
CHAPTER 2

DISASTER TRIAGE OPERATIONS

This chapter will include the following:

- **Triage:** The principles of triage and how to safely conduct triage evaluations.
- **Disaster Medical Treatment Areas:** How to establish the area, their functions and the proper way to funnel patients into treatment.

INSTRUCTOR OVERVIEW

OBJECTIVES

At the end of this chapter, participants should be able to:

- Conduct triage under simulated disaster conditions with a partner or partners.
- Understand the basics of setting-up a medical treatment area.
- Understand how patients flow through the treatment area and then on to further care as necessary.

SCOPE

The scope of this chapter will include:

- Introduction.
- Triage.
- Medical Treatment Area Set-up.
- Chapter Summary.

**ESTIMATED
COMPLETION TIME**

1 hour.

TRAINING METHODS

The Instructor will provide an overview of the topics included in the chapter: Triage and Medical treatment area set-up.

The Instructor will open with a discussion of the meaning and goal of triage and provide background from the military's experience using triage for prioritizing treatment in multi-casualty situations. This background will lead to comparisons of triage in disaster circumstances and the steps that first aid team members will follow when conducting triage.

Finally, the participants will practice triage evaluation and immediate treatment in a simulated multi-casualty exercise. This exercise will illustrate the need to conduct triage effectively and expeditiously under pressure and to focus on rescuer safety.



INSTRUCTOR OVERVIEW (CONTINUED)

**RESOURCES
REQUIRED**

Disaster Preparedness—First Aid Medical Operations—Instructor Guide.
 Disaster Preparedness—First Aid Medical Operations—Student Manual.
 PowerPoint Visuals.

EQUIPMENT

You will need the following equipment for this chapter:

- A computer with PowerPoint software.
- A computer projector and screen.
- 1 box of latex examination gloves.
- Triage injury note cards.
- Triage flagging tape – red, yellow, green and black.

PREPARATION

The triage exercise near the end of this session requires materials prepared in advance of the activity. Prepare note cards listing the injuries of multiple patients (half of the class total). The class will be divided into groups of six and each group will need a copy of the set of cards. See page 12 of this guide for details.

NOTES

A suggested time plan for this chapter is as follows:

Introduction and Chapter Overview	5 minutes
Triage	10 minutes
Medical Treatment Area	10 minutes
Triage Practical.....	30 minutes
Chapter Summary.....	5 minutes

Total Time: 1 hour

REMARKS

Triage introduces the class participant to the realities of treating and caring for multiple patients under disaster conditions. It will emphasize the need to sometimes withhold treatment for one patient in order to provide better treatment for many patients.

INTRODUCTION AND CHAPTER OVERVIEW



**INTRODUCE
CHAPTER**



VISUAL 2.0



**INSTRUCTOR'S
NOTE**



**EXPLAIN
ASSUMPTIONS**

Introduce this topic by asking the group how many remember the scenes from the television series *M*A*S*H* where the helicopters arrived and the doctors and nurses quickly examined each patient to determine the priority for treatment.



The point of this discussion is to get the participants thinking about multiple casualties.

During these scenes, the medical personnel:

- Identified the dead and those who were too severely injured to be saved.
- Sent those with relatively minor injuries and wounds to a holding area to await treatment.
- Identified those who would die without immediate treatment and sent them to the operating room.

Tell the participants that these scenes showed medical personnel conducting triage—a French term meaning “to sort.”

Explain that during triage; patients are evaluated, sorted by the urgency of the treatment needed, and set up for immediate or delayed treatment.

Explain further that triage was, in fact, initiated by the military and that experience has shown that triage is an effective strategy in situations where:

- There are many more patients than rescuers.
- There are limited resources.
- Time is critical.

Explain the need for Triage when faced with multiple casualties.

INTRODUCTION AND CHAPTER OVERVIEW (CONTINUED)



VISUAL 2.1

Chapter Two

- **Conduct Triage under simulated disaster conditions**
- **Understand the concepts of setting-up a medical treatment area**
- **Understand the flow of patients through the treatment area**

Visual 2.1

Tell the group that at the end of this chapter, they should be able to:

- Conduct triage under simulated disaster conditions with a partner or partners.
- Understand the basics of setting-up a medical treatment area.
- Understand how patients flow through the treatment area and then on to further care as necessary.

