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ABSTRACT

This guide for a refresher training program for basic Emergency Medical Technicians (EMTs) is designed to assure continuance of a uniformly high level of knowledge and skills among EMTs who have completed the U.S. Department of Transportation's basic training for EMTs. The first of four sections presents the purposes of the course, the role of the course administrator, an overview of the course including twenty lesson titles and objectives, the target audience, and a discussion of tailoring the course to local needs. The section on administering the course discusses scheduling, methodology, class size, instructor qualifications, and instructor orientation. Section 2, Resource Requirements, focuses on facilities and training aids and reference materials. The final section on evaluating the course discusses process evaluation and outcome evaluation. Appended material includes a sample application packet, handout materials, a resources table, and a process evaluation checklist. (LRA)

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# Refresher Training Program for the Basic Emergency Medical Technician

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## Course Guide 1979

U.S. Department of Transportation  
National Highway Traffic Safety Administration  
Washington, D.C. 20590

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U.S. DEPARTMENT OF HEALTH,  
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**This volume should be used when planning to offer the Refresher Training Program for Basic Emergency Medical Technicians (EMTs). It is intended to aid the Course Administrator and the Medical Director in setting up and managing the training.**

# Foreword

This curriculum for Basic Emergency Medical Technician Refresher Training was developed for the U.S. Department of Transportation, National Highway Traffic Safety Administration to supplement the Basic EMT training materials. The Refresher Training materials consist of this Course Guide and the following two volumes as modified to suit refresher training:

- Basic Training Course/Emergency Medical Technician (Second Edition) Instructor's Lesson Plans — 1977
- Basic Training Course/Emergency Medical Technician (1977 Edition) Student Study Guide

The scope of the refresher training course parallels that of the Basic EMT training program. Thus,

successful completion of the refresher course will require knowledge of all medical and operational topics taught in the basic course, and in addition, knowledge of recognized patient care practices that have been introduced since the basic course was published. Students will be required to demonstrate proficiency in the use of new equipment that has been developed and approved for ambulance use at the basic life support level.

For the above reason, the only new material published for the refresher course is this Course Guide. Instructors should adapt the Basic EMT training materials as necessary for refresher training.

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# Introduction

This refresher training program for Basic Emergency Medical Technicians is part of a career training structure for EMTs. It is designed to assure continuance of a uniformly high level of knowledge and skills among EMTs who have completed the Department of Transportation's Basic training program for Emergency Medical Technicians. It is expected that during the EMT's employment in the Emergency Medical Services System, a comprehensive continuing education program will be aggressively pursued which both reinforces materials previously learned and introduces new medical practices, procedures, and equipment appropriate for the EMT at the basic life support level. EMTs should be tested and if necessary, required to complete a refresher course every two years. However, those EMTs who conscientiously seek self-improvement through continuing education and who receive a reasonable degree of exposure to emergency patients should be allowed to satisfy the objectives of this course through appropriate written and practical examinations.

The purposes of the overall program are to:

- Assist the EMT in maintaining the basic skills and knowledge of emergency medical procedures at the Basic EMT level.
- Update EMTs on emergency medical care procedural changes, introduce them to newly developed equipment and train them in its use, and expose them to changes in State licensure or other medico-legal requirements which affect them in the performance of their duties in the Emergency Medical Services System.

## Role of the Course Administrator

The refresher training course is designed to be offered under the medical direction of a physician and a Course Administrator who will have joint responsibilities to undertake the following tasks:

- Initiate any and all actions required for offering the course.
- Review course content, determine local needs, and interject new and proven emergency medical procedures in order to assure the training program achieves the purposes stated above.
- Identify and secure the services of appropriate instructors and resource personnel.
- Identify and enroll students who qualify for this course.
- Schedule class times and instructor assignments.

- Conduct instructor orientation in course content and teaching methods.
- Identify and secure appropriate training facilities, training aids and associated equipment, and reference materials.
- Obtain sufficient training materials for all instructors and students.
- Oversee the actual conduct of the course to insure that it proceeds as planned.
- Maintain records of student achievement of course objectives for subsequent course assessment and certification of those students meeting completion criteria.
- Evaluate the course to determine its adequacy in meeting the course objectives and preparing EMTs to perform effectively on the job.

While it is not necessary that the Course Administrator be a physician, he or she should be experienced in emergency medical care, be aware of the legal constraints under which EMTs operate, and work closely with the medical director to assure constant updating of the course in accordance with the latest practices and procedures. The Course Administrator should know the performance requirements of experienced EMTs in the jurisdiction where the course is offered. This knowledge is necessary in order to make decisions about the emphasis and coverage of specific emergency medical care practices. In addition, the Course Administrator should be totally familiar with the entire refresher training program, including specific subject matter covered in each lesson and its associated chapter(s) in the student text.

## Overview of the Course

The refresher training course may consist of an average of 20 to 30 hours of classroom work. In order to permit flexibility in course scheduling and administration, the course is divided into twenty lessons requiring one to one and a half hours for completion. The lessons may, therefore, be given in individual units for presentation one or more times per week; or they may be combined into six to eight hour units for presentation in a three to five day period; or they can be offered over an extended period of time as "continuing education."

The lesson titles and objectives to be achieved by the students are listed below:

**Lesson 1: Introduction to Emergency Care Training**  
The student should be able to describe the course scope and emphasis; define the roles and responsi-

bilities of the EMT; describe the personal attitudes and conduct expected on an EMT; identify legal aspects of emergency care; identify the major body systems and their general functions; use the terminology of topographic anatomy; describe the difference between a sign and a symptom; identify the diagnostic signs and their normal states; and identify the medical identification symbol.

### **Lesson 2: Airway Obstruction and Respirator Arrest**

The student should be able to describe the importance of oxygen to the body; identify components of the respiratory system and explain how the system works, describe the signs of adequate and inadequate breathing; describe airway care and resuscitation procedures for patients with and without spinal injuries, for neck breathers, and for infants and small children; demonstrate on a manikin the techniques for opening an airway obstructed by the tongue for patients with and without suspected spinal injuries; demonstrate on a manikin the use of blows to dislodge foreign objects from the airway for patients with and without suspected spinal injuries; demonstrate on an upright and supine manikin the abdominal and chest thrust methods for dislodging foreign objects from the airway; demonstrate on an adult manikin the mouth-to-mouth and mouth-to-nose techniques of pulmonary resuscitation; and demonstrate on an infant manikin the mouth/nose technique of pulmonary resuscitation.

### **Lesson 3: Cardiac Arrest**

The student should be able to describe how the circulatory system and heart function to supply the body cells with oxygen; describe the signs of cardiac arrest; describe the techniques of cardiopulmonary resuscitation and variations in techniques for infants and small children; identify organs near the heart and the dangers to the patient if cardiopulmonary resuscitation is not performed correctly; describe when CPR should not be initiated and when it should be terminated, demonstrate on a manikin cardiopulmonary resuscitation for a witnessed and unwitnessed arrest by a lone rescuer; demonstrate cardiopulmonary resuscitation on an infant manikin; demonstrate on a manikin cardiopulmonary resuscitation as a member of a team performing both as a ventilator and as a compressor, including changing positions during resuscitation and transporting the manikin on a stretcher while continuing CPR.

