

LESSON PLAN

19

LIFTING AND MOVING PATIENTS

Duration • 07 Periods • (Lecture-01 Periods and Practical-06 Periods)

Materials:

- Powerpoint presentation (including slides)
- Flipcharts
- Computer
- Multimedia projector and screen
- 2 assistants
- 5 triangular bandages
- 1 blanket
- 2 sheets
- 2 cervical collars
- 1 bandage roll
- 2 wooden blocks (4"x4", 18")

LESSON OBJECTIVES

Upon completion of this lesson, you will be able to:

1. List three emergency moves and two non-emergency moves for lifting and moving a patient.
2. Demonstrate the techniques for immobilising and transporting a patient, using a backboard.
3. Name five examples of situations that might require you to make an emergency move with a patient.

1. INTRODUCTION

- 1) Introduction of instructor and co-instructor.
- 2) Introduce of the lesson.
- 3) Present lesson objectives (ask a participant to read aloud course objectives from manual).

**Visual Aids
and Other
Materials**

► *PPT 19-1
to 19-3*

**Time
Elapsed**

2. DEVELOPMENT

1

Background

After arriving at the scene, a patient may need to be handled or transported. Swiftiness at the scene may be a major consideration in a dangerous situation. If a patient is handled improperly, it may cause further injury.

Each EMS system defines when and how a patient may be moved, generally only if the patient is in immediate danger.

2

Body Mechanics

Visual Aids
and Other
Materials

Time
Elapsed

Definition: Proper use of your body to facilitate lifting and moving, and to prevent injury.

► PPT 19-4

Incorrectly lifting and carrying equipment or patients could cause injury, and potentially end an EMS career or cause lifelong pain. When it comes to lifting, follow these basic rules to prevent injuries:

- **Plan your move** before lifting an object.
- **Use your legs** to lift, not your back.
- Keep the weight of the object as **close to your body** as possible.
- **“Stack”** – move your body as a unit. Visualise your shoulders as stacked onto your hips, your hips onto your feet.
- **Reduce the height or distance** you need to move an object.
- **Reposition** and **lift in stages**.

Apply these principles to lifting, pulling, pushing, carrying, moving or reaching for an object. The key to preventing injury is *correct alignment* of the spine. Keep a normal, inward curve of the lower back. Keep wrist and knees in normal alignment.

Teamwork is essential. Communicate during a task, clearly and frequently. Use commands that are easy for team members to understand. Verbally coordinate moves from beginning to end.

<Advise participants that proper body mechanics will not protect those who are not physically fit.>

► NOTE

A proactive, well-balanced physical fitness program should include training in flexibility, cardiovascular exercise, strength and nutrition. However, these concerns are beyond the scope of this course.

3

Moving Patients

<Allow participants to respond to the following questions.>

- How soon should you move the patient?
- Must you complete your assessment before moving the patient?
- How much time should you spend on spinal protection?

Answer *It depends on the circumstances.*

Generally, if there is no threat of injury, provide emergency care and then move the patient. If the scene is potentially unsafe or poses an immediate threat, you may have to move the patient.

Patient-moving techniques can be classified as **emergency moves** and **non-emergency moves**.

3.1 Emergency Moves

Make an emergency move only when there is immediate danger to the patient.

<Ask participants for examples of situations that may require an emergency move.>

Examples of situations which might require you to make an emergency move:

- **Fire or threat of fire** – always considered a great threat to patients and rescuers.
- **Explosion or threat of explosion** (hazardous scene)

Visual Aids and Other Materials

► **NOTE**

Time Elapsed

► **PPT 19-5**

► **NOTE**

► **PPT 19-6**

3

Moving Patients (Cont.)

- **Inability to protect the patient from hazards at the scene**
 - › Unstable building
 - › Rolled over car
 - › Hostile crowd
 - › Hazardous materials (Haz-Mat)
 - › Spilled gasoline
 - › Extreme weather
- **To gain access to other patients who need care.**
- **When life-saving care cannot be given due to patient's location or position:**
Example: A patient in cardiac arrest must be supine on a hard flat surface to perform CPR properly. If patient is sitting in chair or is lying in bed, you must make an emergency move.

The greatest danger in making an emergency move is the possibility of *aggravating a spinal injury*. Provide as much protection to the spine as possible – pull the patient in the direction of the *long axis* of the body. Try not to move the head away from the neck and shoulders, and secure the hands and arms.

Moving patients away from a vehicle quickly and safely may be impossible. Move the patient only under the conditions mentioned above.

**<Demonstrate the following moves.
Remind participants that these are emergency moves and should be done as quickly as possible.>**

Types of emergency moves

- Shirt drag
- Shoulder or forearm drag

Other types:

Piggyback carry, one rescuer crutch, cradle carry, firefighter drag.

Visual Aids and Other Materials

► PPT 19-7

► NOTE

► Pictures
Brady

Time Elapsed

3

Moving Patients (Cont.)

3.2 Non-Emergency Moves

Where there is no immediate threat to life, the patient should be moved only when ready for transport, using a non-emergency move.

Complete your on-scene assessment and treat the patient first. Prevent additional injury and try to avoid causing discomfort and pain to the patient.

Non-emergency moves generally require minimal equipment. However, if you suspect spinal injury, provide proper spinal immobilization prior to moving the patient. Often patient-carrying devices can be utilized.

<Demonstrate the following moves.>

Examples of non-emergency moves:

- **Direct-ground / bed lift:** This move is difficult if the patient weighs more than 80 kilos, is on the ground or other low surface or is uncooperative. Requires at least three people.
- **Extremity lift:** Commonly used to move patients from a chair or bed to a stretcher or the floor. Do not use on patients with extremity injuries.

Visual Aids
and Other
Materials

Time
Elapsed

► NOTE

4

Positioning the Patient

How you position a patient depends on the patient's condition.

Examples:

- Patient showing signs of shock may be placed in the shock position – elevate legs or foot end of long spine board 20-30 cm.
- Patient with respiratory problems may get into a more comfortable position, unless injuries prevent it. These patients generally want to sit up.
- Patients with abdominal pain generally want to be on one side with legs drawn up.
- A responsive patient, who is nauseated or vomiting, should be allowed to remain in a position of comfort, unless injuries prevent it. Always be ready to manage patient airway.
- Trauma patients, especially suspected spinal injury patients, should be appropriately immobilized on long spine board.
- Place patient in recovery position if unconscious and not contraindicated.

Obviously it is not possible to address every situation. Conditions at the scene and the patient's condition will dictate a good position for the patient.

**Visual Aids
and Other
Materials**

**Time
Elapsed**

5

Patient-Carrying Equipment

Such equipment includes stretchers and other devices designed to carry patients safely to their destination. You should become completely familiar with the use of these devices. They must also know the limitations of the equipment. It is very import to regularly maintain and inspect these devices.

Typical equipment used to move patients includes:

- **Wheeled stretchers** – some have a collapsible undercarriage, usually seen in ambulances or transportation units
- **Lightweight portable stretchers** (folding or collapsible)
- **Scoop stretcher**
- **Vest-type extrication devices**
- **Stair chair**
- **Basket stretcher**
- **Flexible stretcher**
- **Draw sheet**
- **Backboards:** These devices are usually made of splinter-resistant wood or synthetic material that will not absorb blood. They usually have handholds or carrying straps. There are two types:
 - › **Long backboard:** 6–7 feet long, used for patients found lying down or standing and who must be immobilized.
 - › **Short backboard:** 3-4 feet long, used primarily to remove patients from vehicles when neck or spinal injuries are suspected. The backboard is slid between the patient's back and the seat. Once secured to the short board and wearing a rigid cervical collar, the patient can be removed from his sitting position in the vehicle to a supine position on the long board. Vest-type devices are often used as a short backboard.

<Discuss any other applicable equipment as needed.>

<SHOW colour photos on transparencies (full set).>

Visual Aids and Other Materials

Time Elapsed

► *Pictures*
Brady

► *NOTE*
► *SLIDE SHOW*

**Visual Aids
and Other
Materials****Time
Elapsed****REVIEW**

<Review lesson objectives on page 1. Make sure all participants have understood them clearly.>

PRACTICAL EXERCISES

Rotate participants through the various stations according to the lesson plan.

POST-TEST

1. Verify achievement of objectives.
2. Respond to the post test.

CLOSING

1. Comments, questions, suggestions.
2. Thank the participants and announce the next lesson.

PRACTICAL EXERCISE

Lifting and Moving Patients

Stations 1:

Lifts and carries

Stations 2:

Removing a patient from an automobile using a long backboard

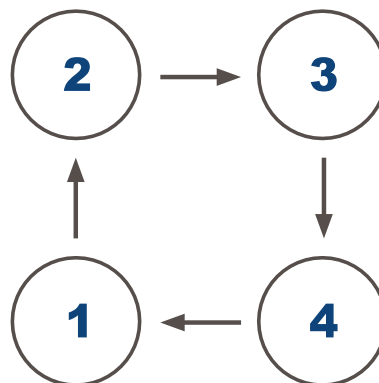
Stations 3:

Strapping a patient to a long backboard

Stations 4:

Removing a patient from an automobile using a short backboard

Rotation type for this lesson:



Number of rotations:

4

Duration:

2 hours (30 minutes per station)

<NOTE: After a brief explanation of the mechanics of this station, let participants begin practicing. An instructor will be in charge of each station and responsible for filling out the evaluation. These exercises will not require arrival protocols, initial assessment or physical exam.>

<DO NOT SPEND TIME EXPLAINING MATERIAL THAT WAS ALREADY COVERED DURING LECTURE.>

MFR LESSON 19

PRACTICAL EXERCISE

Lifting and Moving Patients (Cont.)

