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First Responder Refresher

National Standard Curriculum

First Responder Refresher: National Standard Curriculum

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Preface

The National Highway Traffic Safety Administration (NHTSA) has assumed responsibility for the development of training courses that are responsive to the standards established by the Highway Safety Act of 1966 (amended). Since these training courses are designed to provide national guidelines for training, it is NHTSA's intention that they be of the highest quality and be maintained in a current and up-to-date status from the point of view of both technical content and instructional strategy. To this end, NHTSA supported the current project which involved creation of the *First Responder Refresher: National Standard Curriculum,* deemed of high value to the states in carrying out their training programs. This course revision is being co-sponsored by the Maternal and Child Health Bureau, U.S. Department of Health and Human Services. Additional funding for this project was provided as in-kind services of the Center for Emergency Medicine. This course is one of a series of courses making up a National EMS education program for out-of hospital care. The First Responder is a designated level of emergency medical care provider as outlined by the *National EMS Education and Practice Blueprint*.

Following the revision of the *First Responder: National Standard Curriculum*, the Center for Emergency Medicine recommended to NHTSA that the *First Responder Refresher: National Standard Curriculum* be developed. An extension of the original contract was awarded for this purpose.

The First Responder is an integral part of the Emergency Medical Services System. The term "first responder" has been applied to the first individual who arrives at the scene regardless of the individual's type of credential. It is the goal of the *First Responder: National Standard Curriculum* to provide students with the core knowledge, skills and attitudes to function in the capacity of a first responder. The First Responder uses a limited amount of equipment to perform initial assessment and intervention and is trained to assist other EMS providers. This level of provider is not intended to be utilized as the minimum staffing for an ambulance. Enrichment programs and continuing education will help fulfill other specific needs for the First Responder training.

It is recognized that there may be additional specific education that will be required of First Responders who operate in the field. It is also recognized that practice might differ from locality to locality, and that each training program, or system should identify and provide additional training requirements. Consistent with the intent and design of the

National EMS Education and Practice Blueprint, some EMS systems will incorporate additional skills into the scope of practice of the First Responder.

Process

The First Responder Refresher: National Standard Curriculum was designed and developed by a Curriculum Development Group (CDG) of emergency medicine and education experts. These experts met to review, edit, and critique the developmental document. The Co-Medical Directors reviewed, critiqued, and approved the medical content of the curriculum. The Co-Principal Investigators and the Project Director actually put the "pen-to-paper" once the objectives and format were approved by the CDG.

Cardiopulmonary Resuscitation

This curriculum contains many of the knowledge and skill objectives of cardio-pulmonary resuscitation. In order to maintain an up-to-date curriculum, the didactic material has not been reproduced. Instructors must utilize the current American Heart Association Guidelines and teaching strategies as the basis for instruction in Module 2: Airway and Module 4: Circulation. In some states, or EMS systems, issuance of a "successful completion" card for CPR may be required to practice as a First Responder. Meeting the objectives of this program provides the First Responder with the ability to perform CPR; but the program does not contain all of the prevention and recognition material within the guidelines established by the American Heart Association. During the program, if issuance of a CPR card is desirable or required, additional information must be added to the program. Testing and/or other course requirements for issuance of a specific agency's CPR card will need to be completed within the First Responder Refresher Training Program. Requirements for issuing a successful completion card may be obtained from the local CPR training agency or your State Office of Emergency Medical Services.

Integration with the Blueprint

The National EMS Education and Practice Blueprint, adopted through a national peer review and consensus process, guided the development of this curriculum. This constitutes the minimum national knowledge and skill competencies for a First Responder, who is identified in the Blueprint as an individual who:

> *"...uses a limited amount of equipment to perform initial assessment and intervention and is trained to assist other EMS providers."*

As part of a consistent, organized, state-wide approach to the education and certification/licensure of First Responders, state EMS offices may wish to supplement this minimum national standard curriculum with additional knowledge and skills. However, to be consistent with the intent and philosophy of the *National EMS Education and Practice Blueprint,* state-wide additions to the First Responder's education and scope of care should reflect the Blueprint's continuum of knowledge and skills.

Each level of knowledge and skill includes all previous levels. If knowledge or skill items are "out of synch" with the logical continuum, the utility and value of the Blueprint is significantly decreased. For example, in the Core Component of CIRCULATION, Automated Defibrillation is the next skill above First Responder and comes before Pneumatic Anti-Shock Garment (PASG). Therefore, if the PASG is a skill added by a state to the First Responder Program, consistency with the Blueprint would require that AED be included also.

When knowledge and skills are added to the First Responder's scope of care, the additional information should be consistent with the corresponding levels of the next higher level of national curriculum. For instance, if a state requires automated external defibrillation at the First Responder level, the corresponding lesson from the *1994 EMT-Basic: National Standard Curriculum* should be used thus assuring a logical, inclusive continuum of education.

Vital signs, supplemental oxygen, automated defibrillation, simple immobilization and other knowledge or skills may be added to the First Responder program and remain consistent with the Blueprint providing they are allowable by the state EMS office, occur in the same order identified in the Blueprint continuum, and reflect the content of the *1994 EMT-Basic: National Standard Curriculum.*

Medical Oversight Statement

Medical oversight should exist for the First Responder to help ensure quality care. This should occur in the context of the local EMS System's medical oversight. The primary role of the physician will be to supervise the development of patient care protocols and to respond to questions about patient care issues.

Quality improvement is also a required component of EMS training. The role of medical oversight is paramount in ensuring the highest quality out-of-hospital care. Medical directors should work with individuals and systems to review out-of-hospital cases and

achieve a sound method of continuous quality improvement.

Curriculum

History
The First Responder Refresher: National Standard Curriculum was designed and developed based on the 1995 release of the First Responder: National Standard Curriculum. This refresher curriculum should be used in conjunction with a task analysis of student needs, the *National EMS Education and Practice Blueprint*, the 1995 First Responder: National Standard Curriculum, the 1994 EMT-Basic: National Standard Curriculum and state guidelines for refresher training.

Course Goals

This instructor's course guide has been designed and developed to assist the course coordinator, instructors, and others in planning, managing and teaching the First Responder Refresher: National Standard Curriculum. The goals and objectives of this curriculum are to maintain the quality of emergency medical care.

This course is designed to refresh a student to the level of First Responder, who serves as a vital link in the chain of the health care team. To assist instructors, course directors and students, the objectives of the 1995 First Responder: National Standard Curriculum have been retained. It is not the intent of the course to introduce new material, but to ensure that the students have the necessary knowledge and skills to continue to function as First Responders. This curriculum includes skills necessary for the individual to provide emergency medical care with a limited amount of equipment. Specifically, after successful completion of the program, the student will be capable of performing the following functions at the minimum entry level:

- Recognize the seriousness of the patient's condition or extent of injuries to assess requirements for emergency medical care;

- Administer appropriate emergency medical care for life threatening injuries relative to airway, breathing and circulation;

- Perform safely and effectively the expectations of the job description.

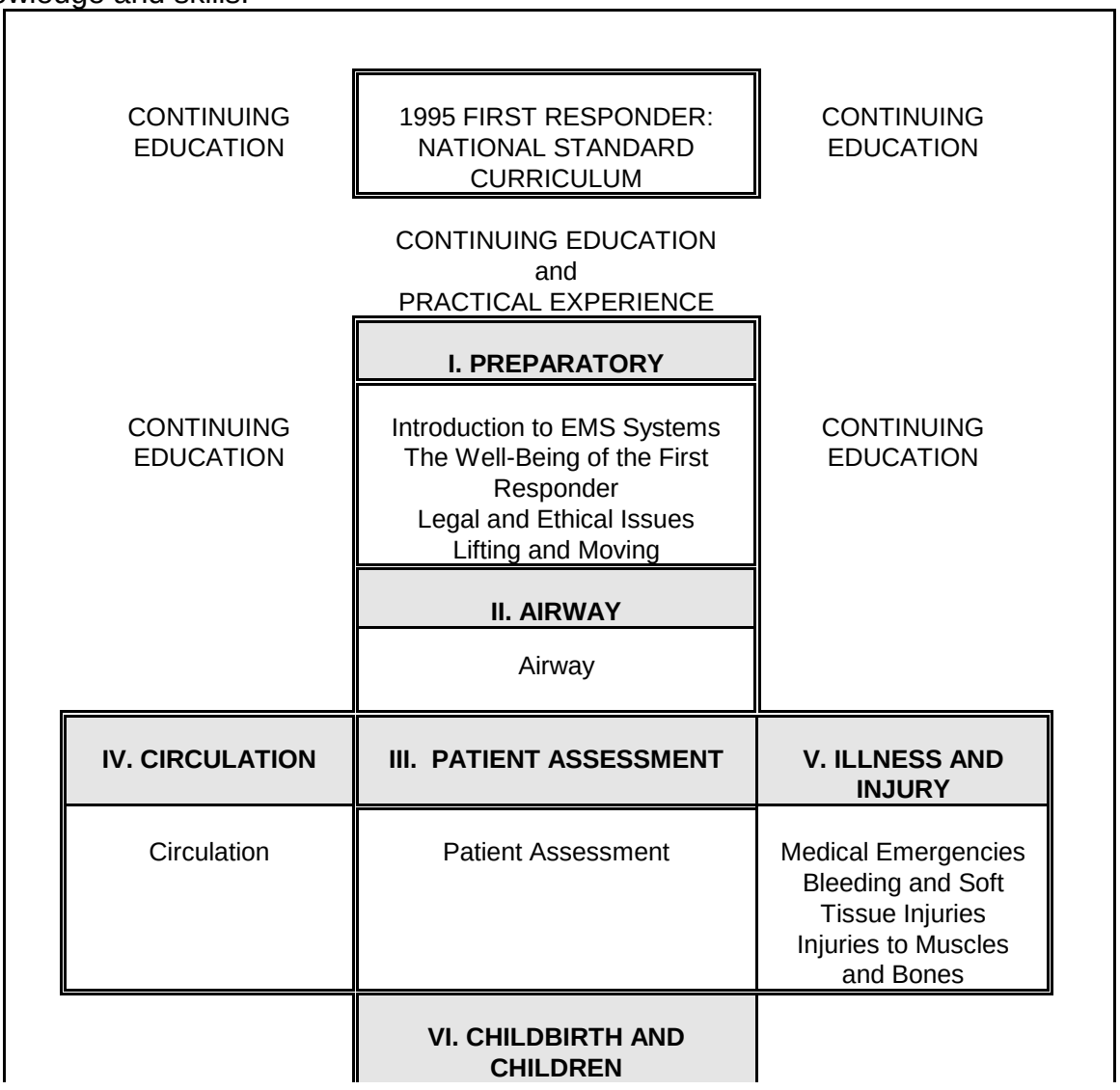
It is obvious that First Responders provide a service in an environment requiring special skills and knowledge. They also serve as liaisons with other emergency services. This course provides for the maintenance of these concepts. Individual orientation to the

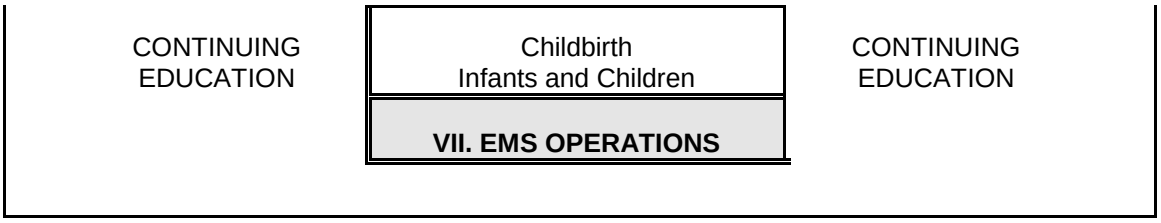
specific systems and services with which the First Responder will be affiliated is necessary to achieve a full level of competency within a specific organization.

FIRST RESPONDER REFRESHER: NATIONAL STANDARD CURRICULUM

Diagram of Educational Model

The entire curriculum is surrounded by continuing education, which is designed to reflect two primary goals. First, during the instruction of the First Responder Refresher: National Standard Curriculum, additional continuing education in related content may be provided. Second, continuing education is an integral component of any educational process and the First Responder should be committed to continuous improvement of knowledge and skills.





Course Design

Module 1 Preparatory

Lesson 1-1
Introduction to EMS Systems
Reviews the introductory aspects of emergency medical care. Topics include the roles and responsibilities of the First Responder, quality improvement, and medical oversight.

Lesson 1-2
Well-Being of the First Responder
Reviews the emotional aspects of emergency medical care, stress management, introduction to Critical Incident Stress Debriefing (CISD), scene safety, body substance isolation (BSI), personal protection equipment (PPE), and safety precautions that can be taken prior to performing the role of a First Responder.

Lesson 1-3
Legal and Ethical Issues
Reviews the scope of practice, ethical responsibilities, advance directives, consent, refusals, abandonment, negligence, duty to act, confidentiality, medical identification symbols, and crime scenes.

Lesson 1-4
The Human Body
This lesson has been deleted for the refresher course.

Lesson 1-5
Lifting and Moving Patients
Provides students with a review of body mechanics, lifting and carrying techniques, and principles of moving patients.

Module 2 Airway

Lesson 2-1
Airway

Reviews airway anatomy and physiology, how to maintain an open airway, pulmonary resuscitation, variations for infants and children, as well as patients with laryngectomies. The use of airways, suction equipment, and barrier devices will be discussed in this lesson. Also included is the management of foreign body airway obstructions.

Module 3 Patient Assessment

Lesson 3-1
Patient Assessment
Reviews the First Responder's ability to evaluate a scene for potential hazards, to determine the number of patients, whether additional help is necessary, and to evaluate the mechanism of injury or nature of illness. This lesson reviews the knowledge and skills to properly perform the initial assessment. In this session, the student will review the methods of forming a general impression, determining responsiveness, and assessing the airway, breathing, and circulation. Students will reevaluate how to determine priorities of patient care. This lesson also teaches the knowledge and skills required to continue the assessment and management of the ill or injured patient.

Module 4 Circulation

Lesson 4-1
Circulation
This lesson provides the First Responder with a review of the knowledge and skills of chest compressions and ventilation for adults, children, and infants.

Module 5 Illness and Injury

Lesson 5-1
Medical Emergencies
Reexamines the recognition and management of general medical complaints, seizures, altered mental status, environmental emergencies, behavioral emergencies, psychological crisis, and typical patient situations.

Lesson 5-2
Bleeding and Soft Tissue Injuries
Describes the care of the patient with internal and external bleeding, and reviews the management of soft tissue injuries and burns. Techniques of dressing and bandaging wounds will also be discussed in this lesson.

Lesson 5-3
Injuries to Muscles and Bones
Presents information about injuries of the skeletal system. Reexamine injuries to the spine and head, including the mechanism of injury, signs and symptoms of injury, and assessment.

Module 6 Children and Childbirth

Lesson 6-1
Childbirth
Demonstrates deliveries and newborn care.

Lesson 6-2
Infants and Children
Reviews information regarding common medical and trauma situations in infants and children.

Module 7 EMS Operations

Lesson 7-1
EMS Operations
This lesson has been deleted for the refresher course.

Instructors will note that practical skills lessons and modular evaluations have been removed to create the refresher course. If your needs analysis determines that students need additional practical skills labs, the lessons from the parent curriculum may be incorporated as a lesson.

How to Use the Curriculum and Lesson Plans

Remember that this is a refresher program, designed to assist in reviewing materials from the parent **First Responder: National Standard Curriculum.** If your program, state or region desires to include material from that course, you should do so. There are seven modules of instruction in the refresher course. There are 12 lessons within the seven modules. Each lesson has the following components:

Objectives

The objectives are divided into three categories: Cognitive, Affective, and Psychomotor.

Cognitive	Affective	Psychomotor
thinking--	**emotional response--**	**physical process--**
knowledge	feelings	physical movement
comprehension	emotional intensity	skilled activities
application		

To assist with the design and development of a specific lesson, each objective has a numerical value, e.g., 3-1.1. The first number is the module of instruction, followed by a hyphen and the number of the specific lesson. For example, 3-1.1 is:

Module 3:	Patient Assessment
Lesson 3-1:	Patient Assessment
Objective 3-1.1	Recognize hazards/potential hazards. (C-1)

At the end of each objective is a letter for the type of objective: C = Cognitive; A = Affective; and P = Psychomotor. (The example above is cognitive). The number following the type of objective represents the level of objective: 1 = Knowledge; 2 = Application; and 3 = Problem Solving. (The example above is knowledge).

As the First Responder Refresher Student is responsible for all of the parent knowledge and skills, all of the parent objectives have been retained in the refresher course. To assist the instructor in identifying material that is not included in the refresher lesson plans, these objectives have been asterisked and italicized.

Preparation

Motivation -- Each lesson has a motivational statement that should be read by the instructor prior to teaching the lesson. It is not the intent for the instructor to necessarily read the motivational statement to the students, but more importantly to be familiar with its content and to be able to prepare the students or explain why this lesson is important.

Materials

Audio Visual (AV) Equipment -- In recent years, high quality video materials have become available for the EMS community. They should be used as an integral part of the instruction in this program. The course coordinator should ensure in advance that the necessary types of AV equipment are available for the class. If possible, the course administrator should have a video library available for the student.

Emergency Medical Services (EMS) Equipment

Each lesson plan contains a list of equipment that should be available for instruction.

Personnel

Primary Instructor
Assistant Instructor (Refresher students may be able to serve in this capacity.)

Program personnel are a primary instructor and an assistant instructor. Their roles of the program personnel are discussed in more detail under Program Personnel.

Recommended Minimum Time to Complete
Each lesson plan has a recommended minimum time for completion. Because of the varying nature of adult learners the enrichment and the need for remediation. lessons may require additional time. Time limits may be extended to bring the students to the full level of competency.

Presentation

Declarative (What) -- This is the cognitive lesson plan, the information that the instructor provides the students. This may be accomplished by various methods, including lectures, small group discussion, and the use of audio-visual materials. Demonstrations, if the instructor desires, may be used as part of the instruction. The instructor must be well versed in the entire content of the lesson plan. It is not appropriate to read the lesson plans word for word to the students. Lesson plans should be considered dynamic documents that provide guidelines for the appropriate flow of information. The instructor's lesson plans should be based upon local practice, national standards, and scientific evidence approved by the Course Medical Director. The instructor should feel free to write notes in the margins and make the lesson plan his own.

Application

Procedural (How)
This is the skills portion of the program. The students should be able to demonstrate competency in all skills listed in each section. If the declarative (what) content was presented as a lecture, the instructor should perform demonstrations prior to having the students perform the skills. If the instructor performed a demonstration as part of the declarative component, the students may begin by practicing skills in the practical setting.

Students should be praised for their progress. For those students having difficulty

performing a skill or skills, remediation is required. It is well known that a demonstration must be followed by practice, which must be drilled to a level that assures mastery of the skill. It has been proven that demonstration followed as soon as possible by organized, supervised practice enhances mastery and successful applications.

Contextual (When, Where, and Why)

This section is designed to help the students understand the application of their knowledge and skills relating to their performance as First Responders. This section relates back to the motivational statement and represents the reasoning as to why, where, and when a First Responder would need to use the knowledge or perform the skills. It is of utmost importance that the instructor be familiar with the intent of this section and relay that intent to the students.

Student Activities

Students learn by various methods. The three learning styles are auditory, visual, and kinesthetic (A-V-K). The intent of this section is to ensure that the content of the curriculum is presented to meet the needs of the three different types of learning styles. These three areas should not necessarily be used separately from the lesson plan, but as an adjunct to it. An attempt to provide instruction to the student with these three types of modalities will enhance student learning. Instructors should feel free to add additional A-V-K experiences appropriate for each lesson.

Auditory (Hearing)

This section allows the instructor to provide material in an orally. Students who learn best by hearing will benefit from this method of instruction.

Visual (Seeing)

This section allows the instructor to provide material in a visually. Visual learners will benefit from this method of instruction.

Kinesthetic (Doing)

This section allows the instructor to teach material by having the students perform the skill. Those students who learn best by doing will benefit from this method of instruction.

Instructor Activities

This section is to remind the instructors that they should always supervise student practice and praise progress. They should reinforce student progress in cognitive, affective, and psychomotor domains. If students are having difficulty understanding the content or performing the skills, the instructor should redirect them. If additional time is needed to complete this task beyond the assigned times of the program, the instructor should complete a remediation form to schedule additional assistance for the student or group of students experiencing difficulty with the task.

Evaluation

Written --The instructor should design and develop various quizzes, verbal reviews, handouts, and any other desired materials for the students. Ideally, the instructor should provide a brief quiz after every lesson to determine if the students are comprehending the material.

Practical -- The instructor should provide students with practical evaluations when applicable. The skill sheets provided within the curriculum will assist the students in preparing for field performance and the final practical evaluation. State EMS Offices and program personnel should work together to determine minimum performance for successful course completion.

Remediation

The intent of this section is to ensure that the instructor meets the needs of those students who are experiencing difficulty understanding the material or performing practical skills. Remediation sheets supplied in this guide will enable the instructor to keep track of those students. If a student requires remediation frequently, a decision should be reached as to whether the student should continue in the program. (see Appendix D for Remediation sheet.)

Enrichment
This section is designed to allow the instructors, the course medical director, the course coordinator, the region, or state to add additional information, or augment the curriculum. Anything that is unique to your area should be added. Refer to Appendix C for an Enrichment Lesson Plan.

Instructors

Assessing Student Achievement

This training program includes several methods for assessing student achievement. As mentioned before, quizzes of the cognitive and affective domains should be provided at the completion of each lesson. Time is allocated at the end of each module of instruction for a cognitive and psychomotor evaluation. The primary instructor in conjunction with the course coordinator, program director, and course medical director is responsible for the design, development, administration and grading of all written and practical examinations. The instructor should feel free to use outside agency-approved psychomotor evaluation instruments or those found in texts. All written examinations used within the program should be valid and reliable and conform to psychometric standards. Instructors should be encouraged to use outside sources to validate examinations and/or as a source of classroom examination items.

The primary purpose of this course is to refresh students to meet the job expectations for a First Responder. Each student, therefore, must demonstrate attainment of knowledge, attitude, and skills in each area taught in the course. It is the responsibility of the course coordinator, medical director, primary instructor, and educational institution to assure that students obtain proficiency in each module of instruction before they proceed to the next area. If after counseling and remediation a student is not able to demonstrate the ability to learn specific knowledge, attitudes, and skills, the program director should not hesitate to dismiss the student. The level of knowledge, attitude and skills attained by a student in the program will be reflected in performance on the job as a First Responder. It is not the responsibility solely of the certifying examination to assure competency over successful completion of the course. Program directors should recommend only qualified candidates for licensure, certification or registration.

Requirements for successful completion of the course are as follows:

Cognitive - Students must obtain passing grades on all module examinations and the final examination. Special remedial sessions may be utilized to assist in the completion of a lesson or module of instruction. Scores should be in accordance with accepted practices.

Affective - Students must demonstrate conscientiousness and interest in the program. Students who do not should be counseled while the course is in progress in order to provide them the opportunity to

develop and exhibit the proper attitude expected of a First Responder.

