

# **IDAHO EMS**

## **OUT OF HOSPITAL MEDICAL CARE FOR AMBULANCE BASED CLINICIANS**

### **CURRICULUM GUIDE**

## PREFACE

The Idaho EMS Bureau, in compliance with “Rules Governing EMS” has published this *Out of Hospital Medical Care for Ambulance Based Clinicians* Curriculum Guide to serve as a minimum educational standard for EMS agencies licensed to provide patient care at ALS Level IV.

This document is for use by the EMS agencies as a tool to guide the design of, or assess formal training programs and individual capabilities, as required when utilizing Ambulance–Based Clinicians for ALS Transfers. The curriculum guide is a list of objectives by category, which has been peer reviewed to meet the needs of the ALS transfer patient in Idaho. The guide does not define the structure or process of a formal training program or evaluation process, but leaves this to the agency and medical director to establish at the local level.

The objectives in this guide have been developed to allow standardization of the basic and fundamental knowledge necessary for ALS level IV agencies using Ambulance–Based Clinicians to provide the ALS Transfer level of service in concurrence with local medical director oversight and approval.

The curriculum guide is not intended to repeat original course material for allied healthcare professional, but to enhance them while being consistent with the out of hospital environment. Participation in a formal training program or meeting the objectives contained in the guide does not change the certification or licensure level of the provider. Advanced Life Support treatment may only be initiated by direction of the agency medical director or other physicians providing online medical control to the personnel functioning with an agency compliant with licensure requirements at Advanced Life Support Level IV.



## **EMS SYSTEM OVERVIEW- UNIT TERMINAL OBJECTIVE**

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

## **EMS SYSTEM OVERVIEW- COGNITIVE OBJECTIVES**

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

- 1.1.1 Define the following terms: (C-1)
  - a. EMS Systems
  - b. Licensure
  - c. Certification
  - d. Registration
  - e. Profession
  - f. Professionalism
  - g. Health care professional
  - h. Ethics
  - i. Peer review
  - j. Medical direction
  - k. Protocols
- 1.1.2 Describe key historical events that influenced the development of national Emergency Medical Services (EMS) systems. (C-1)
- 1.1.3 Identify national groups important to the development, education, and implementation of EMS. (C-1)
- 1.1.4 Differentiate among the four nationally recognized levels of EMS training/ education, leading to licensure/ certification/ registration. (C-1)
- 1.1.5 Describe the attributes of a provider as a health care professional. (C-1)
- 1.1.6 Describe the recognized levels of EMS training/ education, leading to licensure/ certification in his or her state. (C-1)
- 1.1.7 Explain provider licensure/ certification, recertification, and reciprocity requirements in his or her state. (C-1)
- 1.1.8 Evaluate the importance of maintaining one's provider license/ certification. (C-3)
- 1.1.9 Describe the benefits of provider continuing education. (C-1)
- 1.1.10 List current state requirements for provider education in his/ her state. (C-1)
- 1.1.11 Discuss the role of national associations and of a national registry agency. (C-1)
- 1.1.12 Discuss current issues in his/ her state impacting EMS. (C-1)
- 1.1.13 Discuss the roles of various EMS standard-setting agencies. (C-1)
- 1.1.14 Identify the standards (components) of an EMS System as defined by the National Highway Traffic Safety Administration. (C-1)
- 1.1.15 Describe how professionalism applies to the provider while on and off duty. (C-1)
- 1.1.16 Describe examples of professional behaviors in the following areas: integrity, empathy, self-motivation, appearance and personal hygiene, self-confidence, communications, time management, teamwork and diplomacy, respect, patient advocacy, and careful delivery of service. (C-1)
- 1.1.17 Provide examples of activities that constitute appropriate professional behavior for a provider. (C-2)
- 1.1.18 Describe the importance of quality EMS research to the future of EMS. (C-3)