Stations 1: Lifts and carries

Materials

- PPE for all participants
- 3 blankets
- 2 straight-back chairs

Stations 2: Removing a patient from an automobile using a long backboard

Materials

- PPE for all participants
- 1 long backboard (with straps)
- 1 set of cervical collars
- 2 rolls of wide tape
- 2 wooden blocks

Stations 3: Strapping a patient to a long backboard

Materials

- PPE for all participants
- 1 long backboard (with straps)
- 1 set of cervical collars
- 1 blanket
- 2 rolls of wide tape
- 4 head rolls

Stations 4: Removing a patient from an automobile using a short backboard

Materials

- PPE for all participants
- One short backboard (with straps)
- 1 set of cervical collars
- 2 rolls of wide tape
- 1 long back board
- 2 wooden blocks

Stations 1, 2, 3 and 4

Student Name: _____ **Dates:** _____

Instructions: Check the box showing on which attempt the participant was able to perform the step successfully. UTP indicates unable to perform successfully within four attempts.

Performance Guidelines		Successful on Attempts				UTP
		1	2	3	4	
Station 1	Use of PPE.					
	Blanket drag					
	Shoulder or forearm drag					
	Direct ground lift					
	Extremity lift					
Station 2	Use PPE					
	Remove a patient from an automobile using a long backboard					
Station 3	Use PPE					
	Strapping a patient to a long backboard					
Station 4	Use of PPE.					
	Removing a patient from an automobile using a short backboard					

Comments _____

Overall Performance	
Station 1 ☐ Outstanding ☐ Successful ☐ Needs Imp. Instructor:	Station 2 ☐ Outstanding ☐ Successful ☐ Needs Imp. Instructor:
Station 3 ☐ Outstanding ☐ Successful ☐ Needs Imp. Instructor:	Station 4 ☐ Outstanding ☐ Successful ☐ Needs Imp. Instructor:

POST-TEST | LESSON 19

Lifting and Moving Patients

1. **List three emergency moves and two non-emergency moves for lifting and moving a patient.**

Emergency Moves:

- *Shirt drag*
- *Shoulder*
- *Forearm drag*

Non-Emergency Moves:

- *Direct-ground/bed lift*
- *Extremity lift*

2. **Name five examples of situations that might require you to make an emergency move with a patient.**

- *Fire or threat of fire*
- *Explosion or threat of explosion*
- *Inability to protect the patient from hazards*
- *To gain access to other patients who need care*
- *Life-saving care cannot be given at location*

LESSON 19

— PPT's

19-1



PPT 19 - 1

19-2

OBJECTIVES

Upon completing this lesson, you will be able to:

- 1 List three emergency moves and two non-emergency moves for lifting and moving a patient.
- 2 Demonstrate the techniques for immobilising and transporting a patient using a backboard.

PEER | MFR | INDIA

PPT 19 - 2

19-3

OBJECTIVES

Upon completing this lesson, you will be able to:

- 3 Name five examples of situations that might require you to make an emergency move with a patient.

PEER | MFR | INDIA

PPT 19 - 3

19-4

BODY MECHANICS

The proper use of your body to facilitate lifting and moving, and to prevent injury.

PEER | MFR | INDIA

PPT 19 - 4

19-5

EMERGENCY MOVES

Make an emergency move only when there is immediate danger to the patient.

PEER | MFR | INDIA

PPT 19 - 5

19-6

SITUATIONS REQUIRING EMERGENCY MOVES

- 1 Fire or threat of fire
- 2 Explosion or threat of explosion
- 3 Inability to protect the patient from hazards

PEER | MFR | INDIA

LESSON 19

— PPT's

19-7

SITUATIONS REQUIRING EMERGENCY MOVES

CONT.

4

To gain access
to other patients
who need care

5

Life-saving care
cannot be given
at location

POWER | SAFETY | PROTECTION

LESSON 19

— FLIP CHARTS

FC19-1



LESSON 19 STATION 1

Lifts and carries

These lifts and carries should be practised on level ground and going up and down stairs. Each participant will demonstrate the following lifts or carries. These will be done individually or as a team.

- Blanket drag
- Shoulder or forearm drag
- Direct ground lift
- Extremity lift

PEER | MFR | INDIA

FC 19-1

FC19-2



LESSON 19 STATION 2

Removing a patient from an automobile using a long backboard

1. Maintain manual stabilisation.
2. Apply cervical collar.
3. Rotate the patient into position.
6. Slide the patient into position on the backboard using small movements.

PEER | MFR | INDIA

FC 19-2

FC19-3



LESSON 19 STATION 3

Strapping a patient to a long backboard Secure the patient's torso

1. Place the female end of buckle on patient's chest.
2. Run the male end of the strap over one shoulder and down through the hand-hole.
3. Bring the strap back up through a hand-hole by the patient's hips.
4. Run the strap over the hips and down the hand-hole on the other side.
5. Bring the strap out and onto the chest.
6. Connect the buckle ends and tighten.
7. Repeat Steps 1-6 on the other side.
8. If the patient is unconscious, tie hands together over the stomach.

PEER | MFR | INDIA

More >>
FC 19-3

FC19-4



< continued LESSON 19 STATION 3

Strapping a patient to a long backboard Secure the patient's legs

9. Place the female end of the buckle on the patient's legs above the knees.
10. Run the male end of the strap to one side and down through the hand-hole.
11. Bring the strap back up through a hand-hole below the patient's knees.
12. Run the strap over the legs and down the hand-hole on the other side.
13. Bring the strap back up through a hand-hole above the knees (in line with the female end of the buckle).
14. Connect the buckle ends and tighten.

PEER | MFR | INDIA

More >>
FC 19-4

LESSON 19

— FLIP CHARTS

FC19-5

FC19-6

MFR 2020
Medical First Responder



« continued

LESSON 19 STATION 3

Strapping a patient to a long backboard Secure the patient's head

15. Place a head roll under the patient's head on the backboard.
16. Run 5-cm tape across the patient's forehead and headroll to both sides of the backboard.
17. Run 5-cm tape across the patient's chin and headroll to both sides of the backboard.

PEER | MFR | INDIA

FC 19-5

MFR 2020
Medical First Responder



LESSON 19 STATION 4

Removing a patient from an automobile using a short backboard

1. Maintain manual stabilisation.
2. Apply cervical collar.
3. Position the short backboard behind the patient.
4. Secure the patient's torso to the backboard.
5. Pad behind the patient's head and secure it to the backboard.
6. Rotate the patient into position.
7. Lean back the torso of the patient.
8. Using the backboard and supporting the patient's legs, lift and remove the patient from the automobile.

PEER | MFR | INDIA

FC 19-6

LESSON 19

— SLIDES

SL 19-1



PEER | MFR | INDIA

SL 19-1

SL 19-2



PEER | MFR | INDIA

SL 19-2

SL 19-3



PEER | MFR | INDIA

SL 19-3

SL 19-4



PEER | MFR | INDIA

SL 19-4

SL 19-5



PEER | MFR | INDIA

SL 19-5

SL 19-6



PEER | MFR | INDIA

SL 19-6

LESSON 19

— SLIDES

SL 19-7



PEER | MFR | INDIA

SL 19-7

SL 19-8



PEER | MFR | INDIA

SL 19-8

SL 19-9



PEER | MFR | INDIA

SL 19-9

SL 19-10



PEER | MFR | INDIA

SL 19-10

SL 19-11



PEER | MFR | INDIA

SL 19-11

SL 19-12



PEER | MFR | INDIA

SL 19-12

LESSON 19

— SLIDES

SL 19-13



PEER | MFR | INDIA

SL 19-13

SL 19-14



PEER | MFR | INDIA

SL 19-14

SL 19-15



PEER | MFR | INDIA

SL 19-15

SL 19-16



PEER | MFR | INDIA

SL 19-16

SL 19-17



PEER | MFR | INDIA

SL 19-17

SL 19-18



PEER | MFR | INDIA

SL 19-18

LESSON 19

— SLIDES

SL 19-19



PEER | MFR | INDIA

SL 19-19

SL 19-20



PEER | MFR | INDIA

SL 19-20

SL 19-21



PEER | MFR | INDIA

SL 19-21

SL 19-22



PEER | MFR | INDIA

SL 19-22

SL 19-23



PEER | MFR | INDIA

SL 19-23

SL 19-24



PEER | MFR | INDIA

SL 19-24

LESSON 19

— SLIDES

SL 19-25



PEER | MFR | INDIA

SL 19-25

LESSON PLAN

20

REPORT WRITING AND PREPARATION FOR THE NEXT CALL

Duration • 02 Periods • (Lecture-02 Periods)

Materials:

- Handouts 20-1 and 20-2 (report template)
- Ambulance or rescue truck (if available) to demonstrate decontamination
- One bottle of domestic-use chlorine
- Bucket or large plastic container
- One set of oropharyngeal airway
- One pair of tweezers
- One red plastic bag with biological hazard symbol
- Full set of personal protective equipment

LESSON OBJECTIVES

Upon completion of this lesson, you will be able to:

1. Demonstrate how to record information about the patient's condition and treatment given on the prescribed form.
2. List five steps to decontaminate the transport vehicle.
3. List four steps decontaminate the stretcher.
4. List three steps to decontaminate instruments.
5. List the three items for personal decontamination.

1. INTRODUCTION

- 1) Introduce instructor and co-instructor.
- 2) Introduce the lesson.
- 3) Identify lesson objectives.

Visual Aids and Other Materials

► *PPT 20-1
to 20-3*

Time Elapsed

2. DEVELOPMENT

1

Report Writing

Documentation is extremely important and may be legally required for patient care rendered by the MFR. A properly completed written report not only provides all the pertinent facts, it also provides them in a logical order.

