

Module 6: EMS Operations

Lesson 6-1 EMS Operation

Wisconsin First Responder, Basic

Based on: United States Department of Transportation

National Highway Traffic Safety Administration

First Responder: National Standard Curriculum (Revised: October 6, 1998)

Module 6: EMS Operations

Lesson 6 - 1: Operations

Objectives

Objectives Legend

C=Cognitive P=Psychomotor A=Affective

1 = Knowledge level

2 = Application level

3 = Problem-solving level

Cognitive Objectives

At the completion of this lesson, the First Responder student will be able to:

- 6-1.1 Discuss the medical and non-medical equipment needed to respond to a call. (C-1)
- 6-1.2 List the phases of a out-of-hospital call. (C-1)
- 6-1.3 Discuss the role of the First Responder in extrication. (C-1)
- 6-1.4 List various methods of gaining access to the patient. (C-3)
- 6-1.5 Distinguish between simple and complex access. (C-3)
- 6-1.6 Describe what the First Responder should do if there is reason to believe that there is a hazard at the scene. (C-1)
- 6-1.7 State the role the First Responder should perform until appropriately trained personnel arrive at the scene of a hazardous materials situation. (C-1)
- 6-1.8 Describe the criteria for a multiple-casualty situation. (C-1)
- 6-1.9 Discuss the role of the First Responder in the multiple-casualty situation. (C-3)
- 6-1.10 Summarize the components of basic triage. (C-1)
- 6-1.11 Discuss the importance of a comprehensive "hand-off" report. (C-1)

Affective Objectives

At the completion of this lesson, the First Responder student will be able to:

- 6-1.11 Explain the rationale for having the unit prepared to respond. (A-3)

Psychomotor Objectives

At the completion of this lesson, the First Responder student will be able to:

- 6-1.12 Given a scenario of a mass casualty incident, perform triage. (P-2)

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Preparation

Motivation:

A First Responder will be functioning as part of the EMS System. This lesson is designed to provide the student with a brief overview of some of the operational aspects of out-of-hospital care.

The First Responder should be familiar with the medical and non-medical equipment for use in patient care. The First Responder should also be aware of the phases of a response and his/her role in each.

Although the First Responder is not usually responsible for rescue and extrication, a fundamental understanding of the process is required.

Prerequisites:

Preparatory, Airway, Patient Assessment, Circulation, and Illness and Injuries Modules

Materials

AV Equipment:

Utilize various audio-visual materials relating to EMS operations. The continuous development of new audio-visual materials relating to EMS requires careful review to determine which best meet the needs of the program. Materials should be edited to ensure meeting the objectives of the curriculum.

EMS Equipment:

Triage Tags, Emergency Response Guidebook,

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Personnel

Primary Instructor:

One First Responder instructor, knowledgeable in EMS operations.

Assistant Instructor:

The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable in EMS operations procedures.

Recommended Minimum Time to Complete:

Two hours

Presentation

Declarative (What)

- I. Phases of a response
 - A. Preparation for the call
 1. Recommended equipment
 - a. Medical
 - (1) Basic supplies
 - (2) Airways
 - (3) Suction equipment
 - (4) Artificial ventilation devices
 - (5) Basic wound care supplies
 - b. Non-medical
 - (1) Personal safety equipment per local, state, and federal standards
 - (2) Planned routes or comprehensive street maps
 2. Personnel
 - a. Available for response
 3. Equipment
 - a. Checked and maintained
 - b. Restocked and repaired

