



# **INSTRUCTIONAL PACKAGE**

EMS 104  
Emergency Care I

Effective Term  
Fall 2022/Spring 2023/Summer 2023

# INSTRUCTIONAL PACKAGE

## Part I: Course Information

Effective Term: 202210

COURSE PREFIX: EMS 104

COURSE TITLE: Emergency Care I

CONTACT HOURS: 6-3-7

CREDIT HOURS: 7

### **RATIONALE FOR THE COURSE:**

To develop a working knowledge of skills and modalities for the assessment and treatment of patients in the pre-hospital emergency environment.

### **COURSE DESCRIPTION:**

This course is a study of the preparatory, pharmacology, airway management, patient assessment, trauma, and shock modules as it relates to the provision of pre-hospital emergency medical care to critically ill and injured patients.

### **PREREQUISITES/CO-REQUISITES:**

Prerequisite: 18 years old by the last day of class, HS Diploma or GED

Co-Requisite: None

### **REQUIRED MATERIALS:**

Please visit the [BOOKSTORE](#) online site for most current textbook information.

Enter the semester, course prefix, number and section when prompted and you will be linked to the correct textbook.

### **ADDITIONAL REQUIREMENTS:**

Watch with second hand

Receives calls from dispatchers, responds verbally to emergency calls, reads maps, drives ambulances to emergency sites, uses most expeditious route, and observes traffic ordinances and regulations. Works as a member of a two-person team.

Determines nature and extent of illness or injury, takes pulse, blood pressure, visually observes changes in skin color, auscultate breath sounds, makes determination regarding patient status, establishes priority for emergency care, renders appropriate emergency care (based upon competency and certification level); may administer intravenous drugs for fluid replacement as directed by a physician and based upon competency and certification level. May use equipment (based upon competency and certification level) such as but not limited to, defibrillator, electrocardiograph, inserts oral airway adjuncts, maintains open airways and ventilates patients.

Assists with lifting, carrying, and transporting patient in ambulance to a medical facility. Reassures patients and bystanders, avoids mishandling patient and undue haste, and searches for medical identification emblem to aid in care. Extricates patients from entrapment, assess extent of injury, uses prescribed techniques and appliances, radios dispatcher for additional assistance or services, provides light rescue service if required, provides additional emergency care following established protocols.

Complies with regulations in handling deceased, notifies authorities, and arranges for protection of property and evidence at scene. Determines appropriate facility to which patient will be transported, report nature and extent of injuries or illness to the facility, ask for direction from hospital physician or emergency department (based upon competency and certification level). Observes patient enroute and administers care as directed by physician or emergency department or according to published protocol based on competency and certification level. Identifies diagnostic signs that require communication with facility. Assist in removing patient from ambulance and into emergency facility. Reports verbally and in writing observations about and care of patients at the scene and enroute to facility, provides assistance to emergency staff as required.

Replaces supplies, prepares and / or sends used supplies for sterilization and / or disposal in accordance with state and OSHA regulations and published standard operating procedures. Checks all equipment for future readiness, maintains ambulance in operable condition, ensures ambulance cleanliness and orderliness of equipment and supplies, decontaminates vehicle interior determines vehicle readiness by checking oil, gas, water in battery and radiator, and tire pressure, maintains familiarity with all specialized equipment.

### **ALL EMT's MUST BE ABLE TO PERFORM THESE ESSENTIAL JOB FUNCTIONS:**

- Ability to communicate verbally, via telephone and radio equipment;
- Ability to lift, carry, and balance up to 125 pounds (250 pounds with assistance);
- Ability to read and interpret written, oral, and diagnostic form instructions;
- Ability to use good sound judgment and remain calm in high-stress situations;
- Ability to work effectively in an environment with loud noises and flashing lights;
- Ability to function efficiently throughout an entire work shift;
- Ability to calculate weight and volume ratios and read small print, both under life threatening time constraints;
- Ability to read and understand English language manuals and road maps;
- Accurately discern street signs and address numbers;
- Ability to interview patient, family members, and bystanders; Ability to document, in writing, all relevant information in prescribed format in light of legal ramifications of such;
- Ability to converse in English with co-workers and hospital staff as to status of patient;
- Good manual dexterity, with ability to perform all tasks related to highest quality patient care;
- Ability to bend, stoop, and crawl on uneven terrain;
- Ability to withstand varied environmental conditions such as extreme heat, cold, and moisture;
- Ability to work in low light, confined spaces and other dangerous environments.

Students must be 18 years old by the last day of class and possess a high school diploma or GED.

### **TECHNICAL REQUIREMENTS:**

Access to Desire2Learn (D2L), HGTC's student portal for course materials.  
myHGTC and college email access.

### **STUDENT IDENTIFICATION VERIFICATION:**

2022-2023

Students enrolled in online courses will be required to participate in a minimum of one (1) proctored assignment and/or one (1) virtual event to support student identification verification. Please refer to your Instructor Information Sheet for information regarding this requirement.

## **CLASSROOM ETIQUETTE:**

As a matter of courtesy to other students and your professor, please turn off cell phones and other communication/entertainment devices before class begins. If you are monitoring for an emergency, please notify your professor prior to class and switch cell phone ringers to vibrate.

## **Part II: Student Learning Outcomes**

### **COURSE LEARNING OUTCOMES and ASSESSMENTS\*:**

Upon completion of the course, the student will have been provided with the knowledge and skills necessary to be able to:

1. Demonstrate the proper donning and doffing of protective gear appropriate for the EMT and situation.
2. Perform CPR, both 1 and 2 person for adult, child, and infant to Healthcare provider level consistent with American Heart Association level.
3. Perform basic airway management techniques including insertion of adjuncts intended for the oropharynx and nasopharynx.
4. Demonstrate the ability to assist patients with their own prescribed medicines.
5. Assess, manage, and stabilize patients of all ages and demographics with medical emergencies.
6. Demonstrate the ability to properly prepare the patient for transport while limiting or aggravating any injuries.
7. Demonstrate the knowledge of triage and assigning patients to the appropriate level facility.
8. Demonstrate the ability to interact with other responders appropriately including giving and taking advice on patient care. Interact as a member of a team.
9. Demonstrate the ability to complete a patient care report including a summation of treatment provided to the receiving facility or transporting ambulance.

***\*Students – please refer to the Instructor’s Course Information sheet for specific information on assessments and due dates.***

### **Module #1 – Chapters 1 – 4**

#### **Material Covered:**

Chapter 1 – EMS Systems  
 Chapter 2 – Workforce Safety and Wellness  
 Chapter 3 – Medical, Legal and Ethical Issues  
 Chapter 4 – Communications and Documentation

#### **Assessments:**

Chapter quizzes and Dropbox assignments located in Desire2Learn / EMS Testing  
 Module #1 Test

### **Chapter 1 EMS Systems**

### Unit Summary

After students complete this chapter and the related course work, they will understand the origins and present-day structure of emergency medical care delivery systems. The emergency medical technician's (EMT's) roles, responsibilities, and relationship to the emergency medical services (EMS) system as well as the EMT's role in the quality improvement process are explained, and the other levels of EMS providers are described. The foundations necessary for being a competent, effective, caring, and ethical EMT are presented. The interrelationships of the National Highway Traffic Safety Administration's 14 components of the EMS system, per the *EMS Agenda for the Future*, are outlined. Also described is the EMT's impact on research, data collection, and evidence-based decision making, as well as the EMT's responsibilities as a student and a practitioner.

### Knowledge Objectives

1. Define emergency medical services (EMS) systems. (p 5)
2. Name the four levels of EMT training and licensure. (pp 6–8)
3. Describe EMT licensure criteria; including how the Americans with Disabilities Act (ADA) applies to employment as an EMT. (p 8)
4. Discuss the historic background of the development of the EMS system. (pp 9–10)
5. Describe the levels of EMT training in terms of skill sets needed for each of the following: EMR, EMT, AEMT, and paramedic. (pp 10–14)
6. Recognize the possible presence of other first responders at a scene with EMR training, some knowledge of first aid, or merely good intentions, and their need for direction. (pp 13–14)
7. Name the 14 components of the EMS system. (pp 15–26)
8. Describe how medical direction of an EMS system works, and the EMT's role in the process. (p 18)
9. Define mobile integrated healthcare and community paramedicine. (p 19)
10. Discuss the purpose of the EMS continuous quality improvement (CQI) process. (pp 20–21)
11. Characterize the EMS system's role in disease and injury prevention and public education in the community. (pp 23–24)
12. Describe the roles and responsibilities of the EMT. (p 26)
13. Describe the attributes an EMT is expected to possess. (p 27)
14. Understand the impact of the Health Insurance Portability and Accountability Act (HIPAA) on patient privacy. (p 27)

### Skills Objectives

There are no skills objectives for this chapter.

### Readings and Preparation

Review all instructional materials including ***Emergency Care and Transportation of the Sick and Injured, Eleventh Edition***, Chapter 1, and all related presentation support materials.

## Chapter 2 Workforce Safety and Wellness

## Unit Summary

After students complete this chapter and the related course work, they will understand the importance of recognizing important hazards; coping with physical and mental stress; assisting patients and families with the emotional aspect of injuries, illness, and/or death; taking appropriate preventive actions to ensure personal safety; dealing with patients and coworkers with sensitivity; taking proper precautions when dealing with infectious diseases; and preventing on-the-job injuries.

## National EMS Education Standard Competencies

### **Medicine**

Applies fundamental knowledge to provide basic emergency care and transportation based on assessment findings for an acutely ill patient.

#### ***Infectious Diseases***

Awareness of

- How to decontaminate equipment after treating a patient (pp 48–50)

Assessment and management of

- How to decontaminate the ambulance and equipment after treating a patient (pp 48–50)

### **Preparatory**

Applies fundamental knowledge of the emergency medical services (EMS) system, safety/well-being of the emergency medical technician (EMT), medical/legal, and ethical issues to the provision of emergency care.

### ***Workforce Safety and Wellness***

- Standard safety precautions (pp 42–47)
- Personal protective equipment (pp 43–47)
- Stress management (pp 35–36, 67–70)
  - Dealing with death and dying (pp 65–67)
- Prevention of response-related injuries (pp 38, 52–58)
- Prevention of work-related injuries (p 38, 52–58)
- Lifting and moving patients (p 38)
- Disease transmission (pp 40–42)
- Wellness principles (pp 35–40)

## Knowledge Objectives

1. State the steps that contribute to wellness and their importance in managing stress. (pp 35–40)
2. Define infectious disease and communicable disease. (p 40)
3. Describe the routes of disease transmission. (pp 41–42)
4. Describe the routes of transmission and the steps to prevent and/or deal with an exposure to hepatitis, tuberculosis, and HIV/AIDS. (pp 41–48)
5. Know the standard precautions used in treating patients to prevent infection. (pp 42–47)

6. Describe the steps to take for personal protection from airborne and bloodborne pathogens. (pp 42–47)
7. Explain proper handwashing techniques. (pp 43–44)
8. List the ways immunity to infectious diseases is acquired. (pp 50–51)
9. Explain post exposure management of exposure to patient blood or body fluids, including completing a post exposure report. (p 52)
10. Describe the steps necessary to determine scene safety and to prevent work-related injuries at the scene. (pp 52–58)
11. Describe the different types of protective clothing worn to prevent injury. (pp 58–61)
12. Explain the care of critically ill and injured patients. (pp 61–64)
13. Describe issues concerning care of the dying patient, death, and the grieving process of family members. (pp 65–67)
14. Know the physiologic, physical, and psychological responses to stress. (pp 67–69)
15. Describe posttraumatic stress disorder (PTSD) and steps that can be taken, including critical incident stress management, to decrease the likelihood that PTSD will develop. (pp 69–70)
16. Identify the emotional aspects of emergency care. (pp 69–70)
17. Recognize the stress inherent in many situations, such as mass-casualty scenes. (pp 70–71)
18. Recognize the possibility of violent situations and the steps to take to deal with them. (pp 72–73)
19. Describe how to handle behavioral emergencies. (pp 73–74)
20. Discuss workplace issues such as cultural diversity, sexual harassment, and substance abuse. (pp 74–76)

#### Skills Objectives

1. Demonstrate how to properly remove gloves. (p 45, Skill Drill 2-1)
2. Demonstrate the steps necessary to manage a potential exposure situation. (p 49, Skill Drill 2-2)

#### Readings and Preparation

Review all instructional materials including ***Emergency Care and Transportation of the Sick and Injured, Eleventh Edition***, Chapter 2, and all related presentation support materials.