Pre-hospital Treatment Report

A pre-hospital treatment report is used for all the following reasons:

- **To transfer patient information from one person to another.** Your report is turned over to the personnel who transport your patient. They will, in turn, give it to the hospital staff who use it to learn the patient's history, including the condition in which he/she was found, what emergency care was provided, and how the patient responded to that care.
- **To provide legal documentation.** A written report prepared at the scene of an emergency may be used as an official record. If you provide care at the scene of an injury or act of violence, for example, your report may become evidence in the court proceedings.
- **To document the care you provided.** This is important for official reasons, as well. Unfortunately, patients and their families sometimes sue first responders and other EMS professionals. Accurate documentation can be one of your best defences against legal or official action.
- **To improve your EMS system.** Research is performed in many different areas of your EMS system. It is used to improve such factors as response time and the effectiveness of certain procedures. Accurate reports are vital to that research.

Always take official report forms to document the patient's information and gather data in the standard format.

Visual Aids
and Other
Materials

Time
Elapsed

1

Report Writing (Cont.)

<Review the format template and data required. Remind them that it is only a model and that their country will make adaptations based on legal requirements for documentation.>

<Allow participants time to copy information below.>

You should record the following basic data:

- Age and sex
- Chief complaint
- History of the current illness
- Medical history
- Medication that the patient is receiving
- Allergies
- State of consciousness and the patient’s general condition
- Vital signs
- Pertinent physical findings
- Treatment given
- Disposition

Visual Aids
and Other
Materials

▶ NOTE

Time
Elapsed

2

Decontamination of the Unit, Equipment, and Personnel

2.1 Transport Unit (Ambulance or other)

After completing a call, the transport unit should be prepared to be available to respond to the next call.

- 1) Dispose of all contaminated supplies (bandages, dressings, disposable materials) in a sealed plastic bag.
- 2) Collect all contaminated reusable equipment and seal them in another plastic bag.
- 3) Clean the floor, walls and ceiling with soap and water. They may be contaminated with blood, vomitus, faecal matter, dust, mud, etc.

<Show how to properly dilute the mixture of bleach and water in a clean container. Demonstrate decontamination of surfaces.>

- 4) Disinfect surfaces with a solution of water and 10 percent bleach. This solution may be harmful to bright metal surfaces.
- 5) Air out the ambulance.

2.2 Decontamination of the stretcher

- 1) Remove the contaminated sheet.
- 2) Clean and disinfect the stretcher mattress.
- 3) Turn the mattress.
- 4) Place a clean sheet on the mattress.

2.3 Decontamination of instruments

- 1) Scrub contaminated instruments to eliminate any *dried-on material*, then wash them with soap and water.
- 2) Soak instruments in a 10% bleach and water solution for **10** minutes, then dry them off.
- 3) Replace instruments and any medication on the unit.

<Demonstrate how to decontaminate equipment.>

Visual Aids
and Other
Materials

Time
Elapsed

► NOTE

► NOTE

3

Personal Decontamination

Make sure to decontaminate the following three items after every incident:

- **Hands:** Thoroughly wash hands in soap and water. Pay close attention to the *fingernails*.
- **Clothes:** Change out of any contaminated clothing and immediately wash separately from other linens. Keep a spare change of clothes available.
- **Shoes:** Wipe shoes clean. Wash off all bodily fluids with a 10% bleach solution.

Visual Aids
and Other
Materials

Time
Elapsed

REVIEW

Review lesson objectives and ensure everyone has understood them. Answer any questions on lesson materials.

EVALUATION

Organise the participants into two groups. The first group meets with the assistant instructor to review the report and ensure that it is filled out according to the previous day's exercise. The second group meets with the instructor for a demonstration on how to clean the ambulance. Then the groups change places.

- 1) The first objective will be measured in the final practical evaluation when completing the Final Report.
- 2) Fill out the instructor evaluation form in 2 minutes.

CLOSING

1. Explanations, comments, suggestions
2. Thank the participants and announce the next lesson.

FINAL REPORT FORMAT (SAMPLE)	
INCIDENT INFORMATION	
Incident No.:	Date:
Crew Member Names:	
1. _____	3. _____
2. _____	4. _____
Patient _____ of _____	Unit No. _____ Station No. _____
Received Call (time) : _____	Contact with Patient (time) : _____
Dispatched (time) : _____	Alerted Hospital (time) : _____
En-route (time) : _____	Transport Patient (time) : _____
Arrival on Scene : _____	Arrival at Destination (time) - Hospital: _____
Incident Address : _____	
Nature of the Call : _____	
Other agencies involved : _____	
Agency transporting patient : _____	
PATIENT INFORMATION	
Last Name: _____	First Name: _____
Incident Address _____	
Identification Card No.: _____ Date of birth: _____ / _____ / _____	
Sex (circle one) : M F	Age: _____ Estimated weight: _____
VITAL SIGNS BASELINE	
Airway: _____	Respiration: _____
Temperature: _____	Skin Color: _____
Skin: _____	Pupils: _____
Palpable Pulses	Time: _____
Radial: _____	Pulse: _____
Carotid: _____	Respiratory Rate: _____
Other: _____	Blood Pressure: _____

HISTORY

Medical History : _____

Chief Complaints : _____

Allergies : _____

Medications/Treatment : _____

VITAL SIGNS

Time	Pulse	Resp.	Blood Pres.	Comments

NARRATIVE

PATIENT REFUSAL OF TREATMENT_____
Patient's Signature_____
Witness 1 Signature_____
Witness 2 Signature**MFR Officer in Charge**_____
Printed Name_____
Signature

POST-TEST | LESSON 20

Report Writing and Preparation for the Next Call

1. List five steps to decontaminate the transport vehicle.

- 1) *Dispose of all contaminated supplies (bandages, dressings, disposable materials) in a sealed plastic bag.*
- 2) *Collect all contaminated reusable equipment and seal in a plastic bag.*
- 3) *Clean the floor, walls and ceiling with soap and water. They may be contaminated with blood, vomitus, faecal matter, dust, mud, etc.*
- 4) *Disinfect surfaces with a solution of water and 10 percent bleach. This solution may be harmful to bright metal surfaces.*
- 5) *Ventilate the ambulance.*

2. List four steps decontaminate the stretcher.

- 1) *Remove the contaminated sheet.*
- 2) *Clean and disinfect the stretcher mattress.*
- 3) *Turn the mattress.*
- 4) *Place a clean sheet on the mattress.*

3. List three steps to decontaminate instruments.

- 1) *Scrub contaminated instruments to eliminate any dried-on material, then wash them with soap and water.*
- 2) *Soak instruments in a 10% bleach and water solution for ten minutes and then dry them off.*
- 3) *Replace instruments and any medication back on the unit.*

4. List the three items for personal decontamination.

- **Hands:** *Thoroughly wash hands in soap and water. Pay close attention to the fingernails.*
- **Clothes:** *Change out of any contaminated clothing and immediately wash separately from other clothing.*
- **Shoes:** *Wipe shoes clean.*

LESSON 20

— PPT's

20-1



PPT 20-1

20-2

OBJECTIVES

Upon completing this lesson, you will be able to:

- 1 Demonstrate how to record information about the patient's condition and treatment given on the prescribed form.
- 2 List five steps to decontaminate the transport vehicle.

PEER | MFR | INDIA

PPT 20-2

20-3

OBJECTIVES

Upon completing this lesson, you will become familiar with:

- 3 List four steps to decontaminate the stretcher.
- 4 List three steps to decontaminate instruments.
- 5 List the three items for personal decontamination.

PEER | MFR | INDIA

PPT 20-3

21

TRIAGE AND MULTIPLE CASUALTY INCIDENTS

Duration • 04 Periods • (Lecture-02 Periods and Practical-02 Periods)

Materials:

- Flip charts and markers
 - Transparencies
 - Handout 21-1
 - Triage ribbons
-

LESSON OBJECTIVES

Upon completion of this lesson, you will be able to:

1. Define Incident Command System.
2. List the five functions of the EMS sector of the Incident Command System.
3. Define triage.
4. List the four categories of triage with their associated colours and briefly explain each category.
5. List the three benchmarks of the S.T.A.R.T. system of triage.
6. Correctly triage a simulated multiple casualty incident.

1. INTRODUCTION

- 1) Presentation of instructor and co-instructor.
- 2) Introduce the lesson.
- 3) Presentation of the lesson objectives
(ask the participants read them from the WB).

2. DEVELOPMENT

One of the most challenging situations for a medical first responder is a multiple-casualty incident (MCI). An MCI is any event where three or more patients are involved or when the number of injured exceeds the capabilities of the first arriving MFR. One way to minimize operating difficulties is to be familiar with the local disaster plan or the Incident Command System. The local disaster plan is a pre-defined set of instructions that tells a community's various agencies what to do in a specific emergency.

Visual Aids and Other Materials

► *PPT 21-1
to 21-3*

Time Elapsed

1

Incident Command System (ICS)**Visual Aids
and Other
Materials****Time
Elapsed****Definition:**

A flexible system for managing people and resources

▶ PPT 21-4

One widely used plan for handling a multiple casualty incident is the **Incident Command System**. It provides a framework for all types of incidents. The ICS provides a command structure through which to manage multiple-casualty incidents.

▶ PPT 21-5

In the incident command system one component or part of the system will take care of triage, treatment, and transportation of the victims. This is common in many systems used to deal with multiple casualty incidents. The following method is a good way to divide or organize an incident to deal with triage, treatment, and transportation of the victims.

EMS Sector Functions

- **Triage Sector** – provides patient assessment, tagging, and removal of patients to a designated treatment area
- **Treatment Sector** – sets up a treatment area
- **Transportation Sector** – arranges for ambulances and tracks patients
- **Staging Sector** – releases and distributes resources when they are needed
- **Safety Officer** – maintains scene safety

Medical First Responder's Role

As an MFR, find out what your EMS system requires you to do in the first crucial minutes of an MCI. Your major goals are then to:

- 1) Establish command.
- 2) Assess the scene.
- 3) Request additional resources.
- 4) Begin triage.

