Mass Casualty Incident Management

Module I
Awareness Level

Student Manual
1st Edition

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2/1/04

Acknowledgement:

Permission to use these materials was granted by the Office of Emergency Medical Services, Virginia Department of Health, Richmond, Virginia.

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Mass Casualty Incident Management

Module I
Responder Level
1st Edition

I. Course Objectives.

A. Upon completion of the course, students will be able to:

1. Define mass casualty incident.

2. List the three goals of mass casualty incident management.

3. Describe the initial response actions to mass casualty incidents.

4. Triage simulated patients correctly using START algorithm.

5. Tape simulated patients using triage ribbons.

6. Establish an accurate count of casualties.

7. Complete the West Virginia triage tags.

II. Incident Management Systems.

A. **Location:** Given West Virginia's geographic location, population centers, major transportation routes, chemical industries, and other unique hazards, there is an enormous potential for incidents to occur which affect people in numbers that could overwhelm any EMS system.

B. **Disasters:** Some people call these types of incidents disasters. It is important to remember that the term disaster has a specific legal meaning. States and localities declare "state of emergency". The President declares "major disasters".

C. **Describing disasters:** Other terms are used to describe such large and complex situations. In this course, we will introduce one way to classify incidents that create large numbers of injured or ill people. Make sure you become familiar with the system in use in your jurisdiction.

D. **Types of disasters:** Several events have the potential to cause mass casualty incidents.

1. Natural disasters (floods, winter storms).

2. Technical hazards (HAZMAT incidents, building collapse).

3. Transportation accidents (road, rail, aircraft, ship, etc.).

4. Civil and political disorder (demonstrations, strikes, riots).

5. Criminal or terrorist incidents.

E. **Mass Casualty Incidents:** A mass casualty incident (or MCI) is any incident that injures or causes illness in enough people to overwhelm the resources usually available in a particular system or region.

F. **Goals of MCI Management.**

1. Do the greatest good for the greatest number.

2. Manage scarce resources.

3. Do not relocate the disaster.

G. **Do the greatest good for the greatest number!**

1. Heroic resuscitative efforts are not appropriate.

   a. Take too much time.

   b. Require equipment that can be used for salvageable patients.

   c. Staffing intensive.

2. Concentrate on salvageable patients.

H. **Manage scarce resources.**

MCIs place great demands on resources, including equipment, rescuers, and facilities.

I. **Do not relocate the disaster!**

1. Patient prioritization at the scene is important for effective patient distribution.

2. Don’t send all of the red patients to one hospital.

III. EMS Initial Response Roles and Responsibilities

A. **Initial response roles:** EMS is a specific component of the overall incident management system. The first arriving unit should start the following actions (to help you remember them, think of them as the "**Five Ss**").

B. **First arriving unit:** The first emergency response unit to arrive at a mass casualty incident is by default "In Charge" (the Incident Commander) until relieved. As a result, the individuals on the first emergency response unit must take immediate actions to begin to manage the entire incident. These actions may be **the most important steps taken** in the entire incident. The initial unit must resist the "temptation" to begin one-on-one patient care. **The success of the operation will be the effective use of the "Five Ss".**

C. **S-1: Assess Scene for Safety:** The object is to ensure no one else gets hurt. Assess the scene for safety much as you would for a normal response to any EMS incident - except that the scene is much bigger and requires a wider look. The following may pose a hazard: (1) fire, (2) electrical hazards, (3) spilled or contained flammable liquids, (4) hazardous materials, (5) nuclear, chemical or biological agents, (6) other life threats, (7) debris that poses a threat to rescuers or their vehicles, and (8) secondary explosions.

D. **S-2: Scene Size-up:** How big is the incident and how bad is it?

1. What type of incident.
2. Approximate number of patients.
3. Severity of injuries.
4. Area involved, including problems with scene access.

E. **S-3: Send information:**

1. Report situation - contact dispatch with your size-up information.
2. Request assistance - resources and mutual aid if needed.
3. Notify the Medical Command Center to insure rapid hospital notification.

F. **S-4: Set-up:** Set-up the scene for the best management of mass casualties by on-scene and responding resources, including:

1. Staging.

2. Secure access and egress.

3. Secure adequate space for work areas – **think big.**

   a. Triage.

   b. Treatment.

   c. Transportation.

G. **S-5: START Triage:** This triage method assures rapid initial assessment of all patients as the basis for assignment to treatment and as the first medical assessment of the incident.

1. Begin where you are.

2. Relocate green (minor) patients.

3. Move in an orderly pattern.

4. Maintain count.

5. Minimal treatment.

IV. Triage.

Triage is a French word meaning “to sort.”

A. **Purpose of triage:**

1. Assigns treatment priorities.

2. Separates MCI victims into easily identifiable groups.

3. Determine required resources for treatment, transportation, and definitive care.

4. Prioritization of patient distribution and transportation.

B. **Benefits of triage:**

1. Identifies patients who require rapid medical care to save life and limb.

2. Provides rational distribution of casualties.

3. Separating the minor injuries reduces the urgent burden on each hospital – average 10-15% of MCI patients are serious enough to require extended hospitalization.

C. **Problems with triage systems:**

1. Some approaches to triage rely on specific injuries and physical findings in order to categorize and prioritize patients.

2. In-depth assessment requires more time than may be available during an MCI.

D. **The ideal triage system:**

1. Should be simple.

2. Does not require advanced assessment skills.

3. Does not rely on specific diagnosis.

4. Should be easy to perform.

5. Should provide for rapid and simple life-saving interventions.

6. Should be easy to teach and learn.

E. **START:**

1. Triage ribbons. Surveyor's tape is used to make the ribbons.

2. Universal colors are used.

F. **Red:** Immediate (highest priority). Typical problems are:

1. R = respirations/airway.

2. P = perfusion/pulse.

3. M = mental status.

4. Severe burns which compromise airways.

G. **Yellow:** Delayed (second priority). Typical problems are:

1. Burn patients without airway problems.

2. Major or multiple bone or joint injuries.

3. Back and spine injuries.

H. **Green:** Minor (third priority). Typical problems are:

1. "Walking wounded". (The ability to "walk" does not necessarily mean that this is a "minor" patient. Minor cuts and bruises are acceptable criteria for this type of patient.)

2. Minor painful swollen deformities.

3. Minor soft tissue injuries.

I. **Black:** Dead/non-salvageable (lowest priority). These are non-breathing patients on whom resuscitation would normally be attempted but who are not salvageable given the resources available early in an MCI response.

V. The Start Process.

A. **Basic procedures:**

1. Begin where you stand.

2. Identify those injured who can walk. Make a clear announcement that those who can walk should get up and do so to an easily recognized point.

B. **Relocate <u>green</u> patients:**

1. Relocate to a designated area (away from immediate danger and outside the initial triage area).

2. Tape each of these as a **green** patient.

C. **Move in an orderly pattern:**

1. Move through the patients in an orderly pattern.

2. Assess each casualty and mark the category using triage ribbons.

D. **Maintain a patient count:**

1. Maintain a count of the casualties.

2. Mark on 2-3 inch tape on thigh.

<u>or</u>

3. Save a small piece of triage ribbon and place in your pocket.

E. **Minimal treatment:** Give only minimal treatment. Only two patient interventions are used:

1. Open the airway.

2. Stop gross bleeding.

F. **Keep moving!** EMT-Basics are provided 10 minutes to conduct a full patient assessment and begin treatment in the State EMT-Basic Practical Examination. In an MCI, such lengthy patient assessments are not practical. **<u>START assessments should last approximately 10 - 15 seconds per patient</u>**.

G. **Steps in assessment:**

1. **Step 1 - moving green patients**. This has already been done when you made the first announcement.

2. **Step 2 - Respiration.** Check for respiratory compromise.

   a. If airway is closed, open the airway.

   b. None - **black** ribbon (dead).

   c. More than 30 per minute - **red** ribbon (immediate).

   d. Less than 30 per minute – **further evaluation required** - go to step 3 (Perfusion).

3. **Step 3 - Perfusion.** Radial pulse check.

   a. Not palpable - **red** ribbon (immediate).

   b. Control severe bleeding – bystanders use direct pressure, raise legs.

   c. Palpable – **further evaluation required** - go to step 4 (mental status).

4. **Step 4 – Mental status.** Check for compromise of mental status.

   a. Altered mental status - **red** ribbon (immediate).

   b. Mental status appropriate - **yellow** ribbon (delayed) or green minor) according to other findings (obvious injuries or illnesses).

H. See START algorithm at end of the manual

I. See JumpSTART algorithm at end of the manual

J. **Secondary triage:**

1. Secondary triage and tagging can be done:

   a. On a stretcher on the way to a treatment area,

   b. In the treatment area, or

   c. In the ambulance on the way to the hospital.

2. Secondary triage is an in-depth reassessment based on clinical experience and judgment.

K. Triage is an on-going process and should be done continuously.

V. The West Virginia Triage Tag.

A. **Construction:** Made with white weather resistant material and is designed for use with a ballpoint pen or permanent marker.

B. **Capabilities:**

1. Multiple triage assessments of the patient.

2. Continuous patient information recording.

3. Continuous patient accountability and tracking.

4. Designed for easy interface with patient hospital records.

C. **Format:**

1. Front contains patient information section:

a. During MCIs, the information is not always available.

b. Information can be added throughout triage, treatment, transportation and hospital reception phases

2. Triage status section has space provided for four individual evaluations:

a. Initial - START assessment.

b. Secondary - reassessment at the scene or in the treatment area.

c Blank - can be used in the treatment area or during transportation.

d. Hospital - initial reassessment at the receiving hospital.

3. **Chief Complaint Section.**

a. Major obvious injuries or illnesses can be circled.

b. Indicate injuries on the human figure.

c. Additional information is added on the Comments line.

4. **Transportation Line**. The transporting unit notes:

   a. Agency information,

   b. Destination hospital, and

   c. The time the patient actually arrived.

5. **Pull-Off Label Section.**

   a. A total of six labels are provided; two are marked for:

      (1) **Treatment** - to document on patient information worksheets.

      (2) **Hospital** - to tie the triage tag and scene patient number to the patient's hospital records.

   b. "Other" labels can be used for a variety of purposes, based on incident needs:

      (1) Other tactical worksheet needs on scene, including transportation accountability.

      (2) Marking personal effects.

      (3) Use within the hospital.

6. **Transportation Record Section.**

   a. Detachable by tear-off or as a pull-off label.

   b. Used to document patients removed from the scene to a hospital or other facility.

   c. Can be fixed to the transportation tactical worksheet. Make certain hospital destination is marked.

7. **Vital Signs Section.** Space is provided to record three sets of vital signs.

8. **Medical History Section.**

a. Information can be obtained any time during the incident.

b. Information can be obtained from the Medic Alert identification devices.

c. Relevant medical history if known.

9. Treatment Record Section.

a. Documents treatment sequence and progress.

b. Quick documentation of common treatments.

c. Space provided for additional treatments and remarks.

d. Spaces are provided for the time treatment actions were taken and for the provider initials.

VI. Summary.

A. **Summary:** Incidents of any kind have the potential to overwhelm EMS system personnel, equipment, resources and medical facilities.

B. **Preparation and Pre-Planning:** Preparation and preplanning will help EMS systems and personnel to be more efficient in all elements of mass casualty management.

C. **Greatest Good:** Remember, in mass casualty incidents, our goal is to do the greatest good for the greatest number.

D. **First on-Scene:** The first arriving emergency response unit on-scene is, by default, “In-Charge” until relieved and must take the first steps toward a successful solution to the problem.

E. **The Five Ss:**

S-1 Scene Safety.

S-2 Scene Size-Up.

S-3 Send Information.

S-4 Set-up Scene.

S-5 START/JumpSTART

F. **START:**

1. The START algorithm provides a simple and efficient process for initial triage.

2. This process should be practiced and used in all MCIs.

G. **Treatment Phase:** The treatment phase requires secondary triage as a more in-depth assessment to prioritize patients for treatment and transportation.

H. **The West Virginia Triage Tag:**

1. Was designed to make patient categorization easier and;

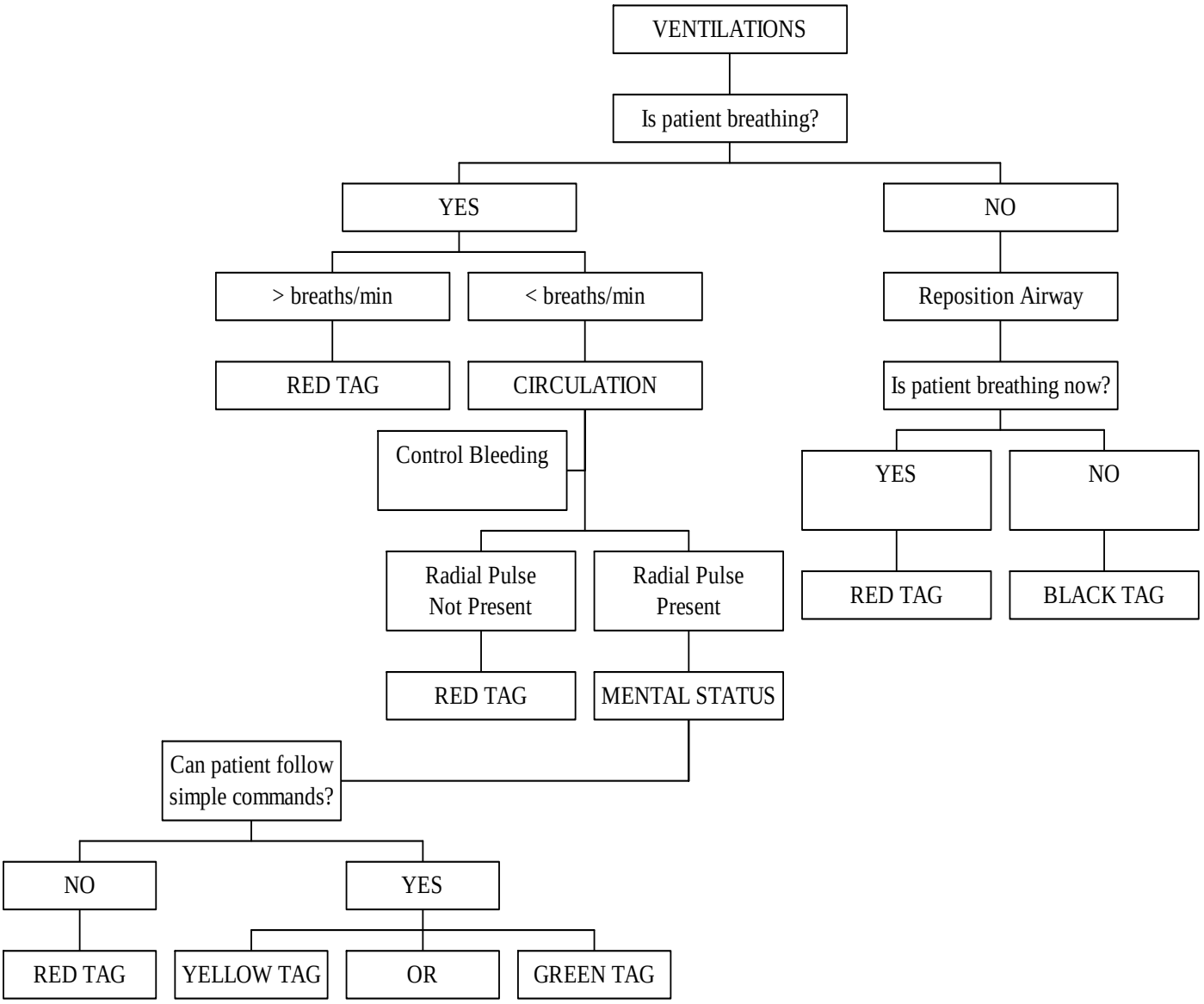
2. To provide a continuous documentation tool.

I. **Incident Management System:**

1. The incident management system expands to meet the needs of organizations responding to MCIs.

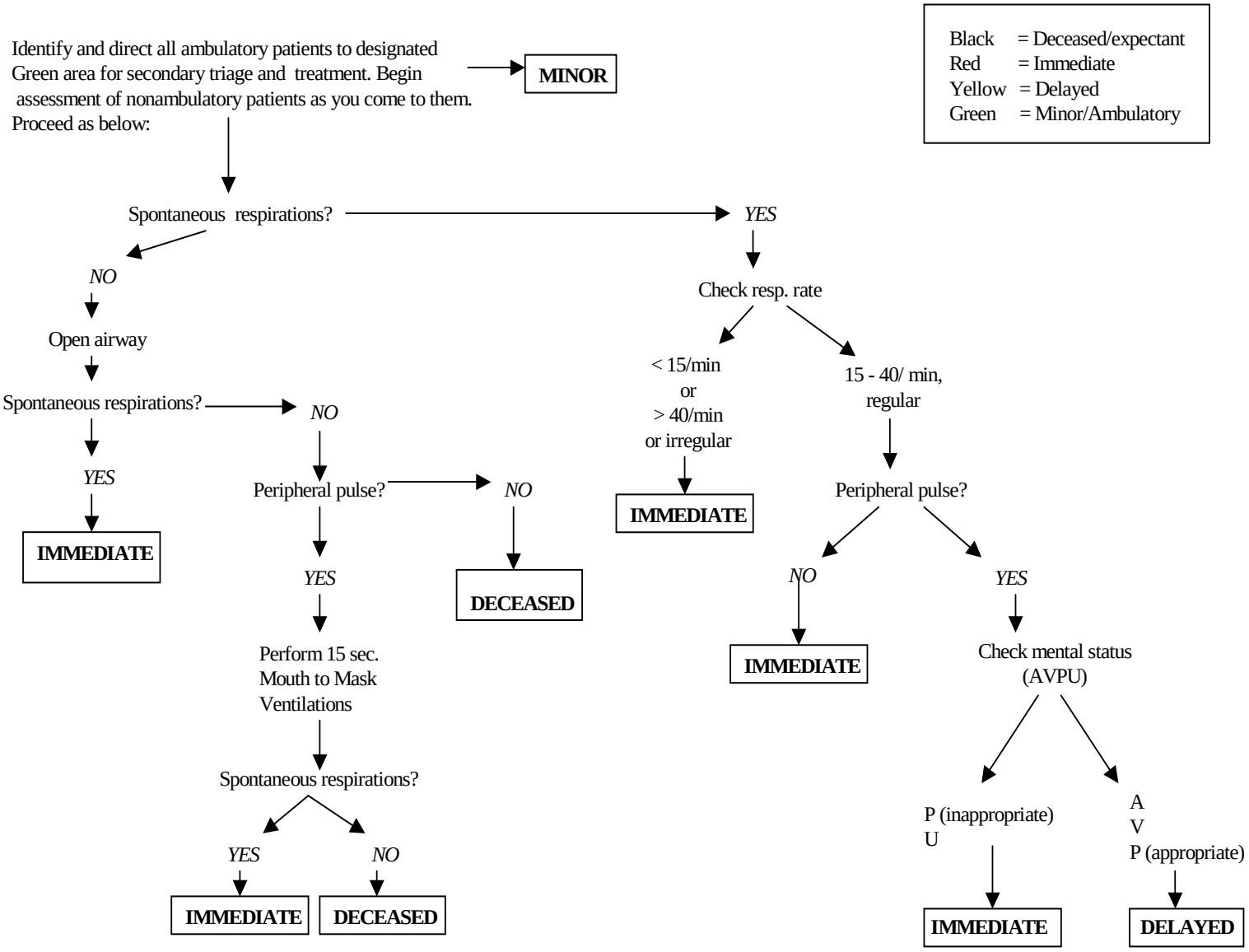
2. West Virginia MCI procedures and incident management systems are covered in more detail in Module II of the West Virginia Mass Casualty Incident Management Program.

START Algorithm



The JumpSTART Field Pediatric Multicasualty Triage System ©

(Patients aged 1- 8 years)



West Virginia Mass Casualty Incident Management

Module I

Responder Level

WEST VIRGINIA EMS SYSTEM

Version: 1

Course Objectives

- Define Mass Casualty Incident
- List the three goals of mass casualty incident management
- Describe initial response actions to mass casualty incidents
- Triage simulated patients correctly using START algorithm
- Tape simulated patients using triage ribbons
- Establish accurate count of casualties
- Complete West Virginia Triage Tags

MASS CASUALTY INCIDENTS

- Given West Virginia's geographic location, population centers, major transportation routes, and unique hazards, there is an enormous potential for incidents to occur which injure people in numbers that could overwhelm any EMS system.

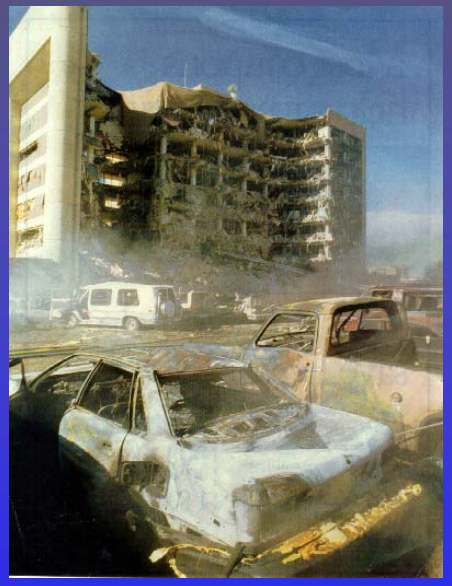
Disasters

- Some people call these types of incidents disasters
- Disaster has specific legal meaning

- States & localities declare “state of emergency”
- The President declares “major disaster”

Types of Disasters

Natural Disasters



Civil Disobedience

Technical Hazards

Criminal or Terrorist Incidents

Transportation Crashes

MCI - Mass Casualty Incident

- Any incident that injures enough people to overwhelm resources usually available in particular system or area

GOALS OF MCIM

- Do the Greatest Good for the Greatest Number
- Manage scarce resources
- Do not relocate the disaster

Greatest Good

- Heroic resuscitative efforts **NOT** appropriate
  - Too much time
  - Requires equipment used for salvageable patients
  - Staffing intensive
- Concentrate on salvageable patients

Do the Greatest Good for the Greatest Number

Resource Demands

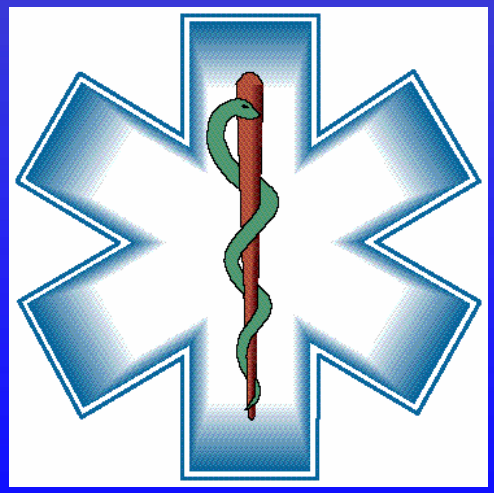
- Equipment
- Responding Personnel
- Facilities

Don’t relocate the disaster!

- Patient prioritization at the scene important for casualty distribution
  - Don’t send all the patients to one hospital!

EMS INITIAL RESPONSE ROLES AND RESPONSIBILITIES

- EMS - specific component of overall incident management system



First Arriving Unit

- Begin the following actions:

5 S's

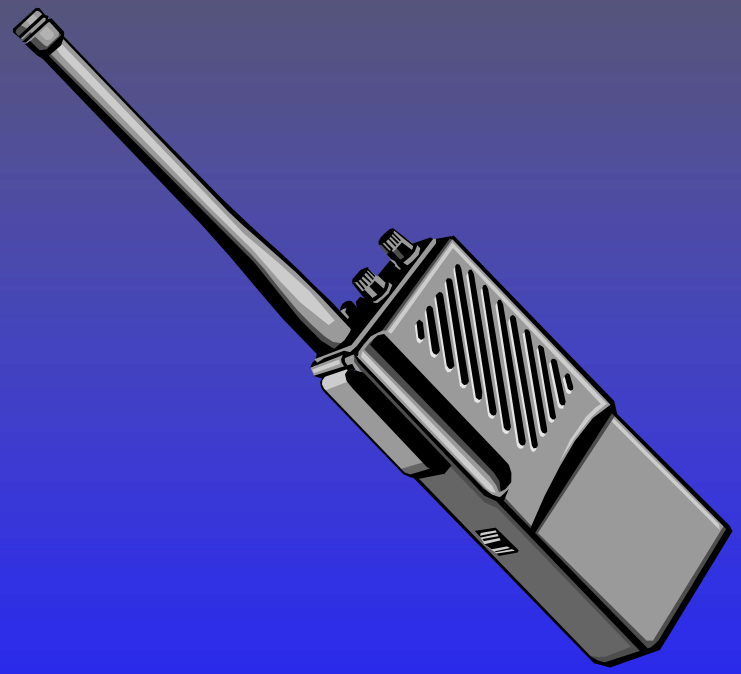
Safety Assessment S - 1

- Assess scene for safety

Scene Size-Up S - 2

- How big is incident and how bad is it?
  - Type of incident
  - Approximate # of patients
  - Severity of injuries
  - Area involved, including access

Send Information S - 3



- Report Situation
- Request Assistance
- Rapid Hospital Notification

Set Up

S - 4

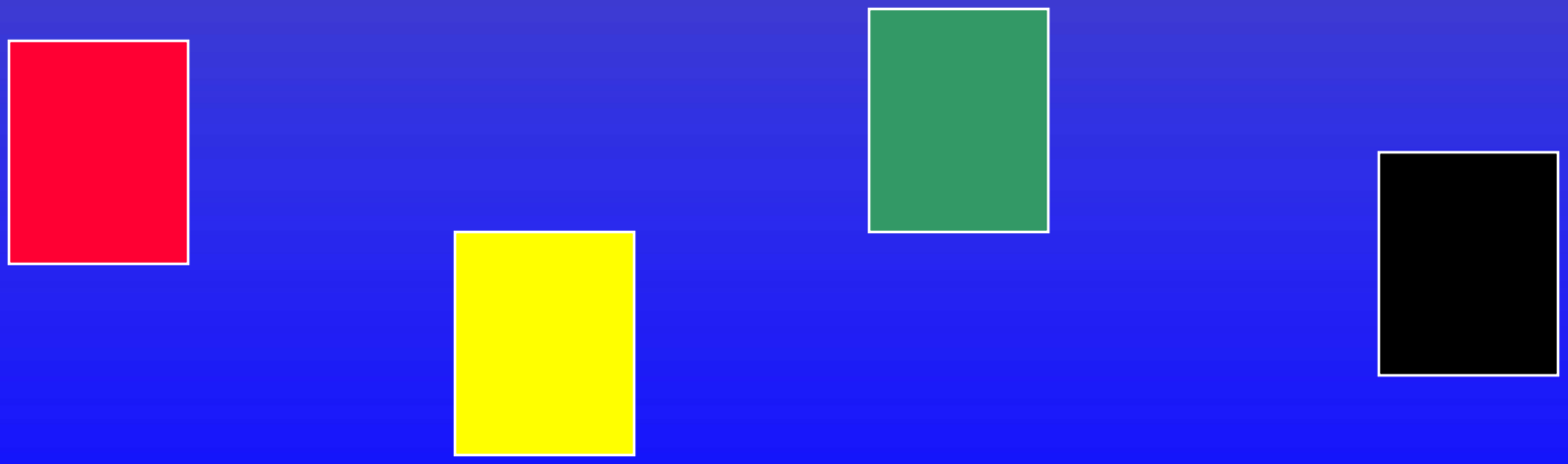
- Staging
- Secure Access/Egress
- Secure Adequate Space
  - Triage, Treatment
    Transportation

S - 5

- Assures rapid initial assessment of all patients as basis for assignment to treatment
- Triage - French for “to sort”

Purpose of triage

- Assigns treatment priorities
- Separates victims into easily identifiable groups



Purpose of triage

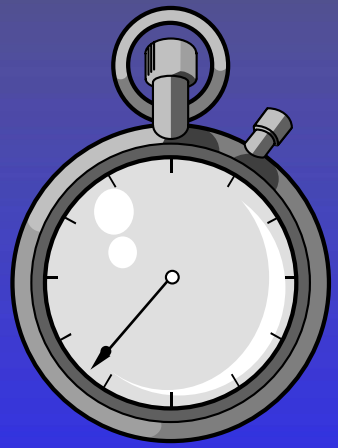
- Determines required resources
  - treatment
  - transportation
  - definitive care
- Prioritization of patient distribution and transportation

Benefits of Triage

- Identifies patients who need rapid medical care to save life and limb
- Provides rational distribution of casualties
- Reduces burden on each hospital
  - average 10-15% of MCI patients require extended hospitalization

Problems with triage systems

- Some rely on specific injuries and physical findings to categorize and prioritize patients



- In-depth assessment requires too much time

Ideal Triage System

- Simple
- No advanced assessment skills
- No specific diagnosis

Ideal Triage System

- Easy to perform
- Provides rapid and simple life-saving interventions
- Easy to teach and learn

Simple Triage and Rapid Treatment (START) System

- Triage ribbons
  - Surveyors tape used to make ribbons

- Universal colors are used

RED

- Immediate (highest priority).