Point out that triage occurs as quickly as possible after a patient is located or rescued.

TRIAGE



VISUAL 2.2

Triage Categories

- **Immediate (Red) : Life threatening**
- **Delayed (Yellow) : Non-life threatening**
- **Dead (Black) : Not breathing**
- **OK (Green) : Responsive and able to walk**

Visual 2.2

INSTRUCTOR'S
NOTE

Some participants may respond negatively to not performing CPR. Explain that CPR is a maintenance therapy that requires time and rescuers that may not be available when dealing with multiple casualties after a disaster. In the event that multiple casualties are not encountered, CPR may be administered by available trained personnel.

Explain that, from triage, patients are taken to the designated medical treatment area (immediate care, delayed care, or the morgue).

TRIAGE (CONTINUED)



INTRODUCE TRIAGE IN A DISASTER ENVIRONMENT

TRIAGE IN A DISASTER ENVIRONMENT

Introduce the steps by explaining the general procedure for conducting triage:

Step 1: Make sure the scene is safe for rescuers. Assess mechanism of injury.

Step 2: Assess level of responsiveness.

Step 3: Conduct voice triage. Begin by calling out, “Medical Response Team. If you can walk, come to the sound of my voice.” If there are survivors who are ambulatory, instruct them to remain at a designated location, and continue with the triage operation. (These patients should be given the roll of GREEN triage tape to apply to all walking wounded.) In addition, if rescuers need assistance, these patients can be asked to provide assistance. These persons may also provide useful information about the location of the patients.

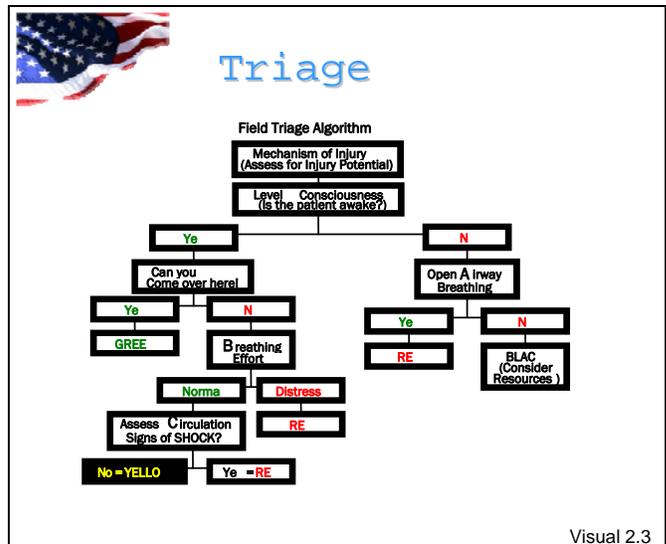
Step 4: Start evaluating the non-ambulatory patients for airway, breathing and circulation.

Step 5: Evaluate each patient and tag them RED (immediate), YELLOW (delayed), BLACK (dead).