1

Incident Command System (ICS) – Cont.

Scene Assessment

Note that once you identify an incident as an MCI, you must resist the urge to take part in providing treatment. During your scene assessment, identify the following:

- Scene safety
- Number of patients
- Needs for extrication
- Estimated number of ambulances needed
- Other factors affecting the scene and resources
- Number of sectors needed
- Area to stage resources

Make an initial scene report to EMS dispatch. Keep it brief. Give all information necessary for other rescuers to react to the MCI appropriately.

Visual Aids
and Other
Materials

Time
Elapsed

► Allow
participants
time to take
notes

2

Triage

Definition: The process of sorting patients to determine the order in which they will receive care.

► PPT 21-6

Triage is a French word meaning “pick” or “sort”. It is a process of classifying sick and injured patients in a mass casualty incident. In triage, the most critical but salvageable patients are treated and transported first. It is your goal to afford the greatest number of people the greatest chance of survival.

2.1 S.T.A.R.T. Method of Triage

S.T.A.R.T., which stands for “**Simple Triage and Rapid Treatment**”, is a very successful program. There are four S.T.A.R.T. categories:

- **Priority 1 - RED:** Highest priority (immediate), assigned to patients with critical conditions such as: *airway and breathing difficulties, uncontrolled or severe bleeding, and decreased mental status.*
- **Priority 2 - YELLOW:** Second priority or delayed care category. Assigned to patients with conditions such as: *burns without airway problems and major or multiple painful, swollen or deformed extremities; and back injuries.*
- **Priority 3 - GREEN:** Lowest priority or minor category. Assigned to patients who are not seriously injured, need minimal care, and can wait for treatment without getting worse. This includes patients with: *minor painful, swollen, or deformed extremities, minor soft-tissue injuries.*
- **Priority 0 - BLACK:** Assigned to the dead or fatally injured. Includes injuries incompatible with life (see Lesson 6).

2.2 Triage ribbons and tags

After patients are assessed and sorted, they must be tagged for *rapid identification*. Triage ribbons and tags come in a variety of sizes, shapes and colours.

Once a patient is given a tag, **do not remove it**. If a patient changes status before being treated, draw a bold line through the original tag, note the time and put a new tag on the patient.

3

The S.T.A.R.T. System

<S.T.A.R.T. Flowchart on IG page 470 and WB page 396>

- In the S.T.A.R.T. system, first tell all patients who are able to walk to move unassisted to a specified area. Assign these patients, called the “walking wounded,” a **Priority 3 - GREEN** (delayed care). Then turn your attention to the patients unable to walk away. Begin triage with an initial assessment using the following benchmarks:

► Respirations:

- If breathing is faster than 30 or less than 11 respirations per minute, assign **Priority 1 - RED**.
- If the patient is not breathing, make one attempt to open the airway and clear foreign matter from the mouth. If unassisted breathing resumes, assign **Priority 1 - RED**. If breathing does not resume, assign **Priority 0 - BLACK**.
- If breathing is between 11-30 per minute, perform perfusion assessment.

► Perfusion:

- Assess capillary refill. More than 2 seconds indicates inadequate perfusion – assign **Priority 1 - RED**. Control all major haemorrhaging.
- If capillary refill is less than 2 seconds, perform mental status assessment.
- In cases of poor lighting, check radial pulse. Absent pulse indicates blood pressure below 80 mmHg and inadequate perfusion.

► Mental Status

(ability to follow simple commands):

- If patient is unable to respond to simple commands such as “close your eyes,” assign **Priority 1 - RED**.
- If the patient is able to respond, assign **Priority 2 - YELLOW**.

Once you have tagged to a patient, your assessment ends. Move on to the next patient.

Visual Aids and Other Materials

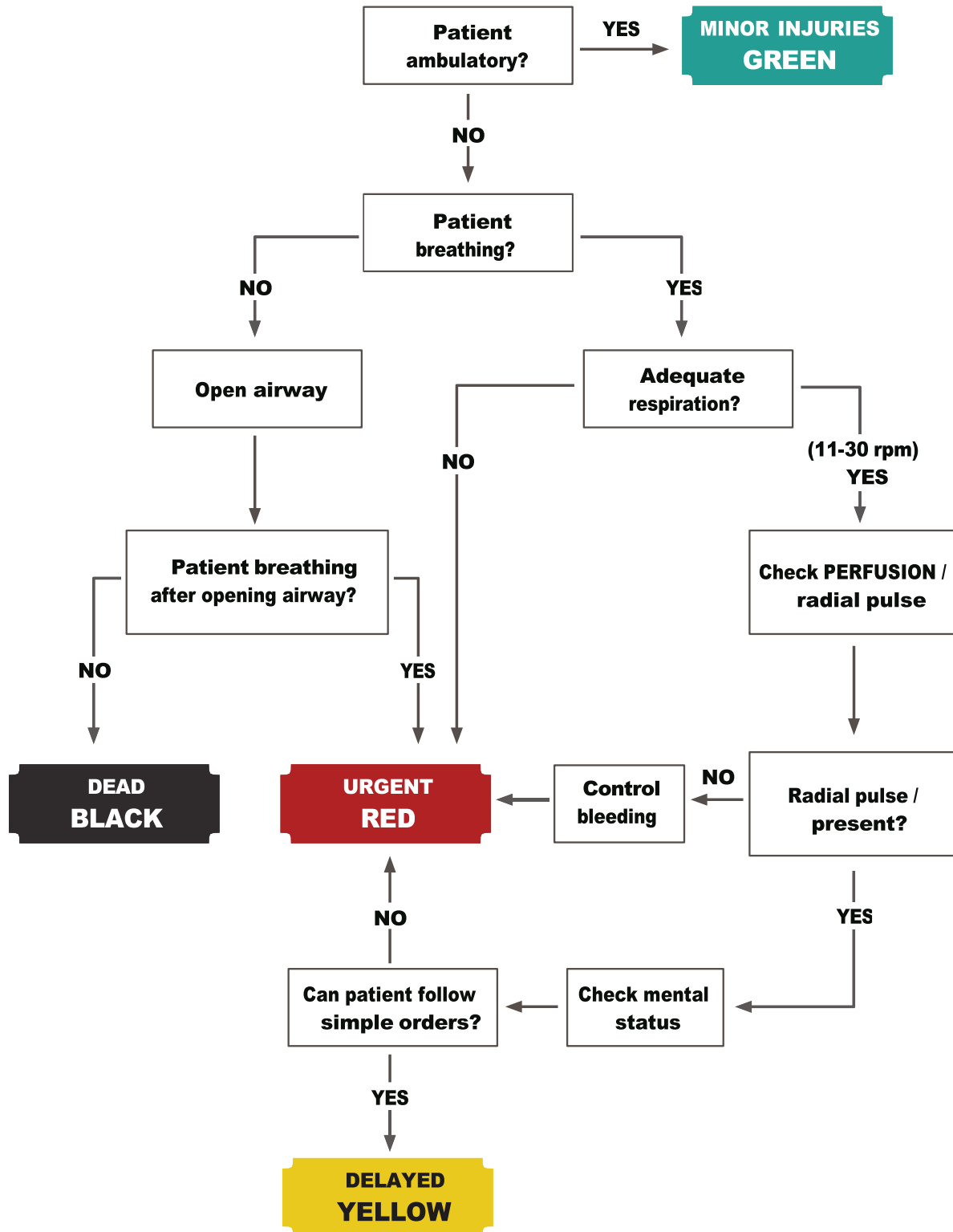
► NOTE

► FC 21-1

Time Elapsed

	Visual Aids and Other Materials	Time Elapsed
PRACTICAL EXERCISES AND REVIEW Perform the corresponding exercise.		
EVALUATION 1. Confirm completion of lesson objectives. 2. Distribute instructor evaluation and allow participants 10 minutes to complete it.		
CLOSING 1. Comments, suggestions. 2. Thank the participants and announce the next lesson.		

S.T.A.R.T. FLOWCHART



PRACTICAL EXERCISE

Triage and Multiple Casualty Incidents

Station: Triage Practical Exercise

This practical exercise has only one station for all participants.
Scene security, initial assessment and physical exam do not apply to this station.

Materials:

- 4 sets of 18 triage labels
- 4 sets of triage ribbons
- List of participants in each group on separate sheets
- Key list of cases (injuries or medical problems)
- All instructors

In this station, participants will work in their established groups. Four instructors will supervise performance. Use the following guidelines:

- 1) One group will triage the victims using START method.
- 2) The remaining three groups will act as the injured.
- 3) After triage is complete, groups will rotate positions until all groups have performed triage.

Scenario:

Eighteen participants (six participants in each group) will act as victims of a simulated motor vehicle accident. The scenario involves an overturned bus with victims scattered over an area of 40 square meters.

PRACTICAL EXERCISE

Triage and Multiple Casualty Incidents (Cont.)

Procedure:

- 1) The group performing triage ("rescuers") stages nearby, where they cannot see the victims. Number all rescuers from 1 to 6 on a list. Assemble the rest of the participants, who will act as victims, at the accident scene.
- 2) Give each victim one of the numbered triage labels. Each number will correspond to a trauma or medical problem, as identified on the list of injuries/medical problems on the next page. Each triage label indicates the mental, breathing and perfusion status that the victim will be instructed to reveal to the rescuer.
- 3) Instruct the victims to physically simulate the assigned condition as much as possible (e.g., if the label reads "unconscious victim," the participant must act unconscious; if the label reads "hysterical victim" because his/her son is missing, the participant must act out this situation).
- 4) Instruct the victims to scatter at random over the "accident site." Once this is done, notify the rescuers.
- 5) Instruct the rescue group to approach the accident site in two groups of three, spaced 30 seconds apart. There is no specific time limit set on the triage exercise. The exercise concludes when all victims are triaged.

