

**American Academy of Orthopaedic Surgeons  
Editorial Credits**

Chief Education Officer: Mark W. Wieting  
Director, Department of Publications: Marilyn L. Fox, PhD  
Managing Editor: Barbara A. Scotese

**World Headquarters Jones and Bartlett Publishers**

40 Tall Pine Drive  
Sudbury, MA 01776  
978-443-5000  
info@jbpub.com  
[www.EMSzone.com](http://www.EMSzone.com)

**Jones and Bartlett Publishers Canada**

6339 Ormindale Way  
Mississauga, ON L5V 1J2  
Canada

**Jones and Bartlett Publishers International**

Barb House, Barb Mews  
London W6 7PA  
United Kingdom

**Copyright © 2006 by Jones & Bartlett Publishers, Inc.**

All rights reserved. No part of the material protected by this copyright notice may be reproduced or utilized in any form, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without written permission from the copyright owner.

This DVD is for discussion purposes only; it is not intended to represent standards of care required in emergency situations. The American Academy of Orthopaedic Surgeons and the publisher make no guarantee as to, and assume no responsibility for the correctness, sufficiency, or completeness of such information or recommendations.

6048

**Production Credits**

Contributor: Chris Stratford, RN, BS, CEN  
Reviewers: Carol Guppton, BSEMS, NREMT-P; Mike Smith, MICP;  
Brenda M. Beasley, RN, BS, EMT-P; Larry Newell, EdD, NREMT-P  
Publisher, Public Safety: Kimberly Brophy  
Editor: Jennifer L. Reed  
V.P., Production and Design: Anne Spencer  
V.P., Manufacturing and Inventory Control: Therese Connell

## **Introduction**

The "You are the EMT" DVD series shows real life patient care situations involving practicing EMTs at various levels of care. The DVDs are for discussion purposes only; they are not intended to show standards of care in emergency situations. The primary focus is on assessment techniques. The DVDs may be used to introduce specific topics, review those topics, or stimulate critical discussion about the care provided. Caution should be employed when using these DVDs to teach specific techniques of management. The instructor is encouraged to preview the DVDs to become familiar with the scenarios prior to showing them in class. The scenarios need not be shown in the order presented on the DVDs.

## **Thinking Critically**

In every EMS call, decisions must be made based on conditions at the scene — conditions that are often not as perfect as those portrayed in textbooks or classrooms. The patient care and procedures in these real-life calls should be used to raise questions and stimulate discussion. In reviewing these incidents, put yourself in the place of the care providers. Your decisions may vary from theirs, but make your decisions based on the circumstances of each specific scene. Look at each case and try to anticipate the problems that you might encounter. Think through how you avoid these problems or how you would deal with them should they arise. At the end of each scenario, ask yourself, "Would I have treated this patient any differently?" If so, how?

## **Using the DVD**

Review the discussion questions provided and watch the DVD before showing it to the class. Divide the students into partners of two (similar to a typical ambulance) or in groups of three to four (similar to an engine company in a first response fire department). One person in each group should be assigned the role of the senior partner or captain of the company. Ask the students to watch one situation and write down their observations on how the care provided by these practicing EMTs may differ from what they have learned in class. After showing the DVD, provide time for the students to discuss their observations with their partner or in their small groups. These small group discussions teach the students how to critique their own runs and find ways to improve. Ask the captain or senior partner to share their group's observations with the class. This will help to build leadership qualities and group speaking abilities in the students.