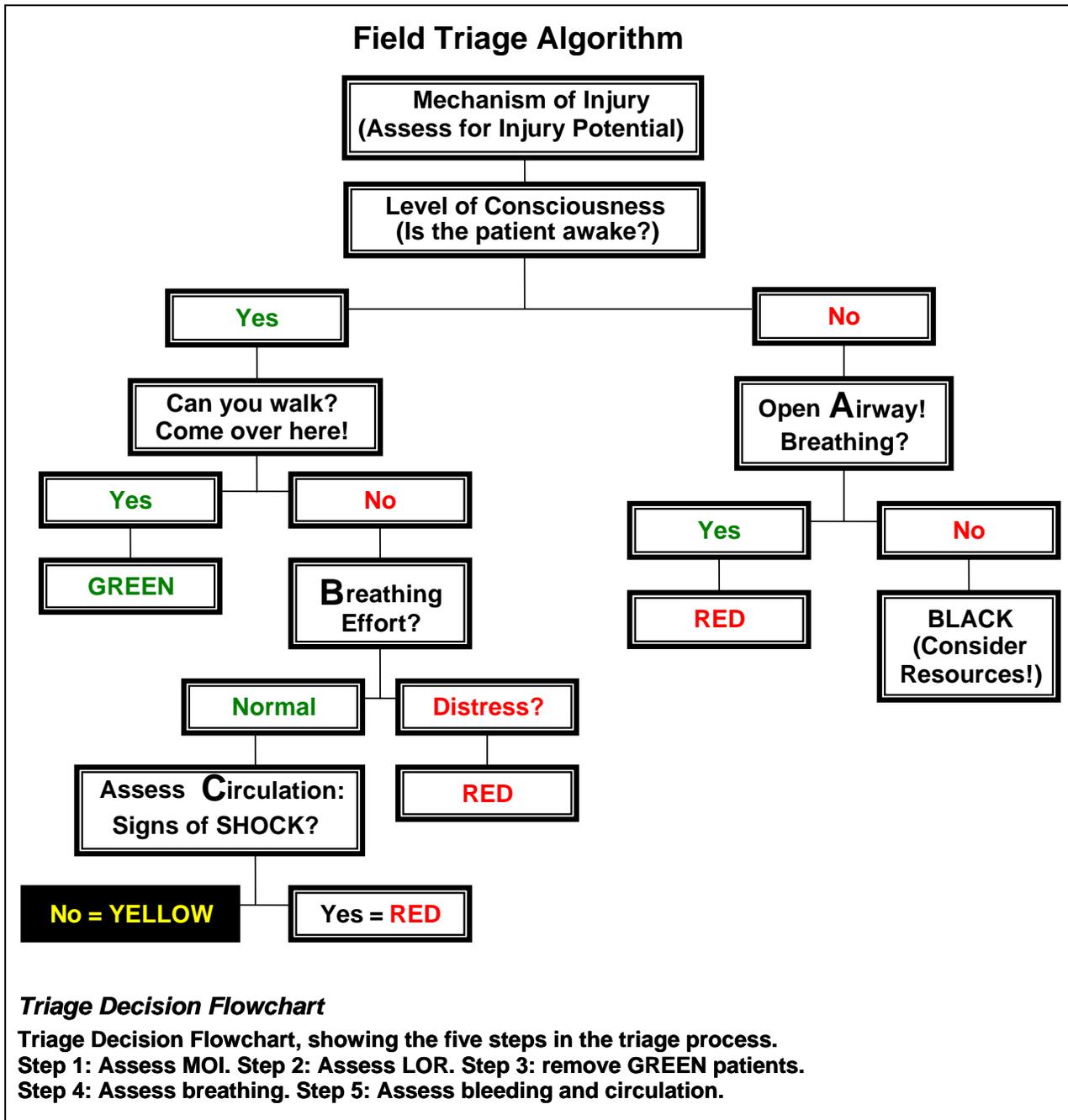
Emphasize that the rescuer’s safety is paramount during triage. Remind the participants to wear proper protective equipment so as not to endanger their own health.



VISUAL 2.3



TRIAGE (CONTINUED)





VISUAL 2.4

TRIAGE (CONTINUED)



Triage Pitfalls

- **No team plan, organization or goal**
- **Indecisive leadership**
- **Too much focus on one injury**
- **Treatment (rather than triage) performed**

Visual 2.4

Triage pitfalls include:

- No team plan, organization, or goal.
- Indecisive leadership.
- Too much focus on one injury.
- Treatment (rather than triage) performed.



INSTRUCTOR'S
NOTE

Ask the group if anyone has any questions on how to perform triage.

TRIAGE (CONTINUED)**INSTRUCTOR'S
NOTE****INTRODUCE
TRIAGE
EVALUATION****SM, P. 4**

The goal of this activity is to complete triage in 15 to 30 seconds.

Refer the participants to the *Field Triage Algorithm* on page 4 in the Student Manual. The goal of triage is to identify and treat victims who need immediate care as rapidly as possible. Introduce this section explaining that when conducting a triage evaluation, they should:

Assess the Mechanism of Injury (MOI) and check Level of Responsiveness as soon as patients have been located. Any ambulatory responsive patients can be gathered at this time and tagged GREEN.

