GEORGIA | PEACH STATE PATHWAYS

Career, Technical, & Agricultural Education

HEALTHCARE SCIENCE

COURSE: 25.562 Concepts of Emergency Medicine

UNIT: 18.1 Scene Size Up

INTRODUCTION

Annotation:

This unit will give the student an understanding of the importance of scene size up in responding to an emergency. Emphasis is on gathering key pieces of information related to safety, the nature of the emergency, the patient(s) and potential resource needs in an efficient manner. Students will have a practical portion to demonstrate skills.

Grade(s):

	9th
	10th
X	11th
X	12th

Time:

Five 50 minute class periods

Author:

Mark Elsey, BS, NREMT-P

Additional Author(s):

Students with Disabilities:

For students with disabilities, the instructor should refer to the student's IEP to be sure that the accommodations specified are being provided. Instructors should also familiarize themselves with the provisions of Behavior Intervention Plans that may be part of a student's IEP. Frequent consultation with a student's special education instructor will be beneficial in providing appropriate differentiation.

FOCUS STANDARDS

GPS Focus Standards: Please list the standard and elements covered.

HS-CEM-8:

Students will accurately assess a patient's need for treatment.

- **a.** Analyze the components of scene size-up.
- **b.** Describe common hazards found at the scene of a trauma and a scene involving a medical patient.
- **c.** Explain the rationale for identifying the need for additional help or assistance.
- **d.** Determine priorities of patient care and skills required to continue that assessment and management of the ill or injured patient.

GPS Academic Standards:

ELA11C1: The student demonstrates understanding and control of the rules of the English language, realizing that usage involves the appropriate application of conventions and grammar in both written and spoken formats.

National / Local Standards / Industry / ISTE:

See module at:

www.nhsta.gov/people/injury/ems/pub/frnsc.doc

Module 3 Patient Assessment

Lesson 3-1

UNDERSTANDINGS & GOALS

Enduring Understandings:

- Responding to an emergency involves a very important process that is not only very important to the safety of the First Responder and all involved in the emergency, but also vital to managing emergencies in an efficient manor.
- Scene size-up actually begins from the first time that information is received about an emergency.
- It is important for the responder to focus on all key pieces of information that will help in conducting a primary survey and secondary survey.

Essential Questions:

- How should the First Responder conduct the scene size-up?
- What are some common hazards that might endanger the First Responder?
- What information should be gathered during scene size-up?

Knowledge from this Unit:

- How to differentiate various scenarios and identify potential hazards.
- The rationale for crewmembers to evaluate scene safety prior to entering.
- How patient situations affect your evaluation of the mechanism of injury or illness.

Skills from this Unit:

- Analyze the components of scene size-up.
- Describe common hazards found at the scene of a trauma and a scene involving a medical patient.
- Explain the rationale for identifying the need for additional help or assistance.

ASSESSMENT(S)

Assessment Method Type: Select one or more of the following. Please consider the type(s) of differentiated instruction you will be using in the classroom.

____ Pre-test
X Objective assessment - multiple-choice, true- false, etc.
_X_ Quizzes/Tests
_X_ Unit test
X Group project
X Individual project
X Self-assessment - May include practice quizzes, games, simulations, checklists, etc.
_X_ Self-check rubrics
__ Self-check during writing/planning process
__ Journal reflections on concepts, personal experiences and impact on one's life
__ Reflect on evaluations of work from teachers, business partners, and competition judges
__ Academic prompts
__ Practice quizzes/tests
X Subjective assessment/Informal observations
__ Essay tests
__ Observe students working with partners
_X_ Observe students role playing
X Peer-assessment
__ Peer editing & commentary of products/projects/presentations using rubrics
__ Peer editing and/or critiquing
X Dialogue and Discussion
__ Student/teacher conferences
__ Partner and small group discussions

_____ _X_ Whole group discussions
__ Interaction with/feedback from community members/speakers and business partners
_X_ Constructed Responses
__ Chart good reading/writing/listening/speaking habits
_X_ Application of skills to real-life situations/scenarios
_____ Post-test

Assessment(s) Title:

- Scene size-up quiz
- GPS Vocabulary
- GPS Written Assessment

Assessment(s) Description/Directions:

- Students will complete a Practical Evaluation using NREMT candidate skill sheets from www.nremt.org, candidate section, basic skills.
- The students break up into 2 groups to create a PowerPoint presentation about the various scene hazards that a First Responder might run into.
- Learners will complete the workbook pages related to this unit. Workbook pages will be graded on a 100 point scale.
- Students complete a written exam on a scale of 0-100 to assess understanding of scene size-up and patient assessment.
- Students will complete the Chapter Key Terms (Definitions) using a vocabulary contract. Vocabulary Contract will be graded on a 100 point scale.