## Scenario 1

### Chief Complaint: Gunshot Wound

#### Scene Size Up

- **Body Substance Isolation:** What would be considered appropriate personal protective equipment to a call involving a shooting? What would be minimum body substance isolation precautions for any call?
- **Scene Safety:** These issues are very important in a call involving a shooting patient. Was the gunshot wound the result of an accident while cleaning or storing the weapon or during a violent confrontation? Is the perpetrator still in the area? Is law enforcement on the scene or should they be requested? If officers are on the scene, should you stage or proceed in? What would you expect your patient's attitude or mental frame of mind to be immediately following an angry confrontation or dispute?
- **Mechanism of Injury:** Assaults with weapons are considered a significant mechanism of injury and may require spinal immobilization equipment, bandaging supplies, and possibly splints. Consider early on what you may need and take it with you to the patient.
- **Additional Resources:** Patients with gunshot wounds may have complicated injuries to the chest and/or abdomen. What level of care can you provide? Do you need to involve advanced life support (ALS)? What is the possibility of multiple shooting patients? Try to identify early in your scene size-up how many patients you have and request additional EMS support as necessary.

#### Initial Assessment

- **General Impression:** This patient is awake and complains of a gunshot wound to the upper chest/shoulder area. He appears to be in minimal distress despite the significance of his mechanism of injury. Did the EMTs check his mental status? Gunshot injuries are known to produce unpredictable injuries because of changes in trajectory and velocity and the design features of the bullet (i.e., does it fragment, flatten, or break apart?).
- **Airway:** Patency of the airway is quickly determined because the patient is awake and talking. The evaluation of his wound indicates the potential for a spinal injury. Any injury above the clavicles, whether the top of the chest, the neck, or the head, should raise your suspicion of a cervical spine injury and requires complete spinal immobilization. Could you use bystanders to hold the patient's head still while you continue to assess the patient?
- **Breathing:** Is the patient breathing adequately? Is he using accessory muscles to breathe? Trauma to the chest requires auscultating breath sounds to determine if they are present and equal. Absent or unequal breath sounds would mean the gunshot wound involves the lung. What are other indications that the lung may have collapsed due to the gunshot wound? Oxygen should be considered in any patient with chest injuries. This patient was in minimal respiratory distress and the EMTs elected not to apply oxygen in the initial assessment. What would be indications to apply oxygen now rather than wait until later during transport?
- **Circulation:** This patient has a pulse because he is awake and breathing; however, he may have a weak and rapid pulse due to blood loss from the gunshot wound. Observing the amount of blood on the patient's clothes and on the floor may assist you in estimating the amount of blood loss. This patient's skin condition is pink, warm, and dry, indicating that shock has not progressed too far in this patient. Bystanders have kept the patient still and maintained normal body temperature by covering the patient with a drape. How can you

prevent shock from progressing based on your level of care? After exposing the patient's injury and evaluating the bleeding, the EMTs also found an exit wound that was bleeding minimally. What would be considered enough bleeding from his wounds to require an immediate bandage? Which bandage would be most appropriate for this injury? Can that bandage be applied without compromising spinal immobilization?

- **Spinal Immobilization:** The patient was log rolled onto his side while his posterior body was assessed for hidden injuries and then log rolled onto the spine board. What would be other ways to place this patient on the long spine board? Why did they choose to complete spinal immobilization in the ambulance rather than on the scene? Could bystanders be used to assist during lifting or immobilization?
- **Transport Decisions:** Are there any compelling reasons for the EMS personnel to stay on the scene and continue assessment and treatment? Would you consider rapid transport to the hospital for this patient? Based on which priority problems? Is air medical transport needed based on the injuries found or the distance to a trauma center?

## Scenario 2

### Chief Complaint: Motor Vehicle Collision (MVC)

#### Scene Size Up

- **Body Substance Isolation:** What would you use to protect yourself from injury in managing motor vehicle collision patients? What if your responsibilities included extrication?
- **Scene Safety:** As you approach the accident scene, where would be a safe place to park that would not put your team at risk and still allow the easiest access to the patients and to your equipment? Follow the directions of law enforcement so you will not be in the way of traffic. Watch for car-related hazards such as spilled gasoline or oils, especially if you are using fuses to mark the area. Be prepared to deal with broken glass and sharp pieces of metal from damaged vehicles.
- **Mechanism of Injury:** What do you notice about the damage to the vehicles? Can vehicle damage be used as an indicator of patient injuries and their severity? What equipment other than spinal immobilization tools would you expect to use in an accident of this type?
- **Additional Resources:** You may require more responding medics depending on your particular situation. How many patients would you need in your EMS district to change a multiple-patient situation into a mass-casualty situation? In this situation, there are three patients and three providers. How do you decide who gets treated first?