- 1.1.19 Identify the benefits of providers teaching in their community. (C-1)
- 1.1.20 Describe what is meant by "citizen involvement in the EMS system." (C-1)
- 1.1.21 Analyze how the provider can benefit the health care system by supporting primary care to patients in the out-of-hospital setting. (C-3)
- 1.1.22 List the primary and additional responsibilities of providers. (C-1)
- 1.1.23 Describe the role of the EMS physician in providing medical direction. (C-1)
- 1.1.24 Describe the benefits of medical direction, both on-line and off-line. (C-1)
- 1.1.25 Describe the process for the development of local policies and protocols. (C-2)
- 1.1.26 Provide examples of local protocols. (C-1)
- 1.1.27 Discuss prehospital and out-of-hospital care as an extension of the physician. (C-1)
- 1.1.28 Describe the relationship between a physician on the scene, the provider on the scene, and the EMS physician providing on-line medical direction. (C-1)
- 1.1.29 Describe the components of continuous quality improvement. (C-1)
- 1.1.30 Analyze the role of continuous quality improvement with respect to continuing medical education and research. (C-3)
- 1.1.31 Define the role of the provider relative to the safety of the crew, the patient, and bystanders. (C-1)
- 1.1.32 Identify local health care agencies and transportation resources for patients with special needs. (C-1)
- 1.1.33 Describe the role of the provider in health education activities related to illness and injury prevention. (C-1)
- 1.1.34 Describe the importance and benefits of research. (C-2)
- 1.1.35 Explain the EMS provider's role in data collection. (C-1)
- 1.1.36 Explain the basic principles of research. (C-1)
- 1.1.37 Describe a process of evaluating and interpreting research. (C-3)

### **EMS SYSTEM OVERVIEW- AFFECTIVE OBJECTIVES**

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

- 1.1.38 Assess personal practices relative to the responsibility for personal safety, the safety of the crew, the patient, and bystanders. (A-3)
- 1.1.39 Serve as a role model for others relative to professionalism in EMS. (A-3)
- 1.1.40 Value the need to serve as the patient advocate inclusive of those with special needs, alternate life styles and cultural diversity. (A-3)
- 1.1.41 Defend the importance of continuing medical education and skills retention. (A-3)
- 1.1.42 Advocate the need for supporting and participating in research efforts aimed at improving EMS systems. (A-3)
- 1.1.43 Assess personal attitudes and demeanor that may distract from professionalism. (A-3)
- 1.1.44 Value the role that family dynamics plays in the total care of patients. (A-3)
- 1.1.45 Advocate the need for injury prevention, including abusive situations. (A-1)
- 1.1.46 Exhibit professional behaviors in the following areas: integrity, empathy, self-motivation, appearance and personal hygiene, self-confidence, communications, time management, teamwork and diplomacy, respect, patient advocacy, and careful delivery of service. (A-2)

### **EMS SYSTEM OVERVIEW- PSYCHOMOTOR OBJECTIVES**

None identified for this unit.

## **PROVIDER WELLNESS- UNIT TERMINAL OBJECTIVE**

- 1.2. At the completion of this unit, the provider will understand and value the importance of personal wellness in EMS and serve as a healthy role model for peers.

## **PROVIDER WELLNESS- COGNITIVE OBJECTIVES**

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

- 1.2.1 Discuss the concept of wellness and its benefits. (C-1)
- 1.2.2 Define the components of wellness. (C-1)
- 1.2.3 Describe the role of the provider in promoting wellness. (C-1)
- 1.2.4 Discuss the components of wellness associated with proper nutrition. (C-1)
- 1.2.5 List principles of weight control. (C-1)
- 1.2.6 Discuss how cardiovascular endurance, muscle strength, and flexibility contribute to physical fitness. (C-2)
- 1.2.7 Describe the impact of shift work on circadian rhythms. (C-1)
- 1.2.8 Discuss how periodic risk assessments and knowledge of warning signs contribute to cancer and cardiovascular disease prevention. (C-1)
- 1.2.9 Differentiate proper from improper body mechanics for lifting and moving patients in emergency and non-emergency situations. (C-3)
- 1.2.10 Describe the problems that a provider might encounter in a hostile situation and the techniques used to manage the situation. (C-1)
- 1.2.11 Given a scenario involving arrival at the scene of a motor vehicle collision, assess the safety of the scene and propose ways to make the scene safer. (C-3)
- 1.2.12 List factors that contribute to safe vehicle operations. (C-1)
- 1.2.13 Describe the considerations that should be given to: (C-1)
  - a. Using escorts
  - b. Adverse environmental conditions
  - c. Using lights and siren
  - d. Proceeding through intersections
  - e. Parking at an emergency scene
- 1.2.14 Discuss the concept of "due regard for the safety of all others" while operating an emergency vehicle. (C-1)
- 1.2.15 Describe the equipment available for self-protection when confronted with a variety of adverse situations. (C-1)
- 1.2.16 Describe the benefits and methods of smoking cessation. (C-1)
- 1.2.17 Describe the three phases of the stress response. (C-1)
- 1.2.18 List factors that trigger the stress response. (C-1)
- 1.2.19 Differentiate between normal/ healthy and detrimental reactions to anxiety and stress. (C-3)
- 1.2.20 Describe the common physiological and psychological effects of stress. (C-1)
- 1.2.21 Identify causes of stress in EMS. (C-1)
- 1.2.22 Describe behavior that is a manifestation of stress in patients and those close to them and how these relate to provider stress. (C-1)
- 1.2.23 Identify and describe the defense mechanisms and management techniques commonly used to deal with stress. (C-1)
- 1.2.24 Describe the components of critical incident stress management (CISM). (C-1)
- 1.2.25 Provide examples of situations in which CISM would likely be beneficial to providers. (C-1)