Next, if the patient is unresponsive, open airway and check breathing.

If not breathing tag BLACK. If breathing, tag RED and position patient to maintain airway, e.g., recovery position.

If the patient is responsive, assess breathing. If labored, then tag the patient RED.

If breathing is not labored, assess circulation (capillary refill). If greater than two seconds, tag patient RED.

If less than two seconds, tag patient YELLOW.

During the last two checks, life-threatening bleeding must be controlled.

**INSTRUCTOR'S
NOTE****INSTRUCTOR'S
NOTE**

Explain that the capillary refill test is not valid in children (under 8 years old), and that mental status should be used instead as the main indicator.

If your class is moving along well, you may want to continue with the lecture portion of Medical Treatment Areas and practice triage at the end of this chapter.

However, if the students seem to be getting restless, now would be a good time to get them up and moving and performing triage.

**CONDUCT
EXERCISE****TRIAGE (CONTINUED)****EXERCISE: CONDUCTING TRIAGE**

Purpose: This exercise is intended to allow the participants to practice conducting triage in a high-pressure situation.

Instructions: Follow the steps below to conduct this exercise:

1. Before the session, prepare enough cards equal to half the total number of students, each documenting the status of one disaster victim, as follows (examples only):
 - Victim #1: Ambulatory—responds to voice triage.
Minor bleeding.
Normal capillary refill.
 - Victim #2: Bleeding extremity.
Unconscious.
After two attempts to open airway, still not breathing.
 - Victim #3: Standing, but does not respond to voice commands.
 - Victim #4: No signs of bleeding.
Unconscious.
Capillary refill takes 5 seconds.
 - Victim #5: No bleeding.
Conscious.
Doesn't squeeze hand when asked.
 - Victim #6: Minor bleeding.
Conscious but disoriented.
Extreme breathing difficulty.
 - Additional victims can be added as needed.
2. The other half of the class will break into 2-3 groups of approximately 3-4 students in each group. This "team" will act as a single triage rescuer.
3. Ask the patients to pretend as best they can to indicate their injuries or conditions.
4. Explain to the patients that the triage teams will enter the disaster area and begin triage. The triage teams must verbalize each step as they go.

TRIAGE (CONTINUED)

5. Explain to the students that the rescuer triage teams should only take about 5 minutes to:
 - Conduct triage on each of the victims and determine how each should be tagged and treated.
6. Explain to the rescuers that they are to stay together in their group and perform triage by committee.
7. As they are assessing each patient, they must verbalize the steps as they progress.
8. Once all the patients have been triaged, call the teams together and conduct a short discussion on the results of the triage exercise. Discuss:
 - Problems that the rescuers encountered during triage.
 - How it felt to be under pressure to conduct triage within such a short period of time.
9. Relate the rescuers' feelings about their time constraints to the pressure they will feel under actual conditions
10. Now have the two groups switch roles and repeat the activity. You may distribute new cards to the second group or use the previous cards from the first patients..



**INSTRUCTOR'S
NOTES**

Ask the participants if they have any questions about triage.

Be sensitive to the participants and the difficulty of these decisions during a catastrophic event.

Emphasize that planning and organization are necessary to do the greatest good for the greatest number of victims.

**INTRODUCE
TOPIC****MEDICAL TREATMENT AREAS**

Introduce this topic by emphasizing that because time is critical during an emergency, first aid medical personnel will need to select a site and set up a treatment area as soon as injured victims are confirmed.

Explain that the treatment area is the location where the most advanced medical care possible will be given to victims.

**VISUAL 2.5**

Medical Treatment Area

The selected site should be

- **In a safe area**
- **Close to (but upwind and uphill) from hazard**
- **Accessible by transportation vehicles**
- **Expandable**

Visual 2.5

**EXPLAIN
ASSUMPTIONS**

Any emergency scene can present hazards to the rescuers as well as other bystanders. Prior to committing yourself or your team members to assisting patients, you must make sure you have identified and controlled all hazards. Rescuer safety is the priority.

The safety of the team is of the utmost importance. **DO NOT** let yourself be injured or killed while trying to save someone. Your training and knowledge will be needed for other patients you can safely assist.