Additional Details:

- 1) Each victim should verbally state his/her respiratory rate and perfusion status to the rescuer **only** after the rescuer checks those vitals.
- 2) Each victim should simulate his/her injuries. For example, if the victim has a broken arm, the victim should only tell the rescuer about the injury after being asked, or signal the injury with an expression of pain if the rescuer palpates the injured area.
- 3) After the rescuer has performed all required checks, the victim can give the rescuer the triage label so the rescuer can fill it out. The rescuer must circle either Red, Yellow, Green or Black according to the victim's status, and will then apply the corresponding color ribbon to the victim's extremity.
- 4) Once all victims are triaged, the exercise is concluded. An instructor will collect the triage labels and after all participants have finished, will compare the labels to the list of injuries (see list). The instructors will meet with all participants and review their performance.

PRACTICAL EXERCISE

Triage and Multiple Casualty Incidents (Cont.)

List of Injuries

Victim #	Condition	Mental Stat.	Resp.	Perf.	Color
1	Unconscious	U	12	<2	RED
2	Wrist fracture	C	16	<2	GREEN
3	FBAO	C	0	<2	RED
4	Ankle fracture	C	25	<2	YELLOW
5	Unconscious	U	20	<2	RED
6	Hip fracture	C	25	<2	YELLOW
7	Blunt trauma, light	C	18	<2	GREEN
8	Hysteria	C	28	<2	GREEN
9	Knee fracture	C	18	RPP	YELLOW
10	Ankle fracture	C	25	RPP	YELLOW
11	Dead	N/R	00	NRP	BLACK
12	No trauma	C	20	<2	GREEN
13	Scalp wound	C	32	NRP	RED
14	Sharp cervical pain	C	18	<2	YELLOW
15	Dead	N/R	00	NRP	BLACK
16	Closed abdominal trauma	C	22	RPP	YELLOW
17	Trauma to right thigh	C	18	RPP	YELLOW
18	Closed chest trauma	C	32	>2	RED

U = Unconscious
C = Conscious
NRP = No Radial Pulse
RPP = Radial Pulse Present
N/R = No Response

NOTE: The victims are expected to simulate their injuries.
 The condition of the patient should not be written on the labels.

TRIAGE LABEL

Victim # 1

- Unconscious

RR = 10

Perfusion < 2 sec.

Rescuer #: _____

Circle ribbon color:

Red Yellow Green Black

TRIAGE LABEL

Victim # 2

- Wrist fracture
- Conscious

RR = 16

Perfusion < 2 sec.

Rescuer #: _____

Circle ribbon color:

Red Yellow Green Black

TRIAGE LABEL

Victim # 3

Airway Obstruction

- FBAO
- Unconscious

RR = 04

Perfusion < 2 sec.

Rescuer #: _____

Circle ribbon color:

Red Yellow Green Black

TRIAGE LABEL

Victim # 4

- Ankle fracture
- Conscious

RR = 25

Perfusion < 2 sec.

Rescuer #: _____

Circle ribbon color:

Red Yellow Green Black

TRIAGE LABEL

Victim # 5

- Unconscious

RR = 20

Perfusion < 2 sec.

Rescuer #: _____

Circle ribbon color:

Red Yellow Green Black

TRIAGE LABEL

Victim # 6

- Hip fracture
- Conscious

RR = 25

Perfusion = < 2 sec.

Mental Status: Oriented

Rescuer #: _____

Circle ribbon color:

Red Yellow Green Black

TRIAGE LABEL

Victim # 7

- Blunt trauma, trauma
- Conscious

RR = 18

Perfusion < 2 sec.

Rescuer #: _____

Circle ribbon color:

Red Yellow Green Black

TRIAGE LABEL

Victim # 8

- Hysteria
- Conscious

RR = 28

Perfusion < 2 sec.

Rescuer #: _____

Circle ribbon color:

Red Yellow Green Black

TRIAGE LABEL

Victim # 9

- Knee fracture
- Conscious

RR = 18

Perfusion = Radial Pulse Present

Mental Status: Oriented

Rescuer #: _____

Circle ribbon color:

Red Yellow Green Black

TRIAGE LABEL

Victim # 10

- Ankle fracture
- Conscious

RR = 25

Perfusion = Radial Pulse Present

Mental Status: Oriented

Rescuer #: _____

Circle ribbon color:

Red Yellow Green Black

TRIAGE LABEL

Victim # 11

- Dead
- No response

RR = 0

Perfusion = No Radial Pulse

Rescuer #: _____

Circle ribbon color:

Red Yellow Green Black

TRIAGE LABEL

Victim # 12

- No trauma
- Conscious

RR = 20

Perfusion = Less than 2 sec.

Rescuer #: _____

Circle ribbon color:

Red Yellow Green Black

TRIAGE LABEL

Victim # 13

- Scalp wound
- Conscious

RR = 32

Perfusion = No Radial Pulse

Rescuer #: _____

Circle ribbon color:

Red Yellow Green Black

TRIAGE LABEL

Victim # 14

- Sharp cervical pain
- Conscious

RR: 18

Perfusion < 2 sec.

Mental Status: Oriented

Rescuer #: _____

Circle ribbon color:

Red Yellow Green Black

TRIAGE LABEL

Victim # 15

- Dead
- Non-responsive

RR: 0

Perfusion = No Radial Pulse

Rescuer #: _____

Circle ribbon color:

Red Yellow Green Black

TRIAGE LABEL

Victim # 16

- Closed abdominal trauma
- Conscious

RR: 22

Perfusion = Radial Pulse Present

Mental Status: Oriented

Rescuer #: _____

Circle ribbon color:

Red Yellow Green Black

TRIAGE LABEL

Victim # 17

- Trauma to right thigh
- Conscious

RR = 18

Perfusion = Radial Pulse Present

Mental Status: Oriented

Rescuer #: _____

Circle ribbon color:

Red Yellow Green Black

TRIAGE LABEL

Group: 1, 2, 3, 4

Victim # 18

- Closed chest trauma
- Conscious

RR = 32

Perfusion > 2 sec.

Rescuer #: _____

Circle ribbon color:

Red Yellow Green Black

Stations 1, 2, 3 or 4

Student Name: _____ **Dates:** _____

Instructions: Check the box showing on which attempt the participant was able to perform the step successfully. UTP indicates unable to perform successfully within four attempts.

Performance Guidelines		Successful on Attempts				UTP
		1	2	3	4	
1	Proper use of PPE					
2	Tagging Victim 1					
3	Tagging Victim 2					
4	Tagging Victim 3					
5	Tagging Victim 4					
6	Tagging Victim 5					

Comments _____

Overall Performance	
☐ Outstanding	☐ Successful ☐ Needs Imp.
Instructor:	Date:

— INSTRUCTOR'S COPY

POST-TEST | LESSON 21

Triage and Multiple Casualty Incidents

1. Define an Incident Command System.

A flexible system for managing people and resources.

2. List the five functions of the EMS sector of the Incident Command System.

- *Triage*
- *Treatment*
- *Transportation*
- *Staging*
- *Safety Officer*

3. Define triage.

The process of sorting patients to determine the order in which they will receive care.

4. List the four categories of triage with their associated colours and briefly explain each category.

- *1-Red: The highest priority given to patients.*
- *2-Yellow: The second priority or delayed care category.*
- *3-Green: The lowest priority or delayed-care category.*
- *0-Black: Dead: No-care category.*

5. List the three benchmarks of the S.T.A.R.T. system of triage.

- *Respiration*
- *Perfusion*
- *Mental status*

LESSON 21

— PPT's

21-1



PPT 21 - 1

21-2

OBJECTIVES

Upon completing this lesson, you will be able to:

- 1 Define Incident Command System.
- 2 List the five functions of the EMS sector of the Incident Command System.
- 3 Define triage.

PIER | MFR | INDIA

PPT 21 - 2

21-3

OBJECTIVES

Upon completing this lesson, you will become familiar with:

- 4 List the four categories of triage with their associated colours and briefly explain each category.
- 5 List the three benchmarks of the S.T.A.R.T. system of triage.
- 6 Correctly triage a simulated multiple casualty incident.

PIER | MFR | INDIA

PPT 21 - 3

21-4

INCIDENT COMMAND SYSTEM (ICS)

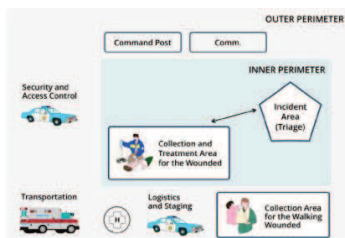
A flexible system for managing people and resources.

PIER | MFR | INDIA

PPT 21 - 4

21-5

INCIDENT COMMAND SYSTEM (ICS)



PIER | MFR | INDIA

PPT 21 - 5

21-6

TRIAGE

The process of sorting patients to determine the order in which they will receive care.

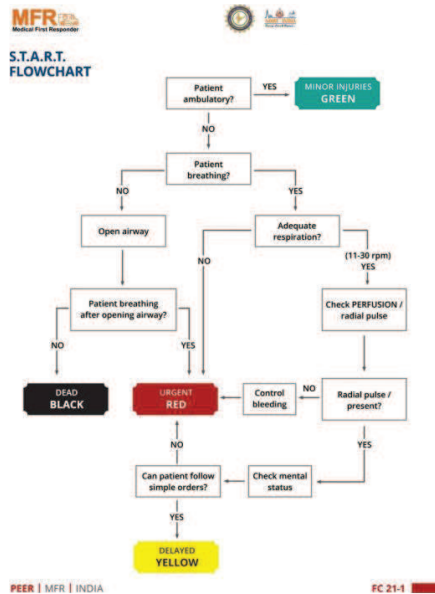
PIER | MFR | INDIA

PPT 21 - 6

LESSON 21

— FLIP CHARTS

FC21-1



LESSON PLAN

22

COURSE REVIEW & FEEDBACK : LESSONS AND PRACTICALS

**Approximate
Duration**

01 Periods

Format

All instructors should be present to answer questions from the participants.

