11 Determine when chest compressions are appropriate for a newborn.
- 6-2.12 Discuss appropriate chest compression techniques for a newborn.
- 6-2.13 Reassess a patient following chest compressions and ventilations.
- 6-2.14 Determine when blow-by oxygen delivery is appropriate for a newborn.
- 6-2.15 Discuss appropriate blow-by oxygen delivery devices and technique for a newborn.
- 6-2.16 Assess patient improvement due to assisted ventilations.
- 6-2.17 Discuss the initial steps in resuscitation of a newborn.
- 6-2.18 Assess patient improvement due to blow-by oxygen delivery.
- 6-2.19 Discuss appropriate transport guidelines for a newborn.
- 6-2.20 Describe the epidemiology, including the incidence, morbidity/ mortality and risk factors for meconium aspiration in the neonate.
- 6-2.21 Discuss the pathophysiology of meconium aspiration in the neonate.
- 6-2.22 Discuss the assessment findings associated with meconium aspiration in the neonate.
- 6-2.23 Discuss the management/ treatment plan for meconium aspiration in the neonate.
- 6-2.24 Describe the epidemiology, including the incidence, morbidity/ mortality and risk factors for bradycardia in the neonate.
- 6-2.25 Discuss the pathophysiology of bradycardia in the neonate.
- 6-2.26 Discuss the assessment findings associated with bradycardia in the neonate.
- 6-2.27 Discuss the management/ treatment plan for bradycardia in the neonate.
- 6-2.28 Describe the epidemiology, including the incidence, morbidity/ mortality, and risk factors for respiratory distress/ cyanosis in the neonate.
- 6-2.29 Discuss the pathophysiology of respiratory distress/ cyanosis in the neonate.
- 6-2.30 Discuss the assessment findings associated with respiratory distress/ cyanosis in the neonate.
- 6-2.31 Discuss the management/ treatment plan for respiratory distress/ cyanosis in the neonate.
- 6-2.32 Describe the epidemiology, including the incidence, morbidity/ mortality, and risk factors for hypothermia in the neonate.

- 6-2.33 Discuss the pathophysiology of hypothermia in the neonate.
- 6-2.34 Discuss the assessment findings associated with hypothermia in the neonate.
- 6-2.35 Discuss the management/ treatment plan for hypothermia in the neonate.
- 6-2.36 Describe the epidemiology, including the incidence, morbidity/ mortality, and risk factors for cardiac arrest in the neonate.
- 6-2.38 Discuss the assessment findings associated with cardiac arrest in the neonate.
- 6-2.39 Discuss the management/ treatment plan for cardiac arrest in the neonate.

#### AFFECTIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

- 6-2.40 Demonstrate and advocate appropriate interaction with a newborn/ neonate that conveys respect for their position in life.
- 6-2.41 Recognize the emotional impact of newborn/ neonate injuries/ illnesses on parents/guardians.
- 6-2.42 Recognize and appreciate the physical and emotional difficulties associated with separation of the parent/ guardian and a newborn/ neonate.
- 6-2.43 Listen to the concerns expressed by parents/ guardians.
- 6-2.44 Attend to the need for reassurance, empathy and compassion for the parent/guardian.

#### **PSYCHOMOTOR OBJECTIVES**

- 6-2.45 Demonstrate preparation of a newborn resuscitation area.
- 6-2.46 Demonstrate appropriate assessment technique for examining a newborn.
- 6-2.47 Demonstrate appropriate assisted ventilations for a newborn.
- 6-2.48 Demonstrate appropriate insertion of an orogastric tube.
- 6-2.49 Demonstrate appropriate chest compression and ventilation technique for a newborn.
- 6-2.50 Demonstrate the initial steps in resuscitation of a newborn.
- 6-2.51 Demonstrate blow-by oxygen delivery for a newborn.

6-3 At the completion of this unit, the EMT-Intermediate student will be able utilize assessment findings to formulate a field impression and implement the treatment plan for a pediatric patient.