Psychomotor - Students must demonstrate proficiency in all skills in each testing session of selected topic areas and mastery of skills in the final examination. Special remedial sessions may be utilized to assist in the completion of a lesson or module of instruction. Pass/fail scores should be in accordance with accepted practices. Usage of the skill measurement instruments within this curriculum or developed by way of a valid process is strongly recommended to achieve maximum results with the students.

The additional areas that should be utilized for evaluation of student achievement include:

Personal Appearance - Each student should be neat, clean, well groomed, and physically fit to perform the minimal entry-level job requirements. Students who do not exhibit good hygiene habits should be counseled while the program is in session to provide them with the opportunity to correct the habits.

Attendance - Students are required to attend all lessons. At the discretion of the program director or designee, a student missing a lesson may demonstrate the fulfillment of all cognitive, affective, and psychomotor objectives covered in the missed lesson.

Program Personnel

There are several sets of responsibilities required to present the First Responder Refresher program. These identified roles and responsibilities are a necessary part of each First Responder Refresher course. The individuals carrying them out may vary from program to program and from locality to locality as the roles may interface and overlap. In fact, one person, if qualified, may carry out all of the roles in some programs.

For clarity, the following terms are defined as they will be used throughout this document.

Program Director: The program director is responsible for course planning, operation, and evaluation. While the Program Director is responsible for the overall operation of the education experience, this person need not be qualified or involved in

the actual instruction of specific course lessons. The Program Director is responsible for First Responder Refresher course planning.

Course Coordinator: The Course Coordinator is the individual responsible for coordinating and conducting the First Responder Refresher program. The Course Coordinator acts as the liaison among the students, the sponsoring agency, the local medical community, and the state-level certifying or licensing agency and is responsible for assuring that the course goals and objectives (and those set forth by any licensing, registering, or certifying agency as applicable) are met. The Course Coordinator may also serve as the Primary Instructor.

Primary Instructor: The Primary Instructor must be knowledgeable in all aspects of out-of-hospital emergency medical care, in the techniques and methods of adult education, and in managing resources and personnel. This individual should have attended and successfully completed a program in EMS instruction methodology. The Primary Instructor should be present at most, if not all, class sessions to assure program continuity and to be able to identify that the students have the cognitive, affective, and psychomotor skills necessary to function as a First Responder. This person is responsible for the teaching of a specific lesson of the First Responder Refresher course. This individual should have attended a workshop that reviews the format, philosophy, and skills of the new curriculum.

Assistant Instructor: This person assists the Primary Instructor of any lesson in the demonstration and practice designed to develop and evaluate student skill competencies.

Course Medical Director: The program should have a course Medical Director. The need for an active medical director increases as the state adds enhancements to the scope of practice as reflected in the *National EMS Education and Practice Blueprint*. When utilized, the Course Medical Director, Course Coordinator, and the Primary Instructor should work closely together in preparing and presenting the program. The Course Medical Director may also serve as the Primary Instructor for one or more or all lessons. The Course Medical

Director must be a physician knowledgeable of state EMS rules, EMS system configuration, national standards of care, and educational principles.

Philosophy Regarding Adult Learners

Individuals participating in this educational program should be considered adult learners even in those programs instructing students younger than age 18. Adult learners are responsible for their own learning. There are several characteristics regarding the adult learner as a First Responder Refresher student.

1. These students have already been certified as First Responders; therefore they have attained the knowledge, skills and attitudes of the profession.

2. First Responder Refresher students usually want to enhance knowledge and skills they have learned.

3. First Responder Refresher students are interested in learning new concepts and principles; they enjoy situations that require problem-solving, not necessarily learning facts. It is less difficult for them to use the concepts and principles they have gained if they are able to participate actively in the learning process.

4. First Responder Refresher students learn best if they are able to proceed at their own pace.

5. Motivation is increased when the content is relevant to the immediate interests and concerns of the First Responder Refresher student.

6. Immediate feedback is essential to the First Responder Refresher student, who needs to be kept informed of progress continuously.

One intent of this refresher curriculum is to alter the methods of instruction used by the instructor. This curriculum has been designed and developed to reduce the amount of lecture time and move towards an environment of discussion and practical skills. This way both learners and instructors are active in the process of learning.

Some Principles of Adult Education

1. Attract and maintain the attention of the First Responder Refresher student.

If instructors get off to a bad start, it is often because they are not able to successfully gain and maintain the attention of the student. In these situations, students may be enthusiastic when they arrive and disappointed when they leave.

A clear statement of the purpose of each lesson is of utmost importance in gaining the student's attention. This may be accomplished by using the information found in the motivational statement or the contextual statement of the lesson plan.

There are many methods that may be used to gain the student's attention, e.g., telling a relevant anecdote, posing a unique situation, or asking how they would solve a problem. Once the attention of the student is gained, it must be maintained throughout the entire lesson. After about 15-20 minutes of presentation, it is essential that the student be reinvolved in the learning process. Three methods are often utilized to keep the students active in the process: questioning, brainstorming, and demonstration.

Questions should be used to promote thought, to evaluate what has been learned, and to continuously move students toward their desired goal. Questioning students keeps them actively involved and keeps them thinking. It is also appropriate to ask rhetorical questions that are not meant to be answered by the student, but that encourage thinking. Questions should be open-ended, that is questions should not have "yes" or "no" answers. Questions should be a significant part of the lesson and should be used in both didactic and practical presentation.

Brainstorming is a special and different type of questioning. This process generates a wide variety of creative ideas. There is no right or wrong answer, only creative thinking. A question is posed to the students, and they are then allowed to provide as many answers as possible. After all the ideas have been presented, the students can be moved toward the appropriate and important points.

The third technique is demonstration, which bridges the gap between theory and practice. When demonstrating, it is beneficial to involve the students in the process. Demonstration should be used during the didactic component of the presentation to break up long runs of lecture material.

2. Make the presentation clear and keep it organized.

By following the lesson plans, instruction can be clear and organized. However, there are some additional tips that may assist further.

1. Tell the students what you are going to tell them.
2. Tell them.
3. Show them.
4. Let them try.
5. Observe.
6. Praise progress and redirect.
7. Tell them what you have told them.
8. Have them summarize what they have learned.

To help keep lessons clear, the students should know the objectives. The objectives should be presented to the students on the first day of class. It may be beneficial to give students the written lesson plans and allow them to write additional information in the margins.

Conducting Patient Care Simulations in the Classroom

Adults crave hands on training. One very effective method of teaching is the use of a patient care simulation in the classroom. This is actually acting out an EMS call to give the student the opportunity to respond with equipment, evaluate the scene, assess the patient, control life threats and do any of the treatments covered in the course which would be appropriate while waiting for the ambulance to arrive.

Simulations give students the opportunity to demonstrate integration of the course=s cognitive, affective, and psychomotor objectives into a real life scenario while working with a team of first responders. This is an application which Aputs it all together@ for the student as they will find patients in the field by incorporating their ability to hear, see, and do as well as begin to emphasize teamwork and leadership skills.

Continuing Education

It will be necessary to provide updates to the primary instructor and assistant instructors regarding new curriculum material, and annual updates should be scheduled to inform instructors of current trends in out-of-hospital emergency medicine.

Students

Job Description - First Responder

The First Responder may function in the context of a broader role, i.e., law enforcement, fire rescue, or industrial response. With a limited amount of equipment, the First Responder answers emergency calls to provide efficient and immediate care to ill and injured patients. After receiving notification of an emergency, the First Responder safely responds to the address or location given.

- Functions in uncommon situations;
- Has a basic understanding of stress response and methods to ensure; personal well-being;
- Has an understanding of body substance isolation;
- Understands basic medical-legal principles;
- Functions within the scope of care as defined by state, regional and local regulatory agencies;
- Complies with regulations on the handling of the deceased, protection of property and evidence at scene, while awaiting additional EMS resources;

Before initiating patient care, the First Responder will "size-up" the scene to determine that the scene is safe, to identify the mechanism of injury or nature of illness, and the total number of patients, and to request additional help if necessary. In the absence of law enforcement, creates a safe traffic environment. Using a limited amount of equipment, renders emergency medical care to adults, children, and infants based on assessment findings. Duties include but are not limited to:

- Opening and maintaining an airway;
- Ventilating patients;
- Administering cardiopulmonary resuscitation;
- Providing emergency medical care of simple and multiple system trauma such as:
  - Controlling hemorrhage,
  - Bandaging wounds,
  - Manually stabilizing injured extremities.
- Providing emergency medical care to:
  - Assist in childbirth
  - Manage general medical complaints, altered mental status, seizures, environmental emergencies, behavioral emergencies and psychological

crises.

- Searching for medical identification emblems as a guide to appropriate emergency medical care.
- Reassuring patients and bystanders by working in a confident, efficient manner.
- Avoiding mishandling and undue haste while working expeditiously to accomplish the task.

Where a patient must be extricated from entrapment, assesses the extent of injury and assists other EMS providers rendering emergency medical care and protection to the entrapped patient. Performs emergency moves and assists other EMS providers in the use of the prescribed techniques and appliances for safely removing the patient. Under the direction and supervision of other EMS providers, assists in lifting the stretcher, placing the stretcher in the ambulance, and seeing that the patient and stretcher are secured. If needed, radios the dispatcher for additional help or special rescue and/or utility services. In cases of multiple patients, performs basic triage.

Reports directly to the responding EMS unit or communications center the nature and extent of injuries, the number of patients, and the condition of each patient. Identifies assessment findings that may require communicating with medical oversight for advice.

Constantly assesses patient while awaiting additional EMS resources. Administers additional care as indicated.

Orally reports their observations and emergency medical care of the patient to the transporting EMS unit. Upon request, provides assistance to the transporting unit staff.

After each call, restocks and replaces used supplies, cleans all equipment following appropriate disinfecting procedures, and carefully checks all equipment to ensure availability for next response.

Attends continuing education and refresher education programs as required by employers, medical oversight, and licensing or certifying agencies.

Meets qualifications within the functional job analysis.

Continuing Education and Its Importance in Lifelong Learning

This curriculum is designed to provide the student with the essentials to serve as a First

Responder. Employers and service chiefs are strongly encouraged to integrate new graduates into specific orientation training programs.

It is important to understand that this curriculum does not provide students with extensive knowledge in hazardous materials, blood-borne pathogens, emergency vehicle operations, or rescue practices in unusual environments. These areas are not core elements of education and practice as identified in the *National EMS Education and Practice Blueprint*. Identified areas of competency not specifically designed within the First Responder: National Standard Curriculum may be taught in conjunction with this program as a local or state option.

Environment

Classroom Environment

The intent of the refresher curriculum is to allow for greater interaction between students and instructors. The instruction should be highly experiential and interactive. By using the procedural (how) section of the application area of the lesson plan as well as the kinesthetic (do) component of the student activity section, the instructor should be able to enhance the educational experience for the students.

Maintaining Records

It is recommended that the Program Director/Course Coordinator maintain, as a minimum, information on the following:

- Student attendance and performance at each lesson, including comments as appropriate regarding need for improvement in skills, knowledge, attitudes, or personal habits.
- Results of evaluation and counseling sessions.
- Grades for each written examination and completed checklists for each skill evaluation.
- Number and qualifications of the instructional team.

- Instructor performance.
- Cost: total program costs, costs for each program element, and costs per student.
- Lists of enrichments and add-on courses taught in conjunction with the program.
- Results of course entry examinations and qualifications as required by the certifying agency, state EMS office, course medical director, or training institution.

Credentialing

In addition to course completion state regulatory agencies may require specific evaluation of cognitive and/or psychomotor performance prior to official licensure, certification, or registration as a First Responder. The National Registry of EMTs is a recognized agency that provides examinations for such certification and registration. The program director should contact the State Office of Emergency Medical Services for licensure, certification, or registration information.

Program Evaluation

On-going evaluation of the program must be conducted to identify instructional or organizational deficiencies affecting student performance. The evaluation process should be two-fold in nature, objective and subjective. Two main methods of objective evaluation generally used are:

1) How well do students measure up to standardized examination?
2) How well do First Responders practice in accordance with established standards of care?

Group and individual deficiencies may indicate problems in the training program.

Subjective evaluation should be conducted at regular intervals by providing students with written questions on their opinions of the program's strengths and weaknesses. Students should be given the opportunity to comment on the primary and assistant instructors, presentation styles and effectiveness. Students should also be asked to comment on the program's compliance with specified course of instruction, the quality and quantity of psychomotor skills labs, and the face validity of the examinations.

The purpose of this evaluation process is to strengthen future training efforts. All information obtained as part of the subjective evaluation should be reviewed for legitimacy and possible incorporation into the course. Due to the important nature of this educational program, every effort should be made to ensure instruction of the highest quality.

Facilities

The physical environment of the First Responder Refresher program is a critical component for the success of the overall program. The facility should have a large hall with sufficient space for seating all students. Abundant space should be made available for demonstrations. Additional rooms or adequate space should be available as a practice areas.

It is recommended that all the required equipment for the program be stored at the facility for ready availability. The facility should be well lit for adequate viewing of various types of visual aids and demonstrations. Heating and ventilation should assure student and instructor comfort, and the seats should be comfortable with desk tops or tables for taking notes. There should be an adequate number of tables for display of equipment, medical supplies, and training aids. A chalkboard (flip chart or grease board) should be in the main hall. A projection screen and appropriate audio visual equipment should be located in the presentation facility. If possible, light switches should be conveniently located in the presentation area. The practice areas should be carpeted and large enough to accommodate six students, one instructor, and the necessary equipment and medical supplies. Tables should be available for practice areas, with appropriate and sufficient equipment and medical supplies.

Course Cost

The cost for the provision of the First Responder Refresher education varies widely across the nation. Training considerations provided in this section may serve as a basis for estimating costs for conducting a First Responder Refresher program. Additional costs will be incurred in the management and evaluation of the program. Specifically, the course director should consider costs associated with the following:

1. Compensation

- Program director
- Medical director

- Course coordinator
- Primary instructor
- Assistant instructors

2. Facilities

- Classroom and associated equipment (tables, chairs, audio-visual equipment)
- Field and clinical training facilities
- Office space and associated equipment (desks, chairs, files)

3. Materials

- Emergency medical care equipment and supplies
- Educational aids (slides, film, video, flip chart, projection equipment, screens, handouts)
- Documents, e.g., Instructor's Course Guide, Instructor's Lesson Plans, text material, study guides, reference books

Student and instructor recruiting materials, registration forms, data collection forms, records and reports, and postage should be considered in the formal budget.

4. Travel and per diem, as appropriate

- Medical director
- Program director
- Course coordinator
- Primary instructor
- Assistant instructors
- Students

5. Examination and certification costs

Examination and certification costs are as specified by the state emergency medical services office. If it is necessary to provide instruction to the primary instructor or assistant instructors, that cost should also be considered in calculating the overall cost of the First Responder Refresher program. In addition, it will be necessary to provide updates to the primary instructor and assistant instructors regarding new curriculum material. Annual updates should be scheduled to inform instructors of current trends in out-of-hospital emergency medicine.

Module 1: Preparatory
Lesson 1-1 Introduction to EMS Systems

Objectives

Objectives Legend

C=Cognitive P=Psychomotor A=Affective

1 = Knowledge level
2 = Application level
3 = Problem-solving level
**Indicates material that is not included in the Refresher Course Lesson Plan.*

Cognitive Objectives

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

**1-1.1 Define the components of Emergency Medical Services (EMS) systems. (C-1)*

1-1.2 Differentiate the roles and responsibilities of the First Responder from other out-of-hospital care providers. (C-3)

1-1.3 Define medical oversight and discuss the First Responder's role in the process. (C-1)

1-1.4 Discuss the types of medical oversight that may affect the medical care of a First Responder. (C-1)

1-1.5 State the specific statutes and regulations in your state regarding the EMS system. (C-1)

Affective Objectives

1-1.6 Accept and uphold the responsibilities of a First Responder in accordance with the standards of an EMS professional. (A-3)

1-1.7 Explain the rationale for maintaining a professional appearance when on duty or when responding to calls. (A-3)

1-1.8 Describe why it is inappropriate to judge a patient based on a cultural, gender, age, or socioeconomic model, and to vary the standard of care rendered as a result of that judgement. (A-3)

Psychomotor Objectives

No psychomotor objectives identified.

Preparation

Motivation:

The field of out-of-hospital 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 served as the ambulance provider to a far more sophisticated system today. First Responders work within the EMS system to help deliver professional out-of-hospital emergency medical care. This course is designed to help the new First Responder gain the knowledge, skills, and attitudes necessary to be a competent, productive, and valuable member of the emergency medical services team.

Materials

AV Equipment:

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

EMS Equipment:

None required

Personnel

Primary Instructor:

One First Responder Instructor knowledgeable in First Responder Course overview, administrative paperwork, certification requirements, Americans with Disabilities Act issues, and roles and responsibilities of the First Responder. The medical director should be present for the discussion of medical oversight.

Assistant Instructor:

None required

Recommended Minimum Time to Complete:

One half hour

Presentation

Declarative (What)a. Course Overview

A. Paperwork
   1. School
   2. State
   3. Local

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

E. Policy on the Americans with Disabilities Act (ADA)
   1. School policies
   2. State policies
   3. Local Policies

F. Policy on harassment in the classroom environment
   1. School policies
   2. State policies
   3. Local Policies

G. Advancement to the EMT-Basic Level

I. The Emergency Medical Services System and the First Responder

A. Roles of the First Responder
   1. Personal, crew, patient, and bystander safety
   2. Gaining access to the patient
   3. First Responder patient assessment to identify life threatening conditions
   4. Continuation of care through additional EMS resources
   5. Initial patient care based on assessment findings
   6. Assisting with the additional care
   7. Participation in record keeping/data collection as per local/state requirements
   8. Liaison with other public safety workers

a. Local law enforcement
b. State and federal law enforcement
c. Fire departments
d. EMS Providers

B. Responsibilities of the First Responder
1. Personal health and safety
2. Maintain caring attitude - reassure and comfort patient, family, and bystanders while awaiting additional EMS resources
3. Maintain composure
4. Neat, clean, and professional appearance
5. Maintain up-to-date knowledge and skills
a. Continuing education
b. Refresher courses
6. Put patient's needs as a priority without endangering self.
7. Maintain current knowledge of local, state, and national issues affecting EMS.

C. Medical Oversight
1. Definition
a. A formal relationship between the EMS providers and the physician responsible for the out-of-hospital emergency medical care provided in a community.
b. This physician is often referred to as the system medical director.
c. Every EMS System must have medical oversight.
2. Types of medical oversight
a. Direct medical control
(1 Also called "on-line", "base station", "immediate", or "concurrent"
(2 Simultaneous physician direction of a field provider.
(3 Communication may be via radio, telephone, or actual contact with a physician on-scene
b. Indirect medical control
(1 Also called "off-line", "retrospective", or "prospective"
(2 Includes everything that is not direct medical control
(3 System elements under medical oversight include:
(a system design
(b protocol development
(c education
(d quality management

3. The relationship of the First Responder to medical oversight
    a. The First Responder may be a designated agent of the physician
    b. Care rendered may be considered an extension of the medical director's authority (varies by state law).

D. Specific statutes and regulations regarding EMS in your state

Application

Procedural (How)

None identified for this lesson.

Contextual (When, Where, Why)

The student will use this information throughout the course to enhance his understanding and provide direction for the First Responder's relationship to the individual components of the EMS system. The lesson will provide the student with a road map for learning the skill and knowledge domains of the First Responder. Additionally, this lesson will identify that not all students meet the mental and physical requirements of the career field. After completion of the course, the First Responder will use this information to understand the process of gaining and maintaining certification, as well as understanding state and local legislation affecting the profession. This lesson sets the foundation for the remaining teaching/learning process. A positive, helpful attitude presented by the instructor is *essential* to assuring a positive, helpful attitude from the student.

Student Activities

Auditory (Hearing)

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 (Seeing)

1. Students will see audio-visual materials explaining the components of the health care system, First Responder level of care, First Responder's roles and responsibilities, professional attributes, and certification requirements.

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

Kinesthetic (Doing)

1. Students will complete the necessary course paperwork.
2. Students will practice situations in which First Responders portray professional attributes.
3. Students will indicate if they will require/request assistance during the course or certification process based on the Americans with Disabilities Act. Additionally, students will provide the necessary documentation to support the requirements/request.

Instructor Activities

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

Evaluation

Written:

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

Practical:

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

Remediation

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

Enrichment

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

Module 1: Preparatory
Lesson 1-2: The Well-Being of the First Responder

Module 1: Preparatory
Lesson 1-2: The Well-Being of the First Responder

Lesson 1-2
The Well-Being of the First Responder

Objectives

Objectives Legend

C=Cognitive P=Psychomotor A=Affective

1 = Knowledge level
2 = Application level
3 = Problem-solving level
**Indicates material that is not included in the Refresher Course Lesson Plan.*

Cognitive Objectives

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

1-2.1 List possible emotional reactions that the First Responder 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 steps in the First Responder's approach to the family confronted with death and dying. (C-1)

1-2.4 State the possible reactions that the family of the First Responder may exhibit. (C-1)

1-2.5 Recognize the signs and symptoms of critical incident stress. (C-1)

1-2.6 State possible steps that the First Responder may take to help reduce/alleviate stress. (C-1)

1-2.7 Explain the need to determine scene safety. (C-2)

1-2.8 Discuss the importance of body substance isolation (BSI). (C-1)

1-2.9 Describe the steps the First Responder should take for personal protection from airborne and bloodborne pathogens. (C-1)

1-2.10 List the personal protective equipment necessary for each of the following situations:(C-1)

- Hazardous materials
- Rescue operations
- Violent scenes
- Crime scenes
- Electricity
- Water and ice
- Exposure to bloodborne pathogens
- Exposure to airborne pathogens

Affective Objectives

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

1-2.11 Explain the importance for serving as an advocate for the use of appropriate protective equipment. (A-3)

1-2.12 Explain the importance of understanding the response to death and dying and communicating effectively with the patient's family.

1-2.13 Demonstrate a caring attitude towards any patient with illness or injury who requests emergency medical services. (A-3)

1-2.14 Show compassion when caring for the physical and mental needs of patients. (A-3)

1-2.15 Participate willingly in the care of all patients. (A-3)

1-2.16 Communicate with empathy to patients being cared for, as well as with family members, and friends of the patient. (A-3)

Psychomotor Objectives

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

1-2.17 Given a scenario with potential infectious exposure, the First Responder will use appropriate personal protective equipment. At the completion of the scenario, the First Responder will properly remove and discard the protective garments. (P-1,2)

1-2.18 Given the above scenario, the First Responder will complete disinfection/cleaning and all reporting documentation. (P-1,2)

Preparation

Motivation:

First Responders encounter many stressful situations when providing emergency medical care to patients. These range from death and terminal illness to major traumatic situations and child abuse. First Responders will treat angry, scared, violent, seriously injured and ill patients and family members. The First Responder is not immune to the personal effects of these situations. First Responders will learn during this lesson what to expect and how to assist the patient, patient's family, the First Responder's family, and other First Responders 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 First Responder is of little or no use to a patient.

