State of Wisconsin

Registered Nurse to EMT-Basic Transition Course

November 2010

Wisconsin EMS Section

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State of Wisconsin
Registered Nurse to EMT Basic Transition Course
Introduction

This curriculum is taken from the Revised Wisconsin EMT-Basic Curriculum as revised in 2006. The EMT-Basic curriculum was reviewed and revised by a group of RNs and ultimately by Wisconsin Instructor/Coordinators who have taught the actual RN to EMT-Basic Transition Course. Special thanks to Marissa Anders, Deb Slaby, Gary Leyer and Kerry Campbell for their assistance in producing this document.

There are six modules to the curriculum and highlights from each will be outlined in this section. Recommended hours for each module as well as suggestions for the utilization of alternative delivery formats will be identified.

Module 1: Preparatory
Anatomy and physiology are covered throughout the curriculum where applicable, and are utilized to introduce foundational information relevant to specific body systems.

Recommended hours: 5

Recommended delivery formats: A web based approach is suggested for the sections on Well-being of the EMT and Topographical Anatomy and Directional Terms. All other components may be best served by more traditional delivery methods.

Module 2: Patient Assessment
The Patient Assessment module contains baseline vital signs, pulse oximetry, critical thinking, and a section entitled Age Extremes: Geriatrics and Pediatrics. The sections on critical thinking and age extremes serve as introductory and foundational. Consecutive modules encourage the use of problem solving strategies needed to provide effective and appropriate management of all patients. Pediatric content is distributed throughout the curriculum. Relevant information about geriatric patients is included in all successive modules.

Recommended hours: 5

Recommended delivery formats: Problem solving scenarios and case study presentations for each content area are strongly recommended. Most components of this module may be best suited for traditional delivery methods.

Module 3: Airway Management
The Airway Management module includes both basic and advanced airway management procedures. The advanced airway objectives are generalized to include more than one non-visualized airway that the State will consider for those services seeking approval and use.

Recommended hours: 6

Recommended delivery format: Traditional methodology.

Module 4: Medical Emergencies
The Medical Emergencies module contains an enhanced amount of foundational information about pharmacology and disease processes that will serve to enhance the students understanding of how to manage patients across the acuity spectrum. The additional medications approved as part of Wisconsin's Scope of Practice for the EMT Basic are thoroughly covered within this module, as well as a section on The Acute Abdomen.

Recommended hours: 10

Recommended delivery formats: Web based instruction for pharmacology, altered LOC, poisoning/overdose, environmental emergencies, allergies, obstetrics/gynecology and acute abdomen are recommended, along with traditional delivery methods. Case studies and problem solving scenarios are strongly recommended.

Module 5: Trauma
The Trauma module contains a broad base of information about injury patterns, types of shock, stages of hemorrhagic shock, and various traumatic injuries associated with specific body regions. Specific sections provide a thorough understanding of management plans and special considerations we face when providing care for all patients, regardless of age.

Recommended hours: 10

Recommended delivery formats: Web based instruction for injury patterns and kinematics of trauma is suggested, as well as traditional methods for all components. Case studies and problem solving scenarios should be utilized for bridging assessment strategies with patient management.

Module 6: Operations, Haz Mat, MCI & WMD
The final module covers objectives pertaining to ambulance operations, extrication, triage, mass casualty incidents, hazardous materials and weapons of mass destruction.

Recommended hours: 10

Recommended delivery formats: Web based instruction, as well as traditional delivery formats are recommended for all components of this module.

List of Appendices

Informational guides and supplemental materials are included in the appendix for your use in teaching and training. They include:

- ✓ Comprehensive listing of the modules and total number of objectives in each module
- ✓ Syllabus template – 4 hour sessions
- ✓ Guides and outlines on critical thinking
- ✓ Templates for creating case studies and problem solving scenarios
- ✓ Patient assessment flowchart and checklists
- ✓ Medication administration check sheets
- ✓ Procedures checklists
- ✓ Drug profile template

MODULE 1

Preparatory

Lesson 1-1

Introduction to Emergency Care

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 EMT-Basic student will be able to:

1-1.1 Define Emergency Medical Services (EMS) systems. (C-1)
1-1.2 Differentiate the roles and responsibilities of the EMT-Basic from other pre-hospital care providers. (C-3)
1-1.3 Describe the roles and responsibilities related to personal safety. (C-1)
1-1.4 Discuss the roles and responsibilities of the EMT-Basic towards the safety of the crew, the patient and bystanders. (C-2)
1-1.5 Describe the process of critical thinking as it pertains to the roles and responsibilities of the EMT-Basic (C-1)
1-1.6 Define quality improvement and discuss the EMT-Basic's role in the process. (C-1)
1-1.7 Describe how the actions of one crew member can affect those of others. (C-2)
1-1.8 Define medical direction and discuss the EMT-Basic's role in the process. (C-1)
1-1.9 State the specific statutes and regulations in your state regarding the EMS system. (C-1)

AFFECTIVE OBJECTIVES

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

1-1.10 Assess areas of personal attitude and conduct of the EMT-Basic. (A-3)
1-1.11 Characterize the various methods used to access the EMS system in your community. (A-3)

PSYCHOMOTOR OBJECTIVES

No psychomotor objectives identified.

PREPARATION

Motivation: The field of prehospital emergency medical care is an evolving profession in which the reality of life and death is confronted at a moment's notice. EMS has developed from the days when the local funeral home and other services served as the ambulance provider to a far more sophisticated system today. EMT-Basics work side by

side with other health care professionals to help deliver professional prehospital emergency medical care. This course is designed to help the new EMT-Basic gain the knowledge, skills and attitude necessary to be a competent, productive, and valuable member of the emergency medical services team.

Prerequisites: BLS

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to emergency medical care. The continuous design and 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 assure the objectives of the curriculum are met.

EMS Equipment: None required.

PERSONNEL

Primary Instructor: One EMT-Basic instructor knowledgeable in EMT-Basic course overview, administrative paperwork, certification requirements, Americans with Disabilities Act issues, and roles and responsibilities of the EMT-Basic.

Assistant Instructor: None required.

PRESENTATION

Declarative (What)

I. Course Overview
   - A. Paperwork
     1. Local
     2. State
   - B. Course description and expectations
   - C. Immunizations/physical exam
   - D. Review criteria for certification
     1. Successful course completion
     2. Mentally/physically meet criteria of safe and effective practice of job functions
     3. Written examination
     4. Practical examination
     5. State and local provisions

II. The Emergency Medical Services System and the Emergency Medical Technician-Basic
   - A. Overview of the Emergency Medical Services system

1. National Highway Traffic Safety Administration Technical Assistance Program Assessment Standards
    a) Regulation and policy
    b) Resource management
    c) Human resources and training
    d) Transportation
    e) Facilities
    f) Communications
    g) Public information and education
    h) Medical direction
    i) Trauma systems
    j) Evaluation
2. Access to the system
    a) 9-1-1
    b) Non 9-1-1
3. Levels of training
    a) First Responder (Emergency Medical Responder)
    b) EMT-Basic
    c) Intermediate Technician
    d) EMT-Intermediate
    e) EMT-Paramedic
4. Liaison with other public safety workers
    a) Local law enforcement
    b) State and federal law enforcement

B. Medical direction
1. Definition
    a) A physician responsible for the clinical and patient care aspects of an EMS system
    b) Every ambulance service/rescue squad must have physician medical direction
    c) Types of medical direction
        (1) On-line
            (a) Telephone
            (b) Radio
        (2) Off-line
            (a) Protocols
            (b) Standing orders
2. The relationship of the EMT-Basic to medical direction
    a) Designated agent of the physician
    b) Care rendered is considered an extension of the medical director's authority (varies by state law)

C. Specific statutes and regulations regarding EMS in your state

APPLICATION

Contextual (When, Where, Why)

1. After completion of the course, the EMT-Basic will use this information to understand the process of gaining and maintaining certification, as well as understanding state and local legislation affecting the profession.

STUDENT ACTIVITY

Auditory (Hear)

1. Students will hear specifically what they can expect to receive from the training program.
2. Students will hear the specific expectations of the training program.
3. Students will hear actual state and local legislation relative to EMS practice and certification.

Visual (See)

1. Students will receive a copy of the cognitive, affective and psychomotor objectives for the entire curriculum.
2. Students will receive the final skill evaluation instruments.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation form).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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.

MODULE 1

Preparatory

Lesson 1-2

Well-Being of the EMT-Basic

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 EMT-Basic student will be able to:

1-2.1 List possible emotional reactions that the EMT-Basic may experience when faced with trauma, illness, death and dying. (C-1)

1-2.2 Discuss the possible reactions that a family member may exhibit when confronted with death and dying. (C-1)

1-2.3 State the possible reactions that the family of the EMT-Basic may exhibit due to their outside involvement in EMS. (C-1)

1-2.4 Explain the need to determine scene safety. (C-2)

1-2.5 Discuss the importance of body substance isolation (BSI) (C-1)

1-2.6 List the personal protective equipment necessary for each of the following situations: (C-1)
- Hazardous materials
- Rescue operations
- Violent scenes
- Crime scenes
- Exposure to bloodborne pathogens
- Exposure to airborne pathogens

PREPARATION

Motivation: EMT-Basics encounter many stressful situations providing emergency medical care to patients. These range from death and terminal illness to major traumatic situations and child abuse. EMT-Basics will treat angry, scared, violent, seriously injured and ill patients and family members. The EMT-Basic is not immune from the personal effects of these situations. EMT-Basics will learn during this lesson what to expect and how to assist the patient, patient's family, the EMT-Basic's family and other EMT-Basics in dealing with the stress. This lesson discusses methods of talking to friends and family, without violating confidentiality, but as a means of helping them cope with involvement in EMS. Finally, aspects of personal safety will be discussed. It is important to realize this is only a brief overview and will be readdressed with each specific skill or topic. To put this

in perspective, remember: A dead or injured EMT-Basic is of little or no use to a patient.

Prerequisites: BLS

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to the well-being of the EMT-Basic. The continuous design and 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 assure the objectives of the curriculum are met.

EMS Equipment: Eye protection, gowns, gloves, masks, forms for reporting exposures.

PERSONNEL

Primary Instructor: One EMT-Basic instructor knowledgeable in critical incident stress debriefing, identifying child/elderly abuse, stages of death and dying, and aspects of scene safety.

Assistant Instructor: None required.

PRESENTATION

Declarative (What)

I. Emotional Aspects of Emergency Care
   - A. Stress management
     1. Recognize warning signs
        - a) Irritability to co-workers, family, friends
        - b) Inability to concentrate
        - c) Difficulty sleeping/nightmares
        - d) Anxiety
        - e) Indecisiveness
        - f) Guilt
        - g) Loss of appetite
        - h) Loss of interest in sexual activities
        - i) Isolation
        - j) Loss of interest in work
   - B. Critical incident stress management (CISM)
     1. A team of peer counselors and mental health professionals who help emergency care workers deal with critical incident stress
     2. Meeting is held within 24 to 72 hours of a major incident
        - a) Open discussion of feelings, fears, and reactions
        - b) Not an investigation or interrogation
        - c) All information is confidential

d) CISM leaders and mental health personnel evaluate the information and offer suggestions on overcoming the stress

3. Designed to accelerate the normal recovery process after experiencing a critical incident
   a) Works well because feelings are ventilated quickly
   b) Debriefing environment is non-threatening
4. How to access local CISM system

C. Comprehensive critical incident stress management includes:
1. Pre-incident stress education
2. On-scene peer support
3. One-on-one support
4. Disaster support services
5. Defusing sessions
6. CISD
7. Follow up services
8. Spouse/family support
9. Community outreach programs
10. Other health and welfare programs such as wellness programs

II. Scene Safety

A. Body substance isolation (BSI) (Bio-Hazard)
1. EMT-Basic's and patient's safety
   a) Hand washing
   b) Eye protection
      (1) If prescription eyeglasses are worn, then removable side shields can be applied to them
      (2) Goggles are NOT required
   c) Gloves (vinyl or latex)
      (1) Needed for contact with blood or bloody body fluids
      (2) Should be changed between contacts with different patients
   d) Gloves (utility) - needed for cleaning vehicles and equipment
   e) Gowns
      (1) Needed for large splash situations such as with field delivery and major trauma
      (2) Change of uniform is preferred
   f) Masks
      (1) Surgical type for possible blood splatter (worn by care provider)
      (2) High Efficiency Particulate Air (HEPA) respirator if patient suspected for or diagnosed with tuberculosis (worn by care provider)
      (3) Airborne disease - surgical type mask (worn by patient)

g) Requirements and availability of specialty training

B. Personal protection
1. Hazardous materials
a) Identify possible hazards
(1) Binoculars
(2) Placards
(3) *Hazardous Materials, The Emergency Response Handbook*, published by the United States Department of Transportation
b) Protective clothing
(1) Hazardous material suits
(2) Self Contained Breathing Apparatus
c) Hazardous materials scenes are controlled by specialized HazMat teams
d) EMT-Basics provide emergency care only after the scene is safe and patient contamination limited
e) Requirements and availability of specialized training
2. Rescue
a) Identify and reduce potential life threats
(1) Electricity
(2) Fire
(3) Explosion
(4) Hazardous materials
b) Protective clothing
(1) Turnout gear
(2) Puncture-proof gloves
(3) Helmet
(4) Eye wear
c) Dispatch rescue teams for extensive/heavy rescue
3. Violence
a) Scene should always be controlled by law enforcement before EMT-Basic provides patient care
(1) Perpetrator of the crime
(2) Bystanders
(3) Family members
b) Behavior at crime scene (covered in greater detail in Medical/Legal and Ethical Issues, Module 1, Lesson 1-3)
(1) Do not disturb the scene unless required for medical care
(2) Maintain chain of evidence

III. Safety Precautions in Advance - Suggested Immunizations
A. Tetanus prophylaxis
B. Hepatitis B vaccine
C. Verification of immune status with respect to commonly transmitted contagious diseases
D. Access or availability of immunizations in the community

E. Tuberculin purified protein derivative (PPD) testing
F. Others

APPLICATION

Procedural (How)

1. The EMT-Basic will know how to access additional information on hazardous materials and infectious disease exposure, notification and follow-up.

Contextual (When, Where, Why)

1. While the EMT-Basic may not be a member of a hazardous material or heavy rescue team, this lesson should provide the personal incentive to seek out and attend continuing education programs relative to personal safety during hazardous material incidents, rescue situations and violent crime scenes.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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.

MODULE 1

Preparatory

Lesson 1-3

Medical/Legal and Ethical Issues

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 EMT-Basic student will be able to:

1-3.1 Define the EMT-Basic scope of practice. (C-1)
1-3.2 Explain the rationale for the need, benefits and use of advance directives, such as Do Not Resuscitate [DNR] orders, living wills, and power of attorney for health care as they pertain to EMS. (C-2)
1-3.3 Define consent and discuss the methods of obtaining consent.(C-1)
1-3.4 Differentiate between expressed and implied consent. (C-3)
1-3.5 Explain the role of consent of minors in providing care. (C-1)
1-3.6 Discuss the implications for the EMT-Basic in patient refusal of transport. (C-1)
1-3.7 Discuss the issues of abandonment, negligence, assault and battery. (C-1)
1-3.8 State the conditions necessary for the EMT-Basic to have a duty to act. (C-1)
1-3.9 Discuss the considerations of the EMT-Basic in issues of organ retrieval. (C-1)
1-3.10 Differentiate the actions that an EMT-Basic should take to assist in the preservation of a crime scene. (C-3)
1-3.11 State the conditions that require an EMT-Basic to notify local law enforcement officials. (C-1)

AFFECTIVE OBJECTIVES

No affective objectives identified.

PSYCHOMOTOR OBJECTIVES

No psychomotor objectives identified.

PREPARATION

Motivation: Medical/legal and ethical issues are a vital element of the EMT-Basic's daily life. Should an EMT-Basic stop and treat an automobile crash victim when off duty? Should patient information be released to the attorney on the telephone? Can a child with a broken arm be treated even though his parents are not at home and/or only his

child care provider is around? These and many other medical/legal/ethical questions face the EMT-Basic every day. Guidance will be given in this lesson to answer these questions and learn how to make the correct decision when other medical/legal and ethical questions arise.

Prerequisites: BLS

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to medical/ legal and ethical issues. The continuous design and 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 assure the objectives of the curriculum are met.

EMS Equipment: None.

PERSONNEL

Primary Instructor: One EMT-Basic instructor knowledgeable in the medical/legal aspects and ethical issues that the EMT-Basic will encounter.

Assistant Instructor: None required.

PRESENTATION

Declarative (What)

I. Potential Crime Scene/Evidence Preservation
   - A. Dispatch should notify police personnel
   - B. Responsibility of the EMT-Basic
     1. Emergency care of the patient is the EMT-Basic's priority
     2. Do not disturb any item at the scene unless emergency care requires it
     3. Observe and document anything unusual at the scene
     4. If possible, do not cut through holes in clothing from gunshot wounds or stabbings

II. Special Reporting Situations
   - A. Established by state legislation and may vary from state to state
   - B. Commonly required reporting situations
     1. Suspicion of abuse
        - a) Child
        - b) Elderly
        - c) Spouse
     2. Crime

a) Wounds obtained by violent crime
b) Sexual assault

C. Infectious disease exposure
D. Patient restraint laws e.g. forcing someone to be transported against their will.
E. Mentally incompetent, e.g., intoxication with injuries

APPLICATION

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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.

MODULE 1

Preparatory

Lesson 1-5

Lifting and Moving Patients

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 EMT-Basic student will be able to:

1-5.1 Define body mechanics. (C-1)
1-5.2 Discuss the guidelines and safety precautions that need to be followed when lifting a patient. (C-1)
1-5.3 Describe the safe lifting of cots and stretchers. (C-1)
1-5.4 Describe the guidelines and safety precautions for carrying patients and/or equipment. (C-1)
1-5.5 Discuss one-handed carrying techniques. (C-1)
1-5.6 Describe correct and safe carrying procedures on stairs. (C-1)
1-5.7 State the guidelines for reaching and their application. (C-1)
1-5.8 Describe correct reaching for log rolls. (C-1)
1-5.9 State the guidelines for pushing and pulling. (C-1)
1-5.10 Discuss the general considerations of moving patients. (C-1)
1-5.11 State three situations that may require the use of an emergency move. (C-1)
1-5.12 Identify the following patient carrying devices:
- Wheeled ambulance stretcher
- Portable ambulance stretcher
- Stair chair
- Scoop stretcher
- Long spine board
- Basket stretcher
- Flexible stretcher (C-1)

AFFECTIVE OBJECTIVES

None identified for this lesson.

PSYCHOMOTOR OBJECTIVES

1-5.13 Working with a partner, prepare each of the following devices for use, transfer a patient to the device, properly position the patient on the device, move the device to the ambulance and load the patient into the ambulance:
- Wheeled ambulance stretcher
- Portable ambulance stretcher
- Stair chair
- Scoop stretcher

Long spine board
Basket stretcher
Flexible stretcher (P-1,2)

PREPARATION

Motivation: Many EMT-Basics are injured every year because they attempt to lift patients improperly.

Prerequisites: BLS

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to lifting and moving techniques. The continuous design and 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 assure the objectives of the curriculum are met.

EMS Equipment: Wheeled stretcher, stair chair, scoop stretcher, flexible stretcher, ambulance, long and short backboards, bed.

PERSONNEL

Primary Instructor: One EMT-Basic instructor knowledgeable in this area.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skills practice. Individuals used as assistant instructors should be knowledgeable about lifting and moving patients.

PRESENTATION

Declarative (What)

I. Body Mechanics
  A. Carrying
    1. Correct carrying procedure on stairs
      a) When possible, use a stair chair instead of a stretcher
      b) Keep back in locked-in position
      c) Flex at the hips, not the waist; bend at the knees
      d) Keep weight and arms as close to the body as possible

II. Principles of Moving Patients
  A. General considerations
    1. In general, a patient should be moved immediately (emergency move) only when:
      a) There is an immediate danger to the patient if not moved

(1) Fire or danger of fire
(2) Explosives or other hazardous materials
(3) Inability to protect the patient from other hazards at the scene
(4) Inability to gain access to other patients in a vehicle who need life-saving care

b) Life-saving care cannot be given because of the patient's location or position, e.g., a cardiac arrest patient sitting in a chair or lying on a bed

2. A patient should be moved quickly (urgent move) when there is immediate threat to life
   a) Altered mental status
   b) Inadequate breathing
   c) Shock
3. If there is no threat to life, the patient should be moved when ready for transportation (non-urgent move)

B. Emergency moves
1. The greatest danger in moving a patient quickly is the possibility of aggravating a spine injury
2. In an emergency, every effort should be made to pull the patient in the direction of the long axis of the body to provide as much protection to the spine as possible
3. It is impossible to remove a patient from a vehicle quickly and at the same time provide as much protection to the spine as can be accomplished with an interim immobilization device
4. If the patient is on the floor or ground, he can be moved by:
   a) Pulling on the patient's clothing in the neck and shoulder area
   b) Putting the patient on a blanket and dragging the blanket
   c) Putting the EMT-Basic's hands under the patient's armpits (from the back), grasping the patient's forearms and dragging the patient

C. Urgent moves
1. Rapid extrication of patient sitting in vehicle
   a) One EMT-Basic gets behind patient and brings cervical spine into neutral in-line position and provides manual immobilization
   b) A second EMT-Basic applies cervical immobilization device as the third EMT-Basic first places long backboard near the door and then moves to the passenger seat
   c) The second EMT-Basic supports the thorax as the third EMT-Basic frees the patient's legs from the pedals
   d) At the direction of the second EMT-Basic, he and the third EMT-Basic rotate the patient in several short, coordinated moves until the patient's back is in the open doorway and his feet are on the passenger seat

e) Since the first EMT-Basic usually cannot support the patient's head any longer, another available EMT-Basic or a bystander supports the patient's head as the first EMT-Basic gets out of the vehicle and takes support of the head outside of the vehicle
f) The end of the long backboard is placed on the seat next to the patient's buttocks. Assistants support the other end of the board as the first EMT-Basic and the second EMT-Basic lower the patient onto it
g) The second EMT-Basic and the third EMT-Basic slide the patient into the proper position on the board in short, coordinated moves
h) Several variations of the technique are possible, including assistance from bystanders. Must be accomplished without compromise to the spine.

D. Non-urgent moves
1. Direct ground lift (no suspected spine injury)
a) Two or three rescuers line up on one side of the patient
b) Rescuers kneel on one knee (preferably the same for all rescuers)
c) The patient's arms are placed on his chest if possible
d) The rescuer at the head places one arm under the patient's neck and shoulder and cradles the patient's head. He places his other arm under the patient's lower back.
e) The second rescuer places one arm under the patient's knees and one arm above the buttocks
f) If a third rescuer is available, he should place both arms under the waist and the other two rescuers slide their arms either up to the mid-back or down to the buttocks as appropriate
g) On signal, the rescuers lift the patient to their knees and roll the patient in toward their chests
h) On signal, the rescuers stand and move the patient to the stretcher
i) To lower the patient, the steps are reversed

III. Equipment
A. Stretchers/cots
1. Types
a) Wheeled stretcher
(1) Most commonly used device
(2) Rolling
(a) Restricted to smooth terrain
(b) Foot end should be pulled
(c) One person must guide the stretcher at head

(3) Carrying
(a) Two rescuers
(i) Preferable in narrow spaces, but requires more strength
(ii) Easily unbalanced
(iii) Rescuers should face each other from opposite ends of stretcher
(b) Four rescuers
(i) One rescuer at each corner
(ii) More stability and requires less strength
(iii) Safer over rough terrain
(4) Loading into ambulance
(a) Use sufficient lifting power
(b) Load hanging stretchers before wheeled stretchers
(c) Follow manufacturer's directions
(d) Ensure all cots and patients secured before moving ambulance

b) Portable stretcher
c) Stair chair
d) Backboards
(1) Long
(a) Traditional wooden device
(b) Manufactured varieties
(2) Short
(a) Traditional wooden device
(b) Vest type device

e) Scoop or orthopedic stretcher
f) Flexible stretcher

2. Maintenance - follow manufacturer's directions for inspection, cleaning, repair and upkeep

B. Patient positioning
1. An unresponsive patient without suspected spine injury should be moved into the recovery position by rolling the patient onto his side (preferably the left) without twisting the body
2. A patient with chest pain or discomfort or difficulty breathing should sit in a position of comfort as long as hypotension is not present
3. A patient with suspected spine injury should be immobilized on a long backboard
4. A patient in shock should have his legs elevated 8 - 12 inches
5. A patient who is pregnant should be transported on her left side to prevent and minimize hypotension

6. A patient who is nauseated or vomiting should be transported in a position of comfort; however, the EMT-Basic should be positioned appropriately to manage the airway

APPLICATION

Procedural (how)

1. Show examples of proper lifting.
2. Show examples of proper carrying.
3. Show examples of proper reaching.
4. Show examples of situations where emergency moves are appropriate.
5. Show examples of situations where urgent moves are appropriate.
6. Show examples of situations where non-urgent moves are appropriate.
7. Demonstrate emergency moves.
8. Demonstrate urgent moves.
9. Demonstrate non-urgent moves.
10. Demonstrate transfer of patient to stretcher.
11. Show examples of different types of carrying devices.
12. Demonstrate knowledge of appropriate selection of each carrying device.
13. Demonstrate carrying a patient on a stretcher.
14. Demonstrate loading a patient on a stretcher into an ambulance.
15. Demonstrate use of a stair chair.
16. Demonstrate use of a scoop stretcher.
17. Demonstrate positioning patients with different conditions.
    A. Unresponsiveness
    B. Chest pain/discomfort or difficulty breathing
    C. Suspected spine injury
    D. Shock
    E. Patients who are vomiting or nauseous
    F. Pregnant patient

STUDENT ACTIVITIES

Visual (See)

1. The student should see proper lifting techniques.
2. The student should see proper carrying techniques.
3. The student should see proper reaching techniques.
4. The student should see situations where emergency moves are appropriate.
5. The student should see situations where urgent moves are appropriate.
6. The student should see situations where non-urgent moves are appropriate.
7. The student should see emergency moves.
8. The student should see urgent moves.
9. The student should see non-urgent moves.
10. The student should see a patient transferred to a stretcher.
11. The student should see different types of carrying devices.
12. The student should see a patient carried on a stretcher.

13. The student should see a patient on a stretcher loaded into an ambulance.
14. The student should see a stair chair used.
15. The student should see a scoop stretcher used.
16. The student should see patients with different conditions positioned properly.
    A. Unresponsiveness
    B. Chest pain/discomfort or difficulty breathing
    C. Suspected spine injury
    D. Shock
    E. Patients who are vomiting or nauseous
    F. Pregnant patient

Kinesthetic (Do)

1. The student should practice proper lifting techniques.
2. The student should practice proper carrying techniques.
3. The student should practice proper reaching techniques.
4. The student should practice determining whether emergency, urgent or non-emergency moves are appropriate.
5. The student should practice emergency moves.
6. The student should practice urgent moves.
7. The student should practice non-urgent moves.
8. The student should practice transferring a patient to a stretcher.
9. The student should practice carrying a patient on a stretcher.
10. The student should practice loading a patient on a stretcher into an ambulance.
11. The student should practice using a stair chair.
12. The student should practice using a scoop stretcher.
13. The student should practice positioning patients with different conditions.
    A. Unresponsiveness
    B. Chest pain/discomfort or difficulty breathing
    C. Suspected spine injury
    D. Shock
    E. Patients who are vomiting or nauseous
    F. Pregnant patients

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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 guide and attach with lesson plan.

MODULE 1

Preparatory

Lesson 1-6

Evaluation: Preparatory

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 EMT-Basic student will be able to:

Demonstrate knowledge of the cognitive objectives of Lesson 1-1: Introduction to Emergency Care.
Demonstrate knowledge of the cognitive objectives of Lesson 1-2: Well-Being of the EMT-Basic.
Demonstrate knowledge of the cognitive objectives of Lesson 1-3: Medical/Legal and Ethical Issues.
Demonstrate knowledge of the cognitive objectives of Lesson 1-4: Topographical Anatomy and Directional Terms
Demonstrate knowledge of the cognitive objectives of Lesson 1-5: Lifting and Moving Patients.

AFFECTIVE OBJECTIVES

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

Demonstrate knowledge of the affective objectives of Lesson 1-1: Introduction to Emergency Care.
Demonstrate knowledge of the affective objectives of Lesson 1-2: Well-Being of the EMT-Basic.
Demonstrate knowledge of the affective objectives of Lesson 1-3: Medical/Legal and Ethical Issues.

PSYCHOMOTOR OBJECTIVES

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

Demonstrate proficiency in the psychomotor objectives of Lesson 1-2: Well-Being of the EMT-Basic.
Demonstrate proficiency in the psychomotor objectives of Lesson 1-5: Lifting and Moving Patients.

PREPARATION

Motivation: Evaluation of the student's attainment of the cognitive and affective knowledge and psychomotor skills is an essential component of the EMT-Basic 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.

Prerequisites: Completion of Lesson 1-1 through 1-5.

MATERIALS

AV Equipment: Typically none required.

EMS Equipment: Equipment required to evaluate the students' proficiency in the psychomotor skills of this module.

PERSONNEL

Primary Instructor: One proctor for the written evaluation.

Assistant Instructor: One practical skills examiner for each 6 students.

PRESENTATION

Declarative (What)

I. Purpose of the evaluation
II. Items to be evaluated
III. Feedback from evaluation

APPLICATION

Procedural (How)

1. Written evaluation based on the cognitive and affective objectives of Lessons 1-1 through 1-5.
2. Practical evaluation stations based on the psychomotor objectives of Lessons 1-1 through 1-5.

Contextual (When, Where and Why)

1. 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.
2. This modular evaluation is given to determine the effectiveness of the presentation of materials and how well students have retained the material.
3. 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

1. Supervise student evaluation.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. 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.

MODULE 2

Patient

Assessment

Lesson 2-1

Scene Size-up

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 EMT-Basic student will be able to:

2-1.1 Recognize potential scene hazards. (C-1)
2-1.2 Describe common hazards found at the scene of a trauma and a medical patient. (C-1)
2-1.3 Determine if the scene is safe to enter. (C-2)
2-1.4 Recognize the need for personal protective equipment. (C-2)
2-1.5 Discuss common mechanisms of injury/nature of illness. (C-1)
2-1.6 Discuss the reason for identifying the total number of patients at the scene. (C-1)
2-1.7 Discuss the rationale for considering the possible need for early c-spine precautions in the patient assessment process. (C-1)
2-1.8 Explain the reason for identifying the need for additional help or assistance. (C-1)

AFFECTIVE OBJECTIVES

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

2-1.9 Explain the rationale for crew members to evaluate scene safety prior to entering. (A-2)

PSYCHOMOTOR OBJECTIVES

No psychomotor objectives identified.

PREPARATION

Motivation: Size-up is the first aspect of a systematic approach to patient assessment. It begins as the EMT-Basic approaches the scene. During this phase, the EMT-Basic surveys the scene to determine if there are any threats that may cause an injury to the EMT-Basic. In addition, this assessment allows the EMT-Basic to determine the nature of the call and obtain additional help.

Prerequisites: BLS and Preparatory.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to scene size-up. The continuous design and 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 assure the objectives of the curriculum are met.

EMS Equipment: None

PERSONNEL

Primary Instructor: One EMT-Basic instructor, knowledgeable in scene management.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable about scene size-up.

PRESENTATION

Declarative (What)

I. Scene Size-up (READ the scene) – gather, evaluate and synthesize information from dispatch, the scene and the patient
   - A. Body substance isolation review
     1. Eye protection if necessary
     2. Gloves if necessary
     3. Gown if necessary
     4. Mask if necessary
   - B. Scene safety
     1. Definition - an assessment of the surroundings (weather, environmental factors and clues from the scene) to assure the well-being of the EMT-Basic
     2. Personal protection - Is it safe to approach the patient?
        - a. Crash/rescue scenes
        - b. Toxic substances - low oxygen areas
        - c. Crime scenes - potential for violence
        - d. Unstable surfaces: slope, ice, water
     3. Protection of the patient - environmental considerations
     4. Protection of bystanders - if appropriate, help the bystander avoid becoming a patient
     5. If the scene is unsafe, make it safe. Otherwise, do not enter.
   - C. Mechanism of injury/ nature of illness
     1. Medical
        - a. Nature of illness (NOI) – attempt to determined by interviewing the patient, family or bystanders

b. Determine the total number of patients. If there are more patients than the responding unit can efficiently handle, initiate a mass casualty plan.
   (1) Obtain additional help prior to contact with patients: law enforcement, fire, rescue, ALS, utilities. EMT-Basic is less likely to call for help when involved in patient care.
   (2) Begin triage

2. Trauma
   a. Mechanism of injury (MOI) – attempt to determine the specific cause of injury by interviewing the patient, family or bystanders, as well as inspect the scene for clues
   b. Consider the need for c-spine protection early in the assessment process
   c. Determine the total number of patients
      (1) If there are more patients than the responding unit can effectively handle, initiate a mass casualty plan.
         (a) Obtain additional help prior to contact with patients. EMT-Basic is less likely to call for help when involved in patient care.
         (b) Begin triage
      (2) If the responding crew can manage the situation, consider spinal precautions and continue care.

APPLICATION

Contextual (When, Where, Why)

1. Size-up represents the very beginning of patient assessment. It requires the EMT-Basic to evaluate several aspects concerning the situation in a very short period of time. It is essential for assuring the safety of the crew and the patient.

STUDENT ACTIVITIES

Auditory (Hear)

1. The student will hear simulations of various safe and unsafe scenes.

Visual (See)

1. The student will see simulations of various safe and unsafe scenes.
2. The student should see a patient assessment flow chart.

Kinesthetic (Do)

1. The student will practice role playing the actions to take at various safe and unsafe scenes.
2. The student should use a patient assessment flow chart.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan.