## COGNITIVE OBJECTIVES

- 6-3.2 Identify the growth and developmental characteristics of infants and children.
- 6-3.3 Identify anatomy and physiology characteristics of infants and children.
- 6-3.4 Describe techniques for successful assessment of infants and children. Identify the common responses of families to acute illness and injury of an infant or child.
- 6-3.5 Describe techniques for successful interaction with families of acutely ill or injured infants and children.
- 6-3.6 Outline differences in adult and childhood anatomy and physiology.
- 6-3.7 Discuss pediatric patient assessment.
- 6-3.8 Identify "normal" age group related vital signs.
- 6-3.9 Discuss the appropriate equipment utilized to obtain pediatric vital signs.
- 6-3.10 Determine appropriate airway adjuncts for infants and children.
- 6-3.15 Identify complications of improper endotracheal intubation procedure in infants and children.
- 6-3.16 Define respiratory distress.
- 6-3.17 Define respiratory failure.
- 6-3.18 Define respiratory arrest.
- 6-3.19 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for respiratory distress/ failure in infants and children.
- 6-3.20 Discuss the pathophysiology of respiratory distress/ failure in infants and children.
- 6-3.21 Discuss the assessment findings associated with respiratory distress/ failure in infants and children.
- 6-3.22 Discuss the management/ treatment plan for respiratory distress/ failure in infants and children.
- 6-3.23 List the indications for gastric decompression for infants and children.
- 6-3.24 Differentiate between upper and lower airway obstruction.
- 6-3.25 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for croup in infants and children.
- 6-3.26 Discuss the pathophysiology of croup in infants and children.
- 6-3.27 Discuss the assessment findings associated with croup in infants and children.
- 6-3.28 Discuss the management/ treatment plan for croup in infants and children.
- 6-3.29 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for foreign body aspiration in infants and children.
- 6-3.30 Discuss the pathophysiology of foreign body aspiration in infants and children.
- 6-3.31 Discuss the assessment findings associated with foreign body aspiration in infants and children.
- 6-3.32 Discuss the management/ treatment plan for foreign body aspiration in infants and children.

- 6-3.33 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for epiglottitis in infants and children.
- 6-3.34 Discuss the pathophysiology of epiglottitis in infants and children.
- 6-3.35 Discuss the assessment findings associated with epiglottitis in infants and children.
- 6-3.36 Discuss the management/ treatment plan for epiglottitis in infants and children.
- 6-3.37 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for asthma/bronchiolitis in infants and children.
- 6-3.38 Discuss the pathophysiology of asthma/bronchiolitis in infants and children.
- 6-3.39 Discuss the assessment findings associated with asthma/bronchiolitis in infants and children.
- 6-3.40 Discuss the management/ treatment plan for asthma/bronchiolitis in infants and children.
- 6-3.41 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for pneumonia in infants and children.
- 6-3.42 Discuss the pathophysiology of pneumonia in infants and children.
- 6-3.43 Discuss the assessment findings associated with pneumonia in infants and children.
- 6-3.44 Discuss the management/ treatment plan for pneumonia in infants and children.
- 6-3.45 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for foreign body lower airway obstruction in infants and children.
- 6-3.51 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for shock in infants and children.
- 6-3.55 Identify the major classifications of pediatric cardiac rhythms.
- 6-3.56 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for cardiac dysrhythmias in infants and children.
- 6-3.57 Discuss the pathophysiology of cardiac dysrhythmias in infants and children.
- 6-3.58 Discuss the assessment findings associated with cardiac dysrhythmias in infants and children.
- 6-3.59 Discuss the management/ treatment plan for cardiac dysrhythmias in infants and children.
- 6-3.60 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for tachydysrythmias in infants and children.
- 6-3.61 Discuss the pathophysiology of tachydysrythmias in infants and children.
- 6-3.62 Discuss the assessment findings associated with tachydysrythmias in infants and children.
- 6-3.63 Discuss the management/ treatment plan for tachydysrythmias in infants and children.
- 6-3.64 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for bradydysrythmias in infants and children.
- 6-3.65 Discuss the pathophysiology of bradydysrythmias in infants and children.
- 6-3.66 Discuss the assessment findings associated with bradydysrythmias in infants and children.
- 6-3.67 Discuss the management/ treatment plan for bradydysrythmias in infants and children.
- 6-3.68 Discuss the primary etiologies of cardiopulmonary arrest in infants and children.
- 6-3.69 Discuss basic cardiac life support (CPR) guidelines for infants and children.
- 6-3.70 Identify appropriate parameters for performing infant and child CPR.