- Problems with:
  - R – Respirations/airway
  - P – Perfusion/pulse
  - M – Mental Status
  - Severe burns which compromise airway

YELLOW

- Delayed (second priority)
  - Burn patients without airway problems
  - Major or multiple bone or joint injuries
  - Back and spine injuries

GREEN

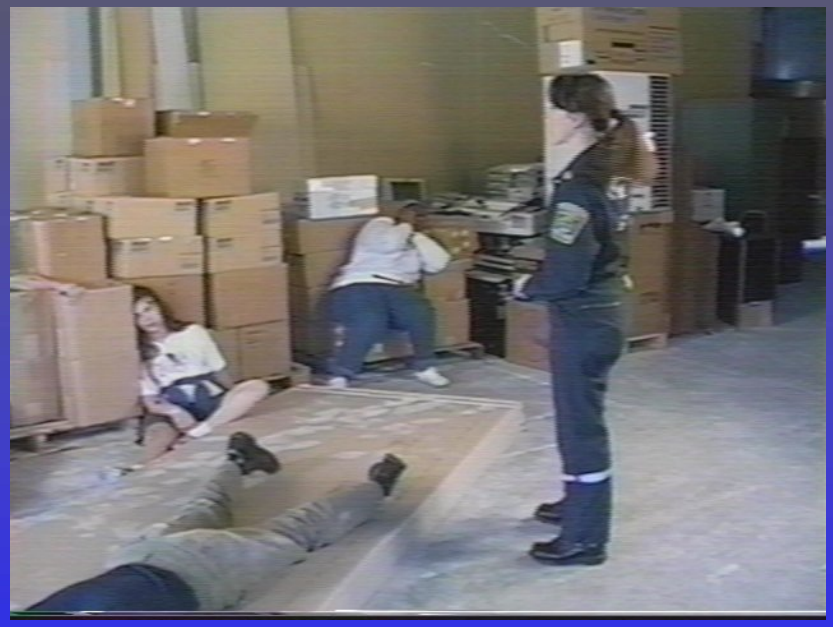
- Minor (third priority)
  - “Walking wounded”
  - Minor painful swollen deformities
  - Minor soft tissue injuries

BLACK

- Dead/non-salvageable (lowest priority)
  - Non-breathing patients
    - resuscitation would normally be attempted
    - but are not salvageable given resources available early in MCI response

Introduction to S.T.A.R.T. process

- Begin where you stand
- Identify those injured who can walk

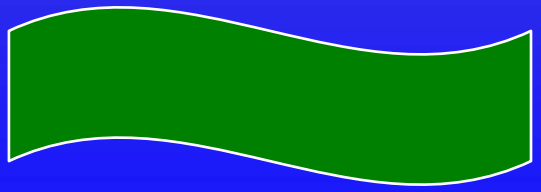


- Those who can walk should go to easily recognized place

Relocate Green

- To a designated area
  - away from immediate danger
  - outside initial triage area

- In WestVirginia - tape each as GREEN patient



Move in orderly pattern

- Assess each casualty you come to

- Mark category using triage ribbons

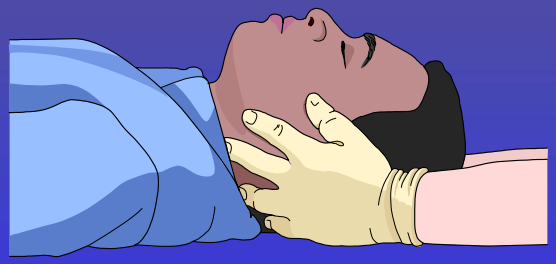
Maintain count

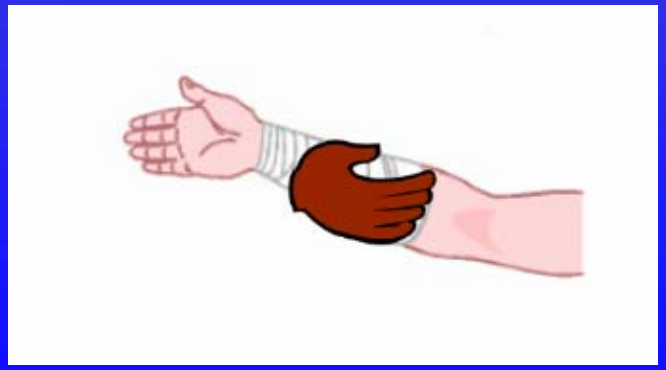
- Mark on 2-3 inch tape on thigh

- Or save a small piece of triage ribbon

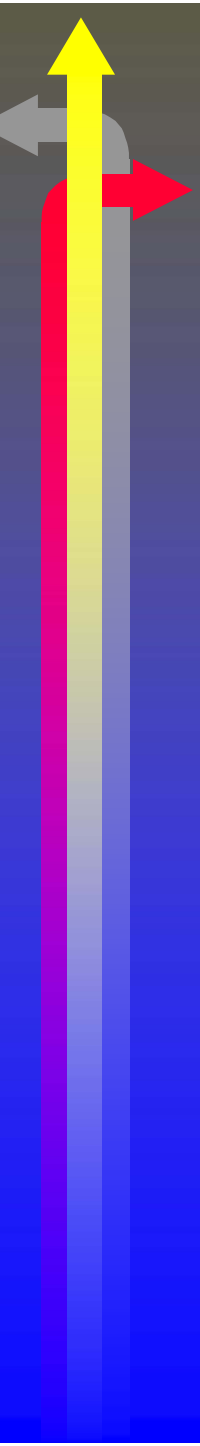
Minimal Treatment

- Only two patient interventions are:
  - Open the airway





- Stop gross bleeding

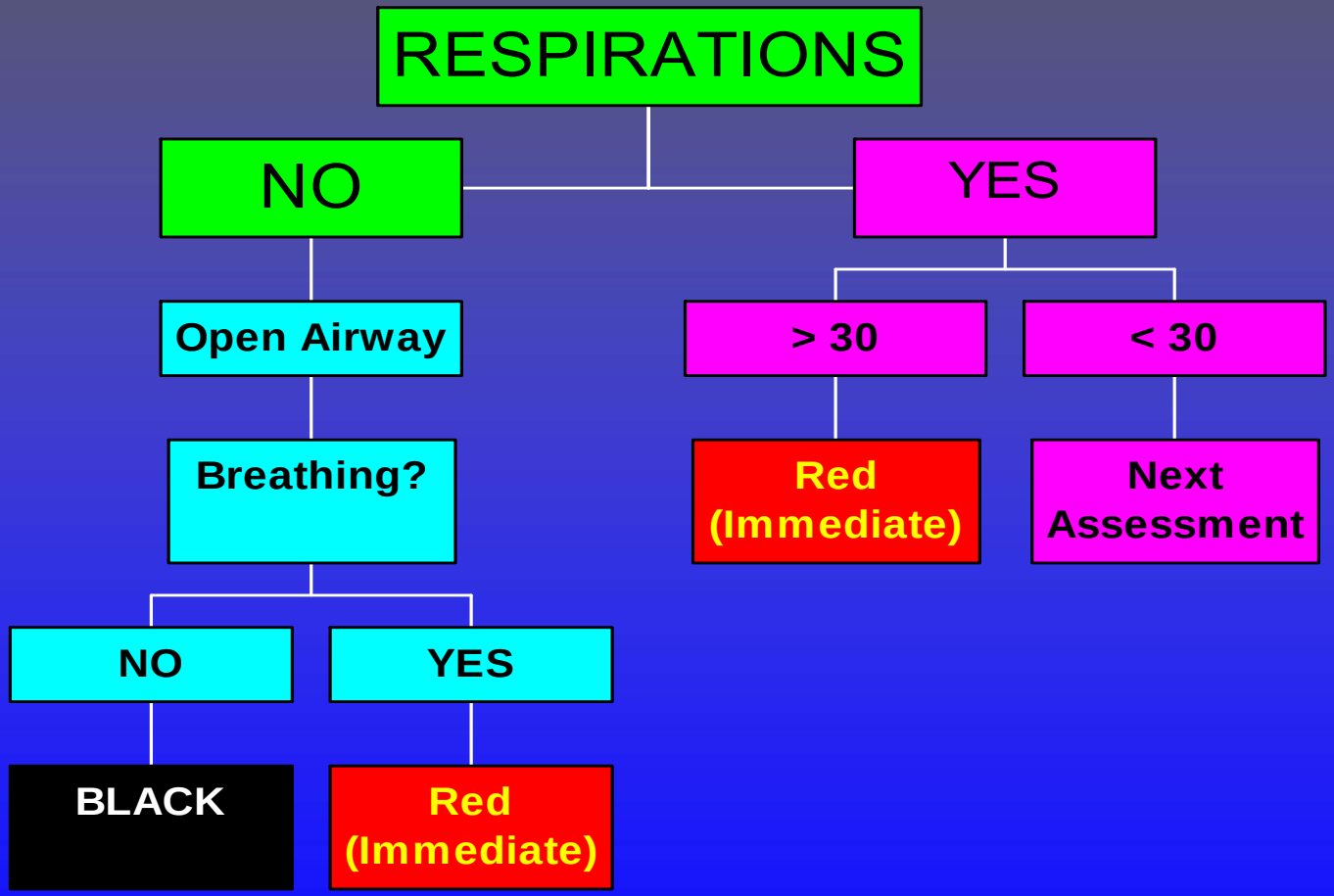


KEEP MOVING

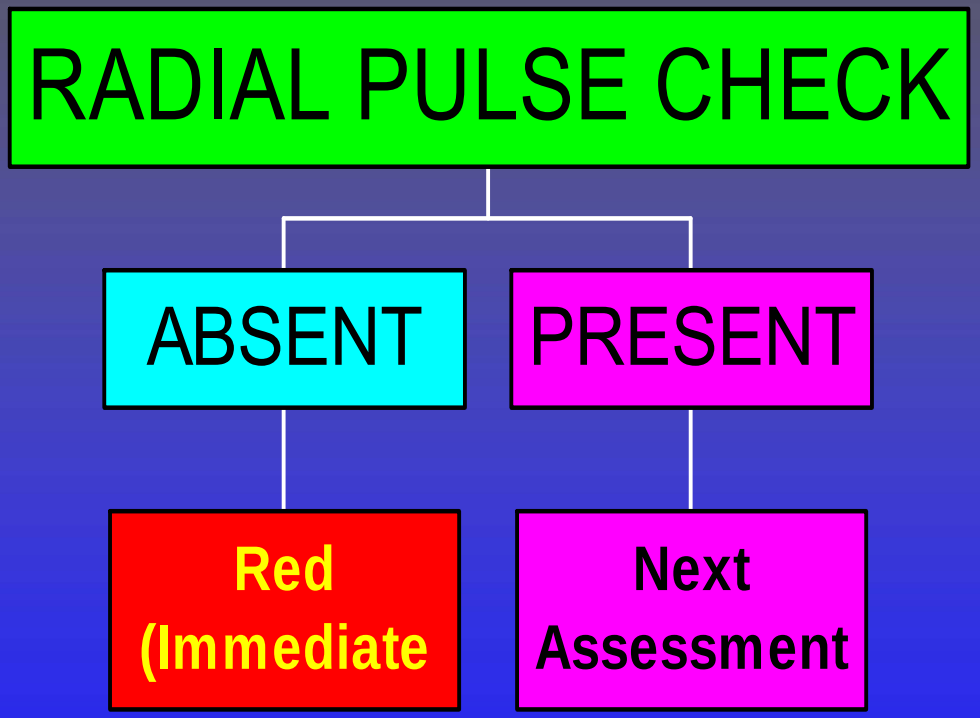
Steps in START/JumpSTART Assessment

- Step 1- Moving Green patients to supervised area
  - *Already done*

Step 2 - RESPIRATION

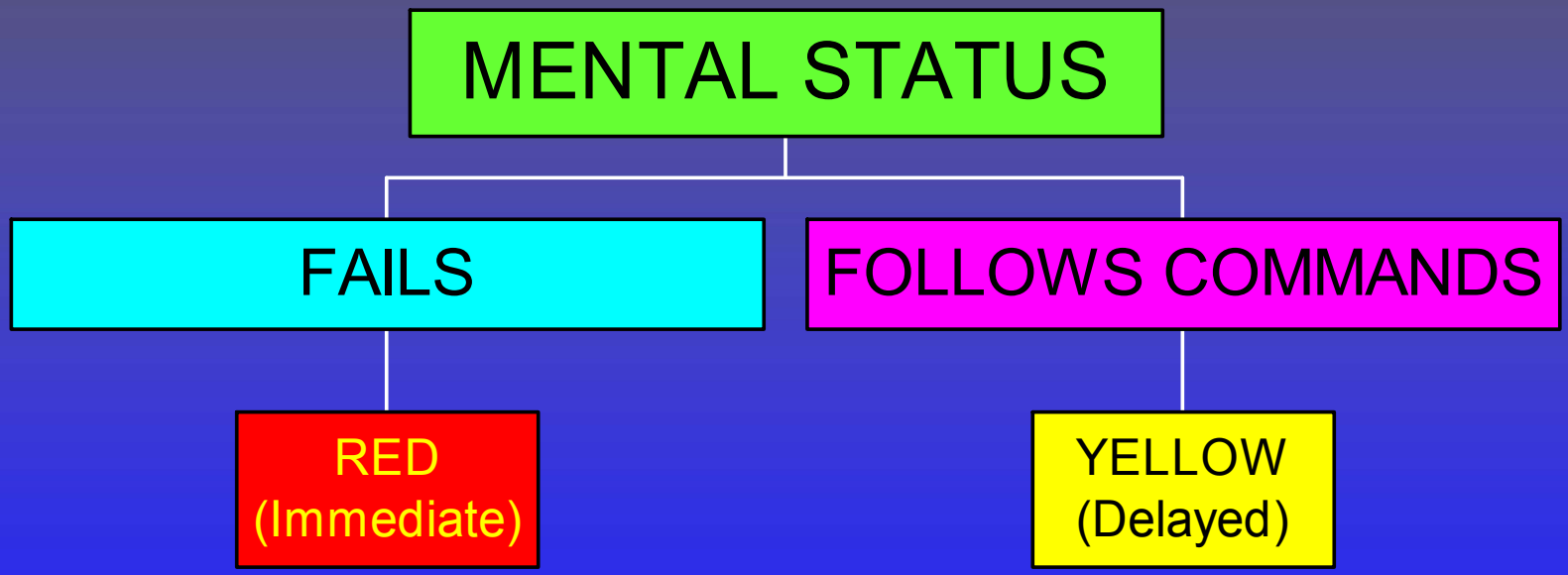


Step 3 - PERFUSION

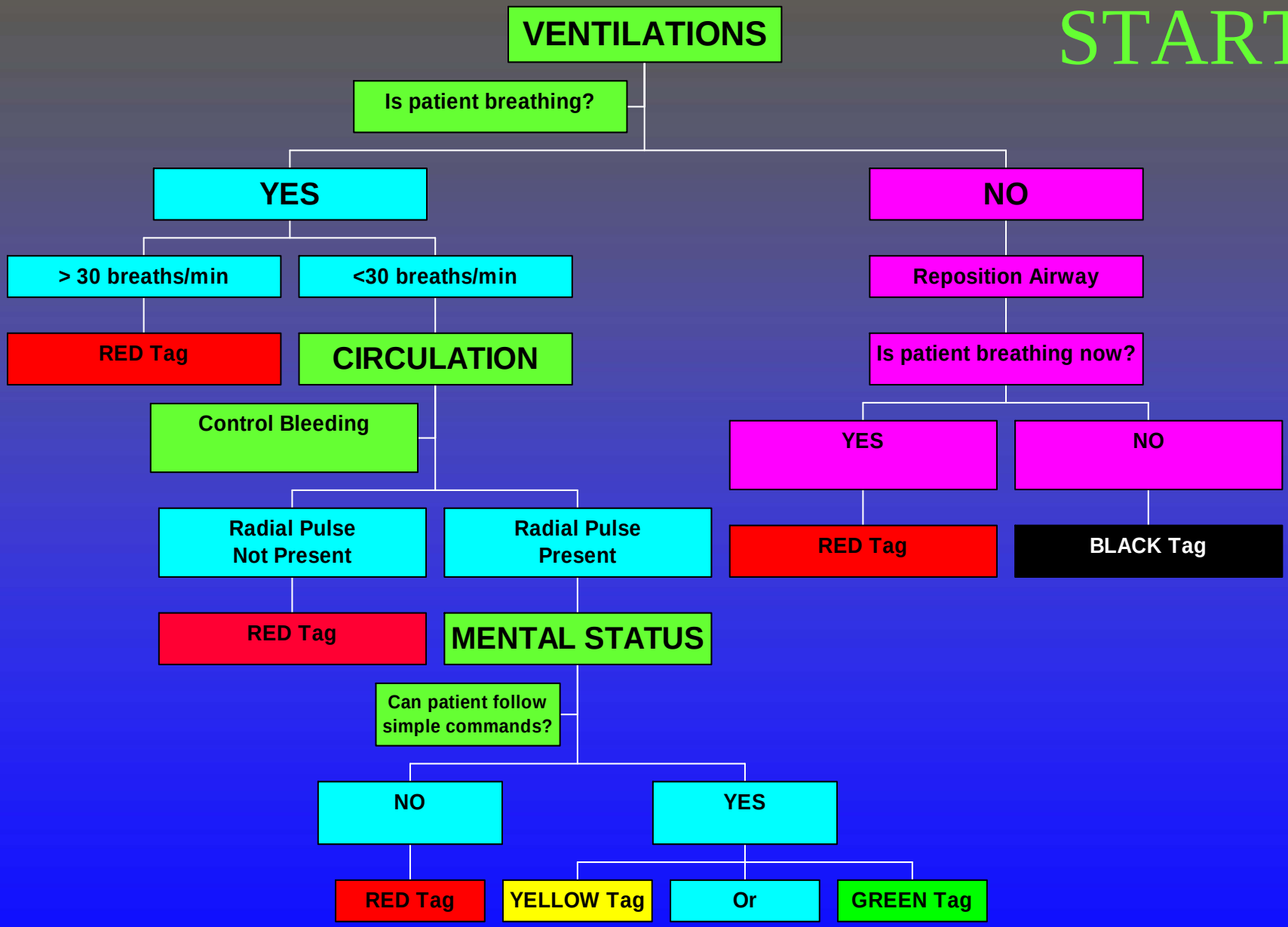


- Stop major bleeding
- Raise legs of shocky patients

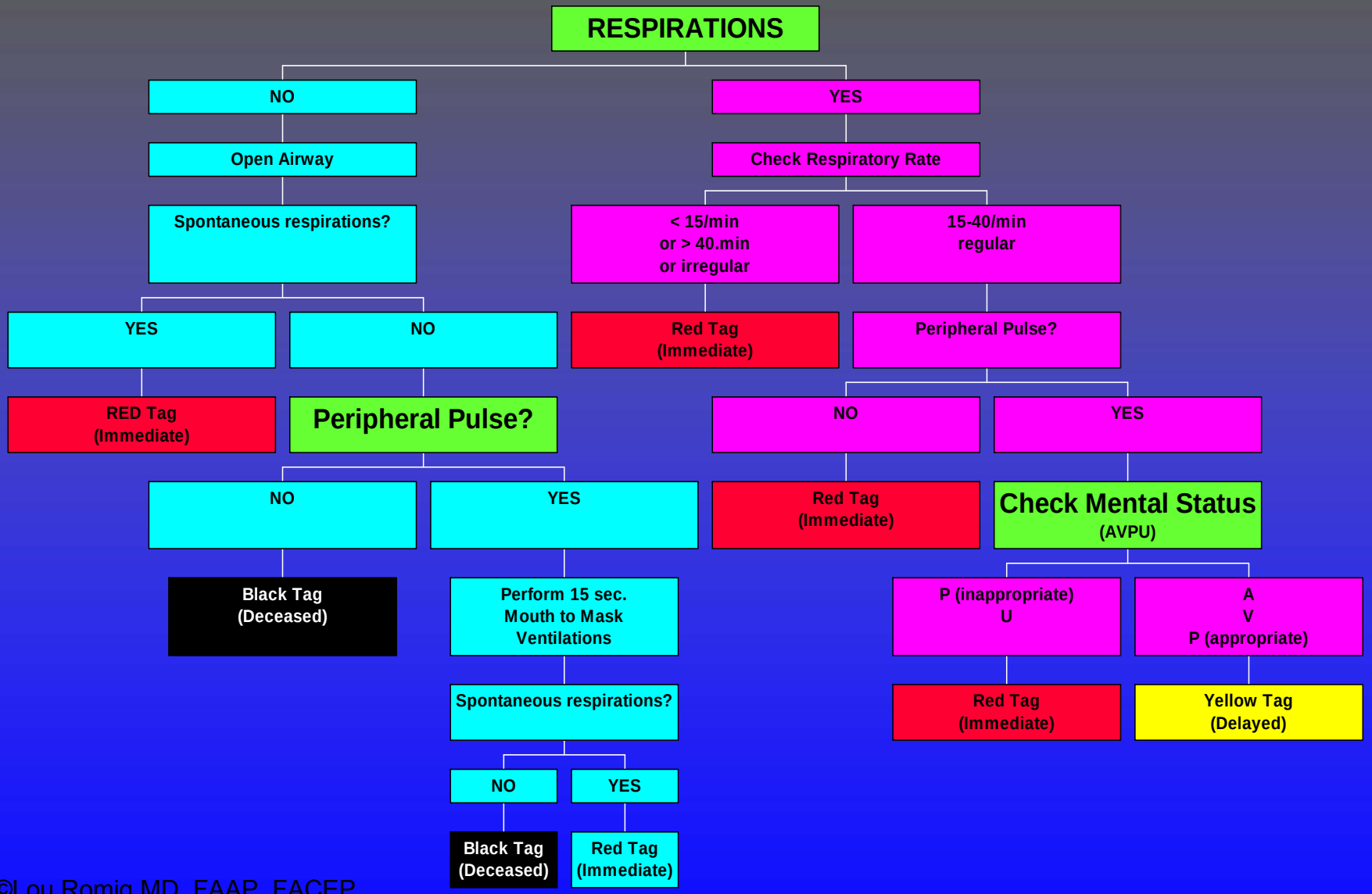
Step 4 - MENTAL STATUS



START


VENTILATIONS
Is patient breathing?
YES
NO
> 30 breaths/min
<30 breaths/min
Reposition Airway
RED Tag
CIRCULATION
Is patient breathing now?
Control Bleeding
YES
NO
Radial Pulse Not Present
Radial Pulse Present
RED Tag
BLACK Tag
RED Tag
MENTAL STATUS
Can patient follow simple commands?
NO
YES
RED Tag
YELLOW Tag
Or
GREEN Tag

JUMPSTART



Secondary Triage

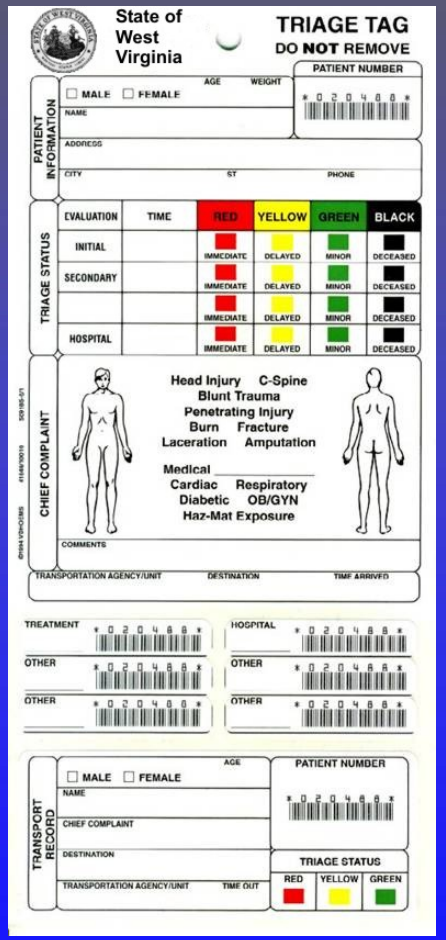
- Done on stretcher on way to treatment area
- In treatment area
- Or in ambulance on way to hospital
- In depth reassessment based on clinical experience and judgement