MODULE 2

Patient

Assessment

Lesson 2-2

Initial Assessment

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 EMT-Basic student will be able to:

2-2.1 Summarize the reasons for forming a general impression of the patient. (C-1)
2-2.2 Discuss methods of assessing altered mental status. (C-1)
2-2.3 Differentiate between assessing the altered mental status in the adult, child and infant patient. (C-3)
2-2.4 Discuss methods of assessing the airway in the adult, child and infant patient. (C-1)
2-2.5 State reasons for management of the cervical spine once the patient has been determined to be a trauma patient. (C-1)
2-2.6 State what care should be provided to the adult, child and infant patient with inadequate breathing. (C-1)
2-2.7 Differentiate between a patient with adequate and inadequate breathing. (C-3)
2-2.8 Distinguish between methods of assessing breathing in the adult, child and infant patient. (C-3)
2-2.9 Compare the methods of providing airway care to the adult, child and infant patient. (C-3)
2-2.10 Describe normal and abnormal findings when assessing skin capillary refill in the infant and child patient. (C-1)
2-2.11 Explain the reason for prioritizing a patient for care and transport. (C-1)

AFFECTIVE OBJECTIVES

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

2-2.12 Explain the importance of forming a general impression of the patient. (A-1)
2-2.13 Explain the value of performing an initial assessment. A-2)

PSYCHOMOTOR OBJECTIVES

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

2-2.14 Demonstrate the techniques for assessing mental status. (P-1, 2)
2-2.15 Demonstrate the techniques for assessing the airway. (P-1, 2)
2-2.16 Demonstrate the techniques for assessing if the patient is breathing. (P-1, 2)

2-2.17 Demonstrate the techniques for assessing if the patient has a pulse. (P-1, 2)
2-2.18 Demonstrate the techniques for assessing the patient for external bleeding. (P-1, 2)
2-2.19 Demonstrate the techniques for assessing the patient's skin color, temperature, condition and capillary refill (infants and children only). (P-1, 2)
2-2.20 Demonstrate the ability to prioritize patients. (P-1, 2)

PREPARATION

Motivation: The EMT-Basic will encounter patients who require emergency medical care. It is important for the EMT-Basic to identify those patients who require rapid assessment critical interventions, and immediate transport.

In keeping with a systematic approach to patient assessment, the EMT-B will gather important information about the status of the patient.

Prerequisites: BLS and Preparatory.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to patient assessment. The continuous design and 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 assure the objectives of the curriculum are met.

EMS Equipment: Exam gloves, airway management equipment.

PERSONNEL

Primary Instructor: One EMT-Basic instructor knowledgeable in patient assessment.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable about patient assessment.

PRESENTATION

Declarative (What)

I. General Impression (READ the patient) – gather, evaluate and synthesize information about the patient
   A. Definition
      1. The general impression is formed to determine priority of care and is based upon the EMT-B's assessment of the environment, and the patient's chief complaint.
      2. Determine MOI or NOI.

II. Assess Patient's Mental Status. Maintain Spinal Immobilization if Needed.
   A. Begin by speaking to the patient. State name, tell the patient that you are an emergency medical technician, and explain that you are here to help.
   B. Levels of consciousness (mental status) – AVPU Scale
      1. Alert
      2. Responds to Verbal stimuli.
      3. Responds to Painful stimuli.
      4. Unresponsive - no gag or cough reflex

III. Assess the Patient's Airway and REACT by managing life-threats.

IV. Assess the Patient's Breathing and REACT by managing life-threats.

V. Assess the Patient's Circulation and REACT by managing life-threats.

VI. Establish a Differential Diagnosis/Field Impression – determine the most likely cause of the MOI/NOI that fits the patient's initial presentation of signs and symptoms.

VII. Expose as needed to evaluated patient.

VIII. Identify Priority Patients and make a Transport Decision – determine the most serious condition or cause that fits the patient's initial presentation of signs and symptoms.
   A. Consider:
      1. Poor general impression
      2. Unresponsive patients - no gag or cough
      3. Responsive, not following commands
      4. Difficulty breathing
      5. Shock
      6. Complicated childbirth
      7. Chest pain with BP <100 systolic
      8. Uncontrolled bleeding
      9. Severe pain anywhere
   B. Expedite transport of the patient. Consider ALS back up.

IX. Proceed to the appropriate focused history and physical examination.

APPLICATION

Contextual (When, Where, Why)

1. Perform initial assessment on all patients after assuring scene and personal safety.
2. If the scene is safe and the environment permits, perform the assessment prior to moving the patient.
3. The initial assessment is a rapid means of assessing patient condition and priorities of care.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan.

MODULE 2

Patient

Assessment

Lesson 2-3

Baseline Vital Signs SAMPLE History and The Use of Pulse Oximetry

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 EMT-Basic student will be able to:

2-3.1 Identify the components of vital signs. (C-1)
2-3.2 Identify normal and abnormal capillary refill in infants and children. (C-1)
2-3.3 Explain the difference between auscultation and palpation for obtaining a blood pressure. (C-1)
2-3.4 Identify the components of the SAMPLE history. (C-1)
2-3.5 Discuss the need to search for additional medical identification. (C-1)
2-3.6 Describe the basic concept of pulse oximetry monitoring. (C-1)
2-3.7 Troubleshoot errors that can occur when using a pulse oximeter. (C-3)

AFFECTIVE OBJECTIVES

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

2-3.8 Explain the importance of obtaining a SAMPLE history. (A-1)

PSYCHOMOTOR OBJECTIVES

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

2-3.9 Demonstrate the skills that should be used to obtain information from the patient, family, or bystanders at the scene. (P-1, 2)
2-3.10 Demonstrate proper placement of the transducer utilized in pulse oximetry. (P-2)

PREPARATION

Motivation: An EMT-Basic must be able to accurately assess and record a patient's vital signs. This must be done to record trends in the patient's condition. In addition to vital signs, obtain a SAMPLE history, as well as obtain pulse oximetry readings.

Prerequisite Skills: BLS and Preparatory.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to vital signs, SAMPLE history and pulse oximetry units. The continuous design and 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 assure the objectives of the curriculum are met.

EMS Equipment: Exam gloves, stethoscope (dual and single head)(1:6), blood pressure cuffs (adult, infant and child)(1:6), penlights (1:6), pulse oximetry units.

PERSONNEL

Primary Instructor: One EMT-Basic instructor knowledgeable in patient assessment.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable in assessing baseline vital signs, SAMPLE histories and pulse oximetry units.

PRESENTATION

Declarative (What)

I. Obtain a SAMPLE History
   - A. Signs/Symptoms
     1. Sign - any medical or trauma condition displayed by the patient and identifiable by the EMT-Basic, e.g., Hearing = respiratory distress, Seeing = bleeding, Feeling = skin temperature
     2. Symptom - any condition described by the patient, e.g., shortness of breath
   - B. Allergies
     1. Medications
     2. Food
     3. Environmental allergies
     4. Consider medical identification tag
   - C. Medications
     1. Prescription
        - a. Current
        - b. Recent
        - c. Birth control pills
     2. Non-prescription
        - a. Current
        - b. Recent

3. Alternative
    a. herbal supplements
    b. dietary supplement

D. Pertinent Past History
1. Medical
2. Surgical
3. Trauma
4. Consider medical identification tag

E. Last oral intake: Solid or liquid
1. Time
2. Quantity

F. Events leading to the injury or illness
1. Chest pain with exertion
2. Chest pain while at rest

II. Pulse Oximetry Monitoring

A. Monitor patient status at all times. DO NOT rely solely upon mechanical readings.

APPLICATION

Procedural (How)

1. Discussion on questioning techniques to obtain history.

Contextual (When, Where, Why)

1. The SAMPLE history is important to guide the pace of the EMT-Basic and assist in the continuum of care at the receiving facility.

STUDENT ACTIVITIES

Auditory (Hear)

1. Student should hear five components of the SAMPLE history.

Kinesthetic (Do)

1. Students should practice methods for obtaining an SAMPLE history.
2. Students should practice completing a prehospital care report including vital signs and SAMPLE history.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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

MODULE 2

Patient

Assessment

Lesson 2-4

Focused History and Physical Exam: Trauma

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 EMT-Basic student will be able to:

2-4.1 Discuss the reasons for reconsideration concerning the mechanism of injury. (C-1)
2-4.2 State the reasons for performing a rapid trauma assessment. (C-1)
2-4.3 Recite examples and explain why patients should receive a rapid trauma assessment. (C-1)
2-4.4 Describe the areas included in the rapid trauma assessment and discuss what should be evaluated. (C-1)
2-4.5 Differentiate when the rapid assessment may be altered in order to provide patient care. (C-3)
2-4.6 Discuss the reason for performing a focused history and physical exam. (C-1)

AFFECTIVE OBJECTIVES

No affective objectives identified.

PSYCHOMOTOR OBJECTIVES

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

2-4.7 Demonstrate the rapid trauma assessment that should be used to assess a patient based on mechanism of injury. (P-1,2)

PREPARATION

Motivation: With trauma patients, it is important for the EMT-Basic student to separate those patients who require rapid assessment and critical interventions, from those patients who can be managed using components of the focused assessment.

Prerequisite Skills: BLS and Preparatory.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to the history and physical exam of trauma patients. The

continuous design and 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 assure the objectives of the curriculum are met.

EMS Equipment: Exam gloves, stethoscope (dual and single head)(1:6), blood pressure cuffs (adult, child and infant)(1:6), penlight (1:6), pulse oximeter.

PERSONNEL

Primary Instructor: One EMT-Basic instructor, knowledgeable in patient assessment.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable in assessing the history and physical exam of the trauma patient.

PRESENTATION

Declarative (What)

I. REEVALUATE Mechanism of Injury – continual gathering, evaluating and synthesizing information to determine significant MOI
   A. Significant mechanism of injury
      1. Ejection from vehicle
      2. Death in same passenger compartment
      3. Falls >15 feet
      4. Roll-over of vehicle
      5. High-speed vehicle collision
      6. Vehicle-pedestrian collision
      7. Motorcycle crash
      8. Unresponsive or altered mental status
      9. Penetrations of the head, chest, or abdomen
      10. Hidden injuries
         a) Seat belts
            (1) If buckled, may have produced injuries
            (2) If patient had seat belt on, it does not mean they do not have injuries
         b) Airbags
            (1) May not be effective without seat belt
            (2) Patient can hit wheel after deflation
            (3) Lift the deployed airbag and look at the steering wheel for deformation
               (a) "Lift and look" under the bag after the patient has been removed

(b) Any visible deformation of the steering wheel should be regarded as an indicator of potentially serious internal injury, and appropriate action should be taken

B. Infant and child considerations
   1. Falls >10 feet
   2. Bicycle collision
   3. Vehicle in medium speed collision

II. Perform rapid trauma assessment on patients with significant mechanism of injury to determine life threatening injuries. In the responsive patient, symptoms should be sought before and during the trauma assessment.
   A. Continue spinal stabilization
   B. Consider ALS request
   C. Reconsider transport decision, revise if needed
   D. Assess mental status
   E. As you inspect and palpate, look and feel for the following obvious signs of trauma:
      1. Deformities
      2. Contusions
      3. Abrasions
      4. Punctures/penetrations
      5. Burns
      6. Tenderness
      7. Lacerations
      8. Swelling
   F. Assess the head, inspect and palpate for injuries or signs of injury.
      1. Obvious signs of trauma, plus
      2. Crepitus
   G. Assess the neck, inspect and palpate for injuries or signs of injury
      1. Obvious signs of trauma, plus
      2. Jugular vein distension (JVD)
      3. Crepitus
   H. Apply cervical spinal immobilization collar (CSIC). May use information from the head injury lesson at this time.
   I. Assess the chest, inspect and palpate for:
      1. Obvious signs of trauma, plus
      2. Paradoxical motion
      3. Crepitation
      4. Breath sounds in the apices, mid-clavicular line, bilaterally and at the bases, mid-axillary line, bilaterally
   J. Assess the abdomen, inspect and palpate for injuries or signs of injury.
      1. Obvious signs of trauma, plus
   K. Assess the pelvis, inspect and palpate for injuries or signs of injury.
   L. Assess all four extremities, inspect and palpate for injuries or signs of injury

M. Roll patient, while maintaining spinal precautions and assess posterior body, inspect and palpate, examining for injuries or signs of injury
N. Assess SAMPLE history
O. Assess O-P-Q-R-S-T (patient complaint)
    1. Onset
    2. Provocation
    3. Quality
    4. Radiation
    5. Severity
    6. Time
P. Reevaluate Field Impression
Q. Reconsider Transport Decision and revise if needed
R. Initiate management plan, consulting medical direction, if needed
S. Consider ALS

APPLICATION

Procedural (How)

1. The assessment is completed by visually inspecting, physically palpating and auscultating, and verbally communicating with the patient and family. The assessment is an input/output process, where the assessment findings are the input and the treatment is the output.
    a. Review of scene size-up.
    b. Review of the initial assessment.
    c. Students should be shown audio-visual aids or materials of various trauma scenes to evaluate the mechanism of injury.
    d. Demonstrate a rapid patient assessment.

Contextual (When, Where, Why)

1. The history and physical exam are performed following the initial assessment and correction of immediate threats to life. During this process, obtain additional information regarding the patient's condition.

STUDENT ACTIVITIES

Visual (See)

1. Students should see the inspection and palpation of programmed patients for various injuries and patterns of injury.
2. Students should see the sizing and application of cervical spine immobilization devices.

Kinesthetic (Do)

1. Students should practice measuring and applying cervical spine immobilization devices.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan.

MODULE 2

Patient

Assessment

Lesson 2-5

Focused History and Physical Exam: Medical

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 EMT-Basic student will be able to:

2-5.1 Differentiate between the history and physical exam that are performed for responsive patients with no known prior history and responsive patients with a known prior history. (C-3)

2-5.2 Describe the needs for assessing an individual who is unresponsive. (C-1)

2-5.3 Differentiate between the assessment that is performed for a patient who is unresponsive or has an altered mental status and other medical patients requiring assessment. (C-3)

AFFECTIVE OBJECTIVES

No affective objectives identified.

PSYCHOMOTOR OBJECTIVES

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

2-5.4 Demonstrate the patient assessment skills that should be used to assist a patient who is responsive with no known history. (P-1,2)

2-5.5 Demonstrate the patient assessment skills that should be used to assist a patient who is unresponsive or has an altered metal status. (P-1,2)

PREPARATION

Motivation: The emergency medical care for the patient by the EMT-Basic is based upon assessment findings. In the history and physical exam, the EMT-Basic will concentrate on the patient's complaint and history, allowing for rapid emergency medical care.

Prerequisite Skills: BLS and Preparatory.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to the history and physical exam of medical patients. The

continuous design and 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 assure the objectives of the curriculum are met.

EMS Equipment: Exam gloves, stethoscope (dual and single head)(1:6), blood pressure cuffs (adult, child and infant)(1:6), penlight (1:6), pulse oximeter.

PERSONNEL

Primary Instructor: One EMT-Basic instructor, knowledgeable in patient assessment.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable in assessing the history and physical exam for medical patients.

PREPARATION

Declarative (What)

I. Responsive Medical Patient - REEVALUATE Nature of Illness – continue to gather, evaluate and synthesize information to determine significant NOI

II. Assess History of Present Illness
   - A. Assess complaints and signs or symptoms
     1. O-P-Q-R-S-T
        - a) Onset
        - b) Provocation
        - c) Quality
        - d) Radiation
        - e) Severity
        - f) Time
     2. Assess SAMPLE History
     3. Assess baseline vital signs
     4. Perform appropriate physical exam
        - a) Assess the head if necessary
        - b) Assess the neck if necessary
        - c) Assess the chest if necessary
        - d) Assess the abdomen if necessary
        - e) Assess the pelvis if necessary
        - f) Assess the extremities if necessary
        - g) Assess the posterior body if necessary
     5. Reevaluate Field Impression
     6. Reconsider Transport Decision and revise if needed

7. Initiate management plan, consulting medical direction, if needed
8. Consider ALS

III. Unresponsive Medical Patients - REEVALUATE Nature of Illness – continue to gather, evaluate and synthesize information to determine significant NOI
   A. Perform rapid assessment
   B. Assess baseline vital signs
   C. SAMPLE History – obtain information from family/bystanders without delaying transport
   D. O-P-Q-R-S-T – obtain information from family/bystanders without delaying transport
   E. Reevaluate Field Impression
   F. Reevaluate Transport Decision
   G. Initiate management plan, consulting medical direction, if needed
   H. Consider ALS

APPLICATION

Procedural (How)

1. Review methods of questioning to determine SAMPLE history.
2. Practice methods of questioning to determine history of present illness.
3. Review airway management.
4. Review size-up.
5. Review the initial assessment.
6. Review rapid patient assessment.
7. Review of general impression.

Contextual (When, Where, Why)

1. The history and physical exam will be performed on all patients, following the initial assessment.
2. This assessment will focus on the patient's history, as well as the signs and symptoms of the present illness.
3. This assessment will help the EMT-Basic student provide rapid intervention.

STUDENT ACTIVITIES

Auditory (Hear)

1. Students should hear questions to assist in determining the SAMPLE History.

Visual (See)

1. Students should see the entire assessment completed for each patient category.

Kinesthetic (Do)

1. Students should practice performing the skills of inspection, palpation, and auscultation.

2. Students should practice questioning programmed patients on SAMPLE histories.
3. Students should practice questioning programmed patients on the history of present illness.
4. Students should practice all components of the assessment including: Size-up, initial assessment and the focused history and physical exam.
5. Students should practice recording assessment findings on a medical patient.
6. Students should use a patient assessment flow chart.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan.

MODULE 2

Patient

Assessment

Lesson 2-6

Detailed Physical Exam

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 EMT-Basic student will be able to:

2-6.1 Discuss the components of the detailed physical exam. (C-1)
2-6.2 State the areas of the body that are evaluated during the detailed physical exam. (C-1)
2-6.3 Explain what additional care should be provided while performing the detailed physical exam. (C-1)
2-6.4 Distinguish between the detailed physical exam that is performed on a trauma patient and that of the medical patient. (C-3)

AFFECTIVE OBJECTIVES

No affective objectives identified.

PSYCHOMOTOR OBJECTIVES

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

2-6.5 Demonstrate the skills involved in performing the detailed physical exam. (P-1,2)

PREPARATION

Motivation: The entire basis for the EMT-Basic's emergency medical care is the assessment findings. In the detailed physical exam, the EMT-Basic will continue to systematically assess the patient, allowing for continued care.

Prerequisites: BLS and Preparatory.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to the detailed physical exam. The continuous design and 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 assure the objectives of the curriculum are met.

EMS Equipment: Exam gloves, stethoscope (dual and single head)(1:6), blood pressure cuffs (adult, child and infant)(1:6), penlight (1:6), pulse oximeter.

PERSONNEL

Primary Instructor: One EMT-Basic instructor with knowledge in patient assessment.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable in assessing a detailed physical exam.

PRESENTATION

Declarative (What)

I. Detailed Physical Exam – REEVALUATE and REVISE
   - A. Conducted on patients who are unresponsive or have a significant MOI
   - B. Perform a detailed physical examination on the patient to gather additional information, reevaluate patient status and revise management, if needed
   - C. As you inspect and palpate each area of the body, look and/or feel for obvious signs of trauma:
     1. Assess the head
     2. Assess the face
     3. Assess the ears, also look for
        a) drainage
        b) bleeding
     4. Assess the eyes, also look for
        a) Discoloration
        b) Unequal pupils
        c) Foreign bodies
        d) Blood in anterior chamber
     5. Assess the nose, also look for
        a) Drainage
        b) Bleeding
     6. Assess the mouth, also look for
        a) Loose teeth
        b) Obstructions
        c) Swollen or lacerated tongue
        d) Unusual odors
        e) Discoloration
     7. Assess the neck, also look for
        a) Jugular vein distension
        b) Crepitus
     8. Assess the chest, also look for

a) Crepitus
b) Paradoxical motion
c) Breath sounds in the apices, mid-clavicular line, bilaterally and at the bases, mid-axillary line, bilaterally
(1) Present
(2) Absent
(3) Equal

9. Assess the abdomen, also look for
a) Firm
b) Soft
c) Distended
10. Assess the pelvis, also
a) If the patient does not complain of pain or is unresponsive, gently flex and compress the pelvis to determine stability
11. Assess all four extremities, also look for
a) Distal pulses
b) Sensation
c) Motor function
12. Assess back - roll the patient, while maintaining spinal precautions, to inspect and palpate for injuries

II. Reassess Vital Signs

APPLICATION

Procedural (How)

1. The physical assessment is completed by visual inspection and palpation.
2. The assessment is an input/output process, where the assessment findings are the input and the treatment is the output.

Contextual (When, Where, Why)

1. The detailed physical exam is performed following the focused history and physical exam.
2. It will be performed after all critical interventions have been completed.
3. It is situation and time dependent. Depending upon the severity of the patient's injury or illness, this assessment may not be completed.

STUDENT ACTIVITIES

Auditory (Hear)

1. Students should hear information (clues) from the responsive or altered mental status patient regarding symptoms.

Visual (See)

1. Students should see audio-visual aids or materials of various injuries.

2. Students should see the inspection and palpation of programmed patients for various injuries and illnesses.
3. Students should see a patient assessment flow chart.

Kinesthetic (Do)

1. Students should practice performing the skills of inspection, palpation, and auscultation of the detailed physical exam.
2. Students should use a patient assessment flow chart.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan.

MODULE 2

Patient

Assessment

Lesson 2-7

On-Going Assessment

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 EMT-Basic student will be able to:

2-7.1 Discuss the reasons for repeating the initial assessment as part of the on-going assessment. (C-1)
2-7.2 Describe the components of the on-going assessment. (C-1)
2-7.3 Describe trending of assessment components. C-1)

AFFECTIVE OBJECTIVES

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

2-7.4 Explain the value of performing an on-going assessment. (A-2)

PSYCHOMOTOR OBJECTIVES

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

2-7.5 Demonstrate the skills involved in performing the on-going assessment. (P-1,2)

PREPARATION

Motivation: In order to assure appropriate care, the EMT-Basic must re-evaluate the patient frequently and revise the management plan as needed. The length of time spent with the patient or the condition of the patient will assist in establishing how often and how on-going assessments will be conducted.

It is of utmost importance to be accurate with the documentation of all findings and interventions. Be sure to accurately record all times associated with the care provided.

Prerequisites: BLS and Preparatory.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to patient assessment. The continuous design and 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 assure the objectives of the curriculum are met.

EMS Equipment: Exam gloves, stethoscope (dual and single head)(1:6), blood pressure cuffs (adult, child and infant)(1:6), penlight, pulse oximetry unit.

PERSONNEL

Primary Instructor: One EMT-Basic instructor with knowledge in patient assessment.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable in the aspects of the on-going assessment.

PRESENTATION

Declarative (What)

I. Repeat initial assessment. For a stable patient, repeat and record every 15 minutes. For an unstable patient, repeat and record at a minimum every 5 minutes.
   - A. Reassess mental status
   - B. Maintain open airway
   - C. Monitor breathing for rate and quality
   - D. Reassess pulse for rate and quality
   - E. Monitor skin color and temperature
   - F. Re-establish patient priorities

II. Reassess and record vital signs

III. Repeat focused assessment regarding patient complaint or injuries

IV. Recheck interventions
   - A. Assure adequacy of oxygen delivery/artificial ventilation
   - B. Assure management of bleeding
   - C. Assure adequacy of other interventions
   - D. Revise management plan if needed

V. REVIEW performance at run critique

APPLICATION

Contextual (When, Where, Why)

1. The on-going assessment should be performed on all patients after assuring completion of critical interventions. Ideally, it is completed following the detailed physical exam. However, the patient condition may preclude

performance of the detailed physical exam. In these cases, the on-going assessment is extremely valuable.

2. The on-going assessment is a means of determining changes in the patient's condition.

STUDENT ACTIVITIES

Visual (See)

1. The students should see the flow chart from Appendix I.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan.

MODULE 2

Patient

Assessment

Lesson 2-8

Communications

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 EMT-Basic student will be able to:

2-8.1 List the proper methods of initiating and terminating a radio call. (C-1)
2-8.2 State the proper sequence for delivery of patient information. (C-1)
2-8.3 Explain the importance of effective communication of patient information in the verbal report. (C-1)
2-8.4 Identify the essential components of the verbal report. (C-1)
2-8.5 State legal aspects to consider in verbal communication. (C-1)
2-8.6 Discuss the communication skills that should be used to interact with the family, bystanders, individuals from other agencies while providing patient care and the difference between skills used to interact with the patient and those used to interact with others. (C-1)
2-8.7 List the correct radio procedures for all phases of a typical call: (C-1)

AFFECTIVE OBJECTIVES

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

2-8.8 Explain the rationale for providing efficient and effective radio communications and patient reports. (A-3)

PSYCHOMOTOR OBJECTIVES

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

2-8.9 Perform a simulated, organized, concise radio transmission. (P-2)
2-8.10 Perform an organized, concise patient report that would be given to the staff at a receiving facility. (P-2)
2-8.11 Perform a brief, organized report that would be given to an ALS provider arriving at an incident scene at which the EMT-Basic was already providing care. (P-2)

PREPARATION

Motivation: The best prehospital patient care may come to an end at the door of the Emergency Department (ED) if a patient's condition is not described well enough for the ED staff to prepare.

Communication is an essential component of prehospital care. Both verbal and written communications will be used during every response. Patient care not only includes assessment and treatment, but the ability to effectively and efficiently communicate findings to other health care providers.

Prerequisites: BLS and Preparatory.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to communications. The continuous design and 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 assure the objectives of the curriculum are met.

EMS Equipment: Two-way mobile radios, if available.

PERSONNEL

Primary Instructor: One EMT-Basic instructor knowledgeable in this area.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable in communications.

PRESENTATION

Declarative (What)

I. Communication
   A. Communication system
      1. System components
         a) Base station - a radio which is located at a stationary site such as a hospital, mountain top, or public safety agency
         b) Mobile two-way radios (transmitter/receivers)
            (1) Implies a vehicular mounted device
            (2) Mobile transmitters usually transmit at lower power than base stations (typically 20 - 50 watts)
            (3) Typical transmission range is 10 - 15 miles over average terrain
         c) Portable radios (transmitter/receivers)
            (1) Implies a handheld device
            (2) Typically have power output of 1 - 5 watts, limiting their range

d) Repeater/base station - receives a transmission from a low-power portable or mobile radio on one frequency and retransmits at a higher power on another frequency
e) Digital radio equipment
f) Cellular telephones

2. Radio communications
   a) Radio frequencies - assigned and licensed by the Federal Communication Commission (FCC)
   b) Response to the scene
      (1) The dispatcher needs to be notified that the call was received
      (2) Dispatch needs to know that the unit is en route
      (3) Other agencies should be notified as appropriate, e.g., local hospital
   c) Arrival at the scene - the dispatcher must be notified
3. Communication with medical direction
   a) In some systems, medical direction is at the receiving facility. In others, medical direction is at a separate site.
   b) In either case, EMT-Basics may need to contact medical direction for consultation and to get orders for administration of medications. Radio transmissions need to be organized, concise and pertinent.
   c) Since the physician will determine whether to order medications and procedures based on the information given by the EMT-Basic, this information must be accurate
   d) After receiving an order for a medication or procedure (or denial of such a request), repeat the order back word for word
   e) Orders that are unclear or appear to be inappropriate should be questioned
   f) Communication with receiving facilities
   g) EMT-Basics provide information that allows hospitals to prepare for a patient's arrival by having the right room, equipment and personnel prepared
   h) Patient reporting concepts
      (1) When speaking on the radio, keep these principles in mind:
         (a) Radio is on and volume is properly adjusted
         (b) Listen to the frequency and ensure it is clear before beginning a transmission
         (c) Press the "press to talk" (PTT) button on the radio and wait for one second before speaking
         (d) Speak with lips about 2 to 3 inches from the microphone

(e) Address the unit being called, then give the name of the unit (and number if appropriate) where the transmission is originating from
(f) The unit being called will signal that the transmission should start by saying "go ahead" or some other term standard for that area. A response of "stand by" means wait until further notice.
(g) Speak clearly and slowly, in a monotone voice
(h) Keep transmissions brief. If, on occasion, a transmission takes longer than 30 seconds, stop at that point and pause for a few seconds so that emergency traffic can use the frequency if necessary.
(i) Use clear text
(j) Avoid codes
(k) Avoid meaningless phrases like "Be advised."
(l) Courtesy is assumed, so there is no need to say "please," "thank you" and "you're welcome."
(m) When transmitting a number that might be confused (e.g., a number in the teens), give the number, then give the individual digits
(n) The airwaves are public and scanners are popular. EMS transmissions may be overheard by more than just the EMS community. Do not give a patient's name over the air. HIPAA Privacy Rule must be adhered to when sharing patient information.
(o) Use EMS frequencies only for EMS communication

(2) Notify the dispatcher when the unit leaves the scene
(3) When communicating with medical direction or the receiving facility, a verbal report should be given. The essential elements of such a report, in the order they should be given, are:
(a) Identify unit and level of provider (who and what)
(b) Estimated time of arrival
(c) Patient's age and gender
(d) Chief complaint

(e) Brief, pertinent history of the present illness
(f) Major past illnesses
(g) Mental status
(h) Baseline vital signs
(i) Pertinent findings of the physical exam
(j) Emergency medical care given
(k) Response to emergency medical care

(4) After giving this information, the EMT-Basic will continue to assess the patient. Additional vital signs may be taken and new information may become available, particularly on long transports. In some systems, this information should be relayed to the hospital (see local protocol). Information that must be transmitted includes deterioration in the patient's condition.

(5) Arrival at the hospital
(a) The dispatcher must be notified
(b) In some systems, the hospital should also be notified

(6) Leaving the hospital for the station - the dispatcher should be notified

(7) Arrival at the station - the dispatcher should be notified

APPLICATION

Procedural (How)

1. Demonstrate use of the radio in the different phases of a typical call.
2. Demonstrate the proper sequence of patient information.
3. Demonstrate a brief, organized report that would be given to an ALS provider arriving at an incident scene at which the EMT-Basic was already providing care.
4. Demonstrate a simulated, organized, concise radio transmission.

STUDENT ACTIVITIES

Auditory (Hear)

1. The student should hear both sides of a radio transmission during the phases of a typical call:
2. The student should hear initiation and termination of a radio call.
3. The student should hear patient information delivered in the proper sequence.
4. The student should hear a brief, organized report that would be given to an ALS provider arriving at an incident scene at which the EMT-Basic was already providing care.

Visual (See)

1. The student should see examples of portable, mobile and base station radio equipment.
2. The student should see the components of the minimum data set.

Kinesthetic (Do)

1. The student should practice radio use procedures in the following phases of a typical call:
2. The student should practice the proper methods of initiating and terminating a radio call.
3. The student should practice performing a brief, organized report that would be given to an ALS provider arriving at an incident scene at which the EMT-Basic was already providing care.
4. The student should practice performing a simulated, organized, concise radio transmission.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan.

MODULE 2

Patient

Assessment

Lesson 2-9

Documentation

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 EMT-Basic student will be able to:

2-9.1 Explain the components of the written report and list the information that should be included in the written report. C-1)
2-9.2 Identify the various sections of the written report. C-1)
2-9.3 Describe what information is required in each section of the prehospital care report and how it should be entered. C-1)
2-9.4 Define the special considerations concerning patient refusal. (C-1)

AFFECTIVE OBJECTIVES

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

2-9.5 Explain the rationale for patient care documentation.(A-3)
2-9.6 Explain the rationale for the EMS system gathering data.(A-3)

PSYCHOMOTOR OBJECTIVES

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

2-9.7 Complete a prehospital care report. (P-2)

PREPARATION

Motivation: A competent prehospital report documents the nature and extent of emergency medical care. Well prepared reports are an important medical/legal document. "If it isn't written down, it wasn't done," and "If it wasn't done, don't write it down."

Health care providers use the information from the report to trend changes in patient condition. In particular, the trending of mental status and vital signs is extremely important to physicians and nurses who assume care. The information on the report can also be used in quality assessment of emergency medical care.

Prerequisites: BLS and Preparatory.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to documentation. The continuous design and 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 assure the objectives of the curriculum are met.

EMS Equipment: Copies of a prehospital care report and a vital sign trended report.

PERSONNEL

Primary Instructor: One EMT-Basic instructor knowledgeable in this area.

Assistant Instructor: None required.

PRESENTATION

Declarative (What)

I. Documentation
  A. Minimum data set
    1. Patient information gathered at time of EMT-B's initial contact with patient on arrival at scene, following all interventions and on arrival at facility
      a) Chief complaint
      b) Level of consciousness (AVPU) - mental status
      c) Blood pressure for patients greater than 3 years old
      d) Skin perfusion (capillary refill) for patients less than 6 years old
      e) Skin color and temperature
      f) Pulse rate
      g) Respiratory rate and effort
    2. Administrative information
      a) Time incident reported
      b) Time unit notified
      c) Time of arrival at patient
      d) Time unit left scene
      e) Time of arrival at destination
      f) Time of transfer of care
    3. Accurate and synchronous clocks
  B. Prehospital care report
    1. Functions
      a) Continuity of care - a form that is not read immediately in the emergency department may very well be referred to later for important information
      b) Legal document

(1) A good report has documented what emergency medical care was provided and the status of the patient on arrival at the scene and any changes upon arrival at the receiving facility
(2) The person who completed the form ordinarily must go to court with the form
(3) Information should include objective and subjective information and be clear

c) Educational - used to demonstrate proper documentation and how to handle unusual or uncommon cases
d) Administrative
(1) Billing
(2) Service statistics
e) Research
f) Evaluation and continuous quality improvement

2. Use
a) Types
(1) Traditional written form with check boxes and a section for narrative
(2) Computerized version where information is filled in by means of an electronic clipboard or a similar device
b) Sections
(1) Run data - date, times, service, unit, names of crew
(2) Patient data - patient name, address, date of birth, insurance information, sex, age, nature of call, mechanism of injury, location of patient, treatment administered prior to arrival of EMT-Basic, signs and symptoms, care administered, baseline vital signs, SAMPLE history and changes in condition
(3) Check boxes
(a) Be sure to fill in the box completely
(b) Avoid stray marks
(4) Narrative section (if applicable)
(a) Describe, don't conclude

C. Documentation of patient refusal
1. Competent adult patients have the right to refuse treatment
2. Before the EMT-Basic leaves the scene, however, he should:
a) Try again to persuade the patient to go to a hospital
b) Ensure the patient is able to make a rational, informed decision, e.g., not under the influence of alcohol or other drugs, or illness/injury effects
c) Inform the patient why he should go and what may happen to him if he does not
d) Consult medical direction as directed by local protocol

e) If the patient still refuses, document any assessment findings and emergency medical care given, then have the patient sign a refusal form
f) Have a family member, police officer or bystander sign the form as a witness. If the patient refuses to sign the refusal form, have a family member, police officer or bystander sign the form verifying that the patient refused to sign.
g) Complete the prehospital care report
(1) Complete patient assessment
(2) Care EMT-Basic wished to provide for the patient
(3) Statement that the EMT-Basic explained to the patient the possible consequences of failure to accept care, including potential death
(4) Offer alternative methods of gaining care
(5) State willingness to return

3. Multiple casualty incidents (MCI)
a) When there is not enough time to complete the form before the next call, the EMT-Basic will need to fill out the report later
b) The local MCI plan should have some means of recording important medical information temporarily, e.g., triage tag, that can be used later to complete the form
c) The standard for completing the form in an MCI is not the same as for a typical call. The local plan should have guidelines.