- 1.2.26 Given a scenario involving a stressful situation, formulate a strategy to help cope with the stress. (C-3)
- 1.2.27 Describe the stages of the grieving process (Kubler-Ross). (C-1)
- 1.2.28 Describe the needs of the provider when dealing with death and dying. (C-1)
- 1.2.29 Describe the unique challenges for providers in dealing with the needs of children and other special populations related to their understanding or experience of death and dying. (C-1)
- 1.2.30 Discuss the importance of universal precautions and body substance isolation practices. (C-1)
- 1.2.31 Describe the steps to take for personal protection from airborne and bloodborne pathogens. (C-1)
- 1.2.32 Given a scenario in which equipment and supplies have been exposed to body substances, plan for the proper cleaning, disinfection, and disposal of the items. (C-3)
- 1.2.33 Explain what is meant by an exposure and describe principles for management. (C-1)

### **PROVIDER WELLNESS- AFFECTIVE OBJECTIVES**

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

- 1.2.34 Advocate the benefits of working toward the goal of total personal wellness. (A-2)
- 1.2.35 Serve as a role model for other EMS providers in regard to a total wellness lifestyle. (A-3)
- 1.2.36 Value the need to assess his/ her own lifestyle. (A-2)
- 1.2.37 Challenge his/ herself to each wellness concept in his/ her role as a provider. (A-3)
- 1.2.38 Defend the need to treat each patient as an individual, with respect and dignity. (A-2)
- 1.2.39 Assess his/ her own prejudices related to the various aspects of cultural diversity. (A-3)
- 1.2.40 Improve personal physical wells being through achieving and maintaining proper body weight, regular exercise and proper nutrition. (A-3)
- 1.2.41 Promote and practice stress management techniques. (A-3)
- 1.2.42 Defend the need to respect the emotional needs of dying patients and their families. (A-3)
- 1.2.43 Advocate and practice the use of personal safety precautions in all scene situations. (A-3)
- 1.2.44 Advocate and serve as a role model for other EMS providers relative to body substance isolation practices. (A-3)

### **PROVIDER WELLNESS-PSYCHOMOTOR OBJECTIVES**

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

- 1.2.45 Demonstrate safe methods for lifting and moving patients in emergency and non-emergency situations. (P-2)
- 1.2.46 Demonstrate the proper procedures to take for personal protection from disease. (P-2)

### **EMS MEDICAL LEGAL - UNIT TERMINAL OBJECTIVE**

- 1.3. At the completion of this unit, the provider will understand the legal issues that impact decisions made in the out-of-hospital environment.