MEDICAL TREATMENT AREAS (CONTINUED)



INTRODUCE TREATMENT AREA LAYOUT

TREATMENT AREA LAYOUT

Introduce this section by stressing that the treatment area must be protected and clearly delineated using a ground cover or tarp, and that signs should identify the subdivisions of the area:

- RED for Immediate care.
- YELLOW for Delayed care.
- GREEN for walking wounded.
- BLACK for the morgue.

Explain that the RED and YELLOW divisions should be relatively close to each other to allow:

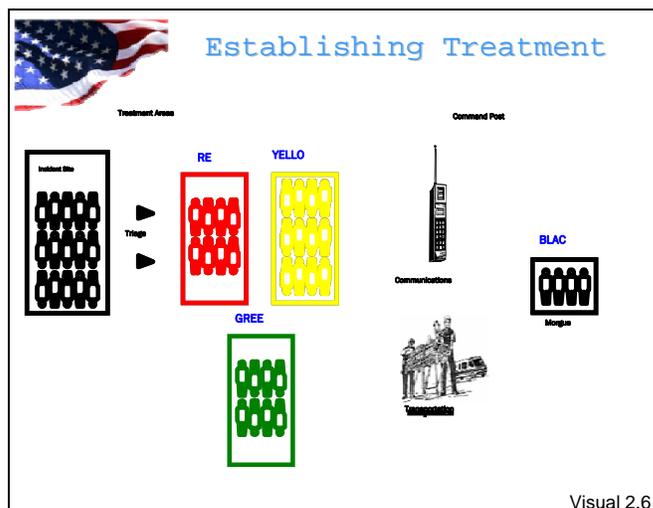
- Verbal communication between workers in the two areas.
- Shared access to medical supplies (which should be cached in a central location).
- Easy transfer of patients whose status has changed.

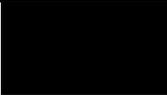
Also, point out that a clearly marked treatment area will help in transporting victims to the correct location.

Explain that patients in the treatment area should be positioned in a head-to-toe configuration, with two to three feet between victims.

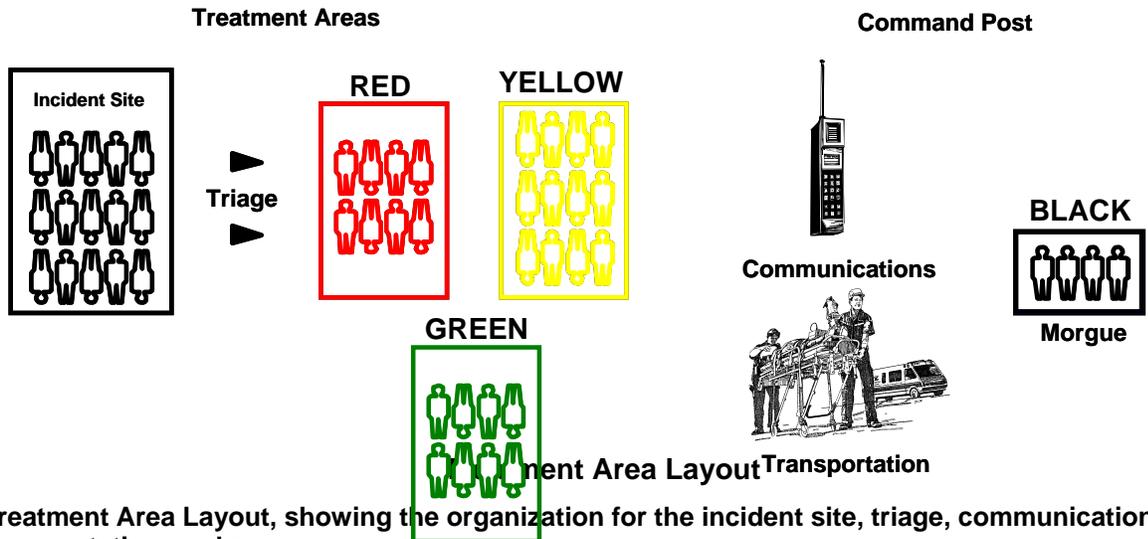


VISUAL 2.6





	<p>SM, P. 6</p>	<p>Treatment Area Layout</p>
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Treatment Area Layout, showing the organization for the incident site, triage, communications, transportation, and morgue.