4. Special situation reports
a) Used to document events that should be reported to local authorities, or to amplify and supplement primary report
b) Should be submitted in timely manner
c) Should be accurate and objective
d) The EMT-Basic should keep a copy for his own records
e) The report, and copies, if appropriate, should be submitted to the authority described by local protocol
f) Exposure
g) Injury

APPLICATION

Procedural (How)

1. Show the students the prehospital care report used locally.
2. Show the students the refusal form used locally, if there is one.
3. Show the students good examples of completed prehospital care reports.

STUDENT ACTIVITIES

Visual (See)

1. The student should see the prehospital care report used locally.
2. The student should see the components of the prehospital care report.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan.

MODULE 2

Patient

Assessment

Lesson 2-10

Critical Thinking

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 EMT-Basic student will be able to:

2-10.1 Utilize the elements of critical thinking to formulate a field impression for the purpose of generating patient management plans. (C-2)

2-10.2 Summarize the "six Rs" of putting it all together: Read the patient, Read the scene, React, Reevaluate, Revise the management plan, Review performance. (C-1)

AFFECTIVE OBJECTIVES

No affective objectives identified.

PSYCHOMOTOR OBJECTIVES

No psychomotor objectives identified.

PREPARATION

Motivation: Critical thinking is an important tool needed when conducting any patient assessment, whether the patient has been injured or is ill. On every call, an EMT collects, integrates and synthesizes information to provide patient care. Usually, without thinking about the details, we incorporate our knowledge about the patient's disease or injury and develop a treatment plan appropriate for that patient. A good EMT moves on from a simple thought process to critical thinking.

Prerequisites: BLS and Preparatory.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to critical thinking. The continuous design and 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 assure the objectives of the curriculum are met.

EMS Equipment: None

PERSONNEL

Primary Instructor: One EMT-Basic instructor, knowledgeable in critical thinking.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable about critical thinking.

PRESENTATION

Declarative (What)

I. Components, stages, and sequence of critical thinking process for EMTs
   - A. Concept formation
     1. MOI/ scene assessment
     2. Initial assessment and physical examination
     3. Chief complaint
     4. Patient history
     5. Patient affect
     6. Technical tools
        - a) Pulse oximetry
        - b) Glucose monitoring
        - c) Other
   - B. Data interpretation
     1. Data gathered
     2. EMT knowledge of anatomy, physiology and pathophysiology
     3. EMT attitude
     4. Previous experience of the EMT
   - C. Application of principle
     1. Working assessment / field impression
     2. Protocols / standing orders
     3. Treatment / intervention
   - D. Evaluation is a continual process which includes:
     1. Reassessment of patient
     2. Revision of impression and treatment / intervention
   - E. Reflection on action
     1. Run critique
     2. Addition to or modification of EMT's experience
   - F. Putting it all together – **"The Six R's"**
     1. **Read** the scene
        - a) Safety issues and hazards
        - b) General environmental conditions
        - c) Evaluate immediate surroundings
        - d) Mechanism of injury/nature of illness
     2. **Read** the patient
        - a) Observe the patient

b) Talk to the patient
c) Touch the patient
d) Auscultate the patient
e) Status of ABC's - identify life-threats
f) Complete an accurate set of vital signs

3. **React**
   a) Address life-threats in the order they are found - ABC's
   b) Determine the most common and statistically probable cause of MOI/NOI that fits the patient's initial presentation (signs and symptoms)
   c) Consider the most serious condition or cause that fits the patient's initial presentation (signs and symptoms)
   d) If a clear medical problem is elusive, treat based on presenting signs and symptoms
4. **Reevaluate**
   a) Focused, detailed and ongoing assessments
   b) Response to initial management/ interventions
   c) Discovery of less obvious problems
5. **Revise** management plan - If what you are doing isn't working, try something else! Come up with revised working assessment/field impression and/or management plan
6. **Review** performance at run critique
   a) Formal
   b) Informal
   c) Patients with obvious life-threats pose limited critical thinking challenges
   d) Patients who fall on the acuity spectrum between minor and life-threatening pose the greatest critical thinking challenge

APPLICATION

STUDENT ACTIVITIES

Auditory (Hear)

1. The student will hear a lecture on critical thinking and problem solving.

Visual (See)

1. The student will see simulations utilizing problem solving skills when conducting a patient assessment.

Kinesthetic (Do)

1. The student will decide on a method to solve a problem related to generating a field impression.
2. The student will demonstrate the use of the critical thinking process utilizing the six "Rs", in formulating a field impression.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan.

MODULE 2

Patient

Assessment

Lesson 2-11

Age Extremes: Geriatrics and Pediatrics

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 EMT-Basic student will be able to:

2-11.1 Describe differences in anatomy and physiology of the pediatric and adult patient. (C-1)

2-11.2 Identify expected injury patterns seen in geriatric and pediatric patients. (C-1)

AFFECTIVE OBJECTIVES

No affective objectives identified.

PSYCHOMOTOR OBJECTIVES

No psychomotor objectives identified.

PREPARATION

Motivation: Understanding the special factors involved with the geriatric and pediatric patient can provide a quality continuum of care for these special populations.

Prerequisites: BLS and Preparatory.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to infants and children. The continuous design and 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 assure meeting the objectives of the curriculum.

EMS Equipment: Exam gloves, stethoscope, blood pressure cuff, penlight, pulse oximeter.

PERSONNEL

Primary Instructor: One EMT-Basic instructor, knowledgeable with geriatric and pediatric patients.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable with geriatric and pediatric care.

PRESENTATION

Declarative (What)

I. Importance of understanding differences by age
   - A. Geriatrics
   - B. Pediatrics patients
   - C. Medical needs vary with age
   - D. Injury patterns vary with age
   - E. Approaches to assessment vary
   - F. Provision of emergency medical care will require special knowledge of both populations

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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.

MODULE 2

Patient

Assessment

Lesson 2-12

Practical Lab: Patient Assessment

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 EMT-Basic student will be able to:

Demonstrate the cognitive objectives of Lesson 2-1: Scene Size-up.
Demonstrate the cognitive objectives of Lesson 2-2: Initial Assessment.
Demonstrate the cognitive objectives of Lesson 2-3: Baseline Vital Signs, SAMPLE History and Pulse Oximetry.
Demonstrate the cognitive objectives of Lesson 2-4: Focused History and Physical Exam: Trauma
Demonstrate the cognitive objectives of Lesson 2-5: Focused History and Physical Exam: Medical
Demonstrate the cognitive objectives of Lesson 2-6: Detailed Physical Exam.
Demonstrate the cognitive objectives of Lesson 2-7: On-going Assessment.
Demonstrate the cognitive objectives of Lesson 2-8: Communications.
Demonstrate the cognitive objectives of Lesson 2-9: Documentation.

AFFECTIVE OBJECTIVES

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

Demonstrate the affective objectives of Lesson 2-1: Scene Size-up.
Demonstrate the affective objectives of Lesson 2-2: Initial Assessment.
Demonstrate the affective objectives of Lesson 2-3: Baseline Vital Signs, SAMPLE History and Pulse Oximetry.
Demonstrate the affective objectives of Lesson 2-4: Focused History and Physical Exam: Trauma
Demonstrate the affective objectives of Lesson 2-5: Focused History and Physical Exam: Medical
Demonstrate the affective objectives of Lesson 2-6: Detailed Physical Exam.
Demonstrate the affective objectives of Lesson 2-7: On-going Assessment.
Demonstrate the affective objectives of Lesson 2-8: Communications.
Demonstrate the affective objectives of Lesson 2-9: Documentation.

PSYCHOMOTOR OBJECTIVES

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

Demonstrate the psychomotor objectives of Lesson 2-1: Scene Size-up.
Demonstrate the psychomotor objectives of Lesson 2-2: Initial Assessment.
Demonstrate the psychomotor objectives of Lesson 2-3: Baseline Vital Signs, SAMPLE History and Pulse Oximetry.

Demonstrate the psychomotor objectives of Lesson 2-4: Focused History and Physical Exam: Trauma
Demonstrate the psychomotor objectives of Lesson 2-5: Focused History and Physical Exam: Medical
Demonstrate the psychomotor objectives of Lesson 2-6: Detailed Physical Exam.
Demonstrate the psychomotor objectives of Lesson 2-7: On-going Assessment.
Demonstrate the psychomotor objectives of Lesson 2-8: Communications.
Demonstrate the psychomotor objectives of Lesson 2-9: Documentation.

PREPARATION

Motivation: The practical lesson is designed to allow the students additional time to perfect skills. It is of utmost importance that the students demonstrate proficiency of the skill, cognitive knowledge of the steps to perform a skill, and a healthy attitude towards performing that skill on a patient.

This is an opportunity for the instructor and assistant instructors to praise progress and re-direct the students toward appropriate psychomotor skills. The material from all preceding lessons and basic life support should be incorporated into these practical skill sessions.

Prerequisites: BLS and Preparatory.

MATERIALS

AV Equipment: Typically not required.

EMS Equipment: Equipment from the lists in Lessons 2-1 through 2-11.

PERSONNEL

Primary Instructor: One EMT-Basic instructor knowledgeable in patient assessment.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable in patient assessment.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.

3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

Practical: Evaluate the actions of the EMT-Basic students during role play, practice or other skills 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 the instructor's course guide and attach with lesson plan.

MODULE 2

Patient

Assessment

Lesson 2-13

Evaluation: Patient Assessment

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 EMT-Basic student will be able to:

Demonstrate knowledge of the cognitive objectives of Lesson 2-1: Scene Size-up.
Demonstrate knowledge of the cognitive objectives of Lesson 2-2: Initial Assessment.
Demonstrate knowledge of the cognitive objectives of Lesson 2-3: Baseline Vital Signs, SAMPLE History and Pulse Oximetry.
Demonstrate knowledge of the cognitive objectives of Lesson 2-4: Focused History and Physical Exam: Trauma.
Demonstrate knowledge of the cognitive objectives of Lesson 2-5: Focused History and Physical Exam: Medical.
Demonstrate knowledge of the cognitive objectives of Lesson 2-6: The Detailed Physical Exam.
Demonstrate knowledge of the cognitive objectives of Lesson 2-7: On-going Assessment.
Demonstrate knowledge of the cognitive objectives of Lesson 2-8: Communications.
Demonstrate knowledge of the cognitive objectives of Lesson 2-9: Documentation.

AFFECTIVE OBJECTIVES

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

Demonstrate knowledge of the affective objectives of Lesson 2-1: Scene Size-up.
Demonstrate knowledge of the affective objectives of Lesson 2-2: Initial Assessment.
Demonstrate knowledge of the affective objectives of Lesson 2-3: Baseline Vital Signs, SAMPLE History and Pulse Oximetry.
Demonstrate knowledge of the affective objectives of Lesson 2-4: Focused History and Physical Exam: Trauma.

Demonstrate knowledge of the affective objectives of Lesson 2-5: Focused History and Physical Exam: Medical.
Demonstrate knowledge of the affective objectives of Lesson 2-6: The Detailed Physical Exam.

Demonstrate knowledge of the affective objectives of Lesson 2-7: On-going Assessment.
Demonstrate knowledge of the affective objectives of Lesson 2-8: Communications.
Demonstrate knowledge of the affective objectives of Lesson 2-9: Documentation.

PSYCHOMOTOR OBJECTIVES

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

Demonstrate knowledge of the psychomotor objectives of Lesson 2-1: Scene Size-up.
Demonstrate knowledge of the psychomotor objectives of Lesson 2-2: Initial Assessment.
Demonstrate knowledge of the psychomotor objectives of Lesson 2-3: Baseline Vital Signs, SAMPLE History and Pulse Oximetry.
Demonstrate knowledge of the psychomotor objectives of Lesson 2-4: Focused History and Physical Exam: Trauma.
Demonstrate knowledge of the psychomotor objectives of Lesson 2-5: Focused History and Physical Exam: Medical.
Demonstrate knowledge of the psychomotor objectives of Lesson 2-6: The Detailed Physical Exam.
Demonstrate knowledge of the psychomotor objectives of Lesson 2-7: On-going Assessment.
Demonstrate knowledge of the psychomotor objectives of Lesson 2-8: Communications.
Demonstrate knowledge of the psychomotor objectives of Lesson 2-9: Documentation.

PREPARATION

Motivation: Evaluation of the student's attainment of the cognitive and affective knowledge and psychomotor skills is an essential component of the EMT-Basic 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 his performance, and make appropriate modifications to the delivery of material.

Prerequisites: Completion of Lessons 2-1 through 2-11.

MATERIALS

AV Equipment: Typically none required.

EMS Equipment: Equipment required to evaluate the students' proficiency in the psychomotor skills of this module.

PERSONNEL

Primary Instructor: One proctor for the written evaluation.

Assistant Instructor: One practical skills examiner for each 6 students.

PRESENTATION

Declarative (What)

I. Purpose of the evaluation
II. Items to be evaluated
III. Feedback from evaluation

INSTRUCTOR ACTIVITIES

1. Supervise student evaluation.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

REMEDIATION

Identify students or groups of students that are having difficulty with this subject content. Complete 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 no progress is noted, or this continues to be a problem, the student or students should be dismissed from the program.

MODULE 3

Airway

Lesson 3-1

Airway

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 EMT-Basic student will be able to:

3-1.1 Identify the primary structures and function of the respiratory system. (C-2)
3-1.2 Define tidal volume and estimate the average amount in cubic centimeters (cc). (C-1)
3-1.3 Identify the importance of maintaining adequate tidal volume in a patient in respiratory distress. (C-3)
3-1.4 Explain the need to maintain adequate tidal volume when ventilating a patient in respiratory arrest. (C-2)
3-1.5 Define dead space, its average volume, and list all respiratory structures that make up that space. (C-1)
3-1.6 Estimate the portion of tidal volume available for gas exchange in an adult patient at rest. (C-1)
3-1.7 List the signs of inadequate respirations. (C-1)
3-1.8 Describe anatomical and physiological differences between the airway of pediatrics and adults. (C-1)
3-1.9 Describe important respiratory problems encountered with infants and children. (C-1)
3-1.10 Differentiate between respiratory distress, impending respiratory failure and respiratory arrest in adult, child and infants. (C-2)
3-1.11 Summarize the importance of having a suction unit available for immediate use when providing emergency care to a patient. (C-2)
3-1.12 Describe the technique involved in the use of the laryngoscope. (C-1)
3-1.13 Describe the technique involved in the use of the Magill forceps. (C-1)
3-1.14 Describe the technique involved in providing cricoid pressure (Sellick Maneuver). (C-1)
3-1.15 Describe the steps in artificially ventilating a patient with a flow restricted, oxygen-powered ventilation device. (C-1)
3-1.16 Describe how to measure and insert an oropharyngeal (oral) airway. (C-1)
3-1.17 Describe how to measure and insert a nasopharyngeal (nasal) airway. (C-1)
3-1.18 Explain the need for utilizing airway adjuncts to maintain an open airway for a patient in respiratory arrest. (C-1)
3-1.19 Contrast the appropriate use of a nasopharyngeal airway with that of an oropharyngeal airway to maintain an open airway. (C-3)

3-1.20 Explain the need for providing oxygen to a patient in respiratory distress. (C-2)
3-1.21 Compare the rationale for the appropriate use of various devices utilized to administer oxygen to a patient in respiratory distress. (C-3)
3-1.22 Explain the rationale for providing adequate oxygenation through high inspired oxygen concentrations to patients in respiratory distress. (C-3)
3-1.23 Identify a nonrebreather face mask and state the oxygen flow requirements needed for its use. (C-1)
3-1.24 Identify a nasal cannula and state the flow requirements needed for its use. (C-1)
3-1.25 Describe the indications for using a nasal cannula versus a nonrebreather face mask. (C-1)

AFFECTIVE OBJECTIVES

No affective objectives identified.

PSYCHOMOTOR OBJECTIVES

At the completion of this lesson, the EMT-Basic student will be able to:
3-1.26 Demonstrate the technique involved in the use of the laryngoscope. (C-1)
3-1.27 Demonstrate the technique involved in the use of the Magill forceps. (C-1)
3-1.28 Demonstrate the technique involved in providing cricoid pressure (Sellick Maneuver). (C-1)
3-1.29 Demonstrate the operation of oxygen tanks and regulators. (P-2)
3-1.30 Demonstrate artificial ventilation of a patient with a flow restricted, oxygen-powered ventilation device.(P-1,2)
3-1.31 Demonstrate how to measure and insert an oropharyngeal (oral) airway for an adult, child and infant patient. (P-1,2)
3-1.32 Demonstrate how to measure and insert a nasopharyngeal (nasal) airway. (P-1,2)
3-1.33 Demonstrate the correct operation of oxygen tanks and regulators. (P-1,2)
3-1.34 Demonstrate the use of a nonrebreather face mask and state the oxygen flow requirements needed for its use.(P-1,2)
3-1.35 Demonstrate the technique involved in administering supplemental oxygen via a nonrebreather face mask. (P-1,2)

PREPARATION

Motivation: A patient without a patent (open) airway, is a dead patient.

Prerequisites: BLS and Preparatory.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to airway management. The continuous design and 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 assure the objectives of the curriculum are met.

EMS Equipment: Pocket mask, bag-valve-mask, flow restricted, oxygen-powered ventilation device, oral airways, nasal airways, suction units, suction catheters, laryngoscope, magill forceps, oxygen tank, regulator, nonrebreather mask, nasal cannula, tongue blade, and lubricant.

PERSONNEL

Primary Instructor: One EMT-Basic instructor knowledgeable in airway management.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable in airway techniques and management.

PRESENTATION

Declarative (What)

I. Laryngoscope and Magill Forceps – used by the EMT-Basic to visualize and remove foreign body airway obstruction
   - A. Use appropriate body substance isolation precautions
   - B. Hold the Magill forceps so the handle does not obstruct the view of the pharynx
   - C. Choose adult or pediatric blade and attach to handle; light should illuminate. Hold in left hand.
   - D. Place the patient's head in the "Sniffing Position"
   - E. Insert blade in right side of mouth from above head and displace tongue to left by moving blade to midline. With infants, support chin with ring and little fingers of left hand for leverage.
   - F. Lift tongue in direction of long axis of the handle without prying on teeth or gums
   - G. Visualize obstruction
   - H. While holding the Magill forceps in the right hand, remove obstruction

II. Sellick Maneuver (cricoid pressure) –prevents aspiration by restricting flow of vomitus from esophagus into trachea and lungs. Utilized to prevent gastric distension. (Refer to AHA Guidelines)
   - A. Locate cartilage structure of larynx on anterior neck

B. Apply firm, downward pressure and maintain

III. Airway Adjuncts

A. Oropharyngeal (oral) airways – used to displace tongue away from the oropharynx, allowing air exchange to occur

1. Oropharyngeal airways may be used to assist in maintaining an open airway on unresponsive patients without a gag reflex. Patients with a gag reflex will vomit. Refer to use of nasopharyngeal airways for comparative guide.
2. Select the proper size: Measure from the corner of the patient's lips to the bottom of the earlobe or angle of jaw
3. Open the patient's mouth
4. In adults, to avoid obstructing the airway with the tongue, insert the airway upside down, with the tip facing toward the roof of the patient's mouth
5. Advance the airway gently until resistance is encountered. Turn the airway 180 degrees so that it comes to rest with the flange on the patient's teeth.
6. Another method of inserting an oral airway is to insert it right side up, using a tongue depressor to press the tongue down and forward to avoid obstructing the airway. This is the preferred method for airway insertion in an infant or child.

B. Nasopharyngeal (nasal) airways - used to displace tongue away from the naso and oropharynx, allowing air exchange to occur

1. Nasopharyngeal airways are less likely to stimulate vomiting and may be used on patients who are responsive but need assistance keeping the tongue from obstructing the airway. Even though the tube is lubricated, this is a painful stimulus.
2. Select the proper size: Measure from the tip of the nose to the tip of the patient's ear. Also consider diameter of airway in the nostril.
3. Lubricate the airway with a water soluble lubricant
4. Insert it posteriorly. Bevel should be towards the septum upon insertion.
5. If the airway cannot be inserted into the right nares, then try the left. When inserting airway into left nares, place bevel towards septum, insert approximately 1”, rotate 180 degrees, then continue insertion.
6. Rule out head injury/skull fracture prior to placing a nasopharyngeal airway.
7. Nasopharyngeal airways should be utilized with extreme caution with infants and small children due to a huge increase in resistance and therefore work of breathing.

APPLICATION

Procedural (How)

1. Demonstrate insertion of a nasopharyngeal (nasal) airway.
2. Demonstrate proper use of laryngoscope and Magill forceps for removal of FBAO.
3. Demonstrate how to perform cricoid pressure (Sellicks maneuver).

STUDENT ACTIVITIES

Kinesthetic (Do)

1. The student should practice insertion of an oropharyngeal (oral) airway (adult, child, and infant) with and without tongue blade.
2. The student should practice insertion of a nasopharyngeal (nasal) airway.
3. The student should practice checking a suction unit.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan.

MODULE 3

Basic Airway

Lesson 3-2

Practical Lab: Basic Airway Management

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 EMT-Basic student will be able to:
Demonstrate the cognitive objectives of Lesson 3-1: Airway.

AFFECTIVE OBJECTIVES

At the completion of this lesson, the EMT-Basic student will be able to:
Demonstrate the affective objectives of Lesson 3-1: Airway.

PSYCHOMOTOR OBJECTIVES

Demonstrate the psychomotor objectives of Lesson 3-1: Airway.

PREPARATION

Motivation: The practical lesson is designed to allow the students additional time to perfect skills. It is of utmost importance that the students demonstrate proficiency of the skill, cognitive knowledge of the steps to perform a skill, and a healthy attitude towards performing that skill on a patient.

This is an opportunity for the instructor and assistant instructors to praise progress and re-direct the students toward appropriate psychomotor skills. The material from all preceding lessons and basic life support should be incorporated into these practical skill sessions.

Prerequisites: BLS and previous modules.

MATERIALS

AV Equipment: Typically not required.

EMS Equipment: Equipment from the list in Lesson 3-1: Airway.

PERSONNEL

Primary Instructor: One EMT-Basic instructor knowledgeable in airway management.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable in airway techniques and management.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

Practical: Evaluate the actions of the EMT-Basic students during role play, practice or other skills 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 the instructor's course guide and attach with lesson plan.

MODULE 3

Advanced Airway

Lesson 3-3

Advanced Airway and Practical Lab

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 EMT-Basic student will be able to:

3-3.1 Explain the proper use of the advanced non-visualized airway. (C-1)
3-3.2 List the indications for use of the advanced non-visualized airway. (C-1)
3-3.3 List the contraindications for the use of the advanced non-visualized airway. (C-1)

AFFECTIVE OBJECTIVES

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

3-3.4 Appreciate the need to ensure airway patency by utilizing an advanced non-visualized airway. (A-1)
3-3.5 Value the importance of positive pressure (assisted) ventilations while using an advanced non-visualized airway. (A-2)
3-3.6 Appreciate the importance of confirming placement after having inserted an advanced non-visualized airway. (A-1)

PSYCHOMOTOR OBJECTIVES

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

3-3.7 Demonstrate the steps involved in preparing an advanced non-visualized airway for insertion. (P-2)
3-3.8 Demonstrate the sequence of steps involved in inserting an advanced non-visualized airway. (P-2)
3-3.9 Demonstrate the sequence involved in confirming placement of an advanced non-visualized airway by asucultating for lung and epigastric sounds.
3-3.10 Demonstrate proper technique in ventilating a patient, in respiratory arrest, with an advanced non-visualized airway and positive pressure ventilations. (P-2)
3-3.11 Analyzes the anatomical location of an advanced non-visualized airway after placement and evaluation of lung and epigastric sounds. (P-3)
3-3.12 Problem solves difficulties encountered due to improper placement of an advanced non-visualized airway. (P-3)

PREPARATION

Motivation: A patient without a patent (open) airway, is a dead patient.

Prerequisites: BLS, Preparatory and Patient Assessment.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to airway management. The continuous design and 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 assure the objectives of the curriculum are met.

EMS Equipment: Pocket mask, bag-valve-mask, flow restricted, oxygen-powered ventilation device, oral airways, nasal airways, suction units, suction catheters, oxygen tank, regulator, nonrebreather mask, nasal cannula, tongue blade, lubricant, stethoscope and advanced non-visualized airway.

PERSONNEL

Primary Instructor: One EMT-Basic instructor knowledgeable in airway management.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable in advanced airway techniques and management.

PRESENTATION

Declarative (What)

I. Advantages of an advanced non-visualized airway
   - A. Insertion does not require visualization of the vocal cords
   - B. Proper placement into either the esophagus or trachea for dual lumen airways
   - C. Increased tidal volume by decreasing dead space
   - D. Provides protection from aspiration

II. Indications for use of an advanced non-visualized airway
   - A. Cardiac arrest
   - B. Unresponsive patient with inadequate respirations and absent gag reflex

III. Select appropriate size advanced non-visualized airway (refer to manufacturers recommendation on indications and contraindications for use for specific airways)
IV. Contraindications for use of the advanced non-visualized airway
  A. Patient's height (refer to manufacturer's recommendations)
  B. Presence of an active gag reflex
  C. Caustic substance ingestion
  D. Known history of esophageal disease
  E. Others (refer to manufacturer's recommendations)
V. Insertion of an advanced non-visualized airway
  A. Adhere to manufacturer's recommendations and Standards and Procedures
VI. Ventilate the patient
  A. Confirm placement
  B. Hyperventilate for a minimum of 30 seconds following insertion
  C. Continue to ventilate while monitoring airway placement and vital signs

APPLICATION

Procedural (How)

1. Demonstrate how to prepare an advanced non-visualized airway prior to insertion.
2. Demonstrate how to insert an advanced non-visualized airway.
3. Demonstrate how to confirm placement, once an advanced non-visualized airway has been inserted.
4. Demonstrate how to ventilate a patient with an advanced non-visualized airway and positive pressure ventilations.

Contextual (When, Where, Why)

1. Every patient must have a patent airway to survive.
2. Once the airway has been opened, the EMT-Basic must determine if breathing is adequate.
3. Patients with inadequate breathing must be artificially ventilated using basic and advanced airway management skills.

STUDENT ACTIVITIES

Auditory (Hear)

1. The student should hear how to prepare an advanced non-visualized airway prior to insertion.
2. The student should hear how to coordinate basic airway management skills with the use of an advanced non-visualized airway.
3. The student should hear how to insert an advanced non-visualized airway.
4. The student should hear how to confirm placement, with a stethoscope, once an advanced non-visualized airway has been inserted.

5. The student should hear how to ventilate a patient with an advanced non-visualized airway and positive pressure.

Visual (See)

1. The student should see how to prepare an advanced non-visualized airway prior to insertion.
2. The student should see how to coordinate basic airway management skills with the use of an advanced non-visualized airway.
3. The student should see how to insert an advanced non-visualized airway.
4. The student should see how to confirm placement, once an advanced non-visualized airway has been inserted.
5. The student should see how to ventilate a patient with an advanced non-visualized airway and positive pressure.

Kinesthetic (Do)

1. The student should demonstrate how to prepare an advanced non-visualized airway prior to insertion.
2. The student should demonstrate how to combine basic airway management skills with the use of an advanced non-visualized airway.
3. The student should demonstrate how to insert an advanced non-visualized airway.
4. The student should demonstrate how to confirm placement, with a stethoscope, once an advanced non-visualized airway has been inserted.
5. The student should demonstrate how to ventilate a patient with an advanced non-visualized airway and positive pressure

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

Written:	Develop evaluation instruments, e.g., quizzes, verbal reviews, handouts, and practice sessions to determine if the students have met the cognitive, affective and psychomotor objectives of this lesson.
Practical:	Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan.

MODULE 3

Basic and Advanced Airway Management

Lesson 3-4

Evaluation: Basic and Advanced Airway Management

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 EMT-Basic student will be able to:
Demonstrate knowledge of the cognitive objectives of Lesson 3-1 – 3-3.

AFFECTIVE OBJECTIVES

At the completion of this lesson, the EMT-Basic student will be able to:
Demonstrate knowledge of the affective objectives of Lesson 3-1 – 3-3.

PSYCHOMOTOR OBJECTIVES

At the completion of this lesson, the EMT-Basic student will be able to:
Demonstrate proficiency in the psychomotor objectives of Lesson 3-1 – 3-3.

PREPARATION

Motivation: Evaluation of the student's attainment of the cognitive and affective knowledge and psychomotor skills is an essential component of the EMT-Basic 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.

Prerequisites: Completion of Basic and Advanced Airway lessons.

MATERIALS

AV Equipment: Typically none required.

EMS Equipment: Equipment required to evaluate the student's proficiency in the psychomotor skills of this module.

PERSONNEL

Primary Instructor: One proctor for the written evaluation.

Assistant Instructor: One practical skills examiner for each 6 students.

PRESENTATION

Declarative (What)

I. Purpose of the evaluation
II. Items to be evaluated
III. Feedback from evaluation

APPLICATION

Procedural (How)

1. Written evaluation based on the cognitive and affective objectives of Lesson 3.
2. Practical evaluation stations based on the psychomotor objectives of Lesson 3.

Contextual (When, Where and Why)

1. The final lesson in this module is designed to bring closure to the module and to assure that students are prepared to move to the next module.
2. This modular evaluation is given to determine the effectiveness of the presentation of materials and how well students have retained the material.
3. 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

1. Supervise student evaluation.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. 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.

MODULE 4

Medical/Behavioral and Obstetrics/Gynecology

Lesson 4-1

General Pharmacology

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 EMT-Basic student will be able to:

4-1.1 Identify which medications are carried on board an ambulance licensed at the EMT-Basic level in Wisconsin. (C-1)
4-1.2 Identify the medications with which the EMT-Basic may assist the patient with administration at the EMT-Basic level in Wisconsin. (C-1)
4-1.3 List the components of a drug profile. (C-1)
4-1.4 Identify the different forms in which medications are found. (C-1)
4-1.5 Explain the importance of medical control involvement and medication administration. (C-1)

AFFECTIVE OBJECTIVES

No affective objectives identified.

PSYCHOMOTOR OBJECTIVES

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

4-1.6 Demonstrate general steps for assisting patient with self-administration of medications. (P-2)
4-1.7 Demonstrate general steps involved in administering a medication to a patient. (P-2)

PREPARATION

Motivation: Later in this course the EMT-Basic student will be learning specific medications which may be administered to a patient, for a specific medical condition.

Administering medications is an important responsibility of the EMT. Giving medications to pediatric and geriatric patients requires special consideration. They must only be given following thorough evaluation and permission from medical control.

Prerequisites: BLS, Preparatory, Airway and Patient Assessment.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to general pharmacology. The continuous design and 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 assure meeting the objectives of the curriculum.

EMS Equipment: None

PERSONNEL

Primary Instructor: Advanced-level provider who has administered medications.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable in general pharmacology.

PRESENTATION

Declarative (What)

I. Medications carried on board (*may be carried on board the EMT-Basic Service in Wisconsin, with required additional training and approval)
   - A. Activated Charcoal
   - B. Oral Glucose
   - C. *Glucagon
   - D. Oxygen
   - E. Albuterol, nebulized
   - F. *Atrovent, nebulized
   - G. Aspirin
   - H. *Epinephrine, auto-injector
   - I. MARK 1 Kit (Atropine and 2-PAM Chloride)

II. Medications that are prescribed by a physician and the patient has in his/her possession. May assist patients, with approval by medical direction.
   - A. Metered Dose Inhalers – Albuterol, Atrovent
   - B. Nitroglycerin
   - C. Epinephrine, auto-injector

APPLICATION

Procedural (How)

1. Demonstrate reading labels and inspecting each medication that will be carried on the unit or assisted with by the patient.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan.

MODULE 4

Medical/Behavioral and Obstetrics/Gynecology

Lesson 4-2

Respiratory Emergencies

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 EMT-Basic student will be able to:

4-2.1 List signs and symptoms of inadequate air exchange. (C-1)
4-2.2 Recognize the need for medical direction to assist in the emergency medical care of the patient with breathing difficulty. (C-3)
4-2.3 Identify appropriate treatment and management for the adult patient in respiratory distress due to a common respiratory disease. (C-1)
4-2.4 Identify appropriate treatment and management for the pediatric patient in respiratory distress due to a common respiratory disease. (C-1)
4-2.5 List common trade names, action, indications, contraindications, forms, dose, route and side effects of albuterol. (C-1)
4-2.6 List common trade names, action, indications, contraindications, forms, dose, route and side effects of ipratropium bromide (Atrovent). (C-1)
4-2.7 Distinguish between the emergency medical care of the infant, child and adult patient with signs of respiratory distress.(C-3)
4-2.8 Identify common respiratory diseases of the adult patient. (C-1)
4-2.9 Identify common respiratory diseases of the pediatric patient. (C-1)

AFFECTIVE OBJECTIVES

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

4-2.10 Defend EMT-Basic treatment regimens for various respiratory emergencies.(A-1)
4-2.11 Explain the rationale for administering albuterol.(A-3)
4-2.12 Explain the rationale for administering Atrovent. (A-3)

PSYCHOMOTOR OBJECTIVES

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

4-2.13 Perform the steps in assisting a patient with the use of their metered dose inhaler. (P-2)
4-2.14 Perform the steps in administering a nebulizer treatment, via hand-held and mask, to a patient in respiratory distress. (P-2)

PREPARATION

Motivation: Over 200,000 persons die from respiratory emergencies each year.