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4. Utilization of safety precautions and seat belts
- B. Dispatch
 1. Central access
 2. 24-hour availability
 3. Trained personnel
 4. Dispatch information
 - a. Nature of call
 - b. Name, location, and callback number of caller
 - c. Location of patient
 - d. Number of patients and severity
 - e. Other special problems
- C. En route to scene
 1. Seat belts
 2. Notify dispatch
 3. Essential information
 - a. Nature of the call
 - b. Location of the call
- D. Arrival at scene
 1. Notify dispatch
 2. Size-up
 - a. Body substance isolation
 - (1) Should be a consideration before patient contact.
 - (2) Use gloves, gowns, and eyewear when appropriate.
 - b. Scene safety - assess the scene for hazards.
 - (1) Is the emergency vehicle parked in a safe location?
 - (2) Is it safe to approach the patient?
 - (3) Does the patient require immediate movement because of hazards?
 - c. Mechanism of injury/nature of illness
 - (1) Medical
 - (a) Mass casualty incident
 - (b) Number of patients
 - (c) Obtain additional help.
 - (d) Begin triage.
 - (e) Spine stabilization if necessary

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- (2) Trauma
 - (a) Mass casualty incident
 - i) Number of patients
 - ii) Obtain additional help.
 - iii) Begin triage.
 - (b) Spine stabilization if necessary
 - d. Total number of patients
 - e. Need for additional help or assistance
 - 3. Actions at scene
 - a. Organized
 - b. Rapid/efficient
 - E. Communications with responding ambulance personnel
 - 1. Provide any relative information pertaining to the scene
 - a. Safety/hazards
 - b. Parking
 - c. Patient location
 - 2. Patient(s) condition
 - a. Sex
 - b. Age
 - c. Chief complaint
 - d. Mechanism of injury/nature of illness
 - e. Assessment findings
 - f. Vital signs
 - 1) Respiration
 - 2) Pulse
 - 3) Blood pressure
 - 4) LOC (AVPU)
 - f. Pertinent SAMPLE History findings
 - 3. General impression/Load & Go status
 - 4. Interventions taken
 - 5. Results of interventions
 - F. Coordinated on-scene care with EMTs
 - 1. Introduce the ambulance personnel to the patient and any significant others who may be present and involved in the emergency.
 - a. Relatives

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- b. Initial care givers
 - c. Witnesses to the incident
 - d. Others
 - 2. Assist the ambulance crew in providing any additional care as appropriate.
 - 3. Insure a smooth transition of care
 - a) Insure the ambulance crew has been informed of all pertinent information regarding the patient
 - b) Provide the ambulance crew with a copy of your run report and insure they have a follow-up name and phone number.
 - G. Transferring the patient to the ambulance
 - 1. Assist the ambulance crew in preparing the patient for transport.
 - 2. Assist the ambulance crew with lifting and moving using the guidelines of the lifting/moving module.
 - H. Post run
 - 1. Prepare for the next call.
 - a. Clean and disinfect equipment.
 - b. Restock the disposable supplies.
 - c. Refuel unit.
 - 2. File reports.
 - 3. Notify dispatch.
- II. Air Medical Consideration
- A. Utilization
 - B. Patient preparation
 - C. Landing zones
 - D. Safety
- III. Fundamentals of Extrication
- A. Role of the First Responder
 - 1. Administer necessary care to the patient before extrication and assure that the patient is removed in a way to minimize further injury.
 - 2. Patient care precedes extrication unless delayed movement would endanger life of the patient or rescuer.

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3. Working with others
 - a. In some instances, First Responders are also the rescue providers.
 - b. A chain of command should be established to ensure patient care priorities.
 - B. Equipment
 1. Personal safety
 - a. The number one priority for all First Responders
 - b. Protective clothing that is appropriate for the situation should be utilized.
 2. Patient safety - after safety of the First Responder, the next priority is safety of the patient.
 - a. The patient should be informed of the unique aspects of extrication.
 - b. The patient should be protected from broken glass, sharp metal and other hazards, including the environment.
 - C. Getting to the patient
 1. Simple access - does not require equipment.
 - a. Try opening each door.
 - b. Roll down windows.
 - c. Have patient unlock doors.
 2. Complex access - requires use of tools, special equipment. These are separate programs that should be taken (Trench Rescue, High Angle Rescue, Vehicle Rescue).
 - D. Removing the patient
 1. Work under the direction of the EMS providers.
 2. Maintain spine stabilization.
 3. Complete initial assessment.
 4. Provide critical interventions.
- IV. Hazardous Materials
- A. Common problem
 - B. Actual extent unknown
 - C. Safety is the primary concern
 1. First Responder and crew
 2. Patient