**Equipment /
Materials:**

- Flipcharts of the “File”
 - Materials used in the practical stations for Patient Assessment, Childbirth Emergencies, Oxygen Therapy and Musculoskeletal Injuries, including all immobilization and transport materials.
 - One mannequin
 - Transparencies
 - OHP
-

LESSON OBJECTIVES

1. To answer questions and resolve issues that were recorded in the “File” by participants.
2. To review the most important practical procedures that were demonstrated and practiced throughout the course.
3. To outline what is expected in the Final Practical Evaluation and answer any questions regarding the Evaluation.

1. INTRODUCTION

- 1) Thank participants for their participation and willingness to learn. It was a great pleasure for the entire group of instructors.
- 2) The class benefited from all the participation and a higher level of learning was achieved.
- 3) Congratulate the participants for working well together in their practical stations.
- 4) Present lesson objectives.

Visual Aids and Other Materials

► PPT 22-1
to 22-3

Time Elapsed

2. DEVELOPMENT

<Answer any questions and resolve issues from all lessons. Instructor on the particular lesson will answer the questions. Course Coordinator will act as moderator.>

<Lesson 23: The instructor responsible for teaching Lesson 23, the Final Practical Evaluation, will briefly describe the details of the evaluation, explain the grading system and any other issues.>

3. CLOSE

“This review has covered all of the lessons throughout the course. We hope you have taken advantage of this review to have all your questions answered and any issues cleared up. Good luck on tomorrow’s practical evaluation.”

LESSON 22

— PPT's

22-1



PPT 22-1

22-2

OBJECTIVES

Upon completing this lesson, you will be able to:

- 1 To answer questions and resolve issues that were recorded in the "File" by participants.
- 2 To review the most important practical procedures that were demonstrated and practiced throughout the course.

PIER | MFR | INDIA

PPT 22-2

22-3

OBJECTIVES

Upon completing this lesson, you will become familiar with:

- 3 To outline what is expected in the Final Practical Evaluation and answer any questions regarding the Evaluation.

PIER | MFR | INDIA

PPT 22-3

LESSON PLAN

GROUP PRESENTATIONS

FIRST & SECOND

GROUP PRESENTATION 01 – 06 Periods

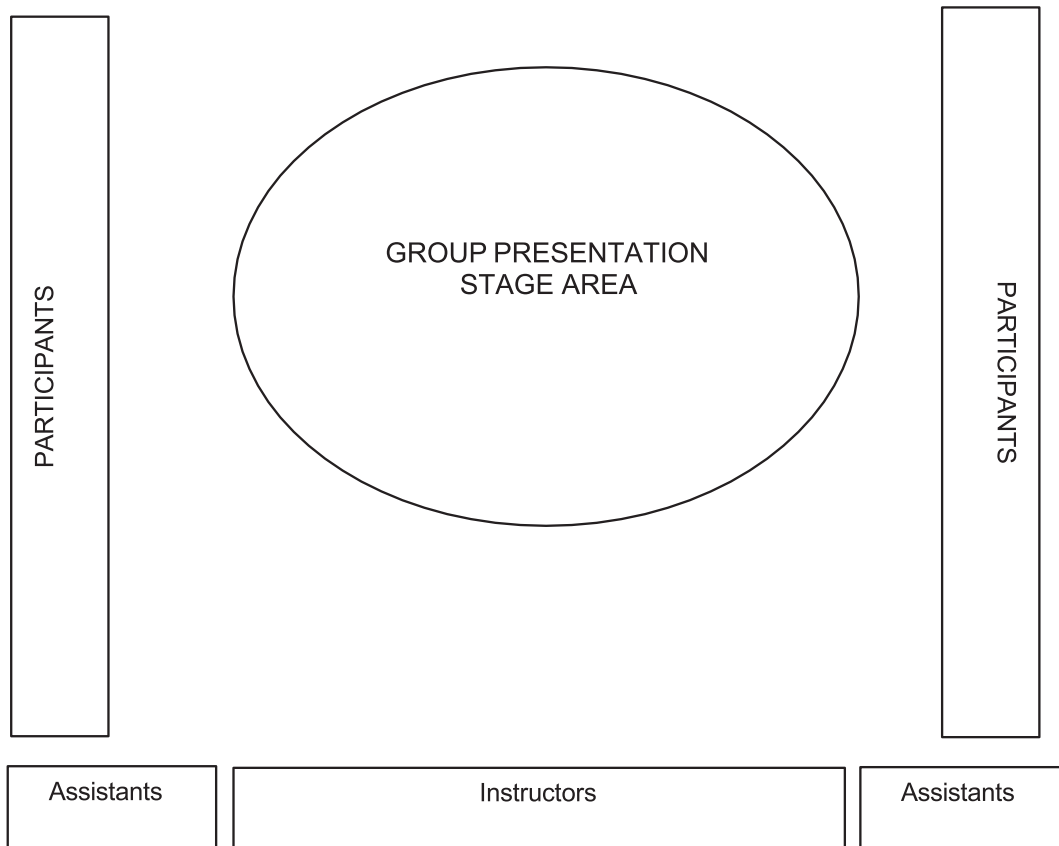
SECOND GROUP PRESENTATION- 06 Periods

Classroom Setup for Group Presentation

CLASSROOM 1

Groups will meet here before moving to the stage area to make their presentations.

CLASSROOM 2 or covered outdoor area where chairs and tables can be set up.



PRESENTATION TIMETABLE:

60 minutes: Consecutive presentations by all four

groups. 10 minutes: Break and instructor grading

summary.

10 minutes: Self-evaluation conducted by the four assistants and other members wishing to participate.

30 minutes: Evaluation results and analysis by the instructors. Comments from the assistants. Return borrowed equipment and supplies to person in charge.

Setup for Group Presentation 1

Performance Objectives

Given a trauma scenario, set up participants in groups of five or six. Groups will participate in a pre-hospital scenario for an injured patient demonstrating the following elements of the course:

1. Duties of the MFR
2. Incident management
3. Human anatomy
4. Initial assessment and physical exam
5. Hemorrhage control
6. Treatment of fractures and deformities
7. Treatment of neck and spinal injuries

Participants will be able to use their workbook, the Brady First Responder book and basic MFR equipment. The exercise should last a maximum of 10 to 12 minutes.

Recommended Task Distribution

- One participant plays the role of call-taker at headquarters and later plays the MFR.
- One participant plays the role of the patient.
- Two participants play the role of MFRs.
- One plays the role of bystander or family member.
- One plays the role of bystander requesting pre-hospital medical assistance from a local emergency agency; this one later plays the role of MFR.

Sample Presentation Outline

1. Emergency call placed.
2. Call received and form is filled out.
3. MFRs dispatched and arrive on the scene.
4. Manage incident, obtain consent, evaluate the scene, report to headquarters and ensure personal safety.
5. Initial assessment and physical exam.
6. Pre-hospital treatment (with information obtained until that moment).

Program for Enhancement of Emergency Response- Medical First Responder Course		
First Group Presentation Evaluation Form		
Group:	Date:	Time Completed:

Areas to Evaluate / Criteria	HPS	P
1. Duties and responsibilities of the MFR: Protect personal safety and safety of the crew, the patient and the bystanders (2), Gaining access to the patient (1), Assess the patient for life-threatening problems (2), Alert additional EMS resources (1), Provide care based on assessment findings (1), Record-keeping and data collection (2), Liaise other public safety workers (1) Comments: _____	10	
2. Incident management. Obtaining information from caller (2), vehicle positioning, marking the scene, mitigating risks (2), obtaining consent from patient or relatives (2), documenting a request for assistance (2), reporting information to headquarters (2) Comments: _____	10	
3. Human anatomy and correct terminology. Right location of injury (3), use of appropriate terminologies (2) Comments: _____	5	
4. Initial assessment and physical exam. General impression (2), responsiveness, adequate airway, verifying breathing, assessing circulation (4), patient status update (2), head-to-toe examination (6), measuring and monitoring vital signs (4), obtaining SAMPLE (2) Comments: _____	20	
5. Hemorrhage control. Direct pressure, elevation of injured extremity, use of appropriate pressure point (6), dressing and securing in place (3), administration of oxygen (4), prevention of shock (2) Comments: _____	15	
6. Treatment of fracture or other deformity. Splinting procedure, size of splint used, manual immobilization, padding (4), PMS assessment before and after (1) Comments: _____	5	
7. Treatment of neck and spinal injuries and proper movement of patient. C-spine management, sizing and application of c-collar (10), loading and adjusting to spine board (8), checking for back injuries (2) Comments: _____	20	
Sub-total: (page 1)	85	

Group Presentation 1

Scenario “A”

Scene

Bam owns a small company called “We Paint the World, Inc.” He began work on a new contract painting a large room in a mansion on the east side of the city. Bam carefully climbed up the old ladder that his father had left to him. He climbed up to the fourth rung, and began painting. Suddenly he heard a loud crack and lost his balance. He tried to hold on to a lamp hanging from the ceiling. The lamp came loose from the ceiling, causing Bam to fall to the floor, leaving the live wires hanging next to him.

Information on injuries

- Pain in the right arm and right side
- Pain, tenderness and rigidity in right upper quadrant
- Visible severe hemorrhage from right arm
- Right arm crepitus and instability

Vital signs

- Blood pressure: 98/70 mmHg
- Respiratory rate: 22 rpm
- Pulse rate: 108 bpm

Group Presentation 1

Scenario “B”

Scene

Prasad followed the footsteps of his father and grandfather, and became a postal carrier. He was always punctual and delivered all his mail. It was 18:00 and he was entering the garden of a house with new occupants. He did not know the new owner. Suddenly, a large German shepherd charged him, barking and baring his teeth. The dog attacked Prasad fiercely and knocked him to the ground. The dog bit his left arm with force and caused a fracture. During the fall, Prasad also hit his head on the cement walkway, causing him to become unconscious for two minutes. The dog is still loose in the garden.