- The Centers for Disease Control and Prevention (CDC) is a useful source.
- Review hazardous materials in the DOT's *Emergency Response Guidebook*.
- Review National Fire Protection Association (NFPA) Standard 473, *Standard for Competencies for EMS Personnel Responding to Hazardous Materials/Weapons of Mass Destruction Incidents*.
- Review NFPA Standard 1999, *Standard on Protective Clothing for Emergency Medical Operations*.
- Review US Department of Labor, Occupational Safety and Health Administration (OSHA) regulations.

### Chapter 3 Medical, Legal, and Ethical Issues

#### Unit Summary

After students complete this chapter and the related course work, they will understand the ethical responsibilities and medicolegal directives and guidelines pertinent to the EMT. The EMT approach to patient care relating to confidentiality, consent to treat, refusal of care, and advance directives are explained. Organ donor systems and policies, evidence preservation, and end-of-life issues are also discussed.

## National EMS Education Standard Competencies

### Preparatory

Applies fundamental knowledge of the emergency medical services (EMS) system, safety/well-being of the emergency medical technician (EMT), medical/legal, and ethical issues to the provision of emergency care.

#### *Medical/Legal and Ethics*

- Consent/refusal of care (pp 85–90)
- Confidentiality (p 90)
- Advance directives (pp 90–92)
- Tort and criminal actions (pp 98–100)
- Evidence preservation (p 102)
- Statutory responsibilities (pp 94–98)
- Mandatory reporting (pp 101–102)
- Ethical principles/moral obligations (pp 102–103)
- End-of-life issues (pp 92–94)

## Knowledge Objectives

1. Define consent and how it relates to decision making. (p 85)
2. Compare expressed consent, implied consent, and involuntary consent. (pp 86–87)
3. Discuss consent by minors for treatment or transport. (p 87)
4. Describe local EMS system protocols for using forcible restraint. (p 88)
5. Discuss the EMT's role and obligations if a patient refuses treatment or transport. (pp 88–90)
6. Describe the relationship between patient communications, confidentiality, and the Health Insurance Portability and Accountability Act (HIPAA). (p 90)
7. Discuss the importance of do not resuscitate (DNR) orders and local protocols as they relate to the EMS environment. (pp 90–92)
8. Describe the physical, presumptive, and definitive signs of death. (pp 92–93)
9. Explain how to manage patients who are identified as organ donors. (p 94)
10. Recognize the importance of medical identification devices in treating the patient. (p 94)
11. Discuss the scope of practice and standards of care. (pp 94–97)
12. Describe the EMT's legal duty to act. (pp 97–98)
13. Discuss the issues of negligence, abandonment, assault and battery, and kidnapping and their implications for the EMT. (pp 98–99)



14. Explain the reporting requirements for special situations, including abuse, drug- or felony-related injuries, childbirth, and crime scenes. (pp 101–102)
15. Define ethics and morality, and discuss their implications for the EMT. (pp 102–103)
16. Describe the roles and responsibilities of the EMT in court. (pp 103–105)

### Skills Objectives

There are no skills objectives in this chapter.

## Chapter 4 Communications and Documentation

### Unit Summary

After students complete this chapter presentation and the related course work, they will have an understanding of therapeutic communication; means to communicate effectively with special populations such as children, geriatric patients, and hearing-impaired and visually impaired patients; methods and procedures for effective communication; components of effective written reports, types of written reports, and ways to correct errors found within written reports; documentation of refusal of care; special reporting situations; use of medical terminology; communications systems and equipment; regulations and protocols governing radio communications; and communication with medical control and hospitals.

### National EMS Education Standard Competencies

#### Preparatory

Applies fundamental knowledge of the emergency medical services (EMS) system, safety/well-being of the emergency medical technician (EMT), medical/legal, and ethical issues to the provision of emergency care.

#### *Therapeutic Communication*

Principles of communicating with patients in a manner that achieves a positive relationship

- Interviewing techniques (pp 116–120)
- Adjusting communication strategies for age, stage of development, patients with special needs, and differing cultures (pp 114–115, 120–124)
- Verbal defusing strategies (p 115–117)
- Family presence issues (p 119–120)

#### *EMS System Communication*

Communication needed to

- Call for resources (pp 140–141)
- Transfer care of the patient (pp 124–127, 142–143)
- Interact within the team structure (pp 140–142)
- EMS communication system (pp 135–139)
- Communication with other health care professionals (pp 124–125, 142–145)

- Team communication and dynamics (pp 124–125, 142–145)

#### *Documentation*

- Recording patient findings (pp 126–135)
- Principles of medical documentation and report writing (pp 126–135)

### **Medical Terminology**

Uses foundational anatomical and medical terms and abbreviations in written and oral communication with colleagues and other health care professionals.

#### Knowledge Objectives

1. Describe the factors and strategies to consider for therapeutic communication with patients. (pp 113–125)
2. Discuss the techniques of effective verbal communication. (pp 116–125)
3. Explain the skills that should be used to communicate with family members, bystanders, people from other agencies, and hospital personnel. (pp 116–125)
4. Discuss special considerations in communicating with older people, children, patients who are hard of hearing, visually impaired patients, and non-English-speaking patients. (pp 120–124)
5. Describe the use of written communications and documentation. (pp 126–134)
6. State the purpose of a patient care report (PCR) and the information required to complete it. (pp 126–132)
7. Explain the legal implications of the PCR. (pp 130–131)
8. Describe how to document refusal of care, including the legal implications. (pp 132–135)
9. Discuss state and/or local special reporting requirements, such as for gunshot wounds, dog bites, and abuse. (p 135)
10. Describe the basic principles of the various types of communications equipment used in EMS. (pp 135–139)
11. Describe the use of radio communications, including the proper methods of initiating and terminating a radio call. (pp 139–145)
12. List the correct radio procedures in the following phases of a typical call: initial receipt of call, en route to call, on scene, arrival at hospital (or point of transfer), and return to service. (pp 139–142)
13. List the proper sequence of information to communicate in radio delivery of a patient report. (p 142–143)

#### Skills Objectives

1. Demonstrate the techniques of successful cross-cultural communication. (pp 114–115)
2. Demonstrate completion of a PCR. (pp 126–135)
3. Demonstrate how to make a simulated, concise radio transmission with dispatch. (pp 139–143)

### **Module #2 – Chapters 5 – 8**

#### **Material Covered:**

Chapter 5 – Medical Terminology

Chapter 6 – The Human Body

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Chapter 7 – Life Span Development  
Chapter 8 – Lifting and Moving Patients

### **Assessments:**

Chapter quizzes and Dropbox assignments located in Desire2Learn / EMS Testing  
Module #2 Test

## **Chapter 5 Medical Terminology**

### **Unit Summary**

After students complete this chapter and the related course work, they will be able to use foundational and anatomical medical terms and abbreviations in written and oral communication with colleagues and health care professionals. They will understand the purpose of medical terminology, be able to identify its components, and be able to define an unknown medical term based on the dissection and understanding of its components. Students will also be able to identify error-prone medical abbreviations and acronyms. Common direction, movement, and position terms are also presented in this chapter.

### **National EMS Education Standard Competencies**

#### **Medical Terminology**

Uses foundational anatomical and medical terms and abbreviations in written and oral communication with colleagues and other health care professionals.

### **Knowledge Objectives**

1. Explain the purpose of medical terminology. (p 153)
2. Identify the four components that comprise a medical term. (p 153)
3. Describe the following directional terms: anterior (ventral), posterior (dorsal), right, left, superior, inferior, proximal, distal, medial, lateral, superficial, and deep. (pp 158–161)
4. Describe the prone, supine, Fowler, and semi-Fowler positions of the body. (p 161)
5. Break down the meaning of a medical term based on the components of the term. (p 162)
7. Interpret selected medical abbreviations, acronyms, and symbols. (p 162)
5. Identify error-prone medical abbreviations, acronyms, and symbols. (p 163)

### **Skills Objectives**

There are no skills objectives for this chapter.

## **Chapter 6 The Human Body**

### **Unit Summary**

After students complete this chapter and the related course work, they will be able to describe and apply, in context, the body planes, topographical anatomy, and anatomic position. Students will be able to identify basic anatomic structures and

related functions and describe each body system, discussing the roles of the structures within these systems and the interaction of body systems in maintaining the life support chain. Students will be able to discuss possible consequences of illness and injury of these structures and systems on proper functioning of the body.

### National EMS Education Standard Competencies

#### **Preparatory**

Applies fundamental knowledge of the emergency medical services (EMS) system, safety/well-being of the emergency medical technician (EMT), medical/legal, and ethical issues to the provision of emergency care.

#### **Anatomy and Physiology**

Applies fundamental knowledge of the anatomy and function of all human systems to the practice of EMS.

#### **Pathophysiology**

Applies fundamental knowledge of the pathophysiology of respiration and perfusion to patient assessment and management.

### Knowledge Objectives

1. Identify the body's topographic anatomy, including the anatomic position and the planes of the body. (pp 179–180)
2. Identify the anatomy and physiology of the skeletal system. (pp 180–181)
3. Describe the anatomy and physiology of the musculoskeletal system. (pp 186–187)
4. Discuss the anatomy and physiology of the respiratory system. (pp 187–196)
5. Discuss the anatomy and physiology of the circulatory system. (pp 196–208)
6. Discuss the anatomy and physiology of the nervous system. (pp 208–212)
7. Describe the anatomy and physiology of the integumentary system. (pp 212–214)
8. Explain the anatomy and physiology of the digestive system. (pp 214–218)
9. Describe the anatomy and the physiology of the lymphatic system. (p 218)
10. Discuss the anatomy and physiology of the endocrine system. (pp 218–220)
11. Describe the anatomy and physiology of the urinary system. (pp 220–221)
12. Discuss the anatomy and physiology of the genital system. (pp 221–223)
13. Describe the life support chain, aerobic metabolism, and anaerobic metabolism. (pp 223–224)
14. Define pathophysiology. (p 224)

### Skills Objectives

There are no skills objectives in this chapter.