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- 3. Public
 - D. Approaching the scene
 - 1. Identification
 - a. Occupancy
 - b. Containers - size/shape
 - c. Placards
 - d. Shipping papers
 - e. Senses
 - 2. General procedures
 - a. Park upwind/uphill from the incident, at a safe distance.
 - b. Keep unnecessary people away from area.
 - c. Isolate the area.
 - (1) Keep people out.
 - (2) Do not enter unless properly trained and fully protected.
 - d. Avoid contact with material.
 - e. Remove patients to a safe zone, if no risk to First Responder.
 - f. Do not enter a Haz/Mat area unless you are trained as a Haz/Mat Technician.
 - E. Environmental hazards
 - F. Resources
 - 1. Local hazardous materials response team
 - 2. *Hazardous Materials, The Emergency Response Handbook*, published by the United States Department of Transportation
 - G. Review Occupational Safety and health Administration (OSHA) and National Fire Protection Association (NFPA) Haz Mat requirements for EMS providers including First Responders.
- V. Mass casualty incidents
- A. Basic triage
 - 1. Sorting multiple casualties into priorities for emergency medical care or transportation to definitive care.
 - 2. Priorities are given in three levels.

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3. Triage categories
 - a. Highest priority
 - (1) Airway and breathing difficulties
 - (2) Uncontrolled or severe bleeding
 - (3) Decreased mental status
 - b. Second priority
 - (1) Burns without airway problems
 - (2) Major or multiple painful, swollen, deformed extremities
 - (3) Back injuries
 - c. Lowest priority
 - (1) Minor painful, swollen, deformed extremities
 - (2) Minor soft tissue injuries
 - (3) Death
- B. Procedures for First Responder arrival to a mass casualty incident
 1. Most knowledgeable EMS provider arriving on-scene first becomes triage officer, until relieved by a responder with a higher level of training.
 2. Confirms incident and establishes a command post.
 3. Additional help should be requested.
 4. Perform initial assessment on all patients first.
 5. Start triage tag for each patient.
 6. Assign available personnel and equipment to priority one patients.
 7. Triage officer remains at scene to assign and coordinate personnel, supplies, and vehicles.
- C. Procedures for responding to a mass casualty incident where incident command has been established
 1. Report to command post.
 2. Identify the Incident Commander, identify yourself and your level of training.
 3. Follow directions from the Incident Commander.

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Application

Procedural (How)

None identified for this lesson.

Contextual (When, Where, Why)

The knowledge of EMS operations is applied throughout the career of the First Responder.

Gaining access is intended to be an overview of the actions required to extricate a patient. It is not the intent of this lesson to teach the First Responder the techniques of extrication. A number of special classes are available to teach such specialized knowledge and skills. This lesson should emphasize the safety and medical aspects of this process.

Student Activities

Auditory (Hearing)

1. Students should hear audio tapes of actual dispatch conversations with callers to the 9-1-1 system.
2. Students should hear audio tapes of actual dispatch information.
3. Students should hear audiotapes of First Responder patient condition reports to responding ambulances.

Visual (Seeing)

1. Students should see actual equipment or audio-visual materials of ambulance equipment.
2. Students should see audio-visual materials depicting an actual ambulance run.
3. Students should see various crash scenes to determine if additional help will be necessary to remove the patient.
4. Students should see the various options of personal protective equipment.

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Kinesthetic (Doing)

1. Students should practice receiving and sending information to dispatch.
2. Students should practice giving patient condition and scene reports to responding ambulances.
3. Students should practice evaluating crash scenes to determine the need for complex rescue.