- 6-3.71 Integrate advanced life support skills with basic cardiac life support for infants and children.
- 6-3.72 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for seizures in infants and children.
- 6-3.73 Discuss the pathophysiology of seizures in infants and children.
- 6-3.74 Discuss the assessment findings associated with seizures in infants and children.
- 6-3.75 Discuss the management/ treatment plan for seizures in infants and children.
- 6-3.76 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for hypoglycemia in infants and children.
- 6-3.77 Discuss the pathophysiology of hypoglycemia in infants and children.
- 6-3.78 Discuss the assessment findings associated with hypoglycemia in infants and children.
- 6-3.79 Discuss the management/ treatment plan for hypoglycemia in infants and children.
- 6-3.80 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for hyperglycemia in infants and children.
- 6-3.81 Discuss the pathophysiology of hyperglycemia in infants and children.
- 6-3.82 Discuss the assessment findings associated with hyperglycemia in infants and children.
- 6-3.83 Discuss the management/ treatment plan for hyperglycemia in infants and children.
- 6-3.84 Discuss age appropriate vascular access sites for infants and children.
- 6-3.85 Discuss the appropriate equipment for vascular access in infants and children.
- 6-3.86 Identify complications of vascular access for infants and children.
- 6-3.87 Identify common lethal mechanisms of injury in infants and children.
- 6-3.88 Discuss anatomical features of children that predispose or protect them from certain injuries.
- 6-3.90 Identify infant and child trauma patients who require spinal immobilization.
- 6-3.92 Discuss the pathophysiology of trauma in infants and children.
- 6-3.93 Discuss the assessment findings associated with trauma in infants and children.
- 6-3.94 Discuss the management/ treatment plan for trauma in infants and children.
- 6-3.95 Discuss the assessment findings and management considerations for pediatric trauma patients with the following specific injuries: head/neck injuries, chest injuries, abdominal injuries, extremities injuries, and burns.
- 6-3.96 Define child abuse.
- 6-3.97 Define child neglect.
- 6-3.98 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for abuse and neglect in infants and children.
- 6-3.99 Discuss the assessment findings associated with abuse and neglect in infants and children.
- 6-3.100 Discuss the management/ treatment plan for abuse and neglect in infants and children.
- 6-3.101 Define sudden infant death syndrome (SIDS).
- 6-3.102 Discuss the parent/ caregiver responses to the death of an infant or child.
- 6-3.103 Describe the epidemiology, including the incidence, morbidity/ mortality, risk factors and prevention strategies for SIDS infants.
- 6-3.104 Discuss the pathophysiology of SIDS in infants.
- 6-3.105 Discuss the assessment findings associated with SIDS infants.
- 6-3.106 Discuss the management/ treatment plan for SIDS in infants.

## AFFECTIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

- 6-3.107 Demonstrate and advocate appropriate interactions with the infant/child that conveys an understanding of their developmental stage.
- 6-3.108 Recognize the emotional dependence of the infant/child to their parent/guardian.
- 6-3.109 Recognize the emotional impact of the infant/child injuries and illnesses on the parent/guardian.
- 6-3.110 Recognize and appreciate the physical and emotional difficulties associated with separation of the parent/guardian of a special needs child
- 6-3.111 Demonstrate the ability to provide reassurance, empathy and compassion for the parent/guardian.