### **EMS MEDICAL LEGAL - COGNITIVE OBJECTIVES**

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

- 1.3.1 Differentiate between legal and ethical responsibilities. (C-2)
- 1.3.2 Describe the basic structure of the legal system in the United States. (C-1)

- 1.3.3 Differentiate between civil and criminal law as it pertains to the provider. (C-1)
- 1.3.4 Identify and explain the importance of laws pertinent to the provider. (C-1)
- 1.3.5 Differentiate between licensure and certification as they apply to the provider. (C-1)
- 1.3.6 List the specific problems or conditions encountered while providing care that a provider is required to report, and identify in each instance to whom the report is to be made. (C-1)
- 1.3.7 Define the following terms: (C-1)
  - a. Abandonment
  - b. Advance directives
  - c. Assault
  - d. Battery
  - e. Breach of duty
  - f. Confidentiality
  - g. Consent (expressed, implied, informed, involuntary)
  - h. Do not resuscitate (DNR) orders
  - i. Duty to act
  - j. Emancipated minor
  - k. False imprisonment
  - l. Immunity
  - m. Liability
  - n. Libel
  - o. Minor
  - p. Negligence
  - q. Proximate cause
  - r. Scope of practice
  - s. Slander
  - t. Standard of care
  - u. Tort
- 1.3.8 Differentiate between the scope of practice and the standard of care for provider practice. (C-3)
- 1.3.9 Discuss the concept of medical direction, including off-line medical direction and on-line medical direction, and its relationship to the standard of care of a provider. (C-1)
- 1.3.10 Describe the four elements that must be present in order to prove negligence. (C-1)
- 1.3.11 Given a scenario in which a patient is injured while a provider is providing care, determine whether the four components of negligence are present. (C-2)
- 1.3.12 Given a scenario, demonstrate patient care behaviors that would protect the provider from claims of negligence. (C-3)
- 1.3.13 Explain the concept of liability as it might apply to provider practice, including physicians providing medical direction and provider supervision of other care providers. (C-2)
- 1.3.14 Discuss the legal concept of immunity, including Good Samaritan statutes and governmental immunity, as it applies to the provider. (C-1)
- 1.3.15 Explain the importance and necessity of patient confidentiality and the standards for maintaining patient confidentiality that apply to the provider. (C-1)
- 1.3.16 Differentiate among expressed, informed, implied, and involuntary consent. (C-2)

- 1.3.17 Given a scenario in which a provider is presented with a conscious patient in need of care, describe the process used to obtain consent. (C-2)
- 1.3.18 Identify the steps to take if a patient refuses care. (C-1)
- 1.3.19 Given a scenario, demonstrate appropriate patient management and care techniques in a refusal of care situation. (C-3)
- 1.3.20 Describe what constitutes abandonment. (C-1)
- 1.3.21 Identify the legal issues involved in the decision not to transport a patient, or to reduce the level of care being provided during transportation. (C-1)
- 1.3.22 Describe how hospitals are selected to receive patients based on patient need and hospital capability and the role of the provider in such selection. (C-1)
- 1.3.23 Differentiate between assault and battery and describe how to avoid each. (C-2)
- 1.3.24 Describe the conditions under which the use of force, including restraint, is acceptable. (C-1)
- 1.3.25 Explain the purpose of advance directives relative to patient care and how the provider should care for a patient who is covered by an advance directive. (C-1)
- 1.3.26 Discuss the responsibilities of the provider relative to resuscitation efforts for patients who are potential organ donors. (C-1)
- 1.3.27 Describe the actions that the provider should take to preserve evidence at a crime or accident scene. (C-1)
- 1.3.28 Describe the importance of providing accurate documentation (oral and written) in substantiating an incident. (C-1)
- 1.3.29 Describe the characteristics of a patient care report required to make it an effective legal document. (C-1)
- 1.3.30 Given a scenario, prepare a patient care report, including an appropriately detailed narrative. (C-2)

### **EMS MEDICAL LEGAL - AFFECTIVE OBJECTIVES**

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

- 1.3.31 Advocate the need to show respect for the rights and feelings of patients. (A-3)
- 1.3.32 Assess his/ her personal commitment to protecting patient confidentiality. (A-3)
- 1.3.33 Given a scenario involving a new employee, explain the importance of obtaining consent for adults and minors. (A-2)
- 1.3.34 Defend personal beliefs about withholding or stopping patient care. (A-3)
- 1.3.35 Defend the value of advance medical directives. (A-3)

### **EMS MEDICAL LEGAL - PSYCHOMOTOR OBJECTIVES**

None identified for this unit.

### **EMS ETHICS- UNIT TERMINAL OBJECTIVE**

- 1.4. At the completion of this unit, the provider will understand the role that ethics plays in decision making in the out-of-hospital environment.