Materials

AV Equipment:

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

EMS Equipment:

Eye protection, gowns, gloves, masks, forms for reporting exposures.

Personnel

Primary Instructor:

One First Responder 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

Recommended Minimum Time to Complete:

One hour

Presentation

Declarative (What)

a. Emotional Aspects of Emergency Medical Care

A. Stressful situations
   1. Examples of situations that may produce a stress response
      a. Mass casualties
      b. Pediatric patients
      c. Death
      d. Infant and child trauma
      e. Amputations
      f. Violence
      g. Infant/child/elder/spouse abuse
      h. Death/injury of co-worker or other public safety personnel
   2. The First Responder will experience personal stress as well as encounter patients and bystanders in severe stress.

B. Death and dying
   1. Everyone is affected by death (family, First Responder, bystanders)
   2. Response is highly individualized
   3. The grieving process helps people cope with death
   4. You will interact with people in all phases of the grieving process
   5. Familiarity with the normal grieving process may provide insight to reactions.
      a. Denial/Disbelief
         (1 "Not me."
         (2 Defense mechanism creating a buffer between shock

of dying and dealing with the illness/injury.
(3 Often families will be at the denial stage, which is difficult to deal with.

b. Anger
(1 "Why me?"
(2 First Responders may be the target of the anger.
(a Don't take anger or insults personally.
(b Be tolerant.
(c Do not become defensive.
(d Employ good listening and communication skills.
(e Be empathetic.

c. Bargaining
(1 "OK, but first let me..."
(2) Agreement that, in the patient's mind, will postpone the death for a short time.

d. Depression
(1 Characterized by sadness and despair.
(2 Patient is usually silent and retreats into his own world.

e. Acceptance
(1 Does not mean the patient will be happy about dying.
(2 The family will usually require more support during this stage than the patient.

6. Dealing with the dying patient and family members
a. Patient needs include dignity, respect, sharing, communication, privacy, and control.
b. Allow family members to express rage, anger, and despair.
c. Listen empathetically.
d. Do not falsely reassure.
e. Use a gentle tone of voice.
f. Let the patient know that everything that can be done to help will be done.
g. Use a reassuring touch, if appropriate.
h. Comfort the family.

C. 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

2. Life-style changes
   a. Helpful for "job burnout"
   b. Change diet
      (1 Reduce sugar, caffeine, and alcohol intake
      (2) Avoid fatty foods
   c. Avoid alcohol
   d. Exercise
   e. Practice relaxation techniques, meditation, visual imagery
3. Balance work, recreation, family, health, etc.
4. EMS personnel and their families and friends responses
   a. Lack of understanding
   b. Fear of separation and being ignored
   c. On-call situations cause stress
   d. Frustration caused by wanting to share
5. Work environment changes
   a. Request work shifts allowing for more time to relax with family and friends.
   b. Request a rotation of duty assignment to a less stressful assignment.
6. Seek/refer professional help.
   a. Mental health professionals
   b. Social workers
   c. Clergy

D. 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. Critical Incident Stress Debriefing (CISD)
6. Follow-up services

7. Spouse/family support
8. Community outreach programs
9. Other health and welfare programs such as wellness programs

E. Critical incident stress
   1. The normal stress response to abnormal circumstances
   2. A system has been developed to assist emergency workers to cope with stressful situations.
   3. Usually consists of a team of peer counselors and mental health professionals.
   4. Designed to accelerate the normal recovery process after experiencing a critical incident.
   5. Techniques
      a. Defusings
         (1) Much shorter, less formal and less structured version of CISD
         (2) Used a few hours after the event
         (3) Last 30-45 minutes.
         (4) Allow for initial ventilation
         (5) May eliminate the need for a formal debriefing
         (6) May enhance the formal debriefing.
      b. Debriefings
         (1) Meeting is held within 24 to 72 hours of a major incident.
         (2) Open discussion of feelings, fears, and reactions
         (3) Not an investigation or interrogation
         (4) All information is confidential
         (5) CISD leaders and mental health personnel evaluate the information and offer suggestions on overcoming the stress.
   6. When to access CISD
      a. Line of duty death or serious injury
      b. Multiple casualty incident
      c. Suicide of an emergency worker
      d. Serious injury or death of children
      e. Events with excessive media interest
      f. Victims known to the emergency personnel
      g. Event that has unusual impact on the personnel
      h. Any disaster
   7. How to access the local CISD system

I. Body Substance Isolation (BSI)
   A. First Responders must be aware of the risks associated with emergency medical care.
      1. Barrier devices or ventilation masks should be used when ventilating a patient.
      2. Personal protective equipment should be utilized as needed or required by the local system.
      3. First responders are exposed to infectious diseases when treating patients.
         a. Assess potential for risk
         b. Take appropriate precautions
   B. OSHA/state regulations regarding BSI
   C. Infection Control
      1. Techniques to prevent disease transmission
         a. Hand-washing/personal hygiene
         b. Equipment replacement, cleaning, and disinfection
      2. Body substance isolation
         a. Eye protection
            (1) If prescription eyeglasses are worn, then removable side shields can be applied to them.
            (2) Goggles are NOT required.
         b. Gloves (vinyl or latex, synthetic)
            (1) Needed for contact with blood or other body fluids.
            (2) Should be changed between contact with different patients.
         c. Gloves (utility) - needed for cleaning vehicles and equipment
         d. Gowns
            (1) Needed for large splash situations such as with childbirth and major trauma.
            (2) Change of uniform is preferred.
         e. Masks
            (1) Surgical type for possible blood splatter (worn by care provider)
            (2) High Efficiency Particulate Air (HEPA) respirator (worn by provider) if patient is suspected of or diagnosed with tuberculosis. HEPA filters are primarily used in enclosed spaces - uncommon for First Responder

(3) Airborne disease - surgical type mask (worn by patient)

f. Requirements and availability of specialty training

3. Recommended immunizations
   a. Tetanus prophylaxis
   b. Hepatitis B vaccine
   c. Tuberculin testing
   d. Others
   e. Access or availability of immunizations in the community

D. Statutes/regulations reviewing notification and testing in an exposure incident

II. Scene Safety

A. Scene safety
   1. Definition - an assessment of the scene and surroundings that will provide valuable information to the First Responder and will help ensure the well-being of the First Responder.
   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 - do not let the bystander become ill or injured
   5. If the scene is unsafe, make it safe. Otherwise, do not enter.

B. Personal Protection
   1. Hazardous materials
      a. Identification of potential hazards
         (1) Binoculars
         (2) Placards
         (3) Hazardous Materials, The Emergency Response Handbook, published by the United States Department of Transportation
      b. First Responders provide care only after the scene is safe and containment is completed.
      c. Hazardous materials scenes are controlled by hazardous materials teams.
      d. Requirements and availability of specialty training
      e. Accessing local teams

2. Motor vehicle crashes
   a. Identify and reduce potential life threats
      (1) Electricity
      (2) Fire
      (3) Explosion
      (4) Hazardous materials
      (5) Traffic
   b. Dispatch rescue teams for extensive or heavy rescue
3. Violence
   a. Violent scenes should always be controlled by law enforcement personnel before the First Responder enters the scene and provides patient care.
   b. Actions at crime scene
      (1) Do not disturb the scene unless required for medical care.
      (2) Maintain a chain of evidence.

Application

Procedural (How)

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

Contextual (When, Where, Why)

1. The First Responder will use the aspects of scene safety and personal protection every day and on every emergency run.
2. While the First Responder 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.
3. If the First Responder fails to develop personal safety skills, his or her First Responder career may come to a premature end through serious injury or death.
4. The well-being of the First Responder depends upon the ability to recognize that stressful traumatic situations do occur and that the effect of those situations is felt by the patient, family members, and the First Responder. In recognizing this, the First Responder must be aware of

internal and external mechanisms to help himself or herself, the patient, the patient's family, First Responder's family, and other First Responder's deal with reactions to stress.

5. The First Responder will use proper communication techniques when dealing with the grieving process.

Student Activities

Auditory (Hearing)

1. The student should hear the instructor state methods of communicating with patients and family members of terminally ill patients.
2. The student should hear the instructor state methods of communicating with friends and family members of a dead or dying patient.

Visual (Seeing)

1. The student should see various audio-visual materials of scenes requiring personal protection.
2. The student should see various audio-visual materials of personal protection clothing worn by hazardous material/rescue teams.
3. The student should see the gown, gloves, masks, and eye protection associated with body substance isolation (BSI).

Kinesthetic (Doing)

1. The student should role play, talking to patients in various stressful/traumatic situations.
2. The student should practice putting on and removing gowns, gloves and eye protection gear.

Instructor Activities

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

Evaluation

Written:

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

Practical:

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

Remediation

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

Enrichment

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

Lesson 1-3
Legal and Ethical Issues

Objectives

Objectives Legend

C=Cognitive P=Psychomotor A=Affective

1 = Knowledge level
2 = Application level
3 = Problem-solving level
**Indicates material that is not included in the Refresher Course Lesson Plan.*

Cognitive Objectives

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

1-3.1 Define the First Responder scope of care. (C-1)
1-3.2 Discuss the importance of Do Not Resuscitate [DNR] (advance directives) and local or state provisions regarding EMS application. (C-1)
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 First Responder in patient refusal of transport. (C-1)
1-3.7 Discuss the issues of abandonment, negligence, and battery and their implications to the First Responder. (C-1)
1-3.8 State the conditions necessary for the First Responder to have a duty to act. (C-1)
1-3.9 Explain the importance, necessity and legality of patient confidentiality. (C-1)
1-3.10 List the actions that a First Responder should take to assist in the preservation of a crime scene. (C-3)
1-3.11 State the conditions that require a First Responder to notify local law enforcement officials. (C-1)
1-3.12 Discuss issues concerning the fundamental components of documentation. (C-1)

Affective Objectives

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

1-3.13 Explain the rationale for the needs, benefits and usage of advance directives. (A-3)
1-3.14 Explain the rationale for the concept of varying degrees of DNR. (A-3)

Psychomotor Objectives

No psychomotor objectives identified.

Preparation

Motivation:

Legal and ethical issues are a vital element of the First Responder's daily life. Should a First Responder 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 the parents are not at home and/or only the child care provider is around? These and many other legal and ethical questions face the First Responder every day. Guidance will be given in this lesson to answer these questions and learn how to make the correct decision when other legal and ethical questions arise.

Materials

AV Equipment:

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

EMS Equipment:

None required.

Personnel

Primary Instructor:

One First Responder instructor knowledgeable in the legal aspects and ethical issues that the First Responder will encounter.

Assistant Instructor:

None required

Recommended Minimum Time to Complete:

One half hour

Presentation

Declarative (What)a. Scope of Care

A. Legal duties to the patient, medical director, and public
   1. Provide for the well-being of the patient by rendering necessary interventions outlined in the scope of care.
   2. Defined by state law
      a. Enhanced by medical oversight through the use of protocols and standing orders
      b. Referenced to the National Standard Curricula
   3. Legal right to function as a First Responder may be contingent upon medical oversight.
      a. Telephone/radio communications
      b. Approved standing orders/protocols
      c. Responsibility to medical oversight

B. Ethical responsibilities
   1. Make the physical/emotional needs of the patient a priority.
   2. Practice of skills to the point of mastery.
   3. Attend continuing education/refresher programs.
   4. Review performances, seeking ways to improve response time, patient outcome, communication.
   5. Honesty in reporting

I. Competence
   A. Competence is the ability to understand the questions of the First Responder and to understand the implications of decisions made.
   B. In order for a First Responder to receive consent or refusal of care, the First Responder should determine competence.
   C. May not be possible in certain cases:
      1. Intoxication
      2. Drug ingestion
      3. Serious injury
      4. Mental incompetence

II. Consent
   A. A competent patient has the right to make decisions regarding care.
   B. A patient must consent to emergency medical care.
   C. The acceptance of care based on the information provided
   D. Types of consent

1. Expressed
    a. Patient must be competent and of legal age
    b. Patient must be informed of the steps of the procedures and all related risks.
    c. Must be obtained from every responsive, mentally competent adult before rendering emergency medical care.
    d. Methods of obtaining consent
        (1) Identify yourself
        (2) Inform the patient of your level of training
        (3) Explain the procedures to the patient
            (a) Identify the benefits
            (b) Identify the risks
2. Implied
    a. Consent assumed from the unresponsive patient requiring emergency intervention
    b. Based on the assumption that the unresponsive patient would consent to life saving interventions

E. Children and mentally incompetent adults
1. Consent for emergency medical care must be obtained from the parent or legal guardian.
    a. Emancipation issues
    b. State regulations regarding age of minors
2. When life threatening situations exist and the parent or legal guardian is not available for consent, emergency medical care should be rendered based on implied consent.

III. Advance Directives/Do Not Resuscitate (DNR) orders
A. Patient has the right to refuse resuscitative efforts.
B. In general, requires written order from physician.
C. Review state and local legislation/protocols relative to DNR orders and advance directives.
D. When in doubt or when written orders are not present, the First Responder should begin resuscitation efforts.

IV. Refusals
A. Competent adult patients have the right to refuse emergency medical care.
B. The First Responder should not make an independent decision regarding the refusal of care.

C. The patient may withdraw from emergency medical care at any time. Example: an unresponsive patient regains responsiveness and refuses transport to the hospital.
D. Refusals must be made by mentally competent adults following the rules of expressed consent.
E. The patient must be informed of and fully understand all the risks and consequences associated with refusal of emergency medical care
F. When in doubt, err in favor of providing care.
G. The First Responder must ensure that additional EMS resources will evaluate the patient.
H. While awaiting arrival of additional EMS resources the First Responder should:
    1. Try again to persuade the patient to accept care.
    2. Determine whether the patient is able to make a rational, informed decision, e.g., is not under the influence of alcohol or other drugs or illness/injury effects.
    3. Inform the patient why he/she should accept care and what may happen to him if he does not.
    4. Consult medical oversight as directed by local protocol.
    5. Consider assistance of law enforcement.
    6. Report any assessment findings and emergency medical care provided.

V. Assault/Battery
A. Not a universal definition
B. Unlawfully touching a patient without consent
C. Providing emergency medical care when a competent patient does not consent to the emergency medical care

VI. Abandonment - terminating care of the patient without insuring that care will continue at the same level or higher.

VII. Negligence
A. Deviation from the accepted standard of care resulting in further injury to the patient.
B. Components of negligence
    1. Duty
        a. Duty to Act
            (1) A contractual or legal obligation must exist.

(2) Formal - As part of First Responder's occupation, they are required to render emergency medical care.
(3) Implied
(a) Patient calls for assistance and the dispatcher confirms that help is being sent.
(b) The First Responders are dispatched as part of the EMS response.
(c) Emergency medical care is begun on a patient.
(4) "Legal" duty to act
(a) Varies according to state law
(b) Moral considerations
(c) Ethical considerations.
(5) Specific state regulations regarding duty to act.

b. Duty to act appropriately
(1) Following guidelines for standards of care
(2) Acting as another prudent individual would in that situation

2. Breach of the duty
a. Failure to act
b. Failure to act appropriately
3. Injury/damages were inflicted
a. Physical
b. Psychological
4. The actions or lack of actions of the First Responder caused the injury/damage.

VIII. Confidentiality
A. Confidential information
1. Patient history gained through interview
2. Assessment findings
3. Emergency medical care rendered
B. Releasing confidential information
1. Release of information requires a written release form signed by the patient.
2. Do not release any patient information on request, unless authorized in writing.
3. Release are not required when:
a. Other health care providers need to know information to continue care.

b. State law requires reporting incidents (examples: rape, abuse or gun shot wounds).
c. Subpoena

IX. Special Situations - Medical Identification Insignia
A. Bracelet, necklace, card
B. Indicates a medical condition of the patient
1. Allergies
2. Diabetes
3. Epilepsy

X. Potential Crime Scene/Evidence Preservation
A. Dispatch should notify police personnel.
B. Responsibility of the First Responder
1. Emergency medical care of the patient is the First Responder's priority.
2. Do not disturb any item at the scene unless emergency medical 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 stabbing.

XI. Documentation
A. Fundamental medical documentation
1. System/local requirements for documentation
2. State requirements for documentation
B. Special Reporting Situations
C. Established by state regulations or statutes and may vary from state to state
D. Commonly required reporting situations
1. Abuse
a. Child
b. Elderly
c. Spouse
2. Crime
a. Wounds sustained or potentially sustained by violent crime
b. Sexual assault
E. Infectious disease exposure

Application

Procedural (How)

None identified for this lesson.

Contextual (When, Where, Why)

Legal and ethical issues are present in every aspect of patient care. Decisions to treat or not treat a patient, to release or not release information, to report or not report an incident all require a knowledge of current state and local legislation, policy, and protocol. Up-to-date knowledge of the current legal interpretation of issues such as negligence, battery, confidentiality, consent, and refusal of emergency medical care is essential for the First Responder.

Student Activities

Auditory (Hearing)

1. Students should hear actual case law and common law decisions relative to First Responder care.

Visual (Seeing)

1. Students should see actual copies of medical identification insignia, organ donor cards, Do Not Resuscitate orders, and information release forms.
2. Students should see audio-visual materials of definitions of legal terms such as negligence, abandonment, battery, duty to act, consent, confidentiality.

Kinesthetic (Doing)

1. Students should practice making decisions while role playing the various legal and ethical situations that occur in the EMS environment (including consent, abandonment, battery, duty to act, negligence, and confidentiality).
2. Students should role play situations in which DNR orders are in effect.
3. Students should role play situations of patients refusing emergency medical care.

Instructor Activities

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

Evaluation

Written:

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

Practical:

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

Remediation

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

Enrichment

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

Lesson 1-4
The Human Body

(This lesson has been deleted for the Refresher Course)

Objectives

Objectives Legend

C=Cognitive P=Psychomotor A=Affective

1 = Knowledge level
2 = Application level
3 = Problem-solving level
**Indicates material that is not included in the Refresher Course Lesson Plan.*

Cognitive Objectives

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

**1-4.1 Describe the anatomy and function of the respiratory system. (C-1)*
**1-4.2 Describe the anatomy and function of the circulatory system. (C-1)*
**1-4.3 Describe the anatomy and function of the musculoskeletal system. (C-1)*
**1-4.4 Describe the components and function of the nervous system. (C-1)*

Affective Objectives

No affective objectives identified.

Psychomotor Objectives

No psychomotor objectives identified.

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
**Indicates material that is not included in the Refresher Course Lesson Plan.*

Cognitive Objectives

At the completion of this lesson, the First Responder 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 indications for an emergency move. (C-1)*
**1-5.4 Describe the indications for assisting in non-emergency moves. (C-1)*
**1-5.5 Discuss the various devices associated with moving a patient in the out-of-hospital arena. (C-1)*

Affective Objectives

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

1-5.6 Explain the rationale for properly lifting and moving patients. (A-3)
**1-5.7 Explain the rationale for an emergency move. (A-3)*

Psychomotor Objectives

**1-5.8 Demonstrate an emergency move. (P-1,2)*
**1-5.9 Demonstrate a non-emergency move. (P-1,2)*
**1-5.10 Demonstrate the use of equipment utilized to move patient's in the out-of-hospital arena. (P-1,2)*

Preparation

Motivation:

Many First Responders are injured every year because they attempt to lift or move patients improperly.

Materials

AV Equipment:

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

EMS Equipment:

None required.

Personnel

Primary Instructor:

One First Responder instructor knowledgeable in the principles and techniques of lifting and moving patients.

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.

Recommended Minimum Time to Complete:

One hour

Presentation

Declarative (What)

I. Role of the First Responder
   - A. Moving patients that are in immediate danger
   - B. Position patients to prevent further injury
   - C. Assist other EMS responders in lifting and moving

II. Body Mechanics/Lifting Techniques
   - A. Safety precautions
     1. Use legs, not back, to lift.
     2. Keep weight as close to body as possible.
   - B. Guidelines for lifting
     1. Consider weight of patient and the need for help.

2. Know physical ability and limitations.
3. Lift without twisting.
4. Have feet positioned properly.
5. Communicate clearly and frequently with partner and other EMS providers.

C. Work with the EMS system in your area to practice the guidelines and use of equipment.

III. Principles of Moving Patients

A. General considerations

1. In general, a patient should be moved <u>immediately</u> (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 danger of explosion
      (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. If there is no threat to life, the patient when ready for transportation should be moved by the EMS crew.

B. Emergency moves

C. Non-urgent moves - performed with other responders

D. Patient positioning

1. An unresponsive patient without trauma should be moved into the recovery position by rolling the patient onto his/her side (preferably the left).
2. A patient with trauma should not be moved until additional EMS resources can evaluate and stabilize the patient.
3. A patient experiencing pain or discomfort or difficulty breathing should be allowed to assume a position of comfort.
4. A patient who is nauseated or vomiting should be allowed to remain in a position of comfort; however, the First Responder should be positioned appropriately to manage the airway.

IV. Equipment familiarity

Application

Procedural (How)

1. Show examples of situations where emergency moves are appropriate.
2. Demonstrate emergency moves.
3. Demonstrate positioning patients with different conditions.
    A. Unresponsiveness
    B. Chest pain/discomfort or difficulty breathing
    C. Patients who are vomiting or nauseated

Contextual (When, Where, Why)

When to move a patient is determined by both the patient's condition and the environment in which he/she is found. The determination of how to move the patient is made by considering the complaint, the severity of the condition and the location.

Student Activities

Auditory (Hearing)

1. The student should hear instructor explanations of body mechanics.
2. The student should hear the principles of lifting and moving.
3. The student should hear the indications for emergency moves.

Visual (Seeing)

1. The student should see situations where emergency moves are appropriate.
2. The student should see emergency moves.
3. The student should see non-emergency moves.
4. The student should see various lifting and moving devices.
5. The student should see patients with different conditions positioned properly.
    A. Unresponsiveness
    B. Chest pain/discomfort or difficulty breathing
    C. Patients who are vomiting or nauseated
6. Students should see patients moved with various lifting and moving devices.

Kinesthetic (Doing)

1. The student should practice determining whether emergency, urgent, or non-emergency moves are appropriate.
2. The student should practice emergency moves.
3. The student should practice non-emergency moves.
4. The student should practice positioning patients with different conditions.
   A. Unresponsiveness
   B Chest pain/discomfort or difficulty breathing
   C Patients who are vomiting or nauseated
5. The student should practice using equipment for lifting and moving patients.