Attachments for Assessment(s): Please list.

- Size up Quiz or Evaluation
- Patient Assessment/Management – Medical from http://www.nremt.org/nremt/downloads/patientassessmentmanagementmedical.pdf
- Patient Assessment/Management-Trauma from http://www.nremt.org/nremt/downloads/patientassessmentmanagementtrauma.pdf

LEARNING EXPERIENCES

Instructional planning: Include lessons, activities and other learning experiences in this section with a brief description of the activities to ensure student acquisition of the knowledge and skills addressed in the standards. Complete the sequence of instruction for each lesson/task in the unit.

Sequence of Instruction

1. Identify the Standards. Standards should be posted in the classroom for each lesson.

HS-CEM-8: Students will accurately assess a patient's need for treatment.

2. Review Essential Questions.

- How should the First Responder conduct the scene size-up?
- What are some common hazards that might endanger the First Responder?
- What information should be gathered during scene size-up?

3. Identify and review the unit vocabulary.

Body Substance isolation (BSI)	Chief complaint
Index of suspicion	Mechanism of injury (MOI)
Nature of illness (NOI)	Scene size-up
Resources	Tunnel vision

4. Assessment Activity.

Interest Approach

Size-up is the first and most important aspect of patient assessment. It begins as the First Responder approaches the scene. During this phase, the First Responder surveys the scene to determine if there are any threats that may cause an injury to the First Responder. In addition, this assessment allows the First Responder to determine the nature of the call and obtain additional help.

LESSON ONE

This GPS starts with the scene size-up.

Give students **KWL** form: This allows students to record what they **K**now about scene size-up and **W**hat they **L**earn, and compare.

Assign Unit Vocabulary and workbook pages to be handed in by day three.

Introduction to Scene Size-up

Discussion and lecture in class today involves the scene size-up. Before you can take care of patients you must ensure that the scene is safe. You are the most important person in the world **AND** the scene doesn't need **two** patients.

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

Can show Scene Size-Up slides Patient Assessment multimedia presentation from Temple College EMS program http://www.templejc.edu/dept/ems/pages/powerpoint.html

- SCENE SIZE-UP

A. First Responder concerns at the scene

1. Safely identify and provide care for life-threatening problems.
2. Safely identify any injuries or medical problems that are serious or could become serious. Provide care for these problems.
3. Safely continue monitoring patient in case condition changes.

B. Scene size-up components

1. Body substance isolation precautions
2. Scene safety
3. Mechanism of injury or nature of illness
4. Number of patients
5. Resources needed

C. Upon arrival at scene

1. State your name (and rank or classification).
2. Identify yourself as a trained First Responder with EMS system.
3. Ask patient if you may help (obtain consent).
4. Look for any life-threatening problems.
5. Offer to assist anyone who has begun care.

II. Body Substance Isolation Precautions

A. Eye protection if necessary

B. Gloves if necessary

C. Gown if necessary

D. Mask if necessary

Explain to the students that if there is a chance of blood or body fluids being splattered, then protective eyewear should be worn.

If there is any chance of contact with blood or body fluids, then gloves should be worn.

Always change gloves between patient contacts. Some EMS professionals wear multiple layers of gloves so they can "peel away" the bloody pair and keep working.

The EMS uniform is usually considered to be enough protection. Soiled uniforms or other protective outerwear should be changed as soon as possible and disposed of or washed properly.

If you are wearing eye protection, you should also be wearing a mask.

HANDS ON PRACTICE with BSI …repeated from CEM-3

***Students don BSI equipment and participate in an annual "condiment day" tradition where they squirt each other with mustard, ketchup, mayonnaise and/or other condiments to see which BSI items held up and who got infected.

LESSON TWO

Scene safety is always your top priority. First protect yourself, then your crew, next the patient and bystanders.

******The scene doesn't need two patients!!!**

This thought is paramount in EMS. To many times people do "stupid" things and end up dead!!!

If you can't swim, **DON'T JUMP IN** TO SAVE THE DROWNING PERSON!!!!