### **Lesson 4: Mechanical Aids to Breathing and Resuscitation**

The student should be able to describe the purpose, design requirements, aseptic procedures and use (on adults, children, infants and laryngectomees as appropriate), and assemble as appropriate and demonstrate uses on a manikin of the following equipment: Oropharyngeal airways; Nasopharyngeal airways; portable suction unit; Oxygen equipment (including cylinders, pressure regulator,

flowmeter and humidifier); Oxygen delivery systems (nasal cannula, facemasks, bag-masks, and/or venturi mask; Resuscitator and oxygen delivery systems (pocket masks with oxygen inlet valve, bag-valve-mask resuscitator and demand valve resuscitator; demonstrate on a manikin one and two-man CPR and simultaneous administration of oxygen using the following equipment: Pocket mask with oxygen inlet valve, bag-valve-mask resuscitator.

### **Lesson 5: Bleeding, Shock and Practice on Airway Care, Pulmonary Resuscitation, and Cardiopulmonary Resuscitation**

The student should be able to describe the design, functions and components of the circulatory system; describe the meaning and importance of blood pressure as a vital sign; describe the meaning of shock, signs of shock and emergency care for shock; identify the types of shock and their causes; describe the differences between arterial, venous and capillary bleeding; identify and describe means of controlling external bleeding including nose-bleeds; describe the signs, symptoms and emergency care for internal bleeding; perform an examination for life-threatening problems; take blood pressure measurements; apply a tourniquet.

### **Lesson 6: Wounds**

The student should be able to describe the design and functions of the skin including the epidermis, dermis and subcutaneous tissue; identify the various wound types and describe their signs and significance; describe emergency care appropriate to each wound type; demonstrate proficiency in dressing and bandaging wounds of the following body parts: arm/leg, elbow/knee, top of the head, forehead/scalp, ear/cheek, jaw, neck, shoulder/hip, hand/foot.

### **Lesson 7: Principles of Musculoskeletal Care and Fractures of the Upper Extremity**

The student should be able to describe the design and functions of the skeletal system; name all bones in the upper extremity; identify muscle types and give examples of each; identify and describe the types of fractures; define fractures, dislocations and sprains and identify their signs and symptoms, describe procedures for examining patients for fractures of the extremities; describe reasons for splinting fractures; identify general splinting rules; describe causes, signs and techniques of care for fractures of the upper extremity; and, demonstrate proficiency in immobilizing fractures and dislocations of the upper extremity.

### **Lesson 8: Fractures of the Pelvis, Hip and Lower Extremity**

The student should be able to name the bones in the lower extremity; identify causes, signs, dangers and emergency care for: fractures of the pelvis, anterior and posterior dislocations of the hip, fractures of the shaft of the femur, sprains, dislocations and fractures of the knee, dislocations of the

patella, fractures of the tibia or fibula shaft, injuries about the ankle, fractures of the foot; demonstrate proficiency in immobilizing fractures and dislocations of the hip and lower extremity; and, perform a patient examination for injuries.

#### **Lesson 9: Injuries of the Head, Face, Neck and Spine**

The student should be able to describe the design and function of the nervous system; describe the main danger associated with fractures of the spine and complications that can result from spine injuries; describe how to examine a patient for spine injuries; describe what cerebrospinal fluid is and why no attempt should be made to stop bleeding from the nose or ears when a skull fracture is suspected; describe the signs of a skull fracture and of brain injuries; describe the management of patients with skull fractures and with brain injuries; describe procedures for continuous monitoring and evaluation of the unconscious patient and implications of data obtained; describe means for managing injuries to the face and neck; and, immobilize patients with suspected spine injuries on short and long backboards.

#### **Lesson 10: Injuries to the Eye, Chest, Abdomen and Genitalia**

The student should be able to describe the parts, design and function of the eye, thorax, digestive system, and genitourinary system; describe dangers and techniques of care for foreign bodies in the eye, burns of the eye, eye lacerations and contusions, extruded eyeballs, and blunt trauma to the eye; describe causes, signs, dangers, and techniques of care for: rib fractures, flail chest, pneumothorax, spontaneous pneumothorax, tension pneumothorax, hemothorax, sucking chest wounds, subcutaneous emphysema, traumatic asphyxia, pericardial tamponade, lacerations of great vascular vessels, and traumatic emphysema; describe types, causes, signs, dangers and techniques of care for injuries to the abdomen and genitalia; demonstrate proficiency in: dressing and bandaging and lacerated eye with a protruding object, dressing and bandaging a sucking chest wound with multiple rib fractures, and complete a patient examination for life-threatening problems and injuries.

#### **Lesson 11: Medical Emergencies**

The student should be able to describe the causes, signs and emergency care for the following: Poisons—ingested and inhaled, bites and stings, heart attack, stroke, dyspnea; and, assess a patient's condition and provide (or describe as appropriate) the proper emergency care of patients having these conditions.

#### **Lesson 12: Medical Emergencies**

The student should be able to describe the causes, signs, and emergency care for the following: diabetic coma and insulin shock, acute abdomen, communicable diseases, patients with abnormal

behavior, alcohol and drug abuse, epileptic convulsion, problems in dealing with child patients; and assess a patient's condition and provide (or describe as appropriate) the proper emergency care of patients having these conditions.

#### **Lesson 13: Emergency Childbirth**

The student should be able to describe the meaning and function as appropriate of each of the following terms: fetus, uterus, birth canal, placenta, umbilical cord, amniotic sac, cervix, vagina, perineum, crowning, bloody show, stages of labor, presenting part, abortion, live birth certificate, fetal death certificate; identify predelivery emergencies and their care; describe how to determine if delivery is imminent; describe procedures for assisting the mother in a normal childbirth; describe procedures for resuscitating the newborn; describe procedures for a breech delivery, prolapsed cord, excessive bleeding, abortion, and multiple birth; describe typical characteristics and techniques of care for the premature infant, including use of the infant carrier; demonstrate on an obstetrical manikin correct procedures for both normal and abnormal births; and, demonstrate a resuscitation manikin procedures for resuscitating the newborn, including administration of oxygen.

#### **Lesson 14: Environmental Emergencies**

The student should be able to describe skin damage and appearance of first-, second-, and third-degree heat burns; use the rule of nines in estimating percentage of body burned; indicate factors affecting the seriousness of a heat burn; estimate the seriousness of a heat burn given a description of each factor affecting seriousness; describe heat burn management procedures; describe causes, seriousness and management of chemical burns; describe appearance and management of electrical burns; describe EMT's role in electrically hazardous situations; identify the ICC symbol for radioactive materials; describe actions the EMT can take to control his exposure to radiation; describe radiation emergency care procedures for patient and the EMT; describe causes, signs, seriousness and care for patients suffering from heat cramps, heat exhaustion and heat stroke; identify and describe the five major ways in which the body loses heat; identify and describe the stages of emergency cooling of the body (hypothermia); describe emergency care for a patient suffering from general cooling of the body (hypothermia); describe signs, seriousness and emergency care for frostnip, superficial frostbite and deep frostbite; describe physiological effects of drowning; describe management for the drowning patient; and, describe the problem, signs and care for patients suffering from air embolism and decompression sickness.

#### **Lesson 15: Lifting and Moving Patients**

The student should be able to identify considerations involved in deciding the type of move to be made; describe emergency moves; identify principles of lifting moving that minimize EMT body



strain; describe use and distinguishing features of wheeled stretchers, portable stretchers, stair chairs, long backboards, and scoop stretchers; perform a direct two-man extremity lift of a patient from the ground and position him on a stretcher; immobilize the neck and spine of a patient on a short backboard; immobilize a patient on a long backboard, move the patient and backboard to a stretcher, and position on the stretcher; and, load stretchers on and unload stretchers from an ambulance.