Instructor Activities

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

Evaluation

Written:

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

Practical:

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

Remediation

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

Enrichment

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

Module 2: Airway
Lesson 2-1 Airway

Objectives

Objectives Legend

C=Cognitive P=Psychomotor A=Affective

1 = Knowledge level
2 = Application level
3 = Problem-solving level
**Indicates material that is not included in the Refresher Course Lesson Plan.*

Cognitive Objectives

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

**2-1.1 Name and label the major structures of the respiratory system on a diagram. (C-1)*
2-1.2 List the signs of inadequate breathing. (C-1)
2-1.3 Describe the steps in the head-tilt chin-lift. (C-1)
2-1.4 Relate mechanism of injury to opening the airway. (C-3)
2-1.5 Describe the steps in the jaw thrust. (C-1)
2-1.6 State the importance of having a suction unit ready for immediate use when providing emergency medical care. (C-1)
2-1.7 Describe the techniques of suctioning. (C-1)
2-1.8 Describe how to ventilate a patient with a resuscitation mask or barrier device. (C-1)
2-1.9 Describe how ventilating an infant or child is different from an adult. (C-1)
2-1.10 List the steps in providing mouth-to-mouth and mouth-to-stoma ventilation. (C-1)
2-1.11 Describe how to measure and insert an oropharyngeal (oral) airway. (C-1)
2-1.12 Describe how to measure and insert a nasopharyngeal (nasal) airway. (C-1)
2-1.13 Describe how to clear a foreign body airway obstruction in a responsive adult. (C-1)
2-1.14 Describe how to clear a foreign body airway obstruction in a responsive child with complete obstruction or partial airway obstruction and poor air exchange. (C-1)
2-1.15 Describe how to clear a foreign body airway obstruction in a responsive infant with complete obstruction or partial airway obstruction and poor air exchange. (C-1)
2-1.16 Describe how to clear a foreign body airway obstruction in a unresponsive adult. (C-1)
2-1.17 Describe how to clear a foreign body airway obstruction in a unresponsive child.

(C-1)

2-1.18 Describe how to clear a foreign body airway obstruction in a unresponsive infant. (C-1)

Affective Objectives

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

2-1.19 Explain why basic life support ventilation and airway protective skills take priority over most other basic life support skills. (A-3)

2-1.20 Demonstrate a caring attitude towards patients with airway problems who request emergency medical services. (A-3)

2-1.21 Place the interests of the patient with airway problems as the foremost consideration when making any and all patient care decisions. (A-3)

2-1.22 Communicate with empathy to patients with airway problems, as well as with family members and friends of the patient. (A-3)

Psychomotor Objectives

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

2-1.23 Demonstrate the steps in the head-tilt chin-lift. (P-1,2)

2-1.24 Demonstrate the steps in the jaw thrust. (P-1,2)

2-1.25 Demonstrate the techniques of suctioning. (P-1,2)

2-1.26 Demonstrate the steps in mouth-to-mouth ventilation with body substance isolation (barrier shields). (P-1,2)

2-1.27 Demonstrate how to use a resuscitation mask to ventilate a patient. (P-1,2)

2-1.28 Demonstrate how to ventilate a patient with a stoma. (P-1,2)

2-1.29 Demonstrate how to measure and insert an oropharyngeal (oral) airway. (P-1,2)

2-1.30 Demonstrate how to measure and insert a nasopharyngeal (nasal) airway. (P-1,2)

2-1.31 Demonstrate how to ventilate infant and child patients. (P-1,2)

2-1.32 Demonstrate how to clear a foreign body airway obstruction in a responsive adult. (C-1)

2-1.33 Demonstrate how to clear a foreign body airway obstruction in a responsive child. (C-1)

2-1.34 Demonstrate how to clear a foreign body airway obstruction in a responsive infant. (C-1)

2-1.35 Demonstrate how to clear a foreign body airway obstruction in an unresponsive adult. (C-1)

2-1.36 Demonstrate how to clear a foreign body airway obstruction in an unresponsive child. (C-1)

2-1.37 Demonstrate how to clear a foreign body airway obstruction in an unresponsive

infant. (C-1)

Preparation

Motivation:

A patient without an airway has no chance of survival. It is important for the First Responder to be able to manage an airway with and without airway adjuncts.

Materials

AV Equipment:

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

EMS Equipment:

Resuscitation mask, barrier devices, oral airways, nasal airways, suction units (manual and battery powered), suction catheters, tongue blade, and lubricant.

Personnel

Primary Instructor:

One First Responder 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.

Recommended Minimum Time to Complete:

Two Hours

Presentation

Declarative (What)

a. Opening the Airway

A. One of the most important actions that the first responder can perform is opening the airway of an unresponsive patient.

1. An unresponsive patient looses muscle tone, and the soft tissue and base of the tongue may occlude the airway.

2. The tongue is the most common cause of airway obstruction in an unresponsive patient.
3. Since the tongue is attached to the lower jaw, forward displacement of the jaw will lift the tongue away from the back of the throat.

B. Head-tilt chin-lift
1. The method of choice for opening the airway in uninjured patients
2. Research has indicated that the head-tilt chin-lift consistently provides the optimal airway.
3. Used for uninjured, unresponsive patients
4. Technique
   a. Place your hand that is closer to the patient's head on his/her forehead, apply firm backward pressure to tilt the head back.
   b. Place the fingers of your hand that is closer to the patient's feet on the bony part of his/her chin.
   c. Lift the chin forward and support the jaw, helping to tilt the head back.
5. Precautions
   a. Finger must not press deeply into the soft tissues of the chin as this may lead to airway obstruction.
   b. The thumb should not be used for lifting the chin.
   c. The mouth must not be closed.

C. Jaw thrust without head tilt
1. This technique is an alternative method of opening the airway.
2. Effective but fatiguing and technically difficult
3. This is the safest approach to opening the airway in the patient with a suspected spinal injury.
4. Indications
   a. Used for trauma patients
   b. Used for unresponsive patients
5. Technique
   a. Grasp the angles of the patient's lower jaw.
   b. Lift with both hands displacing the mandible forward.
   c. If the lips close, open the lower lip with your gloved thumb.

I. Inspect the Airway

A. An unresponsive patient may have fluid or solids in the airway that may compromise the airway.

B. Responsive patients who cannot protect their airway should also have their airways inspected.
C. Indications
    1. All unresponsive patients
    2. Responsive patients who may not be able to protect their own airways.
D. Technique
    1. Open the patient's mouth with a gloved hand.
    2. Look inside the airway.
        a. Clear (patent)
        b. Blocked
            (1) Fluid
            (2) Solids
            (3) Teeth, including dentures

II. Airway Adjuncts
A. Oropharyngeal (oral) airways
    1. Oropharyngeal (OP) airways may be used to assist in maintaining an open airway in an unresponsive patient without a gag reflex.
    2. Patients with a gag reflex may vomit when this airway is placed.
    3. Technique
        a. Select the proper size: Measure from the corner of the patient's lips to the tip of the earlobe or angle of jaw.
        b. Open the patient's mouth.
        c. Insert the airway upside down, with the tip facing toward the roof of the patient's mouth.
        d. Advance the airway gently until resistance is encountered.
        e. Turn the airway 180 degrees so that it comes to rest with the flange on the patient's teeth.
    4. Alternate technique - For use with infants and children
        a. Select the proper size: Measure from the corner of the patient's lips to the bottom of the earlobe or angle of jaw.
        b. Open the patient's mouth.
        c. Use a tongue blade to press tongue down and away.
        d. Insert airway in upright (anatomic) position.
B. Nasopharyngeal (nasal) airways
    1. Nasopharyngeal (NP) airways are less likely to stimulate vomiting.
    2. May be used on patients who are responsive but need assistance keeping the tongue from obstructing the airway.

3. Even though the tube is lubricated, this is a painful stimulus.
4. Technique
    a. Select the proper size: Measure from the tip of the nose to the tip of the patient's ear.
    b. Also consider diameter of airway in the nostril. NP airways should not be so large that it causes blanching of the nostril.
    c. Lubricate the airway with a water soluble lubricant.
    d. Insert it posteriorly. Bevel should be toward the base of the nostril or toward the septum.
    e. If the airway cannot be inserted into one nostril, try the other nostril.
    f. Do not force this airway.

III. Clearing the Compromised Airway and Maintaining the Open Airway
- A. There are three ways that First Responders can clear or maintain an airway.
- B. These techniques are not sequential; the situation will dictate which technique is most appropriate.
- C. There are three methods of clearing the airway.
    1. The Recovery Position
        a. The first step in maintaining an open airway
        b. Uses gravity to keep the airway clear.
        c. The airway is likely to remain open in this position.
        d. Unrecognized airway obstructions are less likely to occur.
        e. Monitor the patient until additional EMS resources arrive and assume care.
        f. Allows fluids to drain from the mouth and not into the airway.
        g. Used in unresponsive, uninjured patient, breathing adequately
        h. Technique
            (1) Raise the patient's left arm above his/her head and cross the patient's right leg over the left.
            (2) Support the face and grasp the patient's right shoulder.
            (3) Roll the patient toward you onto his or her left side.
            (4) Place the patient's right hand under the side of his/her face.
            (5) The patient's head, torso, and shoulders should move simultaneously without twisting.

(6) The head should be in as close to a midline position as possible.

2. Finger sweeps
   a. Uses your fingers to remove solid objects from the airway.
   b. Use body substance isolation.
   c. If foreign material or vomit is visible in the mouth, it should be removed.
   d. Do this quickly.
   e. Blind finger sweeps should not be performed in infants or children.
   f. Technique
      (1) If uninjured, roll the patient to their side
      (2) Liquids or semi-liquids should be wiped out with the index and middle fingers covered with a cloth.
      (3) Solid objects should be removed with a hooked index finger.
3. Suctioning
   a. Uses negative pressure to keep the airway clear.
   b. A patient needs to be suctioned immediately when a gurgling sound is heard during breathing or ventilation.
   c. Suction is only indicated if the recovery position and finger sweeps are ineffective in draining the airway or trauma is suspected and the patient cannot be placed in the recovery position.
   d. Purpose is to remove blood, other liquids, and food particles from the airway.
   e. Most suction units are inadequate for removing solid objects like teeth, foreign bodies, and food
   f. Portable suction equipment is available and may be manually or electrically operated.
   g. Principles
      (1) Observe body substance isolation.
      (2) A hard or rigid "tonsil sucker" or "tonsil tip" is preferred to suction the mouth of an unresponsive patient.
      (3) The tip of the suction catheter should not be inserted deeper than the base of the tongue.
      (4) Because air and oxygen are removed during suction, it is recommended that you suction for no more than

15 seconds.
(a) Decrease the time in infants and children.
(b) Infants 5 seconds
(c) Children 10 seconds
(5) Watch for decreased heart rate in infants.
(6) If a decrease in heart rate is noted, stop suctioning and provide ventilation. .

IV. Determining Presence of Breathing
A. Immediately after opening the airway, check for breathing
B. As you determine the presence of breathing, look at the effort or work of breathing.
1. Breathing should be effortless.
2. Observe the chest for adequate rise and fall.
3. Look for accessory muscle use.
C. Techniques
1. Responsive patients
a. Ask: "Can you speak?", "Are you choking?"
b. The ability to talk or make vocal sounds indicates that air is moving past the vocal cords
2. Unresponsive patients
a. Maintain an open airway
b. Place your ear close to the patients mouth and nose
c. Assess for three to five seconds.
(1) Look for the rise and fall of the chest
(2) Listen for air escaping during exhalation
(3) Feel for air coming from the mouth and nose
d. The first responder may observe the rise and fall of the chest even if an airway obstruction is present, but will not hear or feel air movement
e. Some reflex gasping (agonal respirations) may be present just after cardiac arrest. This should not be confused for breathing.
D. Inadequate breathing is characterized by the following:
1. Rate
a. Less than 8 in adults
b. Less than 10 in children
c. Less than 20 in infants
2. Inadequate chest wall motion

3. Cyanosis
4. Mental status changes
5. Increased effort
6. Gasping
7. Grunting
8. Slow heart rate associated with slow respirations

V. Ventilation
   A. Once the airway has been assured, and breathing is assessed, breathing for the patient may be necessary.
   B. If the patient is not breathing they only have the oxygen in their lungs and their bloodstream remaining.
   C. In order to prevent death, the First Responder must ventilate the patient.
   D. There are many techniques for ventilation--the first responder must be competent in the following three techniques of ventilation

VI. Techniques of Ventilation
   A. The techniques of ventilation in order of preference are
      1. Mouth to mask
      2. Mouth to barrier device
      3. Mouth to mouth
   B. Mouth to mask ventilation
      1. Most effective First Responder technique
      2. Most masks have a one way valve to divert the patient's exhalations.
      3. Masks should be transparent so that vomiting can be recognized.
      4. Mouth to mask ventilation is very effective since you use two hands to seal around the mask.
      5. Technique
         a. Place the mask around the patient's mouth and nose using the bridge of the nose as a guide for correct position. Mask position is critical since the wrong size mask will leak.
         b. Seal the mask by placing the heal and thumb of each hand along the border of the mask and compressing firmly around the margin.
         c. Place your index fingers on the portion of the mask that covers the chin.
         d. Place your other fingers along the bony margin of the jaw and lift the jaw while performing a head tilt.

e. Give one slow (1½-2 second) breath of sufficient volume to make the chest rise (usually 800-1200 ml in the average adult).
f. Too great a volume of air and too fast an inspiratory time are likely to allow air to enter the stomach.
g. Adequate ventilation is determined by:
   (1) Observing the chest rise and fall
   (2) Hearing and feeling the air escape during exhalation
h. Continue at the proper rate
   (1) 10-12 breaths per minute for adults with 1½ - 2 second ventilation time
   (2) 20 breaths per minute for children and infants with 1 - 1½ second inspiratory time.
   (3) 40 breaths per minute for newborns with 1 to 1½ second inspiratory time.
i. If the ventilation cannot be delivered, consider the possibility of an airway obstruction.

C. Mouth-to-barrier device
1. A barrier device should be used if available.
2. Some rescuers may prefer to use a barrier device during ventilation.
3. Barrier devices have no exhalation valve and air often leaks around the shield.
4. Barrier devices should have low resistance to delivered ventilation.
5. Technique
   a. If ventilation is necessary, position the device over the patient's mouth and nose ensuring an adequate seal.
   b. Keep the airway open by the head tilt-chin lift or jaw thrust maneuver.
   c. Give one slow (1½-2 second) breath of sufficient volume to make the chest rise (usually 800-1200 ml in the average adult).
   d. Too great a volume of air and too fast an inspiratory time are likely to allow air to enter the stomach.
   e. Adequate ventilation is determined by:
      (1) Observing the chest rise and fall
      (2) Hearing and feeling the air escape during exhalation
   f. Continue at the proper rate
      (1) 10-12 breaths per minute for adults, with 1½ - 2

second inspiratory time.
(2) 20 breaths per minute for children and infants, with 1-1½ second inspiratory time.
(3) 40 breaths per minute for newborns, with 1 to 1½ second inspiratory time.

g. If the ventilation cannot be delivered, consider the possibility of an airway obstruction

D. Mouth to mouth
1. The First Responder must be aware of the risks of performing mouth to mouth ventilation.
2. Quick, effective method of delivering oxygen to the non-breathing patient
3. Ventilating a patient with your exhaled breath while making mouth to mouth contact
4. The rescuer's exhaled air contains enough oxygen to support life.
5. Barrier devices and face masks with one way valves are available for use during ventilation.
6. First Responders should always use these devices rather than the mouth to mouth technique.
7. Mouth to mask/barrier device does not replace training in mouth to mouth ventilation.
8. The decision to perform mouth to mouth ventilation by First Responders is a personal choice. Whenever possible, a barrier device or mouth to mask should be used.
9. Technique
a. Keep the airway open by the head tilt-chin lift or jaw thrust maneuver.
b. Gently squeeze the patient's nostrils closed with the thumb and index finger of your hand on the patient's forehead.
c. When ventilating an infants, cover the infants mouth and nose.
d. Take a deep breath and seal your lips to the patient's mouth, creating an airtight seal.
e. Give one slow (1½-2 second) breath of sufficient volume to make the chest rise.
(1) Too great a volume of air and too fast an inspiratory time are likely to allow air to enter the stomach.
(2) Adequate ventilation is determined by:

(a) Observing the chest rise and fall
(b) Hearing and feeling the air escape during exhalation

f. Continue at the proper rate
(1) 12 breaths per minute for adults
(2) 20 breaths per minute for children and infants
(3) 40 breaths per minute for newborns

g. If the ventilation cannot be delivered, consider the possibility of an airway obstruction

VII. Foreign Body Airway Obstructions (FBAO) in the Adult

A. Can be the cause of cardiac arrest
1. Choking/food
2. Bleeding into the airway
3. Vomit

B. Can be the result of cardiac arrest
1. Vomiting
2. Dentures
3. Trauma
4. Tongue

C. Types of airway obstructions
1. Partial
a. Good air exchange
(1) Patient remains responsive
(2) May be able to speak
(3) Can cough forcefully
(4) May be wheezing between coughs

b. Poor air exchange
(1) Weak ineffective cough
(2) High-pitched noise on inhalation
(3) Increased respiratory difficulty
(4) Possibly cyanotic

2. Complete
a. No air can be exchanged.
b. Patient will be unable to speak, breathe, or cough.
c. Patient may clutch the neck with thumb and fingers--the universal distress signal.
d. Death will follow rapidly if prompt action is not taken.

D. Management of the Obstructed Airway
Refer to the American Heart Association Guidelines for the Management of Foreign Body Airway Obstruction - SEE APPENDICES A and B.
1. Partial with good air exchange
2. Partial with poor air exchange or complete airway obstructions

VIII. Foreign Body Airway Obstructions in infants and Children
A. More than 90% of childhood deaths from FBAO are in children below the age of 5.
B. 65% of the patients are infants.
C. FBAO in children is caused by
1. Toys
2. Balloons
3. Small objects
4. Food (hot dogs, round candies, nuts, and grapes)
D. Should be suspected in infants and children who demonstrate a sudden onset of respiratory distress associated with coughing, gagging, stridor, or wheezing.
E. Airway obstructions may be caused by infection.
F. The First Responder should only attempt to clear a complete or partial airway obstruction with poor air exchange
G. Blind finger sweeps are not done in infants or children.
H. Management of foreign body airway obstructions in infants
Refer to current American Heart Association Guidelines for Foreign Body Airway Obstruction
I. Management of foreign body airway obstructions in children
Refer to current American Heart Association Guidelines for Foreign Body Airway Obstruction

IX. Special Considerations
A. Patients with stomas
1. Persons who have undergone a laryngectomy (surgical removal of the voice box) have a permanent opening (stoma) that connects the trachea to the front of the neck.
2. When such person requires rescue breathing, mouth to stoma ventilation are required.
3. Technique
a. Make an airtight seal around the stoma. Use a barrier

device, if possible.
   b. Deliver a ventilation slowly, allowing the chest to rise.
   c. After delivering the ventilation, allow time for adequate exhalation.
4. Some patients have partial laryngectomies. If, upon ventilating stoma, air escapes from the mouth or nose, close the mouth and pinch the nostrils.

B. Infant and child patients
1. Place an infant's head in neutral position, but extend a little past neutral if the patient is a child.
2. Avoid excessive hyperextension of the head.
3. An oral airway may be considered when other procedures fail to provide a clear airway.
4. Gastric distension is more common in children.
5. Gastric distension may significantly impair ventilation attempts in children.

C. Dental appliances
1. Dentures - ordinarily dentures should be left in place.
2. Partial dentures (plates) may become dislodged during an emergency. Leave in place, but be prepared to remove it if it becomes dislodged.

Application

Procedural (How)

1. Show diagrams of the airway and respiratory system of adults, children, and infants.
2. Show examples of inadequate breathing.
3. Demonstrate the head-tilt chin-lift method of opening the airway.
4. Demonstrate the jaw thrust method of opening the airway.
5. Demonstrate mouth-to-mouth ventilation of a patient.
6. Demonstrate ventilation of a patient with a resuscitation mask and barrier device.
7. Demonstrate insertion of an oropharyngeal (oral) airway.
8. Demonstrate insertion of a nasopharyngeal (nasal) airway.
9. Demonstrate how to check a suction unit.
10. Demonstrate the techniques of suctioning.
11. Demonstrate ventilation of a patient with a stoma.

12. Demonstrate ventilation of an infant or child patient.

Contextual (When, Where, Why)

Every patient must have a patent airway to survive. When the airway is obstructed, the First Responder must clear it as soon as possible using the methods described in this lesson.

Once the airway has been opened, the First Responder must determine if breathing is adequate. Patients with inadequate breathing must be ventilated using mouth-to-mouth or mouth-to-mask.

Student Activities

Auditory (Hearing)

1. The student should hear abnormal airway sounds such as gurgling, snoring, stridor, and expiratory grunting.
2. The student should hear a resuscitation mask/barrier device used on a patient.
3. The student should hear suction units being operated.

Visual (Seeing)

1. The student should see audio-visual materials of the airway and respiratory system.
2. The student should see normal breathing in other students.
3. The student should see audio-visual materials of abnormal breathing.
4. The student should see audio-visual aids or materials of patients with stomas.
5. The student should see different kinds of oral and nasal airways.
6. The student should see different devices for ventilating patients (resuscitation masks, barrier devices).
7. The student should see different kinds of suction units.
8. The student should see audio-visual materials of various dental appliances.

Kinesthetic (Doing)

1. The student should practice evaluating breathing for adequacy.
2. The student should practice opening the airway with the head-tilt chin-lift maneuver.
3. The student should practice opening the airway with the jaw thrust.

4. The student should practice mouth-to-mouth ventilation.
5. The student should practice ventilation of a patient with a resuscitation mask.
6. The student should practice insertion of an oropharyngeal (oral) airway (adult, child, and infant) with and without tongue blade.
7. The student should practice insertion of a nasopharyngeal (nasal) airway.
8. The student should practice checking a suction unit.
9. The student should practice suctioning.
10. The student should practice ventilating a patient with a stoma.
11. The student should practice ventilating an infant or child patient.