## **Chapter 7** **Life Span Development**

### Unit Summary

After students complete this chapter and the related course work, they will have a fundamental understanding of the physiological and psychosocial differences of each phase of human development. The students will be able to discuss adaptations and strategies that they might apply to better assess and manage patients.

#### National EMS Education Standard Competencies

##### **Preparatory**

Applies fundamental knowledge of the emergency medical services (EMS) system; safety/well-being of the emergency medical technician (EMT); and medical/legal, and ethical issues to the provision of emergency care.

##### **Life Span Development**

Applies fundamental knowledge of life span development to patient assessment and management.

#### Knowledge Objectives

1. Know the terms used to designate the following stages of life: infants, toddlers, preschoolers, school-age children, adolescents (teenagers), early adults, middle adults, and older adults. (pp 241–251)
2. Describe the major physical and psychosocial characteristics of an infant's life. (pp 241–244)
3. Describe the major physical and psychosocial characteristics of a toddler and preschooler's life. (pp 245–247)
4. Describe the major physical and psychosocial characteristics of a school-age child's life. (p 247)
5. Describe the major physical and psychosocial characteristics of an adolescent's life. (pp 247–249)
6. Describe the major physical and psychosocial characteristics of an early adult's life. (p 249–250)
7. Describe the major physical and psychosocial characteristics of a middle adult's life. (pp 250–251)
8. Describe the major physical and psychosocial characteristics of an older adult's life. (pp 251–255)

#### Skills Objectives

There are no skills objectives for this chapter.

## **Chapter 8**

### **Lifting and Moving Patients**

#### Unit Summary

After students complete this chapter and the related course work, they will understand the body mechanics of patient movement, principles of safe reaching and pulling, urgent and non-urgent moves, how to move patients as a team, types of patient packaging and moving equipment, how to protect both the EMT and the patient from injury when moving patients, and the use of medical restraints.

#### National EMS Education Standard Competencies

##### **EMS Operations**

Knowledge of operational roles and responsibilities to ensure safe patient, public, and personnel safety.

#### Knowledge Objectives

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1. Explain the need and use of the most common patient-moving equipment, the stretcher and backboard. (pp 261–263)
2. Explain the technical skills and general considerations that are required of EMTs during patient packaging and patient handling. (p 263)
3. Define the term *body mechanics*. (p 264)
4. Discuss how following proper patient lifting and moving techniques can help prevent work-related injuries. (pp 263–264)
5. Identify how to avoid common mistakes when lifting and carrying a patient. (pp 265–267)
6. Explain the power grip and sheet or blanket methods for lifting a patient. (pp 267–269)
7. Explain the general considerations required of EMTs to safely move patients without causing the patient further harm and while protecting themselves from injury. (pp 271–274)
8. Explain how to carry patients safely on stairs, including the selection of appropriate equipment to aid in the process. (pp 274–276)
9. Describe specific situations in which an urgent move or rapid extrication may be necessary to move a patient; include how each one is performed. (pp 283–287)
10. Describe specific situations in which a non-urgent move may be necessary to move a patient; include how each one is performed. (pp 288–293)
11. Explain the special considerations and guidelines related to moving and transporting geriatric patients. (pp 293–296)
12. Define the term bariatrics. (p 296)
13. Discuss the guidelines for lifting and moving bariatric patients. (pp 295–297)
14. Explain the need and use for additional patient-moving equipment (specialized); include examples. (pp 296–300)
15. Know the importance of decontaminating equipment in the prevention of disease transmission. (p 300)
16. Describe proper positioning of the following conditions: (p 301)
  - Unresponsive patients without suspected spine injury
  - Patients with chest pain, discomfort, or difficulty breathing
  - Patients with suspected spine injury
  - Pregnant patients with hypotension
  - Patients who are nauseated or vomiting
17. Discuss situations that may require the use of medical restraints on a patient. (pp 301–302)
18. Explain guidelines and safety considerations for the use of medical restraints. (pp 301–302)

#### Skills Objectives

1. Perform a power lift to lift a patient. (p 266, Skill Drill 8-1)
2. Demonstrate a power grip. (p 267)
3. Demonstrate the body mechanics and principles required for safe reaching and pulling, including the technique used for performing log rolls. (pp 267–269)
4. Perform the diamond carry to move a patient. (p 272, Skill Drill 8-2)
5. Perform the one-handed carry to move a patient. (p 273, Skill Drill 8-3)

6. Perform a patient carry using a stair chair to move a patient down the stairs. (p 275, Skill Drill 8-4)
7. Perform a patient carry to move a patient down the stairs on a backboard. (pp 276–277, Skill Drill 8-5)
8. Demonstrate how to load a stretcher into an ambulance. (pp 276–281, Skill Drill 8-6)
9. Demonstrate how to perform an emergency or urgent move. (pp 281–287)
10. Perform the rapid extrication technique to move a patient from a vehicle. (pp 283–287, Skill Drill 8-7)
11. Perform the direct ground lift to lift a patient. (pp 288–289, Skill Drill 8-8)
12. Perform the extremity lift to move a patient. (pp 290–291, Skill Drill 8-9)
13. Perform the direct carry to move a patient. (pp 291–292, Skill Drill 8-10)
14. Demonstrate how to use the draw sheet method to transfer a patient onto a stretcher. (pp 291–293)
15. Use a scoop stretcher to move a patient. (pp 292–294, Skill Drill 8-11; p 300)
16. Demonstrate the correct use of medical restraints on a patient. (pp 301–302)

### **Module #3 – Chapter 9 - 13**

#### **Material Covered:**

Chapter 9 – Patient Assessment  
 Chapter 10 – Airway Management  
 Chapter 11 – Principles of Pharmacology  
 Chapter 12 – Shock  
 Chapter 13 – BLS Resuscitation (Review)

#### **Assessments:**

Chapter quizzes and Dropbox assignments located in Desire2Learn / EMS Testing  
 Module #3 Test

## **Chapter 9**

### **Patient Assessment**

#### **Unit Summary**

After students complete this chapter presentation and the related course work, they will understand the scope and sequence of patient assessment for medical and trauma patients and all the phases and components of patient assessment. Please note that this chapter is divided into five sections: scene size-up, primary assessment, history taking, secondary assessment, and reassessment. These divisions will help facilitate the instructor's approach for teaching this skill as a whole concept.

#### **National EMS Education Standard Competencies**

#### **Assessment**

Applies scene information and patient assessment findings (scene size-up, primary and secondary assessment, patient history, and reassessment) to guide emergency management.

##### *Scene Size-up*

- Scene safety (pp 317–318)
- Scene management

- Impact of the environment on patient care (pp 317–318)
- Addressing hazards (p 318)
- Violence (p 318)
- Need for additional or specialized resources (p 321)
- Standard precautions (pp 319–320)
- Multiple-patient situations (pp 320–321)

### **Primary Assessment**

- Primary assessment for all patient situations (pp 323–336)
  - Level of consciousness (pp 324–325)
  - ABCs (pp 326–332)
  - Identifying life threats (pp 325–326, 332–335)
  - Assessment of vital functions (pp 323–325, 329–330)
  - Initial general impression (pp 323–324)
- Begin interventions needed to preserve life (pp 325–326, 332)
- Integration of treatment/procedures needed to preserve life (pp 335–336)

### *History Taking*

- Determining the chief complaint (pp 338–339)
- Mechanism of injury/nature of illness (pp 318–319)
- Associated signs and symptoms (pp 338–340)
- Investigation of the chief complaint (pp 338–339)
- Past medical history (pp 338–340)
- Pertinent negatives (p 340)

### **Secondary Assessment**

- Performing a rapid full-body scan (pp 348–353)
- Focused assessment of pain (pp 348, 353–372)
- Assessment of vital signs (pp 354–363, 370–372)
- Techniques of physical examination:
  - Respiratory system (pp 353–356)
    - Presence of breath sounds (pp 355–356)
  - Cardiovascular system (pp 356–363)
  - Neurologic system (pp 363–368)
  - Musculoskeletal system (pp 369–370)
  - All anatomic regions (pp 366, 368–370)

### **Monitoring Devices**

- Obtaining and using information from patient monitoring devices including (but not limited to)
  - Pulse oximetry (p 371)



- Noninvasive blood pressure (p 372)

### **Reassessment**

- How and when to reassess patients (p 375)
- How and when to perform a reassessment for all patient situations (p 375)

### **Knowledge Objectives**

1. Identify the components of the patient assessment process. (p 315)
2. Explain how the different causes and presentations of emergencies will affect how EMTs perform each step of the patient assessment process. (p 315)
3. Discuss some of the possible environmental, chemical, and biologic hazards that may be present at an emergency scene, ways to recognize them, and precautions to protect personal safety. (pp 317–318)
4. Discuss the steps EMTs should take to survey a scene for signs of violence and to protect themselves and bystanders from real or potential danger. (pp 317–318)
5. Describe how to determine the mechanism of injury (MOI) or nature of illness (NOI) at an emergency and the importance of differentiating trauma patients from medical patients. (pp 318–319)
6. List the minimum standard precautions that should be followed and personal protective equipment (PPE) that should be worn at an emergency scene, including examples of when additional precautions would be appropriate. (pp 319–320)
7. Explain why it is important for EMTs to identify the total number of patients at an emergency scene and how this evaluation relates to determining the need for additional or specialized resources, implementation of the incident command system (ICS), and triage. (pp 320–321)
8. Describe the principal goals of the primary assessment process, including how to identify and treat life threats and determine if immediate transport is required. (p 323)
9. Explain the process of forming a general impression of a patient as part of primary assessment and the reasons why this step is critical to patient management. (pp 323–324)
10. Explain the importance of assessing a patient's level of consciousness (LOC) to determine altered mental status, and include examples of different methods used to assess alertness, responsiveness, and orientation. (pp 324–325)
11. Describe the assessment of airway status in patients who are both responsive and unresponsive, including examples of possible signs and causes of airway obstruction in each case as well as the appropriate EMT response. (pp 326–327)
12. Describe the assessment of a patient's breathing status, including the key information EMTs must obtain during this process and the care required for patients who have both adequate and inadequate breathing. (pp 327–328)
13. List the signs of respiratory distress and respiratory failure. (p 329)
14. Describe the assessment of a patient's circulatory status, including the different methods for obtaining a pulse and appropriate management depending on the patient's status. (pp 329–330)
15. Explain the variations required to obtain a pulse in infant and child patients compared with adult patients. (pp 329–330)
16. Describe the assessment of a patient's skin color, temperature, and condition, including examples of both normal and abnormal findings and the information this provides related to the patient's status. (pp 330–331)
17. Discuss the process of assessing for and methods for controlling external bleeding. (p 332)