#### **Lesson 16: Extrication from Automobiles**

The student should be able to describe the role of the EMT in extrication; describe techniques that EMT can use to gain access to or disentangle patients from vehicles; and, package patients with both spine and other injuries in a vehicle and remove them from the vehicle.

#### **Lesson 17: Operations — Driving and Maintaining an Emergency Vehicle, Records and Reports, Communications, and Procedures at Emergency Departments**

The student should be able to describe laws relating to the operation of an emergency vehicle; identify factors contributing to safe driving; describe typical causes of unsafe speed and accidents; identify vehicle systems and equipment requiring daily inspection and those requiring inspection after each run; identify reasons that records are maintained and typical information recorded by EMTs in the area; describe uses of communication systems and typical systems and procedures used in the area; and describe typical EMT responsibilities and procedures at emergency departments in the area.

#### **Lesson 18: Responding to an Ambulance Call: A Review of Factors Affecting Ambulance Run Efficiency and Patient Assessment**

The student should be able to identify information that can aid the EMT in planning an emergency ambulance run; define and describe the implications of variations in each vital sign; describe patients suffering from various illnesses/injuries; perform patient examinations; identify patients who would be considered of highest, second highest, and lowest priority for triage purposes; and, identify EMT responsibilities at the scene, en route to the hospital, and at the hospital.

#### **Lesson 19: Situational Review**

The student should be able to apply the knowledge learned from the preceding lessons to situations typical of those encountered by EMTs.

#### **Lesson 20: Final Written and Practical Examination**

The student should be able to demonstrate competency in all knowledge and skill objectives covered in the course.

Detailed plans for conducting each of the above lessons are contained in the Instructor's Lesson

Plans for the Basic EMT Course. Instructors should modify these lesson plans as appropriate to meet the objectives of refresher training.

Since this is a refresher course, the actual order of presentation of the lessons may be altered by the physician director to meet State or area requirements.

The course has been designed into lessons that may be combined in various ways, therefore no provision has been made in individual lessons for administrative matters such as announcements and taking attendance. Once lessons have been combined, provisions for these matters may be made as necessary.

The final version of the course will depend on the amount and kinds of tailoring the course requires in order to meet student needs and to reflect advances in emergency medical care and equipment.

### **Target Audience**

While this course has been developed for EMTs providing ambulance services, students may also represent hospital emergency departments, intensive care units, or critical care units. To be eligible for participation in the refresher training course, students should:

- Have completed the basic training program for emergency medical technicians.
- Hold a valid State EMT certificate or be a member of the National Registry of Emergency Medical Technicians.
- Have a minimum of two years continuous active experience in the Emergency Medical Services System as an EMT immediately prior to taking the refresher training course.
- Meet any additional requirements imposed by the State in which the course is to be given. (These requirements should be identified well in advance of the starting date of the course and included in the enrollment information provided to prospective students.)

### **Tailoring the Course**

An important function of the Medical Director and the Course Administrator is that of tailoring the refresher training programs to local needs and incorporating the most up-to-date emergency medical procedures into the program. However, Course Administrators should not delete any of the course objectives. As stated previously, the course requires a minimum of 20-30 hours of classroom work. The tailored course may require additional

time since lessons may be added or extended for any of the following reasons:

- Provision may have to be made for inclusion of techniques not currently practiced EMTs, if it is determined that such practices are within the roles and responsibilities of the EMTs.
- Certain lessons or topics may be added or extended in time when new techniques or equipment are identified. For example, if heart-lung resuscitators come into common usage, an extension may be required to the CPR lesson or a new lesson may need to be added for training with the resuscitator.
- Certain lessons may be added by local option. For example, in certain areas of the country, lessons covering such topics as cave rescue might be considered especially pertinent and be added to the course. In addition, local Course Administrators may wish to add lessons covering such topics as the following: radiation injuries, electrical hazards, emergency driving, traffic control, communications, records and reports, procedures at hospital emergency departments, and use of helicopter in emergency transportation.
- Lessons may need to be extended in time to permit additional practice of certain skills when individual students require additional practice.
- Coffee breaks or other rest periods will need to be provided if several course lessons are given in sequence.
- Time may need to be added for administrative matters such as making announcements and taking attendance.

In tailoring this course, care should be taken to ascertain the type of emergency medical service, i.e., volunteer, municipal, or private, in which the EMTs have been involved. Also, an analysis of current practices and procedures may be necessary in order to determine the nature and scope of the refresher training.

The Medical Director and the Course Administrator will be wise to begin tailoring operations early in their schedule. A number of methods are appropriate for collecting data for determining refresher needs:

**1. Questionnaires.** The use of questionnaires is the least expensive procedure for determining needs. They may yield a large amount of data from large samples of EMTs. However, the data obtained by mail questionnaires must be carefully prepared, properly distributed, objectively executed, and critically analyzed. When properly handled, evaluation by questionnaires can provide constructive

information on the EMTs perceptions about his or her ability to perform specific duties, and the specific need for training as seen by the EMT. A skill checklist is provided in the sample application packet (Appendix A), and can be used to check student familiarity with certain skills reviewed in the course.

**2. Observations.** Watching EMTs perform can provide some indication of their proficiency. However, observers should be technically qualified to evaluate the EMT's performance. Notes should be made detailing which skills are performed, unusual situations, and problems encountered.

**3. Interviews.** Whether or not EMTs are observed on the job, a representative sample can be interviewed by telephone if necessary. EMTs should be interviewed to obtain background information and to get their ideas of how well the basic training prepared them for their present assignments, and areas where they feel the need for additional training. A preplanned list of questions designed to get honest, pertinent answers should be used.

**4. EMT Supervisors.** EMT supervisors should also be contacted. They have had the opportunity to observe the EMTs performance over time. The focus of the questions should be on EMT proficiency. It is also important to determine how well the EMT is progressing through continuing education. A list of questions should be prepared and used as a guide.

**5. Expert Judgments.** The instructor(s) for the course should be a physician with emergency medical care experience. He or she should review the course content in the light of state-of-the-art practices and procedures as well as knowledge and experience of local EMT policies and practices.

**6. Reviewing Records.** Scores on State certification tests for EMTs should be reviewed for information they reveal regarding knowledge and skill deficiencies. Additionally, an examination of patient records will reveal emergency care exposure and possible associated problems.

**7. Course Critiques.** Solicit information on student needs and measure the degree that the course has satisfied them.

**8. Ambulance, ER, and Patient Records.** A critique of emergency department and ambulance patient records by physicians and nurses can provide useful information that can be applied to the refresher training course.

# Administering the Course

## Scheduling

The refresher training course is divided into lessons to be presented one or more times per week in sessions of one or more hours duration, or lessons can be combined into sessions lasting six to eight hours and compressed into a three to five day time frame. A sample schedule for a three-day course is given in Appendix A.

## Methodology

Didactic lessons should focus on realistic case studies which involve the area under study. Cases can be either drawn from the physician director's experience, or hypothesized. An increased emphasis on obtaining a history as well as eliciting and interpreting signs and symptoms is essential. Treatments should be related to observations in terms of the underlying pathophysiology, not merely through diagnostic link. The goal of this is to relate the signs and symptoms to the mandated treatments in a meaningful and relevant fashion. In any event, lectures should be held to a minimum and the students involved in class discussion to the greatest extent possible.