### **EMS ETHICS- COGNITIVE OBJECTIVES**

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

- 1.4.1 Define ethics. (C-1)
- 1.4.2 Distinguish between ethical and moral decisions. (C-3)
- 1.4.3 Identify the premise that should underlie the provider's ethical decisions in out-of-hospital care. (C-1)
- 1.4.4 Analyze the relationship between the law and ethics in EMS. (C-3)
- 1.4.5 Compare and contrast the criteria that may be used in allocating scarce EMS resources. (C-3)
- 1.4.6 Identify the issues surrounding the use of advance directives, in making a prehospital resuscitation decision. (C-1)
- 1.4.7 Describe the criteria necessary to honor an advance directive in your state. (C-1)

### **EMS ETHICS- AFFECTIVE OBJECTIVES**

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

- 1.4.8 Value the patient's autonomy in the decision-making process. (A-2)
- 1.4.9 Defend the following ethical positions: (A-3)
  - a. The provider is accountable to the patient.
  - b. The provider is accountable to the medical director.
  - c. The provider is accountable to the EMS system.
  - d. The provider is accountable for fulfilling the standard of care.
- 1.4.10 Given a scenario, defend or challenge a provider's actions concerning a patient who is treated against his/ her wishes. (A-3)
- 1.4.11 Given a scenario, defend a provider's actions in a situation where a physician orders therapy the provider feels to be detrimental to the patient's best interests. (A-3)

### **EMS ETHICS- PSYCHOMOTOR OBJECTIVES**

None identified for this unit.

### **AMBULANCE OPERATIONS- UNIT TERMINAL OBJECTIVE**

- 1.5. At the completion of this unit, the provider will understand standards and guidelines that help ensure safe and effective ground and air medical transport.

### **AMBULANCE OPERATIONS- COGNITIVE OBJECTIVES**

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

- 1.5.1 Identify current local and state standards that influence ambulance design, equipment requirements and staffing of ambulances. (C-1)
- 1.5.2 Discuss the importance of completing an ambulance equipment/ supply checklist. (C-1)
- 1.5.3 Discuss the factors to be considered when determining ambulance stationing within a community. (C-1)
- 1.5.4 Describe the advantages and disadvantages of air medical transport. (C-1)

- 1.5.5 Identify the conditions/ situations in which air medical transport should be considered. (C-1)

### **AMBULANCE OPERATIONS- AFFECTIVE OBJECTIVES**

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

- 1.5.6 Assess personal practices relative to ambulance operations which may affect the safety of the crew, the patient and bystanders. (A-3)
- 1.5.7 Serve as a role model for others relative to the operation of ambulances. (A-3)
- 1.5.8 Value the need to serve as the patient advocate to ensure appropriate patient transportation via ground or air. (A-2)

### **AMBULANCE OPERATIONS- PSYCHOMOTOR OBJECTIVES**

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

- 1.5.9 Demonstrate how to place a patient in, and remove a patient from, an ambulance. (P-1)

### **INCIDENT MANAGEMENT- UNIT TERMINAL OBJECTIVE**

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

### **INCIDENT MANAGEMENT- COGNITIVE OBJECTIVES**

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

- 1.6.1 Explain the need for the incident management system (IMS)/ incident command system (ICS) in managing emergency medical services incidents. (C-1)
- 1.6.2 Define the term multiple casualty incident (MCI). (C-1)
- 1.6.3 Define the term disaster management. (C-1)
- 1.6.4 Describe essential elements of scene size-up when arriving at a potential MCI. (C-1)
- 1.6.5 Describe the role of the providers and EMS systems in planning for MCIs and disasters. (C-1)
- 1.6.6 Define the following types of incidents and how they affect medical management: (C-1)
- a. Open or uncontained incident
  - b. Closed or contained incident
- 1.6.7 Describe the functional components of the incident management system in terms of the following: (C-1)
- a. Command
  - b. Finance
  - c. Logistics
  - d. Operations
  - e. Planning