TRIAGE

- START
  - SECONDARY
    - ON-GOING
      - Should be done continuously

WEST VIRGINIA TRIAGE TAG

- White weather resistant material
  - designed for use with ball point pen

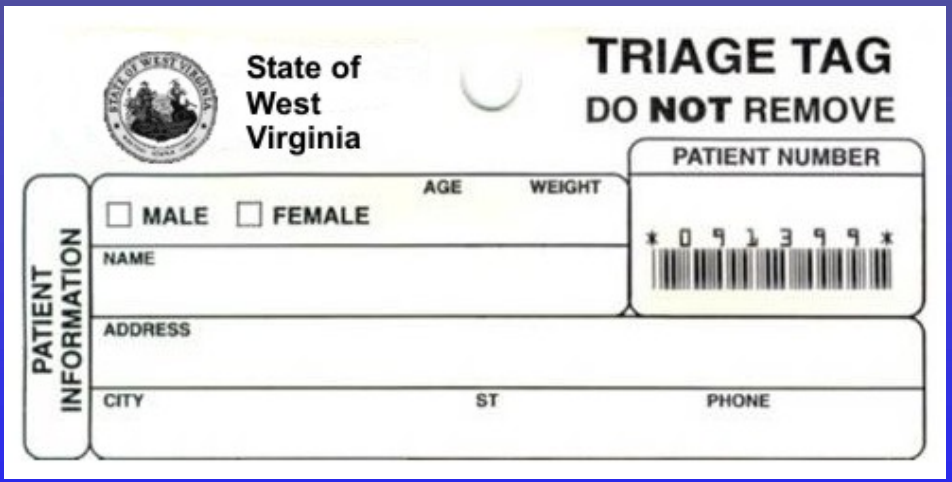


Capabilities

- Multiple triage assessments of patient
- Continuous patient information recording
- Continuous patient accountability and tracking
- Easy interface with patient hospital records

Format - Front

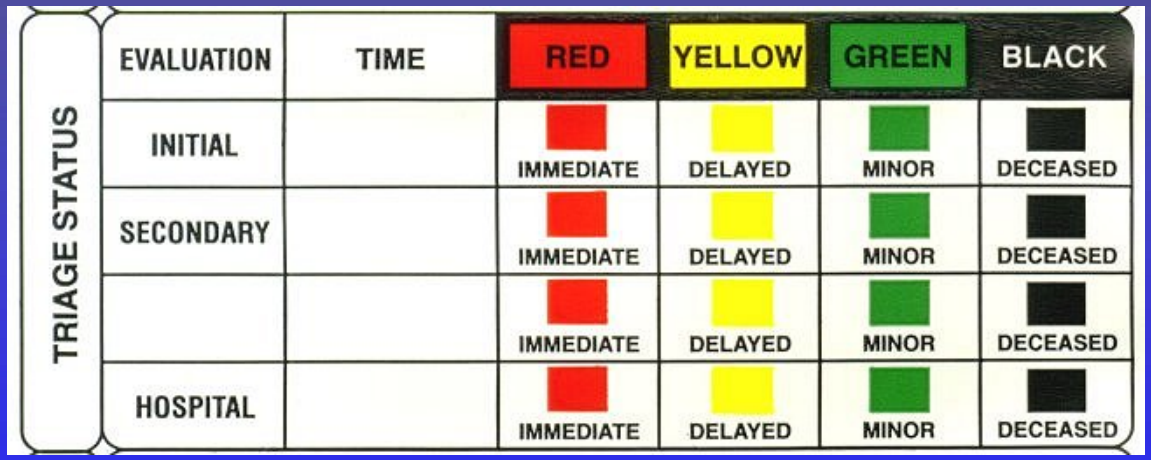
- Patient Information section
  - Information not always obtainable



  - Can be added throughout triage, treatment, transportation, & hospital reception phases

Triage Status section

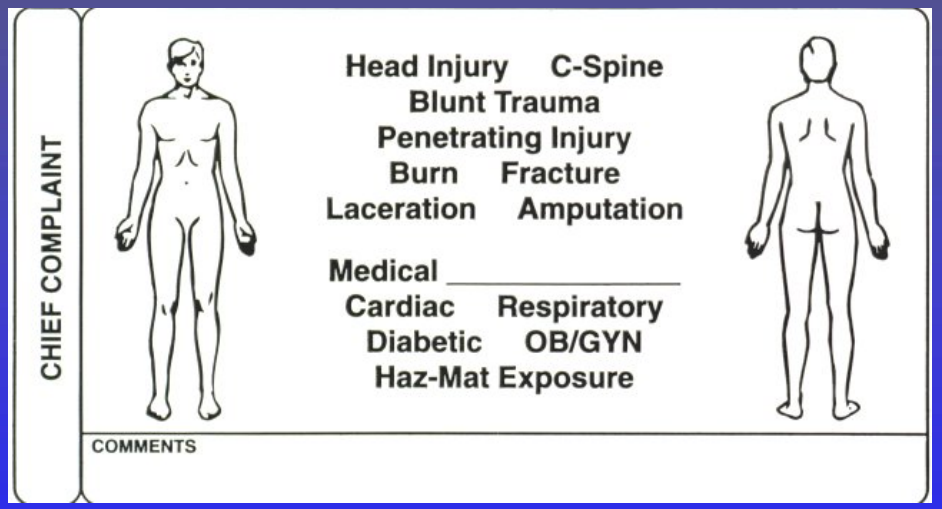
- INITIAL - START assessment
- SECONDARY - reassessment at scene or in treatment area



- BLANK - used in treatment area or during transportation
- HOSPITAL - initial reassessment receiving hospital

Chief Complaint section

- Major obvious injuries or illnesses circled
- Indicate injuries on human figure



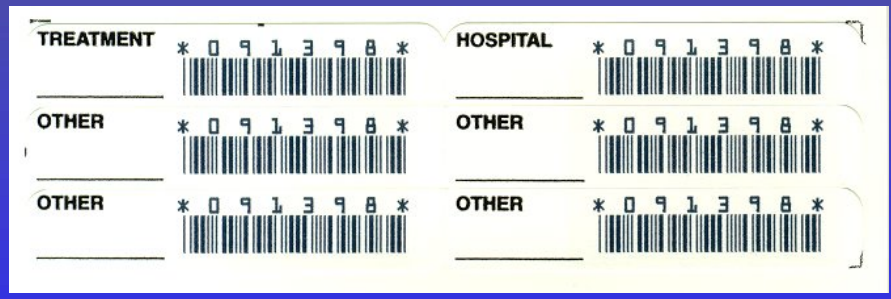
- Additional information added on Comments line

Transportation Line

- Transporting unit notes
  - agency information
  - destination hospital
  - time patient actually arrived

Pull-off label section - Six

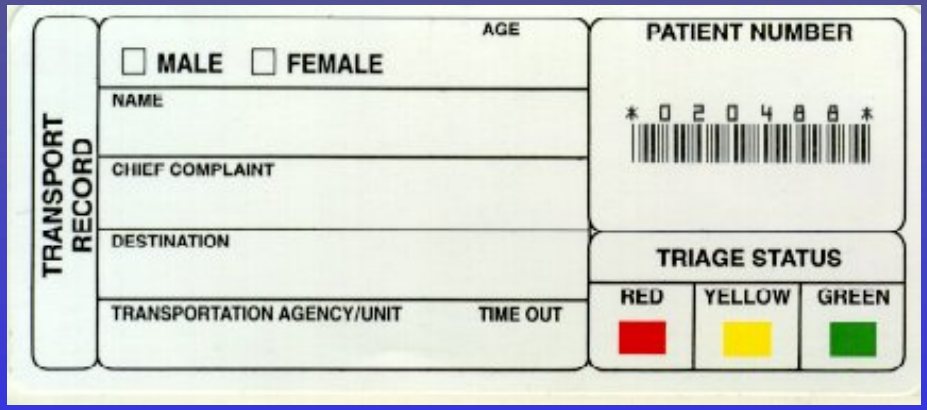
- "Treatment" - document on patient information worksheets
- "Hospital" - tie the triage tag & scene patient number to patient's hospital records



- "Other" labels can be used for:
  - Other tactical worksheet needs on scene
  - Marking personal effects
  - Use within hospital

Transportation Record section

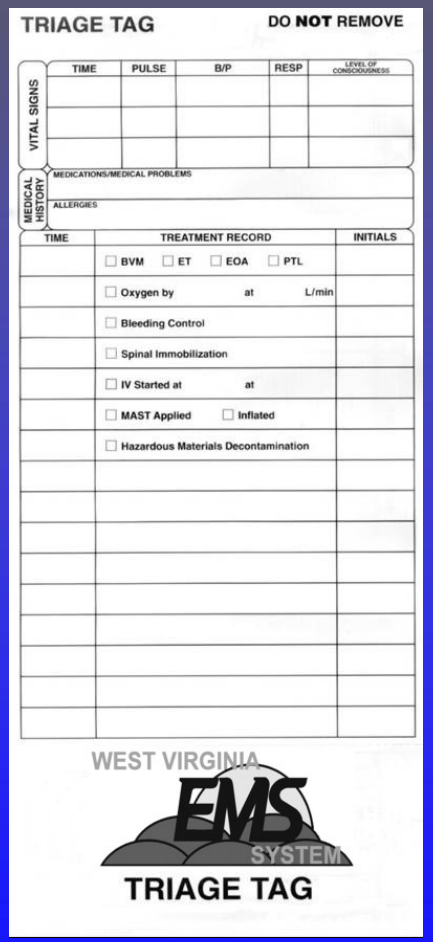
- Detachable by tear-off or as pull-off label
- Document patients transported to hospital or other facility



- Can be fixed to transportation tactical worksheet
  - Mark hospital destination

Back

- **Vital Signs**: three sets of vital signs
- **Medical History**: can be obtained from Medic Alert devices
- **Treatment**: additional treatments and remarks
  - time treatment actions taken & provider initials



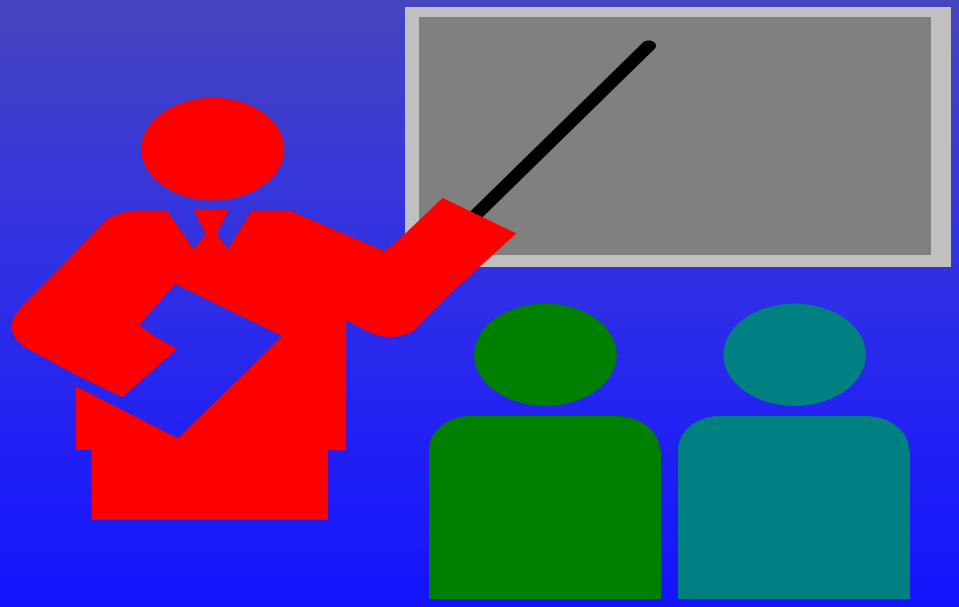
SUMMARY

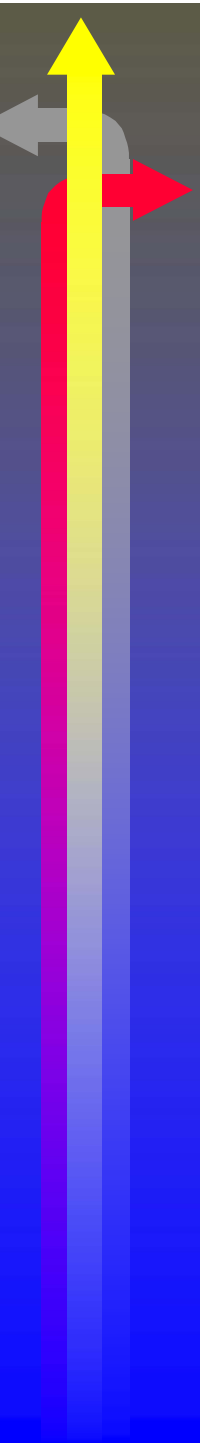
- Incidents of any kind have potential to overwhelm EMS system personnel,

equipment, resources, and medical facilities.

Preparation and preplanning

- Help to be more efficient in all elements of mass casualty management





Do the Greatest Good For the Greatest Number

First on Scene

- First responding emergency unit is by default **IN CHARGE** until relieved

- Must take first steps toward a successful solution to the problem

Five S's

- **S**cene safety S-1
- **S**cene Size-Up S-2
- **S**end for help S-3
- **S**et-up S-4
- **S**TART/JumpSTART S-5

S.T.A.R.T. Algorithm

- Simple and efficient process for initial triage
- Practiced and used in all MCI's

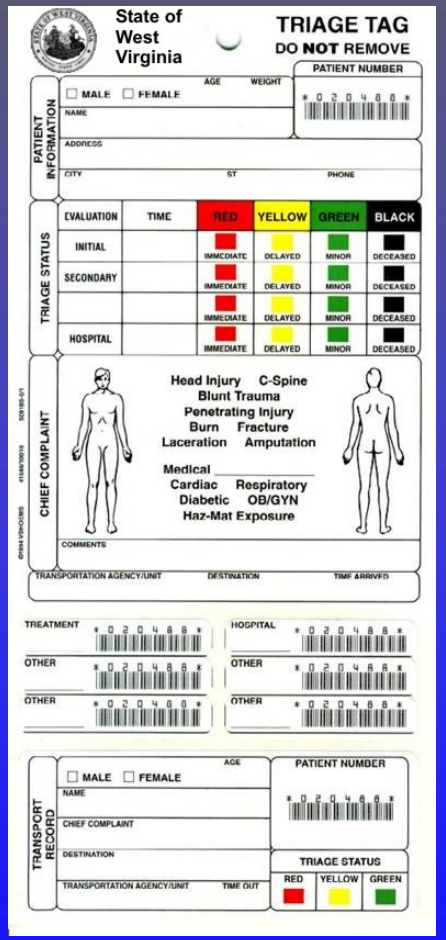
Treatment Phase

- Requires secondary triage

- More in-depth assessment to prioritize patients for treatment and transportation

West Virginia Triage Tag

- Designed to make patient categorization easier
- Provide a continuous documentation tool



Incident Management System

- Expands to meet needs of organizations responding to MCI's
- West Virginia MCI procedures and incident management systems covered in more detail in Module II of the West Virginia Mass Casualty Incident Management Program

ANY QUESTIONS?

WEST VIRGINIA EMS SYSTEM

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Mass Casualty Incident Management

Module II
Operations Level

Student Manual
1st Edition

West Virginia
Department of Health and Human Resources
Bureau for Public Health
Office of Emergency Medical Services

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Mass Casualty Incident Management

Module II
Student Manual
1st Edition

I. Course Introduction.

A. **Course description:** The second in a series of modules taught through the Office of Emergency Medical Services to train providers across West Virginia to handle mass casualty incidents in a standard way. Procedures covered in this class are designed for incidents where there are more injured than available resources. This basic philosophy of an organized approach with clear lines of supervision and careful management of the scene works just as well when there is one patient in one car that has run into one telephone pole.

B. **Course Objectives:** Upon completion of the course, students will be able to:

1. Defines mass casualty incident.
2. Lists the goals of MCI management.
3. Relates the 5-Ss to medical group operations.
4. Identifies the roles in the incident management structure.
5. Describes the key roles in the medical group.
6. Describes the basic responsibilities, tools and tactics for medical group positions.
7. Describes the organization of the medical group.
8. Identifies the focus of extrication, triage, treatment and transportation units.
9. Performs duties in the medical group.

C. **Consistent With:**

1. The medical group structure taught in this course meets the requirements of:

a. National Fire Protection Association Standard 1561.

b. National Interagency Incident Management System.

c. Incident Command System.

d. National Fire Academy Incident Command System.

e. National Consortium Incident Management System.

f. Fireground Command System.

g. ASTM F1288 Mass Casualty Incident.

II. The Problem.

A. **A mass casualty incident:**

1. Generates a large number of the injured.

2. Exceeds system capacity.

3. Unable to use normal procedures.

4. Overloads resources.

B. **Mass casualty defined:** A mass casualty incident is one which generates a sufficient number of injured to exceed a system's capability to deal with the incident using normal procedures and resources.

1. In rural areas with limited resources, a mass casualty incident may be ten trauma patients, while in a large city the total may have to go beyond 50, or even 100, before the system's capability is exceeded.

2. Weather, traffic conditions and a host of other factors may influence what a mass casualty is in a given case.

3. Regardless of the numbers, when it happens, call for help and change the focus of how business is done. MCIs:

a. Forces organizational changes and re-delegates responsibility.

b. Makes organizations share tasks and responsibilities with others using unfamiliar procedures.

c. Brings new responders and response from individuals and organizations that do not usually respond.

d. Crosses jurisdiction boundaries, requiring multiple organizations with overlapping responsibilities to work together.

e. May create new tasks for which no organization or individual traditionally has responsibility.

f. May make the normal tools and facilities used for emergency response unusable.

g. May result in the spontaneous formation of new organizations.

B. **Lessons Learned:** A number of important lessons have been learned from mistakes made in exercises and actual response to mass casualty incidents. Some of the problems experienced:

1. Inadequate alerting.

2. Lack of primary stabilization.

3. Failure to rapidly move patients and collect them all in one place.

4. Inadequate triage.

5. Time consuming care methods.

6. Premature transportation.

7. Improper use of field personnel.

8. No recognizable command.

9. No preplanning.

10. Communication overload and lack of inter-operability.

11. Failure to establish and control staging areas.

12. Convergence (responders, media, public, relatives of involved, etc.).

13. No rescuer accountability.

C. **Goals of MCI Management:** In any mass casualty situation, we have to think a little differently from the normal approach we use in a typical trauma

call. Because we have more patients than we can handle with the people, vehicles, equipment, and supplies at the scene, we have to:

1. **Do the greatest good for the greatest number.** We have to accept that we cannot save some patients because of their condition and the nature of their injuries. At the same time, if we divert the resources we would have needed for the heroic save, we can probably successfully intervene with a larger number of the injured.

2. **Manage scarce resources.** Make the most of your limited number of providers, number of vehicles, equipment and supplies by organizing for their most effective use in delivering care.

3. **Don't relocate the disaster.** Good on-scene management includes distributing an orderly flow of patients to the best hospitals for their needs and keeping the hospitals informed of what is coming and when.

D. **MCI Priorities:** To meet the goals, mass casualty incidents, like any other complex emergency situation, have basic priorities that must be met to guide all actions:

1. Life safety (victim and personnel safety, accountability and welfare).

2. Incident stabilization (efforts to control the incident creating casualties).

3. Property conservation (theirs and yours).

III. Defining the Need.

Defining the EMS needs for the incident sets the stage for the entire response. This includes the hospitals, the medical examiner and the other emergency services on-scene.

A. **S-1- Assess Scene for Safety:** No one else gets hurt. Assess the scene for safety much as you would for a normal response to any EMS incident, except that the scene is much bigger and requires a wider look. The following may pose a hazard: (1) fire, (2) electrical hazards, (3) spilled or contained flammable liquids, (4) hazardous materials, (5) other life threats, including possible secondary devices or indications of weapons of mass destruction (nuclear, chemical, or biological), and (6) debris that pose a threat to rescuers or their vehicles.

B. **S-2 - Scene Size-Up:** How big is the incident and how bad is it?

1. Type of incident.

2. Approximate number of patients.

3. Severity of injuries.

4. Area involved, including problems with scene access.

C. **S-3 - Send Information:**

1. Report situation – contact dispatch with your size-up information.

2. Request assistance - resources and mutual aid, if needed.

3. Notify the Medical Command Center.

D. **S-4 - Set-Up:** Set-up the scene for the best management of mass casualties by on-scene and responding resources, including:

1. Staging.

2. Secure access and egress.

3. Secure adequate space for work areas – **think big.**

   a. Triage.

   b. Treatment.

   c. Transportation.

E. **S-5 - START/JumpSTART Triage:** START is the first point at which we determine the actual medical characteristics of the event - in other words, what are the needs. START is a rapid process that identifies patients based on the severity of their injuries and the likelihood of their survival.

This triage method assures rapid initial assessment of all patients as the basis for assignment to treatment and as the first medical assessment of the incident.

1. Begin where you are.

2. Relocate **green** (minor) patients.

3. Move in orderly pattern.

4. Maintain count.

5. Minimal treatment.

F. **Simple Triage and Rapid Treatment (START) Synopsis:** Because START is the first step in actually assessing the medical characteristics of the incident, it is very important that it work for us. We covered START in detail in Module I, so this is a quick review.

G. **Standard Colors.**

Regardless of whether the color is assigned in START or by secondary triage, the meaning in terms of what we do for the patient and the number of resources it takes to do those things is the same. In addition, the hospitals should understand the relative severity of the incoming patient.

1. **Red** - severely injured, but salvageable with rapid intervention and transportation to the correct facility.

2. **Yellow** - injured, but able to accept a delay in transport without serious deterioration.

3. **Green** - minimally injured.

4. **Black** – dead/non-salvageable.

H. **Basic ground rules are:**

1. **Start triage where you stand.**

2. **Keep an accurate count of the casualties.** The approach that seems to have the best chance of working is to put a piece of surgical tape on the front of your thigh. Mark off each patient as you complete the START process.

3. **Tape everyone.**

4. **Do only minimal treatment** - open the airway and control gross hemorrhage.

5. **Keep moving, quickly!**

6. **Report your results quickly.**

I. **The algorithm:** Each step presumes you go to the next one if the patient does not meet the criteria for assignment of a color.

1. **Mobility assessment.** Loudly ask everyone who can walk to go to a point you specify. Those who can walk are **green**. Have a provider ready to meet them. This assembly point becomes the **green** treatment area.

2. **Respiration assessment.** If the patient breathes after opening the airway, they are **red**. Those breathing more than 30 per minute are **red**. Patients that are not breathing are **black**.

3. **Perfusion assessment.** The absence of a radial pulse is **red**.

4. **Mental assessment.** The inability to follow simple commands is **red**. All other patients are **yellow**.

J. **Secondary Triage.**

1. **Immediate - red:**

   a. Life-threatening injuries/illness.

   b. Risk of asphyxiation or shock is present or imminent.

   c. High probability of survival if treated and transported immediately.

   d. Can be stabilized without requiring constant care or elaborate treatment.

2. **Delayed - yellow:**

   a. Potentially life-threatening injuries/illness.

   b. Severely debilitating injuries/illnesses.

   c. Can withstand a delay in treatment and transportation.

3. **Minor – green:**

   a. Non-life threatening injuries/illnesses.

   b. Patients who require minimum care with minimal risk of deterioration.

4. **Deceased/non-salvageable – black:**

   a. Deceased en-route to the treatment area or upon arrival at treatment area.

   b. Unresponsive, with no circulation; cardiac arrest.

5. **Catastrophically injured – yellow prime:**

   a. Not yet deceased.

   b. Low probability of survival, even with immediate treatment and transport.

   c. Place separately in the **delayed-yellow treatment area**.

   d. Designation noted with a "P" or "///" over the **delayed-yellow triage category.**

   e. Ultimately, it is the decision of the treatment/transportation units to determine when these patients are transported to the hospital.

IV. Incident Management System.

A. An Incident Command or Incident Management System is a standard organizational structure and procedure for managing an emergency scene, whether that scene is one car-one patient-one telephone poll or a 10,000 patient disaster.

1. Incident command evolved out of experiences in the California wildfires in the 1960s and 1970s. In these incidents, the lack of a standard way of responding created chaos and led to needless loss of life and destruction of property. We learned the hard way that agencies with different response organizations and procedures did not work well together when forced to do so in a major emergency. As a result, a standard way was developed to organize and manage resources at the scene and is now in its third generation. This approach has been successfully used in major emergencies across the United States for the past 20 years - it works!

2. A standard approach to incident command/management has solid benefits that will help make response to a mass casualty incident successful:

a. Meets legal and standard requirements. OSHA requires use of an incident command system in any hazardous materials response. NFPA and ASTM Standards set a national standard of practice that includes use of incident command/management.

b. Standard organizational structure.

c. Standard terminology.

d. Clear decision-making authority.

e. "All hazard" incident management system.

f. Allows multiple agencies/jurisdictions to integrate efforts.

B. There are a number of ways of managing an incident that have been widely accepted and are currently used. The system taught in this course is based on the National Consortium Incident Management System and will fit into any of them.

As a medical group worker, there are some core concepts you need to be comfortable with:

1. **One Incident Commander**. There is an Incident Commander who is in charge of resolving the incident. The Incident Commander may operate in a unified command system, a joint command or as a single Incident Commander. Regardless of which system is used, there should be a single person in charge of overall management of the incident. <u>There should not be separate commanders running separate operations for medical, law enforcement, fire, etc., and only the Incident Commander should use the radio call sign **command**.</u>

   a. Accommodates unified command.

   b. One command on radio.

2. **One command post**. <u>There should be **one** incident command post - each agency does not need their own.</u> The Incident Commander and the key staff section chiefs need to operate from that command post. Not everyone needs to be in the command post. Supervisors need to be in the field supervising, and they can keep the command post informed by the radio or a runner.

3. **IMS organization expands as needed.** There is a standard organizational structure. This structure expands or contracts based upon the size of the incident. At a small incident, the Medical Group Supervisor may work directly for the Incident Commander. In a large incident, he may work for the Operations Section Chief or for a Branch Chief within Operations.