## Class Size

This course emphasizes critique of student skills and discussion of field experience as teaching methods. In addition, for certain skills, individual student practice is provided. In order that maximum student participation can be achieved, the class size necessarily must be small.

The class size for lecture-demonstration-discussion lessons must be small enough to allow interaction between student and instructors and to permit demonstrations of skills to be easily viewed by all students. It is preferable, therefore, that the class size for these lessons be limited to 20 students.

Since the instructor should be able to observe and critique student performance, it is essential that practice be accomplished in small groups. The group size for practice lessons should not exceed 5 students per instructor or instructor aide.

The limitations on class size have obvious implications for the number of instructors required for practice lessons and for the final practical evaluation of skills. The lead instructor for these lessons will require sufficient instructor aides in order that the student-to-instructor ratio will not exceed 5 to 1. Should there be more than 5 students for any given instructor or aide, a proportional increase in time may be required for these lessons.

## Instructor Qualifications

With three exceptions, all lessons of the refresher training course should be taught by a physician or a nurse with emergency medical care experience. The exceptions include Lesson 16 (Extrication), Lesson 15 (Lifting and Moving Patients) which may be taught by a lay instructor with extensive experience in extrication and with an ambulance service, and Lesson 1 (Legal Aspects of Emergency Care), which should be taught by a lawyer.

For the practice lessons and the final practical evaluation of skills, the instructor should be assisted by instructor aides as necessary, depending on the number of students taking the course. With certain exceptions, instructor aides may be experienced lay individuals in the field of emergency care. These may include experienced instructors from municipal, proprietary, hospital or volunteer ambulance services, or nurses. The exceptions include the practice lesson on cardiopulmonary resuscitation and the final practical evaluation of skills; instructor aides for these lessons should have special training in teaching CPR. Instructor and instructor aide recommendations are contained in a Table (Appendix C) which provides specific information on training staff requirements for each lesson.

Since both lead instructors and instructor aides will be responsible for critiquing and evaluating student skills, they must both have the following qualifications:

- Experience in emergency medical care, or specialization in the topic area.
- Skill in the use and maintenance of all equipment required for the topic area, including equipment required for teaching the topic area (e.g., manikins).
- Awareness of legal constraints under which emergency medical technicians operate in the areas of emergency care, ambulance operations, vehicles and equipment, violent cases, and procedures for handling the deceased.
- Experience as instructors.

The National Highway Traffic Safety Administration has prepared a sound/slide presentation to assist EMT instructors in preparing to teach an EMT course. This course is available from the National Audiovisual Center, GSA Sales Branch, Washington, DC, 20409. Additional workbooks are available from the Superintendent of Documents, Government Printing Office, Washington, DC 20402.

It is especially important that both the lead instructor and instructor aides for the final practical evaluation of skills be thoroughly knowledgeable about all skills covered in the course. Do not assume that all physicians are skilled in the use of patient care equipment carried on the ambulance.

## **Instructor Orientation**

As noted above, it is essential that the Course Administrator identify and secure the services of qualified instructors and instructor aides as early as possible. This will give them time to become familiar with their lessons, the student text, and to complete the assigned reading for each lesson.

Before the instructors teach their assigned lessons, the Course Administrator should meet with them as a group to assure that all are thoroughly briefed about their responsibilities in teaching the course. Specifically, the Administrator should cover the following topics:

- The EMT training program in relation to the State's overall emergency medical service plan.
- Objectives, scope and orientation of the EMT refresher training course.
- Functions of the EMT.
- Medico-legal aspects of the EMT's job.
- Using the lesson plans.
- Using the training aids.
- Importance of being on time and adhering to the course schedule.
- Importance of keeping discussion oriented toward emergency care rather than definitive care.
- Maintaining records.
- Developing test materials.
- Equipment available in ambulances used by the EMT.
- Educational levels and previous experience of the EMTs.

At the briefing, the Course Administrator should provide each instructor with a copy of the Instructor Checklist. See Appendix B.

# Resource Requirements

## Facilities

The facility required for the majority of the lessons is a room with sufficient space for seating a maximum of 20 students, and a lecture and demonstration area. For practice lessons, there should be one practice area for each 5 students. It is recommended that this primary facility be located at a hospital if possible. If not, any convenient place of assembly, such as a school, will serve as an alternate.

The lecture and demonstration area should contain a lectern for lesson plans, notes, and references. A large table should be provided for displaying equipment, medical supplies, and training aids, as well as a chalkboard, projection screen, and stands for charts. In addition, there should be adequate space for demonstrating emergency medical procedures in this area.

This student area should contain tables and chairs, or chairs with writing surfaces for notetaking. These should be arranged for unobstructed visual access to the lecture and demonstration area, as well as convenient physical access to the practice areas.

Each practice area should be of adequate size to accommodate up to 5 students working individually or in a group, plus the necessary equipment for practicing emergency medical procedures.

The facility should be well lighted, to assure adequate viewing of training aids and demonstrations. Temperature controls should be provided for student and instructor comfort. In addition, there should be access to power sources for slide and movie projector operation.

A sample arrangement plan for the primary facility, assuming a class of 20 students is shown on page 14.

One lesson (number 16) requires the use of automobiles (wrecks), and thus the use of a special facility. If possible, this special facility should be indoors to preclude scheduling problems caused by inclement weather. A local garage, armory, or school would be ideal, but in the absence of such, a parking lot may be employed.