Information on injuries:

- Laceration and hemorrhage to the occipital region
- Bruising behind the ears
- Tenderness and pain in the occipital region
- Deformity and severe pain in the left forearm
- Disorientation and loss of memory
- Unequal pupils

Vital signs

- Blood pressure: 184/104 mmHg
- Respiratory rate: 24 rpm
- Pulse rate: 112 bpm



Group Presentation 1

Scenario “C”

Scene

Rajendran, a farmer, woke up early in the morning, as usual, to milk his two cows. He entered the barn and heard an unusual sound. His wife had forgotten to tie up the bull they had bought the week before. Unable to escape in time, Rajendran was gored by the bull in the inferior region of the back. The bull threw Fred into the air, who fell and hit his head in the process. The bull has not allowed anyone else to enter the barn.

Information on injuries:

- Severe hemorrhage in the inferior region of the back
- Hematomas, edema and tenderness in left femur

Vital signs

- Blood pressure: 120/80 mmHg
- Respiratory rate: 18 rpm
- Pulse rate: 88 bpm

Group Presentation 1

Scenario “D”

Scene

Ahmad is a trusted messenger for a large company. A year ago, the company provided him with a Yamaha 350cc motorcycle. Earlier this morning, Ahmad's manager had asked him to deliver a very important package to a new area of the city. Ahmad had been on the road for about 15 minutes when he heard a strange sound from the exhaust pipe. He looked down to see what the problem was and suddenly he was sent flying through the air. Ahmad landed on his right leg on the pavement and felt a severe pain in the abdomen. Looking back, he could see a large hole in the pavement where the motorcycle had fallen in and was smoking.

Information on injuries:

- Severe hip pain
- Severe external hemorrhage in the right lower quadrant (RLQ)
- Pain in the right leg and right side
- Unable to bend right leg
- Pain, rigidity and tenderness in RLQ
- Right leg deformity with crepitus and discoloration

Vital signs

- Blood pressure: 128/76 mmHg
- Respiratory rate: 20 rpm
- Pulse rate: 94 bpm



Setup for Group Presentation 2

Performance Objectives

Given a trauma scenario, set up participants in groups of five or six. Groups will participate in a pre-hospital scenario for an injured patient demonstrating the following elements of the course:

1. Duties of the MFR
2. Incident management
3. Human anatomy
4. Initial assessment and physical exam
5. Treatment of Injuries
6. Treatment of neck and/or spinal injuries
7. Moving patient to imaginary ambulance

Participants will be able to use their workbook, the Brady First Responder book and basic MFR equipment. The presentation should last a maximum of 10 to 12 minutes.

Recommended Task Distribution

- One participant plays the role of call-taker at headquarters
- One participant plays the role of the patient
- Two participants play the role of MFRs
- One plays the role of bystander or family member
- One plays the role of bystander requesting pre-hospital medical assistance from a local emergency agency (optional)

Sample Presentation Outline

1. Emergency call placed.
2. Call received and form is filled out.
3. MFRs dispatched and arrive on the scene.
4. Manage incident, obtain consent, evaluate the scene, report to headquarters and ensure personal safety.
5. Initial assessment and physical exam.
6. Pre-hospital treatment (using information obtained until that moment).

Program for Enhancement of Emergency Response- Medical First Responder Course Second Group Presentation Evaluation Form		
Group:	Date:	Time Completed:

Areas to Evaluate / Criteria	HPS	P
1. Duties and responsibilities of the MFR: Protect personal safety and safety of the crew, the patient and the bystanders (2), Gaining access to the patient (1), Assess the patient for life-threatening problems (2), Alert additional EMS resources (1), Provide care based on assessment findings (1), Record-keeping and data collection (2), Liaise other public safety workers (1) Comments: _____ _____	10	
2. Incident Management. Obtaining information from caller (2), vehicle positioning, marking the scene, mitigating risks (2), obtaining consent from patient or relatives (2), documenting a request for assistance (2), reporting information to headquarters (2) Comments: _____ _____	10	
3. Human anatomy and correct terminology. Right location of injury (3), use of appropriate terminologies (2) Comments: _____ _____	5	
4. Initial assessment and physical exam. General impression (2), responsiveness, adequate airway, verifying breathing, assessing circulation (4), patient status update (2), head-to-toe examination (6), measuring and monitoring vital signs (4), obtaining SAMPLE (2) Comments: _____ _____	20	
5. Hemorrhage control. Direct pressure, elevation of injured extremity, use of appropriate pressure point or management for internal bleeding, if any (6), dressing and securing in place (3), administration of oxygen (4), prevention of shock (2) Comments: _____ _____	15	
6. Treatment of fracture or other deformity. splinting procedure, size of splint used, manual immobilization, padding or impaled object immobilization or application of CPR or eye injury management (4), PMS assessment before and after (1) Comments: _____ _____	5	
7. Treatment of neck and spinal injuries and proper movement of patient. C-spine management, sizing and application of c-collar (6), checking for back injuries (1) loading to spine board, strapping (8), coordination in moving the patient to vehicle (5) Comments: _____ _____	20	
Sub-total: (page 1)	85	

Program for Enhancement of Emergency Response (PEER)

Areas to Evaluate / Criteria	HPS	P
8. Teamwork. Coordination between members of the group (2), leadership (1), performance of team members as to their respective roles (2) Comments: _____ _____	5	
9. Correct use of material and equipment. Handling of dressing (2), management of trauma kit (3), overall use of splints and spine board (2), management of oxygen, location/position (3) Comments: _____ _____	10	
Sub-total (page 2)	15	
Total score: minimum score to pass : 80	100	

Other comments:

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

Instructor:

Date:

Group Presentation 2

Scenario “A”

Scene

It is 1:00 p.m. on a Monday. You receive a call from EMS headquarters to proceed to a highway at a distance of 5 kilometers from your station. At the scene there has been a motor vehicle accident consisting of a side collision between two small vehicles.

Arriving on the scene, you find a patient on the roadway. The scene is already secure and a family member is present who tells you that the patient just left the hospital two days before after receiving treatment for heart problems. After performing the initial assessment and physical exam you find the patient is in cardio-respiratory arrest.

Information on Injuries

- Pain in right arm and right side
- Pain and tenderness in the back
- Severe visible bleeding in the right foot

Vital signs

- No pulse
- No respiration

Group Presentation 2

Scenario “B”

Scene

Two young adult males engaged in a fight after a heated discussion over drugs. One stabbed the other with a knife in the chest area. The knife is impaled in the right front region of the chest, with the knifepoint emerging through the right scapula.

Information on Injuries

- Minor bleeding
- Pale skin colour
- Patient feels cold
- Difficulty breathing
- Sharp pain (patient is crying)

Vital Signs

- Blood pressure: 90/60 mmHg
- Pulse: 130 bpm
- Respiration: 30 rpm

Group Presentation 2

Scenario “C”

Scene

A 10-year-old boy lives in a big house and is riding around the living on his bicycle. There is a flight of stairs near one wall, leading to a lower level. The boy rode near the stairwell, lost control, and fell down the flight of stairs with his bicycle, landing at the bottom.

Information on Injuries

- Non-responsive
- Bleeding around the face
- Left eye is extruded
- Deformity in the distal portion of the right hand

Vital Signs

- Blood pressure: 110/70 mmHg
- Pulse: 110 bpm
- R e s p i r a t i o n : 20 rpm

Group Presentation 2

Scenario “D”

Scene

An elderly woman is crossing the street at an intersection and is hit by an oncoming motorcycle. The woman is 85 years old. The impact threw her to the ground, where she is lying face down. The back of her dress is torn.

Information on Injuries

- Severe back pain
- Deformation and severe pain in left forearm
- No sign of external hemorrhage

Vital Signs

- Blood pressure: 70/40 mmHg
- Pulse: 120 bpm
- R e s p i r a t i o n : 12 rpm

Group Exercise

The purpose of this exercise is to test each group of participants with a surprise situation on which they receive no specific information or details. Though this exercise is not scored and is not included in the participant's final grade, it is an important tool used by the instructors to critique the participants and help them improve their performance for the Final Practical Evaluation. It is also useful for assessing leadership skills and the ability to handle stressful situations, which can help identify potential future instructors.

The scenario established for the Group Exercise should not be left unmodified if possible, but can be adapted slightly to local conditions. Participants are set up in four groups of six. All groups are isolated from the scene of the exercise until it is their turn to perform. After completing the exercise, they will be allowed to observe the groups that follow as long as they remain silent. They should also not share information regarding the scenario with the groups that have not yet performed because the exercise is intended to be a surprise.

Performance Objective: Participant groups will respond to a simulated injury scenario requiring treatment and preparation of the patient for lifting and transportation, applying the following skills acquired in the MFR Course:

- Initial assessment and physical exam
- Securing the scene
- Management and treatment of a spinal or neck injury
- Proper management, immobilization and preparation of the patient for lifting and transportation

Scenario set-up: The location should be an area at the base of a stairwell with room for several people to work using a backboard, and a group of observers. One instructor plays the role of a person who has fallen down the stairwell and is lying unconscious and bleeding. Other instructors play the role of bystanders, such as a distressed spouse or friend, a police officer, an intrusive reporter, a belligerent drunk, or a local doctor or veterinarian desperate to intervene in the medical treatment. Once the group arrives and begins treatment of the patient, the "bystanders" disrupt the efforts of the medical first responders and steal some of their equipment. One of the bystanders can become an additional patient at some point to further complicate the scenario. The participants are to be critiqued on their overall performance under the stresses and disorganization caused by the bystanders. **Time limit: 10 minutes.**

The participants should be given instructions to include the following elements of the Course:

- Receiving the call
- Dispatch MFR's and arrive at the scene
- Secure the scene, scene management, obtain consent, and report to base, personal safety Initial assessment and physical exam
- Pre-hospital treatment

LESSON PLAN

23

FINAL PRACTICAL EVALUATION

Duration • 09 Periods

**Equipment /
Materials:**

- Materials list follows each scenario.
- All course instructors must be present.
- Six assistants will be needed to role play as victims

LESSON OBJECTIVES

Objectives for the Final Practical Exercise are identified as course performance objectives in Lesson 1.