This system will provide:

- Effective use of space.
- Effective use of available personnel. (As a worker finishes one head-to-toe assessment, he or she turns around and finds the head of the next patient.)

MEDICAL TREATMENT AREAS (CONTINUED)**INTRODUCE
TREATMENT
AREA
ORGANIZATION****VISUAL 2.7****TREATMENT AREA ORGANIZATION**

Introduce this section by telling the participants that the first aid medical team must have assigned leaders to maintain control in each of the medical treatment areas. These leaders will:

- Ensure orderly victim placement.
- Direct assistants to conduct head-to-toe assessments.



Emphasize the need for thorough documentation of victims in the treatment area, including:

- Available identifying information.
- Description (age, sex, body build, height, weight).
- Clothing.
- Injuries.
- Treatment.
- Transfer location.

TREATMENT AREA PLANNING

Finally, introduce the obvious need for planning before disaster strikes, including:

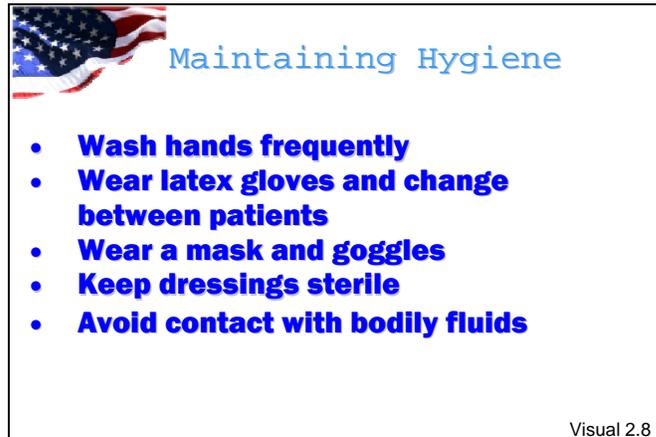
- Roles of personnel assigned to the treatment area.
- Availability of setup equipment needed, such as ground covers/tarps and signs for identifying divisions (immediate, delayed, morgue).

**INTRODUCE
TREATMENT
AREA PLANNING****INSTRUCTOR'S
NOTE**

Stress that the morgue site should be secure, away from, and not visible from the treatment area.

MEDICAL TREATMENT AREAS (CONTINUED)**INTRODUCE
MAINTAINING
HYGIENE****VISUAL 2.8****BASIC HYGIENE CONSIDERATIONS**

Introduce hygiene by telling the group that maintenance of proper hygiene is critical even under makeshift conditions.



Tell the group that some steps that individual workers can take to maintain hygiene are to:

- Wash hands frequently using soap and water. Hand washing should be thorough (at least 12 to 15 seconds) with an antibacterial scrub if possible.
- Wear latex gloves at all times. Change or disinfect gloves after examining and/or treating each patient.
- Wear a mask and goggles. If possible, wear a mask that is rated “N95.”
- Keep dressings sterile. Keep all first aid treatment materials in original container/wrapper until needed. After opening, use the entire dressing or bandage, if possible.
- Avoid contact with patients’ bodily fluids. Thoroughly wash areas that come in contact with body fluids with soap and water or diluted bleach as soon as possible.

Stress the importance of practicing proper hygiene techniques even during exercises.

MEDICAL TREATMENT AREAS (CONTINUED)



VISUAL 2.9



SUMMARIZE THE KEY POINTS

CHAPTER SUMMARY



Triage is a system for rapidly evaluating victims' injuries and prioritizing them for treatment. The procedure for conducting triage evaluations involves checking:

- The ABC's:
 - Airway.
 - Breathing.
 - Circulation (bleeding and shock).

Treatment areas must be established as soon as casualties are confirmed. Treatment areas should be:

- In a safe area that is close to, but uphill and upwind from, the hazard area.
- Somewhere to protect from the elements.
- Near water and other sanitation facilities.
- Accessible by transportation vehicles.
- Expandable.