One large city reported 12% of their ambulance runs were respiratory emergencies. This represented three times the calls for heart attacks.

A child with severe respiratory distress will deteriorate into respiratory failure and circulatory collapse, eventually resulting in respiratory arrest. The use of oxygen can block this progression and may even reverse it to some degree. When possible, deliver humidified oxygen and allow the child to remain in the parent's lap. A more comfortable, secure child will require less oxygen. Have the parent accompany the child in the ambulance. There is no contraindication to high concentration oxygen in the infant or child patient.

Prerequisites: BLS, Preparatory, Airway and Patient Assessment.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to respiratory emergencies. The continuous design and 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 assure meeting the objectives of the curriculum.

EMS Equipment: Metered-dose and hand-held nebulizers suitable for training purposes and various spacer devices.

PERSONNEL

Primary Instructor: One Advanced-Level Provider or EMT-Basic instructor who is knowledgeable in respiratory diseases and handheld inhalers.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable in respiratory emergencies.

PRESENTATION

Declarative (What)

I. Anatomy
    1. Infant and child anatomy considerations
        a) Mouth and nose - in general: All structures are smaller and more easily obstructed than in adults.
        b) Pharynx - infants' and children's tongues take up proportionally more space in the mouth than adults
        c) Trachea
            (1) Infants and children have narrower tracheas that are obstructed more easily by swelling
            (2) The trachea is softer and more flexible in infants and children
        d) Cricoid cartilage - like other cartilage in the infant and child, the cricoid cartilage is less developed and less rigid
        e) Diaphragm - chest wall is softer, infants and children tend to depend more heavily on the diaphragm for breathing

B. Epiglottitis - condition that resembles croup, caused by bacterial infection that inflames and swells the epiglottis, closing off air passage; a true medical emergency that may result in death if not treated rapidly; typically occurs in children ages 2-4 (can occur in adults)
    1. Signs and symptoms
        a) Fever
        b) Sore throat
        c) Difficulty breathing
        d) Drooling
        e) Difficulty swallowing
        f) Stridor
        g) Hoarseness
        h) Chills
        i) Cyanosis
    2. Patient management/treatment
        a) Gentle, calm, reassuring care
        b) Oxygen, blow-by
        c) Position of comfort (usually sitting on parent’s lap)
        d) Rapid transport

II. Emergency Medical Care-Initial Assessment
    A. Establish an open airway
    B. Begin positive pressure ventilations with oxygen if unconscious, administer high flow oxygen if patient is responsive
    C. High priority and rapid transport

III. Emergency Medical Care - Focused History and Physical Exam
    A. Important questions to ask
        1. Onset
        2. Provocation

3. Quality
4. Radiation
5. Severity
6. Time
7. Interventions

B. SAMPLE History
C. Baseline Vital Signs
D. Effort of Breathing
1. Complains of trouble breathing
a) Apply oxygen if not already done
b) Assess baseline vital signs
2. Consult medical direction
a) Assist patient with metered dose inhaler or administration of nebulizer
(1) Repeat as directed
(2) Continue focused assessment
(3) Document administration and effect of medication

IV. Medications
A. Metered dose inhalers (MDI)
1. Medication name (most commonly used)
a) Generic - albuterol, isoetharine, metaproteranol, etc.
b) Trade - Proventil, Ventolin, Bronkosol, Bronkometer, Alupent, Metaprel, etc.
2. Indications - meets all of the following criteria:
a) Exhibits signs and symptoms of respiratory emergency,
b) Has physician prescribed handheld inhaler, and
c) Specific authorization by medical direction
3. Contraindications
a) Inability of patient to use device
b) Inhaler is not prescribed for the patient
c) No permission from medical direction
d) Patient has already met maximum prescribed dose prior to EMT-Basic arrival
e) Possible allergic reactions would have previously been ruled out by the patient’s physician prior to writing a prescription
4. Medication form - handheld metered dose inhaler
5. Dosage - number of inhalations based upon medical direction's order or physician's order based upon consultation with the patient
6. Administration - inhaled
a) Obtain order from medical direction either on-line or off-line
b) Assure right medication, right patient, right route, patient alert enough to use inhaler
c) Check the expiration date of the inhaler

d) Check to see if the patient has already taken any doses
e) Assure the inhaler is at room temperature or warmer
f) Shake the inhaler vigorously several times
g) Remove oxygen nonrebreather mask from patient
h) Have the patient exhale deeply
i) Have the patient put his lips around the opening of the inhaler
j) Have the patient depress the handheld inhaler as he begins to inhale deeply
k) Instruct the patient to hold his breath for as long as he comfortably can (so medication can be absorbed)
l) Replace oxygen on patient
m) Allow patient to breathe a few times and repeat second dose per medical direction
n) If patient has a spacer device for use with his inhaler, it should be used. A spacer device is an attachment between inhaler and patient that allows for more effective use of medication.

7. Action - beta agonist bronchodilator - dilates bronchioles reducing airway resistance
8. Side effects
   a) Increased pulse rate
   b) Tremors
   c) Nervousness

B. Hand-held and mask nebulizers
1. Medication names
   a) Albuterol (generic); Proventil, Ventolin (trade names)
   b) Ipratropium bromide (generic); Atrovent (trade name)
2. Indications - meets all of the following criteria:
   a) Exhibits signs and symptoms of respiratory emergency,
   b) Specific authorization by medical direction
3. Contraindications
   a) Inability of patient to use device
   b) Known allergy – NOTE: patients with allergy to soybeans or peanuts should not be administered Atrovent
   c) Adverse effects of administration – NOTE: patients on beta-blockers may be advised against being administered albuterol
   d) No permission from medical direction
4. Medication form - liquid for nebulizing
5. Dosage –
   a) Albuterol - 2.5 mg/3ml
   b) Atrovent – 0.5mg/3ml
6. Administration-
   a) Contact medical control

b) Report assessment findings, including a thorough medical history
c) Rule out allergies and contraindications for use
d) Report prior interventions and use of inhaler or nebulizer
e) Request implementation of protocol
f) Confirm orders from medical control
g) Explain procedure and solicit patient consent
h) Check expiration date
i) Confirm right medication, right patient, right route
j) Confirm dosage
k) Assemble nebulizer
l) Add pre-measured medication dosage to nebulizer
m) Remove oxygen supply from existing patient adjunct and connect to medication canister. Provide additional oxygen to patient via nasal cannula at 4-6 lpm
n) Adjust liter flow to 4-6 liters
o) Instruct patient to place the mouthpiece in their mouth and to inhale slowly and deeply (if utilizing a mask nebulizer, place mask appropriately on patient's face)
p) Have patient attempt to hold their breath for 1-2 seconds before exhaling
q) Continue in this manner until the medication canister is depleted

7. Action
   a) Albuterol - beta agonist bronchodilator - dilates bronchioles, by relaxing surrounding smooth muscles to reduce airway resistance.
   b) Atrovent – anticholinergic agent - has a timed-release effect and work on the smaller sections of bronchioles to reduce airway resistance
8. Side effects
   a) Increased pulse rate
   b) Tremors
   c) Nervousness
9. Re-assessment strategies
   a) Gather vital signs and focused reassessment
   b) Evaluate patient response to medication administration
   c) Patient may deteriorate and need positive pressure artificial ventilation
10. Document administration
11. Infant and child considerations
   a) Use of handheld inhalers is very common in children
   b) Retractions are more commonly seen in children than adults
   c) Cyanosis (blue-gray) is a late finding in children

d) Very frequent coughing may be present rather than wheezing in some children
e) Emergency care with usage of handheld inhalers is the same if the indications for usage of inhalers are met by the ill child.

APPLICATION

Procedural (How)

1. Show students images of adults, children and infants with breathing distress.
2. Show students different types of inhalers.
3. Show students how to use a metered dose inhaler.
4. Show students how to use a handheld and mask nebulizer.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan.

MODULE 4

Medical/Behavioral and Obstetrics/Gynecology

Lesson 4-3

Cardiac Emergencies

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 EMT-Basic student will be able to:

4-3.1 Outline the major signs and symptoms of a patient experiencing cardiac compromise. (C-1)
4-3.2 Describe the emergency medical care of the patient experiencing chest pain/discomfort. (C-1)
4-3.3 Analyze the indications for automated external defibrillation (AED). (C-3)
4-3.4 List the contraindications for automated external defibrillation. (C-1)
4-3.5 Define the role of EMT-B in the emergency cardiac care system. (C-1)
4-3.6 Explain the impact of age and weight on defibrillation. (C-1)
4-3.7 Discuss the fundamentals of early defibrillation. (C-1)
4-3.8 Discuss the use of the AED for pediatric patients. (C-1)
4-3.9 Explain the importance of prehospital ACLS intervention if it is available. (C-1)
4-3.10 State the reasons for assuring that the patient is pulseless when using the automated external defibrillator. (C-1)
4-3.11 Explain the considerations for interruption of CPR and importance of minimizing any interruption, when using the automated external defibrillator. (C-1) and include CCR.
4-3.12 Recognize the need for medical direction of protocols to assist in the emergency medical care of the patient with chest pain. (C-3)
4-3.13 List the indications for the use of aspirin. (C-1)
4-3.14 State the contraindications and side effects for the use of aspirin. (C-1)
4-3.15 List the indications for the use of nitroglycerin. (C-1)
4-3.16 State the contraindications and side effects for the use of nitroglycerin. (C-1)

AFFECTIVE OBJECTIVES

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

4-3.17 Explain the rationale for administering nitroglycerin to a patient with chest pain or discomfort. (A-3)

PSYCHOMOTOR OBJECTIVES

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

4-3.18 Demonstrate the assessment and emergency medical care of a patient experiencing chest pain/discomfort. (P-1,2)
4-3.19 Demonstrate the application and operation of the automated external defibrillator. (P-1,2)
4-3.20 Perform the steps in administering aspirin for chest pain or discomfort. (P-2)
4-3.21 Demonstrate the assessment and documentation of patient response to aspirin. (P-1,2)
4-3.22 Perform the steps in facilitating the use of nitroglycerin for chest pain or discomfort. (P-2)
4-3.23 Demonstrate the assessment and documentation of patient response to nitroglycerin. (P-1,2)

PREPARATION

Motivation: Over 600,000 patients die each year from cardiovascular diseases; half of those occur outside the hospital, with sudden death (collapse) being the first sign of cardiac disease in 50%.

Rapid defibrillation, which will be covered in this module, is the major determinant of survival in cardiac arrest caused by ventricular fibrillation.

Prerequisites: BLS, Preparatory, Airway and Patient Assessment.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to cardiac emergencies. The continuous design and 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 assure meeting the objectives of the curriculum.

EMS Equipment: CPR manikins, artificial ventilation manikins, automated external defibrillator, aspirin and NTG placebos, defibrillation manikin.

PERSONNEL

Primary Instructor: One advanced-level provider with knowledge and experience in out-of-hospital cardiac resuscitation.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable in cardiac emergencies.

PRESENTATION

Declarative (What)

I. Emergency Medical Care - Initial Patient Assessment Review
   A. Circulation - pulse absent
      1. Medical patient > one year old - CPR with AED and transport
      2. Medical patient < one year old - CPR and transport, AED is contraindicated
   B. Responsive patient with a known history - cardiac
      1. Perform initial assessment
      2. Perform focused history and physical exam
      3. Place patient in position of comfort
      4. Cardiac
         a) Complains of chest pain or discomfort
            (1) Apply oxygen if not already done
            (2) Assess baseline vital signs
         b) Important questions to ask
            (1) SAMPLE history
            (2) O-P-Q-R-S-T
         c) Has been prescribed nitroglycerin (NTG) and nitro is with the patient
            (1) Blood pressure greater than 100 systolic
               (a) One dose, repeat in 3-5 minutes if no relief and authorized by medical direction up to a maximum of three doses
               (b) Reassess vital signs and chest pain after each dose
            (2) Blood pressure < 100 systolic - continue with focused assessment
         d) Does not have prescribed nitroglycerin (NTG) - continue with focused assessment
         e) Transport promptly

II. Medications
   A. Aspirin
      1. Medication name
         a) Generic - aspirin
         b) Trade – Bayer, St. Joseph’s
      2. Indications - must have all of the following criteria:
         a) Exhibits signs and symptoms of chest pain
         b) Has specific authorization by medical direction
      3. Contraindications
         a) Stomach ulcers
         b) Allergy (e.g. patients with aspirin-induced asthma)
         c) Patient unable to protect own airway
         d) Patient has already met maximum prescribed dose prior to EMT-Basic arrival

4. Medication form – chewable tablet
5. Dosage – 162-324mg dose (2-4, 81mg), and authorized by medical direction
6. Administration
    a) Obtain order from medical direction either on-line or off-line
    b) Perform focused assessment for cardiac patient
    c) Assess vital signs
    d) Contact medical control if no standing orders
    e) Assure right medication, right patient, right route, patient alert
    f) Check expiration date of aspirin
    g) Question patient on last dose administration, effects, and assures understanding of route of administration
    h) Ask patient to chew, not swallow whole, tablets
    i) Record activity and time
    j) Perform reassessment and evaluate effect of medication
7. Actions
    a) Anticoagulant (thrombolytic) “blood thinner”
    b) Decreases workload of heart
    c) Mild analgesic
8. Side effects
    a) Stomach upset
9. Reassessment strategies
    a) Monitor blood pressure
    b) Seek medical direction before re-administering
    c) Record reassessment findings

B. Nitroglycerin
1. Medication name
    a) Generic - nitroglycerin
    b) Trade – Nitrostat
2. Indications - must have all of the following criteria:
    a) Patient exhibits signs and symptoms associated with cardiac compromise (e.g. chest pain, pressure or discomfort)
    b) Patient has physician prescribed nitroglycerin
    c) EMT has authorization by medical direction
3. Contraindications
    a) History of hypotension
    b) Blood pressure below 100 mmHg systolic
    c) Head injury
    d) Infants and children
    e) Patient has already met maximum prescribed dose prior to EMT-Basic arrival
4. Medication form - tablet, sub-lingual spray

5. Dosage - one dose, repeat in 3-5 minutes if no relief, BP > 100, and authorized by medical direction up to a maximum of three doses
6. Administration
   a) Obtain order from medical direction either on-line or off-line
   b) Perform focused assessment for cardiac patient
   c) Evaluate blood pressure - above 100 mmHg systolic
   d) Contact medical control if no standing orders exist
   e) Assure right medication, right patient, right route, patient alert
   f) Check expiration date of nitroglycerin
   g) Question patient on last dose administration, effects, and assures understanding of route of administration
   h) Ask patient to lift tongue and place tablet or spray dose under tongue (while wearing gloves) or have patient place tablet or spray under tongue
   i) Have patient keep mouth closed with tablet under tongue (without swallowing) until dissolved and absorbed
   j) Recheck blood pressure
   k) Record activity and time
   l) Perform reassessment and evaluate patient for effect of drug
7. Actions
   a) Relaxes blood vessels
   b) Decreases workload of heart
8. Side effects
   a) Hypotension
   b) Headache
   c) Pulse rate changes
   d) Burning or stinging sensation under the tongue
9. Reassessment strategies
   a) Monitor blood pressure
   b) Ask patient about effect on pain relief
   c) Seek medical direction before re-administering
   d) Record reassessments

APPLICATION

Procedural (How)

1. Perform the steps in facilitating the use of aspirin for chest pain using a substitute candy tablet.
2. Perform the steps in facilitating the use of nitroglycerin for chest pain using a substitute candy tablet and breath spray.
3. Demonstrate the assessment and documentation of patient response to nitroglycerin.

STUDENT ACTIVITIES

Visual (See)

1. The student should see an instructor team appropriately administer a small candy or breath spray sublingually to a simulated patient presenting with chest pain.
2. The student should see re-enactments of EMS calls where a patient has been assessed and assisted in the administration of aspirin.
3. The student should see re-enactments of EMS calls where a patient has been assessed and assisted in the administration of nitroglycerin.

Kinesthetic (Do)

1. The student should practice performing the steps in facilitating the use of nitroglycerin for chest pain using a suitable candy tablet and breath spray.
2. The student should practice the assessment and documentation of patient response to the automated external defibrillator.
3. The student should practice the assessment and documentation of patient response to aspirin and nitroglycerine.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan.

MODULE 4

Medical/Behavioral and Obstetrics/Gynecology

Lesson 4-4

Diabetic Emergencies/ Altered Mental Status

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 EMT-Basic student will be able to:

4-4.1 List the major signs and symptoms associated with hyperglycemia (diabetic coma). (C-1)
4-4.2 List the major signs and symptoms associated with hypoglycemia (insulin shock). (C-1)
4-4.3 Establish the relationship between airway management and the patient with altered mental status. (C-3)
4-4.4 Recognize when to administer oral glucose to a hypoglycemic patient. (C-2)
4-4.5 Recognize when to administer glucagon to a hypoglycemic patient. (C-2)
4-4.6 Explain the need to contact medical control prior to administering medications to a diabetic patient with an altered mental status. (C-1)
4-4.7 Explain the need for body substance isolation when providing prehopsital care for the diabetic patient. (C-1)
4-4.8 Outline the management steps in caring for a hypoglycemic patient. (C-2)
4-4.9 List other causes of altered levels of consciousness besides diabetic emergencies. (C-1)
4-4.10 Discuss causes, signs and symptoms and management of seizures. (C-1)
4-4.11 Discuss causes, signs and symptoms and management of cerebral vascular accidents (CVA). (C-1)
4-4.12 Discuss assessment and management of a geriatric patient exhibiting signs and symptoms of neurological emergencies including dementia. (C-1)

AFFECTIVE OBJECTIVES

4-4.13 Explain the rationale for obtaining a blood glucose reading in patients with altered levels of consciousness. (A-3)
4-4.14 Explain the rationale for administering oral glucose. (A-3)
4-4.15 Explain the rationale for administering glucagon. (A-3)

PSYCHOMOTOR OBJECTIVES

4-4.16 Demonstrate the steps in the emergency medical care, including a management plan, assessment and treatment, for the patient taking diabetic medicine with an altered mental status and a history of diabetes. (P-1,2)
4-4.17 Demonstrate the steps in obtaining a blood glucose reading. (P-2)
4-4.18 Demonstrate the steps in the administration of oral glucose. (P-1,2)
4-4.19 Demonstrate the assessment and documentation of patient response to oral glucose. (P-1,2)
4-4.20 Demonstrate the proper technique in reconstituting glucagon and preparing for its administration. (P-2)
4-4.21 Demonstrate the steps in administering an IM injection of glucagon to a diabetic patient. (P-2)
4-4.22 Demonstrate the assessment and documentation of patient response to glucagon. (P-2)
4-4.23 Demonstrate creating a management plan for a patient exhibiting signs and symptoms of seizure. (P-2)
4-4.24 Demonstrate creating a management plan for a patient exhibiting signs and symptoms of stroke. (P-2)
4-4.25 Demonstrate creating a management plan for a patient exhibiting signs and symptoms of dementia. (P-2)

PREPARATION

Motivation: Neurological emergencies, resulting in an altered level of consciousness, include diabetes, seizure, stroke and dementia. Diabetes is a prevalent disease in American society with estimates between 2-5% of the total population having either diagnosed or undiagnosed diabetes mellitus. Strokes can causes devastating changes in a patient's quality of life. Current AHA research recommends rapid management by prehospital caregivers for patient's exhibiting signs and symptoms of stroke. Dementia and delirium are debilitating diseases of the brain that effect geriatric patients.

Prerequisites: BLS, Preparatory, Airway and Patient Assessment.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to diabetic emergencies. The continuous design and 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 assure meeting the objectives of the curriculum.

EMS Equipment: Exam gloves, stethoscope (6:1), blood pressure cuff (6:1), penlight, tube of glucose, suitable glucose substitute, vials of normal saline, syringes, gloves, sharps containers, injection practice devices, 2x2 gauze pads, bandaids, glucometers, test strips, and lancets.

PERSONNEL

Primary Instructor: One EMT-Basic instructor knowledgeable in treatment of diabetic emergencies.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable in diabetic emergencies.

PRESENTATION

Declarative (What)

I. Diabetes Mellitus
  A. Medications
    1. Oral Glucose
      a) Medication Name
        (1) Generic - Glucose, Oral
        (2) Trade - Glutose, Insta-glucose
      b) Indications - patients with altered mental status with a known history of diabetes controlled by medication
      c) Contraindications
        (1) Unresponsive
        (2) Unable to swallow
      d) Medication form - Gel, in toothpaste type tubes
      e) Dosage – 15-25 g
      f) Administration
        (1) Obtain order from medical direction either on-line or off-line
        (2) Assure signs and symptoms of altered mental status with a known history of diabetes
        (3) Assure patient is conscious and can swallow and protect their airway
        (4) Administer glucose
          (a) Between cheek and gum
          (b) Place on tongue depressor between cheek and gum
        (5) Perform ongoing assessment
      g) Actions - increases blood sugar

h) Side effects - none when given properly. May be aspirated by the patient without a gag reflex.
i) Re-assessment strategies - if patient loses consciousness or seizes, remove tongue depressor from mouth

2. Glucagon
   a) Medication Name
      (1) Generic - glucagon
      (2) Trade - Glucagon
   b) Indications – unresponsive patients with a known history of diabetes controlled by medication
   c) Contraindications
      (1) allergy to drug
   d) Medication form – powdered tablet, reconstituted in 1ml of diluent
   e) Dosage – 1mg/ml
   f) Administration
      (1) Contact medical control
      (2) Report assessment findings including signs and symptoms of hypoglycemia and blood glucose measurement
      (3) Report prior interventions
      (4) Request implementation of glucagon protocol
      (5) Confirm orders from medical control
      (6) Obtain consent and explain procedure, if possible
      (7) Confirm right patient
      (8) Reconstitute glucagon
         (a) Inspect package and both vials insuring right medication, dose and expiration date
         (b) Remove “flip-off” seals from vials
         (c) Wipe rubber stoppers with alcohol prep-pad
         (d) Using sterile 3 ml IM syringe, remove needle protector from syringe
         (e) Draw plunger back to 1ml (cc) mark (syringe now contains 1ml of air)
         (f) Pierce the center of the stopper of the vial containing the diluting solution with the needle of the syringe
         (g) Turn the vial upside down and inject the 1 ml of air from the syringe into the vial (this procedure makes it easier to withdraw fluid from vial)
         (h) Keeping the tip of the needle in the diluent, withdraw fluid from vial into the syringe

(i) Remove syringe from vial and pierce the center of the stopper of the vial, containing 1mg powdered glucagon, with the syringe
(j) Inject all of the diluent into the glucagons
(k) Remove the diluent syringe from the vial and dispose of in sharps container
(l) Shake the vial gently until the glucagon dissolves and the solution becomes clear. Note: glucagons should be clear and water-like in consistency. It should be utilized immediately after reconstituting.
(m) Using a new syringe and appropriately sized needle, pierce the center of the rubber stopper and withdraw slightly more of the medication than the ordered dose
(n) Remove the needle and syringe from the vial
(o) With the needle pointing upward, gently tap the syringe to move any air bubbles to the top. Gently advance the syringe to the 1 ml mark. (Children less than 20 kg (44 lbs) a dose of 0.5 mg is used). Note: Dosage established by medical control must be administered

(9) Perform the IM injection
(a) Cleanse the injection site using an alcohol prep-pad
(b) Raise the injection site by pinching or stretching the flesh
(c) Insert the needle into the selected and cleansed injection site at a 90 degree angle
(d) Aspirate slightly by attempting to withdraw the plunger of the syringe. If no blood is seen to aspirate into the syringe, use light pressure to depress the plunger and inject all the medication. If blood is seen to aspirate, a second site must be used
(e) Depress the plunger to administer the injection
(f) Withdraw the needle from the injection site
(g) Wipe the injection site with an alcohol prep-pad
(h) Properly dispose of the syringe and needle assembly in an appropriate sharps container and place a band-aid over the injection site

(10) Continue to monitor patient status
(11) Continue oxygen therapy
(12) Repeat dosage per medical direction, if requested
(13) Document administration data and time
  (a) Time, name, dose, route of medication
  (b) Patient's tolerance of procedure
  (c) Name of medical control physician authorizing administration
  (d) Name of EMT administering medication

g) Actions – triggers release of stored glucose from liver and skeletal muscles
h) Side effects -
i) Re-assessment strategies – monitor patient's LOC and vital signs, document and communicate patient response to medication administration

APPLICATION

Procedural (How)

1. Demonstrate the steps in emergency care for the patient with altered mental status and a history of diabetes who is on diabetic medication.
2. Demonstrate the steps in obtaining a blood glucose reading.
3. Demonstrate the steps in the administration of oral glucose.
4. Demonstrate the steps in the administration of glucagon.
5. Demonstrate the assessment and documentation of patient response.

Contextual (When, Where, Why)

1. Oral glucose, and/or glucagon, given to a patient with an altered mental status and a known history of diabetes can make a difference between development of coma (unconsciousness) and ability to maintain consciousness.

STUDENT ACTIVITIES

Visual (See)

1. The student should see the administration of oral glucose (as a simulated paste) to a simulated patient.
2. The student should see the administration of glucagon (as a simulated liquid for injection) to a simulated patient.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

Written:	Develop evaluation instruments, e.g., quizzes, verbal reviews, handouts, to determine if the students have met the cognitive and affective objectives of this lesson.
Practical:	Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan.

MODULE 4

Medical/Behavioral and Obstetrics/Gynecology

Lesson 4-5

Severe Allergic Reactions

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 EMT-Basic student will be able to:

4-5.1 Describe the emergency medical care of the patient with an allergic reaction. (C-1)

4-5.2 State the generic and trade names, medication forms, dose, administration, action, and contraindications for the epinephrine auto-injector. (C-1)

4-5.3 Evaluate the need for medical direction in the emergency medical care of the patient with an allergic reaction. (C-3)

4-5.4 Differentiate between the general category of those patients having an allergic reaction and those patients having an allergic reaction and requiring immediate medical care, including immediate use of epinephrine auto-injector. (C-3)

AFFECTIVE OBJECTIVES

4-5.5 Explain the rationale for administering epinephrine using an auto-injector. (A-3)

PSYCHOMOTOR OBJECTIVES

4-5.6 Demonstrate the use of epinephrine auto-injector. (P-1,2)

4-5.7 Demonstrate the assessment and documentation of patient response to an epinephrine injection. (P-1,2)

PREPARATION

Motivation: The ability to recognize and manage a severe allergic reaction (anaphylaxis) is possibly the only thing standing between a patient and imminent death.

Prerequisites: BLS, Preparatory, Airway and Patient Assessment.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to allergic emergencies. The continuous design and 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 assure meeting the objectives of the curriculum.

EMS Equipment: Epinephrine auto-injector, epinephrine auto-injector trainer, alcohol prep pads, and sharps container.

PERSONNEL

Primary Instructor: One EMT-Basic instructor knowledgeable in the physiology of severe allergic reactions and the use of epinephrine auto-injectors.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable in allergic emergencies.

PRESENTATION

Declarative (What)

I. Allergic Reactions
II. Medications
    A. Epinephrine auto-injector
        1. Medication name
            a) Generic - Epinephrine
            b) Trade - Adrenalin
        2. Indications - must meet the following three criteria:
            a) Emergency medical care for the treatment of the patient exhibiting the assessment findings of an allergic reaction
            b) Medication is prescribed for this patient by a physician
            c) Medical direction authorizes use for this patient
        3. Contraindications - no contraindications when used in a life-threatening situation
        4. Medication form - liquid administered via an automatically injectable needle and syringe system
        5. Dosage
            a) Adult - one adult auto-injector (0.3 mg)
            b) Infant and child - one infant/child auto-injector (0.15 mg, up to #60)
        6. Administration
            a) Obtain order from medical direction either on-line or off-line
            b) Obtain patient's prescribed auto-injector. Ensure:
                (1) Prescription is written for the patient experiencing allergic reactions
                (2) Medication is not discolored (if able to see)

c) Remove safety cap from the auto-injector
d) Place tip of auto-injector against the patient's thigh
(1) Lateral portion of the thigh.
(2) Midway between the waist and the knee
e) Push the injector firmly against the thigh until the injector activates
f) Hold the injector in place until the medication is injected
g) Record activity and time
h) Dispose of injector in sharps container

7. Actions
a) Dilates the bronchioles
b) Constricts blood vessels

8. Side effects
a) Increases heart rate
b) Pallor
c) Dizziness
d) Chest pain
e) Headache
f) Nausea
g) Vomiting
h) Excitability, anxiousness

APPLICATION

Procedural (How)

The instructor will demonstrate the following steps using an epinephrine auto-injector trainer and appropriate synthetic skin mannequin:

1. Obtain medical direction.
2. Obtain patient's prescribed auto injector. Ensure:
   a. Prescription is written for the patient experiencing allergic reactions.
   b. Medication is not discolored, if visible.
3. Remove safety cap from the auto-injector.
4. Place tip of auto-injector against the patient's thigh.
   a. Lateral portion of the thigh.
   b. Midway between the waist and the knee.
5. Push the injector firmly against the thigh until the injector activates.
6. Hold the injector in place until the medication is injected.
7. Dispose of injector in biohazard container.

Contextual (When, Where, Why)

1. The EMT-Basic will now be able to assist patients with the administration of epinephrine auto-injectors. This will make a significant difference in those patients exposed to an allergic agent.
2. The administration of the epinephrine should be performed as soon as possible following appropriate identification of the allergic reaction.

STUDENT ACTIVITIES

Visual (See)

1. The student should see an actual epinephrine auto-injector.
2. The student should see the instructor demonstrate the appropriate steps in using an auto-injector.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan.

MODULE 4

Medical/Behavioral and Obstetrics/Gynecology

Lesson 4-6

Poisoning/ Overdose

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 EMT-Basic student will be able to:

4-6.1 List various ways that poisons enter the body. (C-1)
4-6.2 List signs/symptoms associated with poisoning. (C-1)
4-6.3 Discuss the emergency medical care for the patient with possible overdose. (C-1)
4-6.4 Describe the steps in the emergency medical care for the patient with suspected poisoning. (C-1)
4-6.5 Recognize the need for medical direction in caring for the patient with poisoning or overdose. (C-3)

AFFECTIVE OBJECTIVES

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

4-6.6 Explain the rationale for administering activated charcoal. (A-3)

PSYCHOMOTOR OBJECTIVES

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

4-6.7 Perform the necessary steps required to provide a patient with activated charcoal. (P-2)
4-6.8 Demonstrate the assessment and documentation of patient response. (P-1,2)
4-6.9 Demonstrate proper disposal of the equipment for the administration of activated charcoal. (P-1,2)

PREPARATION

Motivation: Thousands of children are poisoned every year as they explore their environments. Many adults also overdose on medication, either accidentally or deliberately. With early prehospital management, the vast majority of these patients have better outcomes.

Prerequisites: BLS, Preparatory, Airway and Patient Assessment.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to poisoning/overdose emergencies. The continuous design and 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 assure meeting the objectives of the curriculum.

EMS Equipment: Activated charcoal, suction equipment.

PERSONNEL

Primary Instructor: One EMT-Basic instructor knowledgeable in this area.

Assistant Instructor: None required.

PRESENTATION

Declarative (What)

I. Emergency Medical Care of Poisoning/Overdose
   - A. Ingested
     1. Emergency medical care
        - a) Remove pills, tablets or fragments with gloves from patient's mouth, as needed, without injuring oneself
        - b) Consult medical direction and/or poison control center - activated charcoal
        - c) Bring all containers, bottles, labels, etc. of poison agents to receiving facility

II. Medications – refer to local protocols for prehospital use
   - A. Activated charcoal
     1. Medication name
        - a) Generic - Activated charcoal
        - b) Trade
          - (1) SuperChar
          - (2) InstaChar
          - (3) Actidose
          - (4) LiquiChar
     2. Indications - poisoning by mouth
     3. Contraindications
        - a) Altered mental status
        - b) Ingestion of acids or alkalis
        - c) Unable to swallow
     4. Medication form
        - a) Pre-mixed in water, available in containers of 12.5, 25 and 50 grams
        - b) Powder - should be avoided in field

5. Dosage
   a) Adults and children: 1 gram activated charcoal/kg of body weight
   b) Usual adult dose: 25 - 50 grams
   c) Usual infant/child dose: 12.5 - 25 grams
6. Administration
   a) Obtain order from medical direction either on-line or off-line
   b) Container must be shaken thoroughly
   c) Since medication looks like mud, patient may need to be persuaded to drink it
   d) A covered container and a straw may improve patient compliance since the patient cannot see the medication this way
   e) If patient takes a long time to drink the medication, the charcoal will settle and will need to be shaken or stirred again
   f) Record activity, patient response to administration, complications and time
7. Actions
   a) Binds to certain poisons and prevents them from being absorbed into the body
   b) Not all brands of activated charcoal are the same; some bind much more poison than others, so consult medical direction about the brand to use
8. Side effects
   a) Black stools
   b) Some patients, particularly those who have ingested poisons that cause nausea, may vomit
   c) If the patient vomits, the dose should be repeated per medical direction
9. Re-assessment strategies - the EMT-Basic should be prepared for the patient to vomit or further deteriorate

APPLICATION

Procedural (How)

1. Show the student activated charcoal.
2. Show the student how to administer activated charcoal.
3. Show the student how to care for a patient with suspected poisoning or overdose.