#### Initial Assessment

- **General Impression:** Observe the patient's location in the vehicle. Is there damage to the interior of the car (e.g. bent steering wheel, dents in the dashboard, broken windows)? Were they using a lap restraint, a shoulder restraint, or both? Was the vehicle equipped with an air bag? Did it deploy? Does the vehicle have a headrest attached to the seat? Is it fitted properly to the patient's height? With practice, these things may be systematically noted during your general impression and evaluation of priority problems. In this situation, the patient was unrestrained in a vehicle without a passive restraint system. Did the EMTs assess the patient's mental status? Injuries to victims of motor vehicle crashes may be predicted by the occupant's position in the vehicle, the use of active and passive restraint systems, and the type and extent of damage to the vehicle.

- **Airway:** Patency of the airway is quickly determined because the patient is awake and talking. The best patient care is achieved when one responder holds inline stabilization while another applies a cervical spine immobilization device (CSID). With multiple stable patients, manual immobilization may be withheld until additional help is available. Could you use bystanders to hold the patient's head still while you gather or apply necessary equipment?
- **Breathing:** Because the patient was unrestrained, a thorough evaluation of breathing is required. Auscultating breath sounds and palpating or inspecting the chest may indicate significant chest trauma and compromised respirations. Oxygen should be considered in any patient with chest injuries. This patient is not in respiratory distress and the EMTs chose not to apply oxygen. Would applying oxygen to a patient of a MVC hurt the patient in any way? How may it benefit them even though respirations are present and adequate?
- **Circulation:** This patient has a pulse because he is awake and breathing. A quick evaluation of the patient's pulse may indicate how well the heart is functioning. A weak and rapid pulse in the presence of difficulty breathing and significant chest trauma may indicate decreased cardiac output from a bruised heart, internal bleeding, or possibly from a collapsed lung. This patient, on the other hand, has a strong and regular pulse. His skin is warm, dry, and pink with normal capillary refill time. There are no indications of shock or bleeding.
- **Spinal Immobilization:** The patient is placed on a long spine board using a rapid extrication technique. Is this the correct moving technique to use on this patient considering his size, mechanism of injury, and condition? The EMTs provide good communication about how and when they move the patient during this move. They also use good body mechanics by not reaching more than 15 to 20 inches in front of themselves, keeping their backs straight, and lifting with their legs. Moving the patient slowly with small moves rather than all at once provides better protection against furthering potential injuries. How would care for this patient change if there were only two emergency care providers?
- **Transport Decisions:** Would you consider rapid transport to the hospital for this patient? Are there priority problems present or indications of significant trauma (e.g. intrusion into the passenger compartment by more than 12 inches, death of an occupant in the same compartment, extrication of greater than 20 minutes, collision of speeds greater than 40 mph, or ejection from the automobile)? Significant mechanism of injury without signs and/or symptoms of airway, breathing, or circulatory problems still require rapid transport to the closest facility and/or assistance from advanced life support providers because the potential for hidden complications or internal bleeding is too great.

### Scenario 3

#### Chief Complaint: Possible Seizure

#### Scene Size Up

- **Body Substance Isolation:** What personal protective equipment would you use in treating a patient who was postictal following a seizure? What potential exposures exist in patients with an alcohol abuse history?
- **Scene Safety:** These issues can be difficult to evaluate at night, especially on a Friday night in a downtown metropolitan city. What threats be present in this part of the city? Would it make a difference if it's payday or if welfare checks were issued recently? Evaluate the patient carefully for hidden weapons.