A. Personal protection

1. Is it safe to approach the patient?

a. Crash/rescue scenes

b. Toxic substances—low-oxygen areas

c. Crime scenes—potential for violence

d. Unstable surfaces: slope, ice, water

2. Wear appropriate protective clothing

B. Protection of the patient

1. Environmental considerations

C. Protection of bystanders

1. If appropriate, help the bystander avoid becoming a patient

2. If the scene is unsafe, make it safe; otherwise, do not enter

LESSON THREE

IV. Nature of Illness and Mechanism of Injury

A. Nature of illness (NOI)

The patient is the best person to provide NOI information. If the patient is unable, family or bystanders may provide some insight.

1. Determine from the patient, family, or bystanders why EMS was activated.

2. Determine the total number of patients. If there are more patients than the responding unit can effectively handle, initiate a mass casualty plan.

a. Obtain additional help prior to contact with patients: law enforcement, fire, rescue, ALS, utilities; EMT-Basic is less likely to call for help if involved in patient care

b. Begin triage

Get help as soon as possible.

People are less likely to call for help once involved in patient care.

At this point, share with the students various photo's or video's of injuries and have them guess what happened to the patient. This activity is a real EYE OPENER, and the kids love the gross stuff.

Then, show pictures of wrecked vehicles, you can do that at the junk-yard, and have the students guess what type of injuries they could have received, i.e. Spider-webbed windshield means cervical trauma and facial trauma with possible closed or open head injury.

These activities should be done throughout the year to help prepare the students for the unknown.

REMEMBER…. ***Scene safety is always your top priority. First protect yourself, then your crew, next the patient and bystanders.***

******The scene doesn't need two patients!!!**

LESSON FOUR

V. Number of Patients and Need for Additional Help

A. If there are more patients than the responding unit can effectively handle, initiate a mass casualty plan

a. Obtain additional help before contact with patients; EMT-Basic is less likely to call for help when involved in patient care

b. Begin triage

****** Hands on Practice*****************

Hand out patient assessment flowchart to students.

If the responding crew can manage the situation, consider spinal precautions and continue care.

Read the following scenario to your students and discuss the questions listed afterward.

There has been a crash at the intersection of two busy highways. There are two patients trapped who cannot be freed without heavy rescue equipment. There is broken glass and sharp metal at the scene. Traffic is being controlled by police and is not a factor.

Is the scene safe?

What is the mechanism of injury?

How many patients are involved?

Do the EMTs need more help?

What can the EMTs do until heavy rescue equipment arrives?

Discussion Points

1. The scene is unsafe because of the presence of hazards, such as glass and metal. EMTs will need protective rescue gear, such as helmets, leather gloves, and puncture-proof coats, to approach the patient. EMTs will also need to be aware of the high likelihood of blood or other body fluids being present and take appropriate body substance isolation precautions.
2. The mechanism of injury is an auto crash. The EMTs should try to determine the rate of speed of the cars upon impact, whether the patients were restrained, and the nature of the collision (head-on, side impact, rear end, etc.?)
3. There are two patients involved.
4. More help is required. Since there are two patients, they may require another ambulance crew to respond to treat and transport the second patient. Heavy rescue equipment is also needed. EMTs on scene should call for help as soon as possible.
5. The EMTs will be unable to move or transport the patient until personnel trained in rescue can remove them from the vehicle. While waiting, the EMTs can obtain a history, take vital signs (if the patient is accessible), initiate spinal control procedures, begin oxygen therapy, prepare equipment, and notify the receiving facility of the crash, severity of the injuries, and approximate time of arrival.

At this point…….

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

LESSON FIVE

Ask students to clear their desks and use a pen or pencil.

Administer the Units written assessment, approximately 8 multiple choice, and 2 short answers.

Grade and return.

Prepare students for GPS CEM-8- Patient Assessment

Attachments for Learning Experiences:

Notes & Reflections:

Topic: Body substance isolation

With the use of a purchased "microorganism kit," place a small amount of microorganism powder on the back of a sign-in sheet and pass the sheet around the room. During the BSI lecture, turn off the lights and turn on a black light. The "goo" will show in the fluorescent light, demonstrating the simulated "germs" with which the student has come in contact. Then, discuss the importance of BSI precautions.