Instructor Activities

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

Evaluation

Written:

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

Practical:

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

Remediation

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

Enrichment

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

Module 3: Patient Assessment
Lesson 3-1 Patient Assessment

Objectives

Objectives Legend

C=Cognitive P=Psychomotor A=Affective

1 = Knowledge level
2 = Application level
3 = Problem-solving level
**Indicates material that is not included in the Refresher Course Lesson Plan.*

Cognitive Objectives

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

3-1.1 Discuss the components of scene size-up. (C-1)
3-1.2 Describe common hazards found at the scene of a trauma and a medical patient. (C-1)
3-1.3 Determine if the scene is safe to enter. (C-2)
3-1.4 Discuss common mechanisms of injury/nature of illness. (C-1)
3-1.5 Discuss the reason for identifying the total number of patients at the scene. (C-1)
3-1.6 Explain the reason for identifying the need for additional help or assistance. (C-1)
3-1.7 Summarize the reasons for forming a general impression of the patient. (C-1)
3-1.8 Discuss methods of assessing mental status. (C-1)
3-1.9 Differentiate between assessing mental status in the adult, child, and infant patient. (C-3)
3-1.10 Describe methods used for assessing if a patient is breathing. (C-1)
3-1.11 Differentiate between a patient with adequate and inadequate breathing. (C-3)
3-1.12 Describe the methods used to assess circulation. (C-1)
3-1.13 Differentiate between obtaining a pulse in an adult, child, and infant patient. (C-3)
3-1.14 Discuss the need for assessing the patient for external bleeding. (C-1)
3-1.15 Explain the reason for prioritizing a patient for care and transport. (C-1)
3-1.16 Discuss the components of the physical exam. (C-1)
3-1.17 State the areas of the body that are evaluated during the physical exam. (C-1)
3-1.18 Explain what additional questioning may be asked during the physical exam. (C-1)
3-1.19 Explain the components of the SAMPLE history. (C-1)

3-1.20 Discuss the components of the on-going assessment. (C-1)
3-1.21 Describe the information included in the First Responder "hand-off" report. (C-1)

Affective Objectives

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

3-1.22 Explain the rationale for crew members to evaluate scene safety prior to entering. (A-2)
3-1.23 Serve as a model for others by explaining how patient situations affect your evaluation of the mechanism of injury or illness. (A-2)
3-1.24 Explain the importance of forming a general impression of the patient. (A-1)
3-1.25 Explain the value of an initial assessment. (A-2)
3-1.26 Explain the value of questioning the patient and family. (A-2)
3-1.27 Explain the value of the physical exam. (A-2)
3-1.28 Explain the value of an on-going assessment. (A-2)
3-1.29 Explain the rationale for the feelings that these patients might be experiencing. (A-3)
3-1.30 Demonstrate a caring attitude when performing patient assessments. (A-3)
3-1.31 Place the interests of the patient with as the foremost consideration when making any and all patient care decisions during patient assessment. (A-3)
3-1.32 Communicate with empathy during patient assessment to patients as well as with family members and friends of the patient. (A-3)

Psychomotor Objectives

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

3-1.33 Demonstrate the ability to differentiate various scenarios and identify potential hazards. (P-1)
3-1.34 Demonstrate the techniques for assessing mental status. (P-1,2)
3-1.35 Demonstrate the techniques for assessing the airway. (P-1,2)
3-1.36 Demonstrate the techniques for assessing if the patient is breathing. (P-1,2)
3-1.37 Demonstrate the techniques for assessing if the patient has a pulse. (P-1,2)
3-1.38 Demonstrate the techniques for assessing the patient for external bleeding. (P-1,2)
3-1.39 Demonstrate the techniques for assessing the patient's skin color, temperature, condition, and capillary refill (infants and children only). (P-1,2)
3-1.40 Demonstrate questioning a patient to obtain a SAMPLE history.
3-1.41 Demonstrate the skills involved in performing the physical exam. (P-1,2)
3-1.42 Demonstrate the on-going assessment (P-1,2)

Preparation

Motivation:

Size-up is the first aspect of patient assessment. It begins as the First Responder approaches the scene. During this phase, the First Responder surveys the scene to determine if there are any threats that may cause an injury to the First Responder, bystanders, or may cause additional injury to the patient.

The initial assessment, physical exam, and patient/family questioning are used to identify patients who require critical interventions.

Materials

AV Equipment:

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

EMS Equipment:

Exam gloves, airway management equipment, suction.

Personnel

Primary Instructor:

One First Responder 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.

Recommended Minimum Time to Complete:

Two hours

Presentation

Declarative (What)a. Scene Size-up

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. Is the scene safe?
      a. Definition - an assessment of the scene and surroundings that will provide valuable information to the First Responder and will help ensure the well-being of the First Responder.
      b. Personal protection - Is it safe to approach the patient?
         (1) Crash/rescue scenes
         (2) Toxic substances - low oxygen areas
         (3) Crime scenes - potential for violence
         (4) Unstable surfaces: slope, ice, water
      c. Protection of the patient - environmental considerations
      d. Protection of bystanders - do not let the bystander become ill or injured
      e. If the scene is unsafe, make it safe. Otherwise, do not enter.

C. What is the mechanism of injury or nature of illness?
   1. Mechanism of injury - an evaluation of the forces that caused an injury. May be beneficial in determining the presence of internal injuries.
   2. Trauma - Mechanism of injury - determine from the patient, family or bystanders and inspect the scene. What is the mechanism of injury?
   3. Medical - Nature of illness - determine from the patient, family, or bystanders why EMS was called.

D. How many patients are involved?
   1. Obtain additional help prior to contact with patients: law enforcement, fire, rescue, ALS, utilities.
   2. First Responder is less likely to call for help if involved in patient care.
   3. Begin triage.

E. Are additional EMS resources en route?

I. Initial Assessment
- A. The initial assessment is completed to assist the First Responder in identifying immediate threats to life.
- B. General Impression of the patient
  1. Based on the First Responder's immediate assessment of the environment and the patient's chief complaint.
  2. Determine if ill (medical) or injured (trauma).
     - a. Is this trauma?
     - b. Is this medical?
     - c. Is it unclear? - Treat as trauma
  3. Approximate age
  4. Sex
- C. Assess responsiveness - stabilize spine if trauma.
  1. Begin by speaking to the patient.
     - a. State your name
     - b. Tell the patient that you are a first responder
     - c. Explain that you are here to help.
  2. Levels of responsiveness
     - a. Alert
     - b. Verbal - responds to verbal stimuli
     - c. Painful - responds to painful stimuli.
     - d. Unresponsive
  3. Infant and child considerations
     - a. Infants and younger children will not respond to methods used to assess responsiveness in adults.
     - b. Assess interaction with environment and parents.
- D. Assess the patient's airway status.
  1. Responsive patient
     - a. Can the patient speak?
     - b. Is the airway patent?
  2. Unresponsive patient
     - a. Open the airway
       - (1) Medical - Head tilt-chin lift
       - (2) Trauma - Jaw-thrust without head-tilt
     - b. Inspect the airway
     - c. Clear the airway as needed

E. Assess the patient's breathing
   1. Look at the work of breathing
   2. Responsive - Can the patient speak?
   3. Unresponsive
      a. Maintain an open airway
      b. Look, listen, and feel for presence of ventilation
   4. Ventilate as needed

F. Assess the patient's circulation.
   1. Assess the patient's pulse.
      a. Adults
         (1) Responsive - assess radial pulse
         (2) Unresponsive - assess carotid pulse
      b. Infants - assess brachial pulse
      c. Children
         (1) Unresponsive - assess carotid or femoral
         (2) Responsive - assess brachial or radial
   2. Assess if major bleeding is present. If bleeding is present, control bleeding as described in *Module 5: Illness and Injury, Lesson 5-2 Bleeding and Soft Tissue Injuries*
   3. Assess the patient's skin color and temperature

G. Update responding EMS unit with a brief Radio Report
   1. Age and sex
   2. Chief complaint
   3. Responsiveness
   4. Airway and breathing status
   5. Circulation status
   6. Determine estimated time of arrival of additional EMS resources

II. First Responder Physical Exam

A. The First Responder physical exam is designed to locate and begin the initial management of the signs and symptoms of illness or injury.

B. The First Responder should complete a physical exam on all patients following the initial assessment.

C. Patient and injury specific, e.g., cut finger would not require the complete physical exam.

D. As the First Responder locates signs and symptoms of illness or injury, there may be specific questions that the First Responder should ask. This material is described in specific lessons on Illness and Injury.

E. Perform a physical examination on the patient to gather additional

information.

1. Inspect (look) and palpate (feel) for the following signs of injury:
    a. Deformities
    b. Open injuries
    c. Tenderness
    d. Swelling
    e. The mnemonic D-O-T-S is helpful in remembering the signs of injury.
2. Briefly assess the following body in a logical manner:
    a. Head
    b. Neck
    c. Chest
    d. Abdomen
    e. Pelvis
    f. All four extremities

III. Obtain History from the Patient or Family

A. Medical identification tags may be beneficial in assessing allergies, medications, or past medical history.

B. For medical patients the SAMPLE history may be completed prior to the physical exam.

C. SAMPLE History

1. Signs/Symptoms
    a. "Why did you call EMS today?"
    b. Sign - Any medical or trauma condition displayed by the patient and identifiable by the First Responder,
        (1) Hearing - respiratory distress
        (2) Seeing - bleeding
        (3) Feeling - skin temperature.
    c. Symptom - any condition described by the patient,
        (1) Difficulty breathing
        (2) Headache
        (3) Pain
2. Allergies
    a. "Are you allergic to anything?"
    b. Medications
    c. Environmental allergies
    d. Food
3. Medications

a. "Do you take any prescription or non-prescription medicine?"
b. Prescription
(1) Current
(2) Recent
c. Non-prescription
(1) Current
(2) Recent

4. Pertinent Past History
a. "Are you seeing a Doctor for anything?"
b. "Have you ever been in the hospital?"
c. Medical
d. Surgical
e. Trauma
5. Last oral intake: Solid or liquid
a. "When was the last time you had anything to eat or drink?"
b. Time
c. Quantity
6. Events leading to the injury or illness
a. "What were you doing when this happened?"
b. "Where there any other associated symptoms?"

IV. On-Going Assessment
A. While awaiting additional EMS resources, the First Responder should continue to assess the patient.
B. The initial assessment should be repeated.
1. Repeat every 15 minutes for a stable patient
2. Repeat every 5 minutes for an unstable patient
3. Reassess mental status.
4. Maintain an open airway.
5. Monitor breathing for rate and quality.
6. Reassess pulse for rate and quality.
7. Monitor skin color, temperature, and condition.
C. Repeat First Responder physical exam as needed.
D. Check interventions to ensure that they are effective.
E. In addition to the continued assessments, the First Responder should calm and reassure the patient.
F. Upon arrival of EMS, the First Responder should provide a "hand-off" report.
1. Age and sex

2. Chief complaint
3. Responsiveness
4. Airway and breathing status
5. Circulation status
6. Physical findings
7. SAMPLE history
8. Interventions provided

Application

Procedural (How)

The assessment is completed by visually inspecting, physically palpating and in some cases listening, and verbally communicating with the patient and family. The assessment is an input/output process, where assessment findings are the input and emergency medical care is the output.

1. Review of scene size-up.
2. Review of the initial assessment.
3. Students should be shown audio-visual materials of various trauma scenes to evaluate the mechanism of injury.
4. Demonstrate an initial patient assessment.
5. Review airway patency and breathing assessment.
6. Review methods of assessing mental status.
7. Demonstrate obtaining radial, carotid, and brachial pulses.
8. Demonstrate the First Responder physical exam
9. Demonstrate an on-going assessment
10. Demonstrate a hand-off report.

Contextual (When, Where, Why)

Size-up represents the very beginning of patient assessment. It requires the First Responder to evaluate several aspects concerning the situation in a very short period of time. It is essential for assuring the safety of the First Responder and the patient. This information may be obtained as part of dispatch, but should always be reassessed upon arrival at the scene. For some situations, size-up is an on-going process. As additional information is obtained, modification is made to the size-up of the patient and the situation overall.

Perform initial assessment on all patients after assuring scene and personal

safety. If the scene is safe and the environment permits, perform the assessment before moving the patient. The initial assessment is a rapid means of understanding patient condition and priorities of care.

The physical exam and questioning the patient and family are done after the initial assessment and correction of immediate threats to life. During this process, obtain additional information regarding the patient's condition.

The on-going assessment is completed on all patients while awaiting additional EMS resources. This assessment allows the First Responder to calm and reassure the patient, and at the same time, to reassess the ABCs.

Student Activities

Auditory (Hearing)

1. The student should hear simulations of various safe and unsafe scenes.
2. Students should hear recordings of various patient conditions to listen for clues concerning the general impression.
3. Students should hear normal and abnormal airway noises.
4. Students should hear breathing.
5. Students should hear information input from a simulated responsive patient or from others regarding signs and symptoms for patients that are unresponsive.
6. The students should hear the components of scene size-up.
7. The students should hear the components of the initial assessment.
8. The students should hear the components of the physical exam.
9. The students should hear the components of the on-going assessment.

Visual (Seeing)

1. The student should see simulations of various safe and unsafe scenes.
2. The student should see the flow charts from Appendix F.
3. Students should see audio-visual materials of various injuries.
4. Students should see the inspection and palpation of programmed patients for various injuries and patterns of injury.
5. Students should see landmarks for palpation and inspection.

Kinesthetic (Doing)

1. The student should role play actions to take at various safe and unsafe

scenes.
2. The student should use the flow chart from Appendix F.
3. Students should practice establishing mental status on programmed patients (fellow students) with various mental statuses.
4. Students should practice airway opening techniques on manikins and each other.
5. Students should practice assessing breathing.
6. Students should practice assessing pulses.
7. Students should practice assessing for major bleeding.
8. Students should practice recording assessment findings.
9. Students should practice inspecting and palpating.
10. Students should practice scene size-up.
11. Students should practice the initial assessment.
12. Students should practice the physical exam.
13. Students should practice questioning the patient to obtain a SAMPLE history.
14. Students should practice the on-going assessment.

Instructor Activities

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

Evaluation

Written:

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

Practical:

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

Remediation

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

Enrichment

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

Module 4: Circulation
Lesson 4-1 Circulation

Objectives

Objectives Legend

C=Cognitive P=Psychomotor A=Affective

1 = Knowledge level
2 = Application level
3 = Problem-solving level
**Indicates material that is not included in the Refresher Course Lesson Plan.*

Cognitive Objectives

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

4-1.1 List the reasons for the heart to stop beating (C-1)
**4-1.2 Define the components of cardiopulmonary resuscitation (C-1)*
4-1.3 Describe each link in the chain of survival and how it relates to the EMS system. (C-2)
4-1.4 List the steps of one-rescuer adult CPR (C-1)
4-1.5 Describe the technique of external chest compressions on an adult patient. (C-1)
4-1.6 Describe the technique of external chest compressions on an infant. (C-1)
4-1.7 Describe the technique of external chest compressions on a child. (C-1)
4-1.8 Explain when the First Responder is able to stop CPR. (C-2)
4-1.9 List the steps of two-rescuer adult CPR (C-1)
4-1.10 List the steps of infant CPR (C-1)
4-1.11 List the steps of child CPR (C-1)

Affective Objectives

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

4-1.12 Respond to the feelings that the family of a patient may be having during a cardiac event. (A-3)
4-1.13 Demonstrate a caring attitude towards patients with cardiac events who request emergency medical services. (A-3)
4-1.14 Place the interests of the patient with a cardiac event as the foremost consideration when making any and all patient care decisions. (A-3)
4-1.15 Communicate with empathy with family members and friends of the patient with a cardiac event. (A-3)

Psychomotor Objectives

At the completion of this lesson, the First Responder student will be able to:
4-1.16 Demonstrate the proper technique of chest compressions on an adult. (P-1,2)
4-1.17 Demonstrate the proper technique of chest compressions on a child. (P-1,2)
4-1.18 Demonstrate the proper technique of chest compressions on an infant. (P-1,2)
4-1.19 Demonstrate the steps of adult one rescuer CPR. (P-1,2)
4-1.20 Demonstrate the steps of adult two rescuer CPR. (P-1,2)
4-1.21 Demonstrate child CPR. (P-1,2)
4-1.22 Demonstrate infant CPR. (P-1,2)

Preparation

Motivation:

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

Cardiopulmonary Resuscitation (CPR), which will be covered in this module, is the major determinant of survival in cardiac arrest.

Materials

AV Equipment:

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

EMS Equipment:

CPR manikins, artificial ventilation manikins, suction equipment, airway management equipment, eye protection, exam gloves.

Personnel

Primary Instructor:

One instructor knowledgeable in basic life support.

Assistant Instructor:

The instructor-to-student ratio should be 1:6 for psychomotor skills practice. Individuals used as assistants should be knowledgeable in basic life support skills.

Recommended Minimum Time to Complete:

Two hours

Presentation

Declarative (What)

I. Cardiopulmonary Resuscitation
  A. The chain of survival and the EMS system
    1. Weak links in the chain lower survival rates
    2. Early access
      a. Public education and awareness
        (1) Rapid recognition of a cardiac emergency
        (2) Rapid notification before CPR is started - "phone first"
      b. 911-pre-arrival instructions and dispatcher directed CPR
    3. Early CPR
      a. Lay public
        (1) Family
        (2) Bystanders
      b. First Responders
    4. Early defibrillation
      a. Is now an EMT-basic skill
      b. Some EMS systems have taught First Responders the use of automated external defibrillation with great success
    5. Early advanced cardiac life support (ACLS)
  B. The steps of one rescuer adult CPR
    Refer to current American Heart Association Guidelines for CPR
  C. The steps of two rescuer Adult CPR
    Refer to current American Heart Association Guidelines for CPR

II. Infant and Child CPR
  A. The steps of infant CPR
    Refer to current American Heart Association Guidelines for CPR
  B. The steps of child CPR
    Refer to current American Heart Association Guidelines for CPR

Application

Procedural (How)

1. Demonstrate assessment, airway management, and emergency medical care of a manikin in a simulated cardiac arrest situation.

Contextual (When, Where, Why)

The First Responder student must prepare to assess and manage patients with cardiac emergencies. The training laboratory must provide simulated cardiac arrest situations for the student to practice demonstrated skills. The student must be able to integrate many single skills into one simulated cardiac arrest scenario in order to perform effective practice after course completion.

Student Activities

Auditory (Hearing)

1. The student should hear of actual cases where cardiac arrest resuscitation efforts were successful and unsuccessful and the reasons for the outcomes.

Visual (Seeing)

1. The student should see an instructor team appropriately resuscitate a simulated cardiac arrest patient.
2. The student should see re - enactments of cardiac arrest resuscitation efforts by First Responders.

Kinesthetic (Doing)

1. The student should practice the assessment and emergency medical care of a patient in cardiac arrest.
2. The student should practice assessment, airway management, and emergency medical care and transportation of a manikin in a simulated cardiac arrest situation outside the training laboratory.

Instructor Activities

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

Evaluation

Written:

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

Practical:

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

Remediation

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

Enrichment

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

Module 5: Illness and Injury
Lesson 5-1 Medical Emergencies

Objectives

Objectives Legend

C=Cognitive P=Psychomotor A=Affective

1 = Knowledge level
2 = Application level
3 = Problem-solving level
**Indicates material that is not included in the Refresher Course Lesson Plan.*

Cognitive Objectives

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

5-1.1 Identify the patient who presents with a general medical complaint. (C-1)
5-1.2 Explain the steps in providing emergency medical care to a patient with a general medical complaint. (C-1)
5-1.3 Identify the patient who presents with a specific medical complaint of altered mental status. (C-1)
5-1.4 Explain the steps in providing emergency medical care to a patient with an altered mental status. (C-1)
5-1.5 Identify the patient who presents with a specific medical complaint of seizures. (C-1)
5-1.6 Explain the steps in providing emergency medical care to a patient with seizures. (C-1)
5-1.7 Identify the patient who presents with a specific medical complaint of exposure to cold. (C-1)
5-1.8 Explain the steps in providing emergency medical care to a patient with an exposure to cold. (C-1)
5-1.9 Identify the patient who presents with a specific medical complaint of exposure to heat. (C-1)
5-1.10 Explain the steps in providing emergency medical care to a patient with an exposure to heat. (C-1)
5-1.11 Identify the patient who presents with a specific medical complaint of behavioral change. (C-1)
5-1.12 Explain the steps in providing emergency medical care to a patient with a behavioral change. (C-1)
5-1.13 Identify the patient who presents with a specific complaint of a psychological crisis. (C-1)
5-1.14 Explain the steps in providing emergency medical care to a patient with a psychological crisis. (C-1)

Affective Objectives

5-1.15 Attend to the feelings of the patient and/or family when dealing with the patient with a general medical complaint. (A-3)
5-1.16 Attend to the feelings of the patient and/or family when dealing with the patient with a specific medical complaint. (A-3)
5-1.17 Explain the rationale for modifying your behavior toward the patient with a behavioral emergency. (A-3)
5-1.18 Demonstrate a caring attitude towards patients with a general medical complaint who request emergency medical services. (A-3)
5-1.19 Place the interests of the patient with a general medical complaint as the foremost consideration when making any and all patient care decisions. (A-3)
5-1.20 Communicate with empathy to patients with a general medical complaint, as well as with family members and friends of the patient. (A-3)
5-1.21 Demonstrate a caring attitude towards patients with a specific medical complaint who request emergency medical services. (A-3)
5-1.22 Place the interests of the patient with a specific medical complaint as the foremost consideration when making any and all patient care decisions. (A-3)
5-1.23 Communicate with empathy to patients with a specific medical complaint, as well as with family members and friends of the patient. (A-3)
5-1.24 Demonstrate a caring attitude towards patients with a behavioral problem who request emergency medical services. (A-3)
5-1.25 Place the interests of the patient with a behavioral problem as the foremost consideration when making any and all patient care decisions. (A-3)
5-1.26 Communicate with empathy to patients with a behavioral problem, as well as with family members and friends of the patient. (A-3)

Psychomotor Objectives

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

5-1.27 Demonstrate the steps in providing emergency medical care to a patient with a general medical complaint. (C-1)
5-1.28 Demonstrate the steps in providing emergency medical care to a patient with an altered mental status. (C-1)
5-1.29 Demonstrate the steps in providing emergency medical care to a patient with seizures. (C-1)
5-1.30 Demonstrate the steps in providing emergency medical care to a patient with an exposure to cold. (C-1)
5-1.31 Demonstrate the steps in providing emergency medical care to a patient with an exposure to heat. (C-1)

5-1.32 Demonstrate the steps in providing emergency medical care to a patient with a behavioral change. (C-1)
5-1.33 Demonstrate the steps in providing emergency medical care to a patient with a psychological crisis. (C-1)

Preparation

Motivation:

Patients present with various medical conditions and complaints. Although some specific situations may require the First Responder to intervene with specific skills most will be listed as a common medical complaint. The First Responder must be prepared to provide appropriate emergency medical care to the various medical patients that they may encounter.

Materials

AV Equipment:

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

EMS Equipment:

Personal protective equipment, hot and cold packs, and a space blanket.

Personnel

Primary Instructor:

One First Responder instructor, knowledgeable in medical emergencies.

Assistant Instructor:

The instructor-to-student ratio should be 1:6 for psychomotor skill practice. Individuals used as assistant instructors should be knowledgeable about altered mental status, seizures, and environmental injuries.

Recommended Minimum Time to Complete:

One hour

Presentation

Declarative (What)

I. General Medical Complaints
   A. Patients may request emergency medical services for a variety of medical complaints.
   B. The First Responder should assess each patient to determine the patient's chief complaint as well as signs and symptoms present.
   C. Emergency medical care is based on the patient's signs and symptoms.
   D. Role of the First Responder
      1. Complete the First Responder assessment
         a. Complete a scene size-up before initiating emergency medical care.
         b. Complete an initial assessment on all patients.
         c. Complete a physical exam as needed.
         d. Complete on-going assessments.
      2. Comfort, calm, and reassure the patient while awaiting additional EMS resources

II. Specific Medical Complaints
   A. Altered mental status
      1. A sudden or gradual decrease in the patient's level of responsiveness and understanding ranging from disorientation to unresponsive.
      2. Role of the First Responder
         a. Complete the First Responder assessment
            (1) Complete a scene size-up before initiating emergency medical care.
            (2) Complete an initial assessment on all patients.
            (3) Complete a physical exam as needed.
            (4) Complete on-going assessments.
         b. Comfort, calm, and reassure the patient while awaiting additional EMS resources.
            (1) Assure patency of airway.
            (2) Place patient in the recovery position if no possibility of spine trauma.
            (3) Do not put anything in the patient's mouth
            (4) Have suction available
      3. Relationship to airway management
         a. Often patients with altered mental status cannot protect their

own airway; consider the use of airway adjuncts.
b. The unresponsive patient should be placed in the recovery position.
c. Suction should be readily available.