- 1.6.8 Differentiate between singular and unified command and when each is most applicable. (C-3)
- 1.6.9 Describe the role of command. (C-1)
- 1.6.10 Describe the need for transfer of command and procedures for transferring it. (C-1)
- 1.6.11 Differentiate between command procedures used at small, medium and large scale medical incidents. (C-1)
- 1.6.12 Explain the local/ regional threshold for establishing command and implementation of the incident management system including threshold MCI declaration. (C-1)
- 1.6.13 List and describe the functions of the following groups and leaders in ICS as it pertains to EMS incidents: (C-1)
  - a. Safety
  - b. Logistics
  - c. Rehabilitation (rehab)
  - d. Staging
  - e. Treatment
  - f. Triage
  - g. Transportation
  - h. Extrication/ rescue
  - i. Disposition of deceased (morgue)
- 1.6.14 Communications
- 1.6.15 Describe the methods and rationale for identifying specific functions and leaders for these functions in ICS. (C-1)
- 1.6.16 Describe the role of both command posts and emergency operations centers in MCI and disaster management. (C-1)
- 1.6.17 Describe the role of the physician at multiple casualty incidents. (C-1)
- 1.6.18 Define triage and describe the principles of triage. (C-1)
- 1.6.19 Describe the START (simple triage and rapid treatment) method of initial triage. (C-1)
- 1.6.20 Given a list of 20 patients with various multiple injuries, determine the appropriate triage priority with 90% accuracy. (C-3)
- 1.6.21 Given color coded tags and numerical priorities, assign the following terms to each: (C-1)
  - a. Immediate
  - b. Delayed
  - c. Hold
  - d. Deceased
- 1.6.22 Define primary and secondary triage. (C-1)
- 1.6.23 Describe when primary and secondary triage techniques should be implemented. (C-1)
- 1.6.24 Describe the need for and techniques used in tracking patients during multiple casualty incidents. (C-1)
- 1.6.25 Describe techniques used to allocate patients to hospitals and track them. (C-1)
- 1.6.26 Describe modifications of telecommunications procedures during multiple casualty incidents. (C-1)

- 1.6.27 List and describe the essential equipment to provide logistical support to MCI operations to include: (C-1)
  - a. Airway, respiratory and hemorrhage control
  - b. Burn management
  - c. Patient packaging/ immobilization
- 1.6.28 List the physical and psychological signs of critical incident stress. (C-1)
- 1.6.29 Describe the role of critical incident stress management sessions in MCIs. (C-1)
- 1.6.30 Describe the role of the following exercises in preparation for MCIs: (C-1)
  - a. Table top exercises
  - b. Small and large MCI drills

### **INCIDENT MANAGEMENT- AFFECTIVE OBJECTIVES**

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

- 1.6.31 Understand the rationale for initiating incident command even at a small MCI event. (A-1)
- 1.6.32 Explain the rationale for having efficient and effective communications as part of an incident command/ management system. (A-1)
- 1.6.33 Explain why common problems of an MCI can have an adverse effect on an entire incident. (A-1)
- 1.6.34 Explain the organizational benefits for having standard operating procedures (SOPs) for using the incident management system or incident command system. (A-1)

### **INCIDENT MANAGEMENT- PSYCHOMOTOR OBJECTIVES**

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

- 1.6.35 Demonstrate the use of local/ regional triage tagging system used for primary and secondary triage. (P-1)
- 1.6.36 Given a simulated tabletop multiple casualty incident, with 5-10 patients: (P-1)
  - a. Establish unified or singular command
  - b. Conduct a scene assessment
  - c. Determine scene objectives
  - d. Formulate an incident plan
  - e. Request appropriate resources
  - f. Determine need for ICS expansion and groups
  - g. Coordinate communications and groups leaders
  - h. Coordinate outside agencies
- 1.6.37 Demonstrate effective initial scene assessment and update (progress) reports. (P-1)
- 1.6.38 Given a classroom simulation of a MCI with 5-10 patients, fulfill the role of triage group leader. (P-3)
- 1.6.39 Given a classroom simulation of a MCI with 5-10 patients, fulfill the role of treatment group leader. (P-3)
- 1.6.40 Given a classroom simulation of a MCI with 5-10 patients, fulfill the role of transportation group leader. (P-3)

## **HAZARDOUS MATERIALS UNIT TERMINAL OBJECTIVE**

- 1.7. At the completion of this unit, the provider will be able to evaluate hazardous materials emergencies, call for appropriate resources, and work in the cold zone.