## Training Aids and Reference Materials

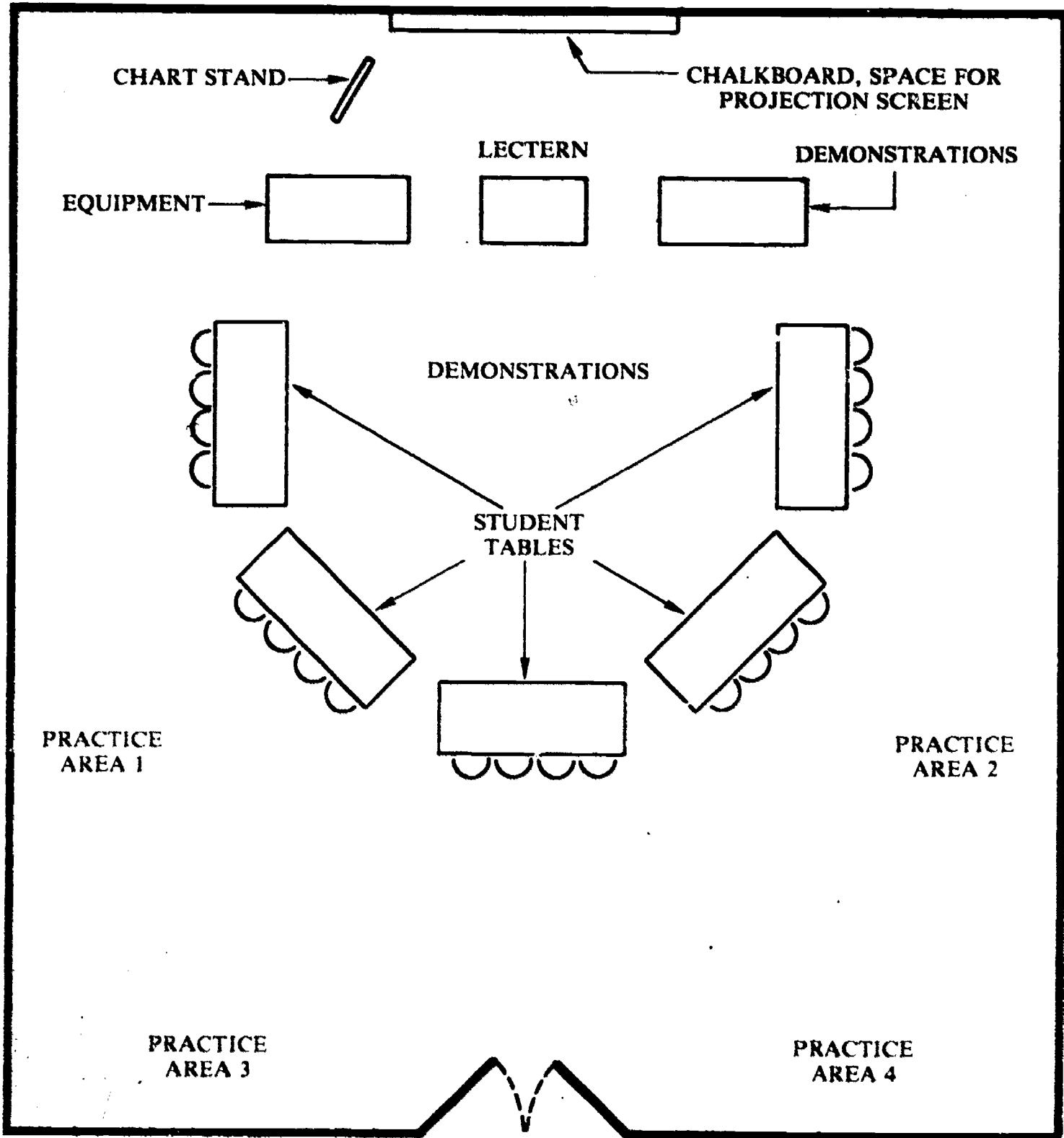
The training aids and equipment required for this refresher training course are listed by lesson in the Resources Table (Appendix C). The Course Administrator should note that the equipment specified is minimal, and is designed to provide a standardized base of equipment for the course. Additional required equipment may be identified as a result of

lesson assessment by instructors and their aides. A chalkboard should be on hand and projectors for both motion picture film and 35mm slides should be available to the instructors. Materials recommended as handouts are given in reproducible form in Appendix B.

In the lesson plan, under "Instructor Notes," there are points indicated in the lecture where films, slides or charts would be helpful. No specific slides are recommended since there are a variety of slides and visual training aids commercially available. State EMT training coordinators should identify the aids to be used within the State to assure standardization of the training program.

It is expected that individuals who are not actively engaged in emergency medical care on a daily basis will be required to repeat refresher training several times during their career as an EMT. It is, therefore, especially important that the course not be too constraining in form. The instructor should provide for variation in methods of presentation to make the course interesting to repeaters. In this regard, alertness to development of new films and slides can provide a means for varying presentation of course material. Professional journals present up-to-date information on the availability of training materials.

**Sample Arrangement Plan  
(Based on 20 students)**



# Evaluating the Course

## Introduction

Two separate, but interdependent, types of evaluation are appropriate at the time the course is offered. One is called "process evaluation" and the other "outcome evaluation." Process evaluation is used to determine if the training personnel are performing as planned and that the program schedule is being maintained. Outcome evaluation pertains to how well the trainees have achieved entry level EMT skills. These evaluations are interdependent because failures in the latter are often the result of a breakdown in the former. An outcome evaluation should be conducted to determine how students are performing on the job after taking the course. The purpose of the training, after all, is to produce more effective and efficient EMTs. Thus, the true measure of the course's effectiveness will be how well this has been accomplished.

## Process Evaluation

Process evaluation will help to identify specific causes of instructional failure, i.e., the reason why trainees fail to achieve satisfactory performance during the course. Some possible causes of such failure include:

1. Instruction activities do not conform to the lesson plans.
2. Resources, facilities, or materials are inadequate.
3. Trainees do not meet student selection requirements.
4. Practice exercises are not sufficiently comprehensive or representative.
5. Student/instructor ratio is too high.
6. Instructor is not well qualified to teach the course.
7. Course objectives were too difficult to achieve in the time allotted.
8. An inadequate testing instrument was used to evaluate students.

The purposes of the process evaluation are to isolate the causes of instructional problems and to gather sufficient data to decide how to alleviate the problem. The internal evaluation process for gathering sufficient data and isolating the problem starts with an analysis of the course planning and control documents (course guide, schedule, lesson plans, etc.). Then each component and procedure authorized and/or required by these documents is

studied to see that it conforms to the control document specification. Discrepancies between the planned course and what occurs during the actual training program might be found in any of the following:

**1. Resources.** This course guide and the instructor's lesson plans indicate the requirement for specific training facilities, equipment, tools, and supplies in order for the course to accomplish the stated objectives. The evaluation will determine whether such facilities and services are adequate. When deficiencies are found, corrective action should be recommended.

**2. Classroom Facilities and Conditions.** Control documents and a specification of existing resources may not provide sufficient information for the process evaluation. Classroom visits of sufficient length and frequency to ensure a representative sampling are useful. Specified training aids and media, should be checked for condition, operation, and appropriateness. Also the instructional supporting documents, including the lesson plans and study guides, should be checked for availability and quality.

**3. Instructors.** It is also important to determine that instructors' activities conform to those specified in the lesson plans. Instructors must show acceptable application of sound instructional techniques. They must be able to detect student problems and react to student needs.

**4. Reliability and Validity of the Testing Instrument.** If the device used to measure student performance is faulty, then an accurate appraisal of student performance will be impossible.

Checklists which can be used to guide the evaluation are contained in Appendix D.

## Outcome Evaluation

If the State EMS agency has not developed standardized written and practical tests, it will be the responsibility of the instructor who conducts a lesson to develop written test items for testing knowledge and a checklist for evaluating skills covered in that lesson. These should be turned over to the Course Administrator at the completion of the lesson, for consolidation with those received from other instructors. The Administrator, under the direction of the Medical Director, will be responsible for preparing a balanced test based on this consolidation, as well as for administering and grading the test. Tests developed at the local level should be approved by the State EMS agency.

Students will be evaluated on both knowledge and skills. In the former area, students must earn a passing grade (as determined by the State EMS agency) on the final written test. In the areas of skills, students either pass or fail, based on their ability to demonstrate proficiency in all skills covered in the final practical evaluation. It will be necessary for students to pass both the final written test and the practical evaluation of skills in order to meet course completion criteria.

If students miss either the final written test or practical evaluations of skills for valid reasons, special make-up sessions may be arranged at the discretion of the Course Administrator.

It is possible for a training program to satisfy process and outcome evaluations while failing to achieve its primary objective of training EMTs to perform on the job satisfactorily. Reasons for this include:

1. The customizing process was not handled adequately; training needs were incorrectly identified in the first place.
2. The graduates know what to do but are not sufficiently motivated by the job itself to perform satisfactorily, or conditions of the job might stay at the same level, or degrade over a period of time, rather than improve. This implies the need to make changes in the EMT system itself rather than a need for training.
3. The graduates lack self-confidence in their ability to handle emergency medical care problems competently.