- **Mechanism of Injury/Nature of Illness:** Your dispatch information states that the patient may have had a seizure. Would you consider a postictal seizure patient to be mechanism of injury or nature of illness? What if you had found a patient in his or her bed at home after a seizure? What equipment would you take with you to manage a seizure patient who fell like this patient did? How does the information received from dispatch differ from the report from first responders (the police in this situation)? How does it differ from what the patient tells you happened?
- **Additional Resources:** When would a seizure patient require more than basic life support provided by EMT-Bs?

### Initial Assessment

- **General Impression:** 98% of all seizures last between 1 and 4 minutes. Most seizures should be finished by the time you arrive and the patient should be in an unresponsive or confused postictal phase. If the patient is still seizing after an average response time of 4 to 6 minutes, what would be your priority decision? This patient's chief complaint is his seizure but other issues are also present. He is intoxicated and has some minor bleeding. Did the EMTs assess his mental status? Injuries are common to seizure patients depending on what they were doing just prior to the seizure. Some injuries may occur simply from the violent jerking in some seizures, even though the patients may be protected in a soft bed or carpeted floor.
- **Airway:** Airway is quickly determined because the patient is awake and talking. With an adequate airway, one EMT prevents the patient from moving by using physical and verbal reminders. If you had a patient who was actively seizing, how would you manage his or her airway? Can a seizure patient really "swallow his or her tongue?" When would be an appropriate time to place an oropharyngeal airway? How effective is suctioning during seizures? How about immediately after the seizure?
- **Breathing:** This patient appears to be able to protect his own airway and is breathing without difficulty. In a generalized tonic-clonic seizure (grand mal seizure), the primary muscles of respiration contract similarly to muscles in the rest of the body, making respirations less effective during the seizure. Would you apply high flow oxygen to your patient while they are seizing? Would you provide positive pressure ventilations to an actively seizing patient? What are the pros and cons of attempting this ventilation?
- **Circulation:** This patient has a pulse because he is awake and breathing. His skin is warm, dry, and pink with normal capillary refill time. He appears to be perfusing well at this time. A quick evaluation of his right posterior scalp shows a head laceration with minimal bleeding. He is not lying in a pool of blood and for the most part appears unaware of his wound. Can you estimate the amount of blood loss? Which bandage would be best suited for this wound? Can that bandage be applied while maintaining spinal immobilization if the patient is in a supine position?
- **Spinal Immobilization:** In this case, spinal immobilization is begun and managed well throughout the initial assessment. The lead EMT frequently tells the patient not to move his head and to lie still. Head injury patients and intoxicated patients require frequent verbal reminders not to move because of their decreased mentation. A CISD is applied as a physical reminder to not move. The patient is log rolled and placed on a long spine board after padding was applied. What situations would warrant padding the spine board prior to placing the patient on it? His head is secured to the board with tape, including blocks on the

sides of his head. What can be used by the sides of a patient's head other than foam blocks? What would you use with a pediatric patient? Four inch tape is used to secure this patient to the backboard. Is this an appropriate option as long as he is secure? What other equipment devices could be used to secure a patient to a backboard?

- **Transport Decisions:** Would you consider rapid transport to the hospital for this patient? Were there any life threats that required an immediate transport decision? If you had a patient who refused transport, what criteria would you use to determine if he or she was competent to make that decision?
- **Behavioral Considerations:** Intoxicated patients may be challenging to manage because of their poor mentation and combative nature. When would you need to restrain an intoxicated patient? How would you restrain this patient? If a patient frequents your ambulance for the same problems time after time, would it change how you manage his or her problems? Can it work to your advantage when evaluating mental status changes? Does the indigent drunk after a seizure deserve the same professionalism and care as a businessman who drank too much at dinner and fell? What treatment interventions would you provide, based on your level of care, for a postictal seizure patient? How about a postictal seizure patient who is intoxicated?