Contextual (When, Where, Why)

1. The EMT-Basic can prevent injury and illness from ingested poisoning by administering activated charcoal. The sooner this happens, the more effect it will have.

STUDENT ACTIVITIES

Visual (See)

1. The student should see activated charcoal.
2. The student should see a demonstration of how to administer activated charcoal.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan. If there are local resources, for example, Poison Control Centers, utilize them.

MODULE 4

Medical/Behavioral and Obstetrics/Gynecology

Lesson 4-7

Environmental Emergencies

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 EMT-Basic student will be able to:

4-7.1 Describe the various ways that the body loses heat.(C-1)
4-7.2 List the signs and symptoms of exposure to cold.(C-1)
4-7.3 Explain the steps in providing emergency medical care to a patient exposed to cold.(C-1)
4-7.4 List the signs and symptoms of exposure to heat.(C-1)
4-7.5 Explain the steps in providing emergency care to a patient exposed to heat.(C-1)
4-7.6 Recognize the signs and symptoms of water-related emergencies.(C-1)
4-7.7 Describe the complications of near drowning.(C-1)
4-7.8 Discuss the emergency medical care of bites and stings.(C-1)

AFFECTIVE OBJECTIVES

No affective objectives identified.

PSYCHOMOTOR OBJECTIVES

No psychomotor objectives identified.

PREPARATION

Motivation: Environmental emergencies include exposure to both heat and cold. The key to effective management is recognizing the signs and symptoms and providing prompt emergency medical care.

Cold emergencies are found in varied groups of individuals, including hunters, sailors, skiers, climbers, swimmers, military personnel, and all others in the wilderness, rural, and urban setting. The greatest number of hypothermia cases are reported in the urban setting, many involving the elderly patient.

Likewise, heat emergencies are also prevalent in a large number of groups of individuals in many different settings. Heat emergencies range from very minor effects to life threatening conditions. Heat emergencies may occur during any season of the year.

Because of the increased popularity of water sports, there is a subsequent increase in the incidence of aquatic emergencies. Aquatic emergencies most frequently managed by the EMT-Basic will involve near drowning. The EMT-Basic must be prepared to assess and manage the patient experiencing these types of emergencies.

Prerequisites: BLS, Preparatory, Airway and Patient Assessment.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to environmental emergencies. The continuous design and 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 assure meeting the objectives of the curriculum.

EMS Equipment: Exam gloves, stethoscopes, blood pressure cuffs, penlight.

PERSONNEL

Primary Instructor: One EMT-Basic instructor knowledgeable in heat, cold and aquatic emergencies.

Assistant Instructor: None required.

PRESENTATION

Declarative (What)

A. Diving Accidents
   1. The Diver Alert Network (DAN) is a resource for care of diving accident patients
   2. Decompression sickness
      a) Caused by ascending too quickly or flying within twelve hours of diving
      b) Most often occurs within 3 hours of incident but may occur 1-48 hours
      c) Signs and symptoms
         (1) personality changes
         (2) fatigue

(3) muscle and joint pain (the “bends”)
(4) skin blotching, mottling or rash
(5) numbness and paralysis
(6) choking
(7) labored breathing
(8) intoxicated appearance (e.g. staggering gait)
(9) chest pains
(10) collapse and unconsciousness

3. Air embolism
   a) Caused by diver holding their breath due to inexperience, equipment failure, underwater emergencies, or to conserve air
   b) Gases leave a damaged lung and enter the bloodstream
   c) Signs and symptoms
      (1) Blurred vision
      (2) Chest pains
      (3) Numbness and tingling
      (4) Weakness/paralysis
      (5) Frothy blood at mouth and nose
      (6) Convulsions
      (7) Unconsciousness occurs rapidly
      (8) Respiratory or cardiac arrest
4. Emergency medical care:
   a) Maintain an open airway
   b) Consider need or spinal immobilization
   c) Administer high concentration oxygen
   d) Rapid transport. Consider transport to a hyperbaric chamber or consult medical control
   e) Keep patient warm
   f) Position patient supine or on side
   g) Transport dive gear with patient

APPLICATION

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan. Use floating backboards and CPR techniques in water rescue.

MODULE 4

Medical/Behavioral and Obstetrics/Gynecology

Lesson 4-8

Behavioral Emergencies

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 EMT-Basic student will be able to:

4-8.1 Define behavioral emergencies. (C-1)
4-8.2 Discuss special medical/legal considerations for managing behavioral emergencies. (C-1)
4-8.3 Discuss the risks for developing positional asphyxia. (C-1)

AFFECTIVE OBJECTIVES

No affective objectives identified.

PSYCHOMOTOR OBJECTIVES

No psychomotor objectives identified.

PREPARATION

Motivation: The EMT-Basic will respond to many situations involving behavioral emergencies. Some of these result from an injury or acute illness of the patient. Others are the result of mental illness or the use of mind altering substances. Restraints are the best LAST option in a behavioral emergency.

Prerequisites: BLS, Preparatory, Airway and Patient Assessment.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to behavioral emergencies. The continuous design and 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 assure meeting the objectives of the curriculum.

EMS Equipment: Stretcher, restraints.

PERSONNEL

Primary Instructor: One EMT-Basic instructor knowledgeable in behavioral emergencies.

Assistant Instructor: None required.

PRESENTATION

Declarative (What)

APPLICATION

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan.

MODULE 4

Medical/Behavioral and Obstetrics/Gynecology

Lesson 4-9

Obstetrics/ Gynecology

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 EMT-Basic student will be able to:

4-9.1 Identify and explain the use of the contents of an obstetrics kit. (C-1)
4-9.2 Identify pre-delivery emergencies. (C-1)
4-9.3 State indications of an imminent delivery. (C-1)
4-9.4 State the steps to assist in the delivery. (C-1)
4-9.5 Describe care of the baby as the head appears. (C-1)
4-9.6 Describe how and when to cut the umbilical cord. (C-1)
4-9.7 Discuss the steps in the delivery of the placenta. (C-1)
4-9.8 List the steps in the emergency medical care of the mother post-delivery. (C-3)
4-9.9 Summarize neonatal resuscitation procedures. (C-1)
4-9.10 Describe the procedures for the following abnormal deliveries: Breech birth, prolapsed cord, limb presentation, and shoulder dystocia. (C-1)
4-9.11 Differentiate the special considerations for multiple births. (C-3)
4-9.12 Describe special considerations of meconium. (C-1)
4-9.13 Describe special considerations of a premature baby. (C-1)
4-9.14 Discuss the process of preserving evidence of an alleged sexual assault. (C-1)

AFFECTIVE OBJECTIVES

No affective objectives identified.

PSYCHOMOTOR OBJECTIVES

No psychomotor objectives identified.

PREPARATION

Motivation: Childbirth in the prehospital setting does occur on rare occasions. Because of the infrequency, taking care of an anxious mother and newborn infant is a stressful emergency call for the EMT-Basic. Knowledge and practice in simulated situations can decrease stress and lead to better mother and child care.

Prerequisites: BLS, Preparatory, Airway and Patient Assessment.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to obstetrics/gynecology. The continuous design and 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 assure meeting the objectives of the curriculum.

EMS Equipment: Childbirth kit, airway management equipment, eye protection, gloves.

PERSONNEL

Primary Instructor: One EMT-Basic instructor familiar with childbirth who has either delivered a child in the out-of-hospital setting or has seen or assisted with a vaginal delivery within the hospital.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable in obstetric/gynecological emergencies.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan.

MODULE 4

Medical/Behavioral and Obstetrics/Gynecology

Lesson 4-10

Acute Abdomen

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 EMT-Basic student will be able to:

4-10.1 List the signs and symptoms of acute abdominal pain. (C-1)
4-10.2 Explain the steps in providing emergency care to a patient with acute abdominal pain. (C-1)
4-10.3 Discuss possible causes of acute abdominal pain. (C-1)

AFFECTIVE OBJECTIVES

No affective objectives identified.

PSYCHOMOTOR OBJECTIVES

No psychomotor objectives identified.

PREPARATION

Motivation: Patients suffering from an acute abdomen should be thoroughly evaluated for the possible cause of their abdominal pain/discomfort. Providing appropriate pain management and transport is part of the prehospital care for patient's experiencing an acute abdomen.

Prerequisites: BLS, Preparatory, Airway and Patient Assessment.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to environmental emergencies. The continuous design and 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 assure meeting the objectives of the curriculum.

EMS Equipment: Exam gloves, stethoscopes, blood pressure cuffs, penlight.

PERSONNEL

Primary Instructor: One EMT-Basic instructor knowledgeable in acute abdominal emergencies.

Assistant Instructor: None required.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan. Use floating backboards and CPR techniques in water rescue.

MODULE 4

Medical/Behavioral and Obstetrics/Gynecology

Lesson 4-11

Practical Lab: Medical/Behavioral and Obstetrics/Gynecology

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 EMT-Basic student will be able to:

Demonstrate the cognitive objectives of Lesson 4-1: General Pharmacology.
Demonstrate the cognitive objectives of Lesson 4-2: Respiratory Emergencies.
Demonstrate the cognitive objectives of Lesson 4-3: Cardiovascular Emergencies.
Demonstrate the cognitive objectives of Lesson 4-4: Diabetes/ Altered Mental Status.
Demonstrate the cognitive objectives of Lesson 4-5: Severe Allergic Reactions.
Demonstrate the cognitive objectives of Lesson 4-6: Poisoning/Overdose.
Demonstrate the cognitive objectives of Lesson 4-7: Environmental Emergencies.
Demonstrate the cognitive objectives of Lesson 4-8: Behavioral Emergencies.
Demonstrate the cognitive objectives of Lesson 4-9: Obstetrics/Gynecology.
Demonstrate the cognitive objectives of Lesson 4-10: Acute Abdomen.

AFFECTIVE OBJECTIVES

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

Demonstrate the affective objectives of Lesson 4-1: General Pharmacology.
Demonstrate the affective objectives of Lesson 4-2: Respiratory Emergencies.
Demonstrate the affective objectives of Lesson 4-3: Cardiovascular Emergencies.
Demonstrate the affective objectives of Lesson 4-4: Diabetes/Altered Mental Status.
Demonstrate the affective objectives of Lesson 4-5: Severe Allergic Reactions.
Demonstrate the affective objectives of Lesson 4-6: Poisoning/Overdose.
Demonstrate the affective objectives of Lesson 4-8: Behavioral Emergencies.
Demonstrate the affective objectives of Lesson 4-9: Obstetrics/Gynecology.
Demonstrate the affective objectives of Lesson 4-10: Acute Abdomen.

PSYCHOMOTOR OBJECTIVES

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

Demonstrate the psychomotor objectives of Lesson 4-1: General Pharmacology.
Demonstrate the psychomotor objectives of Lesson 4-2: Respiratory Emergencies.
Demonstrate the psychomotor objectives of Lesson 4-3: Cardiovascular Emergencies.
Demonstrate the psychomotor objectives of Lesson 4-4: Diabetes/Altered Mental Status.
Demonstrate the psychomotor objectives of Lesson 4-5: Severe Allergic Reactions.
Demonstrate the psychomotor objectives of Lesson 4-6: Poisoning/Overdose.
Demonstrate the psychomotor objectives of Lesson 4-7: Environmental Emergencies.
Demonstrate the psychomotor objectives of Lesson 4-8: Behavioral Emergencies.
Demonstrate the psychomotor objectives of Lesson 4-9: Obstetrics/Gynecology.
Demonstrate the psychomotor objectives of Lesson 4-10: Acute Abdomen.

PREPARATION

Motivation: The practical lesson is designed to allow the students additional time to perfect skills. It is of utmost importance that the students demonstrate proficiency of the skill, cognitive knowledge of the steps to perform a skill, and a healthy attitude towards performing that skill on a patient. This is an opportunity for the instructor and assistant instructors to praise progress and re-direct the students toward appropriate psychomotor skills. The material from all preceding lessons and basic life support should be incorporated into these practical skill sessions.

Prerequisites: BLS, Preparatory, Airway and Patient Assessment.

MATERIALS

AV Equipment: Typically none required.

EMS Equipment: Equipment from the lists in Lessons 4-1 through 4-10.

PERSONNEL

Primary Instructor: One proctor for the written evaluation.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable in medical/behavioral and obstetrics/gynecology.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

Practical: Evaluate the actions of the EMT-Basic students during role play, practice or other skills 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 the instructor's course guide and attach with lesson plan.

MODULE 4

Medical/Behavioral and Obstetrics/Gynecology

Lesson 4-12

Evaluation: Medical/Behavioral and Obstetrics/Gynecology

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 EMT-Basic student will be able to:

Demonstrate knowledge of the cognitive objectives of Lesson 4-1: General Pharmacology.
Demonstrate knowledge of the cognitive objectives of Lesson 4-2: Respiratory Emergencies.
Demonstrate knowledge of the cognitive objectives of Lesson 4-3: Cardiovascular Emergencies.
Demonstrate knowledge of the cognitive objectives of Lesson 4-4: Diabetes/ Altered Mental Status.
Demonstrate knowledge of the cognitive objectives of Lesson 4-5: Severe Allergic Reactions.
Demonstrate knowledge of the cognitive objectives of Lesson 4-6: Poisoning/Overdose.
Demonstrate knowledge of the cognitive objectives of Lesson 4-7: Environmental Emergencies.
Demonstrate knowledge of the cognitive objectives of Lesson 4-8: Behavioral Emergencies.
Demonstrate knowledge of the cognitive objectives of Lesson 4-9: Obstetrics/Gynecological.
Demonstrate knowledge of the cognitive objectives of Lesson 4-10: Acute Abdomen.

AFFECTIVE OBJECTIVES

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

Demonstrate knowledge of the affective objectives of Lesson 4-1: General Pharmacology.
Demonstrate knowledge of the affective objectives of Lesson 4-2: Respiratory Emergencies.
Demonstrate knowledge of the affective objectives of Lesson 4-3: Cardiovascular Emergencies.
Demonstrate knowledge of the affective objectives of Lesson 4-4: Diabetes/ Altered Mental Status.
Demonstrate knowledge of the affective objectives of Lesson 4-5: Severe Allergic Reactions.

Demonstrate knowledge of the affective objectives of Lesson 4-6: Poisoning/Overdose.
Demonstrate knowledge of the affective objectives of Lesson 4-8: Behavioral Emergencies.
Demonstrate knowledge of the affective objectives of Lesson 4-9: Obstetrics/Gynecological.
Demonstrate knowledge of the affective objectives of Lesson 4-10: Acute Abdomen.

PSYCHOMOTOR OBJECTIVES

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

Demonstrate knowledge of the psychomotor objectives of Lesson 4-1: General Pharmacology.
Demonstrate knowledge of the psychomotor objectives of Lesson 4-2: Respiratory Emergencies.
Demonstrate knowledge of the psychomotor objectives of Lesson 4-3: Cardiovascular Emergencies.
Demonstrate knowledge of the psychomotor objectives of Lesson 4-4: Diabetes/Altered Mental Status.
Demonstrate knowledge of the psychomotor objectives of Lesson 4-5: Severe Allergic Reactions.
Demonstrate knowledge of the psychomotor objectives of Lesson 4-6: Poisoning/Overdose.
Demonstrate knowledge of the psychomotor objectives of Lesson 4-7: Environmental Emergencies.
Demonstrate knowledge of the psychomotor objectives of Lesson 4-8: Behavioral Emergencies.
Demonstrate knowledge of the psychomotor objectives of Lesson 4-9: Obstetrics/Gynecological.
Demonstrate knowledge of the psychomotor objectives of Lesson 4-10: Acute Abdomen.

PREPARATION

Motivation: Evaluation of the students' attainment of the cognitive and affective knowledge and psychomotor skills is an essential component of the EMT-Basic 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 his performance, and make appropriate modification to the delivery of material.

Prerequisites: Completion of Lessons 4-1 through 4-10.

MATERIALS

AV Equipment: Typically none required.

EMS Equipment: Equipment required to evaluate the students proficiency in the psychomotor skills of this module.

PERSONNEL

Primary Instructor: One proctor for the written evaluation.

Assistant Instructor: One practical skills examiner for each 6 students.

APPLICATION

Procedural (How)

1. Written evaluation based on the cognitive and affective objectives of Lessons 4-1 through 4-10.
2. Practical evaluation stations based on the psychomotor objectives of Lessons 4-1 and 4-10.

Contextual (When, Where and Why)

1. The final lesson in this module is designed to bring closure to the module, and to assure that students are prepared to move to the next module.
2. This modular evaluation is given to determine the effectiveness of the presentation of materials and how well students have retained the material.
3. This is an opportunity for the students to make necessary adjustments in study habits or for the instructor to adjust the manner which material is presented.

INSTRUCTOR ACTIVITIES

1. Supervise student evaluation.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. 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.

MODULE 5

Trauma

Lesson 5-1

Injury Patterns and Bleeding and Shock

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 EMT-Basic student will be able to:

5-1.1 Define kinematics of trauma. (C-1)
5-1.2 Differentiate between the injury patterns in adults, infants and children. (C-2)
5-1.3 Describe the injury patterns and causes of trauma in geriatric patients. (C-1)
5-1.4 Discuss risk factors that make geriatric patients prone to injuries due to falls. (C-1)
5-1.5 Explain the importance of fall prevention in geriatric patients. (C-1)
5-1.6 List the structures and function of the circulatory system. (C-1)
5-1.7 Identify the severity of blood loss due to external hemorrhage. (C-1)
5-1.8 Differentiate between arterial, venous and capillary bleeding. (C-2)
5-1.9 Identify the emergency medical care of external bleeding. (C-1)
5-1.10 Establish the relationship between body substance isolation and bleeding. (C-3)
5-1.11 Establish the relationship between airway management and the trauma patient. (C-3)
5-1.12 Establish the relationship between mechanism of injury and internal bleeding. (C-3)
5-1.13 List the signs and symptoms of internal bleeding. (C-1)
5-1.14 Outline the steps in the emergency medical care of the patient with signs and symptoms of internal bleeding. (C-1)
5-1.15 List causes of shock. (C-1)
5-1.16 List the signs and symptoms of shock in the adult patient. (C-1)
5-1.17 List the signs and symptoms of shock in the pediatric patient. (C-1)
5-1.18 Describe the methods of determining end organ perfusion for a pediatric patient. (C-1)
5-1.19 List the three stages of shock. C-1)
5-1.20 Differentiate between signs and symptoms of the three stages of shock. (C-2)
5-1.21 Discuss the field management for shock, of adult and pediatric patients. (C-2)
5-1.22 Analyze the need for appropriate and expedient care of adult and pediatric patients exhibiting signs and symptoms of shock. (C-3)

5-1.23 List various types of shock, including cardiogenic, neurogenic, metabolic, psychogenic, hypovolemic (plus hemorrhagic), septic, and anaphylactic shock.
5-1.24 Differentiate between signs and symptoms of the various types of shock. (C-2)
5-1.25 Explain appropriate treatment steps for patients experiencing symptoms associated with each type of shock. (C-2)

AFFECTIVE OBJECTIVES

No affective objectives identified.

PSYCHOMOTOR OBJECTIVES

No psychomotor objectives identified.

PREPARATION

Motivation: Trauma is the leading cause of death in the United States for persons between the ages of 1 and 44. Geriatric patients experience varied injury patterns and causes, in comparison to younger individuals. Understanding the mechanism of injury and relevant signs and symptoms of bleeding and shock is of paramount importance when dealing with the traumatized patient.

Prerequisites: BLS, Preparatory, Airway and Patient Assessment.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to bleeding and shock. The continuous design and 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 assure meeting the objectives of the curriculum.

EMS Equipment: Sterile dressings, bandages, splints, pneumatic antishock garment, triangular bandage, air splints, gloves, eye protection, blanket.

PERSONNEL

Primary Instructor: One EMT-Basic instructor knowledgeable in bleeding and shock.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant

instructors should be knowledgeable in bleeding and shock.

PRESENTATION

Declarative (What)

I. Kinematics of trauma
   - A. Transfer of energy
   - B. Three phases of a collision
   - C. Predictability of injury patterns
   - D. Golden hour concept

II. Injury patterns associated with trauma in pediatrics
   - A. Injuries are the number one cause of death in infants and children
   - B. Blunt injury is most common
     1. The pattern of injury will be different from adults
        - a) Motor vehicle crashes
          - (1) Motor vehicle passengers
            - (a) Unrestrained passengers have head and neck injuries
            - (b) Restrained passengers have abdominal and lower spine injuries
          - (2) Struck while riding bicycle - head injury, spinal injury, abdominal injury
          - (3) Pedestrian struck by vehicle - abdominal injury with internal bleeding, possible painful, swollen, deformed thigh, head injury
        - b) Falls from height, diving into shallow water - head and neck injuries
        - c) Burns
        - d) Sports injuries - head and neck
        - e) Child abuse and neglect
          - (1) Definition of abuse - improper or excessive action so as to injure or cause harm
          - (2) Definition of neglect - giving insufficient attention or respect to someone who has a claim to that attention
          - (3) EMT-Basic must be aware of condition to be able to recognize the problem
          - (4) Physical abuse and neglect are the two forms of child abuse that the EMT-Basic is likely to suspect
          - (5) Signs and symptoms of abuse
            - (a) Multiple bruises in various stages of healing
            - (b) Injury inconsistent with mechanism described
            - (c) Repeated calls to the same address
            - (d) Fresh burns

(e) Parents seem inappropriately unconcerned
(f) Conflicting stories
(g) Fear on the part of the child to discuss how the injury occurred

(6) Signs and symptoms of neglect
(a) Lack of adult supervision
(b) Malnourished appearing child
(c) Unsafe living environment
(d) Untreated chronic illness; e.g., asthmatic with no meds

(7) CNS injuries are the most lethal - shaken baby syndrome

(8) Do not accuse in the field
(a) Accusation and confrontation delays transportation.
(b) Bring objective information to the receiving facility

(9) Reporting required by state law
(a) Local regulations
(b) Objective - what you see and what you hear - NOT what you think

APPLICATION

STUDENT ACTIVITIES

Auditory (Hear)

1. The students should hear simulated situations to identify signs and symptoms of external bleeding, internal bleeding, and shock

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan.

MODULE 5

Trauma

Lesson 5-2

Soft Tissue Injuries

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 EMT-Basic student will be able to:

5-2.1 List the types of closed soft tissue injuries. (C-1)
5-2.2 Describe the emergency medical care of the patient with a closed soft tissue injury. (C-1)
5-2.3 State the types of open soft tissue injuries. (C-1)
5-2.4 Describe the emergency medical care of the patient with an open soft tissue injury. (C-1)
5-2.5 Discuss the emergency medical care considerations for a patient with a penetrating chest injury. (C-1)
5-2.6 State the emergency medical care considerations for a patient with an open wound to the abdomen. (C-1)
5-2.7 Differentiate the care of an open wound to the chest from an open wound to the abdomen. (C-3)
5-2.8 List the classifications of burns. (C-1)
5-2.9 Define superficial burn. (C-1)
5-2.10 List the characteristics of a superficial burn. (C-1)
5-2.11 Define partial thickness burn. (C-1)
5-2.12 List the characteristics of a partial thickness burn. (C-1)
5-2.13 Define full thickness burn. (C-1)
5-2.14 List the characteristics of a full thickness burn. (C-1)
5-2.15 Describe the emergency medical care of the patient with a superficial burn. (C-1)
5-2.16 Describe the emergency medical care of the patient with a partial thickness burn. (C-1)
5-2.17 Describe the emergency medical care of the patient with a full thickness burn. (C-1)
5-2.18 Establish the relationship between airway management and the patient with chest injury, burns, blunt and penetrating injuries. (C-1)
5-2.19 Describe the effects of improperly applied dressings, splints and tourniquets. (C-1)
5-2.20 Describe the emergency medical care of a patient with an impaled object. (C-1)
5-2.21 Describe the emergency medical care of a patient with an amputation. (C-1)
5-2.22 Describe the emergency care for a chemical burn. (C-1)

5-2.23 Describe the emergency care for an electrical burn. (C-1)

AFFECTIVE OBJECTIVES

No affective objectives identified.

PSYCHOMOTOR OBJECTIVES

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

5-2.24 Demonstrate the steps in the emergency medical care for various patients with an open chest wound. (P-1,2)

5-2.25 Demonstrate the steps in the emergency medical care for various patients with open abdominal wounds. (P-1,2)

5-2.26 Demonstrate the steps in the emergency medical care for various patients with an impaled object. (P-1,2)

5-2.27 Demonstrate the steps in the emergency medical care for various patients with an amputation. (P-1,2)

5-2.28 Demonstrate the steps in the emergency medical care of an amputated part. (P-1,2)

PREPARATION

Motivation: Soft tissue injuries are common and dramatic, but rarely life threatening. Soft tissue injuries range from abrasions to serious full thickness burns. It is necessary for the EMT-Basic to become familiar with the treatment of soft tissue injuries with emphasis on controlling bleeding, preventing further injury, and reducing contamination.

Prerequisites: BLS, Preparatory, Airway and Patient Assessment.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to soft tissue injuries. The continuous design and 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 assure meeting the objectives of the curriculum.

EMS Equipment: Universal dressing, occlusive dressing, 4 x 4 gauze pads, self adherent bandages, roller bandages, triangular bandage, burn sheets, sterile water or saline.

PERSONNEL

Primary Instructor: One EMT-Basic instructor knowledgeable in soft tissue injuries.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable in soft tissue injuries.

PRESENTATION

Declarative (What)

I. Skin
   A. Function – protection from environment, thermoregulation, sensory, and personal identify
   B. Layers
      1. epidermis
      2. dermis
      3. subcutaneous tissue

II. Injuries
   A. Open
      1. Emergency medical care
         a) Special considerations
            (1) Chest injuries - occlusive dressing to open wound
               (a) Administer oxygen if not already done
               (b) Position of comfort if no spinal injury suspected
            (2) Abdominal injuries - evisceration (organs protruding through the wound)
               (a) Do not touch or try to replace the exposed organ
               (b) Cover exposed organs and wound with a sterile dressing, moistened with sterile water or saline, and secure in place
               (c) Flex the patient's hips and knees, if uninjured
            (3) Impaled objects
               (a) Do not remove the impaled object, unless it is through the cheek, it would interfere with chest compressions, or interferes with transport
               (b) Manually secure the object
               (c) Expose the wound area.
               (d) Control bleeding
               (e) Utilize a bulky dressing to help stabilize the object
            (4) Amputations - concerns for re-attachment
               (a) Wrap the amputated part in a sterile dressing

(b) Wrap or bag the amputated part in plastic and keep cool
(c) Transport the amputated part with the patient
(d) Do not complete partial amputations
(e) Immobilize to prevent further injury

(5) Large open neck injury
(a) May cause air embolism
(b) Cover with an occlusive dressing
(c) Compress carotid artery only if necessary to control bleeding

(6) Eye Injuries
(a) Airway management
(b) Consider need for c-spine immobilization
(c) Control bleeding
(d) Administer oxygen
(e) Assess pupil size, shape, response to light and presence of foreign objects
(f) Assess globe of eye for bleeding
(g) Cover both eyes, as consensual eye movement may cause additional injury

B. Burns

1. Chemical burns

a) Take the necessary scene safety precautions to protect yourself from exposure to hazardous materials
b) Wear gloves and eye protection
c) Emergency medical care

(1) Dry powders should be brushed off prior to flushing
(2) Immediately begin to flush with large amounts of water
(3) Continue flushing the contaminated area when en route to the receiving facility
(4) Do not contaminate uninjured areas when flushing

2. Electrical burns

a) Scene safety

(1) Do not attempt to remove patient from the electrical source unless trained to do so
(2) If the patient is still in contact with the electrical source or you are unsure, do not touch the patient

b) Emergency medical care

(1) Administer oxygen if indicated
(2) Monitor the patient closely for respiratory and cardiac arrest (consider need for AED)
(3) Often more sever than external indications

(4) Treat the soft tissue injuries associated with the burn. Look for both an entrance and exit wound.

APPLICATION

Procedural (How)

1. Demonstrate the proper method for applying an occlusive dressing.
2. Demonstrate the proper method for stabilizing an impaled object.
3. Demonstrate the proper method of treating an evisceration.
4. Demonstrate the proper method for applying bandages: self-adherent, gauze rolls, triangular, adhesive tape, and air splints.

STUDENT ACTIVITIES

Auditory (Hear)

1. The student should hear the sounds made by open sucking chest wounds.

Visual (See)

1. The student should see demonstrations for the proper method for applying an occlusive dressing.
2. The student should see demonstrations for the proper method for stabilizing an impaled object.
3. The student should see demonstrations for the proper method of treating an evisceration.

Kinesthetic (Do)

1. The student should practice the steps in the emergency medical care of a patient with an open chest wound.
2. The student should practice the steps in the emergency medical care of a patient with open abdominal wounds.
3. The student should practice the steps in the emergency medical care of a patient with an impaled object.
4. The student should practice the steps in the emergency medical care of a patient with an amputation.
5. The student should practice the steps in the emergency medical care of the amputated part.
6. The student should practice the steps in the emergency medical care of a patient with a chemical burn.
7. The student should practice the steps in the emergency care of a patient with an electrical burn.

INSTRUCTOR ACTIVITIES

Supervise student practice.
Reinforce student progress in cognitive, affective, and psychomotor domains.
Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan.

MODULE 5

Trauma

Lesson 5-3

Musculoskeletal Care

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 EMT-Basic student will be able to:

5-3.1 Differentiate between an open and a closed fracture. (C-1)
5-3.2 State the reasons for splinting. (C-1)
5-3.3 List the general rules of splinting. (C-1)
5-3.4 List the complications of splinting. (C-1)
5-3.5 List the emergency medical care for a patient with a possible fracture or dislocation. (C-1)
5-3.6 Discuss modifications to conventional splinting to accommodate a pediatric patient. (C-1)
5-3.7 Discuss modifications to conventional splinting to accommodate physical deformities in a geriatric patient. (C-1)

AFFECTIVE OBJECTIVES

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

5-3.8 Explain the rationale for splinting at the scene versus load and go. (A-3)
5-3.9 Explain the rationale for immobilization of a suspected fracture or dislocation. (A-3)

PSYCHOMOTOR OBJECTIVES

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

5-3.10 Demonstrate modifying a splint to accommodate physical deformity in a geriatric patient. (P-2)

PREPARATION

Motivation: Musculoskeletal injuries are one of the most common types of injuries encountered by the EMT-Basic. These injuries are largely non-life threatening in nature; however, some may be life threatening. Prompt identification and treatment of musculoskeletal injuries is crucial in reducing pain, preventing further injury and minimizing permanent damage.

Prerequisites: BLS, Preparatory, Airway and Patient Assessment.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to musculoskeletal care. The continuous design and 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 assure meeting the objectives of the curriculum.

EMS Equipment: Splints: Padded arm and leg, air, traction, cardboard, ladder, blanket, pillow, pneumatic antishock garment, improvised splinting material, e.g., magazines, etc.

PERSONNEL

Primary Instructor: One EMT-Basic instructor knowledgeable in musculoskeletal injuries and splinting techniques.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable in musculoskeletal care and splinting techniques.

PRESENTATION

Declarative (What)

I. Injuries to bones
   - A. Bone or joint injuries
     1. Types
        - a) Open - break in the continuity of the skin
        - b) Closed - no break in the continuity of the skin
        - c) Dislocations – disruption to a joint
        - d) Sprains – injury or disruption of a ligament
        - e) Strains – injury to a muscle
     2. Signs and symptoms
        - a) Deformity or angulation
        - b) Pain and tenderness
        - c) Grating (crepitus)
        - d) Swelling
        - e) Bruising (discoloration)
        - f) Exposed bone ends
        - g) Joint locked into position
     3. Emergency medical care of bone or joint injuries
        - a) Body substance isolation
        - b) Administer oxygen if not already done and indicated.

c) After life threats have been controlled, splint injuries in preparation for transport
d) Application of cold pack to area of injury
e) Elevate the extremity

II. Splinting
A. Reasons
1. Prevent motion of bone fragments, bone ends or angulated joints
2. Minimize the following complications:
a) Damage to muscles, nerves, or blood vessels caused by broken bones
b) Conversion of a closed painful, swollen, deformed extremity to an open painful, swollen, deformed extremity
c) Restriction of blood flow as a result of bone ends
(1) compressing blood vessels
d) Excessive bleeding due to tissue damage caused by bone ends
e) Increased pain associated with movement of bone ends
f) Paralysis of extremities due to a damaged spine

B. General rules of splinting
1. Assess pulse, motor, and sensation distal to the injury prior to and following splint application and record findings
2. Immobilize the joint above and below the injury
3. Remove or cut away clothing
4. Cover open wounds with a sterile dressing
5. If there is a severe deformity or the distal extremity is cyanotic or lacks pulses, align with gentle traction before splinting
6. Do not intentionally replace the protruding bones
7. Pad each splint to prevent pressure and discomfort to the patient
8. Splint the patient before moving when feasible and no life threats
9. When in doubt, splint the injury when feasible and no life threats
10. If patient has signs of shock, align in normal anatomical position and transport (Total body immobilization. Example: Backboard takes care of all immobilization on emergency basis)

C. Equipment
1. Rigid splints
2. Traction splints
3. Pneumatic splints (air, vacuum)
4. Improvised splints, pillow
5. Pneumatic Anti Shock Garment (as a splint)

D. Hazards of improper splinting
1. Compression of nerves, tissues and blood vessels from the splint
2. Delay in transport of a patient with life threatening injury

3. Splint applied too tight on the extremity reducing distal circulation
4. Aggravation of the bone or joint injury
5. Cause or aggravate tissue, nerve, vessel or muscle damage from excessive bone or joint movement

E. Special considerations of splinting
   1. Long bone splinting procedure
      a) Body substance isolation
      b) Apply manual stabilization
      c) Assess pulse, motor and sensory function
      d) If there is a severe deformity or the distal extremity is cyanotic or lacks pulses, align with gentle traction before splinting
      e) Measure splint
      f) Apply splint immobilizing the bone and joint above and below the injury
      g) Secure entire injured extremity
      h) Immobilize hand/foot in position of function
      i) Geriatric and pediatric patients may require additional padding to accommodate deformities and variations in patient size
      j) Reassess pulse, motor, and sensation after application of splint and record
   2. Splinting a joint injury
      a) Body substance isolation
      b) Apply manual stabilization
      c) Assess pulse, motor and sensory function
      d) Align with gentle traction if distal extremity is cyanotic or lacks pulses and no resistance is met
      e) Immobilize the site of injury
      f) Immobilize bone above and below the site of injury
      g) Reassess pulse, motor and sensation after application of splint and record
   3. Traction splinting
      a) Indications for use is a fractured femur with no joint or lower leg injury
      b) Contraindications of the use of a traction splint
         (1) Injury is close to the knee
         (2) Injury to the knee exists
         (3) Injury to the hip
         (4) Injured pelvis
         (5) Partial amputation or avulsion with bone separation, distal limb is connected only by marginal tissue. Traction would risk separation.
         (6) Lower leg or ankle injury.
      c) Traction splinting procedure

(1) Assess pulse, motor, and sensation distal to the injury and record
(2) Body substance isolation
(3) Perform manual stabilization of the injured leg
(4) Apply manual traction - required when using a bi-polar traction splint
(5) Prepare/adjust splint to proper length
(6) Position splint under injured leg
(7) Apply proximal securing device (ischial strap)
(8) Apply distal securing device (ankle hitch)
(9) Apply mechanical traction
(10) Position/secure support straps
(11) Re-evaluate proximal/distal securing devices
(12) Reassess pulses, motor, sensation distal to the injury after application of the splint and record
(13) Secure torso to the longboard to immobilize hip
(14) Secure splint to the longboard to prevent movement of splint

APPLICATION

Procedural (How)

1. Demonstrate splinting procedures relevant to the general rules of splinting using: Rigid splints, traction splints, pneumatic splints, improvised splints, and pneumatic antishock garments.
2. Demonstrate procedure for splinting an injury with distal cyanosis or lacking a distal pulse.