At the end of the GPS, if your school has a drama department, ask them to be patients. Great Actors scare rookie First Responders, this is activity is truly wonderful. Plus people like to hear about collaborative education. ☺

CULMINATING PERFORMANCE TASK (Optional)

Culminating Unit Performance Task Title:

Culminating Unit Performance Task Description/Directions/Differentiated

Attachments for Culminating Performance Task

UNIT RESOURCES

Web Resources:

EMS-Related Organizations
The organizations listed below offer resources for specific EMS interests and information. Some organizations offer training opportunities through local branches. To obtain membership, dues, and participation information, write to the organization(s) most closely associated with your interests.
This is only a sampling of EMS-related organizations. EMS journals and other EMS professionals may provide information on additional organizations.

American Red Cross (ARC)
National Disaster Response
Contact your local Red Cross chapter

American Trauma Society (ATS)
Membership Department
8903 Presidential Parkway, Suite 512

Upper Marlboro, MD 20772-2656

FARMEDIC National Training Center
ATTN: Dave Oliver
Alfred State College
Alfred, NY 14802

Florida EMS Clearinghouse
2002 Old St. Augustine Road, Building D
Tallahassee, FL 32301

International Association of Dive Rescue Specialists (IADRS)
P.O. Box 5259
San Clemente, CA 92674-5259

International Critical Incident Stress Foundation, Inc.
ATTN: Team Information
5018 Dorsey Hall Drive, Suite 104
Ellicott City, MD 21042

National Association For Search And Rescue
4500 Southgate Place, Suite 100
Chantilly, VA 22021

National Association of Emergency Medical Technicians (NAEMT)
102 West Leake Street
Clinton, MS 39056

National Association of EMS Physicians (NAEMSP)
230 McKee Place, Suite 500
Pittsburgh, PA 15213

National Flight Paramedic's Association
35 South Raymond Avenue, Suite 205
Pasadena, CA 91105

National Registry of Emergency Medical Technicians (NREMT)
ATTN: First Responder Department
6610 Busch Boulevard
Columbus, OH 43229

Air Medical Physician Association
(AMPA) Ms. Pat Petersen, Executive Director
383 F St. Salt Lake City, UT 84103
website: www.ampa.org.

Association of Air Medical Services (AAMS)
Ms. Dawn Mancuso, Executive Director
110 North Royal St., Suite 307
Alexandria, VA 22314
703 836 8732; fax 703 836 8920
e-mail: dmancuso@aams.org website: www.aams.org.

National EMS Pilots Association (NEMPSA)
Ms. Dawn Mancuso, Executive Director
110 North Royal St., Suite 307
Alexandria, VA 22314
703 836 8732; fax 703 836 8920
e-mail: dmancuso@aams.org
website: www.nemspa.org.

A**ir & Surface Transport Nurses Association**
(ASTNA) Ms. Karen Wojdyla, Executive Director 9101 E. Kenyon Ave., Suite 3000
Denver, CO 80237
303-770-2220; fax 303-770-1812
e-mail: info@gwami.com
website: www.astna.org.

National Flight Paramedics Association
(NFPA) Ms. Pat Petersen, Executive Director 383 F St. Salt Lake City, UT 84103
801 381 NFPA; fax 801 321 1668
website: www.nfpa.rotor.com.

http://health.state.ga.us/programs/ems/offices
www.mosbyjems.com
www.dhs.gov
www.nhtsa.dot.gov
www.lungusa.org
www.innerbody.com
www.spinalcord.org
www.emsmagazine.com
www.childbirth.org
www.amhrt.org
www.techrescue.org
www.jems.com
www.nremt.org
www.osha.gov
www.cdc.gov

Attachment(s):

Candidate sheets from the National Registry's website, www.nremt.org

Patient Assessment Multimedia Slides from Temple College EMS Program

http://www.templejc.edu/dept/ems/pages/powerpoint.html

Materials & Equipment:

AV Equipment: **Computer, projector, internet,** Use various audiovisual materials relating to scene size-up. The continuous design and development of new audiovisual materials relating to EMS requires careful review to determine which best meet the needs of the program. Materials should be edited to ensure the objectives of the curriculum are met.

EMS Equipment: None

Additional Materials: Microorganism kit, black light, slides or other images of hazardous emergency scenes; you may also wish to repeat showing examples of eyewear, gloves, gowns, and masks.

What 21st Century Technology was used in this unit:

X	Slide Show Software		Graphing Software		Audio File(s)
	Interactive Whiteboard		Calculator		Graphic Organizer
	Student Response System		Desktop Publishing		Image File(s)
	Web Design Software		Blog	X	Video
	Animation Software		Wiki		Electronic Game or Puzzle Maker
	Email	X	Website		