18. Discuss the steps used to identify and subsequently treat life-threatening conditions that endanger a patient during an emergency. (pp 332–333)
19. List the steps EMTs should follow during the primary assessment of a trauma patient, including examples of abnormal signs and appropriate related actions. (pp 334–335)
20. Explain the process for determining the priority of patient care and transport at an emergency scene and include examples of conditions that necessitate immediate transport. (pp 335–336)
21. Discuss the importance of protecting a trauma patient's spine and identifying fractured extremities during patient packaging for transport. (pp 335–336)
22. Discuss the process of taking a focused history, its key components, and its relationship to the primary assessment process. (p 338)
23. Describe examples of different techniques EMTs may use to obtain information from patients during the history-taking process. (pp 340–346)
24. Discuss different challenges EMTs may face when taking a patient history on sensitive topics and strategies they may use to facilitate each situation. (pp 341–343)
25. Describe the purpose of a secondary assessment and a physical exam; include how to determine which aspects of the physical exam to use, and the steps. (p 348–353)
26. Explain situations in which patients may receive a focused assessment, including examples by body system of what each focused assessment should include based on a patient's chief complaint. (pp 353–373)
27. List normal blood pressure ranges for adults, children, and infants. (p 364)
28. Explain the importance of performing a reassessment of the patient and the steps in this process. (p 375)

### Skills Objectives

1. Demonstrate how to use the AVPU scale to test for patient responsiveness. (p 324)
2. Demonstrate how to evaluate a patient's orientation and document his or her status correctly. (p 325)
3. Demonstrate the techniques for assessing a patient's airway and correctly obtaining information related to respiratory rate, rhythm, quality/character of breathing, and depth of breathing. (pp 326–328)
4. Demonstrate how to assess a radial pulse in a responsive patient and an unresponsive patient. (pp 329–330)
5. Demonstrate how to assess a carotid pulse in an unresponsive patient. (pp 329–330)
6. Demonstrate how to palpate a brachial pulse in a child who is younger than 1 year (or a manikin). (pp 329–330)
7. Demonstrate how to obtain a pulse rate in a patient. (pp 329–330)
8. Demonstrate how to assess capillary refill in an adult or child older than 6 years. (p 332)
9. Demonstrate how to assess capillary refill in an infant or child younger than 6 years; include variations that would be required when assessing a newborn. (p 332)
10. Demonstrate how to perform a rapid exam during primary assessment of a patient. (pp 334–335, Skill Drill 9-1)
11. Demonstrate how to perform a secondary assessment. (pp 349–353, Skill Drill 9-2)
12. Demonstrate how to measure blood pressure by auscultation. (pp 360–361, Skill Drill 9-3)
13. Demonstrate how to measure blood pressure by palpation. (pp 362–363, Skill Drill 9-4)
14. Demonstrate how to test pupil reaction in response to light in a patient and how to document his or her status correctly. (pp 364–365)
15. Demonstrate the assessment of neurovascular status. (pp 366–368, Skill Drill 9-5)

16. Demonstrate the use of a pulse oximetry device to evaluate the effectiveness of oxygenation in the patient. (pp 370–372)
17. Demonstrate the use of electronic devices to assist in determining the patient's blood pressure in the field. (p 372)
18. Demonstrate how to assess a patient's blood glucose level. (p 373, Skill Drill 9-6)

## **Chapter 10**

### **Airway Management**

#### **Unit Summary**

After students complete this chapter and the related course work, they will understand the need for proper airway management, including recognizing and measuring adequate and inadequate breathing, maintaining an open airway, and providing artificial ventilation. Students will be able to demonstrate basic competency in applying these concepts to appropriate care through the use of airway adjuncts, suction equipment, oxygen equipment and delivery systems, pulse oximetry, continuous positive airway pressure (CPAP), and resuscitation devices.

#### **National EMS Education Standard Competencies**

#### **Airway Management, Respiration, and Artificial Ventilation**

Applies knowledge of general anatomy and physiology to patient assessment and management in order to assure a patent airway, adequate mechanical ventilation, and respiration for patients of all ages.

##### *Airway Management*

- Airway anatomy (pp 388–392)
- Airway assessment (pp 400–405)
- Techniques of assuring a patent airway (pp 405–408)

##### *Respiration*

- Anatomy of the respiratory system (pp 388–392)
- Physiology and pathophysiology of respiration
  - Pulmonary ventilation (pp 393–395)
  - Oxygenation (pp 395–396)
  - Respiration (pp 396–397)
    - External (p 396)
    - Internal (pp 396–397)
    - Cellular (pp 396–397)
- Assessment and management of adequate and inadequate respiration (pp 402–405)
- Supplemental oxygen therapy (pp 416–425)

##### *Artificial Ventilation*

- Assessment and management of adequate and inadequate ventilation (pp 425–435)
- Artificial ventilation (pp 426–435)

- Minute ventilation (pp 393–394)
- Alveolar ventilation (pp 393–394)
- Effect of artificial ventilation on cardiac output (p 427)

### *Pathophysiology*

Applies fundamental knowledge of the pathophysiology of respiration and perfusion to patient assessment and management.

### Knowledge Objectives

1. Describe the major structures of the respiratory system. (pp 387–392)
2. Discuss the physiology of breathing. (pp 392–397)
3. Give the signs of adequate breathing. (p 400)
4. Give the signs of inadequate breathing. (p 401)
5. Describe the assessment and care of a patient with apnea. (p 402)
6. Explain how to assess for adequate and inadequate respiration, including the use of pulse oximetry. (pp 402–405)
7. Explain how to assess for a patent airway. (p 405)
8. Describe how to perform the head tilt–chin lift maneuver. (pp 405–406)
9. Describe how to perform the jaw-thrust maneuver. (pp 406–407)
10. Explain the importance and techniques of suctioning. (pp 408–411)
11. Explain how to measure and insert an oropharyngeal (oral) airway. (pp 411–413)
12. Describe how to measure and insert a nasopharyngeal (nasal) airway. (pp 413–416)
13. Explain the use of the recovery position to maintain a clear airway. (p 416)
14. Describe the importance of giving supplemental oxygen to patients who are hypoxic. (p 416)
15. Discuss the basics of how oxygen is stored and the various hazards associated with its use. (pp 416–422)
16. Explain the use of a non-rebreathing mask and the oxygen flow requirements for its use. (p 423)
17. Describe the indications for using a nasal cannula rather than a non-rebreathing face mask. (p 423)
18. Describe the indications for use of a humidifier during supplemental oxygen therapy. (p 425)
19. Describe how to perform mouth-to-mouth or mouth-to-mask ventilation. (pp 427–428)
20. Describe the use of a one- or two-person bag-valve mask (BVM), and a manually triggered ventilation (MTV) device. (pp 428–435)
21. Describe the signs associated with adequate and inadequate artificial ventilation. (p 434)
22. Describe the use of continuous positive airway pressure (CPAP). (pp 435–439)
23. Explain how to recognize and care for a foreign body airway obstruction. (pp 440–442)

### Skills Objectives

1. Demonstrate use of pulse oximetry. (pp 403–404, Skill Drill 10-1)
2. Demonstrate how to position the unconscious patient. (pp 405–406, Skill Drill 10-2)

3. Demonstrate how to perform the head tilt–chin lift maneuver. (pp 405–406)
4. Demonstrate how to perform the jaw-thrust maneuver. (pp 406–407)
5. Demonstrate how to operate a suction unit. (p 410)
6. Demonstrate how to suction a patient’s airway. (pp 410–411, Skill Drill 10-3)
7. Demonstrate the insertion of an oral airway. (pp 411–413, Skill Drill 10-4)
8. Demonstrate the insertion of an oral airway with a 90-degree rotation. (pp 412–414, Skill Drill 10-5)
9. Demonstrate the insertion of a nasal airway. (pp 413–416, Skill Drill 10-6)

## **Chapter 11**

### **Principles of Pharmacology**

#### **Unit Summary**

After students complete this chapter and the related course work, they will understand the significance and characteristics of general pharmacology and will be able to identify, describe, and demonstrate the steps for assisting/administering medications carried by the EMT.

#### **National EMS Education Standard Competencies**

#### **Pharmacology**

Applies fundamental knowledge of the medications that the EMT may assist/administer to a patient during an emergency.

##### *Principles of Pharmacology*

- Medication safety (pp 461–463)
- Kinds of medications used during an emergency (pp 464–475)

##### *Medication Administration*

- Self-administer medication (pp 463–464)
- Peer-administer medication (pp 463–464)
- Assist/administer medications to a patient (pp 463–464)

##### *Emergency Medications*

- Names (p 456)
- Effects (pp 455–456)
- Actions (p 455)
- Indications (p 456)
- Contraindications (p 456)
- Complications (p 456)
- Routes of administration (pp 456–458)
- Side effects (p 456)
- Interactions (p 465–466, 475–476)
- Dosages for the medications administered (pp 455, 462, 465–466)

### Knowledge Objectives

1. Define the terms pharmacodynamics, intended effects, indications, side effects, unintended effects, and untoward effects. (pp 455–456)
2. Explain medication contraindications; include an example. (p 456)
3. Explain the differences between a generic medication name and a trade medication name; provide an example of each. (p 456)
4. Differentiate enteral and parenteral routes of medication administration. (p 456)
5. Describe rectal, oral, intravenous, intraosseous, subcutaneous, intramuscular, inhalation, sublingual, and transcutaneous routes of medication administration; include the rates of absorption. (pp 457–458)
6. Explain the solid, liquid, and gas forms of medication and routes of administration; provide examples of each. (pp 459–461)
7. List the “six rights” of medication administration; include how each one relates to EMS. (pp 461–463)
8. Explain the difference between direct orders (online) and standing orders (off-line) and the role of medical control. (p 463)
9. Discuss the medication administration circumstances involving peer-assisted medication, patient-assisted medication, and EMT-administered medication. (pp 463–464)
10. Know the generic and trade names, actions, indications, contraindications, routes of administration, side effects, interactions, and doses of 10 medications that may be administered by an EMT in an emergency as dictated by state protocols and local medical direction. (pp 463–475)
11. Describe the medication administration considerations related to special populations, including pediatric, geriatric, and pregnant patients. (pp 464, 472–473)
12. State the steps to should follow when dispensing medications to a patient using an auto-injector. (p 471)
13. Explain why determining what prescription and over-the-counter medications a patient is taking is a critical aspect of patient assessment during an emergency. (pp 475–476)
14. State the steps to take if a medication error occurs. (p 477)

### Skills Objectives

1. Apply the six rights of medication administration. (pp 461–463)
2. Demonstrate how to administer oral medication to a patient. (pp 464, 467–468)
3. Demonstrate how to administer aspirin to a patient with chest pain. (p 468)
4. Demonstrate how to administer oral glucose to a patient with hypoglycemia. (p 468)
5. Demonstrate how to assist a patient with the sublingual administration of a medication. (p 468)
6. Demonstrate how to administer a medication by auto-injector. (p 471)
7. Demonstrate how to administer an intranasal medication. (pp 471–472)
10. Demonstrate how to place a patient in the recovery position. (p 416)
11. Demonstrate how to place an oxygen cylinder into service. (pp 421–422, Skill Drill 10-7)
12. Demonstrate the use of a partial rebreathing mask in providing supplemental oxygen therapy to patients. (p 424)
13. Demonstrate the use of a Venturi mask in providing supplemental oxygen therapy to patients. (p 424)

14. Demonstrate the use of a humidifier in providing supplemental oxygen therapy to patients. (p 425)
15. Demonstrate mouth-to-mask ventilation. (pp 427–429, Skill Drill 10-8)
16. Demonstrate how to assist a patient with ventilations using the BVM. (pp 431–433, Skill Drill 10-9)
17. Demonstrate the use of a manually triggered ventilation device to assist in delivering artificial ventilation to the patient. (pp 434–435)
18. Demonstrate the use of an automatic transport ventilator to assist in delivering artificial ventilation to the patient. (p 435)
19. Demonstrate the use of CPAP. (pp 435–439, Skill Drill 10-10)

## **Chapter 12**

### **Shock**

#### **Unit Summary**

After students complete this chapter and the related course work, they will have an understanding of the different types and causes of shock, the process of perfusion, the signs and symptoms associated with shock, application of the assessment process with the shock patient, and the general and specific emergency medical care provided to patients experiencing shock.