STUDENT ACTIVITIES

Contextual (When, Where, Why)

1. Injuries to bones and joints require splinting prior to the movement of the patient unless life-threatening injuries are present.
2. If life-threatening injuries are present, splinting should be done en route to the receiving facility when possible.
3. Failure to splint or improperly splinting a bone or joint injury can result in damage to soft tissue, organs, nerves, muscles; increased bleeding associated with the injury; permanent damage or disability; conversion of a closed injury to an open injury; and an increase in pain.

Visual (See)

1. The student should see a demonstration of splinting procedures relevant to the general rules of splinting using: Rigid splints, traction splints, pneumatic splints, improvised splints, and pneumatic antishock garments.
2. The student should see a demonstration of the procedure for splinting an injury with distal cyanosis or lacking a distal pulse.

Kinesthetic (Do)

1. The student should practice splinting procedures relevant to the general rules of splinting using: Rigid splints, traction splints, pneumatic splints, improvised splints, and pneumatic antishock garments.
2. The student should practice procedure for splinting an injury with distal cyanosis or lacking a distal pulse.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan.

MODULE 5

Trauma

Lesson 5-4

Injuries to the Head and Spine

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 EMT-Basic student will be able to:

5-4.1 Relate mechanism of injury to potential injuries of the head and spine. (C-3)
5-4.2 Describe the implications of not properly caring for potential spine injuries. (C-1)
5-4.3 State the signs and symptoms of a potential spine injury. (C-1)
5-4.4 Describe the method of determining if a responsive patient may have a spine injury. (C-1)
5-4.5 Relate the airway emergency medical care techniques to the patient with a suspected spine injury. (C-3)
5-4.6 Describe how to stabilize the cervical spine. (C-1)
5-4.7 Discuss indications for sizing and using a cervical spine immobilization device. (C-1)
5-4.8 List types of head injuries. (C-1)
5-4.9 List signs and symptoms associated with types of head injuries. (C-1)
5-4.10 Describe the components of the Glascow Coma Scale (GCS) utilized in the evaluation of an adult/child and infant patient with a suspected head injury. (C-1)
5-4.11 Describe management of a patient with a possible head injury. (C-1)
5-4.12 Establish the relationship between airway management and the patient with head and spine injuries. (C-3)
5-4.13 Differentiate between vitals signs commonly found with an isolated head injury versus those found with hemorrhagic shock. (C-3)
5-4.14 Describe a method for sizing a cervical spine immobilization device. (C-1)
5-4.15 Describe how to log roll a patient with a suspected spine injury. (C-1)
5-4.16 Describe how to secure a patient to a long spine board. (C-1)
5-4.17 List instances when a short spine board should be used. (C-1)
5-4.18 Describe how to immobilize a patient using a short spine board. (C-1)
5-4.19 Describe the indications for the use of rapid extrication. (C-1)
5-4.20 List steps in performing rapid extrication. (C-1)
5-4.21 State the circumstances when a helmet should be left on the patient. (C-1)
5-4.22 Discuss the circumstances when a helmet should be removed. (C-1)
5-4.23 Identify different types of helmets. (C-1)

5-4.24 Describe the unique characteristics of sports helmets.(C-1)
5-4.25 Explain the preferred methods to remove a helmet.(C-1)
5-4.26 Discuss alternative methods for removal of a helmet.(C-1)
5-4.27 Describe how the patient's head is stabilized to remove the helmet.(C-1)
5-4.28 Differentiate how the head is stabilized with a helmet compared to without a helmet. (C-3)
5-4.29 Describe how to stabilize a pediatric patient utilizing specialized pediatric sized equipment. (C-1)
5-4.30 Discuss how to modify stabilization for a geriatric patient who has curvature of the spine. (C-1)

AFFECTIVE OBJECTIVES

At the completion of this lesson, the EMT-Basic student will be able to:
5-4.31 Explain the rationale for immobilization of the entire spine when a cervical spine injury is suspected. (A-3)
5-4.32 Explain the rationale for utilizing immobilization methods apart from the straps on the cots. (A-3)
5-4.33 Explain the rationale for utilizing a short spine immobilization device when moving a patient from the sitting to the supine position. (A-3)
5-4.34 Explain the rationale for utilizing rapid extrication approaches only when they indeed will make the difference between life and death. (A-3)
5-4.35 Defend the reasons for leaving a helmet in place for transport of a patient. (A-3)
5-4.36 Defend the reasons for removal of a helmet prior to transport of a patient. (A-3)

PSYCHOMOTOR OBJECTIVES

At the completion of this lesson, the EMT-Basic student will be able to:
5-4.37 Demonstrate opening the airway in a patient with suspected spinal cord injury. (P-1, 2)
5-4.38 Demonstrate evaluating a responsive patient with a suspected spinal cord injury. (P-1, 2)
5-4.39 Demonstrate stabilization of the cervical spine for various patients, including geriatric and pediatric patients. (P-1, 2)
5-4.40 Demonstrate the four person log roll for a patient with a suspected spinal cord injury. (P-1, 2)
5-4.41 Demonstrate how to log roll a patient with a suspected spinal cord injury using two people. (P-1, 2)
5-4.42 Demonstrate securing various patients to a long spine board, including geriatric and pediatric patients. (P-1, 2)
5-4.43 Demonstrate special immobilization techniques utilized to properly package a geriatric patient with curvature of the spine. (P-2)
5-4.44 Demonstrate using the short board immobilization technique. (P-1, 2)
5-4.45 Demonstrate procedure for rapid extrication. (P-1, 2)

5-4.46 Demonstrate preferred methods for stabilization of a helmet. (P-1, 2)
5-4.47 Demonstrate helmet removal techniques. (P-1, 2)
5-4.48 Demonstrate alternative methods for stabilization of a helmet. (P-1, 2)
5-4.49 Formulate a management plan for a patient assumed to have sustained a head injury. (P-3)
5-4.50 Formulate a management plan for a patient assumed to have sustained a spinal injury. (P-3)

PREPARATION

Motivation: Injuries to the head and spine are extremely serious and may result in severe permanent disability or death if improperly treated or missed in the assessment.

Prerequisites: BLS, Preparatory, Airway and Patient Assessment.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to injuries of the head and spine. The continuous design and 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 assure meeting the objectives of the curriculum.

EMS Equipment: Long spine board, short spine immobilization device, cervical immobilization devices, helmet, head immobilization device, blanket roll, two inch tape.

PERSONNEL

Primary Instructor: One EMT-Basic instructor knowledgeable in head and spinal injuries.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable in head and spinal emergencies and treatment.

PRESENTATION

Declarative (What)

I. Injuries to the Spine
   A. Signs and symptoms
      1. Ability to walk, move extremities or feel sensation; or lack of pain to spinal column does not rule out the possibility of spinal column or cord damage

2. Tenderness in the area of injury
3. Pain associated with moving
    a) Do not ask the patient to move to try to elicit a pain response
    b) Do not move the patient to test for a pain response
4. Tell the patient not to move while asking questions
5. Pain independent of movement or palpation
    a) Along spinal column
    b) Lower legs
    c) May be intermittent
6. Obvious deformity of the spine upon palpation
7. Soft tissue injuries associated with trauma
    a) Head and neck to cervical spine
    b) Shoulders, back or abdomen - thoracic, lumbar
    c) Lower extremities - lumbar, sacral
8. Numbness, weakness or tingling in the extremities
9. Loss of sensation or paralysis below the suspected level of injury
10. Loss of sensation or paralysis in the upper or lower extremities
11. Incontinence

B. Assessing the potential spine injured patient
1. Responsive patient
    a) Mechanism of injury
    b) Questions to ask
        (1) Does your neck or back hurt?
        (2) What happened?
        (3) Where does it hurt?
        (4) Can you move your hands and feet?
        (5) Can you feel me touching your fingers?
        (6) Can you feel me touching your toes?
    c) Inspect for contusions, deformities, lacerations, punctures, penetrations, swelling
    d) Palpate for areas of tenderness or deformity
    e) Assess equality of strength of extremities
        (1) Hand grip
        (2) Gently push feet against hands
2. Unresponsive patient
    a) Mechanism of injury
    b) Initial assessment
    c) Inspect for:
        (1) Contusions
        (2) Deformities
        (3) Lacerations
        (4) Punctures/penetrations
        (5) Swelling
    d) Palpate for areas of tenderness or deformity.

e) Obtain information from others at the scene to determine information relevant to mechanism of injury or patient mental status prior to the EMT-Basic's arrival

C. Complications
1. Inadequate breathing effort
2. Paralysis
3. Neurogenic Shock (spinal shock) – caused by a sudden loss of the sympathetic nervous system signals to the smooth muscles in vessel walls, resulting in a drop in blood pressure as well as inability to maintain normal body temperature. This can result from severe brain and spinal cord injury.

D. Emergency medical care
1. Body substance isolation
2. Establish and maintain in-line immobilization
   a) Place the head in a neutral in-line position unless the patient complains of pain or the head is not easily moved into position
   b) Place head in alignment with spine
   c) Maintain constant manual in-line immobilization until the patient is properly secured to a backboard with the head immobilized
3. Perform initial assessment
   a) Whenever possible, airway control must be done with in-line immobilization
   b) Whenever possible, artificial ventilation must be done with in-line immobilization
4. Assess pulse, motor and sensation in all extremities
5. Assess the cervical region and neck
6. Apply a rigid, cervical immobilization device
   a) Properly size the cervical immobilization device. If it doesn't fit use a rolled towel and tape to the board and have rescuer hold the head manually.
   b) An improperly fit immobilization device will do more harm than good
7. If found in a lying position, immobilize the patient to a long spine board
   a) Position the device
   b) Move the patient onto the device by log rolling
      (1) One EMT-Basic must maintain in-line immobilization of the head and spine
      (2) EMT-Basic at the head directs the movement of the patient
      (3) One to three other EMT-Basics control the movement of the rest of the body
      (4) Quickly assess posterior body if not already done in focused history and physical exam

(5) Position the long spine board under the patient
(6) Place patient onto the board at the command of the EMT-Basic holding in-line immobilization using a slide, proper lift, log roll or scoop stretcher so as to limit movement to the minimum amount possible. Which method to use must be decided based upon the situation, scene and available resources.
(7) Pad voids between the patient and the board
(a) Adult
(i) Under the head
(ii) Voids under torso. Be careful of extra movement.
(b) Infant and child - pad under the shoulders to the toes to establish a neutral position
(8) Immobilize torso to the board
(9) Immobilize the patient's head to the board
(10) Secure the legs to the board
(11) Reassess pulses, motor and sensation and record

8. If the patient is found in a sitting position in a chair, immobilize with a short spine immobilization device. Exception: If the patient must be removed urgently because of his injuries, the need to gain access to others, or dangers at the scene, he must then be lowered directly onto a longboard and removed with manual immobilization provided.
a) Position device behind the patient
b) Secure the device to the patient's torso
c) Evaluate torso fixation and adjust as necessary without excessive movement of the patient
d) Evaluate and pad behind the patient's head as necessary to maintain neutral in-line immobilization
e) Secure the patient's head to the device
f) Insert a longboard under the patient's buttocks and rotate and lower him to it. If not possible, lower him to the long spine board.
g) Reassess pulses, motor and sensory in all extremities and record
9. If the patient is found in a standing position, immobilize the patient to a long spine board
a) Position the device behind patient
b) Move the patient onto the device by:
(1) One rescuer on each side of the patient, one additional rescuer at the foot facing the patient
(2) The rescuers on both sides of the patient reach with the hand closest to the patient under the arm

to grasp the board, and use the hand farthest from the patient to secure the head

(3) Once the position is assured, they place the leg closest to the board behind the board and begin to tip the top backward. The rescuer at the foot of the board secures the board and the patient to prevent them from sliding, and the board is brought into a level horizontal position.

10. If the patient is critically injured, perform a rapid extrication
11. Transport the patient immediately
    a) Bring body into alignment
    b) Transfer to longboard without short spine board

II. Injuries to the Brain and Skull

A. Head injuries
1. Injuries to the scalp
   a) Very vascular, may bleed more than expected
   b) Control bleeding with direct pressure
2. Injury to the brain - injury of brain tissue or bleeding into the skull will cause an increase of pressure in the skull

B. Related non-traumatic conditions
1. Non-traumatic injuries to the brain may occur due to clots or hemorrhaging
2. Non-traumatic brain injuries can be a cause of altered mental status
3. Signs and symptoms parallel that of traumatic injuries with the exception of evidence of trauma and a lack of mechanism of injury

C. Skull injury - signs and symptoms
1. Mechanism of trauma
2. Contusions, lacerations, hematomas to the scalp
3. Deformity to the skull
4. Blood or fluid (cerebrospinal fluid) leakage from the ears or nose
5. Bruising (discoloration) around the eyes
6. Bruising (discoloration) behind the ears (mastoid process)

D. Closed head injuries and brain injury
1. Types
   a) Concussion
   b) Contusion
   c) Coup-contre coup injury
   d) Penetrating
   e) Shaken Baby Syndrome
   f) Hematomas – intracranial, epidural, subdural
2. Signs and symptoms
   a) Altered or decreasing mental status is the best indicator of a brain injury
      (1) Confusion, disorientation, or repetitive questioning

(2) Conscious - deteriorating mental status
(3) Unresponsive
b) Irregular breathing pattern
c) Elevated blood pressure
d) Decreased pulse rate
e) Consideration of mechanism of injury
(1) Deformity of windowshield
(2) Deformity of helmet
f) Contusions, lacerations, hematomas to the scalp
g) Deformity to the skull
h) Blood or fluid (cerebrospinal fluid) leakage from the ears and nose
i) Bruising (discoloration) around the eyes
j) Bruising (discoloration) behind the ears (mastoid process)
k) Neurologic disability - Utilize the appropriate Glasgow Coma Scale (GCS)-(adult/child versus pediatric) to determine neurological status
(1) Eye opening
(2) Verbal response
(3) Motor Response
l) Nausea and/or vomiting
m) Unequal pupil size with altered mental status
n) Seizure activity may be seen

E. Open head injury
1. Signs and symptoms
a) Consideration of mechanism of injury
(1) Deformity of windshield
(2) Deformity of helmet
b) Contusions, lacerations, hematomas to the scalp
c) Deformity to the skull
d) Penetrating injury - do not remove impaled objects in the skull
e) Soft area or depression upon palpation
f) Exposed brain tissue if open
g) Bleeding from the open bone injury
h) Blood or fluid (cerebrospinal fluid) leakage from the ears and nose
i) Bruising (discoloration) around the eyes
j) Bruising (discoloration) behind the ears (mastoid process)
k) Nausea and/or vomiting
l) Possible signs and symptoms of a closed head injury may exist if brain injury has occurred

F. Vital signs associated with head injury versus hemorrhagic shock
1. Head injury

a) Elevated blood pressure
b) Decreased pulse rate
c) Irregular respiratory patterns/decreased respiratory rate

2. Hemorrhagic shock
a) Elevated pulse rate
b) Elevated respiratory rate
c) Dropping blood pressure (late sign)

G. Emergency medical care
1. Body substance isolation
2. Maintain airway/artificial ventilation/oxygenation (NOTE: hyperventilation is contraindicated in management of head injury)
3. Initial assessment with spinal immobilization should be done on scene with a complete detailed physical exam en route
4. With any head injury, the EMT-Basic must suspect spinal injury. Immobilize the spine
5. Closely monitor the airway, breathing, pulse, and mental status for deterioration
6. Control bleeding
a) Do not apply pressure to an open or depressed skull injury
b) Dress and bandage open wound as indicated in the treatment of soft tissue injuries
7. If a medical injury or non-traumatic injury exist, place patient on the left side
8. Be prepared for changes in patient condition
9. Immediately transport the patient

III. Immobilization
A. Cervical spine immobilization devices
1. Indications
a) Any suspected injury to the spine based on mechanism of injury, history or signs and symptoms
b) Use in conjunction with short and long backboards
2. Sizing
a) Various types of rigid cervical immobilization devices exist, therefore, sizing is based on the specific design of the device
b) An improperly sized immobilization device has a potential for further injury
c) Do not obstruct the airway with the placement of a cervical immobilization device
d) If it doesn't fit use a rolled towel and tape to the board and manually support the head. An improperly fit device will do more harm than good.
3. Precautions

a) Cervical immobilization devices alone do not provide adequate in-line immobilization
b) Manual immobilization must always be used with a cervical immobilization device until the head is secured to a board

B. Short backboards
1. Several different types of short board immobilization devices exist
a) Vest type devices
b) Rigid short board
2. Provides stabilization and immobilization to the head, neck and torso
3. Used to immobilize non-critical sitting patients with suspected spinal injuries
4. General application
a) Start manual in-line immobilization
b) Assess pulses, motor and sensory function in all extremities
c) Assess the cervical area
d) Apply a cervical immobilization device
e) Position short board immobilization device behind the patient
f) Secure the device to the patient's torso
g) Evaluate torso and groin fixation and adjust as necessary without excessive movement of the patient
h) Evaluate and pad behind the patient's head as necessary to maintain neutral in-line immobilization
i) Secure the patient's head to the device
j) Release manual immobilization of head
k) Rotate or lift the patient to the long spine board
l) Immobilize patient to long spine board
m) Reassess pulses, motor and sensory function in all extremities

C. Long backboards (Full body spinal immobilization devices)
1. Several different types of longboard immobilization devices exist
2. Provide stabilization and immobilization to the head, neck and torso, pelvis and extremities
3. Used to immobilize patients found in a lying, standing, or sitting position
4. Sometimes used in conjunction with short backboards
5. General application
a) Start manual in-line immobilization
b) Assess pulses, motor and sensory function in all extremities
c) Assess the cervical area
d) Apply a cervical immobilization device

e) Position the device
f) Move the patient onto the device by log roll, suitable lift or slide, or scoop stretcher. A log roll is:
(1) One EMT-Basic must maintain in-line immobilization
(2) EMT-Basic at the head directs the movement of the patient
(3) One to three other EMT-Basics control the movement of the rest of the body
(4) Quickly assess posterior body if not already done in initial assessment
(5) Position the long spine board under the patient
(6) Roll patient onto the board at the command of the EMT-Basic holding in-line immobilization
g) Pad voids between the patient and the board (likely needed to accommodate any deformities seen with geriatric patients)
(1) Adult
(a) Under the head and/or neck as needed
(b) Under the torso as needed
(2) Infant and child - pad under the shoulders to the toes to establish a neutral position
h) Immobilize torso to the board by applying straps across the chest and pelvis and adjust as needed
i) Immobilize the patient's head to the board
j) Fasten legs, proximal to and distal to the knees
k) Reassess pulses, motor and sensation and record

IV. Special Situations
A. Rapid extrication
1. Indications
a) Unsafe scene
b) Unstable patient condition warrants immediate movement and transport
c) Patient blocks the EMT-Basic's access to another, more seriously injured, patient
d) Rapid extrication is based on time and the patient, and not the EMT-Basic's preference
2. Procedure - refer to section on Lifting and Moving the Patient
B. Helmet removal
1. Special assessment needs for patients wearing helmets
a) Airway and breathing
b) Fit of the helmet and patient's movement within the helmet
c) Ability to gain access to airway and breathing
2. Indications for leaving the helmet in place

a) Good fit with little or no movement of the patient's head within the helmet
b) No impending airway or breathing problems
c) Removal would cause further injury to the patient
d) Proper spinal immobilization could be performed with helmet in place
e) No interference with the EMT-Basic's ability to assess and reassess airway and breathing

3. Indications for removing the helmet
   a) Inability to assess and/or reassess airway and breathing
   b) Restriction of adequate management of the airway or breathing
   c) Improperly fitted helmet allowing for excessive patient head movement within the helmet
   d) Proper spinal immobilization cannot be performed due to helmet
   e) Cardiac arrest
4. Types of helmets:
   a) Sports
      (1) Typically open anteriorly
      (2) Easier access to airway
   b) Motorcycle
      (1) Full face
      (2) Shield
   c) Other
5. General rules for removal of a helmet
   a) The technique for removal of a helmet depends on the actual type of helmet worn by the patient
   b) Take eyeglasses off before removal of the helmet
   c) One EMT-Basic stabilizes the helmet by placing his hands on each side of the helmet with the fingers on the mandible to prevent movement
   d) Second EMT-Basic loosens the strap
   e) The second EMT-Basic places one hand on the mandible at the angle of the jaw and the other hand posteriorly at the occipital region
   f) The EMT-Basic holding the helmet pulls the sides of the helmet apart and gently slips the helmet halfway off the patient's head then stops
   g) The EMT-Basic maintaining stabilization of the neck repositions, slides the posterior hand superiorly to secure the head from falling back after complete helmet removal
   h) The helmet is removed completely
   i) The EMT-Basic then can proceed with spinal immobilization as indicated in the spinal immobilization section

j) Local protocols may deviate from national standards. Refer to state and local protocols for accepted alternative methods.

C. Infants and children - immobilize the infant or child on a rigid board appropriate for size (short, long or padded splint), according to the procedure outline in the spinal immobilization section. Special considerations:
   1. Pad from the shoulders to the heels of the infant or child, if necessary to maintain neutral immobilization
   2. Properly size the cervical immobilization device. If it doesn't fit, use a rolled towel and tape to the board and manually support head. An improperly fit immobilization device will do more harm than good.

D. Geriatric patients- may require special packaging due to curvature of the spine
   1. Pad areas of the posterior side of the patient's head and neck regions to support and maintain stabilization, without increasing discomfort

E. Pregnant patients – should be placed in left lateral recumbent position after being secured onto a longboard

APPLICATION

Procedural (How)

1. Demonstrate the method of determining if a responsive patient may have a spine injury.
2. Demonstrate the airway emergency medical care techniques for the patient with a suspected spinal cord injury.
3. Demonstrate methods for sizing various cervical spine immobilization devices.
4. Demonstrate rapid extrication techniques.
5. Demonstrate how to stabilize the cervical spine.
6. Demonstrate how to immobilize adult and pediatric patients using a short spine board.
7. Demonstrate how to log roll adult and pediatric patients with a suspected spine injury.
8. Demonstrate how to secure a patient to a long spine board.
9. Demonstrate how to secure an elderly patient, with curvature of the spine, to a longboard.
10. Demonstrate the preferred methods to remove sports, motorcycle and various other helmets.
11. Demonstrate alternative methods for removal of a helmet.
12. Demonstrate how the head is stabilized with a helmet compared to without a helmet.
13. Demonstrate how the patient's head is stabilized in order to remove a helmet.
14. Demonstrate sudden airway emergency medical care with helmet on.

Contextual (When, Where, Why)

1. For every patient who is involved in any type of traumatic incident in which the mechanism of injury and/or signs and symptoms indicate a possible spinal injury, complete spinal immobilization must be conducted.
2. Critically injured or ill patients may be rapidly moved only with spinal immobilization techniques utilized.
3. A short backboard or spinal immobilization device will be used on non-critically injured patients at the scene prior to movement of the patient. However, when patients present with life threats, or the scene is unsafe for the EMT-Basic, the patient is moved by a rapid extrication technique.
4. Failure to immobilize the spine or treat the head injured patient will lead to increased patient morbidity and mortality.

STUDENT ACTIVITIES

Visual (See)

1. The student should see a demonstration of the method of determining if a responsive patient may have a spine injury.
2. The student should see a demonstration of the airway emergency medical care techniques for the patient with a suspected spine injury.
3. The student should see a demonstration of the methods for sizing various cervical spine immobilization devices.
4. The student should see a demonstration of rapid extrication techniques.
5. The student should see a demonstration of how to stabilize the cervical spine.
6. The student should see a demonstration of how to immobilize a patient using a short spine board.
7. The student should see a demonstration of how to log roll a patient with a suspected spinal injury.
8. The student should see a demonstration of how to secure a patient to a long spine board.
9. The student should see a demonstration of the preferred methods to remove sports, motorcycle and various other helmets.
10. The student should see a demonstration of alternative methods for removal of a helmet.
11. The student should see a demonstration of how the head is stabilized with a helmet compared to without a helmet.
12. The student should see a demonstration of how the patient's head is stabilized in order to remove a helmet.
13. The student should see various types of long backboards.
14. The student should see various types of vest type immobilization devices.
15. The student should see various types of short backboards.
16. The student should see various types of helmets.
17. The student should see a demonstration of immobilization of a geriatric patient on a long backboard.
18. The student should see a demonstration of immobilization of an infant or child patient on a long backboard.

Kinesthetic (Do)

1. The student should practice opening the airway in a patient with suspected spinal cord injury.
2. The student should practice evaluating a responsive patient with a suspected spinal cord injury.
3. The student should practice stabilization of the cervical spine.
4. The student should practice using the short board immobilization technique.
5. The student should practice the four person log roll for a patient with a suspected spinal cord injury.
6. The student should practice how to log roll adult and pediatric patients with a suspected spinal cord injury using two people.
7. The student should practice securing adult and pediatric patients to a long spine board.
8. The student should practice helmet removal techniques.
9. The student should practice the procedure for rapid extrication.
10. The student should practice the preferred methods for stabilization of the helmet.
11. The student should practice alternative methods for stabilization of the helmet.
12. The student should practice preferred methods for stabilization of the head on various simulated patients.
13. The student should practice alternative methods for stabilization of the head various simulated patients.
14. The student should practice the use of cervical immobilization devices, rolls and short boards for immobilizing the geriatric patient.
15. The student should practice the use of cervical immobilization devices, rolls and short boards for immobilizing the infant or child patient.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan.

MODULE 5

Trauma

Lesson 5-5

Practical Lab: Trauma

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 EMT-Basic student will be able to:

Demonstrate the cognitive objectives of Lesson 5-1: Injury Patterns and Bleeding and Shock.
Demonstrate the cognitive objectives of Lesson 5-2: Soft Tissue Injuries.
Demonstrate the cognitive objectives of Lesson 5-3: Musculoskeletal Care.
Demonstrate the cognitive objectives of Lesson 5-4: Injuries to the Head and Spine.

AFFECTIVE OBJECTIVES

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

Demonstrate the affective objectives of Lesson 5-1: Injury Patterns and Bleeding and Shock.
Demonstrate the affective objectives of Lesson 5-3: Musculoskeletal Care.
Demonstrate the affective objectives of Lesson 5-4: Injuries to the Head and Spine.

PSYCHOMOTOR OBJECTIVES

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

Demonstrate the psychomotor objectives of Lesson 5-1: Injury Patterns and Bleeding and Shock.
Demonstrate the psychomotor objectives of Lesson 5-2: Soft Tissue Injuries.
Demonstrate the psychomotor objectives of Lesson 5-3: Musculoskeletal Care.
Demonstrate the psychomotor objectives of Lesson 5-4: Injuries to the Head and Spine.

PREPARATION

Motivation: The practical lesson is designed to allow the students additional time to perfect skills. It is of utmost importance that the students demonstrate proficiency of the skill, cognitive knowledge of the steps to perform a skill, and a healthy attitude towards performing that skill on a patient.

This is an opportunity for the instructor and assistant instructors to praise progress and re-direct the students toward appropriate psychomotor skills. The material from all preceding lessons and basic life support should be incorporated into these practical skill sessions.

Prerequisites: BLS, Preparatory, Airway, Patient Assessment.

MATERIALS

AV Equipment: Typically none required.

EMS Equipment: Equipment from the lists in Lessons 5-1 through 5-4.

PERSONNEL

Primary Instructor: One proctor for the written evaluation.

Assistant Instructor: The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable in trauma emergencies.

APPLICATION

Procedural (How)

1. Instructor should demonstrate the procedural activities from Lesson 5-1: Injury Patterns and Bleeding and Shock.
2. Instructor should demonstrate the procedural activities from Lesson 5-2: Soft Tissue Injuries.
3. Instructor should demonstrate the procedural activities from Lesson 5-3: Musculoskeletal Care.
4. Instructor should demonstrate the procedural activities from Lesson 5-4: Injuries to the Head and Spine.

Contextual (When, Where, Why)

1. Instructor should review contextual information from Lesson 5-1: Injury Patterns and Bleeding and Shock.
2. Instructor should review contextual information from Lesson 5-2: Soft Tissue Injuries.
3. Instructor should review contextual information from Lesson 5-3: Musculoskeletal Care.
4. Instructor should review contextual information from Lesson 5-4: Injuries to the Head and Spine.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.

3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

Practical: Evaluate the actions of the EMT-Basic students during role play, practice or other skills 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 the instructor's course guide and attach with lesson plan.

MODULE 5

Trauma

Lesson 5-6

Evaluation: Trauma

OBJECTIVES

OBJECTIVES LEGEND

C=Cognitive P=Psychomotor A=Affective
1 = Knowledge level
2 = Application level
3 = Problem-solving level

COGNITIVE OBJECTIVES

No cognitive objectives identified.

AFFECTIVE OBJECTIVES

No affective objectives identified.

PSYCHOMOTOR OBJECTIVES

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

Demonstrate knowledge of the psychomotor objectives of Lesson 5-1: Injury Patterns and Bleeding and Shock.
Demonstrate knowledge of the psychomotor objectives of Lesson 5-2: Soft Tissue Injuries.
Demonstrate knowledge of the psychomotor objectives of Lesson 5-3: Musculoskeletal Care.
Demonstrate knowledge of the psychomotor objectives of Lesson 5-4: Injuries to the Head and Spine.

PREPARATION

Motivation: Evaluation of the students attainment of the cognitive and affective knowledge and psychomotor skills is an essential component of the EMT-Basic 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 his performance, and make appropriate modifications to the delivery of material.

Prerequisites: Completion of Lessons 5-1 through 5-4.

MATERIALS

AV Equipment: Typically none required.

EMS Equipment: Equipment required to evaluate the students proficiency in the psychomotor skills of this module.

PERSONNEL

Primary Instructor: One proctor for the written evaluation.

Assistant Instructor: One practical skills examiner for each 6 students.

APPLICATION

Procedural (How)

1. Written evaluation based on the cognitive and affective objectives of Lessons 5-1 through 5-4.
2. Practical evaluation stations based on the psychomotor objectives of Lessons 5-1 through 5-4.

Contextual (When, Where and Why)

1. The final lesson in this module is designed to bring closure to the module, and to assure that students are prepared to move to the next module.
2. 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

1. Supervise student evaluation.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. 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.

MODULE 6

Operations, Hazardous Materials (HAZMAT), Mass Casualty Incidents (MCI) & Weapons of Mass Destruction (WMD)

Lesson 6-1

Ambulance 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 EMT-Basic 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 an ambulance call. (C-1)

6-1.3 Describe the general provisions of state laws relating to the operation of the ambulance and privileges in any or all of the following categories: (C-1)
- Speed
- Warning lights
- Sirens
- Right-of-way
- Parking
- Turning

6-1.4 Describe why defensive driving is critical to safe ambulance vehicle operation. (C-1)

6-1.5 Describe the importance of being familiar with your EMS response area (C-1)

6-1.6 Describe the importance of anticipating special conditions that may complicate or create hazardous driving conditions. (C-2)

6-1.7 List contributing factors to unsafe driving conditions. (C-1)

6-1.8 Describe how an unsafe scene will vary ambulance response (C-1)

6-1.9 Describe the importance of “staging” when responding to unsafe or unstable scenes. (C-2)

6-1.10 Describe the considerations that should by given to:
- Request for escorts
- Following an escort vehicle
- Intersections (C-1)

6-1.11 Discuss "Due Regard for Safety of All Others" while operating an emergency vehicle. (C-1)

6-1.12 Explain the use of the Incident Command System in ambulance operations. (C-1)

6-1.13 State what information is essential in order to respond to a call. (C-1)

6-1.14 Discuss various situations that may affect response to a call. (C-1)

6-1.15 Differentiate between the various methods of moving a patient to the unit based upon injury or illness. (C-3)

6-1.16 Apply the components of the essential patient information in a written report. (C-2)

6-1.17 Summarize the importance of preparing the unit for the next response. (C-1)
6-1.18 Identify what is essential for completion of a call. (C-1)
6-1.19 Describe how to clean or disinfect items following patient care. (C-1)

AFFECTIVE OBJECTIVES

At the completion of this lesson, the EMT-Basic student will be able to:
6-1.20 Explain how safe driving skills can affect other crew members and the patient during transport. (A-1)
6-1.21 Explain how anticipating driving hazards can contribute greatly to the safe operation of emergency vehicles. (A-1)

PSYCHOMOTOR OBJECTIVES

No psychomotor objectives identified.