4. **May change during incident.**

5. **Sets overall strategy.**

6. **Sees that the big picture is carried out.**

7. **Establishes IMS organization.**

8. **All responsibilities must be handled.** Even though the organizational blocks will vary based on the size of the incident and the people present, all the basic responsibilities must be taken care of. If you are the first-in vehicle, you become Incident Commander with all of the staff functions, Medical Group Supervisor, Triage, Treatment, and Transportation Unit Leaders all rolled into one. The other EMT is happily out doing START triage while you are balancing all the issues of being an incident manager.

9. **Common terminology.** We use common terminology so everyone will understand what jobs we are talking about. Don't get fixated on the names in the organizational chain, but do try to learn and apply them correctly so others will understand. This will be important while running a big incident and people show up from other jurisdictions or regions. In the middle of 200 patients and a host of rescuers is not the time to educate someone on roles of the Transportation Unit Leader.

10. **Addresses span of control.** The whole system is designed to establish a manageable span of control for supervisors. You work for one person only, and you have a reasonable number of people working for you. The range of 3 to 7 people reporting to a leader or supervisor is normally used. With a fully staffed medical group, the Medical Group Supervisor has four people working for him or her.

11. **Reduces communications load.** Along with controlling the span of control, the system is designed to reduce radio use. Only Unit Leaders, the Medical Communications Manager, and the Medical Group Supervisor need to be on tactical medical frequencies. By using standard call signs (set out in the Response Guide) and

disciplined radio procedures, we have the best chance of making our communications work for us.

C. The Incident Commander's job is to set overall strategy for resolving the incident and to make sure that strategy is carried through to the best possible solution under the conditions. The Incident Commander manages the broad sweep of the incident. At a large incident, he or she will have a full staff. At a small incident, the Incident Commander may have just himself to deal with all the issues not being taken care of by the hands-on-workers. Command has these basic responsibilities:

1. **Life safety.**

   a. Victim and personnel safety.

   b. Accountability.

   c. Welfare.

2. **Incident stabilization.**

3. **Property conservation.**

D. The first unit arriving on the incident scene establishes command. EMS personnel will not normally serve as the Incident Commander. Our focus is taking care of the patients. We are more effective if we concentrate where our skills will have the greatest payoff and let someone else concentrate on integrating the incident. However, as the first-in medical unit, you may be the first responder on the scene. You are now the Incident Commander until relieved. The Response Guide has a specific checklist for this situation. In the first few minutes, this means:

1. **Assume command.**

2. **Announce you have command.** This includes transmitting identification, assuming command and giving the location. For example, “This is Medic 11, I am assuming command as 17th Street Command.

3. **Make an initial assessment and pass it to dispatch**. This is a little broader than the first two Ss of the Five Ss. Now you have to look at the overall incident, not just the medical problem.

4. **Control communications.**

5. **Identify what has to be done to control the incident and start the actions to do so.**

E. If you are the First Incident Commander, be ready to hand-off command when additional responders arrive. Some basic rules for the transition:

1. Face-to-face handoff is preferred whenever possible.

2. Give a good briefing - include:

a. What the situation is.

b. What resources are on-scene.

c. What actions have been taken.

d. Resources responding.

F. **Formal acknowledgement.** Formally make the transfer. Someone needs to say "I have command" and make a radio announcement to all that command has changed.

G. **Unified Command.** A method for all agencies or individuals who have jurisdictional responsibility, and in some cases, those who have functional responsibility at the incident to contribute to:

1. Determining overall objectives for the incident.

2. Selection of a strategy to achieve the objectives.

H. **Incident Commander.** May receive input in establishing overall strategy from other agencies/jurisdictions involved in the incident.

I. **Safety Officer.** A key player in the incident is the Safety Officer. Safety Officers should be moving about the incident scene identifying and correcting hazards. The Safety Officer has the Incident Commander's authority to stop operations, if necessary, to solve the problem. As a practical matter, the Safety Officer will probably concentrate on the hazards he or she understands from their own discipline. This means that all leaders on the EMS side need to be attuned to safety problems. If you see a problem developing, be proactive and ask the Safety Officer to get involved.

J. **Sections in Summary:** The four sections each manage a major functional area of a response to an incident. The individual in charge of a Section is called a Section Chief. Section Chiefs work for the Incident Commander.

The Incident Commander sets the overall strategy for the incident and the Section Chiefs work to carry out that strategy.

1. **Operations Section:** The Operations Section manages actual operations to control the hazards, rescue victims and prevent further damage and injury. Operations assign resources and direct tactics to carry out the incident strategy. Operations is present at every incident.

2. **Logistics Section:** The Logistics Section is responsible for supporting Operations by providing the equipment, supplies and support to people needed to get the job done. Logistics is normally the second major function established after Operations in any large incident because there is always a need to manage the stockpile of resources and to obtain additional resources as needed (meals, blankets, radio batteries, or etc.).

3. **Plans Section:** The Plans Section monitors the overall situation at large incidents and develops actual written incident action plans for operations on the next shift. At smaller incidents, Plans will monitor the status of response resources and the development of the emergency situation to keep Operations and the Incident Commander informed.

4. **Administration/Finance Section:** The Administration and Finance Section's work is usually done by the department's financial staff off-site as part of their normal duties, so it is rare to see this section operating at any incident smaller than a major incident. Finance ensures the cost of the operation is well documented for budgetary and reimbursement reasons.

K. Organization underneath the Operations Section Chief may be very flexible in order to deal with the characteristics of the incident. These units are led by individuals called Supervisors (for the Division or Group) or Directors (for Branches).

1. **Resources may be organized by:**

   a. **Divisions** (areas covered). An example of this is a floor in a high rise fire or the west side of the runway in an aircraft accident. Divisions are lettered A, B, C, D, etc., except in buildings where they are numbered by the floor.

   b. **Groups** (by the function being done). Examples would include a Law Enforcement Group or Fire Suppression Group.

   c. **Sectors.** This term may be used interchangeably with Division or Group.

d. **Branches.** In very large incidents, the Operations Section could be split into Branches to make it easier to supervise the work.

2. The Medical Group will normally be assigned to work under the Operations Section Chief. In a very large incident, a Branch structure could be established, and the Medical Group would be assigned to work for a Branch Director.

L. To make it easier to understand where each position fits within the organization, standard distinctive titles have been assigned to each level:

1. **Incident Commander** - command level.

2. **Officer** - individuals assigned to assist the Incident Commander in specialized safety, liaison, and public information roles.

3. **Chief** - the four section chiefs (Plans, Operations, Logistics and Finance).

4. **Director** - head of a Branch within Operations.

5. **Supervisor** - head of a Group, Division or Sector.

6. **Leader** - head of a Unit within a Group or Division (such as the Medical Group or a Strike Team or Task Force - two types of tactical units.)

7. **Manager** - someone who manages a number of resources or a specific staff function.

V. Leader/Supervisor Roles.

Regardless of the position you fill in the Medical Group, you are faced with some part of the same basic problem - a large number of patients and scarce resources. Resources include providers, supplies and equipment, ambulances and time.

A. **Prioritize:**

1. Given the situation, you must determine:

a. What do I have to do to bring this to a successful close?

b. What are the show stoppers - things that will cause it to grind to a halt unless I do them?

c. What order do I have to do things in?

2. Based on your answers, some things will be more important than others. Those will need more of your attention and some things will have to be done in a certain order. The combination gives you an action plan.

3. For large incidents, we recommend you write the plan down.

B. **Tactical Decisions:**

1. The Incident Commander sets strategy. Strategy is:

a. Broad priorities of what has to be done to deal with the entire scope of the incident.

b. Along with the assignment of types and amounts of resources and time to each priority.

c. And measurements of success.

2. At the Medical Group level, we are dealing with tactics:

a. Specific decisions on where to put resources.

b. What tasks they will undertake.

c. How to do those tasks.

d. The outcome.

3. Using the priorities you have set, the Response Guide Checklists and the tactical considerations (presented later in the course), you make the basic tactical decisions that get the strategy accomplished.

C. **Assign Resources:** Based on your priorities and tactics, you assign the resources the Incident Commander has given you to specific assignments. Some guidelines for resource assignment:

1. Maintain unit integrity. Try not to split up crews. There will have to be some of that early in an incident, but as soon as resources start arriving, regroup and get people back to working in their normal teams.

2. Assign based on competence and capability. Capability includes both the right training and the right gear needed. Don't make assignments based on politics, rank or personal favoritism.

3. Put enough people on the ground to get the job done. This can be tough when resources are limited, but there are some areas in which there aren't enough people to do the job quickly or safely. The best example is portering. Another example is establishing a treatment area but not staffing it.

D. **Evaluate Progress:** As a leader or supervisor, you are responsible for carrying out tactics and strategy. Both the strategic decisions at the Incident Commander level and the tactical decisions at the Medical Group and Unit levels are tied to measurements of success. Continually check to make sure you are on track to meet the measurement.

For example: In an incident with 30 patients and two people assigned to do initial START, the measure may be:

1. Complete START in 20 minutes.

2. Watch your people. They should be about halfway through the patients in 10 minutes. If you don't have a triage report of **reds, yellows, and greens** at 22 or 23 minutes, you have a problem.

E. **Intervene:** If the incident is not moving forward, don't let the lack of progress continue. You have to intervene as soon as you can tell a problem is developing in order to get things back on track. Incidents don't get better with benign neglect.

1. Intervening is not screaming and shouting at some overstressed and overworked EMT doing this for the first time.

2. Intervening is:

   a. A quick conference to determine what the problem is and **help** the leader get things back on track with advice.

   b. Sending more resources if needed.

   c. Sending an assistant to watch the leader's back and help cover the load.

   d. And in the worst case, sending a relief. Judge this carefully to avoid creating a personal failure, but sometimes you have to

pull the plug on someone who has not adequately been prepared to do the job.

F. **Reassign Resources:**

1. When tasks are completed, move people to other tasks. This is a cultural change as people are used to treating a patient and then going to the hospital. You need people to complete an assignment and come back to you to be reassigned to another task.

2. There is a natural flow in the incident which follows the basic patient flow.

   a. Triage and Portering are staffed heavily early to classify the patients and get them moving to the Treatment area. The Treatment Unit is lightly staffed.

   b. As patients begin arriving in the Treatment area, the Treatment staff increases to meet the demand.

   c. As patients are cleared for transport, the waiting ambulances must be staffed. This gradually draws down the staff in the Treatment Area as the number of patients decrease.

G. **Coordinate:** Extrication, Triage, Treatment and Transportation Units are all interrelated. The Unit Leaders must work laterally and talk together to ensure that what one is doing doesn't make life difficult for the others. The natural reaction is to focus in on your part of the problem and concentrate on doing what you think is right to solve it. Don't get tunnel vision - as a leader you need to have the big picture.

H. **Safety/Accountability:** Although there is an incident Safety Officer, everyone needs to worry about safety. Some areas for concern:

1. **Physical condition of the rescuers.** Porters especially are prone to rapid exhaustion. Watch your people to make certain they are not in trouble from heat, cold, dehydration, or muscle or joint injuries. Enforce good lifting practices and a buddy system.

2. **Stress.** For long incidents, set-up a rehab rotation and pull people, preferably by unit, in order to give them a rest. If there are a lot of **blacks**, you need to monitor stress levels of the people who work in the patient field, the Triage staff and the porters.

3. **Biohazard**. Make certain people follow universal precautions from the start. Watch out for environmental sharps (the wreckage) as well as for medical ones.

4. **Moving Vehicles.** With a high noise level and problem fixation, people just do not notice other moving emergency vehicles. Don't rush around vehicles and do not move patients to loading until the ambulance has stopped.

5. Insure the use of an **established accountability system** (tag, passport, etc.).

I. The transition from treating patients as part of a two-person team into managing a large incident is a hard jump to make. In EMS, we are used to coming in, doing heroic things, putting the patient in our ambulance and leaving. We are not used to being hands-off or to being on-scene for a long period of time. If we are senior people, we really don't feel comfortable letting junior, less qualified people handle patients. Some important points:

1. **You can't do it all.** There are just too many patients, too many things to do and too little time to do it in.

2. **A good scene saves patients.** By making the scene work well, you are probably doing the single most important thing to save patients. Good organization will make things work more quickly. Mass casualty incidents eat up the Golden Hour rapidly, especially once you start having to cycle ambulances for multiple trips to a distant hospital. Being able to get the right patients out in the best sequence gives everyone the best chance of survival.

3. **Good assignments mean good care.** By assigning staff carefully to treatment functions, you ensure the best level of care that can be provided under the circumstances. While we would probably like to have every patient treated by two paramedics, a junior EMT Basic just certified last week will probably do just fine as a member of a BLS procedure team.

VI. Concepts, Responsibilities and Tools.

A. **Patient Flow:** Everyone has a responsibility to make the patient flow work smoothly. At the incident scene:

1. All casualties are accounted for and trapped casualties are rescued or extricated.

a. Patients are counted and quickly triaged using START.

b. Triage ribbons are applied.

c. Ambulatory patients are directed to a medically supervised site.

d. Non-ambulatory patients are moved from the impact area to the Treatment Area by Porters. If decontamination is needed, this should be done prior to portering as part of a normal hot, warm, cold hazardous materials procedure.

2. **At the Treatment Area:**

a. Patients arriving from the impact area are prioritized for treatment using secondary triage.

b. Patients are placed in the appropriate color treatment area and given stabilizing care based on their triage priority.

c. Resources are allocated to patients based on triage priority.

d. Patients are regularly re-triaged and a new color code applied, if needed.

e. The Medical Command Center starts coordination for the best patient distribution to area hospitals based on triage priorities.

f. Patients move from the Treatment Area to the Transportation Area by portering.

3. **At the Transportation Area:**

a. Transportation decisions are made based on triage priority.

b. Patients are transported to the right medical facility by the right means in the right time. Care is provided en route, along with regular reassessment.

B. **Staging:** In addition to the patient flow, we also have to manage the resource flow to ensure we don't overload limited roadways and parking areas. At the Operations Section, a Staging Area will be established for resources waiting to enter the incident scene. However, in mass casualty incidents, the need for frequent movement of ambulances through the Medical Group and the unique flow of ambulance operations may require a special Ambulance Staging Area.

1. Establish away from the immediate scene. It should:

a. Be large enough to handle the expected number of vehicles.

b. Have easy access and egress.

c. Be close to main transportation routes.

d. Have easy access to where medical operations are being conducted.

2. The location of the Ambulance Staging Area must be communicated to incoming units.

3. Vehicles in the Ambulance Staging Area must be staffed for immediate use. As a minimum, drivers must remain at the vehicles.

C. **Common Responsibilities for All Positions:**

1. **Chose the best possible location for your function.** This means:

a. Safe from hazards.

b. In a location that fits into a logical flow of patients from the scene to outgoing transportation. Try to minimize distances. If you are moving patients, the extra walk is extra fatigue. If you are a supervisor, the distance makes it harder to see what is happening, to communicate, and to stay on top of the event.

c. With a view. You need to be able to see what is happening, and your function needs to be seen so others can quickly locate you.

2. **Put on the position vest.** Vests are key to quick identification of supervisory personnel on-scene.

3. **Use the Response Guide Checklist for your position.** Under stress, it will help you remember to do all the vital tasks that need to get done.

4. **Use the Tactical Worksheet for your position.** It helps to organize your thoughts, record key information and keep track of resources.

5. **Keep your supervisor informed with regular reports.** He or she will tell you when information is no longer needed.

6. **Keep your personnel informed.** Pass information and guidance to the workers who need it. It is particularly important that everyone understand the goals for the incident and what incident command's strategy is for the situation.

7. **Limit radio use.** Use the radio when needed, but limit radio transmissions to what is really necessary. Use the standard call signs for the positions as noted in the Response Guide. In a major incident, communications always get swamped. If possible, make face-to-face contact to receive or give reports, coordinate action, etc. Nothing is sillier than seeing people ten feet apart looking at each other **and** talking to each other on their radios. And remember, not everyone needs a radio.

8. **Monitor your personnel.** Consider breaks and rehab as necessary. Consider CISM as appropriate.

D. Common Tools for All Positions

1. **Vests:** Each key position should have a color-coded vest with the name of the position clearly visible on the vest. There are a wide variety of vests available on the market, but there is considerable variety in the titles and a tendency to overuse orange as the basic color. Try to use vests that are distinctive in color (blue seems to be a good choice) and use the standard duty titles in the Response Guide. If possible, get vests with reflective tape behind the job title so they can be seen better at night. It is also a good idea to reduce the checklist from the Response Guide for that position, laminate it, and attach it to the vest on a lanyard.

2. **Response Guide:** The Response Guide provides standard checklists for each key position, as well as general first-in checklists.

    a. Each step is provided with a blank to check-off completion or write in the time action was taken.

    b. Beneath the title is the radio call sign for the position.

    c. There is an **objective** statement – a quick reminder of why you are doing the job.

    d. In case you have forgotten where you fit in the organizational tree, there is a **works for** block.

    e. We suggest you laminate these so you can use a grease pencil to check, write, or otherwise keep track of what you have done.

After the incident, consider making a record copy of the checklist before erasing to attach as part of your incident documentation.

3. **Tactical Worksheets:** Tactical Worksheets are a basic tool for incident management - use them to record information, track resources, etc.

   a. The worksheet is designed with enough space to allow you to write in the block with additional space to make diagrams as needed.

   b. There is a separate worksheet for each key position.

   c. There is a complete set of instructions on the back of each sheet.

   d. For all-weather use, the worksheet can be laminated to be used with grease pencils.

4. **Communications:** Adequate communications on-scene is a major problem in virtually every incident. Some basic thoughts:

   a. Stay off the radio if you don't need to be talking. Do as much face-to-face as possible.

   b. Have common frequencies.

   c. Don't assume that because you said something on an EMS radio the Incident Commander knows about it. He or she is probably on a different frequency. Make sure you can bridge important information from one system to the other.

   d. Big incidents eat batteries - have lots of spares and have them marked clearly as to which radio they fit.

   e. Make sure you can talk to incoming air medical helicopters.

   f. Have cellular phones available, but do not rely on them as a primary communications means. It is a good idea to have a phone book available.

VII. The Medical Group Supervisor.

A. Responsible for:

1. Triage, treatment, transportation and extrication.

B. Talks to the Incident Commander and Operations Section Chief.

C. Communicates face-to-face when possible.

D. Chooses where to set-up.

E. Stays ahead of the resource problem.

F. Monitors patient flow.

VIII. Extrication Unit.

A. Responsible for finding and removing all victims to a safe location, hazard control and “triage decision.”

B. Talks to medical and triage personnel.

C. Communicates face-to-face when possible.

D. Stays ahead of the resource problem.

E. Monitors scene safety (hot, warm, cold concept).

1. If conditions are too hazardous, extrication operations may be suspended until the hazards can be controlled.

2. If conditions are acceptable for extrication personnel to work in, but too hazardous for medical personnel, the Extrication Unit will bring patients out of the hot area, through decontamination in a warm area, to the Triage Unit’s personnel waiting at the border of the cold area.

3. If there are no unique hazards, extrication, triage teams and porters will work in the impact area. In some cases, the Extrication personnel may request support from the Treatment Area to support a patient during the extrication process.

F. Is it safe to triage on-scene?

1. Who does triage – where and when?

G. Extrication changes the medical problem.

1. Flow slows after the initial rush. Patient flow may slow down dramatically after the initial rush of patients who have either been able to walk away or who rescuers have reached without needing extrication help.

2. Patients may be in worse shape. Patients extricated may tend to be in worse shape because they have been in the midst of the problem and their treatment has been delayed.

3. Longer on-scene time. The Medical Group will be on-scene longer than in a simpler incident. Issues such as shift replacements, meals, prolonged heat or cold exposure, changes in lighting needs, etc. will begin to become important.

4. Transition to mass fatality. At some point, you will stop getting survivors. There will need to be a smooth change from the mass casualty incident to the mass fatality incident. These two responses may be going on side-by-side for some time.

IX. Triage Unit.

A. Responsible for START triage of all patients, initial patient count and the movement of patients to a treatment area.

B. Talks to the Medical, Extrication and Treatment Units.

C. Communicates face-to-face when possible.

D. Establishes Triage and Porter Teams.

E. Stays ahead of the resource problem.

F. Monitors patient flow.

G. Porters patients as soon as possible. If Porters are available, they should work behind the Triage Teams to begin clearing the scene while the Triage Unit is working through the patient fields.

1. If the patients are scattered within easy access to the scene, porter the patients based on priority of the color code.

2. In tightly packed patient fields or in limited access areas (such as the inside a train or aircraft), remove the patients in the order in which the porters come to them. Don't delay moving a **yellow** patient just because there is a **red** patient you might get to in 5 minutes.

3. The urgency of portering and the resources devoted to it increase if the weather is bad and the patients can be moved under shelter.

4. Proper loading of patients on boards for portering is important. Each patient on the board should be secured with chest, hip and above the knee strapping and be carried feet first by at least four porters.

X. Treatment Unit.

A. Responsible for secondary triage, treatment and "transportation decisions."

B. Talks to Medical, Triage and Transportation Units.

C. Communicates face-to-face when possible.

D. Chooses where to set-up.

E. Stays ahead of the resource problem.

F. Monitors patient flow.

1. **Red area.** The **red** area receives, assesses, treats and prioritizes transport of **red** patients. Because these are the most severely injured patients, the highest ratio of personnel and equipment resources per patient will be assigned to the **red** area. Personnel assigned will be the most qualified providers available.

2. **Yellow area.** The **yellow** area receives, assesses, treats and prioritizes transport of **yellow** patients. These patients typically have injuries that allow their treatment and transport to be delayed until the **red** patients can be cleared. However, **yellow** patients can still be badly injured and will require treatment and reasonably rapid transport.

3. **Green area.** The **green** area receives, assesses, treats and prioritizes transport of **green** patients. These patients typically have minor injuries that can be treated by self-care or by minimal interventions. **Green** patients provide a significant challenge as:

a. There may be a lot of them.

b. They are ambulatory, which means you have a control and accountability problem. Delays may cause them to self-evacuate.

4. **Black area.** A black area will normally only be established if patients die in the Treatment Unit. The Fatality Manager from the Triage Unit will supervise the **black** area.

5. **Medical Supply.** Medical supply is a critical function and is not done well at times. Limited resources include limited stocks of soft goods, IVS, backboards, etc. The Medical Supply Manager's job is to:

a. Gather supplies that can be safely stripped from incoming ambulances or staging areas and relocate them so the **red** and **yellow** areas can access them. Coordinate with the Ambulance Staging Manager who works for the Transportation Unit Leader. Don't take ambulance cots off the vehicles or leave the rig with nothing to use to support the patient during transport, but do look at:

(1) Disaster boxes (if they have them).

(2) Backboards and straps.

(3) Splints.

(4) Blankets.

(5) Portable oxygen equipment.

(6) Airway equipment.

(7) Bandages and dressings.

(8) IV sets.

b. Manage this cache along with the contents of a disaster truck or trailer to ensure that providers get what they need and supplies aren't wasted.

c. Identify shortfalls and request Logistic's help through the Medical Group Supervisor.

G. Layout of the Treatment Area.

1. Location is everything.

2. How much space do you need?

   a. Is it near enough to the impact area to reduce portering efforts?

   b. Is it far enough away from the impact area to be out of any hazards or debris field?

   c. Is it easily accessible to transportation?

3. Relationship between areas.

   a. Enough physical space with good lighting.

4. Alternate layouts or locations.

   a. Appropriate shelter for conditions.

5. **Red** and **yellow** areas need to be placed next to each other with room to expand. The proximity allows rapid transfer of patients if there is a change (up or down) in category.

6. The **green** should be separated, if for no other reason, than for the psychological health of the patients. However, don't put the area too far away in the event a patient is upgraded. Remember that by using the START method, the **green** area will be the first to receive patients. The initial decision of where to have the patients walk establishes the **green** area, and should, therefore, be made with some care.

7. The **black** should also be separated in an area easily supervised to ensure protection and chain-of-custody of the remains.

H. Computing the space needed. How big an area do you need for a backboard? The absolute minimum values are:

1. Backboard - 6 feet by 18 inches.

2. Add 18 inches on each side - 6 feet plus 3 feet, or 9 feet long and 18 inches plus 3 feet, or 4.5 feet wide.

3. Total space - 40.5 square feet.

4. A large tarpaulin is 24 by 36 feet, or 864 square feet, and can carry approximately 20 backboards.

I. Consider a treatment area layout that uses the tarp as the center of the area and has the backboards positioned around the outside, head in. Advantages are:

1. The center area becomes the working area for the Procedure Teams.

2. The supply cache is easily accessible by all of the providers working the area because it is centrally located.

3. One piece of equipment can serve multiple patients.

J. The treatment area does not have to be on a nice, flat, open area. Don't limit your thinking. Depending on the situation, the treatment area may be located in a variety of other locations such as:

1. Under any shelter (bus, large vehicle) that would protect against the wind, rain and snow. Don't complicate the patient's condition by exposing them to hypothermia or sunburn.

2. Undercover in the event of a terrorist incident. This may include the inside of a building or a screened area that blocks public view.

K. Secondary triage happens in the treatment area. Secondary triage is the point at which the triage tag is put on the patient. It is handled in three ways.

1. If there are enough providers, assign the senior ALS provider as a secondary triage officer at the entry to the treatment area. This individual checks the START triage and makes a clinical assessment of correctness of the color code at this point in time. When the secondary triage officer is in place, all patients are seen by him or her.

2. If there are only a few providers, secondary triage is done by the leader of the area to which the patient is first taken based upon their START assessment. For example, a **red** patient is assessed by the **red** treatment area leader.

3. Triage is a continuous process. Patients in the treatment areas should be reassessed on a regular basis by every provider who comes in contact with them, including both the area leader and procedure team members.

L. Staffing.

1. Staffing is initially based on availability. The first priority is to place a provider in each area (ALS in red, ALS in yellow (if possible), and BLS in green). If patients are headed to the treatment areas, there must be providers available to meet their immediate needs.

2. As more resources become available, move toward:

   a. 1 ALS provider for every 2-3 red patients.

   b. 1 ALS provider for every 3-4 yellow patients.

   c. 1 BLS provider for every 5 green patients.

3. The Response Guide provides an ideal assignment ratio. This ratio may not be achievable in a rural area and not until well into an incident in an urban area:

   a. 1 ALS and 1 BLS provider for each red patient.

   b. 1 BLS provider per yellow patient and 1 ALS per 3 yellow patients.

   c. 1 BLS provider per 3 green patients.