#### **PSYCHOMOTOR OBJECTIVES**

- 6-3.112 Demonstrate the appropriate approach for treating infants and children.
- 6-3.113 Demonstrate appropriate intervention techniques with families of acutely ill or injured infants and children.
- 6-3.114 Demonstrate an appropriate assessment for different developmental age groups.
- 6-3.115 Demonstrate appropriate technique for measuring pediatric vital signs.
- 6-3.116 Demonstrate the use of a length-based resuscitation device for determining equipment sizes, drug doses and other pertinent information for a pediatric patient.
- 6-3.117 Demonstrate the techniques/procedures for treating infants and children with respiratory distress.
- 6-3.118 Demonstrate proper technique for administering blow-by oxygen to infants and children.
- 6-3.119 Demonstrate the proper utilization of a pediatric non-rebreather oxygen mask.
- 6-3.122 Demonstrate endotracheal intubation procedures in infants and children.
- 6-3.123 Demonstrate appropriate treatment/management of intubation complications for infants and children.
- 6-3.124 Demonstrate proper placement of a gastric tube in infants and children.
- 6-3.125 Demonstrate appropriate technique for insertion of peripheral intravenous catheters for infants and children.
- 6-3.126 Demonstrate appropriate technique for administration of intramuscular, subcutaneous, rectal, endotracheal and oral medication for infants and children.
- 6-3.127 Demonstrate appropriate technique for insertion of an intraosseous line for infants and children.
- 6-3.131 Demonstrate appropriate immobilization techniques for infant and child trauma patients.
- 6-3.132 Demonstrate treatment of infants and children with head injuries.
- 6-3.133 Demonstrate appropriate treatment of infants and children with chest injuries.
- 6-3.134 Demonstrate appropriate treatment of infants and children with abdominal injuries.
- 6-3.135 Demonstrate appropriate treatment of infants and children with extremity injuries.
- 6-3.136 Demonstrate appropriate treatment of infants and children with burns.

- 6-3.137 Demonstrate appropriate parent/caregiver interviewing techniques for infant and child death situations.
- 6-3.138 Demonstrate proper infant CPR.
- 6-3.139 Demonstrate proper child CPR.
- 6-3.140 Demonstrate proper techniques for performing infant and child defibrillation.

# 6-4 At the completion of this unit, the EMT-Intermediate student will be able to use assessment findings to formulate a management plan for the geriatric patient.

## COGNITIVE OBJECTIVES

At the completion of this lesson, the EMT-Intermediate student will be able to:

- 6-4.1 Describe dependent and independent living environments.
- 6-4.2 Identify local resources available to assist the elderly and discuss strategies to refer at-risk patients to appropriate community services.
- 6-4.3 Discuss expected physiological changes associated with aging.
- 6-4.4 Describe common psychological reactions associated with aging.
- 6-4.5 Discuss problems with mobility in the elderly.
- 6-4.6 Discuss problems with continence and elimination.
- 6-4.7 Describe communication strategies used to provide psychological support.
- 6-4.8 Discuss factors that may complicate the assessment of the elderly patient.
- 6-4.9 Discuss common complaints, injuries, and illnesses of elderly patients.
- 6-4.10 Discuss pathophysiology changes associated with the elderly in regards to drug distribution, metabolism, and elimination.
- 6-4.11 Discuss the impact of polypharmacy, dosing errors, medication non-compliance, and drug sensitivity on patient assessment and management.
- 6-4.12 Discuss various body system changes associated with age.
- 6-4.13 Discuss the assessment and management of the elderly patient with complaints related to the following body systems:
  - Respiratory
  - Cardiovascular
  - Nervous
  - Endocrine
  - Gastrointestinal
- 6-4.14 Describe the assessment of nervous system diseases in the elderly, including cerebral vascular disease, delirium, dementia, Alzheimer's disease and Parkinson's disease.
- 6-4.15 Discuss the assessment of an elderly patient with gastrointestinal problems, including GI hemorrhage and bowel obstruction.
- 6-4.16 Discuss the normal and abnormal changes with age related to toxicology.
- 6-4.17 Discuss the assessment of the elderly patient with complaints related to toxicology.
- 6-4.18 Describe the assessment and management of the elderly patient with toxicological problems.
- 6-4.20 Discuss the normal and abnormal changes of the musculoskeletal system with age.
- 6-4.21 Discuss the assessment and management of the elderly patient with complaints associated with trauma.

## AFFECTIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

6-4.22 Demonstrate and advocate appropriate interactions with the elderly that convey respect for their position in life.

6-4.23 Recognize and appreciate the many impediments to physical and emotional well being in the elderly.

#### **PSYCHOMOTOR OBJECTIVES**

- 6-4.24 Demonstrate the ability to assess a geriatric patient.
- 6-4.25 Demonstrate the ability to apply assessment findings to the management plan for a geriatric patient.

