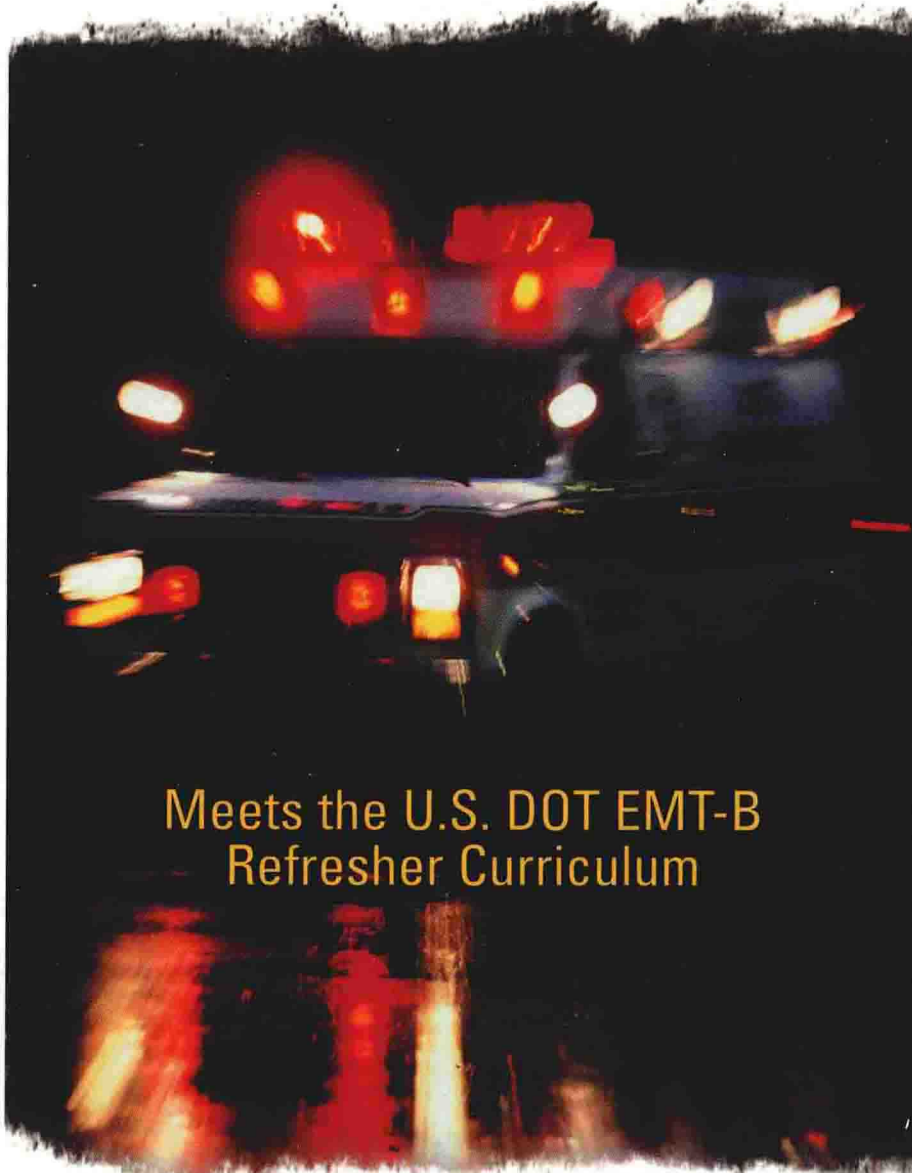


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A Refresher for the Practicing EMT-B

Second Edition



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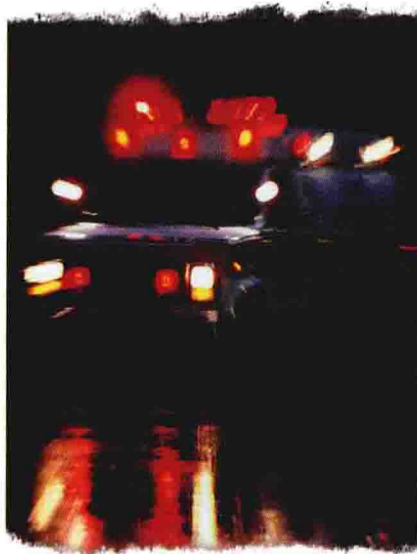
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Medical Editor **Edward T. Dickinson, M.D., FACEP**



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A Refresher for the Practicing EMT-B

Second Edition



Daniel Limmer • Bob Elling • Michael F. O'Keefe

Medical Editor

Edward T. Dickinson, M.D., NREMT-P, FACEP



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The material in this textbook contains the most current information available at the time of publication. However, federal, state, and local guidelines concerning clinical practices, including without limitation, those governing infection control and universal precautions, change rapidly. The reader should note, therefore, that the new regulations may require changes in some procedures.