M. Procedure teams offer an effective way to maximize the care you can give with a limited number of providers.

1. ALS procedure teams - 2 ALS providers - do airways and IVs.

2. BLS procedure teams - 3 BLS providers - do immobilization, splinting and bandaging.

3. Procedure teams are formed after you have a provider assigned as a leader in each area. Then the priorities become:

   a. ALS Team in each area - red and yellow.

   b. BLS Team in each area - red, yellow and green.

4. When working with procedure teams, the area leader checks secondary triage, prioritizes patients and assigns resources.

N. Special Situations. Certain types of patients will require resources greater than their injuries would indicate. This may result from safety or mobility needs of the patient, from their potential disruptiveness, or from their impact on the providers. Consider early transportation to get them off-site to free up resources. Include in this category:

1. Unaccompanied small children.

2. Sensory impaired patients, including both vision and hearing impaired.

3. Emotionally disturbed patients.

4. Medical patients who are also trauma patients.

5. Injured rescuers.

6. Non-English speaking persons.

O. The right person at the right time – the right method of transportation – the right facility.

1. These decisions are made by the Treatment and Transportation Units combined.

P. The first part of the transportation function happens in the treatment area where the decision is made on which patients should be moved first.

1. In general, all **red** patients should be moved before any **yellow** patient is moved. Traditionally all **yellow** patients should be moved before any **green** patient is moved. And all **green** patients should be moved before the first **black** patient is moved. This logic still applies, but with some exceptions.

2. First, we all recognize that some **red** patients will be in more serious condition and should be moved first and some **yellow** patients are borderline **green**. The treatment unit leader and the red and yellow area leaders should be prioritizing the colors that each patient needs to move to next, know who those patients are, and be ready to move them to transportation.

3. Second, if resources are available, consider getting the **green** patients off the ground early. Early movement saves them the psychological effects of being exposed for a long time to the disaster site, sounds, smells, death and destruction. It also helps keep minimally injured patients from going sour due to neglect of slow moving and relatively difficult to detect problems.

4. Third, in a world of instant television response, there is great pressure for near real time identification of the deceased. This may drive a faster fatality management response, and medical examiner resources may start moving **black** patients to the morgue while the living are being moved.

5. Always ask the basic question "do we need a treatment area?" Balance the number of patients, providers and ambulances. If you have 10 patients, 10 ambulances, and 20 providers, why not load and go rather than establishing the treatment area?

XI. Transportation Unit.

A. Responsible for medical communications, patient tracking, ambulance staging, air ambulance coordination and transportation decisions.

B. Talk to medical, treatment, ambulance staging and air ambulance coordination.

C. Assigns medical communication, transport recorder, transport loaders, ambulance staging, air ambulance coordination and porters.

D. Communicate face-to-face whenever possible.

E. Choose where to set up. The transportation unit sets up next to treatment area so that patients coming out of the **red** or **yellow** areas can be portered easily to a loading point. However, there are some criteria you have to consider:

1. Safe separation from vehicles. Patients and providers need to be clearly separated from moving vehicles while in the treatment area. When the patients move to the transportation area, there still must be a safe area for loading so that someone doesn't step back without thinking and get clobbered by a fire truck.

2. Gases. Ambulances idling in place are great producers of carbon monoxide. If the patients are already hypoxic, it doesn't do them any good to further loose oxygen capacity to carbon monoxide. Loading ambulances should be upwind (if possible) and far enough away that air movement will disperse the gas.

3. Be careful about moving ambulances off an identified road to get to a transportation area, especially in soft or wet ground.

4. Access and egress. The transportation unit leader needs to determine a desired traffic flow and keep the inbound ambulances and the operations section chief informed.

   a. Ideally, ambulances come up one road to the site and depart on a different road.

   b. Don't let ambulances get blocked in by other emergency vehicles. Most other responders come to the scene, park their vehicles, and operate from one place for the entire incident. Ambulances move in and out constantly. The other people on scene don't necessarily understand this and see nothing wrong with parking on both sides of the pavement.

F. Stay ahead of the resource problem.

G. Monitor patient flow.

H. Ambulance staging area. The ambulance staging manager is the key resource manager for ground transportation vehicles.

   1. Establish ambulance staging early.

      a. Keep the status and types of vehicles in the ambulance staging area up-to-date and provide vehicles, personnel, and equipment from the ambulance staging area when requested.

      b. Inform the transportation unit leader when additional ambulances will be needed, based on what is available in the staging area.

I. Medical communications is the field's link to the hospital and should be filled by an experienced radio operator. The medical communications manager:

   1. Establishes contact with the command hospital as soon as possible.

   2. Keeps the hospital updated on the situation, number of patients, etc. and updates the transportation unit leader on hospital capacity.

   3. Coordinates transportation decisions with the command hospital and obtains destination instructions for each ambulance.

J. The transportation recorder has the job that will most likely result in public criticism of the response. The transportation recorder must keep an absolutely perfect log of what patients were sent to what facilities - do not let

a patient get lost in the system. The recorder works closely with the medical communications manager to keep the hospitals informed of:

1. Unit transporting.

2. Number of patients.

3. Patient information in order of priority. In large incidents, the hospital will probably only want triage color codes:

    a. Triage category.

    b. Major injury.

    c. Age/sex.

    d. Triage tag number.

4. Estimated time of arrival.

K. Transportation loaders are field expediters. Their job is to ensure the right patient is on board and that the ambulance crew knows how to get to the destination hospital. This includes having maps and direction sheets for all area hospitals.

L. Air ambulances: The ambulance coordinator manages the operation with the greatest accident potential on-site. He or she establishes the helicopter landing zone, provides landing information to flight crews, and keeps people on the ground away from the aircraft. The air ambulance coordinator tracks the helicopter resources available and inbound to the scene, much as the staging officer keeps track of ground vehicles.

M. Porters are used to carry patients on backboards. A minimum of four should be used for each patient.

N. Transportation considerations:

1. Number and triage status of patients.

2. Number, staffing (BLS/ALS/special) and capacity of transport units.

3. Number and capacity of hospitals.

4. Distance and time to hospitals.

5. Special patients.

WEST VIRGINIA MASS CASUALTY INCIDENT MANAGEMENT
Module II

OPERATIONS LEVEL

WEST VIRGINIA EMS SYSTEM

Version: 1

OBJECTIVES

- Define mass casualty incident
- List the goals of MCI management
- Relate 5-S to Medical Group operations
- Identify the roles in the incident management structure
- Describe the key roles in the Medical Group

OBJECTIVES

- **Describe basic responsibilities, tools, and tactics for medical group positions**
- **Describe the organization of the Medical Group**
- **Identify the focus of Extrication, Triage, Treatment and Transportation Units**
- **Perform duties in the Medical Group**

CONSISTENT WITH:

- **NFPA 1561 Incident Management System**
- **NIIMS Incident Command System**
- **NFA Incident Command System**

CONSISTENT WITH:

- **Fireground Command System**
- **ASTM F1288 Mass Casualty Incident**
- **West Virginia Protocols**

MASS CASUALTY INCIDENT

- Generates a large number of injured
- Exceeds system capacity

- Can't use normal procedures
- Overloads resources

MCIs

- Force organizational changes
- Task and responsibility sharing
- New responders
- Cross jurisdiction boundaries

- Create new tasks
- Normal facilities or tools unusable
- New organizations emerge

LESSONS LEARNED (the hard way)

- **Inadequate alerting**
- **Lack of primary stabilization**
- **Failure to rapidly move patients & collect them in one place**
- **Inadequate triage**
- **Time consuming care methods**
- **Premature transportation**

LESSONS LEARNED (the hard way)

- Improper use of field personnel
- No recognizable command
- No preplanning
- Communications overload, lack of inter-operability
- Failure to establish & control staging
- Convergence (responders, media, public, relatives of involved, etc.)
- No rescuer accountability

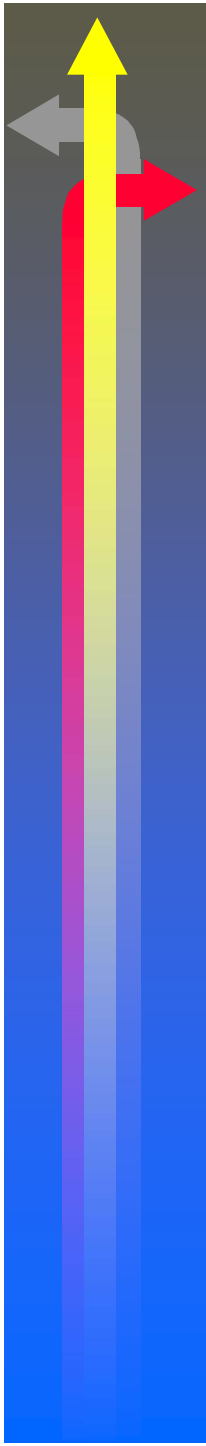
GOALS OF MCI MANAGEMENT

- **Do the Greatest good for greatest number!**
- **Manage scarce resources!**
- **Don’t relocate the disaster!**

MCI PRIORITIES

- Life Safety
  - victim & personnel safety
  - accountability
  - welfare

- Incident Stabilization
- Property Conservation

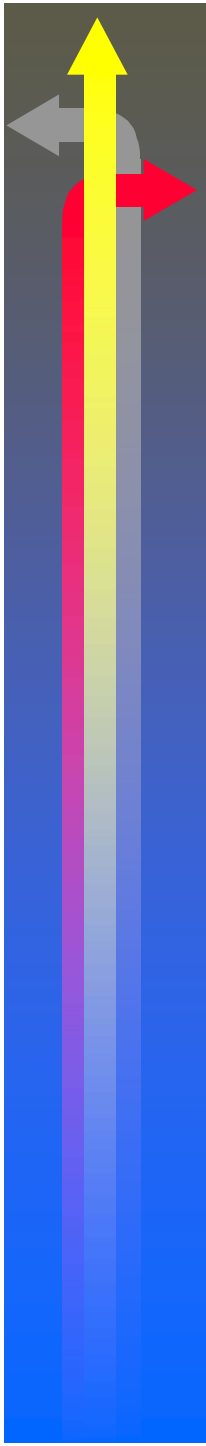


DEFINING THE NEED

A DARK AND STORMY NIGHT

- **You respond to a traffic collision on River Road (2-lane road). On arrival you see:**

- **A van partly crushed by a tractor trailer**
- **No flares are out - 7 cars have stopped**
- **2 other cars are involved in the crash**
- **5 passengers are out of the cars - all injured**
- **You can see at least 4 others trapped**
- **Tractor trailer driver is covered in blood**



THE 5-S STEPS

1. **SAFETY**
2. **SCENE SIZE-UP**
3. **SEND INFORMATION**
4. **SET-UP**
5. **START/JumpSTART**

START

- **The first step in assessing the medical characteristics of the incident.**

START - STANDARD COLOR CODES

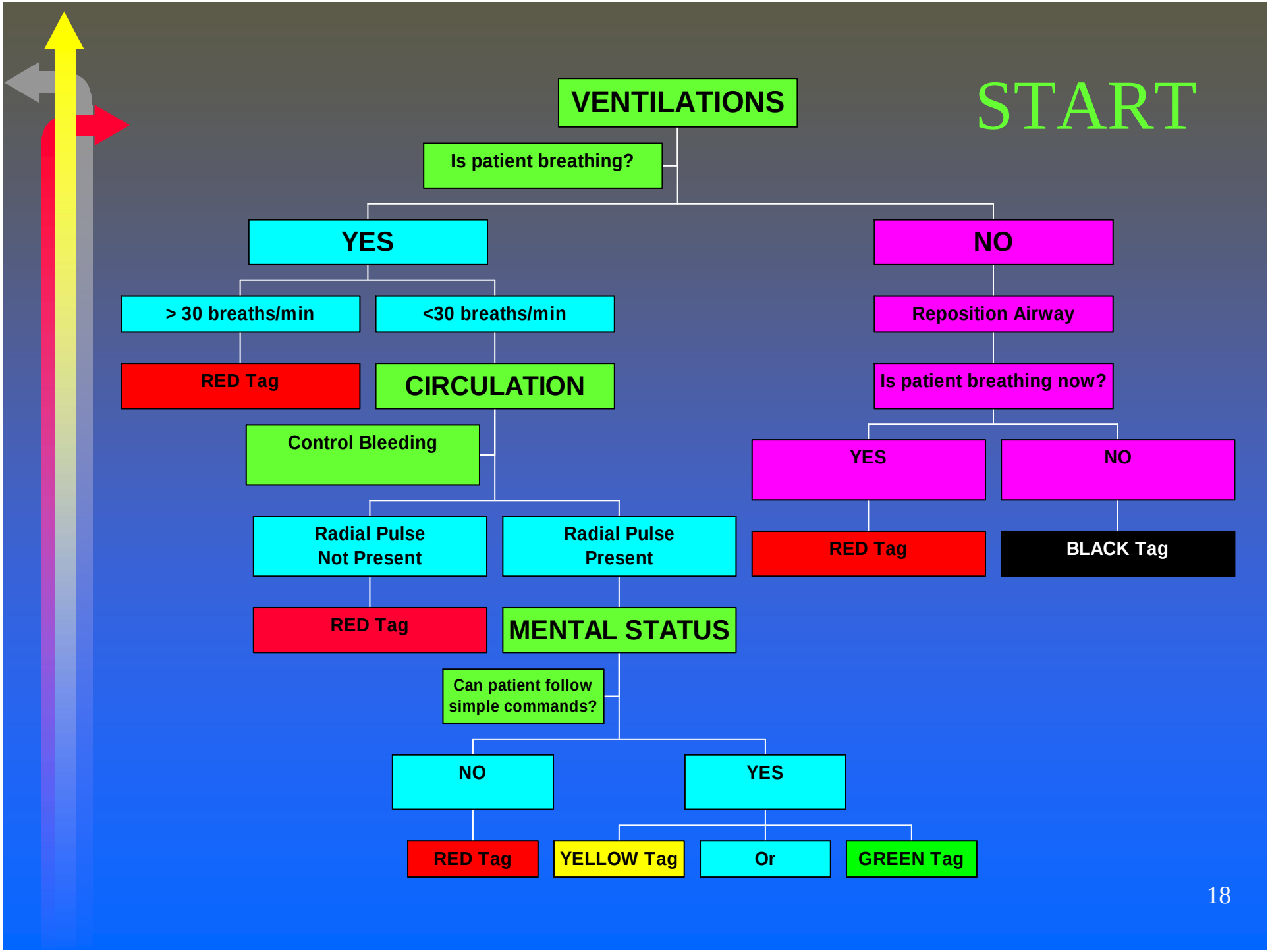
- **RED**
- **YELLOW**
- **GREEN**
- **BLACK**

- **Colors are standard throughout the system.**

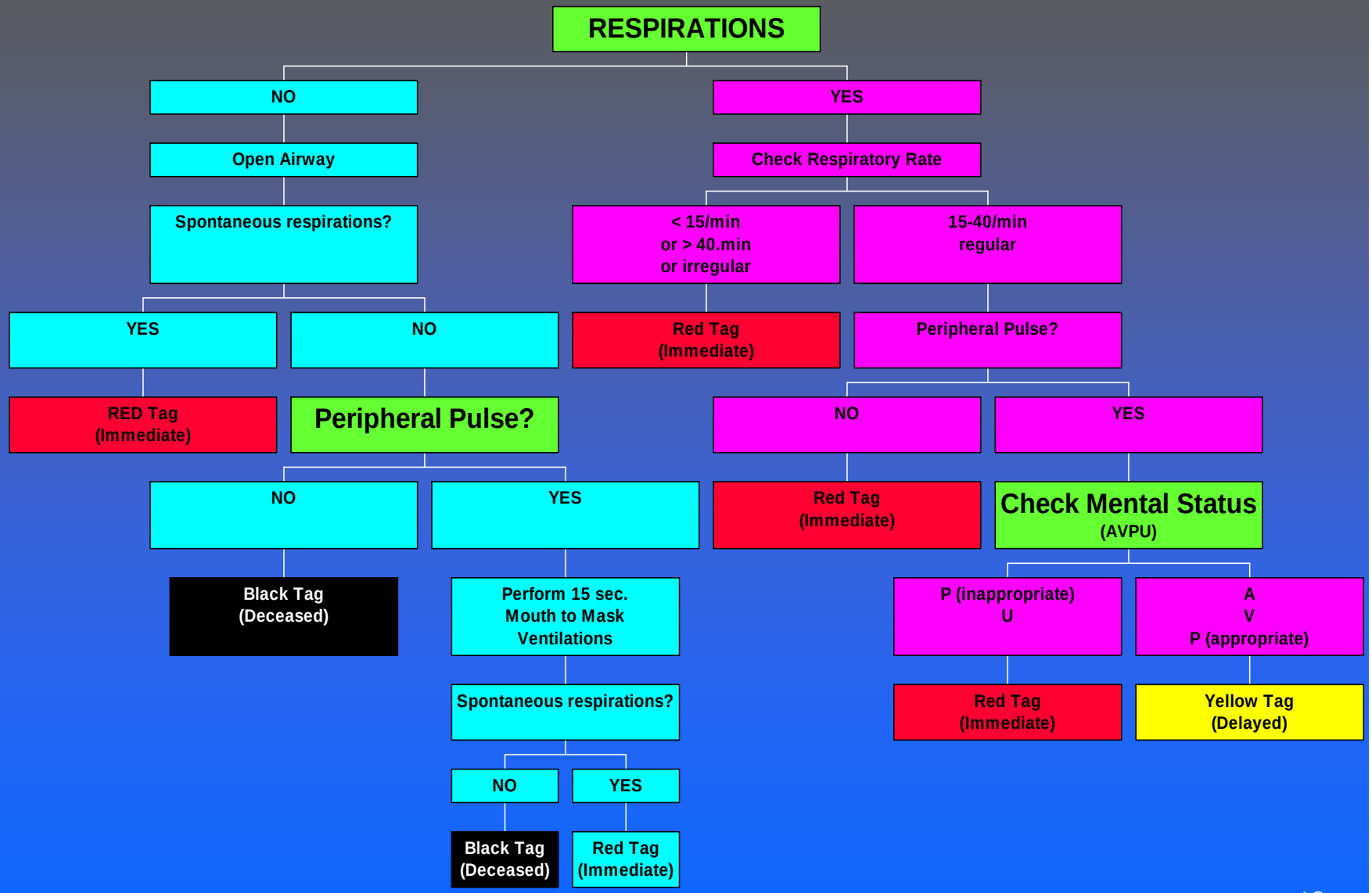
START - STANDARD PROCEDURE

- Start where you stand
- Keep an accurate count
- Triage everyone

- Minimal treatment
- Keep moving
- Report results quickly


START
VENTILATIONS
Is patient breathing?
YES
NO
> 30 breaths/min
<30 breaths/min
Reposition Airway
RED Tag
CIRCULATION
Is patient breathing now?
Control Bleeding
YES
NO
Radial Pulse Not Present
Radial Pulse Present
RED Tag
BLACK Tag
RED Tag
MENTAL STATUS
Can patient follow simple commands?
NO
YES
RED Tag
YELLOW Tag
Or
GREEN Tag

JUMPSTART


RESPIRATIONS
NO
YES
Open Airway
Check Respiratory Rate
Spontaneous respirations?
< 15/min
or > 40.min
or irregular
15-40/min
regular
YES
NO
Red Tag
(Immediate)
Peripheral Pulse?
RED Tag
(Immediate)
Peripheral Pulse?
NO
YES
NO
YES
Red Tag
(Immediate)
Check Mental Status
(AVPU)
Black Tag
(Deceased)
Perform 15 sec.
Mouth to Mask
Ventilations
P (inappropriate)
U
A
V
P (appropriate)
Spontaneous respirations?
Red Tag
(Immediate)
Yellow Tag
(Delayed)
NO
YES
Black Tag
(Deceased)
Red Tag
(Immediate)

SECONDARY TRIAGE

IMMEDIATE – RED

- **Life threatening injuries/illness**
- **Risk of asphyxiation or shock is present or imminent**
- **High probability of survival if treated & transported immediately**
- **Can be stabilized without requiring constant care or elaborate treatment**

SECONDARY TRIAGE

- **DELAYED- YELLOW**

- **Potentially life-threatening injuries/illnesses**
- **Severely debilitating injuries/illnesses**

- **Can withstand a delay in treatment & transportation**

SECONDARY TRIAGE

- **MINOR - GREEN**
- **Non life-threatening injuries/illnesses**
- **Patients who require a minimum of care with minimal risk of deterioration**

SECONDARY TRIAGE

- **Deceased/Non-Salvageable - BLACK**

- Deceased en-route to the Treatment Area or upon arrival
- Unresponsive with no circulation; cardiac arrest

SECONDARY TRIAGE

Catastrophically Injured – Yellow Prime

- Not yet deceased
- Low probability of survival even with immediate treatment & transport
- Placed separately in the Delayed-Yellow Treatment Area
- Designation noted with a “P” or /// over the Delayed-Yellow Triage Category
- Ultimately it is the decision of Treatment/ Transportation to determine when these patients are transported to the hospital

IMS BENEFITS

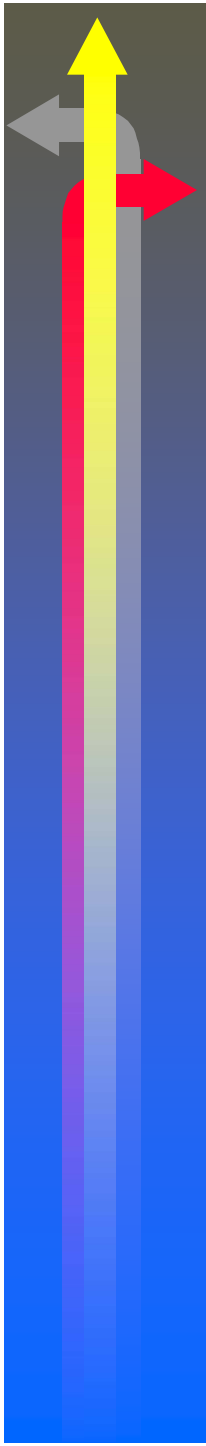
- Meets legal and standard requirements
- Standard organization structure
- Standard terminology
- Clear decision-making authority
- "All hazard" incident management system
- Allows multiple agencies/jurisdictions to integrate efforts

COMMON APPROACH

- **One Incident Commander**
  - **accommodates unified command**
  - **one COMMAND on radio**
- **One Command Post**
- **IMS organization expands as needed**

INCIDENT COMMANDER

- **May change during the incident**
- **Sets overall strategy**
- **Sees that big picture carried out**
- **Establishes IMS organization**



COMMON APPROACH

- **All responsibilities must be handled**
- **Common terminology**
- **Addresses span of control**
- **Reduces communications load**

COMMAND RESPONSIBILITIES

- **Life Safety**
  - **victim & personnel safety**
  - **accountability**
  - **welfare**
- **Incident Stabilization**
- **Property Conservation**

ESTABLISHING COMMAND

- Assume command
- Announce you have command
- Initial assessment
- Control communications
- Identify what has to be done

HANDING OVER COMMAND

- **Face-to-face**

HANDING OVER COMMAND

- **Good Briefing**
  - **situation**
  - **resources on scene**
  - **actions taken**
  - **resources responding**

- **Formal acknowledgement**

UNIFIED COMMAND

- A method for all agencies or individuals who have jurisdictional responsibility, and in some cases those who have functional responsibility at the incident, to contribute to:
  - Determining overall objectives for incident
  - Selection of a strategy to achieve the objectives

Source: National Interagency Incident Management System; Incident Command System

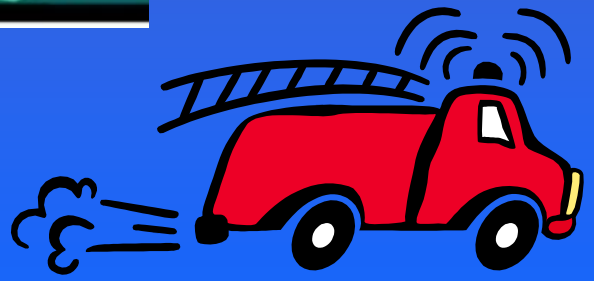
UNIFIED COMMAND

- Incident Commander may receive input in establishing overall strategy from other agencies/jurisdictions involved in the incident.