#### **National EMS Education Standard Competencies**

##### **Shock and Resuscitation**

Applies a fundamental knowledge of the causes, pathophysiology, and management of shock, respiratory failure or arrest, cardiac failure or arrest, and post-resuscitation management.

##### **Pathophysiology**

Applies fundamental knowledge of the pathophysiology of respiration and perfusion to patient assessment and management.

#### **Knowledge Objectives**

1. Describe the pathophysiology of shock (hypoperfusion). (p 487–490)
2. Identify the causes of shock. (p 490)
3. Differentiate among the various types of shock. (p 491–496)
4. Describe the signs and symptoms of shock, including compensated and decompensated. (p 496–497)
5. Discuss key components of patient assessment for shock. (p 497–499)
6. Describe the steps to follow in the emergency care of the patient with various types of shock. (p 499–505)

#### **Skills Objectives**

1. Demonstrate how to control shock. (p 499–504)
2. Demonstrate how to complete an EMS patient care report for a patient with shock. (p 508)

## **Chapter 13**

### **BLS Resuscitation**

## Unit Summary

After students complete this chapter and the related course work, they will have reviewed the basic life support (BLS) procedures for adults, infants, and children. Please note that BLS knowledge is a prerequisite for the course and that this chapter should serve as a review.

## National EMS Education Standard Competencies

### Shock and Resuscitation

Applies a fundamental knowledge of the causes, pathophysiology, and management of shock, respiratory failure or arrest, cardiac failure or arrest, and post-resuscitation management.

## Knowledge Objectives

1. Explain the elements of basic life support (BLS), how it differs from advanced life support (ALS), and why BLS must be applied rapidly. (pp 514–515)
2. Explain the goals of cardiopulmonary resuscitation (CPR) and when it should be performed on a patient. (p 515)
3. Explain the components of CPR, the five links in the American Heart Association (AHA) chain of survival, and how each one relates to maximizing the survival of a patient. (pp 515–516)
4. Discuss guidelines for circumstances that require the use of an automated external defibrillator (AED) on both adult and pediatric patients experiencing cardiac arrest. (pp 517–518)
5. Explain three special situations related to the use of an AED. (p 518)
6. Describe the proper way to position an adult patient to receive BLS care. (p 519)
7. Describe the purpose of external chest compressions. (p 519)
8. Describe the two techniques EMTs may use to open an adult patient's airway and the circumstances that would determine when each technique would be used. (pp 522–523)
9. Describe the recovery position and circumstances that would warrant its use, as well as situations in which it would be contraindicated. (pp 523–524)
10. Describe the process of providing artificial ventilations to an adult patient, ways to avoid gastric distention, and modifications required for a patient with a stoma. (pp 524–526)
11. Explain the steps in providing single-rescuer adult CPR. (p 526)
12. Explain the steps in providing two-rescuer adult CPR, including the method for switching positions during the process. (p 526)
13. Describe the different mechanical devices that are available to assist emergency care providers in delivering improved circulatory efforts during CPR. (pp 529, 531–533)
14. Describe the different possible causes of cardiopulmonary arrest in children. (pp 533–534)
15. Explain the four steps of pediatric BLS procedures and how they differ from BLS procedures used in an adult patient. (pp 533–538)
16. Describe the ethical issues related to patient resuscitation, including examples of when not to start CPR on a patient. (pp 539–540)
17. Explain the various factors involved in the decision to stop CPR once it has been started on a patient. (pp 540–541)
18. Explain common causes of foreign body airway obstruction in both children and adults and how to distinguish mild or partial airway obstruction from complete airway obstruction. (pp 541–542)



19. Describe the different methods for removing a foreign body airway obstruction in an infant, child, and adult, including the procedure for a patient with an obstruction who becomes unresponsive. (pp 541–548)
20. Discuss how to provide grief support for a patient’s family members and loved ones after resuscitation has ended. (pp 548–550)
21. Discuss the importance of frequent CPR training for EMTs, as well as public education programs that teach compression-only CPR. (p 550)

#### Skills Objectives

1. Demonstrate how to position an unresponsive adult for CPR. (p 519)
2. Demonstrate how to check for a pulse at the carotid artery in an unresponsive child or adult. (p 519)
3. Demonstrate how to perform external chest compressions on an adult. (pp 520–521, Skill Drill 13-1)
4. Demonstrate how to perform a head tilt–chin lift maneuver on an adult. (pp 522–523)
5. Demonstrate how to perform a jaw-thrust maneuver on an adult. (pp 522–523)
6. Demonstrate how to place a patient in the recovery position. (pp 523–524)
7. Demonstrate how to perform rescue breathing in an adult. (p 524)
8. Demonstrate how to perform one-rescuer adult CPR. (pp 526–527, Skill Drill 13-2)
9. Demonstrate how to perform two-rescuer adult CPR. (pp 526, 528, Skill Drill 13-3)
10. Demonstrate the use of mechanical devices that assist emergency responders in delivering improved circulatory efforts during CPR. (pp 531–533)
11. Demonstrate how to check for a pulse at the brachial artery in an unresponsive infant (p 534)
12. Demonstrate how to perform external chest compressions on an infant. (p 535, Skill Drill 13-4)
13. Demonstrate how to perform CPR in a child who is between 1 year of age and the onset of puberty. (pp 535–537, Skill Drill 13-5)
14. Demonstrate how to perform a head tilt–chin lift maneuver on a pediatric patient. (p 537)
15. Demonstrate how to perform a jaw-thrust maneuver on a pediatric patient. (p 537)
16. Demonstrate how to perform rescue breathing on a child. (p 538)
17. Demonstrate how to perform rescue breathing on an infant. (p 538)
18. Demonstrate how to remove a foreign body airway obstruction in a responsive adult patient using abdominal thrusts (Heimlich maneuver). (p 543)
19. Demonstrate how to remove a foreign body airway obstruction in a responsive pregnant or obese patient using chest thrusts. (p 543)
20. Demonstrate how to remove a foreign body airway obstruction in a responsive child older than 1 year using abdominal thrusts (Heimlich maneuver). (pp 545–546)
21. Demonstrate how to remove a foreign body airway obstruction in an unresponsive child. (pp 546–547, Skill Drill 13-6)
22. Demonstrate how to remove a foreign body airway obstruction in an infant. (pp 546–548)

#### **Module # 4 – Chapters 14 – 18**

#### **Material Covered:**

2022-2023

Chapter 14 – Medical Overview  
 Chapter 15 – Respiratory Emergencies  
 Chapter 16 – Cardiovascular Emergencies  
 Chapter 17 – Neurologic Emergencies  
 Chapter 18 – Gastrointestinal and Urologic Emergencies

### **Assessments:**

Chapter quizzes and Dropbox assignments located in Desire2Learn / EMS Testing  
 Module #4 Test

## **Chapter 14** **Medical Overview**

### **Unit Summary**

After students complete this chapter and the related course work, they will understand the need for proper assessment techniques when called to patients with a chief complaint of a medical nature.

### **National EMS Education Standard Competencies**

#### **Medicine**

Applies fundamental knowledge to provide basic emergency care and transportation based on assessment findings for an acutely ill patient.

#### *Medical Overview*

Assessment and management of a

- Medical complaint (pp 561–568)

Pathophysiology, assessment, and management of medical complaints to include:

- Transport mode (pp 567–568)
- Destination decisions (p 568)

#### *Infectious Diseases*

Awareness of

- A patient who may have an infectious disease (pp 568–576)

Assessment and management of

- A patient who may have an infectious disease (pp 568–576)

### **Knowledge Objectives**

1. Differentiate between medical emergencies and trauma emergencies, remembering that some patients may have both. (p 561)
2. Name the various categories of common medical emergencies and give examples. (p 561)
3. Describe the evaluation of the nature of illness (NOI). (p 562)
4. Discuss the assessment of a patient with a medical emergency. (pp 562–566)

5. Explain the importance of transport time and destination selection for a medical patient. (p 567)
6. Define infectious disease and communicable disease. (p 569)
8. Discuss diseases of special concern and their routes of transmission, including influenza, herpes simplex, HIV/AIDS, hepatitis, meningitis, tuberculosis, whooping cough, MRSA, MERS-CoV, and Ebola. (pp 569–575)

### Skills Objectives

There are no skills objectives for this chapter.

## Chapter 15 Respiratory Emergencies

### Unit Summary

After students complete this chapter and the related course work, they will understand the significance and characteristics of respiratory emergencies in infant, child, and adult populations. Students should be able to demonstrate a fundamental comprehension on the following topics: respiratory anatomy and physiology, pathophysiology, signs and symptoms of various respiratory etiologies (e.g., asthma, COPD, pneumonia), and the assessment and management necessary to provide basic care in the prehospital setting.

### National EMS Education Standard Competencies

#### Medicine

Applies fundamental knowledge to provide basic emergency care and transportation based on assessment findings for an acutely ill patient.

#### *Respiratory*

Anatomy, signs, symptoms, and management of respiratory emergencies, including those that affect the

- Upper airway (pp 585–593, 609–615)
- Lower airway (pp 585–593, 609–615)

Anatomy, physiology, pathophysiology, assessment, and management of

- Epiglottitis (pp 591, 602–609, 615)
- Spontaneous pneumothorax (pp 599, 602–609, 616–617)
- Pulmonary edema (pp 593–594, 602–609, 615–616)
- Asthma (pp 595, 597, 602–609, 616)
- Chronic obstructive pulmonary disease (pp 594–596, 62–609, 616)
- Environmental/industrial exposure (pp 601–609, 617)
- Toxic gas (pp 601–609, 617)
- Pertussis (pp 592–593, 602–609, 615)
- Cystic fibrosis (p 602–609, 618–619)
- Pulmonary embolism (pp 600–609, 617)
- Pneumonia (pp 592, 602–609, 615)

- Viral respiratory infections (pp 509–593, 602–609, 615)