## **HAZARDOUS MATERIALS COGNITIVE OBJECTIVES**

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

- 1.7.1 Explain the role of the provider/ EMS responder in terms of the following: (C-1)
  - a. Incident size-up
- 1.7.2 Assessment of toxicologic risk
- 1.7.3 Appropriate decontamination methods
- 1.7.4 Treatment of semi-decontaminated patients
- 1.7.5 Transportation of semi-decontaminated patients
- 1.7.6 Size-up a hazardous materials (haz-mat) incident and determine the following: (C-1)
- 1.7.7 Potential hazards to the rescuers, public and environment
- 1.7.8 Potential risk of primary contamination to patients
- 1.7.9 Potential risk of secondary contamination to rescuers
- 1.7.10 Identify resources for substance identification, decontamination and treatment information including the following: (C-1)
  - a. Poison control center
  - b. Medical control
  - c. Material safety data sheets (MSDS)
  - d. Reference textbooks
  - e. Computer databases (CAMEO)
  - f. CHEMTREC
  - g. Technical specialists
  - h. Agency for toxic substances and disease registry
- 1.7.11 Explain the following terms/ concepts: (C-1)
  - a. Primary contamination risk
  - b. Secondary contamination risk
- 1.7.12 List and describe the following routes of exposure: (C-1)
  - a. Topical
  - b. Respiratory
  - c. Gastrointestinal
  - d. Parenteral
- 1.7.13 Explain the following toxicologic principles: (C-1)
  - a. Acute and delayed toxicity
  - b. Route of exposure
  - c. Local versus systemic effects
  - d. Dose response
  - e. Synergistic effects
- 1.7.14 Explain how the substance and route of contamination alters triage and decontamination methods. (C-1)

- 1.7.15 Explain the limitations of field decontamination procedures. (C-1)
- 1.7.16 Explain the use and limitations of personal protective equipment (PPE) in hazardous material situations. (C-1)
- 1.7.17 List and explain the common signs, symptoms and treatment for the following substances: (C-1)
  - a. Corrosives (acids/ alkalis)
  - b. Pulmonary irritants (ammonia/ chlorine)
  - c. Pesticides (carbarnates/ organophosphates)
  - d. Chemical asphyxiants (cyanide/ carbon monoxide)
  - e. Hydrocarbon solvents (xylene, methylene chloride)
- 1.7.18 Explain the potential risk associated with invasive procedures performed on contaminated patients. (C-1)
- 1.7.19 Given a contaminated patient determine the level of decontamination necessary and : (C-1)
  - a. Level of rescuer PPE
  - b. Decontamination methods
  - c. Treatment
  - d. Transportation and patient isolation techniques
- 1.7.20 Identify local facilities and resources capable of treating patients exposed to hazardous materials. (C-1)
- 1.7.21 Determine the hazards present to the patient and provider given an incident involving hazardous materials. (C-2)
- 1.7.22 Define the following and explain their importance to the risk assessment process: (C-1)
  - a. Boiling point
  - b. Flammable/ explosive limits
  - c. Flash point
  - d. Ignition temperature
  - e. Specific gravity
  - f. Vapor density
  - g. Vapor pressure
  - h. Water solubility
  - i. Alpha radiation
  - j. Beta radiation
  - k. Gamma radiation
- 1.7.23 Define the toxicologic terms and their use in the risk assessment process: (C-1)
  - a. Threshold limit value (TLV)
  - b. Lethal concentration and doses (LD)
  - c. Parts per million/ billion (ppm/ ppb)
  - d. Immediately dangerous to life and health (IDLH)
  - e. Permissible exposure limit (PEL)
  - f. Short term exposure limit (TLV-STEL)
  - g. Ceiling level (TLV-C)
- 1.7.24 Given a specific hazardous material be able to do the following: (C-1)
  - a. Research the appropriate information about it's physical and chemical Characteristics and hazards