B. Seizures
1. A sudden attack, usually related to nervous system malfunction.
2. There are many types and causes of seizures
3. Role of the First Responder
a. Complete the First Responder assessment
(1) Complete a scene size-up prior to initiating emergency medical care.
(2) Complete an initial assessment on all patients.
(3) Complete a physical exam as needed.
(4) Complete on-going assessments.
b. Comfort, calm, and reassure the patient while awaiting additional EMS resources.
(1) Protect the patient from the environment.
(2) Protect modesty - ask bystanders to leave the area
(3) Assure patency of airway.
(4) Place patient in the recovery position if no possibility of spine trauma.
(5) Never restrain the patient.
(6) Do not put anything in the patient's mouth.
(7) Have suction available.
(8) If the patient is bluish, assure airway and artificially ventilate.
(9) Report assessment findings to EMS.
(10) Observe and describe the seizure to EMS resources.
(a) First Responder may be the only witness to seizure.
(b) May be important in determining cause of seizure.
4. Relationship to airway management
a. Often seizure patients will have significant oral secretions.
b. It is essential that these patients be placed in the recovery position when the convulsions have ended.
c. Patients who are actively seizing, bluish, and breathing inadequately should be ventilated, if possible.
d. Suction oral secretions as needed.

C. Exposure to cold

1. Generalized cold emergency
   a. Contributing factors
2. Role of the First Responder
   a. Complete the First Responder assessment
      (1) Complete a scene size-up before initiating emergency medical care.
      (2) Complete an initial assessment on all patients.
      (3) Complete a physical exam as needed.
      (4) Complete on-going assessments.
   b. Comfort, calm, and reassure the patient while awaiting additional EMS resources.
      (1) Assess pulses for 30-45 seconds before starting CPR.
      (2) Remove the patient from the cold environment.
      (3) Protect the patient from further heat loss.
      (4) Remove any wet clothing and cover the patient with a blanket.
      (5) Handle the patient extremely gently.
      (6) Do not allow the patient to walk or exert himself.
      (7) The patient should not be given anything by mouth.
         (a) Do not allow the patient to eat or drink stimulants.
         (b) Coffee, tea, or smoking may worsen the condition
      (8) Do not massage extremities.
      (9) Cover the patient with a blanket; keep the patient warm.
3. Local cold emergencies
      (1) Role of the First Responder
         (a) Complete the First Responder assessment
            i) Complete a scene size-up before initiating emergency medical care.
            ii) Complete an initial assessment on all patients.
            iii) Complete a physical exam as needed.
            iv) Complete on-going assessments.
         (b) Comfort, calm, and reassure the patient while awaiting additional EMS resources.
            i) Remove the patient from the environment.

ii) Protect the cold - injured extremity from further injury.
iii) Remove wet or restrictive clothing.
iv) If early or superficial injury
  a) Manually stabilize the extremity.
  b) Cover the extremity.
  c) Do not rub or massage.
  d) Do not re-expose to the cold.
v) If late or deep cold injury
  a) Remove jewelry.
  b) Cover with dry clothing or dressings.
  c) Do not:
    d) Break blisters
    e) Rub or massage area
    f) Apply heat
    g) Rewarm
    h) Allow the patient to walk on the affected extremity

D. Exposure to heat
  1. Predisposing factors
  2. Role of the First Responder
    a. Complete the First Responder assessment
      (1) Complete a scene size-up before initiating emergency medical care.
      (2) Complete an initial assessment on all patients.
      (3) Complete a physical exam as needed.
      (4) Complete on-going assessments.
    b. Comfort, calm, and reassure the patient while awaiting additional EMS resources.
      (1) Remove the patient from the hot environment and Place in a cool environment (air conditioned)
      (2) Cool patient by fanning, but may be ineffective in high humidity
      (3) Place in recovery position

E. Behavior
  1. Behavior - manner in which a person acts or performs; any or all activities of a person, including physical and mental activity.
  2. Behavioral emergency
    a. A situation where the patient exhibits abnormal behavior that

is unacceptable or intolerable to the patient, family, or community.

b. This behavior can be due to extremes of emotion leading to violence or other inappropriate behavior or due to a psychological or physical condition such as lack of oxygen or low blood sugar in diabetes.

3. Behavioral change

F. Role of the First Responder
   1. Complete the First Responder assessment
      a. Complete a scene size-up before initiating emergency medical care.
      b. Complete an initial assessment on all patients.
      c. Complete a physical exam as needed.
      d. Complete on-going assessments.
   2. Comfort, calm, and reassure the patient while awaiting additional EMS resources.
      a. Calm the patient - do not leave patient alone.
      b. Consider need for law enforcement.
      c. If overdose, give medications or drugs found to transporting EMS resources.

G. Principles for assessing behavioral emergency patients
H. Assessment of potential violence
I. Methods to calm behavioral emergency patients
J. Restraining patients
K. Medical/legal considerations
   1. Emotionally disturbed patient who consents to care - legal problems greatly reduced.

Application

Procedural (How)

1. Demonstrate the steps in providing emergency medical care to a patient with a general medical complaint.
2. Demonstrate the steps in providing emergency medical care to a patient with an altered mental status.
3. Demonstrate the steps in providing emergency medical care to a patient with seizures.
4. Demonstrate the steps in providing emergency medical care to a patient exposed to cold.
5. Demonstrate the steps in providing emergency medical care to a patient exposed to heat.
6. Demonstrate the steps in providing emergency medical care to a patient with a behavioral change.
7. Demonstrate the steps in providing emergency medical care to a patient with a psychological crisis.

Contextual (When, Where, Why)

The First Responder will now be able to treat patients with general and specific medical complaints.

Student Activities

Auditory (Hearing)

1. The student should hear the instructor present the signs, symptoms, and management of patients with general medical complaints.
2. The student should hear the instructor present the signs, symptoms, and management of patients with altered mental status.
3. The student should hear the instructor present the signs, symptoms, and management of patients with seizures.
4. The student should hear the instructor present the signs, symptoms, and management of patients exposed to cold.
5. The student should hear the instructor present the signs, symptoms, and management of patients exposed to heat.
6. The student should hear the instructor present the signs, symptoms, and management of patients with behavior problems.

Visual (Seeing)

1. The students should see audio-visual material of patients with general medical complaints.
2. The students should see audio-visual material of patients with an altered mental status.
3. The students should see audio-visual material of patients with seizures.
4. The students should see audio-visual material of patients exposed to cold.
5. The students should see audio-visual material of patients exposed to heat.
6. The students should see audio-visual material of patients with behavior problems.

Kinesthetic (Doing)

1. The students should role play emergency medical care of a patient with a general medical complaint.
2. The students should role play emergency medical care of a patient with altered mental status.
3. The students should role play emergency medical care of a patient with a seizure.
4. The students should role play emergency medical care of a patient exposed to cold.
5. The students should role play emergency medical care of a patient exposed to heat.
6. The students should role play emergency medical care of a patient with behavior problems.

Instructor Activities

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

Evaluation

Written:

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

Practical:

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

objectives and their mastery of the psychomotor objectives of this lesson.

Remediation

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

Enrichment

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

Lesson 5-2
Bleeding and Soft Tissue Injuries

Objectives

Objectives Legend

C=Cognitive P=Psychomotor A=Affective

1 = Knowledge level
2 = Application level
3 = Problem-solving level
**Indicates material that is not included in the Refresher Course Lesson Plan.*

Cognitive Objectives

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

**5-2.1 Differentiate between arterial, venous, and capillary bleeding. (C-3)*
5-2.2 State the emergency medical care for external bleeding. (C-1)
5-2.3 Establish the relationship between body substance isolation and bleeding. (C-3)
**5-2.4 List the signs of internal bleeding. (C-1)*
5-2.5 List the steps in the emergency medical care of the patient with signs and symptoms of internal bleeding. (C-1)
5-2.6 Establish the relationship between body substance isolation (BSI) and soft tissue injuries. (C-3)
**5-2.7 State the types of open soft tissue injuries. (C-1)*
5-2.8 Describe the emergency medical care of the patient with a soft tissue injury. (C-1)
5-2.9 Discuss the emergency medical care considerations for a patient with a penetrating chest injury. (C-1)
5-2.10 State the emergency medical care considerations for a patient with an open wound to the abdomen. (C-1)
5-2.11 Describe the emergency medical care for an impaled object. (C-1)
5-2.12 State the emergency medical care for an amputation. (C-1)
5-2.13 Describe the emergency medical care for burns. (C-1)
**5-2.14 List the functions of dressing and bandaging. (C-1)*

Affective Objectives

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

5-2.15 Explain the rationale for body substance isolation when dealing with bleeding and soft tissue injuries. (A-3)
5-2.16 Attend to the feelings of the patient with a soft tissue injury or bleeding. (A-3)
5-2.17 Demonstrate a caring attitude towards patients with a soft tissue injury or

bleeding who request emergency medical services. (A-3)

5-2.18 Place the interests of the patient with a soft tissue injury or bleeding as the foremost consideration when making any and all patient care decisions. (A-3)

5-2.19 Communicate with empathy to patients with a soft tissue injury or bleeding, as well as with family members and friends of the patient. (A-3)

Psychomotor Objectives

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

5-2.20 Demonstrate direct pressure as a method of emergency medical care for external bleeding. (P-1,2)

5-2.21 Demonstrate the use of diffuse pressure as a method of emergency medical care for external bleeding. (P-1,2)

5-2.22 Demonstrate the use of pressure points as a method of emergency medical care for external bleeding. (P-1,2)

5-2.23 Demonstrate the care of the patient exhibiting signs and symptoms of internal bleeding. (P-1,2)

5-2.24 Demonstrate the steps in the emergency medical care of open soft tissue injuries. (P-1,2)

5-2.25 Demonstrate the steps in the emergency medical care of a patient with an open chest wound. (P-1,2)

5-2.26 Demonstrate the steps in the emergency medical care of a patient with open abdominal wounds. (P-1,2)

5-2.27 Demonstrate the steps in the emergency medical care of a patient with an impaled object. (P-1,2)

5-2.28 Demonstrate the steps in the emergency medical care of a patient with an amputation. (P-1,2)

5-2.29 Demonstrate the steps in the emergency medical care of an amputated part. (P-1,2)

Preparation

Motivation:

Trauma is the leading cause of death in the United States in persons between the ages of 1 and 44. Traumatic injuries and bleeding are some of the most dramatic situations that the First Responder will encounter. The early control of major bleeding has great life saving potential.

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 First Responder to become familiar with the emergency medical care of soft tissue injuries with emphasis on controlling bleeding, preventing further injury, and reducing contamination.

Materials

AV Equipment:

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

EMS Equipment:

Personal protective equipment, sterile dressings, triangular bandages, universal dressings, occlusive dressings, 4 x 4 gauze pads, self adherent bandages, roller bandages.

Personnel

Primary Instructor:

One First Responder instructor, knowledgeable in bleeding and 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 about bleeding and soft tissues injuries.

Recommended Minimum Time to Complete:

One hour

Presentation

Declarative (What)

a. Bleeding

A. General considerations
   1. The First Responder must be aware of the risk of infectious disease from contact with blood or body fluids.
   2. The severity of blood loss must be based on the patient's signs and symptoms and the general impression of the amount of blood loss.
   3. The body's normal response to bleeding is blood vessel contractions and clotting.
   4. A serious injury may prevent effective clotting from occurring.
   5. Uncontrolled bleeding or significant blood loss leads to shock and possibly death.
   6. Bleeding may be external or internal.
   7. Internal and external bleeding can result in severe blood loss with resultant shock and subsequent death.

B. Types of external bleeding
   1. Arterial
   2. Venous
   3. Capillary
   4. Role of the First Responder
      a. Complete the First Responder assessment
         (1) Complete a scene size-up before initiating emergency medical care.
         (2) Complete an initial assessment on all patients.
         (3) Complete a physical exam as needed.
         (4) Complete on-going assessments.
      b. Comfort, calm, and reassure the patient while awaiting additional EMS resources
         (1) The First Responder must be aware of the implications of not using body substance isolation precautions.
         (2) Body substance isolation
         (3) Maintain airway/artificial ventilation.
         (4) Bleeding control
            (a) Apply finger tip pressure (use flat part of fingers) directly on the point of bleeding.

(b) If no injury to the muscle or bone exists, elevation of a bleeding extremity may be used secondary to and in conjunction with direct pressure.
(c) Large gaping wounds may require sterile gauze and direct hand pressure if finger tip pressure fails to control bleeding.
(d) If bleeding does not stop, remove dressing and assess for bleeding point to apply direct pressure. If more than one site of bleeding is discovered, apply additional pressure.
(e) Pressure points may be used in upper and lower extremities.

C. Internal bleeding
1. Injured or damaged internal organs commonly lead to extensive bleeding that is concealed.
2. Painful, swollen, deformed extremities may also lead to serious internal blood loss.
3. Signs and symptoms
4. Role of the First Responder
a. Complete the First Responder assessment
(1) Complete a scene size-up before initiating emergency medical care.
(2) Complete an initial assessment on all patients.
(3) Complete a physical exam as needed.
(4) Complete on-going assessments.
b. Comfort, calm, and reassure the patient while awaiting additional EMS resources.
(1) Body substance isolation
(2) Maintain airway/artificial ventilation.
(3) Manage any external bleeding.
(4) Reassure the patient.
(5) Keep the patient calm and in position of comfort.
(6) Keep the patient warm.
(7) Treat for shock.

D. Shock (hypoperfusion)
1. Condition resulting from the inadequate delivery of oxygenated blood to body tissues.
2. Signs and symptoms
3. Role of the First Responder

a. Complete the First Responder assessment
   (1) Complete a scene size-up before initiating emergency medical care.
   (2) Complete an initial assessment on all patients.
   (3) Complete a physical exam as needed.
   (4) Complete on-going assessments.
b. Comfort, calm, and reassure the patient while awaiting additional EMS resources.
   (1) Maintain airway/ventilation.
   (2) Prevent further blood loss.
   (3) Keep patient calm, in position of comfort.
   (4) Keep patient warm - attempt to maintain normal body temperature.
   (5) Do not give food or drink.
   (6) Provide care for specific injuries.

I. Specific Injuries
   A. Types
      1. Abrasion
      2. Laceration
      3. Penetration/puncture
   B. Role of the First Responder
      1. Complete the First Responder assessment
         a. Complete a scene size-up before initiating emergency medical care.
         b. Complete an initial assessment on all patients.
         c. Complete a physical exam as needed.
         d. Complete on-going assessments.
      2. Comfort, calm, and reassure the patient while awaiting additional EMS resources.
         a. Relationship to body substance isolation
            (1) Gloves
            (2) Gown
            (3) Eye protection
            (4) Hand washing
         b. Maintain proper airway/artificial ventilation
         c. Management of open soft tissue injuries.
            (1) Expose the wound.
            (2) Control the bleeding.
            (3) Prevent further contamination.

(4) Apply sterile dressing to the wound and bandage securely in place.

C. Special considerations
   1. Chest injuries -
      a. An occlusive dressing should be applied to open wounds and sealed on three sides.
      b. Position of comfort if no spinal injury suspected
   2. Impaled objects
      a. Do not remove the impaled object unless it is through the cheek or it would interfere with airway management or chest compressions.
      b. Manually secure the object.
      c. Expose the wound area.
      d. Control bleeding.
      e. Utilize a bulky dressing to help stabilize the object.
   3. Eviscerations
      a. Open injury with protruding organs
      b. Do not attempt to replace protruding organs.
      c. Cover with thick moist dressing.
   4. Amputations
      a. Involves the extremities and other body parts
      b. Massive bleeding may be present or bleeding may be limited.
      c. Locate and preserve the amputated part.
         (1) Place the part in a plastic bag.
         (2) Place the plastic bag containing the part in a larger bag or container with ice and water.
            (a) Do not use ice alone.
            (b) Do not use dry ice.

D. Burns
   1. Role of the First Responder
      a. Complete the First Responder assessment
         (1) Complete a scene size-up before initiating emergency medical care.
         (2) Complete an initial assessment on all patients.
         (3) Complete a physical exam as needed.
         (4) Complete on-going assessments.
      b. Comfort, calm, and reassure the patient while awaiting additional EMS resources.
         (1) Stop the burning process initially with water or saline.

(2) Remove smoldering clothing and jewelry.
(a) Be aware that some clothing may have melted to the skin.
(b) If resistance is met when removing the clothing, it should be left in place.
(3) Body substance isolation
(4) Continually monitor the airway for evidence of closure.
(5) Prevent further contamination.
(6) Cover the burned area with a dry sterile dressing.
(7) Do not use any type of ointment, lotion, or antiseptic.
(8) Do not break blisters.

2. Special Considerations
a. Chemical burns
b. Electrical burns
c. Infant and child considerations

II. Dressing and Bandaging
A. Function
B. Dressings
C. Bandages

Application

Procedural (How)

1. Review the methods of controlling external bleeding with an emphasis on body substance isolation.
2. Demonstrate the procedure for treating an open soft tissue injury.
3. Demonstrate the necessary body substance isolation when dealing with soft tissue injuries.
4. Demonstrate the proper method for applying an occlusive dressing.
5. Demonstrate the proper method for stabilizing an impaled object.
6. Show a diagram illustrating a superficial, partial thickness, and full thickness burn.
7. Demonstrate the proper emergency medical care for a superficial, partial thickness, and full thickness burn.
8. Show the various types of dressings and bandages.
9. Demonstrate the proper method for applying a universal dressing, a 4 X 4 inch dressing, and an adhesive type dressing.
10. Demonstrate the proper method for applying bandages: self-adherent,

gauze rolls, triangular, and adhesive tape.

11. Demonstrate the proper method for applying a pressure dressing.

Contextual (When, Where, Why)

External bleeding is assessed during the initial patient assessment after securing the scene and ensuring personal safety. After airway and breathing control of arterial or venous bleeding will be done upon immediate identification.

Soft tissue injuries, unless life threatening, will be treated after the initial assessment. Failure to treat soft tissue injuries could lead to severe bleeding, further damage to the injury, or further contamination.

Student Activities

Auditory (Hearing)

1 Students should hear simulations to identify signs and symptoms of external bleeding.
2. The student should hear simulated situations in which the signs and symptoms of soft tissue injuries and procedures for treating soft tissue injuries are demonstrated.
3. The student should hear the sounds made by open sucking chest wounds.

Visual (Seeing)

1. The students should see audio-visual materials of the various types of external bleeding.
2. The student should see audio-visual materials of the proper methods to control bleeding.
3. The student should see a patient to identify major bleeding.
4. The students should see, in simulated situations, the application of direct pressure, elevation, and pressure points in the emergency medical care of external bleeding.
5. Show diagrams of the various types of soft tissue injuries.
6. The student should see demonstrations of the treatment of an open soft tissue injury.
7. The student should see demonstrations of necessary body substance isolation when dealing with soft tissue injuries.
8. The student should see demonstrations of the proper method for applying an occlusive dressing.
9. The student should see demonstrations of the proper method for

stabilizing an impaled object.

10. The student should see diagrams illustrating a superficial, partial thickness, and full thickness burn.
11. The student should see demonstrations of the proper emergency medical care for superficial, partial thickness, and full thickness burns.
12. The student should see the various types of dressing and bandages.
13. The student should see demonstrations of the proper methods for applying a universal dressing, a 4 X 4 inch dressing, and an adhesive type dressing.
14. The student should see demonstrations of the proper method for applying bandages: self-adherent, gauze rolls, triangular, and adhesive tape.
15. The student should see demonstrations of the proper method for applying a pressure dressing.

Kinesthetic (Doing)

1. The student should practice the steps in the emergency medical care of open soft tissue injuries.
2. The student should practice the steps in the emergency medical care of a patient with an open chest wound.
3. The student should practice the steps in the emergency medical care of a patient with an open abdominal wound.
4. The student should practice the steps in the emergency medical care of a patient with an impaled object.
5. The student should practice the steps in the emergency medical care of a patient with superficial burns.
6. The student should practice the steps in the emergency medical care of a patient with partial thickness burns.
7. The student should practice the steps in the emergency medical care of a patient with full thickness burns.
8. The student should practice the steps in the emergency medical care of a patient with an amputation.
9. The student should practice the steps in the emergency medical care of the amputated part.
10. The student should practice the steps in the emergency medical care of a patient with a chemical burn.
11. The student should practice the steps in the emergency medical care of a patient with an electrical burn.

Instructor Activities

Facilitate discussion and supervise practice.

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

Evaluation

Written:

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

Practical:

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

Remediation

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

Enrichment

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

Lesson 5-3
Injuries to Muscles and Bones

Objectives

Objectives Legend

C=Cognitive P=Psychomotor A=Affective

1 = Knowledge level
2 = Application level
3 = Problem-solving level
**Indicates material that is not included in the Refresher Course Lesson Plan.*

Cognitive Objectives

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

**5-3.1 Describe the function of the musculoskeletal system. (C-1)*
**5-3.2 Differentiate between an open and a closed painful, swollen, deformed extremity. (C-1)*
5-3.3 List the emergency medical care for a patient with a painful, swollen, deformed extremity. (C-1)
**5-3.4 Relate mechanism of injury to potential injuries of the head and spine. (C-3)*
**5-3.5 State the signs and symptoms of a potential spine injury. (C-1)*
5-3.6 Describe the method of determining if a responsive patient may have a spine injury. (C-1)
**5-3.7 List the signs and symptoms of injury to the head. (C-1)*
5-3.8 Describe the emergency medical care for injuries to the head. (C-1)

Affective Objectives

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

5-3.9 Explain the rationale for the feeling patients who have need for immobilization of the painful, swollen, deformed extremity. (A-3)
5-3.10 Demonstrate a caring attitude towards patients with a musculoskeletal injury who request emergency medical services. (A-3)
5-3.11 Place the interests of the patient with a musculoskeletal injury as the foremost consideration when making any and all patient care decisions. (A-3)
5-3.12 Communicate with empathy to patients with a musculoskeletal injury, as well as with family members and friends of the patient. (A-3)

Psychomotor Objectives

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

5-3.13 Demonstrate the emergency medical care of a patient with a painful, swollen, deformed extremity. (P-1,2)

5-3.14 Demonstrate opening the airway in a patient with suspected spinal cord injury. (P-1,2)
5-3.15 Demonstrate evaluating a responsive patient with a suspected spinal cord injury. (P-1,2)
5-3.16 Demonstrate stabilizing of the cervical spine. (P-1,2)

Preparation

Motivation:

Injuries to the bones and muscles are very common types of injuries encountered by the First Responder. These injuries are largely non-life threatening in nature but may be very dramatic. Prompt identification and emergency medical care of musculoskeletal injuries is crucial in reducing pain, preventing further injury and minimizing permanent damage.

Materials

AV Equipment:

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

EMS Equipment:

Blanket, pillow, improvised splinting material, e.g. magazines, etc.