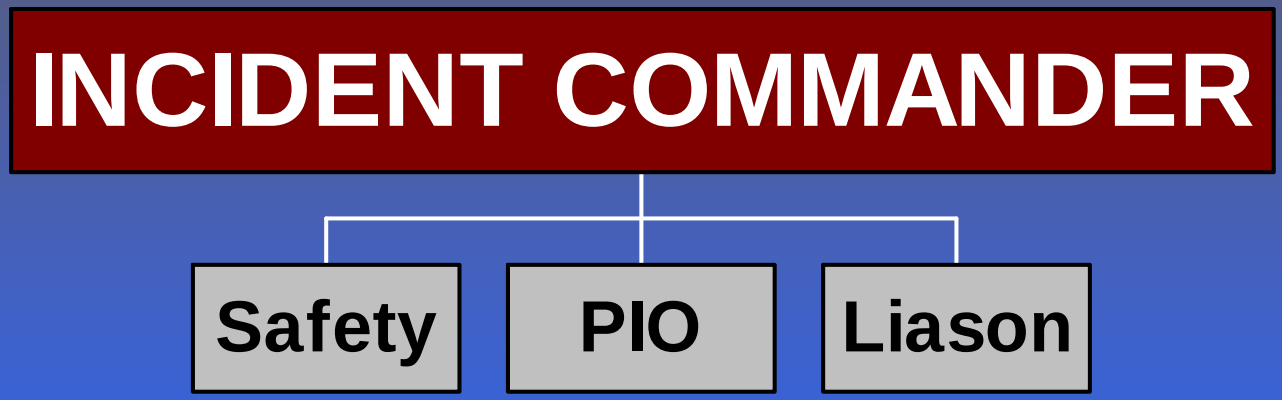
FIRE AT HEATH'S APARTMENTS

You respond to a night-time fire in an apartment complex. You are first in. Engine 37 is 10 minutes out. You see:

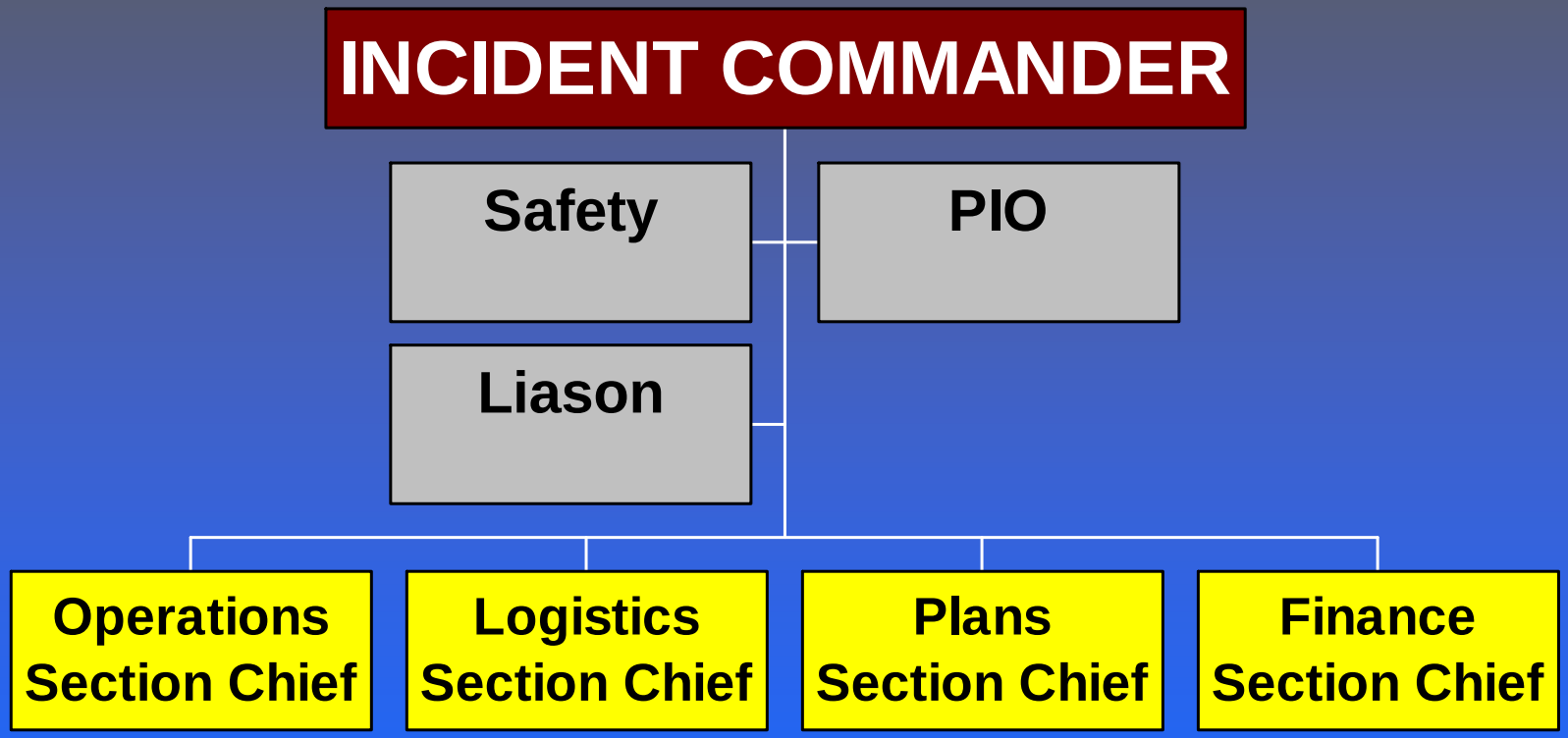
- **3 story apartment fully involved**
- **at least 40 injured - jumpers, burns, etc.**
- **embers on roofs of 2 other buildings**
- **spectators milling about**



COMMAND STAFF



FOUR SECTIONS



BELOW THE OPERATIONS SECTION

- DIVISIONS
- GROUPS
- SECTORS
- BRANCHES

POSITION TITLES

Command	Incident Commander
Command Staff	Officer
Sections	Chief
Branches	Director
Group/Division	Supervisor
Unit/Task Force/ Strike Teams	Leader
Resources	Manager

LEADER/SUPERVISOR ROLES

Prioritize

Tactical Decisions

Assign Resources

Evaluate Progress

Intervene

Reassign Resources

Coordinate

Safety/Accountability

THINGS TO REMEMBER

- **You can’t do it all**
- **A good scene saves patients**
- **Good assignments means good care**

PATIENT FLOW

- **The Incident Scene**

  to

  The Treatment Area

  to

  The Transportation Area

  to

  The Hospital

AMBULANCE STAGING

- Establish away from the scene
- Large enough to handle expected vehicles
- Easy access and egress

- Close to transportation routes
- Easy scene access

ALL POSITIONS

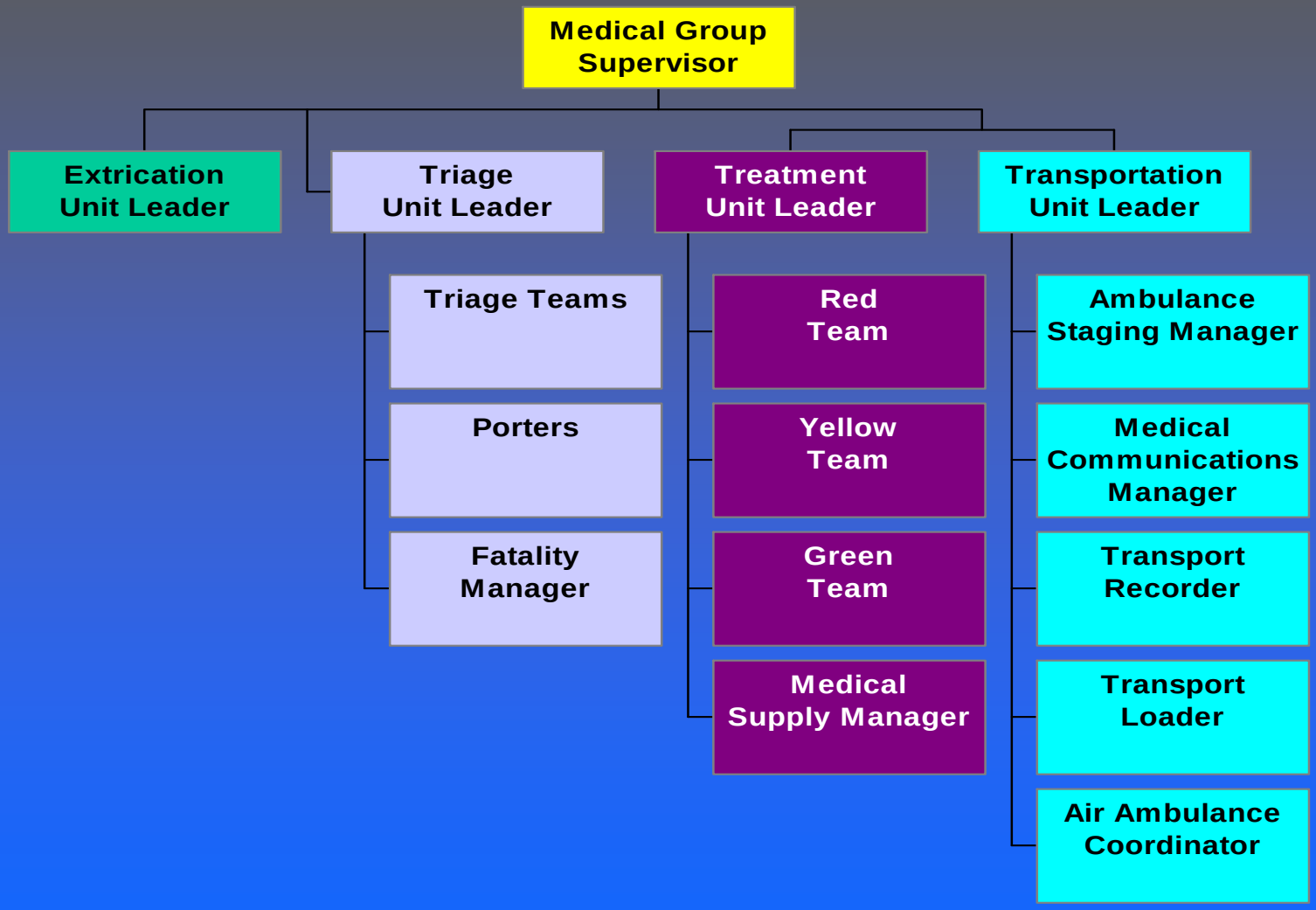
- Choose the best location
- Put on the vest
- Use the Response Guide
- Use the Tactical Worksheet

- Keep your supervisor informed
- Keep your personnel informed
- Limit radio use
- Monitor your personnel

COMMON TOOLS

- **Vests**
- **Response Guide**
- **Tactical Worksheets**
- **Communications**

THE MEDICAL GROUP



MEDICAL GROUP SUPERVISOR

- Responsible for extrication, triage, treatment & transportation
- Talk to the IC and Operations Section Chief
- Communicate face to face when possible
- Choose where to set up
- Stay ahead of resource problem
- Monitor patient flow

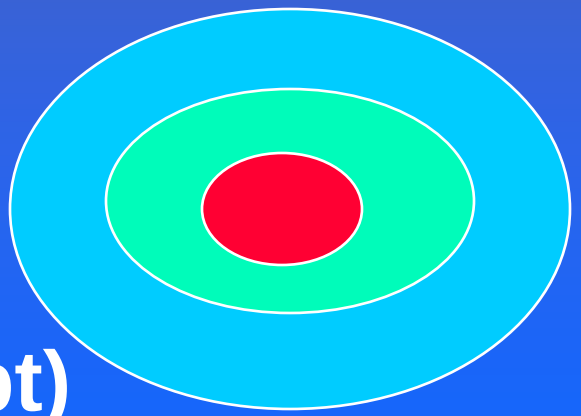
EXTRICATION UNIT

- **Responsible for finding & removing all victims to a safe location, hazard control, “triage decision”**

- **Talks to Medical & Triage**

EXTRICATION UNIT

- **Communicate face to face when possible**
- **Stay ahead of resource problem**



- **Monitor scene safety**

  (hot, warm, cold concept)

TRIAGE DECISION

- Is it safe to triage on scene?
  - Who does triage – where & when?

EXTRICATION UNIT

- **Extrication changes the medical problem:**
  - **flow slows after initial rush**
  - **patients may be in worse shape**
  - **longer on scene time**
  - **transition to mass fatality**

THE TIDEWATER WESTERN RR

- **You arrive on scene and are immediately appointed Extrication Unit Leader.**
  - **three passenger cars have crashed into and over each other**
  - **access is possible from the track or the west side, east side is steep embankment - to north track runs onto a bridge**
  - **at least 70 people are trapped**
  - **treatment is setting up to southwest**

TRIAGE UNIT

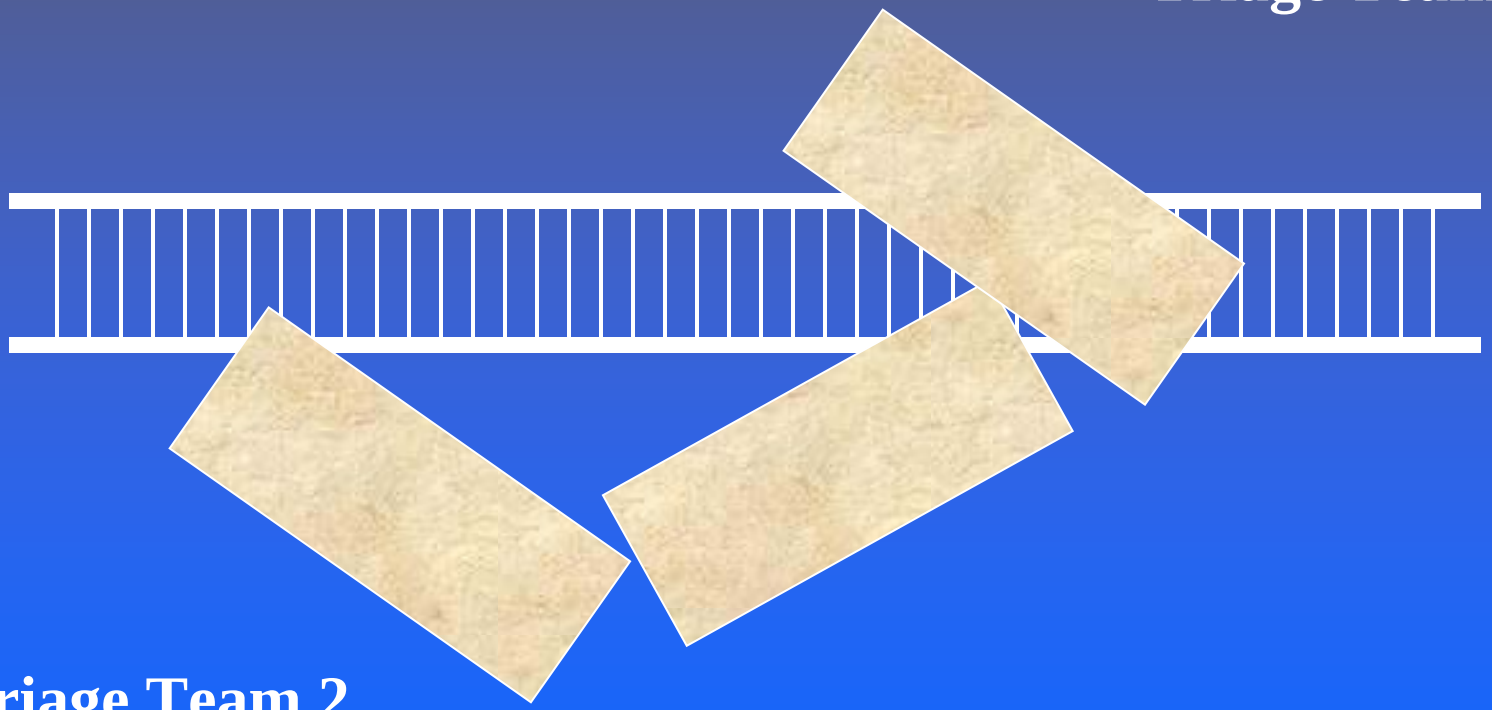
- **Responsible for START triage of all patients, initial patient count, movement of patients to treatment area**
- **Talks to Medical, Extrication, & Treatment**
- **Communicate face to face when possible**

TRIAGE UNIT

- Establish triage & porter teams
- Stay ahead of resource problem

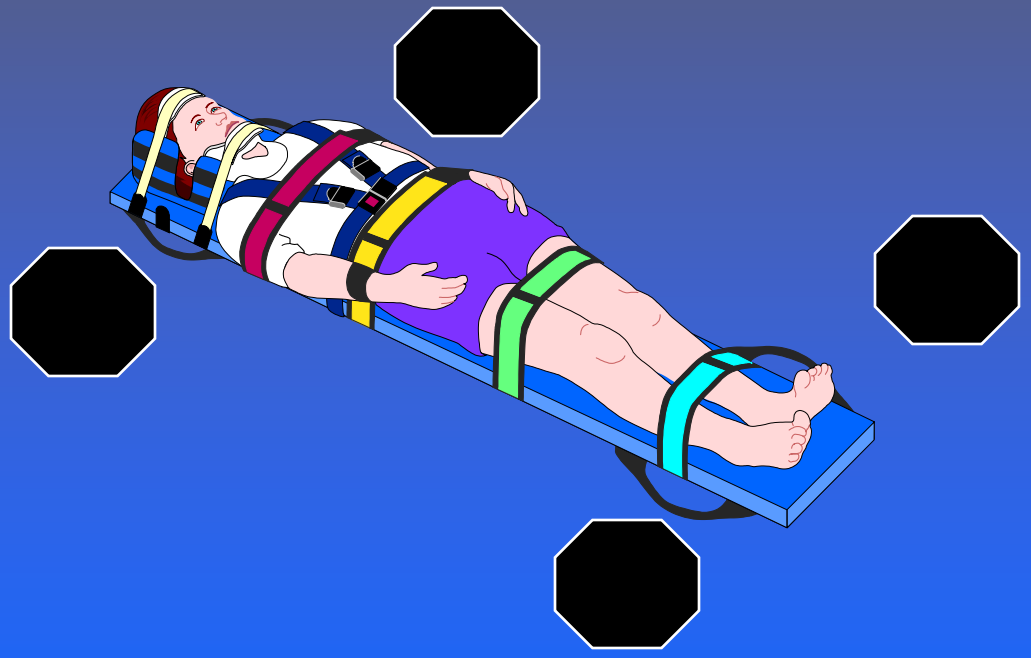
- Monitor patient flow

TRIAGE TEAMS ON SCENE



PORTERING

- Porters



Move

Feet

First

THE BLEACHER COLLAPSE

- **You arrive on scene and are immediately assigned as Triage Unit Leader.**
  - **Bleachers have collapsed in a high school gym - there are 400+ injured**
  - **Some are trapped**
  - **At least 250 have escaped/been rescued and are on gym floor**
  - **Treatment is set up outside the main door to the gym**
  - **100 spectators are available to help**

TREATMENT UNIT

- Responsible for secondary triage, treatment & “transportation decisions”
- Talk to Medical, Triage, & Transportation
- Communicate face to face when possible

- Choose where to set up
- Stay ahead of resource problem
- Monitor patient flow

TREATMENT UNIT

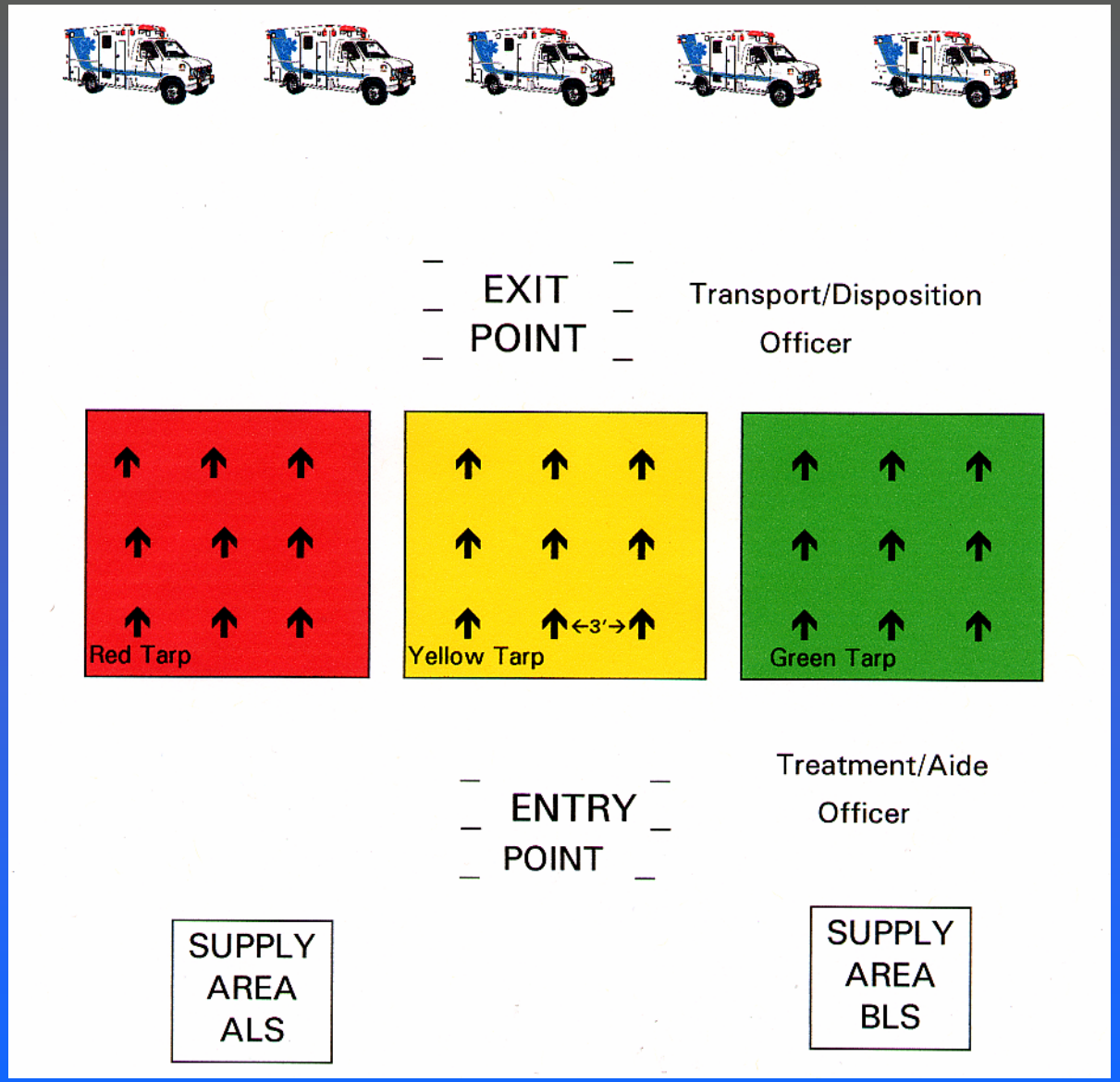
- Red Area
- Yellow Area
- Green Area

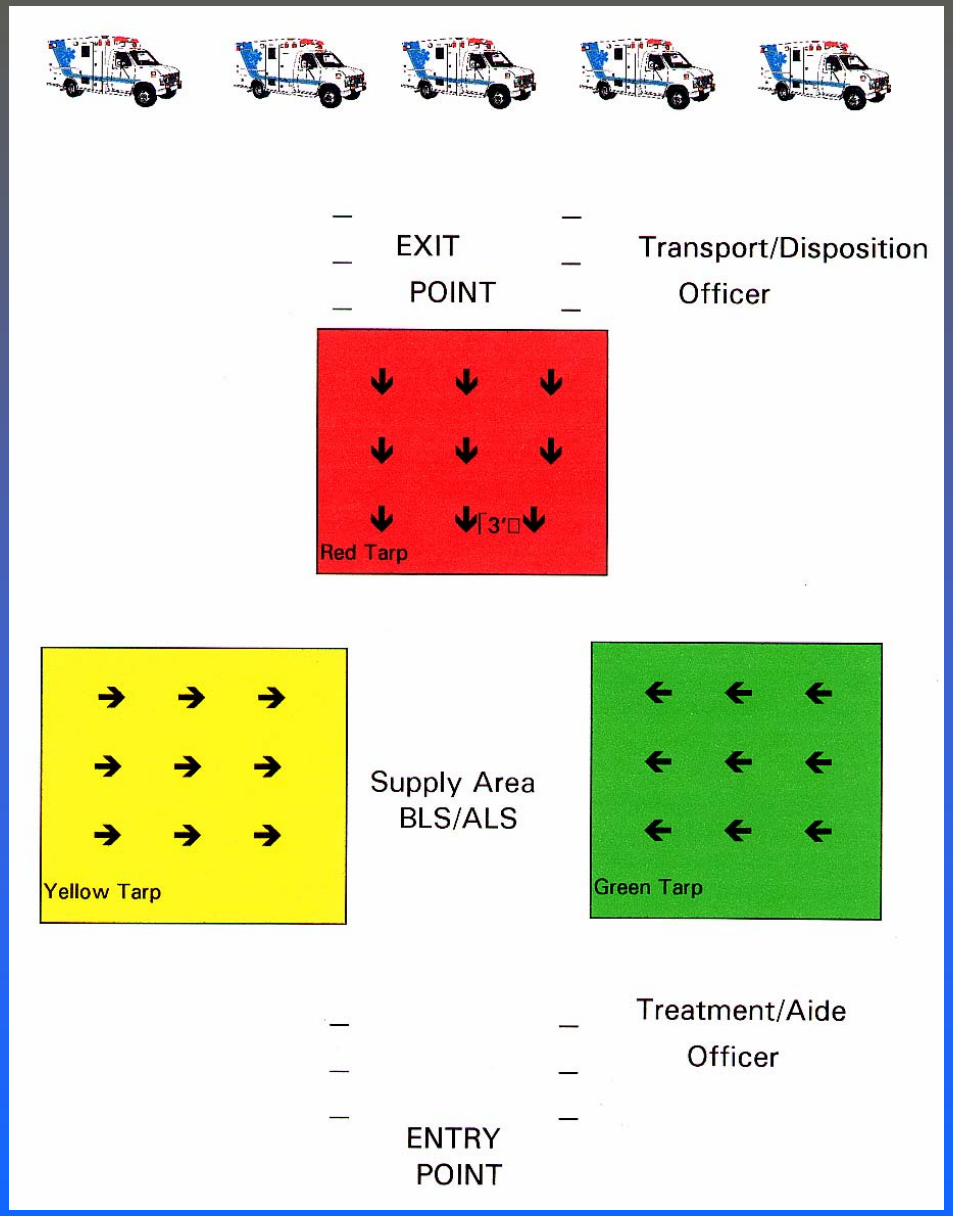
- Black Area
- Medical Supply

TREATMENT AREA

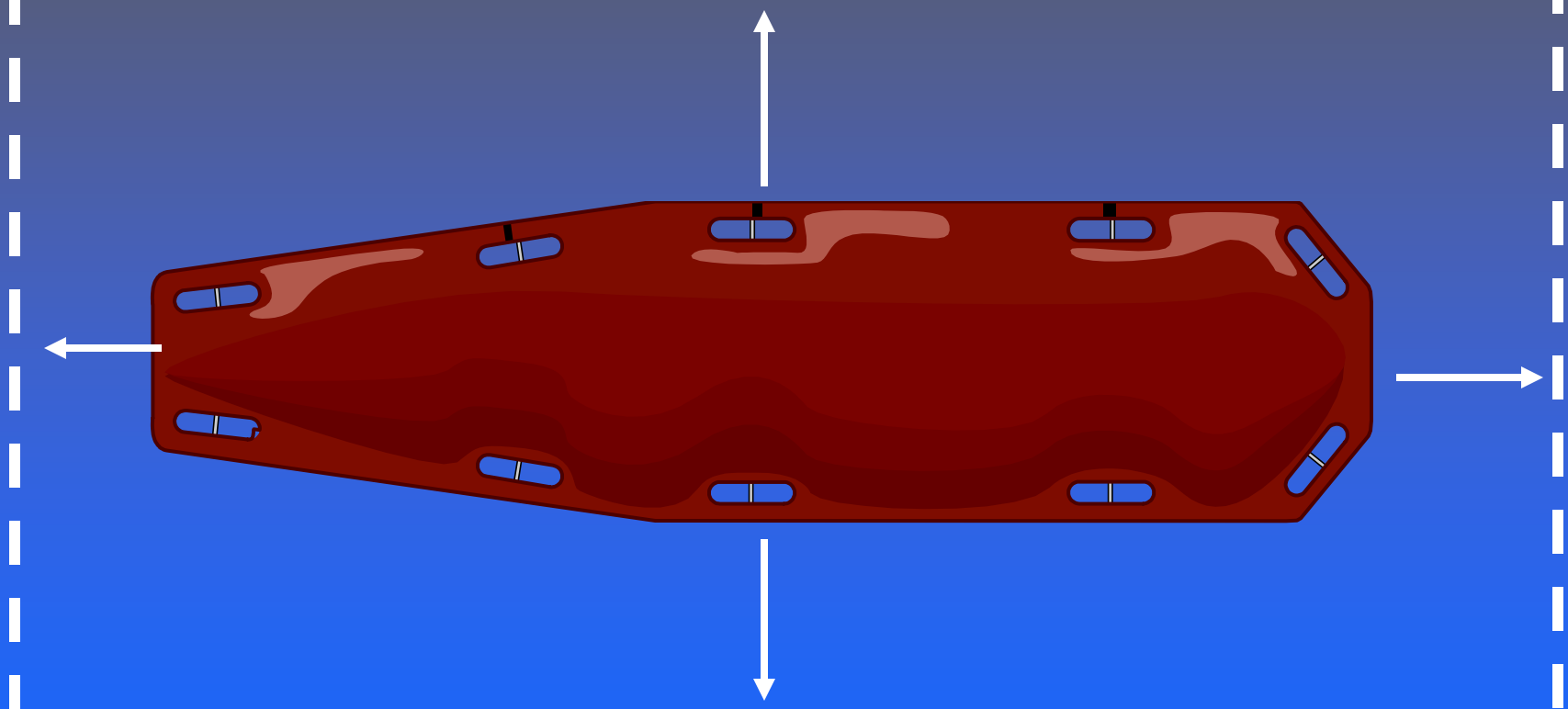
- Layout is critical
- Location is everything
- How much space do you need