- b. Suggest the appropriate medical response
  - c. Determine risk of secondary contamination
- 1.7.25 Determine the factors which determine where and when to treat a patient to include: (C-1)
  - a. Substance toxicity
  - b. Patient condition
  - c. Availability of decontamination
- 1.7.26 Determine the appropriate level of PPE to include: (C-1)
  - a. Types, application, use and limitations
  - b. Use of chemical compatibility chart
- 1.7.27 Explain decontamination procedures when functioning in the following modes: (C-1)
  - a. Critical patient rapid two step decontamination process
  - b. Non-critical patient eight step decontamination process
- 1.7.28 Explain specific decontamination procedures. (C-1)
- 1.7.29 Explain the four most common decontamination solutions used to include: (C-1)
  - a. Water
  - b. Water and tincture of green soap
  - c. Isopropyl alcohol
  - d. Vegetable oil
- 1.7.30 Identify the areas of the body difficult to decontaminate to include: (C-1)
  - a. Scalp/ hair
  - b. Ears/ ear canals/ nostrils
  - c. Axilla
  - d. Finger nails
  - e. Navel
  - f. Groin/ buttocks/ genitalia
  - g. Behind knees
  - h. Between toes, toe nails
- 1.7.31 Explain the medical monitoring procedures of hazardous material team members to be used both pre and post entry, to include: (C-1)
  - a. Vital signs
  - b. Body weight
  - c. General health
  - d. Neurologic status
  - e. ECG
- 1.7.32 Explain the factors which influence the heat stress of hazardous material team personnel to include: (C-1)
  - a. Hydration
  - b. Physical fitness
  - c. Ambient temperature
  - d. Activity
  - e. Level of PPE
  - f. Duration of activity

- 1.7.33 Explain the documentation necessary for Haz-Mat medical monitoring and rehabilitation operations. (C-1)
  - a. The substance
  - b. The toxicity and danger of secondary contamination
  - c. Appropriate PPE and suit breakthrough time
  - d. Appropriate level of decontamination
  - e. Appropriate antidote and medical treatment
  - f. Transportation method
- 1.7.34 Given a simulated hazardous substance, use reference material to determine the appropriate actions. (C-3)
- 1.7.35 Integrate the principles and practices of hazardous materials response in an effective manner to prevent and limit contamination, morbidity, and mortality

### **HAZARDOUS MATERIALS AFFECTIVE OBJECTIVES**

None identified for this unit.

### **HAZARDOUS MATERIALS PSYCHOMOTOR OBJECTIVES**

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

- 1.7.36 Demonstrate the donning and doffing of appropriate PPE. (P-1)
- 1.7.37 Set up and demonstrate an emergency two step decontamination process. (P-1)
- 1.7.38 Set up and demonstrate an eight step decontamination process. (P-1)

### **HAZARDOUS SITUATIONS UNIT TERMINAL OBJECTIVE**

- 1.8. At the completion of this unit, the provider will have an awareness of the human hazard of crime and violence and the safe operation at crime scenes and other emergencies.

### **HAZARDOUS SITUATIONS UNIT COGNITIVE OBJECTIVES**

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

- 1.8.1 Explain how EMS providers are often mistaken for the police. (C-1)
- 1.8.2 Explain specific techniques for risk reduction when approaching the following types of routine EMS scenes: (C-1)
  - a. Highway encounters
  - b. Violent street incidents
  - c. Residences and "dark houses"
- 1.8.3 Describe warning signs of potentially violent situations. (C-1)
- 1.8.4 Explain emergency evasive techniques for potentially violent situations, including: (C-1)
  - a. Threats of physical violence.
  - b. Firearms encounters
  - c. Edged weapon encounters
- 1.8.5 Explain EMS considerations for the following types of violent or potentially violent situations: (C-1)

- a. Gangs and gang violence
  - b. Hostage/ sniper situations
  - c. Clandestine drug labs
  - d. Domestic violence
  - e. Emotionally disturbed people
  - f. Hostage/ sniper situations
- 1.8.6 Explain the following techniques: (C-1)
- a. Field "contact and cover" procedures during assessment and care
  - b. Evasive tactics
  - c. Concealment techniques
- 1.8.7 Describe police evidence considerations and techniques to assist in evidence preservation. (C-1)

**HAZARDOUS SITUATIONS UNIT AFFECTIVE OBJECTIVES**

None identified for this unit.

**HAZARDOUS SITUATIONS UNIT PSYCHOMOTOR OBJECTIVES**

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

- 1.8.8 Demonstrate the following techniques: (P-1)
- a. Field Contact and cover procedures during assessment and care
  - b. Evasive tactics
  - c. Concealment techniques