### Knowledge Objectives

1. List the structures and functions of the upper and lower airways, lungs, and accessory structures of the respiratory system. (p 585)
2. Explain the physiology of respiration; include the signs of normal breathing. (pp 586–587)
3. Discuss the pathophysiology of respiration, including examples of the common signs and symptoms a patient with inadequate breathing may present with in an emergency situation. (pp 587–588)
4. Explain the special patient assessment and care considerations that are required for geriatric patients who are experiencing respiratory distress. (pp 589, 592–593, 618–619)
5. Describe different respiratory conditions that cause dyspnea, including their causes, assessment findings and symptoms, complications, and specific prehospital management and transport decisions. (pp 589–590, 609–619)
6. List the characteristics of infectious diseases that are frequently associated with dyspnea. (pp 590–593)
7. Discuss some pandemic considerations related to the spread of influenza type A and strategies EMTs should employ to protect themselves from infection during a possible crisis situation. (pp 590, 593)
8. Explain the special patient assessment and care considerations that are required for pediatric patients who are experiencing respiratory distress. (pp 590–593, 597, 615–619)
9. Describe the assessment of a patient who is in respiratory distress and the relationship of the assessment findings to patient management and transport decisions. (pp 602–609)
10. Describe the primary emergency medical care of a person who is in respiratory distress. (pp 602–605, 609–615)
11. List five different types of adventitious breath sounds, their signs and symptoms, and the disease process associated with each one. (p 605)
12. State the generic name, medication forms, dose, administration, indications, actions, and contraindications for medications that are administered via metered-dose inhalers (MDIs) and small-volume nebulizers. (pp 610–615)

### Skills Objectives

1. Demonstrate the process of history taking to obtain more information related to a patient's chief complaint based on a case scenario. (pp 605–607)
2. Demonstrate how to use the OPQRST assessment to obtain more specific information about a patient's breathing problem. (p 606)
3. Demonstrate how to use the PASTE assessment to obtain more specific information about a patient's breathing problem. (p 607)
4. Demonstrate how to assist a patient with the administration of a metered-dose inhaler. (pp 612–613, Skill Drill 15-1)
5. Demonstrate how to assist a patient with the administration of a small-volume nebulizer. (pp 613–615, Skill Drill 15-2)

## Chapter 16 Cardiovascular Emergencies

### Unit Summary

After students complete this chapter and the related course work, they will understand the significance and characteristics of the anatomy and physiology of the cardiovascular system; cardiovascular emergencies; the pathophysiology of respiration and perfusion; signs and symptoms of the most common cardiac conditions; the indications, contraindications, and use of automated external defibrillators (AEDs); and the general care of a patient experiencing a cardiac emergency. The student should also be able to apply this fundamental knowledge to patient assessment and management during in-classroom scenarios.

## National EMS Education Standard Competencies

### **Pathophysiology**

Applies fundamental knowledge of the pathophysiology of respiration and perfusion to patient assessment and management.

### **Medicine**

Applies fundamental knowledge to provide basic emergency care and transportation based on assessment findings for an acutely ill patient.

#### *Cardiovascular*

Anatomy, signs, symptoms, and management of

- Chest pain (pp 629–625)
- Cardiac arrest (pp 629–639, 654–655)

Anatomy, physiology, pathophysiology, assessment, and management of

- Acute coronary syndrome (pp 629–639, 642–652)
  - Angina pectoris (pp 629–638, 642–652)
  - Myocardial infarction (pp 629–639, 654–655)
- Aortic aneurysm/dissection (pp 629–636, 642–652)
- Thromboembolism (pp 629–637, 642–652)
- Heart failure (pp 629–636, 640–652)
- Hypertensive emergencies (pp 629–636, 642–652)

## Knowledge Objectives

1. Discuss the basic anatomy and physiology of the cardiovascular system. (pp 629–636)
2. Discuss the pathophysiology of the cardiovascular system. (pp 636–642)
3. Describe the anatomy, physiology, pathophysiology, assessment, and management of thromboembolism. (pp 636–639)
4. Describe the anatomy, physiology, pathophysiology, assessment, and management of angina pectoris. (pp 637–638)
5. Describe the anatomy, physiology, pathophysiology, assessment, and management of myocardial infarction. (pp 638–639)
6. Describe the anatomy, signs and symptoms, and management of hypertensive emergencies. (p 642)
7. Describe the anatomy, physiology, pathophysiology, assessment, and management of aortic aneurysm/dissection. (p 642)

8. Explain patient assessment procedures for cardiovascular problems. (pp 642–647)
9. Explain the relationship between airway management and the patient with cardiac compromise. (pp 643–644)
10. Give the indications and contraindications for the use of aspirin and nitroglycerin. (p 648)
11. Recognize that many patients will have had cardiac surgery and may have implanted pacemakers or defibrillators. (pp 653–654)
12. Define cardiac arrest. (p 654)
13. Compare the difference between the fully automated and the semi-automated defibrillator. (pp 654–655)
14. Describe the different types of AEDs. (p 655)
15. Explain the use of remote adhesive defibrillator pads. (p 656)
16. Recognize that not all patients in cardiac arrest require an electric shock. (p 656)
17. List the indications and contraindications for use of an automated external defibrillator (AED). (pp 656–657)
18. Discuss the reasons for early defibrillation. (pp 656–657)
19. Explain the circumstances that may result in inappropriate shocks from an AED. (p 657)
20. Explain the reason not to touch the patient, such as by delivering CPR, while the AED is analyzing the heart rhythm and delivering shocks. (p 657)
21. Describe AED maintenance procedures. (pp 657–659)
22. Explain the relationship of age to energy delivery. (p 659)
23. Explain the role played by medical direction in the use of AEDs. (p 659)
24. Discuss the importance of practice and continuing education with the AED. (p 659)
25. Explain the need for a case review of each incident in which an AED is used. (p 659)
26. List quality improvement goals relating to AEDs. (p 659)
27. Discuss the procedures to follow for standard operation of the various types of AEDs. (pp 659–661)
28. Describe the emergency medical care for the patient with cardiac arrest. (pp 659–665)
29. Describe the components of care following AED shocks. (pp 661–663, 665)
30. Explain criteria for transport of the patient for advanced life support (ALS) following CPR and defibrillation. (pp 663–664)
31. Discuss the importance of coordinating with ALS personnel. (pp 664–665)

### Skills Objectives

1. Demonstrate the steps to take in the assessment of a patient with chest pain or discomfort. (pp 642–647)
2. Demonstrate how to provide emergency medical care for a patient with chest pain or discomfort. (pp 647–649)
3. Demonstrate the administration of nitroglycerin. (pp 648–649, Skill Drill 16-1)
4. Demonstrate how to attach a cardiac monitor to obtain an ECG. (pp 651–652, Skill Drill 16-2)
5. Demonstrate how to perform maintenance of an AED. (pp 657–659)
6. Demonstrate how to perform CPR. (pp 660–663, Skill Drill 16-3)
7. Demonstrate the use of an AED. (pp 660–663, Skill Drill 16-3)

## Chapter 17

### Neurologic Emergencies

#### Unit Summary

After students complete this chapter presentation and the related course work, they will understand the significance and characteristics of the following: anatomy and physiology of the nervous system, common disease processes (strokes, seizures, headaches, and altered mental status), assessment and basic care management involving patients with neurologic emergencies (including performing tests for speech, facial movement, and arm movement), and assistance of the ALS provider in managing these neurologic emergencies.

#### National EMS Education Standard Competencies

##### Medicine

Applies fundamental knowledge to provide basic emergency care and transportation based on assessment findings for an acutely ill patient.

##### *Neurology*

Anatomy, presentations, and management of

- Decreased level of responsiveness (pp 675–676, 685–686, 697)
- Seizure (pp 675–676, 681–685, 696–697)
- Stroke (pp 675–676, 678–681, 694–696)

Anatomy, physiology, pathophysiology, assessment, and management of

- Stroke/transient ischemic attack (pp 675–681, 686–696)
- Seizure (pp 675–676, 681–690, 693–697)
- Status epilepticus (pp 675–676, 682–690, 693–695)
- Headache (pp 675–678, 686–690, 693–695)

#### Knowledge Objectives

1. Describe the anatomy and physiology and functions of the brain and spinal cord. (pp 675–676)
2. Discuss the different types of headaches, the possible causes of each, and how to distinguish a harmless headache from a potentially life-threatening condition. (pp 676–678)
3. Explain the various ways blood flow to the brain may be interrupted and cause a cerebrovascular accident. (p 678)
4. Discuss the causes, similarities, and differences of an ischemic stroke, hemorrhagic stroke, and transient ischemic attack. (pp 678–680)
5. List the general signs and symptoms of stroke and how those symptoms manifest if the left hemisphere of the brain is affected and if the right hemisphere of the brain is affected. (pp 680–681)
6. List three conditions with symptoms that mimic stroke and the assessment techniques EMTs may use to identify them. (p 681)
7. Define a generalized seizure, partial seizure, and status epilepticus; include how they differ from each other and their effects on patients. (pp 681–682)
8. Describe how the different stages of a seizure are characterized. (p 682)

9. Discuss the importance for EMTs to recognize when a seizure is occurring or whether one has already occurred in a patient. (p 684)
10. Explain the postictal state and the specific patient care interventions that may be necessary. (pp 684–685)
11. Define altered mental status; include possible causes and the patient assessment considerations that apply to each. (pp 685–686)
12. Discuss scene safety considerations when responding to a patient with a neurologic emergency. (pp 686–687)
13. Explain the special considerations required for pediatric patients who exhibit altered mental status. (p 687)
14. Explain the primary assessment of a patient who is experiencing a neurologic emergency and the necessary interventions that may be required to address all life threats. (pp 687–689)
15. Describe the process of history taking for a patient who is experiencing a neurologic emergency and how this process varies depending on the nature of the patient's illness. (pp 689–690)
16. Explain the secondary assessment of a patient who is experiencing a neurologic emergency. (pp 690–692)
17. Explain how to use stroke assessment tools to rapidly identify a stroke patient; include two commonly used tools. (pp 690–693)
18. Explain the concept of a stroke alert and the important timeframe for the most successful treatment outcome for a patient who is suspected of having a stroke. (pp 690, 694)
19. List the key information EMTs must obtain and document for a stroke patient during assessment and reassessment. (pp 693–694)
20. Explain the care, treatment, and transport of patients who are experiencing headaches, stroke, seizure, and altered mental status. (pp 694–697)
21. Explain the special considerations required for geriatric patients who are experiencing a neurologic emergency. (p 696)

#### Skills Objectives

1. Demonstrate how to use a stroke assessment tool such as the Cincinnati Prehospital Stroke Scale, 3-Item Stroke Severity Scale (LAG), or FAST mnemonic to test a patient for aphasia, facial weakness, and motor weakness. (pp 691–693)

## Chapter 18

### Gastrointestinal and Urologic Emergencies

#### Unit Summary

Students who complete this chapter presentation and the related course work will understand the anatomy and physiology of the gastrointestinal, genitourinary, and renal systems. Students should be able to assess and manage various patient populations with numerous related gastrointestinal/genitourinary complaints, which include, but are not limited to, direct or referred abdominal pain, hypoglycemia, hyperglycemia, shock related to acute (medical versus trauma) or chronic gastrointestinal disorders, hemorrhage, peritonitis, and complications related to the renal system (renal dialysis).

#### National EMS Education Standard Competencies

##### Medicine

Applies fundamental knowledge to provide basic emergency care and transportation based on assessment findings for an acutely ill patient.