Personnel

Primary Instructor:

One First Responder Instructor knowledgeable in musculoskeletal and head and spinal injuries.

Assistant Instructor:

The instructor - to - student ratio should be 1:6 for psychomotor skills practice. Individuals used as assistant instructors should be knowledgeable in musculoskeletal care and the care of head and spinal injuries.

Recommended Minimum Time to Complete:

One hour

Presentation

Declarative (What)

I. Injuries to Bones and Joints
   A. Mechanism of injury
   B. Bone or joint injuries
      1. Types
      2. Signs and symptoms
      3. Emergency medical care of bone or joint injuries
         a. Body substance isolation
         b. After life threats have been controlled, allow patient to remain in a position of comfort
         c. Application of cold pack to area of painful, swollen, deformed extremity to reduce swelling and pain
         d. Manual extremity stabilization
            (1) Support above and below an injury
            (2) Cover open wounds with a sterile dressing.
            (3) Pad to prevent pressure and discomfort to the patient.
            (4) When in doubt, manually stabilize the injury
            (5) Do not intentionally replace the protruding bones.

II. Injuries to the Spine
   A. Mechanism of injury
   B. Signs and symptoms
   C. 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?
      2. Unresponsive patient
         a. Maintain airway and breathing
         b. Stabilize head and neck manually in the position found
         c. Obtain information from others at the scene to determine mechanism of injury and patient mental status before the

First Responder's arrival.

D. Complications
E. Emergency medical care
   1. Body substance isolation
   2. Establish and maintain manual stabilization
      a. Maintain constant manual stabilization
      b. May be released when additional EMS resources have properly secured the patient to a backboard with the head stabilized.
   3. Perform initial assessment.
      a. Whenever possible, airway control should be done without moving the patient's head.
      b. Whenever possible, artificial ventilation should be done without moving the head.
   4. Assess pulse, motor, and sensation in all extremities.

III. Injuries to the Brain and Skull
   A. Head injuries
   B. Emergency medical care
      1. Body substance isolation
      2. Maintain airway/artificial ventilation/oxygenation.
      3. Initial assessment with manual spinal stabilization should be done on scene.
      4. Closely monitor the mental status for deterioration.
      5. Control bleeding.
         a. Apply enough pressure to control the bleeding, without disturbing the underlying tissue.
         b. Dress and bandage open wound as indicated in the emergency medical care of soft tissue injuries.
      6. Be prepared for changes in patient condition.

Application

Procedural (How)

1. Show diagrams of the muscular system.
2. Show diagrams of the skeletal system.
3. Show audio-visual materials of signs of open and closed bone and joint injuries.
4. Demonstrate assessment of an injured extremity.

5. Demonstrate manual stabilization techniques using the general rules of splinting.

Contextual (When, Where, Why)

Injuries to bones and joints require immediate stabilization unless life-threatening injuries are present. If life-threatening injuries are present, ignore extremity injuries and address the immediate problem.

Failure to stabilize 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.

Student Activities

Auditory (Hearing)

1. The student should hear simulations of various situations involving musculoskeletal injuries and the proper assessment and emergency medical care.

Visual (Seeing)

1. The student should see diagrams of the muscular system.
2. The student should see diagrams of the skeletal system.
3. The student should see audio-visual materials of open and closed bone and joint injuries.
4. The student should see a demonstration of an assessment of an injured extremity.
5. The student should see a demonstration of manual stabilization using general rules of stabilization.

Kinesthetic (Doing)

1. The student should practice assessment of an injured extremity.
2. The student should practice manual stabilization following the general rules of stabilization.

Instructor Activities

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

Evaluation

Written:

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

Practical:

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

Remediation

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

Enrichment

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

Module 6: Childbirth and Children
Lesson 6-1 Childbirth

Objectives

Objectives Legend

C=Cognitive P=Psychomotor A=Affective

1 = Knowledge level
2 = Application level
3 = Problem-solving level
**Indicates material that is not included in the Refresher Course Lesson Plan.*

Objectives

Cognitive Objectives

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

**6-1.1 Identify the following structures: birth canal, placenta, umbilical cord, amniotic sac. (C-1)*
**6-1.2 Define the following terms: crowning, bloody show, labor, abortion. (C-1)*
**6-1.3 State indications of an imminent delivery. (C-1)*
**6-1.4 State the steps in the pre-delivery preparation of the mother. (C-1)*
6-1.5 Establish the relationship between body substance isolation and childbirth. (C-3)
6-1.6 State the steps to assist in the delivery. (C-1)
6-1.7 Describe care of the baby as the head appears. (C-1)
6-1.8 Discuss the steps in delivery of the placenta. (C-1)
6-1.9 List the steps in the emergency medical care of the mother post-delivery. (C-3)
6-1-10 Discuss the steps in caring for a newborn. (C-1)

Affective Objectives

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

6-1.11 Explain the rationale for attending to the feeling of a patient in need of emergency medical care during childbirth. (A-2)
6-1.12 Demonstrate a caring attitude towards patients during childbirth who request emergency medical services. (A-3)
6-1.13 Place the interests of the patient during childbirth as the foremost consideration when making any and all patient care decisions. (A-3)
6-1.14 Communicate with empathy to patients during childbirth, as well as with family members and friends of the patient. (A-3)

Psychomotor Objectives

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

6-1.15 Demonstrate the steps to assist in the normal cephalic delivery. (P-1,2)

6-1.16 Demonstrate necessary care procedures of the fetus as the head appears. (P-1,2)

6-1.17 Attend to the steps in the delivery of the placenta. (P-1,2)

6-1.18 Demonstrate the post-delivery care of the mother. (P-1,2)

6-1.19 Demonstrate the care of the newborn. (P-1,2)

Preparation

Motivation:

Childbirth in an out-of-hospital setting rarely occurs. Because of the infrequency, taking care of an anxious mother and newborn infant is a stressful emergency call for the First Responder. Knowledge and practice in simulated situations can decrease stress and lead to better mother and child care.

Materials

AV Equipment:

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

EMS Equipment:

Childbirth kit, airway management equipment, eye protection, gloves.

Personnel

Primary Instructor:

One First Responder Instructor familiar with childbirth.

Assistant Instructor:

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

Recommended Minimum Time to Complete:

One half hour

Presentation

Declarative (What)

a. Childbirth

A. Reproductive anatomy, physiology and terminology

B. Delivery

1. Is delivery imminent?

2. If crowning is present, prepare for delivery.
3. If the head is not the presenting part this may be a complicated delivery.
    a. Tell the mother not to push.
    b. Update responding EMS resources.
    c. Calm and reassure the mother.
4. Delivery procedures
    a. Ensure body substance isolation
    b. Have mother lie on her back with knees drawn up and legs spread apart.
    c. Place absorbent, clean materials (sheets, towels, etc.) under the patient's buttocks.
    d. Elevate buttocks with blankets or pillow.
    e. When the infant's head appears, place the palm of your hand on top of the delivering baby's head and exert very gentle pressure to prevent explosive delivery.
    f. If the amniotic sac does not break or has not broken, tear it with your fingers and push it away from the infant's head and mouth.
    g. As the infant's head is being born, determine if the umbilical cord is around the infant's neck.
        (1) Attempt to slip the cord over the baby's shoulder
        (2) If unsuccessful, attempt to alleviate pressure on the cord.
    h. After the infant's head is born, support the head
    i. Suction the mouth and then the nostrils two or three times with the bulb syringe.
        (1) Use caution to avoid contact with the back of the baby's mouth.
        (2) If a bulb syringe is not available, wipe the baby's mouth and then the nose with gauze.
    j. As the torso and full body are born, support the infant with both hands.
    k. Do not pull on the infant.
    l. As the feet are delivered, grasp the feet.
        (1) Keep the infant level with the vagina.
        (2) You may place the infant on the mothers abdomen for warmth.
    m. When the umbilical cord stops pulsating, it should be tied with gauze between the mother and the newborn and the

infant may be placed on the mother's abdomen.

n. Wipe blood and mucus from the baby's mouth and nose with sterile gauze; suction mouth, then the nose again.
o. Dry the infant.
p. Rub the baby's back or flick the soles of its feet to stimulate breathing.
q. Wrap the infant in a warm blanket and place the infant on its side, head slightly lower than trunk.
r. There is no need to cut the cord in a normal delivery. Keep the infant warm and wait for additional EMS resources who will have the proper equipment to clamp and cut the cord.
s. Record time of delivery.
t. If there is a chance of multiple births, prepare for second delivery.
u. Observe for delivery of placenta. This may take up to 30 minutes.
v. If the placenta is delivered, wrap it in a towel with 3/4 of the umbilical cord and place in a plastic bag, and keep the bag at the level of the infant.
w. Place sterile pad over vaginal opening, lower mother's legs, help her hold them together.

5. Vaginal bleeding following delivery
   a. Up to 300 - 500 ml blood loss is well tolerated by the mother following delivery.
   b. The First Responder must be aware of this loss so as not to cause undue psychological stress on himself or the new mother.
   c. With continued blood loss, massage the uterus.
      (1) Use hand with your fingers fully extended.
      (2) Place the palm of your hand on lower abdomen above the pubis.
      (3) Massage (knead) over area.
      (4) If bleeding continues, check massage technique

C. Initial care of the newborn
   1. Assessment of infant
   2. The most important care is to position, dry, keep warm, and stimulate the newborn to breathe.
   3. Wrap newborn in blanket and cover its head.
   4. Repeat suctioning if necessary.

5. Continue to stimulate newborn if not breathing.
6. If newborn does not begin to breathe or continues to have breathing difficulty after one minute, the First Responder must consider the need for additional measures.
    a. Ensure open and patent airway.
    b. Ventilate at a rate of 40 breaths per minute.
    c. Reassess after one minute.
    d. If heart rate is less than 80 beats per minute, a second rescuer should perform chest compressions.

D. Post delivery care of the mother
1. Keep contact with the mother throughout the process.
2. Monitor respirations and pulse.
3. Keep in mind that delivery is an exhausting procedure.
4. Replace any blood soaked sheets and blankets while awaiting transport.

Application

Procedural (How)

1. Demonstrate a normal delivery.
2. Demonstrate necessary care of the fetus as the head appears.
3. Demonstrate initial care of the newborn.
4. Demonstrate post-delivery care of the mother.
5. Demonstrate emergency medical care of the mother with continued bleeding.

Contextual (When, Where, Why)

Knowledge and skills practice in the laboratory setting, particularly for out-of-hospital childbirth, help the students maintain professionalism, understand these uncommon emergency medical care situations, and support the patient until additional EMS providers arrive at the scene.

Student Activities

Auditory (Hearing)

1. The student should hear a video tape of a mother in the final stages of labor, providing a sample of the mother's actions during this painful process.

Visual (Seeing)

1. The student should see audio-visual materials of labor and delivery showing:
   A. Late stages of labor and normal delivery
   B. Suctioning the infant's mouth and nose during delivery
   C. Assessment and care of the newborn
   D. Normal bleeding during delivery

Kinesthetic (Doing)

1. Student should practice assisting in a normal delivery.
2. Student should practice necessary care of the fetus as the head appears during delivery.
3. Student should practice post-delivery care of mothers and neonates.

Instructor Activities

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

Evaluation

Written:

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

Practical:

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

Remediation

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

Enrichment

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

Lesson 6-2 Infants and Children

Objectives

Objectives Legend

C=Cognitive P=Psychomotor A=Affective
1 = Knowledge level
2 = Application level
3 = Problem-solving level
**Indicates material that is not included in the Refresher Course Lesson Plan.*

Cognitive Objectives

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

***6-2.1** *Describe differences in anatomy and physiology of the infant, child, and adult patient. (C-1)*
**6-2.2 Describe assessment of the infant or child. (C-1)*
6-2.3 Indicate various causes of respiratory emergencies in infants and children. (C-1)
6-2.4 Summarize emergency medical care strategies for respiratory distress and respiratory failure/arrest in infants and children. (C-1)
6-2.5 List common causes of seizures in the infant and child patient. (C-1)
6-2.6 Describe management of seizures in the infant and child patient. (C-1)
6-2.7 Discuss emergency medical care of the infant and child trauma patient. (C-1)
**6-2.8 Summarize the signs and symptoms of possible child abuse and* neglect. (C-1)
**6-2.9 Describe the medical - legal responsibilities in suspected child abuse. (C-1)*
6-2.10 Recognize need for First Responder debriefing following a difficult infant or child transport. (C-1)

Affective Objectives

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

6-2.11 Attend to the feelings of the family when dealing with an ill or injured infant or child. (A-1)
6-2.12 Understand the provider's own emotional response to caring for infants or children. (A-1)
6-2.13 Demonstrate a caring attitude towards infants and children with illness or injury who require emergency medical services. (A-3)
6-2.14 Place the interests of the infant or child with an illness or injury as the foremost consideration when making any and all patient care decisions. (A-3)
6-2.15 Communicate with empathy to infants and children with an illness or injury, as

well as with family members and friends of the patient.(A-3)

Psychomotor Objectives
At the completion of this lesson, the First Responder student will be able to:
6-2.16 Demonstrate assessment of the infant and child. (P-1,2)

Preparation

Motivation:

Infant and child patients often cause anxiety for the First Responder. This is caused by a lack of dealing with this special population as well as a fear of failure. Understanding the special considerations in dealing with pediatric patients is important in their emergency medical care.

Materials

AV Equipment:

Utilize various audio-visual materials relating to emergency medical care. The continuous development of new audio-visual materials relating to EMS requires careful review to determine which best meet the needs of the program. Materials should be edited to enure that the objectives of the curriculum are met.

EMS Equipment:

None.

Personnel

Primary Instructor:

One First Responder instructor knowledgeable with infants and children.

Assistant Instructor:

The instructor-to-student ratio should be 1:6 for psychomotor skills practice. Individuals used as assistant instructors should be knowledgeable in infant and child emergencies.

Recommended Minimum Time to Complete:

One half hour

Presentation

Declarative (What) a. Anatomical and Physiological Concerns

I. Airway
   A. Essential skills - review from module 2-1, Airway, with emphasis on infants and children.
      1. Airway opening
      2. Suctioning
      3. Clearing complete obstructions
         Follow the American Heart Association guidelines of Foreign Body airway Obstructions in the infant and child

   B. Airway adjuncts
      1. Oral airways
      2. Nasal airways are usually not used in children by First Responders

II. Assessment
   A. Be sure to involve the parents in your assessment and management of infants and children.
   B. General impression of well versus sick child can be obtained from overall appearance.
   C. Approach to evaluation
      1. Begin assessment from across the room
      2. Hands-on approach to infant or child patient assessment

III. Common Problems in Infants and Children
   A. Airway obstructions
      1. Partial airway obstruction - infant or child who is alert and sitting.
         a. Emergency medical care
            (1) Allow position of comfort; assist younger child to sit up; do not lay down. May sit on parent's lap.
            (2) Do not agitate child
      2. Complete obstruction and altered mental status or cyanosis and partial obstruction
         a. Clear airway.
            (1) Infant foreign body procedures
            (2) Child foreign body procedures
         b. Attempt artificial ventilation with mouth-to-mask technique

B. Respiratory emergencies
   1. Signs and Symptoms
   2. Respiratory failure/arrest
   3. Role of the First Responder
      a. Complete the First Responder assessment
         (1) Complete a scene size-up before initiating emergency medical care.
         (2) Complete an initial assessment on all patients.
         (3) Complete a physical exam as needed.
         (4) Complete on-going assessments.
      b. Provide mouth-to-mask or barrier device ventilation
      c. Observe heart rate

C. Circulatory failure
   1. Circulatory failure that is uncorrected is also a common cause of cardiac arrest in infants and children
   2. Signs and symptoms of circulatory failure
   3. Role of the First Responder
      a. Complete the First Responder assessment
         (1) Complete a scene size-up before initiating emergency medical care.
         (2) Complete an initial assessment on all patients.
            (a) Support oxygenation and ventilation
            (b) Observe for signs of cardiac arrest

D. Seizures
   1. Role of the First Responder
      a. Complete the First Responder assessment
         (1) Complete a scene size-up before initiating emergency medical care.
         (2) Complete an initial assessment on all patients.
         (3) Complete a physical exam as needed.
         (4) Complete on-going assessments.
         (5) Observe and describe the seizure.
      b. Comfort, calm, and reassure the patient while awaiting additional EMS resources.

E. Altered mental status
   1. Role of the First Responder
      a. Complete the First Responder assessment
         (1) Complete a scene size-up before initiating emergency medical care.
         (2) Complete an initial assessment on all patients.

(3) Complete a physical exam as needed.
(4) Complete on-going assessments.

b. Comfort, calm, and reassure the patient while awaiting additional EMS resources.
(1) Assure patency of airway.
(2) Be prepared to artificially ventilate/suction.
(3) Place in recovery position.

F. Sudden infant death syndrome (SIDS)
1. Signs and symptoms
2. Role of the First Responder
a. Complete the First Responder assessment
(1) Complete a scene size-up before initiating emergency medical care.
(2) Complete an initial assessment on all patients.
b. Comfort, calm, and reassure the parents while awaiting additional EMS resources.
(1) Try to resuscitate unless the baby is stiff.
(2) Parents will be in agony from emotional distress, remorse, and guilt.
(3) Avoid any comments that might suggest blame to the parents.

IV. Trauma
A. Injuries are the leading cause of death in infants and children.
B. Blunt injury is most common.
1. Role of the First Responder
a. Complete the First Responder assessment
(1) Complete a scene size-up before initiating emergency medical care.
(2) Complete an initial assessment on all patients.
(3) Complete a physical exam as needed.
(4) Complete on-going assessments.
b. Comfort, calm, and reassure the patient while awaiting additional EMS resources
(1) Assure airway position and patency. Use jaw thrust.
(2) Suction as necessary with large bore suction catheter.
(3) Provide spinal stabilization.
(4) Manually stabilize extremity injuries

V. Child Abuse and Neglect
   A. Definition of abuse - improper or excessive action so as to injure or cause harm.
   B. Definition of neglect - giving insufficient attention or respect to someone who has a claim to that attention.
   C. First Responder must be aware of condition to be able to recognize the problem.
   D. Physical abuse and neglect are the two forms of child abuse that the First Responder is likely to suspect.
   E. Signs and symptoms of abuse
   F. Signs and symptoms of neglect
   G. Do not accuse in the field
   H. Reporting required by state law

VI. Need for First Responder Debriefing
   A. Especially in cases of abuse/neglect
   B. Serious injury/death of a child

Application

Procedural (How)

1. Demonstrate the techniques of opening the airway of an infant or child.
2. Demonstrate the techniques of suctioning an infant or child.
3. Demonstrate the techniques for removing a foreign body airway obstruction in an infant or child.
4. Demonstrate ventilating infants and children.
4. Demonstrate assessment of the infant and child.
5. Demonstrate the management of partial and complete airway obstructions in infants and children.
6. Demonstrate the management of respiratory distress and respiratory arrest in infants and children.
7. Demonstrate the management of seizures, altered mental status, and sudden infant death syndrome (SIDS).

Contextual (When, Where, Why)

The First Responder must have an understanding of the unique aspects of dealing with infants and children. In addition, the First Responder must realize the aspect of having multiple patients. A child cannot be cared for isolated from the family. A calm, professional, reassuring First Responder may help to minimize psychological impact of transport to parent and child.

Student Activities

Auditory (Hearing)

1. Students should hear various infant and child airway sounds.
2. Students should hear parent information.

Visual (Seeing)

1. Students should see audio-visual materials of infant and child patients with common medical or traumatic complaints.
2. Students should see various infant or child equipment.

Kinesthetic (Doing)

1. Students should practice the techniques of opening the airway of an infant or child.
2. Students should practice the techniques of suctioning an infant or child.
3. Students should practice the techniques for removing of a foreign body airway obstruction in an infant or child.
4. Students should practice ventilating infants and children.
5. Students should practice the assessment of the infant and child.
6. Students should practice the management of partial and complete airway obstructions in infants and children.
7. Students should practice the management of respiratory distress and respiratory arrest in infants and children.
8. Students should practice the management of seizures, altered mental status, and sudden infant death syndrome (SIDS).

Instructor Activities

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

Evaluation

Written:

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

Practical:

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

Remediation

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

Enrichment

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

Module 7: EMS Operations
Lesson 7-1 EMS Operation

Objectives

Objectives Legend

C=Cognitive P=Psychomotor A=Affective

1 = Knowledge level
2 = Application level
3 = Problem-solving level
**Indicates material that is not included in the Refresher Course Lesson Plan.*

Cognitive Objectives

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

**7-1.1 Discuss the medical and non-medical equipment needed to respond to a call. (C-1)*
**7-1.2 List the phases of a out-of-hospital call. (C-1)*
**7-1.3 Discuss the role of the First Responder in extrication. (C-1)*
**7-1.4 List various methods of gaining access to the patient. (C-3)*
**7-1.5 Distinguish between simple and complex access. (C-3)*
**7-1.6 Describe what the First Responder should do if there is reason to believe that there is a hazard at the scene. (C-1)*
**7-1.7 State the role the First Responder should perform until appropriately trained personnel arrive at the scene of a hazardous materials situation. (C-1)*
**7-1.8 Describe the criteria for a multiple-casualty situation. (C-1)*
**7-1.9 Discuss the role of the First Responder in the multiple-casualty situation. (C-3)*
**7-1.10 Summarize the components of basic triage. (C-1)*

Affective Objectives

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

**7-1.11 Explain the rationale for having the unit prepared to respond. (A-3)*

Psychomotor Objectives

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

**7-1.12 Given a scenario of a mass casualty incident, perform triage. (P-2)*

APPENDIX A

BLS HEARTSAVER INFORMATION AND SKILL SHEETS

APPENDIX B

ADULT AND PEDIATRIC BASIC CARDIAC LIFE SUPPORT GUIDELINES REPRINTED FROM JAMA

Appendix B
JAMA Reprint

APPENDIX C

ENRICHMENT LESSON PLAN

APPENDIX C

The following enrichment lesson sheets should be copied and used as needed to assist with augmenting the core curriculum.

These sheets are designed to be used as a template to ensure that added materials are presented in format and similar style to the other lessons. These sheets may be added to any of the lessons in the core curriculum.

Objectives

Objectives Legend

C=Cognitive P=Psychomotor A=Affective

1 = Knowledge level
2 = Application level
3 = Problem solving level

Cognitive Objectives

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

!
!
!

Affective Objectives

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

!
!
!

Psychomotor Objectives

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

!
!
!

Preparation

Motivation:

Prerequisites:

Material

AV Equipment:

Appendix C
Enrichment Lesson Plan

EMS Equipment:

Personnel

Primary Instructor:

Assistant Instructor:

Recommended Minimum Time to Complete:

Presentation

Declarative (What)

Application

Procedural (How)

Contextual (When, Where and Why)

Student Activities

Auditory (Hearing)

1.
2.
3.

Visual (Seeing)

1.
2.
3.

Kinesthetic (Doing)

1.
2.
3.

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, oral reviews, and handouts, to determine if the students have met the cognitive and affective objectives of this lesson.