Follow-up evaluation is absolutely essential even when the process evaluation and end of unit test performance are satisfactory. It is still necessary to ascertain that the job requirements are being adequately accomplished by the EMT. Supervisors' and graduates' opinions of how well the training program prepared them should also be determined. Their suggestions for improvements are often invaluable. Some of the data gathering methods used in determining training needs are also useful in conducting a follow-up evaluation.

Analysis of the follow-up evaluation data will point out strengths and weaknesses in the refresher training program. All training programs have weaknesses. The aim of quality control measures is not to create a perfect training system. Rather, it should focus the decision makers' attention on those problems which directly compromise the goal of preparing EMTs to perform their job. Good evaluation will assure a steady flow of timely, pertinent data for maintaining both the quality and cost-effectiveness of the EMT refresher course.



# **Appendix A Sample Application Packet**

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## **Sample Cover Sheet**

### **Refresher Training Program for Basic Emergency Medical Technician**

**Location:** Butler County Memorial Hospital  
Brady Extension  
Butler, Pennsylvania

**Date:** 13-15 October 1978

**Who Should Attend:** Graduates of the Basic Training Program for EMT

This refresher training program for Emergency Medical Technicians is part of the career training structure for EMTs. Specific objectives of the course are:

1. To review your basic skills and knowledge of emergency medical procedures.
2. To bring you up-to-date on new procedures in emergency medical care, use of newly developed equipment, and changes in State licensure or other medico-legal requirements.

This course will be offered during a three day period at the location and on the dates specified above. In order to revalidate your EMT certificate, you will be required to participate in this or another approved refresher course. If you wish to attend, please complete the application form and return it in the enclosed stamped envelope no later than (date).

# Appendix A Sample Application Packet

## Sample Agenda

(Typical Program)

	<b>Day One</b>	0930-1000	Workshop: Fractures and Dislocations of the Lower Extremity
0800-0830	Introduction and Registration	1000-1030	Head Injuries
0830-0900	Airway	1030-1100	Eye Injuries
0900-0930	Mouth-to-Mouth (Nose) Technique of Pulmonary Resuscitation	1100-1130	Chest Injuries
0930-1000	Mechanical Aids to Pulmonary Resuscitation	1130-1200	Abdominal Injuries and Illnesses, and Injuries to the Pelvi
1000-1030	Bleeding	1200-1300	Lunch
1030-1100	Cardiac Arrest	1300-1400	Childbirth
1100-1200	Workshop: Cardiopulmonary Resuscitation	1400-1430	Burns
1200-1300	Lunch	1430-1500	Drowning and Exposure to Heat and Cold
1300-1330	Shock		<b>Day Three</b>
1330-1400	Heart Attack, Stroke, Dyspnea	0800-0900	Workshop: Spine Injuries
1400-1430	The Emotionally Disturbed and Unruly, the Alcoholic and the Drug User	0900-1000	Workshop: Extrication from Automobiles
1430-1500	Diabetes, Epilepsy, and Poisons	1000-1030	Lifting and Moving Patients
	<b>Day Two</b>	1030-1100	Vital Signs
0800-0830	Fractures and Dislocations-General Principles of Care	1100-1130	Patient Examination and Triage
0830-0900	Fractures and Dislocations of the Spine	1130-1200	Legal Aspects of Emergency Care
0900-0930	Workshop: Fractures and Dislocations of the Upper Extremity	1200-1300	Lunch
		1300-1400	Final Written Test
		1400-1500	Final Practical Evaluation of Skills

# Appendix A Sample Application Packet

## Sample Application Form

### Refresher Training Program for Emergency Medical Technician-Ambulance

This source is intended for graduates of the Basic Training Program for EMT-Ambulance or its equivalent, with at least two years of continuous experience as an EMT.

1. Name \_\_\_\_\_  
Position or Title \_\_\_\_\_  
Place of Employment \_\_\_\_\_  
Business Address \_\_\_\_\_  
and Telephone Number \_\_\_\_\_ (Business Telephone)
- Home Address and \_\_\_\_\_  
Telephone Number \_\_\_\_\_ (Home Telephone)
2. Name of Local Alternate \_\_\_\_\_  
Alternates Address and \_\_\_\_\_  
Telephone Number \_\_\_\_\_ (Telephone)
3. Education and Training
- a. Formal education
- |                             |                                 |
|-----------------------------|---------------------------------|
| _____ Less than high school | _____ Associate degree          |
| _____ High school           | _____ Bachelor degree or higher |
- b. Training courses
- |  |
|--|
| _____ Basic Training Program for EMT-Ambulance |
| _____ Other (specify)                          |

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**Appendix A  
Sample  
Application  
Package**

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4. Experience \_\_\_\_\_
- a. Years as an EMT \_\_\_\_\_
- b. Type of service (i.e., hospital, municipal, proprietary, volunteer) \_\_\_\_\_
- c. Duties \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

5. If you have not completed the Basic Training Program for EMT-Ambulance, what are you asking us to consider as an equivalent? \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Please complete the Skill Checklist and Questionnaire on the following page, whether you have completed the basic training program or not.

PLEASE RETURN THIS FORM IN THE ENCLOSED STAMPED ENVELOPE NO LATER THAN

\_\_\_\_\_

# Appendix A Sample Application Packet

## Sample Skill Checklist

SKILL	PLEASE CHECK (✓) ONE BOX FOR EACH LINE		
	No Previous Training	Previous Training, Little Subsequent Practice	Training and Practice
Determining Pulse			
Use of Stethoscope			
Determining Blood Pressure (Use of Sphygmomanometer)			
Systematically Examining Patients for Life-Threatening Problems and Injuries (Triage)			
Jaw-Thrust Maneuver (For Maintaining Airway)			
Head-Tilt Maneuver (For Maintaining Airway)			
Abdominal Thrust			
Chest Thrust			
Use of Oropharyngeal Airway			
Use of Suction Unit			
Use of Bag-Mask Resuscitator			
Use of Oxygen Equipment for Inhalation			
Use of Oxygen with Bag-Mask Resuscitator			
Mouth-to-Mouth Pulmonary Resuscitation			
Mouth-to-Nose Pulmonary Resuscitation			
One-Man Technique of Cardiopulmonary Resuscitation			
Two-Man Technique of Cardiopulmonary Resuscitation			
Use of HLR Equipment			
Diaphragmatic Breathing Assistance Technique			
Newborn Resuscitation			
Use of Bulb Syringe			
Please indicate below any areas of emergency care that you would like to have emphasized in the refresher course:			

# Appendix A Sample Application Packet

## Sample Skill Checklist

SKILL	PLEASE CHECK (✓) ONE BOX FOR EACH LINE		
	No Previous Training	Previous Training, Little Subsequent Practice	Training and Practice
Dressing and Bandaging to Control Bleeding			
Dressing and Bandaging Injuries to the Head			
Dressing and Bandaging Injuries to the Eye			
Dressing and Bandaging Sucking Chest Wounds			
Use of Military Anti-Shock Trousers (MAST)			
Use of Rigid Splints to Immobilize Fractures of the Extremities			
Use of Inflatable Splints to Immobilize Fractures of the Extremities			
Use of Traction Splints			
Use of Long Backboards to Immobilize Fractures of the Spine			
Water Rescue and Resuscitation Technique			
Extricating Patients with Suspected Spine Injuries From Vehicles			
Moving Patients From Bed-Height Surfaces and Chairs to Stretchers			
Please indicate below any areas of emergency care that you would like to have emphasized in the refresher course:			