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Preface

Essentials of Emergency Care, Second Edition, is designed for experienced EMT-Bs who are beginning, or are about to begin, an EMT-B refresher program. Traditionally, to complete such a program, EMT-Bs used their original EMT-B textbook or a subsequent edition. Such textbooks are designed to present information to a person who has no experience or training in EMS. However, the authors of this text recognize that the refresher student is different.

The authors acknowledge and respect the fact that you, an experienced EMT-B, have regularly applied the skills and knowledge learned in your original course to your work in the field. Because of your experience, expansive coverage of those skills and knowledge is not needed in a refresher text. For example, since you probably have had much field experience in bleeding control, this text does not cover it in as much detail as your original text does.

The skills and knowledge that you use less frequently, however, do require some brushing up before you take a recertification exam. Such topics are covered in *Essentials of Emergency Care* thoroughly but concisely.

National Curricula for the EMT-B

In 1994 the U.S. Department of Transportation released the “EMT-Basic: National Standard Curriculum,” which has been widely accepted as the standard for instructing new EMT-Bs throughout the country. A year after its publication, the National Registry of EMTs was asked by the National Council of State EMS Training Coordinators and the National Association of State EMS Directors to develop a refresher curriculum based on the National Standard. In 1997 after consensus was achieved by the committee and the states, the U.S. Department of Transportation released the “EMT-Basic: Refresher Curriculum.”

Written to help you meet all national objectives, *Essentials of Emergency Care*, Second Edition, covers both the “EMT-Basic: National Standard Curriculum” and the “EMT-Basic: Refresher Curriculum.”

In addition, to make it easy for you and your instructor to be sure you are able to meet all Refresher objectives, they are listed verbatim at the beginning of every module and include page references that correlate related textbook material.

Correlation of ESSENTIALS OF EMERGENCY CARE, 2E with DOT's Refresher and National Standard curricula.

Refresher Curriculum	Essentials of Emergency Care	EMT-B National Standard Curriculum
Module 1: Preparatory	Module 1: Preparatory	Module 1: Preparatory
Module 2: Airway	Module 2: Airway	Module 2: Airway
Module 3: Patient Assessment	Module 3: Patient Assessment	Module 3: Patient Assessment
Module 4: Medical/Behavioral	Module 4: Medical/Behavioral	Module 4: Medical/Behavioral
	Emergencies	Emergencies and
		Obstetrics/Gynecology
Module 5: Trauma	Module 5: Trauma	Module 5: Trauma
Module 6: Obstetrics, Infants, and Children	Module 6: Obstetrics, Infants, and Children	Module 6: Infants and Children
	Module 7: Operations	Module 7: Operations
	Module 8: Advanced Airway Management	Module 8: Advanced Airway (Elective)

Correlations with the National Standard Curriculum may be found in a special box located immediately after each module title. This box correlates content with one or more National Standard “Lessons.”

Features of the Book

When writing this text, we kept several objectives of our own in mind:

- *To help you pass the test!* Obviously, any textbook must present the information you will need to pass your recertification exams.
- *To respect your experience.* You may be tackling your first recertification or your tenth. As experienced EMS providers, we have gone through this process ourselves and recognize the need for a textbook that presents the entire EMT-B course of study in a clear and concise manner.
- *To present the “EMT-Basic: Refresher Curriculum” as well as the “EMT-Basic: National Standard Curriculum”* in a way that will help you easily integrate skills and knowledge into your current practice.

In addition, we also offer you special features that can help you hone in on key information. These features include:

- *“On the Scene.”* Using the perspective of practicing EMT-Bs at typical emergency scenes, these realistic scenarios help you to recall your own experience and knowledge of the topics under study.
- *Illustrations.* Literally hundreds of photos and art, including step-by-step skill summaries, work to enhance your understanding, summarize information, and maximize coverage.
- *“Pediatric Highlights.”* This feature reac-

quaints you with insights critical to the emergency care of infants and children.

- *“Preceptor Pearls.”* Acknowledging the experienced EMT-B’s role as a preceptor, mentor, and trainer, this feature highlights important topics you may wish to share with new EMT-Bs and emphasizes ways to get your points across.
- *More than 500 review questions.* To help you test your own understanding, both short-answer and multiple-choice questions are offered at the end of every module. All answers are provided at the back of the book, with page references to supporting text.
- *National Registry Practical Examination.* All of the skills tested by the Registry in its performance-based skills exam are included for your convenience at the back of the book.