Practical:

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

Remediation

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

APPENDIX D

REMEDIATION SHEET

APPENDIX D

The following remediation sheet should be completed after every class for individual students or groups of students having difficulty with knowledge, skills, and/or attitude. The primary instructor or an assistant instructor should work with the individual or group as soon as possible to ensure that they achieve success in the program.

First Responder National Standard Curriculum
Remediation Sheet

Date:	Student:
Area of Difficulty:	
Action Plan:	
Completed:	
Date:	Student:
Area of Difficulty:	
Action Plan:	
Completed:	
Date:	Student:
Area of Difficulty:	
Action Plan:	
Completed:	
Date:	Student:
Area of Difficulty:	

Appendix D
Remediation Sheet

Action Plan:	
Completed:	

APPENDIX E

PATIENT ASSESSMENT FLOW CHARTS

APPENDIX E

The flow chart has been developed to assist in the assessment of all patients, regardless of age or chief complaint. The five components of assessment (scene size-up; initial assessment; focused history and physical exam - medical and trauma; detailed assessment; and on-going assessment) should be appropriately conducted. The flow chart should be used in conjunction with the lesson plan for each specific area and should be copied and given to each student before the lesson.

APPENDIX F

FINAL PRACTICAL SKILLS EXAM

Appendix F
Final Practical Skills Examination

ORIENTATION TO THE PRACTICAL SKILLS EXAMINER

You should read and understand the following orientation information before entering the specific skill station you will be evaluating. If there is any information within this orientation that you do not understand, you should contact the examination coordinator for clarification.

On behalf of the training institute I would like to thank you for donating your valuable time to assist with the evaluation of candidates in the practical examination. Your role as a skill station examiner is critically important. You are to serve as an observer and recorder of the candidate's actions based on the criteria listed on the score sheet. There are a number of ways to successfully perform a skill. You should always remember that the way you were taught to perform a skill is not the only correct way to perform the skill. The ultimate criterion for successful completion of a skill is: "Was effective patient therapy rendered?"

This is a formal examination and not a teaching situation. We discourage excessive dialogue between the examiner and the candidate. Peripheral or "nice to know" areas of prehospital EMS should not be discussed. Situations or questions that require you to demonstrate a procedure should be avoided. You should not ask leading questions. Do not condemn or condone a candidate's actions by expression, gesture, tone of voice, or attitude. Often, candidates interpret a word or action delivered in jest as being indicative of pass or fail, a value judgment, or a non-caring attitude. Pay special attention to verbal and non-verbal language.

The reason you were asked to be an examiner for this station is that your expertise adds to the credibility of the examination and gives you the knowledge to ask the candidates related questions to substantiate or define an action. If qualifying questions are necessary, they should be asked at the end of the station. At no time should you discuss any phase of the candidate's performance with the candidate.

Candidates are allowed to perform each skill once. If they appear overly nervous when first starting the exam, you may stop them and allow them to collect themselves before starting again. However, once a candidate initiates a course of action the candidate must be evaluated on the merits of that singular performance, as would happen in the field. You must provide qualifying information in the comments section of the score sheet for any performance that is identified as a mandatory failure item.

Visitors are not allowed in the station while testing is being conducted. The examination coordinator and the medical director may be in the station if they are not obstructive to the testing.

You should meet the candidate at the door and introduce yourself. Print the candidate's name, your name, and the date at the top of the score sheet. Next, you should read aloud the "Instructions to the Candidate" and ask if there are any questions. If there are no questions, start the time clock and observe the candidate as he/she progresses through the procedure.

The score sheets were designed to be generic so that the brand name of the particular equipment used in the skill station would have no effect on the scoring process. Points should be awarded on a full point increment basis and fractions of a point are not allowed. Each task is given a point value of one. If there are two tasks indicated in one step, one point should be awarded for <u>each</u> individual task. If a task is not completed or is completed improperly, place a zero in the "points awarded" column.

You must document in the comments section the reason you marked a mandatory failure item. Additional comments are welcome, but remember to be specific. Instead of writing "He did a poor job", write exactly what the candidate did right or wrong. At no time should you discuss the performance with the candidate. You should never condemn or condone the candidate's actions by verbal or nonverbal means.

If the candidate reaches the time limit indicated on the score sheet before completing the procedure, you must stop the candidate and direct him/her to return to the staging area and wait for instructions to report to the next station. All tasks not completed should be scored a zero in the "points awarded" column.

Be very aware of the importance of consistency in giving instructions, setting up scenarios, and making and recording observations. Every effort should be made to ensure that all details of the examination scenario are identical for each candidate. Be aware of your own fatigue and if necessary take a break after notifying the examination coordinator.

You should have received individual written instructions concerning the specific skill and/or skill station you will be evaluating. If you do not understand any part of these instructions, do not start the evaluation process. Contact the examination coordinator for clarification.

Some of the skill stations require the presence of a simulated victim (i.e., - Trauma Assessment/Management). The simulated victim should be trained at the level of the First Responder or higher. He should be thoroughly briefed on the actions expected from him during the candidate's performance. This will help ensure that the scenario and skill station are identical for each candidate. Once a candidate has successfully passed a skill station, he/she may be used as a simulated victim in that skill station.

Appendix F
Final Practical Skills Examination

INSTRUCTIONS TO THE PRACTICAL SKILLS EXAMINER
BLEEDING CONTROL/SHOCK MANAGEMENT

This station is designed to test the candidate's ability to treat a life threatening hemorrhage and subsequent hypoperfusion. This station will be scenario based and will require some dialogue between the candidate and the examiner. The candidate will be required to properly treat a life threatening hemorrhage.

The victim will present with an arterial bleed from a severe laceration of the extremity. The examiner will prompt the actions of the candidate at predetermined intervals as indicated on the skill sheet. The candidate will be required to provide the appropriate intervention at each interval when the patient's condition changes. It is essential, due to the purpose of this station, that the patient's condition not deteriorate to a point where CPR would be initiated. This station is not designed to test CPR.

The equipment and supplies needed at this station include field dressings and bandages and a blanket.

The scenario in the "Instructions to the Candidate" is an example of an acceptable scenario for this station. It is not intended to be the only possible scenario for this station. Variations of the scenario are possible and should be utilized in order to reduce the possibility of a candidate knowing the scenario before entering the test. If the scenario is to be changed, the following guidelines must be used:

- An isolated laceration to an extremity producing an arterial bleed must be present.
- The scene must be safe.
- As the scenario continues the victim must present signs and symptoms of hypoperfusion.

It is essential that once a scenario is established for a specific test, it remain the same for all candidates being tested on that date. This will ensure a consistent examination for all candidates.

Due to the scenario format of this station, you are required to prompt the student at various places during the exam. Controversy exists in the national EMS community concerning the removal of dressings by First Responders when controlling hemorrhage. This station does not require the First Responder to remove any dressing once applied. When the bleeding is initially managed with a pressure dressing and bandage, you should inform the student that the wound is still bleeding. If the candidate places a second pressure dressing over the first, you should again state that the wound continues to bleed. After the candidate uses an appropriate arterial pressure point to control the hemorrhage, you should say that the bleeding is controlled. If the candidate attempts to remove the initial dressing to apply direct finger tip pressure, you should inform him/her, that for the purposes of this station, this step is not required. Additionally, you should indicate to the candidate that the victim is in a hypoperfused state by indicating signs and symptoms appropriate for this level of shock (example: cool clammy skin, restlessness, P 118, R 30).

This skill station requires the presence of one examiner and a victim. The victim may be an appropriate mannequin or a live person. The mannequin must be a hard shell anatomically accurate mannequin.

Appendix F
Final Practical Skills Examination

INSTRUCTIONS TO THE CANDIDATE
BLEEDING CONTROL/SHOCK MANAGEMENT

This station is designed to test your ability to control hemorrhage. This is a scenario based testing station. As you progress through the scenario, you will be offered various signs and symptoms appropriate for the patient's condition. You will be required to manage the patient based on these signs and symptoms. A scenario will be read aloud to you; and you will be given an opportunity to ask clarifying questions about the scenario; however, you will not receive answers to any questions about the actual steps of the procedures to be performed. You may use any of the supplies and equipment available in this room. You have 15 minutes to complete this skill station.

SCENARIO (sample)
BLEEDING CONTROL/SHOCK MANAGEMENT

You respond to a stabbing and find a 25 year old male victim. Upon examination you find a 2-inch stab wound to the inside of the right arm at the anterior elbow crease (antecubital fascia). Bright red blood is spurting from the wound. The scene is safe and the patient is conscious and alert. His airway is open and he is breathing adequately. Do you have any questions?

BLEEDING CONTROL/SHOCK MANAGEMENT

	Points Possible	Points Awarded
Takes or verbalizes body substance isolation precautions	1	
Applies direct pressure to the wound	1	
Elevates the extremity	1	
Note: The examiner must now inform the candidate that the wound continues to bleed.		
Applies an additional dressing to the wound	1	
Note: The examiner must now inform the candidate that the wound still continues to bleed. The second dressing does not control the bleeding.		
Locates and applies pressure to appropriate arterial pressure point	1	
Note: The examiner must now inform the candidate that the bleeding is controlled		
Applies a dressing to the wound	1	
Bandages the wound	1	
Note: The examiner must now inform the candidate that the patient is showing signs and symptoms indicative of hypoperfusion.		
Properly positions the patient	1	
Initiates steps to prevent heat loss from the patient	1	
Indicates need for immediate transportation	1	
TOTAL:	10	

CRITICAL CRITERIA

____ Did not take or verbalize body substance isolation precautions
____ Applies tourniquet before attempting other methods of bleeding control
____ Did not control hemorrhage in a timely manner
____ Did not indicate a need for immediate transportation

Appendix F
Final Practical Skills Examination

INSTRUCTIONS TO THE PRACTICAL SKILLS EXAMINER
PATIENT ASSESSMENT/MANAGEMENT
TRAUMA

This station is designed to test the candidate's ability to integrate patient assessment and intervention skills on a victim with multi-systems trauma. Since this is a scenario based station, it will require some dialogue between the examiner and the candidate. The candidate will be required to physically accomplish all assessment steps listed on the skill sheet. However, all interventions should be spoken instead of physically accomplished. Because of the limitations of moulage, you must establish a dialogue with the candidate throughout this station. If a candidate quickly inspects, assesses, or palpates the patient in a way that makes you uncertain of the areas or functions being assessed, you must immediately ask the candidate to explain the actions. For example, if the candidate stares at the patient's face, you must ask what he/she is assessing to precisely determine if he/she was checking the eyes, facial injuries, or skin color. Any information pertaining to sight, sound, touch, smell, or an injury that cannot be realistically moulaged but would be immediately evident in a real patient encounter, must be supplied by the examiner as soon as the candidate exposes or assesses that area of the patient.

The victim will present with a minimum of an airway, breathing, or circulatory problem and one associated injury or wound. The mechanism and location of the injury may vary, as long as the guidelines listed above are followed. It is essential that once a scenario is established for a specific test site, it remain the same for all candidates being tested at that site. This will ensure a consistent examination for all candidates.

This skill station requires the presence of one victim and one candidate. The victim should be briefed on his/her role in this station as well as on how to respond while being assessed by the candidate. Additionally, the victim should have read thoroughly the "Instructions to the Simulated Trauma Victim." Trauma moulage should be used as appropriate. Moulage may range from commercially prepared moulage kits to theatrical moulage. Excessive/dramatic use of moulage must not interfere with the candidate's ability to expose the victim for assessment.

Once the scene size-up and initial assessment are completed, the exact location of vital

signs within a prehospital assessment is dependent upon the patient's condition. As an examiner, you should award one point for vital signs as long as they are accomplished according to the patient's condition.

The scenario format of a multi-trauma assessment/management testing station requires that the examiner provide the candidate with essential information throughout the examination process. Since this station uses a simulated patient, the examiner must supply all information pertaining sight, sound, smell, or touch. This information should be given to the candidate **when the area of the patient is exposed or assessed**.

The examiner must present assessment findings that are appropriate for the patient and the treatment that has been rendered. In other words, if a candidate has correctly treated for hypoperfusion, do not offer assessment findings that deteriorate the patient's condition. This may cause the candidate to assume he/she has rendered inadequate or inappropriate care. The examiner should not offer information that overly improves or deteriorates a patient. Overly improving a patient invites the candidate to discontinue treatment and may lead to the candidate failing the examination. Overly deteriorating the patient may lead to the candidate initiating C.P.R. This station was not designed to test C.P.R.

Due to the scenario format and voiced treatments, a candidate may forget what he/she has already done to the patient. This may result in the candidate attempting to do assessment/intervention steps on the patient that are physically impossible. As an examiner should remind the candidate that previous treatment prevents assessing the area. This same situation may occur with bandages.

Each candidate is required to complete a full patient assessment. The candidate must complete all components of the physical examination with the exception of those areas which are covered by dressings and bandages.

NOTE: You may choose to write the exact steps the candidate follows during this station as the sequence is performed. You may then use this documentation to fill out the score sheet after the candidate completes the station. This documentation may then be used to validate the score on the skill sheet if questions arise later.

Appendix F
Final Practical Skills Examination

INSTRUCTIONS TO THE SIMULATED TRAUMA VICTIM

The following should be reviewed by the skill station examiner with the person serving as victim.

When serving as a victim for the scenario today, make every attempt to be consistent with every candidate in presenting the symptoms. The level of respiratory distress acted out by you and the degree of pain you describe at injury sites must be consistent for all candidates. As the candidate progresses with the examination, be aware of any period in which the candidate touched a simulated injured area. If the scenario indicates that you are to respond with deep painful stimuli and the candidate only lightly touches the area, do not respond. Only respond in the situation as you feel a real victim would in a multiple trauma situation. Do not give the candidate any clues while you are acting as a victim. For example, it is inappropriate to moan that your wrist hurts after you become aware that the candidate has not found that injury. Please remember what areas have been assessed and treated because we may need to discuss the candidate's performance after the candidate leaves the room.

The skill station examiner may utilize information provided by the First Responder trained and well coached victim as data in determining the awarding of points for specific steps in the evaluation instrument.

INSTRUCTIONS TO THE CANDIDATE
PATIENT ASSESSMENT/MANAGEMENT
TRAUMA

This station is designed to test your ability to perform a patient assessment of a victim of multi-system trauma and "voice" treat all conditions and injuries discovered. You must conduct your assessment as you would in the field including communicating with your patient. As you approach the patient you should assume the scene is clear of safety hazards. You may remove the patient's clothing down to shorts or swimsuit if you feel it is necessary. As you conduct your assessment, you should state everything you are assessing. Clinical information not obtainable by visual or physical inspection, will be given to you after you demonstrate how you would normally gain that information. You may assume that you have two First Responders working with you and that they are correctly carrying out the verbal treatments you indicate. You have (10) ten minutes to complete this skill station. Do you have any questions?

Appendix F
Final Practical Skills Examination

TRAUMA SITUATION #1 - PATIENT ASSESSMENT/MANAGEMENT

Mechanism of Injury. You are called to the scene of a motor vehicle accident where you find a victim who was ejected from the car. You find severe damage to the front end of the car. The victim is found lying face down in a field 30 feet from the upright car.

Injuries All injuries will be moulaged. Each examiner should program the patient to respond appropriately throughout the assessment and should assure that the victim has read the "Instructions to the Simulated Trauma Victims". The patient will present with the following injuries.

1. Unresponsive
2. Left side flail chest
3. Decreased breath sounds, left side
4. Cool, clammy skin; no distal pulses
5. Distended abdomen
6. Pelvis stable
7. Open injury of the left femur with capillary bleeding

PATIENT ASSESSMENT/MANAGEMENT
TRAUMA

		Points Possible	Points Awarded
Takes or verbalizes body substance isolation precautions		1	
SCENE SIZE-UP			
Determines the scene is safe		1	
Determines the mechanism of injury		1	
Determines the number of patients		1	
Requests additional help if necessary		1	
Considers stabilization of spine		1	
INITIAL ASSESSMENT			
Verbalizes general impression of patient		1	
Determines chief complaint/apparent life threats		1	
Determines responsiveness		1	
Assesses airway and breathing	Assessment Assures adequate ventilation Injury management	1 1 1	
Assesses circulation	Assesses for and controls major bleeding Assesses pulse Assesses skin (color, temperature and condition)	1 1 1	
Identifies priority patients/makes transport decision		1	
Obtains S.A.M.P.L.E. history		1	
PHYSICAL EXAMINATION			
Assesses the head	Inspects and palpates the head	1	
Assesses the neck	Inspects and palpates the neck	1	
Assesses the chest	Inspects Palpates	1 1	
Assesses the abdomen/pelvis	Assesses the abdomen	1	

	Assesses the pelvis	1	
Assesses the extremities	1 point for each extremity	4	
Manages secondary injuries and wounds appropriately **1 point for appropriate management of the secondary injury/wound**		1	
Verbalizes on-going assessment		1	
TOTAL:		29	

CRITICAL CRITERIA

__Did not take or verbalize body substance isolation precautions
__Did not assess for spinal protection
__Did not provide for spinal protection when indicated
__Did not evaluate and find conditions of airway, breathing, circulation (hypoperfusion)
__Did not manage/provide airway, breathing, hemorrhage control or treatment for shock (hypoperfusion)

INSTRUCTIONS TO THE PRACTICAL SKILLS EXAMINER
UPPER AIRWAY ADJUNCTS AND SUCTION

This station is comprised of three separate skills. The candidate will be required to measure, insert, and remove an oropharyngeal and a nasopharyngeal airway and to suction the patient's upper airway.

The oropharyngeal airway, nasopharyngeal airway, and suction are in one skill station for scoring purposes only. It should not be inferred, nor are we implying, that there is a sequential connection between the three skills. You should not test these as sequential skills but as three distinct, isolated skills.

The technique for opening a patient's mouth and inserting an oropharyngeal airway varies from text to text, i.e., - 90 degree rotation, 180 degree rotation, direct insertion. Since concern for spinal immobilization is not required at this station, the criteria for appropriately opening the patient's mouth and inserting the oropharyngeal airway should be that the tongue is not pushed posteriorly.

The equipment needed at this station includes various sizes of oropharyngeal nasopharyngeal airways and a suction device (manual or battery operated device). Additionally, this station requires the presence of a mannequin that can accept the insertion of an oropharyngeal and nasopharyngeal airway. The mannequin may be an intubation head; however, it should be life size and have anatomically correct airway structures.

Once the candidate has the oropharyngeal airway in place, advise the candidate that

the patient is vomiting. If the candidate fails to immediately remove the oropharyngeal airway, place a zero in the "points awarded" column. Once the candidate has finished the procedure for oropharyngeal airway insertion and removal, direct him/her to demonstrate the proper procedure for suctioning a patient's upper airway. Finally the candidate instruct the candidate to insert a nasopharyngeal airway into the mannequin.

Appendix F
Final Practical Skills Examination

INSTRUCTIONS TO THE CANDIDATE
UPPER AIRWAY ADJUNCTS AND SUCTION

This station is designed to test your ability to properly measure, insert, and remove an oropharyngeal and a nasopharyngeal airway as well as to suction a patient's upper airway. This is an isolated skills test comprised of three separate skills. You may use any equipment available in this room. Do you have any question?

UPPER AIRWAY ADJUNCTS AND SUCTION

OROPHARYNGEAL AIRWAY

	Points Possible	Points Awarded
Takes or verbalizes body substance isolation precautions	1	
Selects appropriate size airway	1	
Measures airway	1	
Inserts airway without pushing the tongue posteriorly	1	
NOTE: The examiner must advise the candidate that the patient is gagging and becoming conscious		
Removes oropharyngeal airway	1	

SUCTION

NOTE: The examiner must advise the candidate to suction the patient's oropharynx/nasopharynx		
Turns on/prepares suction device	1	
Assures presence of mechanical suction	1	
Inserts suction tip without suction	1	
Applies suction to the oropharynx/nasopharynx	1	

NASOPHARYNGEAL AIRWAY

NOTE: The examiner must advise the candidate to insert a nasopharyngeal airway		
Selects appropriate size airway	1	
Measures airway	1	
Verbalizes lubrication of the nasal airway	1	
Fully inserts the airway with the bevel facing toward the septum	1	
TOTAL:	13	

CRITICAL CRITERIA

__ Did not take or verbalize body substance isolation precautions

__ Did not obtain a patent airway with the oropharyngeal airway

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__ Did not obtain a patent airway with the nasopharyngeal airway

INSTRUCTIONS TO THE PRACTICAL SKILLS EXAMINER
MOUTH-TO-MASK

This station is designed to test the candidate's ability to effectively ventilate a patient using a mouth-to-mask technique. This station is testing an isolated skill. The candidate will be advised that the patient is already being ventilated, mouth-to-mouth, by another first responder. Upon entering the skill station, the candidate will be required ventilate the patient using a mouth-to-mask technique. The candidate may assume that the patient has a central pulse and that the only patient management required is ventilation.

When ventilating the patient, the candidate must provide a minimum of 800 ml volume per breath. This equals the current standards established for appropriate rescue breathing volumes during basic and advanced life support.

This station requires a mannequin capable of being ventilated with volumes of 800 ml or more. It must also be able to register successful lung inflations of 800 ml to 1200 ml per breath. This may be accomplished by using a system that lights up when successful volumes are reached or a system that graphs successful volumes. The mannequin must be life size, possess anatomically correct airway structures, and meet the criteria listed above.

Due to the nature of this station, infection control measures must be enforced. You should follow the current infection control measures established by the American Heart Association for mannequin disinfection.

You should observe the candidate ventilating the mannequin for a period of 30 seconds. During this time you should pay close attention to volumes. The volumes should be in the range of 800 ml - 1200 ml per breath. If you observe one ventilation error or less in 30 seconds (volume only), you should award 1 point. No point should be awarded if you observe two ventilation errors or more in 30 seconds.

Appendix F
Final Practical Skills Examination

INSTRUCTIONS TO THE CANDIDATE
MOUTH-TO-MASK

This station is designed to test your ability to ventilate a patient using a mouth-to-mask technique. This is an isolated skills test. You may assume that mouth-to-mouth ventilation is in progress and that the patient has a central pulse. The only patient management required is ventilator support using a mouth-to-mask technique. You must ventilate the patient for at least 30 seconds. You will be evaluated on the appropriateness of ventilatory volumes. You may use any equipment available in this room. Do you have any questions?

MOUTH-TO-MASK

	Points Possible	Points Awarded
Takes or verbalizes body substance isolation precautions	1	
Connects one-way valve to mask	1	
Opens airway (manually or with adjunct)	1	
Establishes and maintains a proper mask to face seal	1	
Ventilates the patient at the proper volume and rate *(800-1200 ml per breath/10-20 breaths per minute)*	1	
NOTE: the examiner must witness ventilation for at least 30 seconds		
TOTAL:	5	

CRITICAL CRITERIA

___ Did not take or verbalize body substance isolation precautions
___ Did not provide proper volume per breath
(more than 2 ventilation per minute are below 800 ml)
___ Did not ventilate the patient at 10-20 breaths per minute
___ Did not allow for complete exhalation