Instructor Activities

Facilitate discussion and supervise practice.
Reinforce student progress in cognitive, affective, and psychomotor domains.
Redirect students having difficulty with content. (Complete remediation form.)

Evaluation

Written:

Develop evaluation instruments, e.g., quizzes, oral reviews, and handouts, to determine if the students have met the cognitive and affective objectives of this lesson.

Practical:

Evaluate the actions of the First Responder students during role play, practice, or other skill stations to determine their compliance with the cognitive and affective objectives and their mastery of the psychomotor objectives of this lesson.

Remediation

Identify students or groups of students who are having difficulty with this subject content. Complete remediation sheet from the instructor's course guide.

Enrichment

What is unique in the local area concerning this topic? Complete enrichment sheets from instructor's course guide and attach with lesson plan.

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Lesson 6-2 Evaluation: EMS Operations

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Lesson 6 - 2: Evaluation: EMS Operations

Objectives

Objectives Legend

C=Cognitive P=Psychomotor A=Affective

1 = Knowledge level

2 = Application level

3 = Problem solving level

Cognitive Objectives

At the completion of this lesson, the First Responder student will be able to:

6-2.1 Demonstrate competence in the cognitive objectives of Lesson 7-1: EMS Operations

Affective Objectives

At the completion of this lesson, the First Responder student will be able to:

6-2.2 Demonstrate competence in the affective objectives of Lesson 7-1: EMS Operations

Psychomotor Objectives

At the completion of this lesson, the First Responder student will be able to:

6-2.3 Demonstrate competence in the psychomotor objectives of Lesson 7-1: EMS Operations

Preparation

Motivation:

Evaluation of the student's attainment of the cognitive and affective knowledge and psychomotor skills is an essential component of the First Responder's educational process. The modules are presented in a "building block" format. Once the students have demonstrated their knowledge and proficiency, the next lesson should be built upon that knowledge. This evaluation will help to identify students or groups of students having difficulty with a particular area. This is an opportunity for the instructor to evaluate their performance and make appropriate modifications to the delivery of material.

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Lesson 6 - 2: Evaluation: EMS Operations

Prerequisites:

Completion of Lesson 7-1

Material

AV Equipment:

Typically none required.

EMS Equipment:

The EMS equipment used in the Lessons of Module 7.

Personnel

Primary Instructor:

One proctor for the written evaluation.

Assistant Instructor:

One practical skills examiner for each 6 students.

Recommended Minimum Time to Complete:

One-half hour

Presentation

Declarative (What)

- VI. Purpose of the evaluation
- VII. Items to be evaluated
- VIII. Feedback from evaluation

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Lesson 6 - 2: Evaluation: EMS Operations

Application

Procedural (How)

1. Written evaluation based on the cognitive and affective objectives of Lesson 7-1
2. Practical evaluation stations based on the psychomotor objectives of Lesson 7-1

Contextual (When, Where and Why)

The evaluation is the final lesson in this module and is designed to bring closure to the module and to assure that students are prepared to move to the next module.

This modular evaluation is given to determine the effectiveness of the presentation of materials and how well students have retained the material. This is an opportunity for the students to make necessary adjustments in study habits or for the instructor to adjust the manner in which material is presented.

Instructor Activities

Supervise student evaluation.

Reinforce student progress in cognitive, affective, and psychomotor domains.

Redirect students having difficulty with content. (Complete remediation forms.)

Remediation

Identify students and/or groups of students who are having difficulty with this subject content. Complete a remediation sheet from the instructor's course guide. If students continue to have difficulty demonstrating knowledge of the cognitive and affective objectives, or demonstrating proficiency in psychomotor skills, the students should be counseled, remediated, and re-evaluated. If improvements in cognitive, affective, or psychomotor skills are not achieved, consideration regarding the ability of the student to progress in the program should be taken into account.

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