# Appendix A Sample Application Packet

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Please Answer ALL Questions

EMT Certification Number

## Refresher Course Questionnaire

1. Do you ever use your EMT skills in a "Hands on" situation?

yes

no

daily

weekly

monthly

2. What skills do you use the most?

3. What skills do you feel you are most efficient in?

4. What skills do you lack confidence in?

Explain why

5. What skills and material do you feel should be emphasized in a refresher course?

6. Have you been involved in training of people in any medically related courses?

(Explain)

7. Why are you updating your EMT certification?

(Explain)

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## **Sample Instructor Checklist**

1. Review student questionnaires and results of previous testing, if available. Note where the major shortcomings are.
2. Review the lesson plan in detail, noting specific knowledge and skills covered, time estimates for specific topic areas, and suggested teaching methods.
3. Using the "Instructor's Notes" column, note those areas of study which should be emphasized to meet the needs of the students. Develop situations the students can expect to encounter in the field as points of discussion. Through questioning, draw the students into a discussion of how the patient should be treated, followed by practice in the actual techniques of treatment.
4. Never lose sight of the objectives and concentrate on those in which the students have demonstrated a lack of proficiency.
5. Select visual aids which can be used to enrich the topics under discussion and provide additional insights to the subject not otherwise available to the class.
6. Assure that all equipment and materials specified for the class are available, operable, and ready for use before the class starts.
7. Review all assigned reading for the lesson.
8. Develop written test items and checklists as appropriate for the subject.
9. Brief all instructor aides thoroughly on their role and responsibilities before the start of class.
10. Arrive at class on time and complete your lesson on time.
11. Turn the following items in to the Course Administrator at the completion of the class:
  - Record of student attendance
  - Written test items covering the class topic
  - Checklists for evaluating skills covered in the class where appropriate.



# Appendix B

## Hand-Out

### Materials

### Assigned Reading for Each Lesson

Text Chapters Associated With Each Lesson	
Lesson	Associated Text Chapters*
<ol style="list-style-type: none"> <li>1. Introduction to emergency care training:</li> <li>2. Airway obstruction and respiratory arrest</li> <li>3. Cardiac arrest</li> <li>4. Mechanical aids to breathing and resuscitation</li> <li>5. Bleeding, shock and practice on airway care, pulmonary resuscitation, and cardiopulmonary resuscitation</li> <li>6. Wounds</li> <li>7. Principles of musculoskeletal care and fractures of the upper extremity</li> <li>8. Fractures of the pelvis, hip and lower extremity</li> <li>9. Injuries of the head, face, neck and spine</li> <li>10. Injuries to the eye, chest, abdomen and genitalia</li> <li>11. Medical emergencies</li> <li>12. Medical emergencies II</li> <li>13. Emergency childbirth</li> <li>14. Environmental emergencies</li> <li>15. Lifting and moving patients</li> <li>16. Field exercise: extrication from automobiles</li> <li>17. Operations-driving and maintaining an emergency vehicle, records and reports, communications, and procedures at emergency departments</li> <li>18. Responding to an ambulance call-a review of factors affecting ambulance run efficiency and patient assessment</li> <li>19. Situational review</li> <li>20. Final written test and Final practical evaluation of skills</li> </ol>	

\*For the convenience of the students the State EMS training office should complete this column based on the approved text or texts selected by the State.

# Appendix C Refresher Training Program Resources Table

## Material and Equipment Requirements for Each Lesson

This table lists the number of pieces of equipment/materials needed for each group of five students. An X indicates that only one is needed regardless of the number of students.

EQUIPMENT/ MATERIALS	LESSON																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Adult resuscitation manikin	X	1	1	1	1						1									1
Infant resuscitation manikin	X	1	1	1	1						1		1							
Antiseptic solution and gauze pads	X	1	1	1	1						1		1							
Stretcher	X		1		1										1					1
Oropharyngeal airway	X			1	1						1									
Nasopharyngeal airway	X			1	1						1									
Lubricant jelly	X			1	1						1									
Portable suction	X			1	1						1									
Oxygen equipment and delivery system	X			1	1						1		1							1
Pocket mask with O <sub>2</sub> inlet valve	X			1	1						1									
Bag-valve-mask resuscitator	X			1	1						1									
Demand-valve resuscitator	X			1																
Sphygmomanometer and stethoscope	X				1															1
Universal dressing	X				X	3									5					3
Sterile gauze pads	X				X	5									5					3
Roller bandage	X					5	3								5					3
Self-adherent bandage	X					X														
Occlusive dressing	X					X														
Triangular bandage	X					X	10	20			20				5					20
Tourniquet + bandage set	X				1															
Adhesive tape	X					1														2
Bandage scissors	X					1														2
Stick to simulate an impaled object	X					1														
Blanket	X						1	3	3						3	2				2
Pillow	X						X	1												
Short padded splints	X						3	1							2					3
Cardboard/ladder/aluminum splints (set)	X						3	3												
Long padded splints (set)	X							1							2					2
Short air splint	X					X	1													
Long air splint	X							1												
Traction splint	X							2												2
Short backboard with straps	X								1						1	1				1
Long backboard with straps	X							1	1						1	1				1
Sling	X															1				
Cervical collar	X								2						2	1				1
Sandbags	X								2						2					
Cotton tipped applicator	X									X										
Eye protector	X									1						1				1
Sterile delivery pack	X												1							1
Obstetrical manikin	X												1							1
Premature infant carrier (optional)	X												1							
Vehicle (optional)																1				
Ambulance (optional)																	1			

# Appendix C

## Refresher

### Training Program

#### Resources Table

### Recommended Instructors and Instructor Aides for Each Lesson

Lesson	Lead Instructor	Instructor Aides
1. Introduction to emergency care training.	A Lawyer.	None required.
2. Airway obstruction and respiratory arrest.	Physician (preferably anesthesiologist).	Lay instructor skilled in airway care and pulmonary resuscitation.
3. Cardiac arrest.	Physician certified as a CPR instructor.	Lay instructor certified as a CPR instructor.
4. Mechanical aids to breathing and resuscitation.	Physician (preferably anesthesiologist).	Lay instructor skilled in airway care and pulmonary resuscitation.
5. Bleeding, shock, and practice in skills taught in Lesson 2-4.	Physician certified as a CPR instructor and proficient in all skills taught in Lessons 2-4.	Lay instructor certified as a CPR instructor and proficient in all skills taught in Lessons 2-4.
6. Wounds.	Physician.	Lay instructor skilled in bandaging.
7. Fractures of the upper extremity.	Physician (preferably orthopedic surgeon).	Lay instructor skilled in splinting and patient examination.
8. Fractures of the pelvis, hip and lower extremity.	Physician (preferably orthopedic surgeon).	Lay instructor skilled in splinting.
9. Injuries of the pelvis, face, neck, spine.	Physician.	Lay instructor skilled in immobilizing patients on backboards.
10. Injuries to the eye, chest, abdomen, genitalia.	Physician.	Lay instructor skilled in bandaging and patient examination.

Instructor aides should have skill in the areas to be demonstrated or evaluated. Should instructors lack the teaching capabilities specified, it will be necessary for the Course Administrator to arrange for a teacher training course designed to train in-

structors to achieve the specified performance objectives. The Course Administrator should brief all instructors on their roles and responsibilities prior to teaching the course.