2022-2023



*Abdominal and Gastrointestinal Disorders*

Anatomy, presentations, and management of shock associated with abdominal emergencies

- Gastrointestinal bleeding (pp 705, 710, 715, 718–719)

Anatomy, physiology, pathophysiology, assessment, and management of:

- Acute and chronic gastrointestinal hemorrhage (pp 705–707, 710, 714–719)
- Peritonitis (pp 705–708, 714–719)
- Ulcerative diseases (pp 705–706, 708–709, 714–719)

*Genitourinary/Renal*

- Blood pressure assessment in hemodialysis patients (p 718)

Anatomy, physiology, pathophysiology, assessment, and management of

- Complications related to
  - Renal dialysis (pp 713, 719)
  - Urinary catheter management (not insertion) (p 719)
- Kidney stones (pp 713–719)

**Knowledge Objectives**

1. Describe the basic anatomy and physiology of the gastrointestinal, genital, and urinary systems. (pp 705–707)
2. Define the term acute abdomen. (p 707)
3. Describe pathologic conditions of the gastrointestinal, genital, and urinary systems. (pp 707–714)
4. Explain the concept of referred pain. (p 708)
5. Recognize that abdominal pain can arise from other body systems. (pp 708–709, 713–714)
6. Identify the signs and symptoms, and common causes, of an acute abdomen. (pp 708–712)
7. Explain the procedures to follow in the assessment and management of acute and chronic gastrointestinal hemorrhage, peritonitis, and ulcerative diseases. (pp 708–712, 714–719)
8. List the most common abdominal emergencies, with the most common locations of direct and referred pain. (p 709)
9. Explain the procedures to follow for patient assessment of gastrointestinal and urologic emergencies. (pp 714–718)
10. Describe the procedures to follow in managing the patient with shock associated with abdominal emergencies. (p 715)
11. Describe the emergency medical care of the patient with gastrointestinal or urologic emergencies. (pp 718–719)
12. Explain the principles of kidney dialysis. (p 719)

**Skills Objectives**

1. Demonstrate the assessment of a patient's abdomen. (pp 717–718)

**Module # 5 – Chapters 19 – 23****Material Covered:**

Chapter 19 – Endocrine and Hematologic Emergencies

2022-2023

Chapter 20 – Immunologic Emergencies

Chapter 21 – Toxicology

Chapter 22 – Psychiatric Emergencies

Chapter 23 – Gynecologic Emergencies

### **Assessments:**

Chapter quizzes and Dropbox assignments located in Desire2Learn / EMS Testing

Module #5 Test

## **Chapter 19**

### **Endocrine and Hematologic Emergencies**

#### **Unit Summary**

After students complete this chapter and the related course work, they will understand the significance and characteristics of diabetes, sickle cell disease, clotting disorders, and the complications associated with each. Students should be able to demonstrate knowledge of the characteristics of type 1 and type 2 diabetes and be able to list the appropriate steps for assessment and prehospital treatment of diabetic emergencies. Students should also be able to discuss hematologic emergencies, and describe sickle cell disease, hemophilia, thrombophilia, and deep vein thrombosis.

#### **National EMS Education Standard Competencies**

##### **Medicine**

Applies fundamental knowledge to provide basic emergency care and transportation based on assessment findings for an acutely ill patient.

##### *Endocrine Disorders*

Awareness that

- Diabetic emergencies cause altered mental status. (pp 729, 735–736, 740–741)

Anatomy, physiology, pathophysiology, assessment, and management of:

- Acute diabetic emergencies (pp 727–741)

##### *Hematology*

Anatomy, physiology, pathophysiology, assessment, and management of

- Sickle cell crisis (pp 742, 744–745)
- Clotting disorders (pp 742–745)

#### **Knowledge Objectives**

1. Describe the anatomy and physiology of the endocrine system and its main function in the body. (p 727)
2. Discuss the role of glucose as a major source of energy for the body and its relationship to insulin. (p 728)
3. Define the terms diabetes mellitus, hyperglycemia, and hypoglycemia. (pp 728–730)
4. Describe the differences and similarities between hyperglycemic and hypoglycemic diabetic emergencies, including their onset, signs and symptoms, and management considerations. (pp 729–730)
5. Distinguish between the individual types of diabetes and how their onset and presentation are different. (pp 730–732)

6. Describe the interventions for providing emergency medical care to both a conscious and unconscious patient with an altered mental status and a history of diabetes who is having symptomatic hyperglycemia. (p 733)
7. Describe the interventions for providing emergency medical care to both a conscious and unconscious patient with an altered mental status and a history of diabetes who is having symptomatic hypoglycemia. (pp 733–734)
8. Explain the process for assessing and managing the airway of a patient with an altered mental status, including ways to differentiate a hyperglycemic patient from a hypoglycemic patient. (pp 733–735, 741)
9. Explain some age-related considerations when managing a pediatric patient who is experiencing symptomatic hypoglycemia. (p 734)
10. Discuss the steps the EMT should follow when conducting a primary and secondary assessment of a patient with an altered mental status who is suspected of having diabetes. (pp 734–736)
11. Explain when it is appropriate to obtain medical direction when providing emergency medical care to a patient with diabetes. (p 737)
12. Explain some age-related considerations when managing an older patient who has undiagnosed diabetes. (p 737)
13. Provide the forms, dose, administration, indications, and contraindications for giving oral glucose to a patient with a decreased level of consciousness who has a history of diabetes. (p 738)
14. Discuss the composition and functions of blood. (pp 742–742)
15. Describe the pathophysiology of sickle cell disease, complications, and management of sickle cell disease. (pp 742, 745)
16. Describe two types of blood clotting disorders, and the risk factors, characteristics, and management of each. (pp 742–745)

### Skills Objectives

1. Demonstrate the assessment and care of a patient with hypoglycemia and a decreased level of consciousness. (pp 729–730, 734–742)
2. Demonstrate how to administer oral glucose paste to a patient who is experiencing a low glucose level. (p 739, Skill Drill 19-1)

## Chapter 20 Immunologic Emergencies

### Unit Summary

After students complete this chapter and the related course work, they will understand the anatomy, physiology, and pathophysiology of hypersensitivity disorders and anaphylactic reactions. Additionally, students will have the knowledge and skills to recognize and manage hypersensitivity disorders and anaphylactic reactions.

### National EMS Education Standard Competencies

#### **Medicine**

Applies fundamental knowledge to provide basic emergency care and transportation based on assessment findings for an acutely ill patient.

#### **Immunology**

Recognition and management of shock and difficulty breathing related to

- Anaphylactic reactions (pp 757–764)

Anatomy, physiology, pathophysiology, assessment, and management of

- Hypersensitivity disorders and/or emergencies (pp 753–764)
- Anaphylactic reactions (pp 753–764)

#### Knowledge Objectives

1. Define the terms allergic reaction and anaphylaxis. (p 753)
2. Explain the difference between a local and a systemic response to allergens. (p 753)
3. List the five categories of stimuli that could cause an allergic reaction or an extreme allergic reaction. (p 755)
4. Differentiate the primary assessment for a patient with a systemic allergic or anaphylactic reaction and a local reaction. (pp 757–759)
5. Explain the importance of managing the ABCs of a patient who is having an allergic reaction. (p 757)
6. Discuss the steps in the primary assessment that are specific to a patient who is having an allergic reaction. (pp 757–758)
7. Explain the factors involved when making a transport decision for a patient having an allergic reaction. (p 758)
8. Review the process for providing emergency medical care to a patient who is experiencing an allergic reaction. (pp 760–764)
9. Explain the rationale, including communication and documentation considerations, when determining whether to administer epinephrine to a patient who is having an allergic reaction. (pp 761–764)
10. Describe some age-related contraindications to using epinephrine to treat an allergic reaction in a geriatric patient. (p 764)

#### Skills Objectives

1. Demonstrate how to remove the stinger from a honeybee sting and proper patient management following its removal. (pp 760–761)
2. Demonstrate how to use an EpiPen auto-injector. (pp 762–736, Skill Drill 20-1)

## **Chapter 21**

### **Toxicology**

#### Unit Summary

After students complete this chapter and the related course work, they will be familiar with the classes of compounds involved in substance abuse and poisonings; the routes by which poisons enter the body; and the signs, symptoms, assessment, and treatment for various poisoning emergencies.

#### National EMS Education Standard Competencies

#### **Medicine**

Applies fundamental knowledge to provide basic emergency care and transportation based on assessment findings for an acutely ill patient.

### *Toxicology*

Recognition and management of

- Carbon monoxide poisoning (pp 774–775)
- Nerve agent poisoning (pp 789–790)

How and when to contact a poison control center (p 774)

Anatomy, physiology, pathophysiology, assessment, and management of

- Inhaled poisons (pp 774–775, 779–781)
- Ingested poisons (pp 777, 779–782)
- Injected poisons (pp 777–781)
- Absorbed poisons (pp 776–777, 779–781)
- Alcohol intoxication and withdrawal (pp 783–784)

### Knowledge Objectives

1. Define toxicology, poison, toxin, and overdose. (p 771)
2. Identify the common signs and symptoms of poisoning or toxic exposure. (p 772)
3. Describe how poisons and toxins can enter the body. (p 773–778)
4. Describe the assessment and treatment of a patient with a suspected poisoning or toxic exposure. (pp 779–794)
5. Describe the assessment and treatment of the patient with a suspected overdose. (pp 779–791)
6. Discuss scene safety considerations for working at a scene with a potentially hazardous material or violent patient. (p 779)
7. Understand the role of airway management in the patient suffering from poisoning or overdose. (pp 779–793)
8. Explain the use of activated charcoal, including indications, contraindications, and the need to obtain approval from medical control before administration. (pp 780–782)
9. Identify the main types of toxins and poisons and their effects, including alcohol, opiates and opioids, sedative-hypnotic drugs, inhalants, hydrogen sulfide, sympathomimetics, synthetic cathinones, marijuana, hallucinogens, anticholinergic agents, and cholinergic agents. (pp 782–791)
10. Discuss how to manage a patient who has overdosed on an opioid or opiate and who has gone into cardiac or respiratory arrest. (pp 784–785)
11. Describe the assessment and treatment for the patient with suspected food poisoning. (pp 791–793)
12. Describe the assessment and treatment for the patient with suspected plant poisoning. (pp 793–794)

### Skills Objectives

1. Demonstrate how to assess and treat a patient with a suspected poisoning. (pp 779–781)
2. Demonstrate how to assess and treat a patient with a suspected overdose. (pp 780–781)
3. Demonstrate how to administer activated charcoal. (pp 781–782)

## Chapter 22

### Psychiatric Emergencies

#### Unit Summary

After students complete this chapter and the related course work, they will be able to recognize behaviors that pose a risk to the EMT, patient, or others and understand the basic principles of the mental health system. Additionally, students will have the knowledge and skills to successfully assess and manage patients experiencing a psychiatric emergency within the legal parameters of their scope of practice.

#### National EMS Education Standard Competencies

##### Medicine

Applies fundamental knowledge to provide basic emergency care and transportation based on assessment findings for an acutely ill patient.