- Relationship between areas
- Alternate layouts or locations

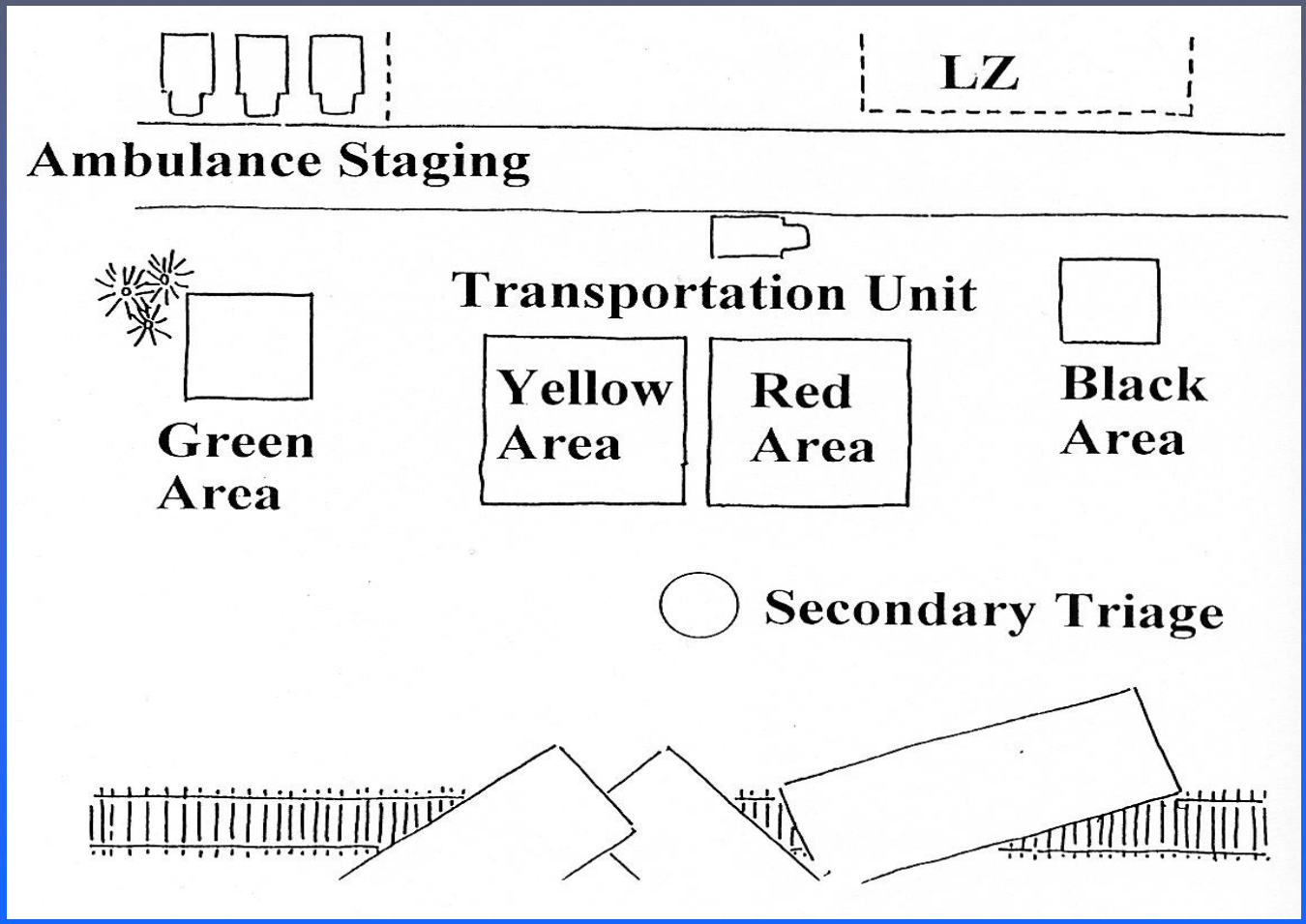

EXIT
POINT
Transport/Disposition
Officer
Red Tarp
Yellow Tarp
←3'→
Green Tarp
ENTRY
POINT
Treatment/Aide
Officer
SUPPLY
AREA
ALS
SUPPLY
AREA
BLS


EXIT
POINT
Transport/Disposition
Officer
Red Tarp
Yellow Tarp
Supply Area
BLS/ALS
Green Tarp
Treatment/Aide
Officer
ENTRY
POINT

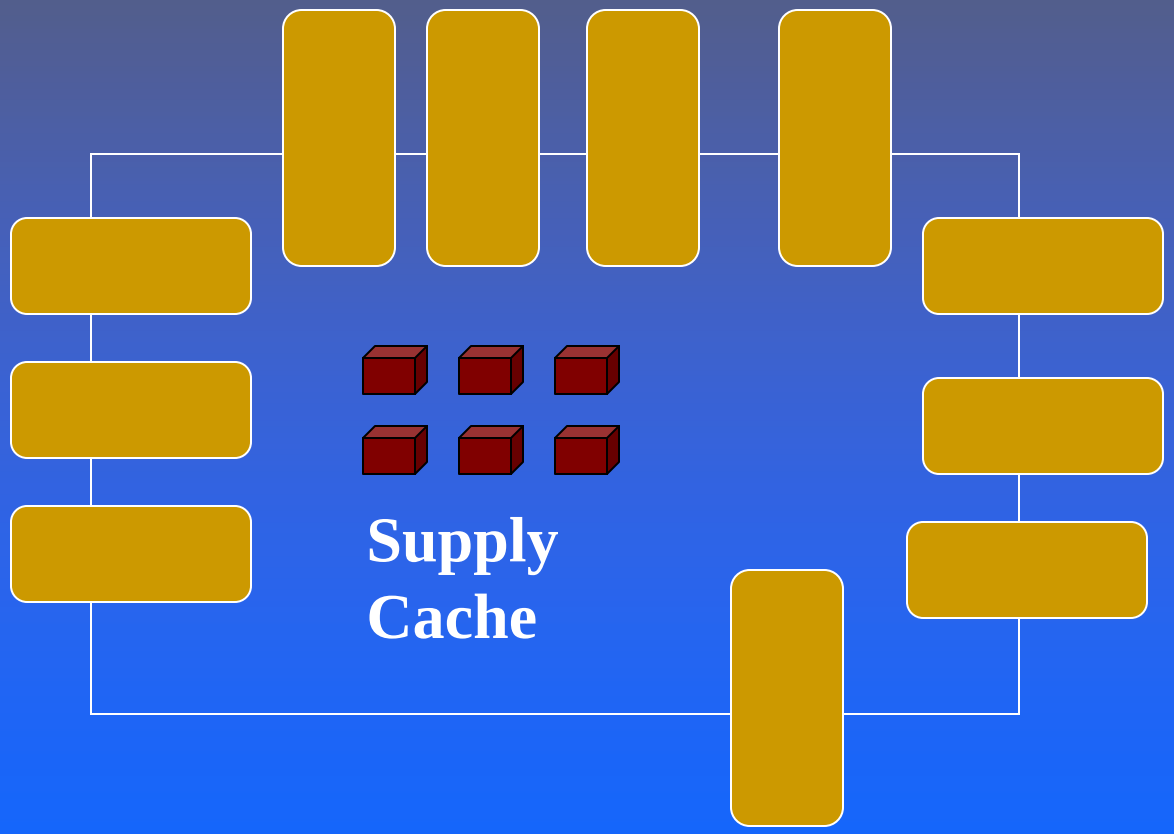
THE BACKBOARD PROBLEM



TREATMENT AREA - OTHER LAYOUTS



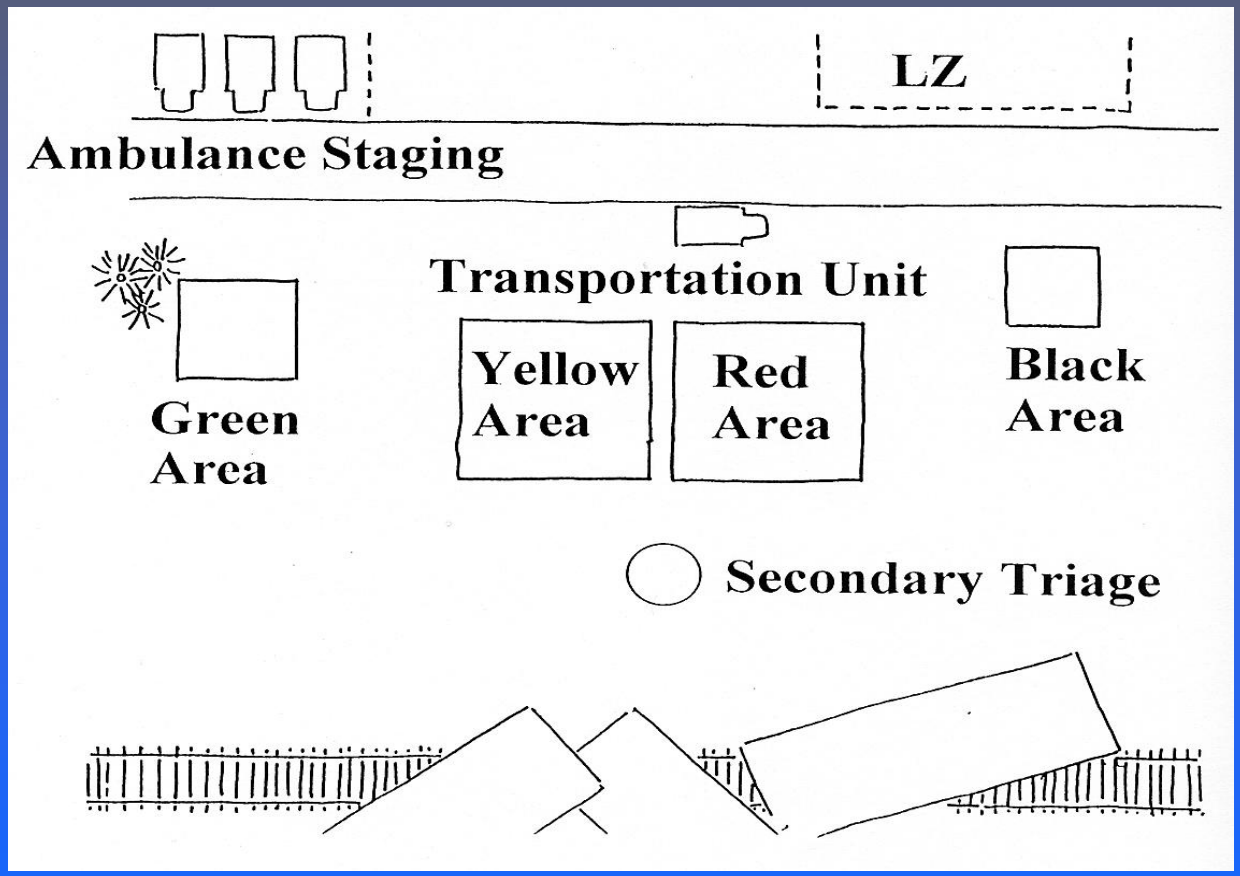
OTHER LAYOUTS



OPTIONS FOR LOCATIONS

- **Treatment Area does not have to be on a nice flat, open area.**
  - **any shelter from weather - building**
  - **under cover**

SECONDARY TRIAGE



STAFFING

- **1st** — **1 provider each area**
- **2nd** — **1 ALS for 2-3 RED**
  1 ALS for 3-4 YELLOW
  1 BLS for 5 GREEN
- **3rd** — **1 ALS and 1 BLS per RED**
  1 BLS to 1 and 1 ALS to 3 YELLOW
  1 BLS per 3 GREEN

PROCEDURE TEAMS

- **ALS** **2 ALS providers** **airways**
  IVs
- **BLS** **3 BLS providers** **immobilize**
  splint
  bandaging

SPECIAL SITUATIONS

- **Unaccompanied small children**
- **Sensory impaired patients**
- **Emotionally disturbed patients**
- **Patient who is medical and trauma**
- **Injured rescuers**
- **Non-English speaking persons**

"TRANSPORTATION DECISION"

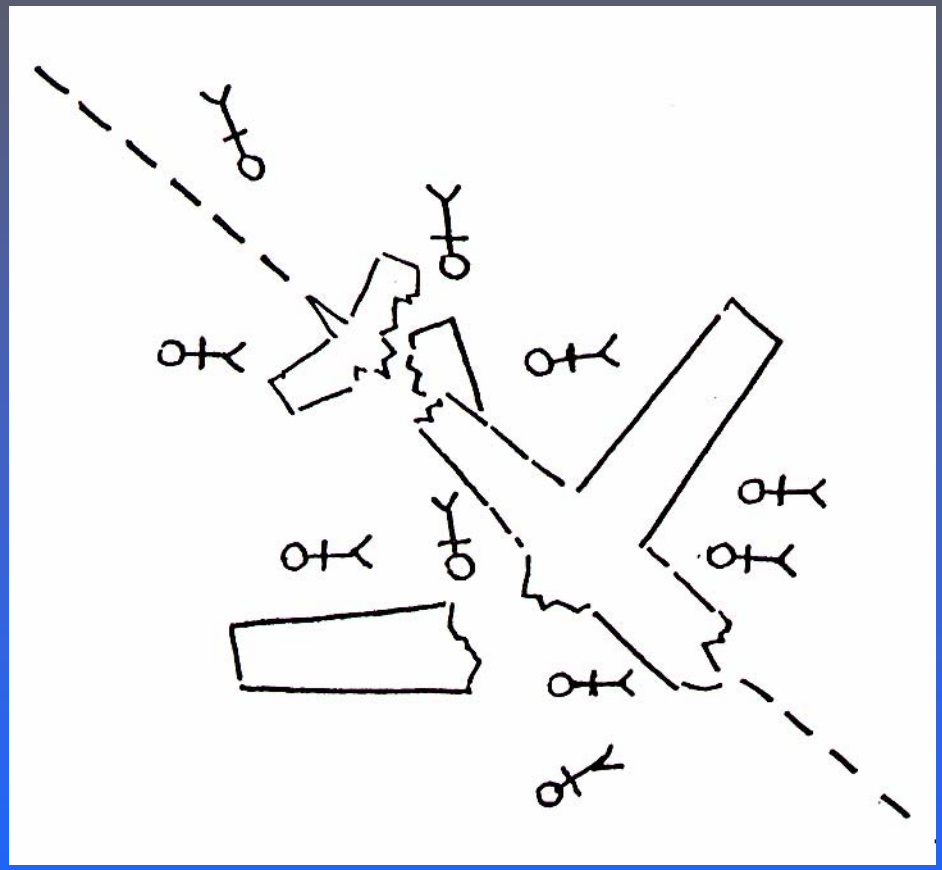
- **Right patient at the Right time**
  - **Right method of transportation to**
    - **Right facility**

- **Made by Treatment & Transportation (combined)**

EASTWIND AIR FLIGHT 204

- **You arrive on scene and are immediately assigned as Treatment Unit Leader.**
  - **Aircraft had 30 passengers - Triage says they are 5 GREEN, 8 YELLOW, 12 RED, 5 BLACK**
  - **You have 4 ALS and 6 BLS personnel**
  - **The GREENS are gathered at a tree 50 yards away**

TRIAGE TEAMS



Triage Team 1

Triage Team 2

TRANSPORTATION UNIT

- **Responsible for medical communications, patient tracking, ambulance staging, air ambulance coordination & transportation decision**
- **Talk to Medical, Treatment, Ambulance Staging & Air Ambulance Coordination**
- **Assigns Medical Communication, transport recorder, transport loaders, ambulance staging, air ambulance coordination, & porters**

TRANSPORTATION UNIT

- **Communicate face to face when possible**
- **Choose where to set up**

- **Stay ahead of resource problem**
- **Monitor patient flow**

TRANSPORTATION UNIT

- Ambulance Staging Area
- Medical Communications
- Transportation Recorder

- Transportation Loader
- Air Ambulances
- Porters

TRANSPORTATION CONSIDERATIONS

- **Number & triage status of patients**
- **Number, staffing (BLS/ALS/Special) & capacity of transport units**
- **Number and capacity of hospitals**
- **Distance and time to hospitals**
- **Special patients**

SS PRESIDENT POLK ON FIRE

- **You arrive at the cruise ship fire and are assigned as Transportation Unit Leader**
- **273 patients - 220 GREEN, 31 YELLOW, 15 RED, 7 BLACK**
  - **Hospitals are (plus others out of area):**

	Trauma Ctr	Capacity	Time
Memorial	Trauma 1	6R,8Y,20G	8 min
Bayfront	ER	3R,5Y,30G	5 min
Baptist	Trauma 3	4R,6Y,12G	15 min

Ambulances: 6 ALS, 9 BLS, and 1 helicopter

THE BUS CRASH

- Your ambulance responds to a school bus crash - the bus is on its side across an intersection. There are at least 30 injured children.
- Fire Department is handling hazards and extricating the driver of the pick-up the bus hit.
- The Truck Company Captain is IC. He assigns you as Medical Group Supervisor and tells you his strategy is to (1) control hazards, (2) get the patients out, and (3) reopen the intersection.
- One ALS and one BLS ambulances are on the way. What will you do now?

THE BUS CRASH (continued)

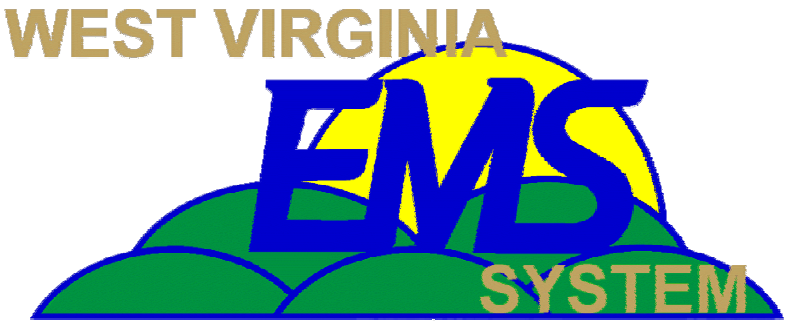
- Medic 7 (ALS) and Rescue 21 (BLS) are on scene with 4 personnel.
- A firefighter tells you they have the pick-up driver out and that he is very badly injured.
- Your crew member is on the radio briefing the hospital. The Truck Company has gained access to the School Bus through the rear door.
- How will you assign your available resources and what could you use to determine how well they are doing these assignments?

THE BUS ACCIDENT (continued)

- Rescue 22 and Rescue 53 (both BLS) have arrived on scene with 4 providers.
- Your Triage Team (Rescue 21) tells you they count 2 BLACK, 7 RED, 9 YELLOW, and 14 GREEN.
- Four firefighters are available. Medic 7 has set up treatment and is dealing with the RED pickup driver right now.
- The IC wants a report now. What is your report? How will you assign your people? What are your top 3 things to do now?

Mass Casualty Incident Response Guide

1st Edition



West Virginia
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Bureau for Public Health
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Acknowledgement:

Permission to use these materials was granted by the Office of Emergency Medical Services, Virginia Department of Health, Richmond, Virginia.

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Mass Casualty Incident Management Goals

1. **Do the greatest good for the greatest number.**
2. **Make the best use of personnel, equipment and facility resources.**
3. **Do not relocate the disaster.**

Introduction

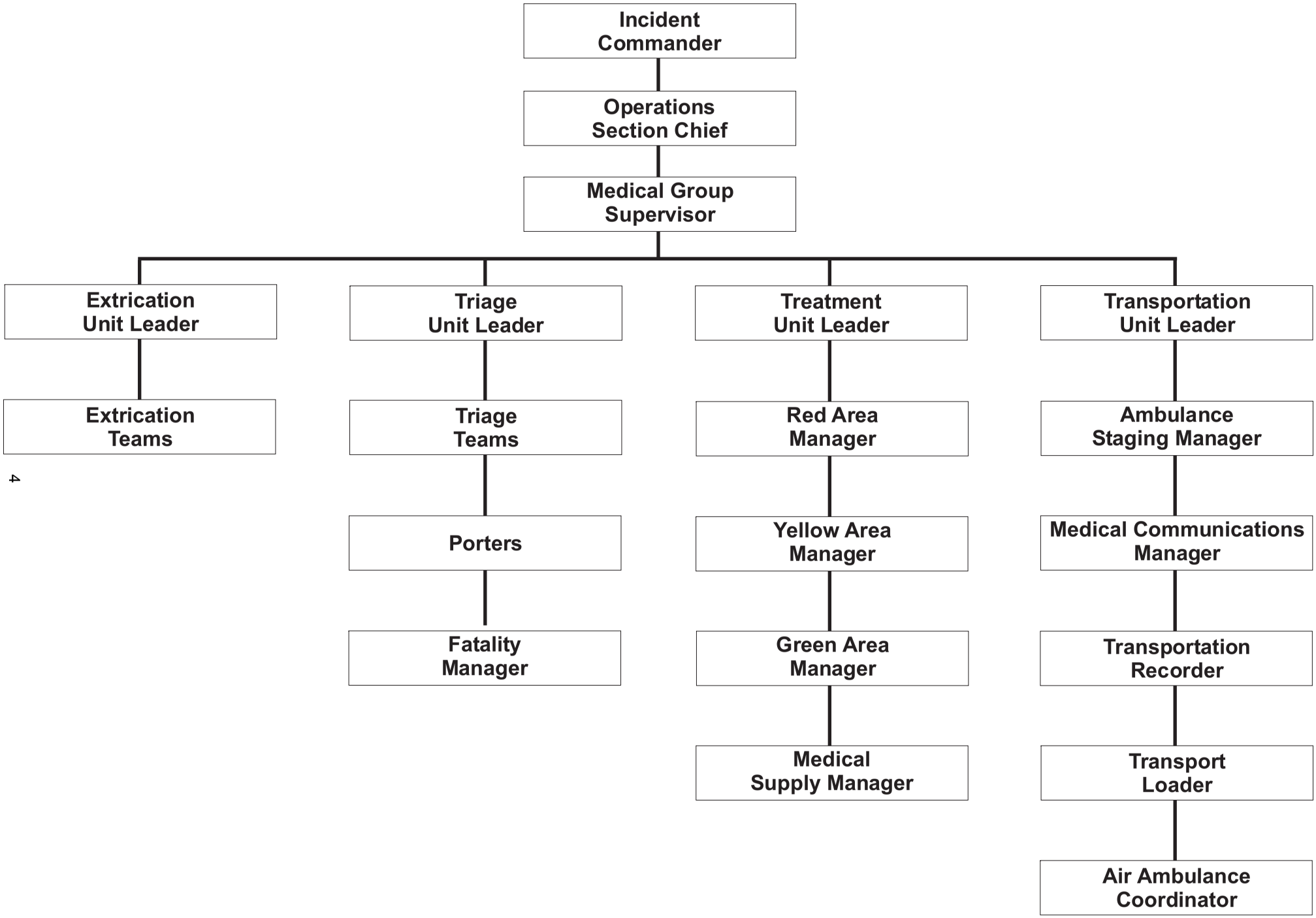
The West Virginia Mass Casualty Incident Response Guide is your field guide to standard procedures for managing mass casualty incidents in West Virginia. It describes a Medical Group which can be plugged into any incident command or management system to provide the best possible care when there are more patients than there are resources to treat them. Although the organization in this Guide is designed for major events, the same approach to controlling people, vehicles and equipment can and should be used in any EMS response. This will make day-to-day operations more effective, and providers will know the system when needed for the major incident.

Managing an incident starts with the first ambulance to arrive on scene. The Senior Emergency Medical Services Provider (EMSP) is responsible for the incident medical function until relieved. This EMSP must be prepared to get extrication, triage, treatment and transportation (as needed) moving so that other arriving resources can be plugged in.

The Guide lists all standard positions. In a small incident, one or two persons may do all the management jobs. As the incident gets bigger, you will need to have the major unit leaders as a minimum. With the true mass casualty event, every position will have to be filled, and in some cases, helpers may have to be appointed. Tailor the size of the organization to the number of injured and the number of responders you have available.

Each Guide page can be laminated and issued individually to persons assigned to jobs. Blanks by each checklist item are to record times the action is started or completed. Below each job title is a standard functional radio call sign for the position. We suggest each ambulance carry a complete copy of the Guide and that individual copies be made available. Suggestions for improvements are welcome and should be sent to the Office of EMS.