**Recommended  
Instructors  
and Instructor Aides  
for Each Lesson**

**Appendix C  
Refresher  
Training Program  
Resources Table**

Lesson	Lead Instructor	Instructor Aides
11. Medical emergencies I.	Physician certified as a CPR instructor.	Lay instructor certified as a CPR instructor.
12. Medical emergencies II.	Physician.	None required.
13. Emergency childbirth.	Physician (preferably obstetrician).	Lay instructor skilled in teaching childbirth.
14. Environmental emergencies.	Physician (who may wish to use specialists for topic areas).	None required.
15. Lifting and moving patients.	Lay instructor experienced in lifting and backboards.	Lay instructor experienced in lifting and backboards.
16. Field exercise: Extrication from automobiles.	Lay instructor experienced in ambulance service area, especially rescue.	Lay instructor experienced in ambulance service area, especially rescue.
17. Operations.	Lay instructor experienced in ambulance service area.	None required.
18. Responding to an ambulance call.	Physician knowledgeable in all subjects taught in course, operational and medical.	Lay instructor with special training in examining patients.
19. Situational review.	Physician—same as 22, above.	None required.
20. Final written test.	Lesson may be monitored by any instructor associated with the course.	None required.
Final practical evaluation.	Physician proficient in all skills taught in the course.	Lay instructor(s) proficient in all skills taught in the course.

If physicians are not available as instructors, emergency department nurses or EMT-Ps may be used provided they are State certified instructors.

# **Appendix D**

## **Process Evaluation Checklist**

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### **Process Evaluation Checklist**

#### **I. Instructor Presentation**

##### **A. Platform Skills**

1. Gives a clear introduction to his topic.
2. Is enthusiastic about the subject matter.
3. Explains course objectives clearly and explanations are to the point.
4. Includes worthwhile and informative material not found in text.
5. Makes good use of examples and illustrations to clarify concepts.
6. Emphasizes key points.
7. Summarizes material in a manner which aids retention.
8. Speaks in a clear, well-modulated voice.
9. Effectively uses teaching aids (overhead projector, handouts, etc.).
10. Involves the class by having the learner answer questions or explain key points.
11. Answers questions fairly and completely.
12. Is sensitive to student difficulties in understanding course material.

##### **B. Discussion**

1. Encourages student participation and welcomes questions and opinions.
2. Treats students with respect.
3. Provides useful feedback.
4. Seeks further clarification.
5. Seeks to focus response.
6. Encourages students to evaluate their own thinking.

#### **II. Class**

##### **Management**

1. Clear rules where rules are needed.
2. Equipment, handouts, etc. ready so there are minimum disruptions and delays.
3. Makes sure students are clear about assignments to prevent delays.

# Appendix D Process Evaluation Checklist

4. Allows procedural questions.
5. Keeps lessons moving at a good pace, staying on schedule.
6. Keeps track of individual's progress.

### III. Student Reactions

1. Students were bored because topics were covered too simply or superficially.
2. Students were bored because topics were not directly job related.
3. Students were bored because topics were too difficult.
4. Students were unable to get individual attention or practice because the student/instructor ratio was too high.

\_\_\_\_\_  
Instructor/Coordinator

\_\_\_\_\_  
Date

### Part A

#### Student Opinion of Teaching Effectiveness

You are asked to give your opinion on each of the eighteen questions listed below by circling a number on the horizontal line in the position that most accurately indicates your judgement. If you do not wish to answer any question or questions please mark omit on those questions. The higher ratings will, of course, trend toward the left and the lower ratings toward the right. Fill out one form for each instructor/coordinator.

#### 1. Preparation for Class Meetings

7	6	5	4	3	2	1
Meetings seem planned with care			Average	Little planning evident		

#### 2. Teacher's Interest in and Enthusiasm for Subject

7	6	5	4	3	2	1
Marked interest and enthusiasm			Average	Apparent tendency toward boredom and indifference		

# Appendix D

## Process Evaluation Checklist

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### 3. Scholarship

7	6	5	4	3	2	1
Knowledge of subject seems broad and accurate			Average	Knowledge seems seriously deficient		

### 4. Ability to Express Thought

7	6	5	4	3	2	1
Easy mastery of languages; meaning always clear			Average	Much verbal hesitation and uncertain meaning obscure		

### 5. Voice

7	6	5	4	3	2	1
Voice well adapted to classroom; speech distinct and audible			Average	Voice often inaudible; student irritated by inability to hear		

### 6. Assignments

7	6	5	4	3	2	1
Assignments clear and carefully given			Average	Usually vague and hastily given		

### 7. Class Discussion

7	6	5	4	3	2	1
Class discussion highly valuable			Average	Class discussion largely a waste of time		

### 8. Feeling Between Teacher and Class

7	6	5	4	3	2	1
Strong atmosphere of mutual goodwill			Average	Class too often antagonized		

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# Appendix D Process Evaluation Checklist

## 9. Sympathetic Attitude Toward Students

7	6	5	4	3	2	1
Always courteous and considerate			Average	Entirely unsympathetic and inconsiderate		

## 10. Sense of Humor

7	6	5	4	3	2	1
Keen and appropriate sense of humor			Average	Practically no humor		

## 11. Self-Confidence

7	6	5	4	3	2	1
Always sure of himself; meets difficulties with poise			Average	Hesitant, timid, uncertain, disturbed by trifles		

## 12. Personal Mannerisms

7	6	5	4	3	2	1
Substantial freedom from annoying or distracting personal mannerisms			Average	Mannerisms a serious detriment to effectiveness		

## 13. Efficiency in Procedure

7	6	5	4	3	2	1
Prompt beginning and ending of class;			Average	Carelessness about time		



# Appendix D

## Process Evaluation Checklist

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### 14. Approachability

7	6	5	4	3	2	1
			Average			
Teacher welcomes conferences and exerts himself to be understanding and helpful				Teacher seems to be too busy to afford much time or thought to the student's problems		

### 15. Stimulus to Thinking

7	6	5	4	3	2	1
			Average			
Abundance of novel and stimulating ideas and viewpoints				Little attempt to develop new and stimulating ideas		

### 16. Validity of Examinations

7	6	5	4	3	2	1
			Average			
Exams correspond closely to course materials				Exams seem to have little relation to course material		

### 17. Major Objectives of Course

7	6	5	4	3	2	1
			Average			
Major objectives clearly explained and made obvious throughout course				Major objectives never mentioned or made apparent		

### 18. Instructor's Standards for Student Achievement

7	6	5	4	3	2	1
			Average			
Requires high standards				Anything will do		

# Appendix D Process Evaluation Checklist

## Part B

The following is a list of suggestions for the teacher. Place checks before those items which seem pertinent to you, leaving the others blank.

The effectiveness of the teacher's work might be increased by:

- A — Less audiovisual materials
- B — More audiovisual materials
- C — Fewer tests and examinations
- D — More tests and examinations
- E — More required outside preparation
- F — Less required outside preparation
- G — Less emphasis on memorizing in examinations
- H — A mimeographed outline of the course for the student
- I — Other (Specify)

The teacher could:

- A — Use English of higher standard
- B — Use fewer unfamiliar words
- C — Reduce the monotony of his speaking
- D — Present material more slowly
- E — Present material more rapidly
- F — Make blackboard writing more legible
- G — Be less hasty in erasing useful material from the blackboard
- H — Other (Specify)

What is your opinion of the text?

- ( ) Good      ( ) Fair      ( ) Poor

What is your opinion of the number of examinations?

- ( ) About Right      ( ) Too Many      ( ) Too Few