PREPARATION

Motivation: As an EMT-Basic, the student may be required to function in the prehospital environment. A solid foundation related to the operational aspects of prehospital care is required.

The EMT-Basic should be familiar with the medical and non-medical equipment for use in patient care. The EMT-Basic should also be aware of the phases of a response and their role.

Prerequisites: BLS, Preparatory, Airway and Patient Assessment, Physical Exam and SAMPLE history for Medical and Trauma Patients.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to ambulance operations. The continuous design and 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 assure meeting the objectives of the curriculum.

EMS Equipment: An ambulance, properly stocked.

PERSONNEL

Primary Instructor: One EMT-Basic instructor, knowledgeable in ambulance and equipment operations.

Assistant Instructor: Not required.

PRESENTATION

Declarative (What)

I. Phases of an ambulance call
  A. Preparation for the call
    1. Equipment
      a) Medical
        (1) Basic supplies
        (2) Patient transfer equipment
        (3) Airways
        (4) Suction equipment
        (5) Artificial ventilation devices
        (6) Oxygen inhalation equipment
        (7) Cardiac compression equipment
        (8) Basic wound care supplies
        (9) Splinting supplies
        (10) Childbirth supplies
        (11) Medications
        (12) Automated external defibrillator
      b) Non-medical
        (1) Personal safety equipment per local, state, and federal standards
        (2) Pre-planned routes or comprehensive street maps
    2. Personnel
      a) Available for response
      b) At least one EMT-Basic in patient compartment is minimum staffing for an ambulance - two is preferred.
    3. Daily inspections
      a) Inspection of vehicle systems
        (1) Fuel
        (2) Oil
        (3) Engine cooling system
        (4) Battery
        (5) Brakes
        (6) Wheels and tires
        (7) Headlights
        (8) Stoplights
        (9) Turn signals
        (10) Emergency warning lights
        (11) Wipers
        (12) Horn
        (13) Siren
        (14) Doors closing and latching
        (15) Communication system

(16) Air conditioning/heating system
(17) Ventilation system

b) Equipment
(1) Checked and maintained
(2) Restocked and repaired
(3) Batteries for defibrillator, suction, oxygen, etc.

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
5. Importance of being familiar with your EMS response area
a) Road maps
b) Computer mapping
c) GPS systems
d) Known hazards
e) Road construction

C. En route
1. Seat belts
2. Notify dispatch - refer to Communications module
3. Essential information
a) Nature of the call
b) Location of the call
4. Driving the ambulance
a) Emergency vehicle operations
(1) It is recommended, and in some states mandated, that the driver of an emergency vehicle attend an approved driving course
(2) Characteristics of good ambulance operators
(a) Physically fit
(b) Mentally fit
(c) Able to perform under stress
(d) Positive attitude about abilities
(e) Tolerant of other drivers
(f) Ability to anticipate and compensate for environmental and operational hazards that could imperil safe operation of the ambulance vehicle
(3) Safe driving is an important phase in the emergency medical care of the ill or injured patient

(a) The driver and all passengers should wear safety belts
(b) Become familiar with the characteristics of your vehicle
(c) Be alert to changes in weather and road conditions
(d) Exercise caution in use of red lights and siren
(e) Select appropriate route
(f) Maintain safe following distance
(g) Drive with due regard for safety of all others
(h) Know appropriateness of using lights and sirens
(i) Headlights are the most visible warning device on an emergency vehicle

b) Obtain additional information from dispatch.
c) Assign personnel to specific duties.
d) Assess specific equipment needs.
e) Positioning the unit
(1) For safety
(a) Uphill from leaking hazards
(b) 100 feet from wreckage
(i) In front of the wreckage or,
(ii) Beyond the wreckage
(c) Set parking brake
(d) Utilize warning lights
(e) Shut off headlights unless there is a need to illuminate the scene
(2) Staging
(a) Unsafe scenes
(b) Unstable scenes
(c) Multiple casualty scenes
(d) Entry into the Incident Command System
(i) provides formal structure assures
(ii) appropriate resources are present
(3) To exit the scene. Avoid parking in a location that will hamper exit from the scene.
f) Laws, regulations and ordinances - review state and local laws, regulations or ordinances in the area relative to the operations of an emergency vehicle, including as needed:
(1) Vehicle parking or standing
(2) Procedures at red lights, stop signs and intersections
(3) Regulations regarding speed limits
(4) Direction of flow or specified turns

(5) Emergency or disaster routes
(6) Use of audible warning devices
(7) Use of visual warning devices
(8) School buses

g) Escorts and multiple vehicle response
(1) Extremely dangerous
(2) Used only if unfamiliar with location of patient or receiving facility
(a) No vehicle should use lights or siren
(b) Provide a safe following distance
(c) Recognize hazards of multiple vehicle response

h) Intersection crashes - most common type
(1) Motorist arriving at intersection as light changes and does not stop
(2) Multiple emergency vehicles following closely and waiting motorist does not expect more than one
(3) Vision is obstructed by vehicles

D. Arrival at scene
1. Notify dispatch
2. Size-up
a) Body substance isolation
(1) Should be a consideration prior to 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 victim require immediate movement because of hazards?
c) Mechanism of injury/nature of illness
(1) Medical
(a) Mass casualty incident
(i) Number of patients
(ii) Obtain additional help
(iii) Begin triage
(b) Spine stabilization if necessary
(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
f) Initiating the Incident Command System as appropriate

3. Actions at scene
    a) Organized
    b) Rapid/efficient
    c) Goal of transport in mind

E. Transferring the patient to the ambulance
1. Preparing the patient for transport
    a) Completion of critical interventions
    b) Check dressings and splints
    c) Patient covered and secured to moving device
2. Lifting and moving is accomplished using the guidelines of the lifting/moving module (Module 1, Lesson 1-5)
3. Concerns for proper decontamination of patients, providers and vehicles

F. Selecting the appropriate receiving facility
1. Trauma Centers
2. Specialty care centers
3. Immediate stabilization of the patient
4. Use of Advanced Life Support intercepts & Aeromedical assistance

G. En route to the receiving facility
1. Notify dispatch
2. On-going assessment should be continued
3. Additional vital sign measurements should be obtained
4. Notify receiving facility
5. Reassure patient
6. Complete prehospital care reports

H. At receiving facility
1. Notify dispatch
2. Transferring the patient at the facility
    a) Reports
        (1) Complete verbal report is given at bedside
        (2) Complete written report is completed and left prior to returning to service
    b) Lifting and moving is accomplished using the guidelines of the lifting/moving module (Module 1)

I. En route to station
1. At station or receiving facility, notify dispatch
2. Prepare for the next call
    a) Clean and disinfect the ambulance as needed
    b) Clean and disinfect ambulance equipment
    c) Restock the disposable supplies

J. Post run
1. Refuel unit
2. File reports
3. Complete cleaning and disinfection procedures
4. Notify dispatch

K. Advanced Life Support Intercept considerations
   1. Utilization
      a) Local protocols
      b) Priority dispatch
   2. Choosing intercept sites
   3. Communications between vehicles

II. Air Medical Consideration
   A. Utilization
   B. Landing zones
   C. Safety

APPLICATION

STUDENT ACTIVITIES

Auditory (Hear)

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.

Visual (See)

1. Students should see an ambulance.
2. Students should see actual equipment or audio-visual aids or materials of ambulance equipment.
3. Students should see audio-visual aids or materials depicting an actual ambulance run.

Kinesthetic (Do)

1. Students should practice receiving and sending information to dispatch.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan.

MODULE 6

Operations,

HAZMAT, MCI & WMD

Lesson 6-2

Gaining Access

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 EMT-Basic student will be able to:

6-2.1 Describe the purpose of extrication. (C-1)
6-2.2 Discuss the role of the EMT-Basic in extrication. (C-1)
6-2.3 Identify what equipment for personal safety is required for the EMT-Basic. (C-1)
6-2.4 Define the fundamental components of extrication. (C-1)
6-2.5 State the steps that should be taken to protect the patient during extrication. (C-1)
6-2.6 Evaluate various methods of gaining access to the patient. (C-3)
6-2.7 Distinguish between simple and complex access. (C-3)

AFFECTIVE OBJECTIVES

No affective objectives identified.

PSYCHOMOTOR OBJECTIVES

No psychomotor objectives identified.

PREPARATION

Motivation: Although the EMT-Basic is not usually responsible for rescue and extrication, a fundamental understanding of the process is required.

Prerequisites: BLS, Preparatory, Airway, Patient Assessment, Physical Exam and SAMPLE history for Medical and Trauma Patients.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to extrication. The continuous design and 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 assure meeting the objectives of the curriculum.

EMS Equipment: Exam gloves, stethoscopes, blood pressure cuffs, penlight.

PERSONNEL

Primary Instructor: One EMT-Basic instructor knowledgeable in gaining access.

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

PRESENTATION

Declarative (What)

I. Fundamentals of Extrication
   - A. Role of the EMT-Basic
     1. Non-rescue EMS
        - a. Administer necessary care to the patient before extrication and assure that the patient is removed in a way to minimize further injury.
        - b. Patient care precedes extrication unless delayed movement would endanger life of the patient or rescuer.
        - c. Working with others
          - (1) The non-rescue EMS provider will need to work together with the providers of rescue.
          - (2) The non-rescue EMT-Basic should cooperate with the activities of the rescuers, and not allow their activities to interfere with patient care.
     2. Rescue EMS
        - a. In some instances, the EMS providers are also the rescue providers.
        - b. A chain of command should be established to assure patient care priorities.
          - (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.

II. Equipment
   - A. Personal safety
     1. The number one priority for all EMS personnel.
     2. Protective clothing that is appropriate for the situation should be utilized.

B. Patient safety - following the safety of the EMS responders, the next priority is the safety of the patient.
   1. The patient should be informed of the unique aspects of extrication.
   2. The patient should be protected from broken glass, sharp metal and other hazards, including the environment.

III. Getting to the Patient
   A. Simple access - does not require equipment.
      1. Try opening each door.
      2. Roll down windows.
      3. Have patient unlock doors.
   B. Complex access - requires use of tools, special equipment. These are separate programs that should be taken (Trench, High Angle, Basic Vehicle Rescue).

IV. Removing the Patient
   A. Maintain cervical spine stabilization.
   B. Complete initial assessment.
   C. Provide critical interventions.
   D. Immobilize spine securely.
      1. Short spine board
      2. Rapid extrication considerations
   E. Move the patient, not the immobilization device.
   F. Use sufficient personnel.
   G. Choose path of least resistance.
   H. Continue to protect patient from hazards.

APPLICATION

Contextual (When, Where, Why)

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

STUDENT ACTIVITIES

Visual (See)

1. Students should see various crash scenes to determine if additional help will be necessary to remove the patient.
2. Students should see the various options of personal protective equipment.
3. Students should see patients being removed from vehicles.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan.

MODULE 6

Operations,

HAZMAT, MCI

& WMD

Lesson 6-3

Overviews: Hazardous Materials and Mass Casualty Incident

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 EMT-Basic student will be able to:

6-3.1 Explain the EMT-Basic's role during a call involving hazardous materials. (C-1)
6-3.2 Describe what the EMT-Basic should do if there is reason to believe that there is a hazard at the scene. (C-1)
6-3.3 Describe the actions that an EMT-Basic should take to ensure bystander safety. (C-1)
6-3.4 State the role the EMT-Basic should perform until appropriately trained personnel arrive at the scene of a hazardous materials situation. (C-1)
6-3.5 Break down the steps to approaching a hazardous situation. (C-1)
6-3.6 Discuss the various environmental hazards that affect EMS. (C-1)
6-3.7 Describe the criteria for a multiple-casualty situation. (C-1)
6-3.8 Evaluate the role of the EMT-Basic in the multiple-casualty situation. (C-3)
6-3.9 Summarize the components of basic triage. (C-1)
6-3.10 Define the role of the EMT-Basic in a disaster operation. (C-1)
6-3.11 Describe basic concepts of incident management. (C-1)
6-3.12 Explain the methods for preventing contamination of self, equipment and facilities. (C-1)
6-3.13 Provide examples of triage systems. (C-1)
6-3.14 Review the local mass casualty incident plan. (C-1)

AFFECTIVE OBJECTIVES

No affective objectives identified.

PSYCHOMOTOR OBJECTIVES

No psychomotor objectives identified.

PREPARATION

Motivation: EMT-Basics respond to scenes that require special considerations. These include hazardous materials and multi-patient considerations. It is the intent of this lesson

to provide the EMT-Basic with an overview of these areas.

Prerequisites: BLS, Preparatory, Airway, Patient Assessment, Physical Exam and SAMPLE History of Medical and Trauma Patients.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to operations. The continuous design and 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 assure meeting the objectives of the curriculum.

EMS Equipment: Triage tags.

PERSONNEL

Primary Instructor: One EMT-Basic instructor knowledgeable in hazardous materials, triage and disaster operations.

Assistant Instructor: Not required.

PRESENTATION

Declarative (What)

I. Hazardous Materials
   - A. Common problem
   - B. Actual extent unknown
   - C. Safety is the primary concern
     1. EMT-Basic and crew
     2. Patient
     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, safe distance
        - b) Keep unnecessary people away from area
        - c) Isolate the area
          - (1) Keep people out

(2) Do not enter unless fully protected with proper equipment and SCBA
d) Avoid contact with material
e) Remove patients to a safe zone, if no risk to EMT-Basic
f) Do not enter a HazMat area unless you are trained as a HazMat Tech and have proper training in SCBA

E. Environmental hazards
F. Resources
1. Local hazardous materials response team
2. CHEMTREC 800-424-9300
3. *Hazardous Materials, The Emergency Response Handbook*, published by the United States Department of Transportation
G. National Fire Protection Association HazMat requirements for EMS providers
1. NFPA 479
2. OSHA 1910.120

II. Incident Management Systems
A. An incident management system has been developed to assist with the control, direction, and coordination of emergency response resources
1. It provides an orderly means of communication and information for decision making
2. Interactions with other agencies are easier because of the single coordination
B. Structure - after an incident manager is determined, EMS sectors are established as needed
1. Extrication sector
2. Treatment sector
3. Transportation sector
4. Staging sector
5. Supply sector
6. Triage sector
7. Mobile command center
C. Role of various individuals/organizations at the scene
1. Individuals at the scene will be assigned to particular roles in one of the sectors
2. Upon arrival, the EMT-Basic should report to the sector officer for specific duties
3. Once assigned a specific task, the EMT-Basic should complete the task and report back to the sector officer

III. Multiple Casualty Situations (MCS)
A. Definition - an event that places a great demand on resources, be it equipment or personnel
B. Basic triage - sorting multiple casualties into priorities for emergency care or transportation to definitive care. Priorities are given in three levels.
1. Highest priority

a) Airway and breathing difficulties
b) Uncontrolled or severe bleeding
c) Decreased mental status
d) Patients with severe medical problems
e) Shock (hypoperfusion)
f) Severe burns

2. Second Priority
   a) Burns without airway problems
   b) Major or multiple bone or joint injuries
   c) Back injuries with or without spinal cord damage
3. Lowest priority
   a) Minor painful, swollen, deformed extremities
   b) Minor soft tissue injuries
   c) Death
4. Examples of triage systems-
   a) START Triage
   b) JumpSTART

C. Procedures
1. Most knowledgeable EMS provider arriving on-scene first becomes triage officer
2. Additional help should be requested
3. Perform initial assessment on all patients first
4. Assign available personnel and equipment to priority one patients
5. Patient transport decisions are based on a variety of factors
   a) Prioritization
   b) Destination facilities
   c) Transportation resources
6. Triage officer remains at scene to assign and coordinate personnel, supplies and vehicles

APPLICATION

Procedural (How)

1. Demonstrate how to recognize hazardous materials situations.
2. Demonstrate how to function within an incident management system.
3. Demonstrate how to complete a triage tag.
4. Demonstrate triage procedures.

STUDENT ACTIVITIES

Visual (See)

1. Students should see audio-visual aids or materials of various situations to determine if a hazardous materials incident exists.
2. Students should see a copy of the Hazardous Materials Response Guidebook.

3. Students should see a triage tag.
4. Students should see a sample disaster plan.

Kinesthetic (Do)

1. Students should practice recognizing a hazardous materials incident and identify basic interventions that should be performed.
2. Students should practice participating in a simulated mass casualty incident.
3. Students should practice triaging patients at a simulated mass casualty incident.

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan.

Module 6

Operations, HAZMAT, MCI & WMD

Lesson 6-4

Weapons of Mass Destruction

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 EMT-Basic student will be able to (**LESSON DONE ON-LINE**):

6-4.1 Explain the historical perspective of terrorism. (C-1)
6-4.2 Identify the legal definition of Weapons of Mass Destruction. (C-1)
6-4.3 Describe the rationale used by terrorists as justification for the use of Weapons of Mass Destruction. (C-1)
6-4.4 Identify known international and domestic terrorist threats. (C-1)
6-4.5 Define current trends in terrorism. (C-1)
6-4.6 Identify the categories of Weapons of Mass Destruction. (C-1)
6-4.7 Describe the immediate and long-term effects of WMD. (C-1)
6-4.8 Describe the concept and purpose of secondary and/or multiple devices. (C-3)
6-4.9 Describe the potential outcomes of WMD incidents. (C-1)
6-4.10 Describe the need for and methods of obtaining additional resources when dealing with existing or suspected WMD emergencies. (C-1)
6-4.11 Describe the Basic protective actions to be taken by responding emergency services personnel. (C-1)
6-4.12 List indicators and identifiers that give clues to the existence or suspected existence of WMD emergencies. (C-1)
6-4.13 Explain the proper and appropriate use of the Mark I Auto-Injector kit.(C-1)
6-4.14 Describe the proper and appropriate use of the Emergency Response Guidebook (ERG) in managing suspected or existing WMD emergencies. (C-1)
6-4.15 Describe the proper and appropriate use of the ERG in identifying appropriate protective actions and pre-hospital care of patients. (C-1)

AFFECTIVE OBJECTIVES

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

6-4.16 Define the motivation behind the use of WMD to achieve political, social and/or religious goals. (A-1)
6.4.17 Establish the importance of recognizing common characteristics of terrorist groups. (A-1)
6.4.18 Recognize the critical role specialized training play in properly preparing for, dealing with and recovering from WMD emergencies. (A-1)

PSYCHOMOTOR OBJECTIVES

6-4.19 At the completion of this lesson, the EMT-Basic student will be able to:
6-4.20 Given a scenario of a WMD incident, demonstrate the use of the ERG to establish appropriate isolation zones. (P-2)
6-4.21 Given a scenario of WMD incident, demonstrate the use of the ERG in identifying what additional physical and informational resources are appropriate to the emergency. (P-2)
6-4.22 Demonstrate the proper use of a Mark I kit in the delivery of Atropine & 2Pam Chloride for use incidents involving organophosphate or nerve agents. (P-1)

PREPARATION

Motivation: EMT-Basics respond to scenes that require special considerations and may readily find they are the first to arrive at incidents involving weapons of mass destruction. It is the intent of this lesson to provide the EMT-Basic with the ability to recognize existing and potential WMD emergencies and in doing so to minimize the impact on victims, by-standers and rescue personnel.

Prerequisites: BLS, Preparatory, Airway, Patient Assessment, Physical Exam and SAMPLE History of Medical and Trauma Patients.

MATERIALS

AV Equipment: Utilize various audio-visual materials relating to operations. Wisconsin Department of Health Weapons of Mass Destruction training module.

PERSONNEL

Primary Instructor: One EMT-Basic instructor knowledgeable in Weapons of Mass Destruction Awareness training.

Assistant Instructor: Not required.

PRESENTATION

Declarative (What)

I. Terrorism Defined
   A. USC Title 22, Section 2656f(d) definition
   B. Federal Bureau of Investigation definition
   C. WMD Legal definition; Title 18 U.S. Code
   D. Terrorist Threats

1. May be international or domestic
   a) Ideology or value driven
   b) Mitigated by intentions, capabilities and motive
2. Historical Reasons
   a) Religious
   b) Social/Economic upheaval
   c) Nationalism, anarchism, Marxism
   d) Ethnic/Racial ideologies
   e) Regional or global interests
3. Use of WMD
   a) Cost
   b) Availability
   c) Effectiveness
   d) Detection
   e) Leverage
4. Terrorist acts & threats
   a) International & Domestic
   b) Ideology or Value driven
      (1) Events
      (2) Targets
   c) Histories, intentions, capabilities & motivators
5. International Terrorist Threats
   a) Events that occurred
      (1) World trade center bombing 1993
      (2) Helicopter in Somalia 1993
      (3) USS Cole Bombing 2000
      (4) World Trade Center 2001
   b) Events that were planned and did not occur
      (1) Assassination attempt of Pres Clinton in Philippines 1995
      (2) Mid-air bombing of US trans-pacific flights 1995
      (3) Bombing of LA International Airport 1999
      (4) Richard Reid – Shoe bomb 2001
6. Domestic Terrorist Threats
   a) Right-wing
      (1) Typically anti-government
      (2) Racial superiority
   b) Left-wing
      (1) Typically espouse socialist doctrine
      (2) Anti-capitalistic
   c) Extremists
      (1) Earth liberation front
      (2) Animal liberation front
      (3) Etc.
   d) Hate groups
   e) Patriotic groups

f) Cults
g) Single issue groups
h) Lone individuals

7. Terrorist Threats
   a) Weapons of Mass Destruction
   b) Terrorist use of emerging technology
8. Probability of an attack on US is high
   a) Incendiary or explosive devices are most probable
   b) Diversity of targets is high

II. Weapons of Mass Destruction

A. Increase alert posture
   1. Events of 9/11/01
   2. Possibility of additional attacks
   3. Growing interest in WMD
      a) Operational repercussions
      b) Fear 7 Psychological implications

B. Response to WMD
   1. Known versus undetected WMD incidents
   2. WMD Response complexities
      a) Additional threats
         (1) Secondary devices
         (2) Cumulative exposure
      b) Extensive physical damage
      c) Physical and psychological threats

C. Medicine is not an exact science
   1. Patient with clean bill of health dies the next day

D. Law enforcement is not an exact science
   1. Many threats are investigated and found to be groundless
   2. Acts of terrorism occur the next day
      a) Dependent upon the weapons used
      b) May or may not be cumulative
      c) May or may not be known

E. Identifying terrorist activity
   1. Difficult in a free society
      a) Rights & civil liberties
      b) Stereotypes 7 preconceptions
   2. Threat indicators
      a) Gathering of target intelligence
      b) Acquisition of weapons, explosives, biologicals, etc
      c) Attempts to gain access
   3. Suspicious activity
      a) Overwhelming numbers of reports
      b) Identifying probable targets

F. WMD Threats
   1. Chemical agents
   2. Biological agents

3. Radiological materials
4. Explosive & Incendiary devices

G. Devices
1. Chemical agents
a) Categories
(1) Blister agents
(2) Choking agents
(3) Blood agents
(4) Nerve agents
(5) Toxic chemicals
b) Characteristics
(1) Incapacitating versus lethal
(2) Persistent versus non-persistent
2. Biological Agents
a) Categories
(1) Bacteria
(2) Rickettsia
(3) Viruses
(4) Toxins
b) Routes of entry
(1) Respiration
(2) Ingestion
(3) Transdermal
(4) Absorption (rare)
3. Radiological Materials
a) Means of exposure
(1) Nuclear weapons
(2) Fissile materials
4. Explosive & Incendiary Devices
a) Components
(1) Triggering device
(2) Body (container)
(3) Filler (Explosive or flammable)
b) Kinematics
(1) Force (kinetic energy) equals Mass/2 times velocity
(a) Squared
(2) Frangibility (ability to burst into multiple projectiles)

III. Emergency Response
A. Taking Control of the Incident – Awareness Level Training
1. Identifying the need for additional resources
a) Scene size-up
b) Notification of proper authorities
c) Requesting resources
2. Basic protective actions
a) Uphill & Up-wind

b) Objectives
(1) Recognize the material
(2) Isolation distances
(3) Protect – prevent contamination
(4) Notify chain of command

B. Medical Intervention – Self Rescue
1. The Mark I auto-injector kit
a) Limited usefulness
b) For rescuer use only
c) Contents
(1) Atropine (2 mg)
(2) 2PAM Chloride
(3) Requires multiple injections
(4) Deactivates acetycholine by blocking receptor sites & breaks enzyme-agent bond
d) Administration
(1) Site
(a) Lateral surface – Mid-thigh
(b) Lateral surface – upper buttocks
e) Down-wind prediction plotting
(1) Guidebook predictions
(2) Computer models

C. The Emergency Response Guidebook (ERG)
1. Recognizing & Identifying hazards
a) Name
b) ID Number
c) Placards
2. Protective actions
3. Isolation precautions
4. Evacuation

D. Using the ERG
1. Find the Chemical
2. Review the action guide
3. Establish isolation & protection distances
4. Establish zones

E. Computer modeling
1. CAMEO
2. ALOHA
3. MARPLOT

F. Protective Action Options
1. Shelter in-place
a) Short duration
b) Moving increases hazard
c) Impractical to move
2. Evacuate
a) Potential of escalating danger

(1) Fire
(2) Explosion
b) Long duration
c) Increasing risk of contamination

G. Emergency Response
1. First Aid
a) Largely symptomatic
b) Prevent secondary contamination
(1) Rescuers
(2) Facilities
2. Spill/leak mitigation
a) Not an awareness level activity
b) Usually requires special training & equipment
3. Fire Fighter
a) Definition of hazard
b) Defensive versus offensive
c) Role of awareness

H. Debrief the Incident

APPLICATION

Procedural (How)

1. Demonstrate how to recognize incidents involving weapons of mass destruction.
2. Demonstrate how to function within an incident management system during WMD incidents.
3. Demonstrate how to use a Mark I kit.
4. Demonstrate emergency response procedures.

Contextual (When, Where, Why)

1. The recognition of existing or suspected terrorist activities is an important aspect of emergency medical care.
2. It is not the intent of the EMT-Basic course to make you proficient in dealing with weapons of mass destruction incidents. Dealing with the situation requires specialized training. It is more important for the EMT-Basic to recognize that a hazardous situation exists, and to prevent further illness or injury.
3. This should be a consideration before you respond to a scene and as you size up the scene.
4. Operations involving weapons of mass destruction can be extremely difficult.
5. Understanding the concept of incident management systems will help to manage the situation. As with hazardous materials, this program is not designed to make the EMT-Basic an incident manager.
6. The process of sorting patients and determining the priority of their care is a difficult process. It should begin upon arrival at scene, following determination that the scene is safe.

STUDENT ACTIVITIES

INSTRUCTOR ACTIVITIES

1. Supervise student practice.
2. Reinforce student progress in cognitive, affective, and psychomotor domains.
3. Redirect students having difficulty with content (complete remediation forms).

EVALUATION

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

Practical: Evaluate the actions of the EMT-Basic 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 the instructor's course guide and attach with lesson plan.

MODULE 6

Operations, HAZMAT, MCI & WMD

Lesson 6-5

Evaluation: Operations, HAZMAT, MCI & WMD

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 EMT-Basic student will be able to:

Demonstrate knowledge of the cognitive objectives of Lesson 6-1: Ambulance Operations
Demonstrate knowledge of the cognitive objectives of Lesson 6-2: Gaining Access
Demonstrate knowledge of the cognitive objectives of Lesson 6-3: Overviews
Demonstrate knowledge of the cognitive objectives of Lesson 6-4: Weapons of Mass Destruction

AFFECTIVE OBJECTIVES

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

Demonstrate knowledge of the affective objectives of Lesson 6-1: Ambulance Operations
Demonstrate knowledge of the affective objectives of Lesson 6-2: Gaining Access
Demonstrate knowledge of the affective objectives of Lesson 6-4: Weapons of Mass Destruction

PSYCHOMOTOR OBJECTIVES

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

Demonstrate proficiency in the psychomotor objectives of Lesson 6-3: Overviews and 6-4: Weapons of Mass Destruction

PREPARATION

Motivation: Evaluation of the student's attainment of the cognitive and affective knowledge and psychomotor skills is an essential component of the EMT-Basic 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 his performance, and make appropriate modifications to the delivery of material.

Prerequisites: Completion of Lessons 6-1 through 6-4.

MATERIALS

AV Equipment: Typically none required.

EMS Equipment: Equipment required to evaluate the students proficiency in the psychomotor skills of this module.
Mark I simulation kit

PERSONNEL

Primary Instructor: One proctor for the written evaluation.

Assistant Instructor: One practical skills examiner for each 6 students.

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.

APPENDICES
DISCLAIMER

The content found within these appendices was meant to provide the EMS educator with additional training resources. It is by no means an all-inclusive section containing procedural and performance check sheets and flowcharts for the EMT-Basic curriculum.

State of Wisconsin
RN to EMT-Basic Transition Course
Module Content and Objectives Tally

Module 1	PREPARATORY	Number of Objectives
1-1	Introduction to Emergency Care	11
1-2	Well-Being of the EMT Basic	6
1-3	Medical/Legal and Ethical Issues	11
1-5	Lifting and Moving Patients	13
1-6	Preparatory: Evaluation	0
		TOTAL 41

Module 2	PATIENT ASSESSMENT	Number of Objectives
2-1	Scene Size-up	9
2-2	Initial Assessment	20
2-3	Baseline Vital Signs, SAMPLE History and The Use of Pulse Oximetry	10
2-4	Focused History and Physical Exam: Trauma	7
2-5	Focused History and Physical Exam: Medical	5
2-6	Detailed Physical Exam	5
2-7	On-Going Assessment	5
2-8	Communications	11
2-9	Documentation	7
2-10	Critical Thinking	2
2-12	Practical Lab: Patient Assessment	0
2-13	Evaluation: Patient Assessment	0
		TOTAL 83

Module 3	AIRWAY	Number of Objectives
3-1	Airway	35
3-2	Practical Lab: Basic Airway Management	0
3-3	Advanced Airway and Practical Lab	12
3-4	Evaluation: Basic and Advanced Airway Management	0
		TOTAL 47

Module 4	MEDICAL EMERGENCIES	Number of Objectives
4-1	General Pharmacology	7
4-2	Respiratory Emergencies	14
4-3	Cardiac Emergencies	23
4-4	Diabetic Emergencies/Altered Mental Status	25
4-5	Severe Allergic Reactions	7
4-6	Poisoning/Overdose	9
4-7	Environmental Emergencies	8
4-8	Behavioral Emergencies	3
4-9	Obstetrics/Gynecology	14
4-10	Acute Abdomen	3
4-11	Practical Lab: Medical/Behavioral and Obstetrics/Gynecology	0
4-12	Evaluation: Medical/Behavioral and Obstetrics/Gynecology	0
		TOTAL 88

Module 5	TRAUMA	Number of Objectives
5-1	Injury Patterns and Bleeding and Shock	25
5-2	Soft Tissue Injuries	28
5-3	Musculoskeletal Care	10
5-4	Injuries to the Head and Spine	50
5-5	Practical Lab: Trauma	0
5-6	Evaluation: Trauma	0
		TOTAL 113

Module 6	OPERATIONS, HAZMAT, MCI & WMD	Number of Objectives
6-1	Ambulance Operations	21
6-2	Gaining Access	7
6-3	Overviews	14
6-4	Weapons of Mass Destruction	22
6-5	Evaluation: Operations and WMD	0
		TOTAL 64

TOTAL of EMT Basic Objectives 436

RN TO EMT-BASIC TRANSITION CURRICULUM
November 2010
Five 10-hour Days – Sample Course Outline Template

DAY	TIME	TOPIC	READING ASSIGNMENT
1	0800 – 1030	Welcome, Overview, Ride-along assignments Introduction to EMS Well-Being of the EMT Medical/Legal	 Chapter 1 Chapter 2 Chapter 3
	1030 – 1230	Lifting and Moving Patients Scene Size-up Initial Assessment Vital Signs/SAMPLE history	Chapter 5 Chapter 7 Chapter 8 Chapter 9
	1230 – 1315	LUNCH	
	1315 – 1400	Assessment of the Trauma Patient Assessment of the Medical Patient Ongoing Assessment	Chapter 10 Chapter 11 Chapter 12
	1400 – 1800	***Learning Stations 4:1 ratio*** Station #1: Lifting and Moving #1 Station #2: Lifting and Moving #2 Station #3: Trauma Assessment Station #4: Medical Assessment	
2	0800 – 1000	Airway Management Advanced Airway Management	Chapter 6 Chapter 37
	1000 – 1100	General Pharmacology EMT Protocols	Chapter 15
	1100 – 1215	OB/GYN	Chapter 24
	1215 – 1300	LUNCH	
	1300 – 1800	Learning Stations 3:1 and 2:1 ratio Station #1: Basic Airway Skills Station #2: Advanced Airway Skills Station #3: OB/GYN	
3	0800 – 1200	**- Trauma Emergencies** Bleeding and Shock Soft Tissue Injuries Musculoskeletal Injuries Head and Spine	 Chapter 26 Chapter 27 Chapter 28 Chapter 29
	1200 – 1245	LUNCH	
	1245 – 1800	**Learning Stations 4:1 ratio** Station #1: Longboarding Station #2: Fracture and Dislocations Station #3: Chest/Wound Care and Shock	

4	0800 – 1230	**- Medical Emergencies** Respiratory Emergencies Cardiac Emergencies Acute Abdominal Diabetic Emergencies and Altered Mental Status Allergic Reactions Poisoning and Overdose Emergencies Environmental Emergencies Behavioral Emergencies	 Chapter 16 Chapter 17 Chapter 18 Chapter 19 Chapter 20 Chapter 21 Chapter 22 Chapter 23
	1230 – 1315	LUNCH	
	1315 – 1800	**Learning Stations 3:1 and 2:1 ration** Patient Assessment AED/CombiTube/King LTS-D Fractures/Dislocation/Spinal Immobilization	
5	0800 – 1200	Online Registration for NR - 60 minute video Communication - 20 minutes Documentation – 20 minutes Pediatrics 50 minutes Geriatrics 20 minutes Ambulance Operations – 30 minutes Gaining Access and Rescue Operations – 20 min. Special Operations – 30 minutes	 Chapter 13 Chapter 14 Chapter 31 Chapter 32 Chapter 33 Chapter 34 Chapter 35
	1200 – 1300	WMD Video and Discussion LUNCH	
	1300 – 1800	**Final Written Exam** **Final Practical Exam 1:1 ratio** Medical Patient Assessment Station Trauma Patient Assessment Station AED Station Advanced Airway Station Fractures and Dislocation Station Spinal Immobilization Station Station	

A Case Study Approach to Patient Assessment-Utilizing a Critical Thinking Process

Ask the following questions to unfold a sequential case presentation:

- What significant findings are disclosed during the Scene Size-up?
- What significant findings are disclosed during the Initial Assessment?
- As the chief complaint is discovered, what is/are your concern(s) for the patient?
- Does evaluation of the patient's mental status raise any concerns?
- What body systems are being affected by the current condition?
- What diagnostic measures should be sought that would provide a broader base of information about your patient's status?
- What interventions and immediate actions should be initiated at this point?
- How serious is this patient's situation, and how do you determine this?
- What is significant about the presenting signs and symptoms?
- What is the relationship between the chief complaint and presenting signs and symptoms? What is the relationship between vital signs, cc and s/s?
- What are some possible causes of the patient's current condition?
- What physical assessment findings might be relevant to the current situation?
- What treatment is appropriate?
- What is significant about the patient's history?
- Is there any correlation with the current situation and the patient's PMH?
- Do the patient's medications have relevance to current situation?
- What assessment components should be reevaluated? What might you expect to discover?
- What additional information can be obtained by repeating vital signs?
- What additional information might be obtained by repeating a focused history and physical exam?
- What reason(s) might exist that would warrant modifying or revising the current treatment plan?