Comments and Suggestions

We encourage you to send your suggestions and comments about the text. They will help us improve future editions of *Essentials of Emergency Care*. Send them to the Marketing Manager at BRADY, Prentice Hall, One Lake Street, Upper Saddle River, NJ 07458. You can also reach us via e-mail:

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We wish you the best of luck in your continued endeavors in EMS!

Visit Brady’s Web Site

<http://www.bradybooks.com>

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A textbook relies on reviewers for shaping the content as well as checking its accuracy. We thank our reviewers for their hard work and detailed comments.

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MODULE ONE

PREPARATORY

CORRELATES WITH DOT'S

"EMT-BASIC: NATIONAL STANDARD CURRICULUM"

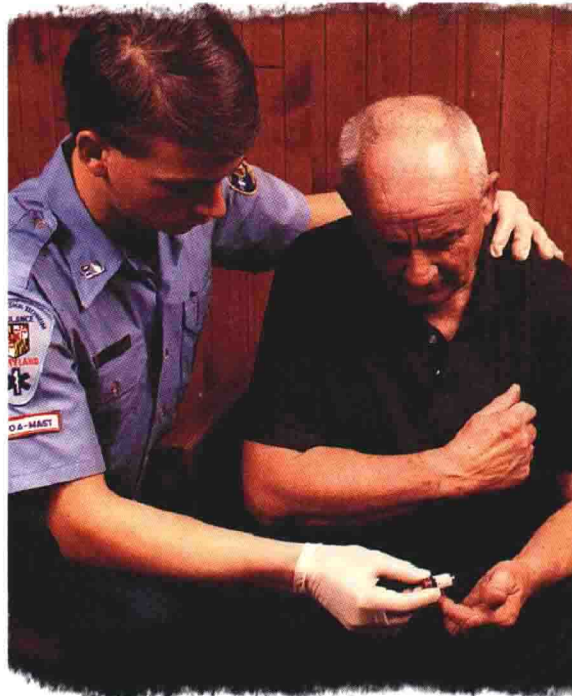
LESSONS 1-1 THROUGH 1-4 AND 1-6

ON THE SCENE

You receive a call from your emergency medical dispatcher (EMD) about a 69-year-old male patient with chest pain. The EMD reports that the patient is conscious and breathing and has a medical history of cardiac problems. The patient's wife will make him comfortable and meet you at the door.

You arrive at the scene and perform a **scene size-up**. You observe no hazards before you exit the ambulance or as you approach the house. The patient's wife meets you at the door and escorts you in. You take body substance isolation (BSI) precautions. There appears to be only one patient, but you keep in mind that you may need to request ALS backup.

As you approach the patient, you introduce yourself. Mr. Seaver asks that you call him "Mike." You perform an **initial assessment**, which reveals the patient can speak in full sen-



tences and appears to be oriented. You find that the rate and depth of Mike's breathing are adequate and his pulse is strong, regular, and within the normal range. You observe that he is sweaty and pale. He holds his hand firmly at his chest to describe his chief complaint: severe chest pain. Your general impression is of an unstable patient who has severe chest pain, necessitating a high-priority transport and ALS backup.

You carefully screen for clues that may indicate trauma, such as loss of consciousness or a fall, and find none. The patient has a medical complaint so you move into the **focused history and physical exam** for a medical patient, which relies heavily on the patient's history. Your partner has already placed the patient on oxygen by nonrebreather mask and begins to

take a baseline set of vitals while you perform a history using the SAMPLE mnemonic. The patient tells you that the pain came on while he was raking leaves and that it has lessened since he came in and sat down, although it is still a “5” on a 1-to-10 scale. The patient has nitroglycerin tablets that were prescribed after his last episode of chest pain, but he has never had to use them and therefore forgot to take one of the tablets.

You obtain Mike’s vital signs from your partner: P 88 strong and regular, R 20 and adequate, BP 136/88. Mrs. Seaver hands you the nitroglycerin. You observe that it is Mr. Seaver’s prescription, dated about four months ago. Your local protocols allow you to assist patients in taking their prescribed nitroglycerin once you obtain permission from the medical control physician at the hospital’s emergency department. While your partner prepares the patient for transport, you speak to the on-line physician on the Seavers’ telephone.

After your brief report, she approves the use of two nitro administrations while en route, spaced 5 minutes apart, as long as the chest pain continues and the patient’s systolic blood pressure remains above 110 mmHg.