##### *Psychiatric*

##### Recognition of

- Behaviors that pose a risk to the EMT, patient, or others (pp 804, 810–811, 815–818)
- Basic principles of the mental health system (p 804)
- Assessment and management of
  - Acute psychosis (pp 806–811)
  - Suicidal/risk (pp 806–810, 816–818)
  - Agitated delirium (pp 806–811)

#### Knowledge Objectives

1. Discuss the myths and realities concerning psychiatric emergencies. (p 803)
2. Discuss general factors that can cause alteration in a patient's behavior. (p 804)
3. Define a behavioral crisis. (p 804)
4. Recognize the magnitude of mental health problems in society. (p 804)
5. Know the main principles of how the mental health care system functions. (p 804)
6. Know the two basic categories of diagnosis that a mental health professional will use. (p 805)
7. Explain special considerations for assessing and managing a behavioral crisis or psychiatric emergency. (pp 806–810)
8. Define acute psychosis. (p 810)
9. Define schizophrenia. (p 810)
10. Explain the care for a psychotic patient. (pp 810–811)
11. Define excited delirium and agitated delirium. (p 811)
12. Explain the care for a patient with excited delirium. (p 811)
13. Describe methods used to restrain patients. (pp 811–815)

14. Know the main principles of care for the agitated, violent, or uncooperative patient. (pp 815–816)
15. Explain how to recognize the behavior of a patient at risk of suicide, including the management of such a patient. (pp 816–818)
16. Recognize issues specific to posttraumatic stress disorder (PTSD) and the returning combat veteran. (pp 818–820)
17. Discuss the medical and legal aspects of managing a psychiatric emergency. (pp 820–821)

### Skills Objectives

1. Demonstrate the techniques used to mechanically restrain a patient. (pp 814–815, Skill Drill 22-1)

## Chapter 23 Gynecologic Emergencies

### Unit Summary

After students complete this chapter and the related course work, they will understand the anatomy and physiology, including the developmental changes during puberty and menopause, of the female reproductive system and identify and describe assessment and treatment for gynecologic emergencies. Special considerations and precautions that an EMT must observe when arriving at the scene of a suspected case of sexual assault or rape are also discussed.

### National EMS Education Standard Competencies

#### Medicine

Applies fundamental knowledge to provide basic emergency care and transportation based on assessment findings for an acutely ill patient.

#### *Gynecology*

- Recognition and management of shock associated with
  - Vaginal bleeding (pp 833, 835–836)
- Anatomy, physiology, assessment findings, and management of
  - Vaginal bleeding (pp 829–830, 823–836)
  - Sexual assault (to include appropriate emotional support) (pp 837–839)
  - Infections (pp 829–837)

### Knowledge Objectives

1. Describe the anatomy and physiology of the female reproductive system; include the developmental changes that occur during puberty and menopause. (pp 829–830)
2. Discuss the special, age-related patient management considerations EMTs should provide for both younger and older female patients who are experiencing gynecologic emergencies. (p 830–831)
3. List three common examples of gynecologic emergencies; include the causes, risk factors, assessment findings, and patient management considerations. (pp 831–832)
4. Explain how an EMT would recognize conditions associated with hemorrhage during pregnancy. (p 832)

5. Discuss the assessment and management of a patient who is experiencing a gynecologic emergency; include a discussion of specific assessment findings. (pp 832–835)
6. Explain the general management of a gynecologic emergency in relation to patient privacy and communication. (pp 833–835)
7. Give examples of the personal protective equipment EMTs should use when treating patients with gynecologic emergencies. (p 836)
8. Discuss the special considerations and precautions EMTs must observe when arriving at the scene of a suspected case of sexual assault or rape. (pp 837–838)
9. Discuss the assessment and management of a patient who has been sexually assaulted or raped; include the additional steps EMTs must take on behalf of the patient. (pp 837–839)

#### Skills Objectives

There are no skills objectives for this chapter.



## Part III: Grading and Assessment

### EVALUATION OF REQUIRED COURSE MEASURES/ARTIFACTS\*:

Students' performance will be assessed and the weight associated with the various measures/artifacts are listed below.

#### EVALUATION\*

Quizzes and Dropbox Assignments	15%
Tests/	60%
Final Exam	25%
	100%

***\*Students, for the specific number and type of evaluations, please refer to the Instructor's Course Information Sheet.***

### GRADING SYSTEM:

A passing score in this course is a C or higher: Please note the College adheres to a 10 point grading scale A = 100 – 90, B = 89- 80, C = 79 – 70, D = 69 – 60, F = 59 and below.

Grades earned in courses impact academic progression and financial aid status. Before withdrawing from a course, be sure to talk with your instructor and financial aid counselor about the implications of that course of action. Ds, Fs, Ws, WFs and Is also negatively impact academic progression and financial aid status.

The Add/Drop Period is the first 5 days of the semester for **full term** classes. Add/Drop periods are shorter for accelerated format courses. Please refer to the [academic calendar](#) for deadlines for add/drop. You must attend at least one meeting of all of your classes during that period. If you do not, you will be dropped from the course(s) and your Financial Aid will be reduced accordingly.

## Part IV: Attendance:

**In accordance with South Carolina Department of Health and Environmental Control – Division of EMS a student may miss 10% of the total classroom hours for any reason.** Under *extenuating circumstances*, the program coordinator MAY allow the student to miss **up to a total** of 20% of the total classroom hours.

The student is responsible for documenting in writing, to the program coordinator's satisfaction, the extenuating circumstances. The program coordinator is under NO obligation to accept the student's documentation or extend the student the additional 10% in allotted absences.

The student should also understand that arriving to class late or leaving class early counts towards the allotted hours of time missed.

Once the student exceeds the hours of absences, the student will be terminated from the course and will not be eligible to attempt the National Registry examination.

Students withdrawn from a course due to excessive absences will receive a grade of Withdraw ("W") up to the 2/3 point of the semester. Thereafter, a Withdraw ("W") or Withdraw Failing ("WF") will be assigned dependent upon his/her academic status at the time of last date attended.

Attendance records begin on the first day of class for both new and returning students, regardless when he/she registers during the five-day registration and add/drop period at the beginning of each term.

Students are responsible for all course work and class assignments; therefore, they are expected to regularly and promptly attend each meeting of classes for which they are enrolled. Students should limit absences to those that are unavoidable and, with the professor's consent, should make up all work missed.

Unannounced quizzes will *not* be made up and late homework will *not* be accepted. Two consecutive absences will result in a student/advisor conference.

Making up the class-missed work should not be construed as attendance. Attendance cannot be "made up" with work.

Tardiness should always be avoided. Three tardies will count as one absence.

### **Lab Attendance Requirements**

The lab class attendance is included in the above attendance policy. Your attendance in lab class will be combined with the lecture section for the **10%** of allowed total absences. Students may not miss more than **4.5** total lab hours for the entire semester. Those 4.5 hours count toward the cumulative total of **13.5 hours** allowed to be missed.

**Instructors define absentee limits for their class at the beginning of each term; please refer to the Instructor Course Information Sheet.**

## **Part V: Student Resources**



### **THE STUDENT SUCCESS AND TUTORING CENTER (SSTC):**

The SSTC offers to all students the following **free** resources:

1. **Academic tutors** for most subject areas, **Writing Center support**, and **college success skills**.
2. Online **tutoring** and academic support resources.
3. Professional and interpersonal communication **coaching** in the EPIC Labs.

Visit the [Student Success & Tutoring Center](#) website for more information. To schedule tutoring, contact the SSTC at [ssc@hgtc.edu](mailto:ssc@hgtc.edu) or self-schedule in the Penji iOS/Android app or at [www.penjiapp.com](http://www.penjiapp.com). Email [ssc@hgtc.edu](mailto:ssc@hgtc.edu) or call SSTC Conway, 349-7872; SSTC Grand Strand, 477-2113; and SSTC Georgetown, 520-1455, or go to the [Online Resource Center](#) to access on-demand resources.



## STUDENT INFORMATION CENTER: TECH Central

TECH Central offers to all students the following free resources:

1. **Getting around HGTC:** General information and guidance for enrollment, financial aid, registration, and payment plan support!
2. Use the [Online Resource Center \(ORC\)](#) including Office 365 support, password resets, and username information.
3. **In-person workshops, online tutorials and more services** are available in Desire2Learn, Student Portal, Degree Works, and Office 365.
4. **Chat with our staff on TECH Talk**, our live chat service. TECH Talk can be accessed on the student portal and on TECH Central's website, or by texting questions to (843) 375-8552.

Visit the [Tech Central](#) website for more information. Live Chat and Center locations are posted on the website. Or please call (843) 349 – TECH (8324), Option #1.

## STUDENT TESTING:

Testing in an **online/hybrid** course may be accomplished in a variety of ways:

- Test administered within D2L
- Test administered in writing on paper
- Test administered through Publisher Platforms

Further more tests may have time limits and/or require a proctor.

Proctoring can be accomplished either face-to-face at an approved site or online through our online proctoring service. To find out more about proctoring services, please visit the [Online Testing](#) section of the HGTC's Testing Center webpage.

The **Instructor Information Sheet** will have more details on test requirements for your course.

## DISABILITY SERVICES:

HGTC is committed to providing an accessible environment for students with disabilities. Inquiries may be directed to HGTC's [Accessibility and Disability Service webpage](#). The Accessibility and Disability staff will review documentation of the student's disability and, in a confidential setting with the student, develop an educational accommodation plan.

Note: It is the student's responsibility to self-identify as needing accommodations and to provide acceptable documentation. After a student has self-identified and submitted documentation of a disability, accommodations may be determined, accepted, and provided.

## STATEMENT OF EQUAL OPPORTUNITY/NON-DISCRIMINATION STATEMENT:

Horry-Georgetown Technical College prohibits discrimination and harassment, including sexual harassment and abuse, on the basis of race, color, sex, national or ethnic origin, age, religion, disability, marital or family status, veteran status, political ideas, sexual orientation, gender identity, or pregnancy, childbirth, or related medical

conditions, including, but not limited to, lactation in educational programs and/or activities.

## **TITLE IX REQUIREMENTS:**

All students (as well as other persons) at Horry-Georgetown Technical College are protected by Title IX—regardless of their sex, sexual orientation, gender identity, part- or full-time status, disability, race, or national origin—in all aspects of educational programs and activities. Any student, or other member of the college community, who believes that he/she is or has been a victim of sexual harassment or sexual violence may file a report with the college’s Chief Student Services Officer, campus law enforcement, or with the college’s Title IX Coordinator, or designee.

\*Faculty and Staff are required to report incidents to the Title IX Coordinators when involving students. The only HGTC employees exempt from mandatory reporting are licensed mental health professionals (only as part of their job description such as counseling services).

## **INQUIRIES REGARDING THE NON-DISCRIMINATION/TITLE IX POLICIES:**

**Student and prospective student** inquiries concerning Section 504, Title II, and Title IX and their application to the College or any student decision may be directed to the Vice President for Student Affairs.

**Dr. Melissa Batten, VP Student Affairs**

*Title IX Coordinator*

Building 1100, Room 107A, Conway Campus

PO Box 261966, Conway, SC 29528-6066

843-349-5228

[Melissa.Batten@hgtc.edu](mailto:Melissa.Batten@hgtc.edu)

**Employee and applicant** inquiries concerning Section 504, Title II, and Title IX and their application to the College may be directed to the Vice President for Human Resources.

**Jacquelyne Snyder, VP Human Resources**

*EEO and Title IX Coordinator*

Building 200, Room 212A, Conway Campus

PO Box 261966, Conway, SC 29528-6066

843-349-5212

[Jacquelyne.Snyder@hgtc.edu](mailto:Jacquelyne.Snyder@hgtc.edu)