1. INTRODUCTION

- 1) Introduce the instructor and co-instructor.
- 2) Present the lesson.
- 3) Present lesson objectives.

2. DEVELOPMENT

<Much of the following text is verbatim from the workbook. “You” refers to the participants.>

You are being provided copies of the score forms which the instructors will use to score your performance during the Final Practical Evaluation. By reading these forms you will know exactly what steps you will be expected to complete in order to pass the Final Practical Evaluation successfully. There will be no surprises. You will only be tested on subject matter and skills you have learned and practiced during the Medical First Responder Course.

**Visual Aids
and Other
Materials**

**Time
Elapsed**

► *NOTE*

	Visual Aids and Other Materials	Time Elapsed
1. The practical evaluation consists of three stations with simulated situations, as follows: Station 1: Trauma Situation – 100 points (80 pts. to pass) Station 2: Medical Emergency – 50 points (40 pts. to pass) Station 3: Labour & Delivery – 50 points (40 pts. to pass) 2. The evaluation will proceed in the following manner: a) You will be isolated and will be unable to see the stations until you are called. b) When called, you will be required to complete all three stations consecutively. c) If you do not reach the minimum score in a given Final Practical station, you will have a second chance to perform the station satisfactorily. If you are unable to achieve a passing score on the second attempt, you will qualify to receive only a Certificate of Attendance to the course. d) After completing the three stations, you will be isolated from the others who have not yet begun. (It is acceptable, when you are finished, to watch the stations.) 3. You must review the performance objectives of every station to make sure you achieve them all. <Make clear to all participants that the points scored for each of the steps will be either 0 (zero) or the number indicated. The difference in points is established to reflect the value or weight that each step has in terms of the objective. <Example: In the Trauma Station, “personal protection” is worth 5 points. The participant who uses all required personal protective equipment will receive 5 points. The participant who uses only a mask or gloves, but not safety glasses, will receive zero points.>	► NOTE	

Reminders to Instructors

- The instructor at each station should make sure to have enough extra copies of the performance objective checklists to evaluate every participant.
- To save time, you can set up duplicate stations — two for trauma, two for medical emergencies, and two for childbirth.
- After all participants have completed the final evaluation, the station instructors will turn in the performance objective checklists for all participants. The Course Coordinator will be responsible for recording all scores in a spreadsheet.

Visual Aids and Other Materials

Time Elapsed

Final Practical Evaluation

Station 1: Trauma Score Form

Participant's Name: _____ **Dates:** _____

Initial Assessment	Points	Completed
Secure the scene	3	☐
Personal protection (universal precautions)	3	☐
State of consciousness (ask and shake)	3	☐
Airways – maintain open airway considering condition of neck	5	☐
Breathing – evaluate respirations (look, listen, feel)	5	☐
Circulation: Check carotid pulse	5	☐
Control critical bleeding	3	☐
Apply cervical collar (proper size and placement)	5	☐
Administer oxygen	5	☐
Identify need for immediate transport or perform physical exam	3	☐
Physical Exam	Points	Completed
Interview: Patient	2	☐
Witnesses	2	☐
Vital signs: RPM	2	☐
PPM	2	☐
BP	2	☐
Skin temperature	2	☐
Head: Inspect and palpate head and ears	2	☐
Assess eyes	2	☐
Assess mouth and nose	2	☐
Neck: Assess/palpate (can be done before immobilizing)	2	☐
Thorax: Assess/palpate	2	☐
Abdomen: Assess/palpate	2	☐
Pelvis: Assess/palpate	2	☐

Final Practical Evaluation

Station 1: Trauma Score Form (Cont.)

Participant's Name: _____ **Dates:** _____

Physical Exam	Points	Completed
Lower extremities: Assess/palpate	2	☐
Distal pulses	2	☐
Sensation/motor function	2	☐
Upper extremities: Assess/palpate	2	☐
Distal pulses	2	☐
Sensation/motor function	2	☐
Rotation: Observe/palpate dorsal region	2	☐
Pre-Hospital Treatment	Points	Completed
Fractures: Correct immobilization device.	5	☐
Correct application	5	☐
Correct position	2	☐
Shock: Maintain body heat	2	☐
Emotional support	3	☐
Indicate when ready to transport patient	3	☐
Total Points Possible:	100	
Minimum passing score: 80 points	Score: _____	

Instructor's Name: _____

Instructor's Signature: _____

(Write comments on reverse and mark here ☐)

Final Practical Evaluation

Station 2: Medical Score Form

Participant's Name: _____ **Dates:** _____

	Points	Completed
Secure the scene	4	☐
Personal protection: Universal precautions	4	☐
State of consciousness (shake and call)	3	☐
Initial assessment:		
Patient airway	5	☐
Breathing	5	☐
Circulation	5	☐
Condition	1	☐
Physical exam	5	☐
Interview:		
Patient	2	☐
Family	2	☐
Witnesses	2	☐
General impression (MFR's impression)	4	☐
Administer oxygen	3	☐
Explain appropriate treatment to instructor	3	☐
Preparation for transport	1	☐
Indicate when ready to transport patient	1	☐
Total Points Possible:	50	
Minimum passing score: 40 points	Score:	_____

Instructor's Name: _____

Instructor's Signature: _____

(Write comments on reverse and mark here ☐)

Final Practical Evaluation

Station 3: Childbirth Score Form

Participant's Name: _____ **Dates:** _____

	Points	Completed
Secure the scene	4	☐
Personal protection: Universal precautions	4	☐
Initial assessment:		
State of consciousness	1	☐
Patient airway	5	☐
Breathing	5	☐
Circulation	5	☐
Condition	1	☐
Patient interview	3	☐
Childbirth		
Prepare patient area	1	☐
Prepare newborn area	1	☐
Patient position	1	☐
Hold/support newborn	5	☐
Initial assessment (newborn)	5	☐
Manage umbilical cord	5	☐
Manage placenta	1	☐
Preparation for transport	2	☐
Indicate when ready to transport patient	1	☐
Total Points Possible:	50	
Minimum passing score: 40 points	Score:	_____

Instructor's Name: _____

Instructor's Signature: _____

(Write comments on reverse and mark here ☐)

Final Practical Evaluation

Scene for Station 1: Trauma

Arriving at the scene, the MFR finds an adult lying on the ground near a tree.

Initial Assessment

- | | |
|--------------------------|--------------------|
| • Scene | No dangers present |
| • State of consciousness | Patient conscious |
| • Patient airway | Open |
| • Breathing | Adequate |
| • Circulation | Fast pulse |
| • Skin | Good color |

Physical Exam

Interview: There are no family members or witnesses present. Patient indicates he was climbing the tree to pick fruit and fell to the ground. Has severe pain in right thigh.

Vital Signs

- **Respiratory rate:** 16 rpm
- **Pulse rate:** 110 ppm
- **Blood pressure:** 110/76 mmHg

The MFR finds no physical problems during physical exam except for the right thigh, which is swollen, rigid, and painful.

Pre-hospital Treatment

- 1) Immobilize thigh with splint.
- 2) Control bleeding and dressing of wound.
- 3) Treat for shock.
- 4) Use long backboard.
- 5) Request transport.

Final Practical Evaluation

Scene for Station 2: Medical

Arriving at the scene, the MFR finds an adult unconscious adult lying, after initial assessment you find that he becomes conscious.

Initial Assessment

- | | |
|--------------------------|-----------------------------|
| • Scene | No dangers present |
| • State of consciousness | Patient conscious |
| • Patient airway | Open |
| • Breathing | Moving air, with difficulty |
| • Circulation | Fast pulse |
| • Skin | Pale |

Physical Exam

Interview: The patient cannot speak due to lack of air. The family indicates the patient is a heavy smoker. No other witnesses are present.

Vital Signs

- **Respiratory rate:** 32 rpm
- **Pulse rate:** 120 ppm
- **Blood pressure:** 140/90 mmHg

The MFR does not identify any physical problems during physical exam.

Pre-hospital Treatment

- 1) Administer oxygen at 15 lpm.
- 2) Place the patient in most the comfortable position.
- 3) Request immediate transport.

Final Practical Evaluation

Scene for Station 3: Childbirth

Arriving at the scene, the MFR finds an adult female patient lying on the floor, suffering from severe pain.

Initial Assessment

- | | |
|--------------------------|--------------------|
| • Scene | No dangers present |
| • State of consciousness | Patient conscious |
| • Patient airway | Open |
| • Breathing | Adequate |
| • Circulation | Normal pulse |
| • Skin | Good color |

Physical Exam

Interview: The patient indicates she is 39 weeks pregnant. This is her second pregnancy. She has broken her water bag. Contractions are coming every three minutes with one minute duration.

The nearest hospital is 20 minutes away.

Vital Signs

- **Respiratory rate:** 28 rpm
- **Pulse rate:** 110 ppm
- **Blood pressure:** 140/85 mmHg

The MFR does not identify any physical problems during the physical exam. MFR should prepare for an imminent delivery.

Pre-hospital Treatment

- 1) MFR assists the mother for normal delivery.
- 2) MFR performs all steps to be taken for normal delivery.
- 3) The MFR also examines the newborn and states his/her APGAR score.
- 4) Preparation and request for transport.