7-1 At the end of this unit the EMT-Intermediate 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 EMT-Intermediate student will be able to:

- 7-1.4 Explain strategies to prevent labeling and tunnel vision.
- 7-1.7 Synthesize concepts of scene management and choreography to simulated emergency calls.
- 7-1.8 Explain the roles of the team leader and the patient care person.
- 7-1.9 List and explain the rationale for carrying the essential patient care items.
- 7-1.10 When given a simulated call, list the appropriate equipment to be taken to the patient.
- 7-1.11 Explain the general approach to the emergency patient.
- 7-1.12 Describe how to effectively communicate patient information face to face, over the telephone, by radio, and in writing.
- 7-1.13 Explain the general approach, patient assessment, and management priorities for patients who complain of chest pain.
- 7-1.14 Explain the general approach, patient assessment, and management priorities for medical and traumatic cardiac arrest patients.
- 7-1.15 Explain the general approach, patient assessment, and management priorities for patients who complain of acute abdominal pain.
- 7-1.16 Explain the general approach, patient assessment, and management priorities for patients who complain of GI bleeding.
- 7-1.17 Explain the general approach, patient assessment, and management priorities for altered mental status patients.
- 7-1.18 Explain the general approach, patient assessment, and management priorities for patients who complain of dyspnea.
- 7-1.19 Explain the general approach, patient assessment, and management priorities for trauma or multi trauma patients.
- 7-1.20 Explain the general approach, patient assessment, and management priorities for a patient who is having an allergic reaction.
- 7-1.21 Explain the general approach, patient assessment, and management priorities for pediatric patients.

## AFFECTIVE OBJECTIVES

At the completion of this unit, the EMT-Intermediate student will be able to:

- 7-1.22 Appreciate the use of scenarios to develop high level clinical decision making skills.
- 7-1.24 Value the importance of presenting the patient accurately and clearly.

## **PSYCHOMOTOR OBJECTIVES**

7-1.25 While serving as team leader, choreograph the EMS response team, perform a patient assessment, provide local/regionally appropriate treatment, present cases verbally and in writing given a moulaged and programmed simulated patient.

## **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 increases in the number of times the skill must be performed to demonstrate competence.

These recommendations are based on survey data from Intermediate 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.

## <u>AGES</u>

The student must demonstrate the ability to perform an advanced assessment on pediatric patients.

The student should perform an advanced patient assessment on at least 15 (including newborns, infants, toddlers, and school age) pediatric patients.

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

The student should perform an advanced patient assessment on at least 25 adult patients.

## The student must demonstrate the ability to perform an advanced assessment on geriatric patients.

The student should perform an advanced patient assessment on at least 15 geriatric patients.

#### PATHOLOGIES

The student must demonstrate the ability to perform an advanced assessment on obstetric patients.

The student should perform an advanced patient assessment on at least 5 obstetric patients.

The student must demonstrate the ability to perform an advanced assessment on trauma patients.

The student should perform an advanced patient assessment on at least 20 trauma patients.

The student must demonstrate the ability to perform an advanced assessment on psychiatric patients.

The student should perform an advanced patient assessment on at least 10 psychiatric patients.

#### <u>COMPLAINTS</u>

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

The student should perform an advanced patient assessment, formulate and implement a treatment plan on at least 15 patients with chest pain.

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

The student should perform an advanced patient assessment, formulate and implement a treatment plan on at least 10 adult patients with dyspnea/respiratory distress.

The student should perform an advanced patient assessment, formulate and implement a treatment plan on at least 4 pediatric patients (including infants, toddlers, and school age) with dyspnea/respiratory distress.

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

The student should perform an advanced patient assessment, formulate and implement a treatment plan on at least 5 patients with syncope.

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

The student should perform an advanced patient assessment, formulate and implement a treatment plan on at least 10 patients with abdominal complains (for example: abdominal pain, nausea/vomiting, GI bleeding, gynecological complaint, etc.)

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

The student should perform an advanced patient assessment, formulate and implement a treatment plan on at least 10 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 25 prehospital emergency responses.