En route to the hospital, Mike is reassessed after each administration of nitroglycerin. An **ongoing assessment** that includes a repeat of the chief complaint, initial assessment, vital signs, and your patient’s reaction to intervention is performed at least every five minutes on an unstable patient.

You radio and advise the hospital of the patient’s status and response to the nitroglycerin. Your ETA is now 8 minutes. After completing a final ongoing assessment, you arrive at the emergency department and turn over your patient after giving the nurse your **hand-off report**, a verbal report of your findings and out-of-hospital management.

MODULE ONE OVERVIEW

The scenario you have just read describes a typical EMS call, similar to one you may have responded to recently. In the scenario you used scene size-up and patient assessment skills, assisted the patient with nitroglycerin, moved him safely from the scene, and transported him to the hospital. Of course you obtained consent, spoke with medical direction, and made some important clinical decisions such as patient priority.

These important skills are among those you must maintain. As a professional EMT-B, you also must seek knowledge and gain new skills through continuing education and experience. Recertification is one way to do this. Whether you take a course every two or three years to maintain

certification or participate in continuing education courses over that time period, recertification is an important process.

This module is one of eight offered to assist you in your recertification. It also will help you to provide guidance and mentoring to newer EMT-Bs and to those who are training to become EMT-Bs.

The sections within this module are “Introduction to EMS Systems,” “Well-Being of the EMT-Basic,” “Medical/Legal and Ethical Issues,” “The Human Body,” and “Lifting and Moving Patients.” Information on the anatomy of the human body also will be included throughout this textbook where it is appropriate.

REFRESHER OBJECTIVES

Upon completion of this module, you should be able to meet the following objectives, which are taken from the U.S. Department of Transportation's "EMT-Basic Refresher Curriculum." Objective numbers have been changed to include the "Refresher" module number.

KNOWLEDGE

- 1-1** Provide for safety of self, patient, and fellow workers. (pp. 6, 16-26, 38-39)
 - Discuss the importance of body substance isolation (BSI). (pp. 20-21)
 - Describe the steps the EMT-Basic should take for personal protection from airborne and bloodborne pathogens. (pp. 19-24)
- 1-2** Identify the presence of hazardous materials. (pp. 17, 18, 38, and Module Seven)
 - Break down the steps to approaching a hazardous situation. (pp. 17, 18, 38, and Module Seven)
- 1-3** Participate in the quality improvement process. (pp. 9-12)
 - Define "quality improvement" and discuss the EMT-Basic's role in the process. (pp. 9-12)
- 1-4** Use physician medical direction for authorization to provide care. (pp. 10-11)
 - Define "medical direction" and discuss the EMT-Basic's role in the process. (pp. 10-11)
- 1-5** Use body mechanics when lifting and moving a patient. (pp. 52-54)
 - Relate body mechanics associated with patient care to its impact on the EMT-Basic. (pp. 52-54)
- 1-6** Use methods to reduce stress in self, patients, bystanders, and coworkers. (pp. 13-16)
 - Recognize the signs and symptoms of critical incident stress. (pp. 13-14)
 - State possible steps that the EMT-Basic may take to help reduce/alleviate stress. (pp. 14-15)

- 1-7** Obtain consent for providing care. (pp. 33, 35)
 - Define "consent" and discuss the methods of obtaining consent. (pp. 33-35)
 - Discuss the implications for the EMT-Basic in patient refusal of transport. (p. 35)
 - Discuss the importance of Do Not Resuscitate [DNR] (advance directives) and local or state provisions regarding EMS application. (p. 33)
- 1-8** Assess and provide care to patients and families involved in suspected abuse or neglect. (p. 38 and Module Six)
 - Discuss the special considerations for assessing and managing patients with suspected abuse or neglect. (p. 38 and Module Six)

ATTITUDE

- 1-9** Assess areas of personal attitude and conduct of the EMT-Basic. (p. 7)
- 1-10** Explain the rationale for serving as an advocate for the use of appropriate protection equipment. (pp. 21-22)
- 1-11** Explain the role of EMS and the EMT-Basic regarding patients with DNR orders. (pp. 33, 35)
- 1-12** Explain the rationale for properly lifting and moving patients. (pp. 52-54)

SKILLS

- 1-13** Working with a partner, move a simulated patient from the ground to a stretcher and properly position the patient on the stretcher. (p. 60)
- 1-14** Working with a partner, demonstrate the technique for moving a patient secured to a stretcher to the ambulance and loading the patient into the ambulance. (p. 63)