CRITICAL THINKING
The 6 R's

Read the Scene
- ✓ Safety issues and hazards
- ✓ General environmental conditions
- ✓ Evaluate immediate surroundings
- ✓ MOI/NOI

Read the Patient
- ✓ Observe the patient
  - Level of consciousness / distress
  - Skin color, condition, temperature
  - Position and location of patient - obvious deformity or asymmetry
- ✓ Talk to the patient
  - Determine the chief complaint
  - New problem or worsening of preexisting condition
- ✓ Touch the patient
  - Skin temperature and moisture
  - Pulse rate, strength and regularity
- ✓ Auscultate the patient
  - Identify problems with the lower airway
  - Identify problems with the upper airway
- ✓ Status of ABC's - identify life-threats
- ✓ Trends in vital signs which help identify changes in pt status and priority

React
- ✓ Address life-threats in the order they are discovered - ABC's
- ✓ Determine the most common and statistically probable cause of MOI/NOI that fits the patient's initial presentation (signs and symptoms)
- ✓ Consider the most serious condition or cause that fits the patient's initial presentation (signs and symptoms)
- ✓ If a clear medical problem is elusive, treat based on presenting signs and symptoms

Reevaluate
- ✓ Rapid, detailed and ongoing assessments
- ✓ Focused history and PMH
- ✓ Response to initial management/ interventions
- ✓ Discovery of less obvious problems
- ✓ Differential diagnosis

Revise Management Plan
- ✓ If what you are doing isn't working, search for additional information and make appropriate modifications
- ✓ Come up with revised working assessment/field impression and/or management plan

Review Performance
- ✓ Run critique

Faculty Guidelines for Scenarios

Hints

When providing the students with scenarios, you may find some of these tips helpful.

- Watch the students, not your paperwork.
- Provide a scenario that is realistic.
- Get a picture of the patient and situation in your own mind first.
- Provide the students with vitals as soon as they ask (Verbally or non-verbally).
- If the student's hand position is not correct, prompt that they can not palpate anything there.
- If the treatment provided is not appropriate, change the patient's appearance and vitals appropriately.
- Respond to the team leader's questions or requests first. You may answer team members as long as the leader as directed them to do something but make sure you do not distract or ignore the team leader.
- Provide appropriate vitals. (See examples below)
- Initial vitals should be qualitative versus quantitative. i.e. Pulse fast and weak vs. 140 and weak. If the student demands a number, make them wait the 15 seconds to actually count.
- Blood pressures should not be provided until the BP cuff is placed.
- Lung sounds should be provided only if the stethoscope is in the proper position. Many times the stethoscope is to low on the chest.

Appropriate Initial Vitals for Isolated Conditions

Condition	Pulse	Change	Resp	Change	Skin	BP*	Change
Head	Low	decrease	abnormal	decrease	Pink, warm	High	increase
Respiratory	Fast	increase	Fast	increase	Blue, moist	normal	decrease
Spinal	Slow	steady	slow-normal	none	pink warm dry**	low	decrease to steady
Blood loss	Fast	increase	fast	increase	cool, moist, pale	low	decrease

* Start BP's near normal and then have them change, except spinal shock. Have spinal shock start low.
**Late Spinal Shock will have pale-cool-dry skin.

Scenario Development Worksheet

Scenario Title _____

Scenario Goal

Scenario Objectives: During this scenario the participants will be expected to:

1.

2.

3.

Prerequisite Competencies

Cognitive _____

Psychomotor _____

Affective _____

Performance Expectations

Novice versus Expert
Skill Focus versus Management
Bloom Level
(Cognitive, Psychomotor, Affective) _____

Scenario Roles (Describe and Assign)

Bystander/Family Member _____
Patient _____
Lead Provider _____
Assistant Provider(s) _____
Other (Recorder, Medical Control, PD, etc) _____

_____

Higher Level (Critical) Thinking Issues

Cognitive _____

Psychomotor _____

Affective _____

Required Materials

Moulage/Props _____

Medical Equipment _____

Other _____

Assessment and Management Scenario Template

Dispatch:

Arrive to find:

Assessment should reveal:

- Airway
- Breathing
- Pulse
- Blood pressure
- Pupils
- Lung sounds
- Skin pale
- History
- S-
- A-
- M-
- P-
- L-
- E-
- O-
- P-
- Q-
- R-
- S-
- T-
- Injuries

Moulage:

Treatment
Basic:

Patient Response:

ALS:

Higher Level Questions or Affective Issues:

Scenario Evaluation Student Name _____

Score 0=Not done or incorrect, 1=only partially, 2=Adequate Score

Scene Size-Up _____
- PPE*
- Scene Safety*
- Mechanism
- # of Patients

Initial Assessment* _____
- Airway or Airway w/C-spine*
- LOC
- Breathing
- Circulation
- Identify Load and Go or Rapid Intervention

Rapid Trauma Assessment or Rapid Medical Assessment _____
- Pupils to Patella w/Distal PMS (Trauma)
- Or Pupils to Abdomen, distal PMS and History (Medical)

Patient Management _____
- Airway, Breathing, O2
- Indicated Trauma Interventions
- Indicated Medical Interventions
- Treats non life-threatening injuries after life-threatening injuries

Communications (Affective) _____
- With bystanders, patient, Medical Control

Ongoing Assessment _____
- Performs assessment after each major intervention
- Performs focused/detailed physical and history

Pathophysiology _____
- Understands pathophysiology

Total Score _____

Needed to pass 13 with no zeroes

Comments:

Evaluator Name _____

Signature _____ Date _____

*-Indicates Auto fail if not performed

EMT-Basic PATIENT ASSESSMENT
MEDICAL

SCENE SIZE-UP (READ the scene)
Scene safe?
PPE/BSI?
MOI/NOI?
How many patients?
Need additional help?
Consideration for c-spine?

INITIAL ASSESSMENT (READ the patient) (REACT to life-threats)
General impression (age, gender, CC, environmental clues)
LOC-AVPU (GCS if appropriate)
Airway (interventions) & c-spine considerations
Breathing (interventions)
Circulation (pulses, skin condition, major bleeding, monitor)
Differential Diagnosis/Field Impression
Expose (as needed)
Prioritize patient status and make Transport Decision
Interventions (as needed, initiated throughout)

FOCUSED HISTORY AND PHYSICAL EXAM (REEVALUATE & REVISE)

UNRESPONSIVE MEDICAL	RESPONSIVE MEDICAL
Rapid Assessment	OPQRST
Baseline Vital Signs	SAMPLE History
SAMPLE History Information from family/bystanders?	Baseline Vital Signs
OPQRST Information from family/bystanders?	Appropriate Physical Exam
Reevaluates Field Impression & Transport Decision	Reevaluates Field Impression & Transport Decision
Identify/Initiate Management Plan	Identify/Initiate Management Plan

DETAILED PHYSICAL EXAM (for unresponsive patient) (REEVALUATE/REVISE)
Perform a thorough physical assessment from head-to-toe if needed

ON-GOING ASSESSMENT (REEVALUATE/REVISE)
Repeat Initial Assessment (eg. CC, LOC, ABCs, Priority)
Repeat Vital Signs
Recheck interventions
Evaluates response to treatment

REVIEW performance at run critique

EMT-Basic PAIENT ASSESSMENT
TRAUMA

SCENE SIZE-UP (READ the scene)
Scene safe?
PPE/BSI?
MOI/NOI?
How many patients?
Need additional help?
Consideration for c-spine?

INITIAL ASSESSMENT (READ the patient) (REACT to life-threats)
General impression (age, gender, CC, environmental clues)
LOC-AVPU (GCS if appropriate)
Airway (interventions) & c-spine considerations
Breathing (interventions)
Circulation (pulses, skin condition, major bleeding)
Differential Diagnosis/Field Impression
Expose (as needed)
Prioritize patient status and make Transport Decision
Interventions (as needed, initiated throughout)

FOCUSED HISTORY AND PHYSICAL EXAM (REEVALUATE & REVISE)

SIGNIFICANT INJURY	NON-SIGNIFICANT INJURY
Rapid Trauma Assessment	Injury specific exam
Baseline Vital Signs	Baseline Vital Signs
SAMPLE History	SAMPLE History
OPQRST	OPQRST
Reevaluates Field Impression & Transport Decision	Reevaluates Field Impression & Transport Decision
Identify/Initiate Management Plan	Identify/Initiate Management Plan

DETAILED PHYSICAL EXAM (for significant injury) REEVALUATE/REVISE)
Perform a thorough physical assessment from head-to-toe

ON-GOING ASSESSMENT (REEVALUATE/REVISE)
Repeat Initial Assessment (eg. CC, LOC, ABCs, Priority)
Repeat Vital Signs
Recheck interventions
Evaluate response to treatment

REVIEW performance at run critique

EMT BASIC

PATIENT ASSESSMENT - MEDICAL

CHECKLIST

Group/Rescue#:_____ Student Name (conducting assessment):_____

Scenario Description: _____ DATE:_____

Place number of points earned in each area when completed; provide end tally at bottom

	SCENE EVALUATION	
	Identifies scene safety and use of PPE/BSI **(2pts)**	
	Determines NOI, number of patients and need for additional resources **(3pts)**	
	Considers need for spinal immobilization **(1pt)**	
	INITIAL ASSESSMENT	
	Verbalizes general impression – age, gender, chief complaint and environmental clues **(4pts)**	
	Determines mental status/AVPU/GCS **(1pt)**	
	Assesses airway/reconsiders spinal immobilization/initiates management **(2pts)**	
	Assesses breathing status/initiates interventions **1pts)**	
	Assesses circulation: radial/carotid pulses, skin-condition, color, temp/major bleeding controlled/initiates management plan **(3pts)**	
	Creates field impression/differential diagnosis **(1pt)**	
	Exposes patient as needed **(1pt)**	
	Prioritizes patient and makes transport decision **(1pt)**	
	FOCUSED HISTORY and PHYSICAL EXAM	
	UNRESPONSIVE PATIENT	***RESPONSIVE PATIENT***
	Conducts a rapid assessment **(1pt)**	Obtains OPQRST **(1pt)**
	Obtains Baseline Vital Signs **(5pts)**	Gathers SAMPLE Hx **(1pt)**
	Gathers SAMPLE Hx (family, bystanders) **(1pt)**	Obtains Baseline Vital Signs **(5pts)**
	Gathers OPQRST (family, bystanders) **(1pt)**	Conducts an appropriate physical assessment **(1pt)**
	Reevaluates field imp & transport decision **(1pt)**	Reevaluates field imp & transport decision **(1pt)**
	Identifies/Initiates management plan **(1pt)**	Identifies/Initiates management plan **(1pt)**
	DETAILED PHYSICAL EXAM	
	Performs a thorough physical assessment (for unresponsive patient only) **(1pt)**	
	ON-GOING ASSESSMENT	
	Repeats initial assessment **(1pt)**	
	Repeats vital signs **(1pt)**	
	Reevaluates/rechecks interventions **(1pt)**	
	Evaluates response to treatment **(1pt)**	

0 Successful (25-35 pts) EVALUATOR (SIGN):_____

0 Unsuccessful (< 25 pts) DATE: _____

Comments:

EMT BASIC
PATIENT ASSESSMENT - TRAUMA
CHECKLIST

Group/Rescue #:_____ Student Name (conducting assessment):_____
Scenario Description: _____ DATE:_____

Place number of points earned in each area when completed; provide end tally at bottom

	SCENE EVALUATION	
	Identifies scene safety and use of PPE/BSI **(2pts)**	
	Determines MOI, number of patients and need for additional resources **(3pts)**	
	Considers need for spinal immobilization **(1pt)**	
	INITIAL ASSESSMENT	
	Verbalizes general impression – age, gender, chief complaint and environmental clues **(4pts)**	
	Determines mental status/AVPU/GCS **(1pt)**	
	Assesses airway/reconsiders spinal immobilization/initiates management **(2pts)**	
	Assesses breathing status/initiates interventions **(1pt)**	
	Assesses circulation: radial/carotid pulses, skin-condition, color, temp/major bleeding controlled/initiates management plan **(3pts)**	
	Creates field impression/differential diagnosis **(1pt)**	
	Exposes patient as needed **(1pt)**	
	Prioritizes patient and makes transport decision **(1pt)**	
	FOCUSED HISTORY and PHYSICAL EXAM	
	SIGNIFICANT INJURY	***NON-SIGNIFICANT INJURY***
	Conducts a rapid trauma assessment **(1pt)**	Conducts an injury specific assessment **(1pt)**
	Obtains Baseline Vital Signs **(5pts)**	Obtains Baseline Vital Signs **(5pts)**
	Gathers SAMPLE History **(1pt)**	Gathers SAMPLE History **(1pt)**
	Gathers OPQRST **(1pt)**	Gathers OPQRST **(1pt)**
	Reevaluates field imp & transport decision **(1pt)**	Reevaluates field imp & transport decision
	Identifies/Initiates management plan **(1pt)**	Identifies/Initiates management plan
	DETAILED PHYSICAL EXAM	
	Performs a thorough physical assessment (for significant injury only) **(1pt)**	
	ON-GOING ASSESSMENT	
	Repeats initial assessment **(1pt)**	
	Repeats vital signs **(1pt)**	
	Reevaluates/rechecks interventions **(1pt)**	
	Evaluates response to treatment **(1pt)**	

0 Successful (25-35pts) EVALUATOR (sign): _____
0 Unsuccessful (<25 pts) DATE: _____

Comments:

EMT BASIC
PATIENT SCENARIO MANAGEMENT
CHECKLIST

NAME: _____
DATE: _____
COURSE LOCATION: _____

✓ Place one checkmark in each evaluative area that best reflect the student performance

	SCENE MANAGEMENT
3	Recognized scene hazards and managed all safety aspect – team members, patient, bystanders
2	Recognized scene hazards but did not manage safety aspects
1	Attempt to manage scene hazards failed
0	Did not recognize scene hazards and failed to manage safety
	OVERALL PATIENT ASSESSMENT
3	Performed a complete assessment in an organized, thorough and timely manner
2	Performed a complete assessment but in a disorganized manner
1	Performed an incomplete assessment
0	Performed an incomplete assessment, in a disorganized manner
	FIELD IMPRESION and PATIENT MANAGEMENT PLAN
3	Utilized assessment findings to create a field impression and initiate a patient management plan
2	Utilized assessment findings to create a field impression but did not initiate appropriate management
1	Did not create a field impression and inadequately managed the patient
0	Failed to manage the patient appropriately
	PERSONAL COMMUNICATIONS
3	Communicated well with crew, patient and bystanders/family
2	Communicated fairly well with crew and patient
1	Exhibited poor communication skills
0	Unable to communicate effectively
	RADIO REPORT
3	Conducted an organized, accurate and brief radio report
2	Conducted an accurate but disorganized report
1	Provided an inadequate radio report
0	Provided no radio report

0 Successful (10-15 pts)
0 Unsuccessful

EVALUATOR (sign): _____
DATE: _____

Comments:

EMT BASIC
ADMINISTRATION OF ACTIVATED CHARCOAL

PROCEDURE CHECKLIST

NAME: _____
DATE: _____
COURSE LOCATION: _____

	Contact medical control
	Report assessment findings including signs and symptoms of ingested overdose
	Report prior interventions
	Request implementation of activated charcoal protocol
	Confirm orders from medical control
	Explain procedure and solicit patient consent
	Check expiration date
	Rule out allergies
	Confirm right medication, right patient, right route
	Confirm dosage of 1g activated charcoal per 1kg patient body weight
	Instruct patient to swallow, consuming entire dose
	Continue to monitor patient status, maintain open airway
	Repeat dosage per medical direction, if requested
	Document administration data and time
	o Time, name, dose, route of medication
	o Patient's tolerance of procedure
	o Name of medical control physician authorizing administration
	o Name of EMT administering medication
	Reevaluate patient response to medication administration

EVALUATOR: _____
DATE: _____

EMT BASIC
ADMINISTRATION OF NEBULIZED ALBUTEROL
PROCEDURE CHECKLIST

NAME: _____
DATE: _____
COURSE LOCATION: _____

	Contact medical control
	Report assessment findings
	Report prior interventions and use of inhaler or nebulizer
	Request implementation of protocol
	Confirm orders from medical control
	Explain procedure and solicit patient consent
	Check expiration date
	Confirm right medication, right patient, right route
	Rule out allergies
	Confirm dosage 2.5 mg albuterol
	Assemble nebulizer (hand-held or mask)
	Add pre-measured medication dosage to nebulizer
	Remove oxygen supply from existing patient adjunct and connect to medication canister
	Adjust liter flow to 4-6 liters
	Instruct patient to place the mouthpiece in their mouth and to inhale slowly and deeply
	Have patient attempt to hold their breath for 1-2 seconds before exhaling
	Continue in this manner until the medication canister is depleted
	Continue to monitor patient status
	Continue oxygen therapy
	Document administration data and time
	o Time, name, dose, route of medication
	o Patient's tolerance of procedure
	o Name of medical control physician authorizing administration
	o Name of EMT administering medication
	Reevaluate patient response to medication administration

Note: Albuterol and Atrovent may be nebulized simultaneously

EVALUATOR: _____
DATE: _____

EMT BASIC
ADMINISTRATION OF NEBULIZED ATROVENT
PROCEDURE CHECKLIST

NAME: _____
DATE: _____
COURSE LOCATION: _____

	Contact medical control
	Report assessment findings
	Report prior interventions and use of inhaler or nebulizer
	Request implementation of protocol
	Confirm orders from medical control
	Explain procedure and solicit patient consent
	Check expiration date
	Confirm right medication, right patient, right route
	Rule out allergies
	Confirm dosage 0.5 mg Atrovent
	Assemble nebulizer (hand-held or mask)
	Add pre-measured medication dosage to nebulizer
	Remove oxygen supply from existing patient adjunct and connect to medication canister
	Adjust liter flow to 4-6 liters
	Instruct patient to place the mouthpiece in their mouth and to inhale slowly and deeply
	Have patient attempt to hold their breath for 1-2 seconds before exhaling
	Continue in this manner until the medication canister is depleted
	Continue to monitor patient status
	Continue oxygen therapy
	Document administration data and time
	o Time, name, dose, route of medication
	o Patient's tolerance of procedure
	o Name of medical control physician authorizing administration
	o Name of EMT administering medication
	Reevaluate patient response to medication administration

Note: Albuterol and Atrovent may be nebulized simultaneously

EVALUATOR: _____
DATE: _____

EMT BASIC
ADMINISTRATION OF ASPIRIN
PROCEDURE CHECKLIST

NAME: _____
DATE: _____
COURSE LOCATION: _____

	Contact medical control
	Report assessment findings including signs and symptoms of chest pain as well as medications patient is currently taking
	Report prior interventions
	Request implementation of aspirin protocol
	Confirm orders from medical control
	Explain procedure and solicit patient consent
	Check expiration date
	Rule out allergies
	Confirm right medication, right patient, right route
	Confirm dosage 160-325 mg per local protocol (Dane County 240 mg)
	Instruct patient to chew the tablet(s)
	Continue to monitor patient status
	Continue oxygen therapy
	Repeat dosage per medical direction, if requested
	Document administration data and time
	o Time, name, dose, route of medication
	o Patient's tolerance of procedure
	o Name of medical control physician authorizing administration
	o Name of EMT administering medication
	Reevaluate patient response to medication administration

EVALUATOR: _____
DATE: _____

EMT BASIC
ADMINISTRATION OF EPINEPHERINE 1:1,000
(EpiPen autoinjector)

PROCEDURE CHECKLIST

NAME: _____
DATE: _____
COURSE LOCATION: _____

	Contact medical control
	Report assessment findings including signs and symptoms of anaphylaxis
	Report prior interventions
	Request implementation of EpiPen protocol
	Confirm orders from medical control
	Explain procedure and solicit patient consent
	Check expiration date
	Check clarity in clear window
	Confirm right medication, right patient, right route
	Rule out allergies
	Confirm dosage (Adult dose 0.3 mg) (Pediatric dose 0.15 mg)
	Expose mid-lateral thigh and cleans area with alcohol prep pad
	Grasp pen by forming fist around the unit (black tip down) NEVER put thumb, fingers or hand over black tip)
	Remove the gray safety release cap
	Hold pen in position on lateral thigh at a 90 degree angle
	Jab until pen clicks holding firmly in place for 10 seconds
	Remove pen from thigh and massage injection site
	Immediately dispose of Epi-Pen properly in sharps container
	Continue to monitor patient status
	Continue oxygen therapy
	Repeat dosage per medical direction, if requested
	Document administration data and time
	o Time, name, dose, route of medication
	o Patient's tolerance of procedure
	o Name of medical control physician authorizing administration
	o Name of EMT administering medication
	Reevaluate patient response to medication administration

EVALUATOR: _____
DATE: _____

EMT BASIC
ADMINISTRATION OF GLUCAGON
PROCEDURE CHECK LIST

NAME: _____
DATE: _____
COURSE LOCATION: _____

	Contact medical control
	Report assessment findings including signs and symptoms of hypoglycemia and blood glucose measurement
	Report prior interventions
	Request implementation of glucagon protocol
	Confirm orders from medical control
	Obtain consent and explain procedure, if possible
	Confirm right patient
	Rule out allergies
	Reconstitute glucagon
	o Inspect package and both vials insuring right medication, dose and expiration date
	o Remove "flip-off" seals from vials
	o Wipe rubber stoppers with alcohol prep-pad
	o Using sterile 3 ml IM syringe, remove needle protector from syringe
	o Draw plunger back to 1ml (cc) mark (syringe now contains 1ml of air)
	o Pierce the center of the stopper of the vial containing the diluting solution with the needle of the syringe
	o Turn the vial upside down and inject the 1 ml of air from the syringe into the vial (this procedure makes it easier to withdraw fluid from vial)
	o Keeping the tip of the needle in the diluent, withdraw fluid from vial into the syringe
	o Remove syringe from vial and pierce the center of the stopper of the vial, containing 1mg powdered glucagon, with the syringe
	o Inject all of the diluent into the glucagon
	o Remove the diluent syringe from the vial and dispose of in sharps container
	o Shake the vial gently until the glucagon dissolves and the solution becomes clear. Note: glucagons should be clear and waterlike in consistency. It should be utilized immediately after reconstituting.
	o Using a new syringe and appropriately sized needle, pierce the center of the rubber stopper and withdraw slightly more of the medication than the ordered dose
	o Remove the needle and syringe from the vial
	o With the needle pointing upward, gently tap the syringe to move any

	air bubbles to the top. Gently advance the syringe to the 1 ml mark. (Children less than 20 kg (44 lbs) a dose of 0.5 mg is used). Note: Dosage established by medical control must be administered
	Perform the IM injection
	o Cleanse the injection site using an alcohol prep-pad
	o Raise the injection site by pinching or stretching the flesh
	o Insert the needle into the selected and cleansed injection site at a 90 degree angle
	o Aspirate slightly by attempting to withdraw the plunger of the syringe. If no blood is seen to aspirate into the syringe, use light pressure to depress the plunger and inject all the medication. If blood is seen to aspirate, a second site must be used
	o Slowly depress the plunger to administer the injection
	o Wipe the injection site with an alcohol prep-pad
	o Properly dispose of the syringe and needle assembly in an appropriate sharps container and place a band-aid over the injection site
	Continue to monitor patient status
	Continue oxygen therapy
	Repeat dosage per medical direction, if requested
	Document administration data and time
	o Time, name, dose, route of medication
	o Patient's tolerance of procedure
	o Name of medical control physician authorizing administration
	o Name of EMT administering medication
	Reevaluate patient response to medication administration

EVALUATOR: _____

DATE: _____

EMT BASIC
ADMINISTRATION OF MARK 1 ANTIDOTE KIT
Containing Atropine & 2-PAM Chloride
PROCEDURE CHECKLIST

NAME: _____
DATE: _____
COURSE LOCATION: _____

	Use only when: S/S of exposure are present, the scene has been declared the site of a nerve agent release and contact with medical control has been made.
	Report assessment findings including signs and symptoms of exposure
	Request implementation of MARK 1 protocol for single rescuer
	Check expiration date
	Confirm right medication, right patient, right route
	Rule out allergies
	Confirm dosage (2mg Atropine, 600 mg 2-PAM chloride
	Expose mid-lateral thigh and cleans area with alcohol prep pad
	Administer **Atropine first** by grasping pen by forming fist around the unit (green tip down) NEVER put thumb, fingers or hand over black tip)
	Remove the yellow safety release cap
	Hold pen in position on lateral thigh at a 90 degree angle
	Jab until pen clicks holding firmly in place for 10 seconds
	Remove pen from thigh and massage injection site
	Immediately dispose of auto-injector properly in sharps container
	Administer **2-PAM chloride second** by grasping pen by forming fist around the unit (gray tip down) NEVER put thumb, fingers or hand over black tip)
	Remove the gray safety release cap
	Hold pen in position on lateral thigh at a 90 degree angle
	Jab until pen clicks holding firmly in place for 10 seconds
	Remove pen from thigh and massage injection site
	Immediately dispose of auto-injector properly in sharps container
	Continue to monitor status
	Continue oxygen therapy
	Repeat dosage per medical direction, if requested
	Document administration data and time
	o Time, name, dose, route of medication
	o Tolerance of procedure
	o Name of medical control physician authorizing administration
	o Name of EMT administering medication
	Reevaluate patient response to medication administration

EVALUATOR: _____
DATE: _____

EMT BASIC
ADMINISTRATION OF ALBUTEROL and/or ATROVENT METERED DOSE INHALER

PROCEDURE CHECK LIST

NAME: _____
DATE: _____
COURSE LOCATION: _____

	Contact medical control
	Report assessment findings
	Report prior interventions and use of inhaler
	Request implementation of assisted inhaler (MDI) protocol)
	Confirm orders from medical control
	Confirm mental status of patient to be alert
	Explain procedure and solicit patient consent
	Check expiration date
	Rule out allergies
	Confirm right medication, right patient, right route
	Confirm number of metered dosage
	Shake inhaler vigorously several times
	Assemble inhaler and/or spacer, if necessary
	Remove oxygen supply from existing patient adjunct
	Instruct patient to exhale deeply
	Have patient place the opening of the inhaler or spacer to their lips
	Instruct patient to activate inhaler while inhaling deeply
	Have patient attempt to hold their breath as long as comfortably possible before exhaling
	Continue to monitor patient status
	Continue oxygen therapy
	Repeat dosage per medical direction, if requested
	Document administration data and time
	o Time, name, dose, route of medication
	o Patient's tolerance of procedure
	o Name of medical control physician authorizing administration
	o Name of EMT administering medication
	Reevaluate patient response to medication administration

EVALUATOR: _____
DATE: _____

EMT BASIC
ADMINISTRATION OF NITROGLYCERINE
PROCEDURE CHECKLIST

NAME: _____
DATE: _____
COURSE LOCATION: _____

	Contact medical control
	Report assessment findings including signs and symptoms of chest pain as well as medications patient is currently taking
	Report prior interventions
	Request implementation of nitroglycerine protocol
	Confirm orders from medical control
	Explain procedure and solicit patient consent
	Check expiration date
	Confirm right medication, right patient, right route
	Rule out allergies
	Confirm dosage 0.4 mg nitroglycerine
	Instruct patient to lift tongue
	Place tablet or apply spray sublingually
	Have the patient attempt to keep mouth closed until medication is dissolved/absorbed
	Continue to monitor patient status (blood pressure particularly important)
	Continue oxygen therapy
	Repeat dosage per medical direction, if requested
	Document administration data and time
	o Time, name, dose, route of medication
	o Patient's tolerance of procedure
	o Name of medical control physician authorizing administration
	o Name of EMT administering medication
	Reevaluate patient response to medication administration

EVALUATOR: _____
DATE: _____

EMT BASIC
ADMINISTRATION OF ORAL GLUCOSE
PROCEDURE CHECKLIST

NAME: _____
DATE: _____
COURSE LOCATION: _____

	Contact medical control (if no standing order exists)
	Report assessment findings consistent with an ALOC associated with hypoglycemia, and patient's ability to maintain airway patency
	Report blood glucose reading
	Request implementation of protocol, if no standing order exists
	Confirm orders from medical control
	Explain procedure and solicit patient consent
	Check expiration date
	Confirm right medication, right patient, right route
	Confirm dosage
	Place small portions of oral glucose on a tongue depressor, pull back check, and deposit medication between the cheek and gum (option: squeeze small portions of glucose into the mouth between the cheek and gum)
	Repeat process until entire dose is given
	Continue to monitor patient status and maintain patent airway
	Document administration data and time
	o Time, name, dose, route of medicaiton
	o Patient's tolerance of procedure
	o Name of medical control physician authorizing administration
	o Name of EMT administering medication
	Reevaluate patient response to medication administration

EVALUATOR: _____
DATE: _____

EMT BASIC
GLUCOMETER

PROCEDURE CHECKLIST

NAME: _____
DATE: _____
COURSE LOCATION: _____

	Utilizes appropriate PPE
	Prepares equipment according to manufacturer's recommendations
	Obtains finger stick blood sample
	Applies blood drop to appropriate site (chemstrip or glucometer), initiates timing mechanism
	Places small dressing over finger stick site, with pressure
	Reads and records results
	Disposes of used items per protocol
	Evaluates patient condition
	Initiates appropriate management plan for patient

0 Successful

0 Unsuccessful

EVALUATOR: _____
DATE: _____

EMT BASIC
PULSE OXIMETRY

PROCEDURE CHECKLIST

NAME: _____
DATE: _____
COURSE LOCATION: _____

	Utilizes appropriate PPE
	Explains procedure to patient
	Removes nail polish, if present, from finger
	Removes earring if using earlobe
	Turns on pulse oximeter and calibrates
	Applies pulse oximeter probe to prepared area
	Monitors reading for trends
	Evaluates patient condition correlation to readings
	Initiates appropriate management plan for patient

0 Successful

0 Unsuccessful

EVALUATOR: _____
DATE: _____

EMT BASIC
ESOPHAGEAL-TRACHEAL COMBITUBE
PROCEDURE CHECKLIST

NAME: _____
DATE: _____
COURSE LOCATION: _____

	BSI precautions taken
	Opens airway, checks for foreign bodies, secretions, loose teeth, suctions as needed
	Inserts OPA or NPA, confirming absence of gag reflex
	Ventilates patient immediately with Pocket Mask or BVM (administer oxygen)
	Establish contact with medical control to activate protocol
	Determine cuff integrity Inflates cuffs Disconnect syringes Inspect cuffs and pilot balloons Deflate cuffs
	Prepares accessory equipment (syringes, BVM, lubricant, gastric tube, suction & stethoscope)
	Lubricate distal tips of pharyngeal and distal cuffs
	Preoxygenates patient
	Position patient supine with head in neutral position
	Remove oropharyngeal or nasophyarngeal airway
	Open patient's mouth by performing a tongue-jaw lift
	Insert Combitube following normal anatomical curve of the oropharynx, until black insertion markers align with patient's teeth/gums
	Inflate pharyngeal cuff with 100 mL of air using large syringe connected to #1 (blue) pilot valve
	Remove syringe and insure cuff inflation by squeezing #1 (blue) pilot balloon
	Inflate distal cuff with 15 mL of air using smaller syringe connected to #2 (white) pilot valve
	Remove syringe and insure cuff inflation by squeezing #2 (white) pilot balloon
	Attach BVM to primary (blue) tube and ventilate patient
	Confirm tube placement by auscultation of high axillary breath and epigastric sounds If breath sounds present, with no epigastric sounds, continue ventilations through esophageal (primary) tube If breath sounds absent, with presence of epigastric gurgling, switch BVM to tracheal (secondary) tube; confirm placement; continue ventilations
	Observe patient for chest rise and fall, patient color change and improvement

EVALUATOR: _____
DATE: _____

Generic Name:
Trade Names (list at least 2):

Mechanism of Action:
Indications:
Contraindications:
Side Effects:
Form:
Dose:
Route:
Cautions:

Generic Name:
Trade Names (list at least 2):

Mechanism of Action:
Indications:
Contraindications:
Side Effects:
Form:
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Generic Name:
Trade Names (list at least 2):

Mechanism of Action:
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Trade Names (list at least 2):

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Trade Names (list at least 2):

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