Incident Management Organization



Mass Casualty Patient Flow

1. Incident Scene

- First actions done at nearly the same time.
  - Direct walking of the patients to a supervised area.
  - Locate all victims.
  - Quickly triage patients using START and apply triage ribbons.
  - Start extrication of trapped victims.
- Complete initial patient count.
- Decontaminate patients (if needed) prior to leaving the incident scene.
- Move walking **green** patients with an escort to **treatment**.
- Move **red** and **yellow** patients by porter to **treatment**.
- Leave **black** victims where they lie.

2. Treatment Area

- Retriage arriving patients (secondary triage) and apply triage tags.
- Put patients in **red, yellow or green** areas.
- Give stabilizing or definitive care based on Triage priority (**red,** then **yellow,** then **green**).
- Assign Providers, equipment and supplies to patients based on Triage priority.
- Continuously retriage patients.
- Move patients who die to separate **black** area.
- Select patients to move from scene to hospitals based on severity (**red** first, then **yellow**).

3. Transportation Area

- Contact the Medical Command Center to begin patient distribution decisions.
- Assign patients to ambulances or air medical helicopters based on severity and most appropriate vehicles available.
- Move **greens** early to vehicles such as buses, if available.
- Have the Porters move patients from **treatment** through **transportation** to ambulances.
- Advise the MedCom of patient movement before departure.
- Ambulance crews will provide emergency care and reassessment on the way to the hospital.

First Emergency Medical Unit on Scene

Objective: Safely initiate patient assessment and start operations for the Medical Group.

_____ 1. **Safety assessment** - observe for hazards.

a. Fire.

b. Electrical hazards.

c. Flammable liquids.

d. Hazardous materials.

e. Other situations threatening lives of rescuers and patients.

_____ 2. **Survey the scene** - determine how many and how badly the patients are injured.

a. Type or cause of the incident.

b. Approximate number and location of patients.

c. Severity of injuries (major or minor).

_____ 3. **Send information and request help and resources.**

a. Contact dispatch with **survey** information.

b. Declare the mass casualty incident.

c. Request resources and mutual aid as needed.

d. Advise **Medical Command Center**.

_____ 4. **Set-up the scene to handle patients.**

a. Identify **Command** on-scene and brief on actions.

b. Unless otherwise instructed, assume the **Medical Group** role until relieved. Announce on radio.

c. Identify the best location for **staging** and direct incoming resources to it.

_____ 5. Begin **START triage.**

Second Emergency Medical Unit On-Scene

Objective: Expand incident management and continue initial patient assessment and treatment.

_____ 1. Second unit reports to the first unit on-scene for briefing and assignment. If appropriate, relieve as the **Medical Group Supervisor.**

_____ 2. **Medical Group Supervisor** assigns **Ambulance Staging Officer** and directs establishment of **Staging Area.**

a. Coordinate with **Command** or **Incident Staging** to locate away from the scene with easy access.

_____ 3. **Medical Group Supervisor** assigns key functions as required:

a. Extrication. Coordinate with the agency providing extrication if it is not an EMS function.

b. Triage.

c. Treatment.

d. Transportation.

e. Medical communications.

f. Ambulance staging.

g. Others as required.

_____ 4. Each function will put on their vest and begin to carry out their checklist.

Incident Command
(Command)

Note: EMS will not usually command a major incident. However, as first-in resource, you are in command until relieved. Use **this checklist and first and second emergency medical unit on-scene** checklists to guide your actions.

Objective: Coordinate incident response to **save lives, stabilize the incident, save property and keep the rescuers safe.**

_____ 1. As the first unit on-scene, assume command.

a. Announce your location on the radio.

b. Put on the **Incident Commander** vest.

_____ 2. Set-up a command post in a safe location where you can easily be seen and with a clear view of the incident area. Stay at the command post and use the vehicle mobile radio.

_____ 3. Assess the situation and provide size-up to dispatch.

a. What has happened and the number of victims.

b. Potential hazards.

c. The resources on-scene and what they are doing.

d. Type of help needed.

_____ 4. Develop initial strategy of:

a. What has to be done to make the work area safe.

b. What are the priorities for rescuing and caring for the injured.

c. What needs to be done to reduce the chances of more casualties.

_____ 5. Assign existing resources to jobs and monitor the work in progress. Appoint as soon as possible:

a. Staging Area Manager.

b. Safety Officer.

c. Group, Division and Sector Supervisors.

d. Public Information Officer.

_____ 6. Account for all personnel assigned to the incident.

_____ 7. Make a clean hand-off to your successor.

a. Brief on what you know about the incident.

b. Brief on the resources committed, available and responding.

c. Brief on the strategy and tasks in progress.

Medical Group Supervisor
(Medical Group)

Objective: Manage all of the Medical Group functions to safely and quickly extricate, triage, treat and transport all patients according to the incident medical objectives. Works for the Operations Section Chief or Command (if there is no Operations).

_____ 1. Put on the Medical Group vest.

_____ 2. Set-up the Medical Group in a location where you are visible and have a clear view of the working area.

_____ 3. Coordinate with command on incident objectives and plans. Set the Medical Group objectives and make sure all unit leaders know them.

_____ 4. Begin using Tactical Worksheets to record key information and to help manage the response.

_____ 5. Ensure the staging and traffic flow pattern established for arriving resources. Coordinate with Operations or Command.

_____ 6. Assign personnel to jobs based on availability and time that the function will be needed (consider the following order for assignments).

a. Staging, extrication (if done by EMS) and triage.

b. Treatment.

c. Transportation.

d. Medical communications.

_____ 7. Request added resources as needed and assign new resources to tasks quickly. Keep any resources with no assignment in staging.

_____ 8. Monitor the work and progress toward incident objectives.

_____ 9. Monitor the condition of assigned personnel. Request relief crews as needed to keep people safe, reduce incident stress and to keep moving toward Medical Group objectives.

_____ 10. Account for all assigned personnel.

_____ 11. Keep Operations Section Chief or Command informed.

Extrication Unit Leader
(Extrication)

Objective: Locate, physically extricate and remove trapped victims to the safe area. Works for the Medical Group Supervisor.

_____ 1. Put on the extrication vest.

_____ 2. Set-up where you can be seen and reached by arriving resources, with a clear view of the area in which extrication will be done.

_____ 3. Assign resources to a specific area or group of victims.

_____ 4. Position heavy equipment (technical and heavy tactical rescue units, ladder trucks and specialized equipment) as close to the site as possible without blocking access.

_____ 5. Coordinate with triage either in the extrication area (if safe) or after victim removal to the safe area.

_____ 6. Locate and remove trapped victims and deliver them to a safe area for pickup by the Porters. Move non-ambulatory patients on backboards with C-spine precautions.

_____ 7. Determine the need for medical treatment for victims during extrication. Coordinate with Treatment for support.

_____ 8. Monitor the condition of assigned personnel. Request relief crews as needed to keep people safe, reduce incident stress and maintain progress toward extrication incident objectives.

_____ 9. Supervise site safety and keep extrication operations safe.

_____ 10. Record actions using the Tactical Worksheet.

_____ 11. Keep the Medical Group and Triage informed.

_____ 12. Account for all personnel assigned to Extrication.

Triage Unit Leader
(Triage)

Objective: Locate, initially assess and sort patients to establish priorities for treatment, move patients to treatment and safeguard the dead. Works for the Medical Group Supervisor.

_____ 1. Put on the triage vest.

_____ 2. Set-up Triage on-site or at closest safe area if the site is too dangerous. Locate a site where you can be seen and have a clear view of the incident.

_____ 3. Identify a safe place for the green patients and order them to start walking toward that place.

_____ 4. Identify the Triage Teams and dispatch them to begin START.

a. Have them work through the site in a systematic way.

b. If necessary, subdivide and assign the Teams to each division.

c. Use the START algorithm and tag patients with surveyor's tape.

_____ 5. Establish the Porter Teams. Obtain the backboards and straps from Staging or Medical Supply for the Porter Teams.

_____ 6. Have the Porter Teams follow the Triage Teams to begin moving the patients to Treatment on backboards with C-spine precautions.

a. If the area permits, move reds first, then yellows.

b. Do not have the Porters wait for the reds to be tagged if there are yellows waiting.

_____ 7. Designate a Fatality Manager.

a. Have the Fatality Manager log black patient locations.

b. Do not authorize movement of the black patients prior to Medical Examiner approval, unless it is to protect the remains.

_____ 8. Monitor the condition of assigned personnel. Request relief crews as needed to keep people safe, reduce incident stress and maintain progress toward triage objectives.

_____ 9. Account for all assigned personnel.

_____ 10. Keep the Medical Group, Extrication and Treatment Units informed.

Fatality Manager
(Fatality Manager)

Objective: To locate and safeguard the remains and personal effects of the deceased pending the arrival of the Medical Examiner. Works for the Triage Unit Leader.

_____ 1. Put on the Fatality Manager vest.

_____ 2. Locate and tag the remains of incident casualties in the incident area. Plot approximate positions on the Tactical Worksheet and record a description of the remains.

_____ 3. Establish a black casualty area separate from Treatment. The black area should be accessible to 2-wheel-drive vehicles.

_____ 4. Coordinate with the Treatment and Triage Leaders for Porters to move to the black area any patients who die in Treatment.

_____ 5. Maintain records of patients dying in Treatment, including identifying (if known) triage tag number, situation and time of death, and description of clothing and personal effects.

_____ 6. Safeguard the remains and personal effects. Do not leave the remains unattended or unobserved. Request the assistance of law enforcement, if necessary.

_____ 7. Where appropriate to preserve privacy or to protect the remains, cover the remains with disposable non-absorbent or fluid barrier sheets.

_____ 8. Keep Triage and Treatment informed.

_____ 9. Turnover the responsibility for remains to the Medical Examiner.

Treatment Unit Leader
(Treatment)

Objective: Continually assess patients, stabilize patients, begin definitive treatment based on priorities and resources, and determine priority for transport to the medical facilities. Works for the Medical Group Supervisor.

_____ 1. Put on the Treatment vest.

_____ 2. Set-up the Treatment Area. Consider:

a. Safety.

b. Portering distance.

c. Space.

d. Weather.

e. Lighting.

f. Transportation access.

_____ 3. Inform the Triage and Medical Group of the Treatment location.

_____ 4. Determine how to do secondary triage. Assign a Secondary Triage Officer and funnel patients through Secondary Triage.

_____ 5. Arrange the Treatment Area in parallel rows of patients.

a. Allow room for red and yellow areas to grow outward.

b. Consider a separate location for the green area.

_____ 6. Assign the Treatment Teams with red, yellow and green Managers.

_____ 7. Set-up the Medical Supply and assign a Medical Supply Officer.

_____ 8. Consider the use of Special Procedures Teams for common treatments (airway, IV, splinting, etc.), if needed and resources are available.

_____ 9. Supervise prehospital patient care per approved protocol. Supervise regular reassessment of patient conditions and priorities.

_____ 10. Isolate the emotionally disturbed patients, if possible.

_____ 11. Determine patient transport order and the best means of transport.

_____ 12. Monitor condition of assigned personnel. Request relief crews as needed to keep people safe, reduce incident stress and to maintain progress toward the treatment incident objectives.

_____ 13. Account for all assigned personnel.

_____ 14. Keep the Medical Group and Transportation informed.

Medical Supply Manager
(Supply)

Objective: Provide Porters and Treatment Area supplies and equipment needed to move and treat the injured. Works for the Treatment Unit Leader.

_____ 1. Put on the Medical Supply vest.

_____ 2. Set-up within easy reach of the Treatment Unit.

_____ 3. Coordinate with Ambulance Staging Officer to have crews bring extra supplies from vehicles to the Medical Supply Area (keep essential equipment on vehicles). Request:

a. Backboards, rescue baskets and straps.

b. Splints.

c. Oxygen and airway kits.

d. IV sets.

e. Bleeding control supplies.

f. Prepacked disaster kits.

_____ 4. Sort supplies and arrange for easy access. Determine points in the inventory at which more supplies will have to be ordered.

_____ 5. For nighttime operations, coordinate with the Medical Group Supervisor and Ambulance Staging Officer to have portable lighting brought to the Treatment Unit.

_____ 6. Issue supplies as needed within the Treatment Unit.

_____ 7. Contact Transportation to arrange for the return of vehicles to bring additional supplies when order points are reached.

_____ 8. Upon completion of Operations, collect unused supplies and equipment and attempt to return to owning agency (if marked). Make arrangements for the distribution or return of unmarked supplies and equipment.

Transportation Unit Leader
(Transportation)

Objective: Coordinate all patient transportation and maintain all records of patient and unit movement. Works for the Medical Group Supervisor.

_____ 1. Put on the Transportation vest.

_____ 2. Set-up the Transportation Unit at an exit from the Treatment Unit.

_____ 3. As needed, appoint Ambulance Staging Manager, Medical Communications Manager, Transport Recorder(s), Transport Loader(s), and Air Ambulance Coordinator.

_____ 4. Set-up vehicle flow from Staging to Transportation to the hospitals.

_____ 5. Contact Command Hospital through Communications to determine the hospital capabilities to accept patients in each category.

_____ 6. Select the mode of transportation based on patient needs and available air and ground ambulance resources.

_____ 7. Order ambulances from Staging for patients treatment selects.

a. Load red patients first, then yellow, then green.

b. Depending on hospital capacity, load mixed patients.

c. If non-ambulance transport is available early, move greens.

_____ 8. Ensure ambulances are parked parallel to each other. Avoid end-to-end. If end-to-end must be used, load first-in-the-line first.

_____ 9. Request Porter Teams from Triage to move patients from Treatment and assist in loading.

_____ 10. Coordinate with the Command Hospital the destination of each ambulance dispatched to the hospitals.

_____ 11. Brief ambulance crews on destination hospital and route (if needed).

_____ 12. Record patient and unit movements on the Tactical Worksheet.

_____ 13. Keep the Medical Group and Treatment informed.

Ambulance Staging Manager
(Staging)

Objective: Maintain EMS manpower and ground vehicle resources ready for dispatch at a location separate from the incident (may be collocated with Incident Staging). Works for the Transportation Unit Leader.

_____ 1. Put on the Staging vest.

_____ 2. Establish ambulance Staging in coordination with the Operations Section Chief or Incident Staging. The site is away from the scene and should:

a. Be large enough to hold the needed number of units.

b. Have easy road access from major the transportation routes.

c. Have easy access to the Transportation Unit.

_____ 3. Direct arriving vehicles to the Staging for easy departure. Parallel staging for pull through should be used unless space does not permit.

_____ 4. Ensure the personnel on staged vehicles remain with their unit.

_____ 5. Park vehicles used to transport scene staff out-of-traffic flow.

_____ 6. Update Transportation on available vehicles and personnel.

_____ 7. Ensure the ambulance cots are not removed from units.

_____ 8. As needed, remove the medical supplies from ambulances for relocation to Medical Supply:

a. Backboards and straps.

b. Splints and bandages.

c. Blankets.

d. Portable oxygen equipment and supplies.

e. Airway equipment.

f. IV sets.

_____ 9. Coordinate for Rehabilitation (food, drink) for staged crews.

_____ 10. As ordered, dispatch vehicles to the Transportation Unit.

_____ 11. Track the status, number and types of ambulances used in Staging. Use the Tactical Worksheet.

Medical Communications Manager
(Communications)

Objective: Establish, maintain and coordinate medical communications at the incident scene between Transportation, the Command Hospital, and the Medical Group. Works for the Transportation Unit Leader.

_____ 1. Put on the Communications vest.

_____ 2. Set-up close to the Transportation Unit. Check for good radio contact with repeater or other simplex users.

_____ 3. Establish initial communications with the Command Hospital or nearest receiving hospital using public safety radio, cellular telephone or amateur radio (if available).

_____ 4. Break out the Tactical Worksheets and use to track the information.

_____ 5. Get initial information from the Medical Group. Give the hospital the initial report. Be accurate, identify estimates and do not speculate.

a. Category or level of mass casualty incident.

b. Cause of the incident.

c. Number of patients.

d. Severity of the injuries.

_____ 6. Get hospital emergency capacity information. Provide to the Transportation and Medical Group.

_____ 7. Coordinate with the Command Hospital to determine which facility ambulances should be dispatched. Provide transport reports to the Command Hospital on departure. Include:

a. Unit transporting.

b. Destination hospital.

c. Number of patients.

d. Patient information (triage category, chief complaint, age and sex).

_____ 8. Monitor the equipment status and replace batteries as needed.

Transport Recorder
(Recorder)

Objective: Ensure proper documentation of patient and vehicle movements. Works for the Transportation Unit Leader.

_____ 1. Put on the Transport Recorder vest.

_____ 2. Set-up at the patient loading point in the Transportation Area.

_____ 3. Record patient movement information on the Tactical Worksheet.

_____ 4. Give Communications the following information on every patient leaving Treatment.

a. Unit transporting.

b. Destination hospital.

c. Number of patients.

d. Patient information (triage category, age, sex, and chief complaint).

e. ETA at destination.

_____ 5. Give other information to Communications to relay to the hospital.

Transportation Loader
(Loader)

Objective: Ensure proper loading of patients on ground vehicles and provide directions to the receiving hospitals. Works for the Transportation Unit Leader.

_____ 1. Put on the Transportation Loader vest.

_____ 2. Get the local area maps and directions to the receiving hospitals.

_____ 3. Set-up at the patient loading point in the Transportation Unit.

_____ 4. Make sure the patients selected for ground transportation by Transportation are:

a. Ready for movement.

b. Loaded on the correct ambulance. Cross check numbers with the Recorder.

_____ 5. Provide instructions to the vehicle drivers:

a. Directions to the designated hospital.

b. Actions to take (return to Staging or return to Home) after delivering patients.

_____ 6. Keep Transportation and Recorder informed.

Air Ambulance Coordinator
(Air)

Objective: Establish helicopter landing zone and coordinate helicopter operations into and out of the landing zone. Works for theTransportation Unit Leader.

_____ 1. Put on the Air Ambulance Coordinator vest.

_____ 2. Select the landing zone site.

a. Select areas large enough for safe operations:

	Day	**Night**
Small helicopter	60' x 60'	100' x 100'
Medium helicopter	75' x 75'	125' x 125'
Large helicopter	125' x 125'	200' x 200'

b. Landing surface is flat, firm and free of debris.

c. Landing zone is not close to Treatment.

d. The approach path is clear.

e. Hazardous materials scenes are upwind.

_____ 3. Assign people to assist in establishing the landing zone.

_____ 4. Mark the landing zone.

a. Other light sources are preferred to flares (source of ignition).

b. At night, make sure spotlights, floodlights, vehicle headlights, and other white lights are not pointed toward the helicopter.

_____ 5. Advise the flight crew before their landing approach of:

a. Obstructions (towers, power lines, buildings, etc.).

b. Wind direction and any gusting.

c. Special hazards.

_____ 6. Coordinate patient loading and movement with Transportation.

_____ 7. Keep the operations safe and secure. Do not allow anyone to approach the aircraft who is not accompanied by a flight crew member.

_____ 8. Keep the Transportation and helicopter crews informed.

Staffing Chart – Treatment and Porters

Purpose: Quick reference chart of the desired numbers of providers for mass casualty incidents. Total column gives number by Treatment Area and an overall total.

Patients		**ALS**	**BLS**	**Porters**		**Total**
2 red	=	2	2	2		4 area
2 yellow	=	1	2	2		3 area
6 green	=	0	2	0		2 area
10 patients		**3**	**6**	**4**	**=**	**17 Providers**
4 red	=	4	4	4		8 area
4 yellow	=	1	4	4		5 area
12 green	=	0	4	0		4 area
20 patients	**=**	**5**	**12**	**8**	**=**	**25 Providers**
10 red	=	10	10	10		20 area
10 yellow	=	3	10	10		13 area
30 green	=	0	10	0		10 area
50 patients	**=**	**13**	**30**	**20**	**=**	**63 Providers**
20 red	=	20	20	20		40 area
20 yellow	=	6	20	20		26 area
60 green	=	0	20	0		20 area
100 patients	**=**	**26**	**60**	**40**	**=**	**126 Providers**

Basic Staffing Ratios:

Red Treatment Area	1 ALS Provider and 1 BLS Provider per patient
Yellow Treatment Area	1 BLS Provider per patient 1 ALS Provider per 3 patients
Green Treatment Area	1 BLS Provider per 3 patients
Porters	1 per red or yellow patient

Simple Triage and Rapid Treatment
Algorithm

1. Tell all of those who can **walk** to move to an easily identified location. Assign a rescuer to supervise these patients. Tape as **Green**.

2. Begin where you stand and move through the remaining victims. Quickly assess each victim and tag with surveyor's tape. Wrap the tape around an extremity and tie with a knot.

Color Code	**Priority**
Red	1 = Immediate
Yellow	2 = Delayed
Black	3 = Deceased or Not Salvageable

3. Evaluate each patient as follows:

Respiration

- Not breathing and does not breath when airway opened - **black.**
- Not breathing - breathes when airway opened - **red.**
- More than 30 breaths a minute - **red.**
- Less than 30 breaths a minute - go to next check.

Perfusion

- Stop obvious life threatening bleeding.
- No radial pulse - **red.**
- Radial pulse - go to next check.

Mental Status

- Altered level of consciousness - **red.**
- Does not follow simple commands - **red.**
- Follows commands - **yellow.**

4. Keep a patient count. Use a strip of tape on your leg and mark each patient with a tick mark by color code or place a piece of matching tape in your pocket for each patient.

Secondary Triage

1. Secondary triage decisions are based on clinical experience and judgment. Consider the following guidelines for mass casualty incidents.

Red Priority 1 Immediate

a. Life-threatening injuries or illness.
b. Shock or risk of asphyxiation is present or imminent.
c. High probability of survival if treated and transported immediately.
d. Can be stabilized without requiring constant care or elaborate treatment.

Yellow Priority 2 Delayed

a. Potentially life-threatening injuries or illnesses.
b. Severely debilitating injuries or illnesses.
c. Can stand a delay in treatment and transportation.

Catastrophically injured

a. Not yet deceased.
b. Low probability of survival even with immediate treatment and transport.
c. Placed separately in the **yellow** area.
d. Treatment and Transportation determine when to transport.

Green Priority 3 Minor

a. Non-life threatening injuries or illnesses.
b. Require a minimum of care with minimal risk of deterioration.

Black Deceased

a. Not salvageable.
b. Deceased on the way to Treatment or upon arrival.
c. Unresponsive with no circulation; cardiac arrest.

Mass Casualty Incident Management

Tactical Worksheets

1st Edition

West Virginia
Department of Health and Human Resources
Bureau for Public Health
Office of Emergency Medical Services

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Charleston, West Virginia 25301-3716
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2/1/04

Acknowledgement:

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Introduction

These forms are tools designed to assist mass casualty managers in carrying out their response duties. These worksheets provide visual reminders of key tasks and an organized way to record and display information needed for on-scene decision-making. Their use will enhance response to a mass casualty incident by making you more effective in managing data, resources and processes.

Each worksheet is provided with a set of directions that should be reproduced on the back of the worksheet. With experienced personnel, these directions can be omitted and the sheets reproduced double-sided with those of other positions within the same Unit. The worksheet is designed for reproduction in an 8½ by 11 inch format and to use on a standard clipboard. Worksheets may be laminated for use with a grease pencil. If you use this option, remember to photocopy the marked up sheet to create a permanent record before erasing.

Remember the workbook is available to enhance your current incident command system. Parts of the book can be used as needed. Forms may be enlarged.

Suggestions for improvements are welcome and should be sent to the Office of Emergency Medical Services, 350 Capitol Street, Room 515, Charleston, West Virginia 25301-3716.

	West Virginia Office of EMS Mass Casualty Incident Management **Tactical Worksheet**	MCI-1

Incident	**Date**	**Time**

Time	**Task**	**Scene Sketch:**
	Scene Safe	
	Survey/Size-Up	
	Send Help	
	Contact IC	
	Set-Up Medical	
	Staging	
	Extrication	
	Porter Teams	

	Treatment	**Unit**	**Assignment**	**Unit**	**Assignment**
	Medical Supply				
	Brief Hospital				
	Transportation				
	Landing Zone				
	REDs First				
	Move GREENs				
	Manage BLACKs				
	Release Units				

Casualties						**Hospital Capabilities**				
Time	RD	YE	GN	BK	Trans	Facility	RD	YE	GN	Trans
Totals										

Tactical Worksheet
MCI-1

Incident - The name or number of the Incident as currently being used. This may be a facility name, a location, a sequential number or other identifier.

Date - Today's date.

Time - The time in 24-hour clock time that this particular worksheet page was initiated.

Scene Sketch - Make a rough sketch of the scene, indicating major elements. Draw and label areas of responsibility assigned to the teams, locations of command, staging, treatment, landing zone, other key areas, and other information that will help you manage the incident.

Time and Task - Record times key tasks are started.

Unit - List all responding EMS units.

Assignment - Note current assignment of each unit.

Casualties -

Time - Note the time of the report.

RD, YE, GN, BK - Record number of red, yellow, green and black patients.

Trans - Record total number transported so far.

Hospital Capabilities –

Facility - Note the names of operational hospitals.

RD, YE, GN - Record the totals of the red, yellow, and green patients that each can accept.

Trans - Note the current number transported to each hospital.

WEST VIRGINIA EMS SYSTEM	West Virginia Office of EMS Mass Casualty Incident Management **EMS Incident Action Plan**	MCI-10

Incident:		**Date:**	**Time:**
Operational Period:	From:	To:	
Incident Commander Goals:			
Incident Commander Strategy:			
Scene Sketch:			
Tactical Priorities:	(1)	By:	
	(2)	By:	
	(3)	By:	
	(4)	By:	
	(5)	By:	
Hazards AND LIMFACS:			
Assignments:	(1)	(4)	
	(2)	(5)	
	(3)	Other:	

EMS Incident Action Plan
MCI-10

Incident – The name or number of the Incident as currently being used. This may be a facility name, a location, a sequential number or other identifier.

Date – Today's date.

Time – The time in 24-hour clock time that this particular worksheet page was initiated.

Operational Period – Write in the start and end time of the period covered by the Plan. These may be time, day and time or specific events that serve as response benchmarks.

Incident Commander Goals – Note the goals established by the Incident Commander.

Incident Commander Strategy – Note the strategy set by the Incident Commander as it applies to the EMS response.

Scene Sketch – Make a simple scene sketch noting the key elements. Use this sketch to note tactical priorities, hazards and assignments.

Tactical Priorities – Write down the key events that must happen to meet the goals and strategy. List in priority order or in the order in which they must be done (if different from priority). Examples are: "extricate patients from railroad car 2," "do a scene perimeter check for patients," or as simple as "initial triage."

By – Set a measure to define success for each priority. It may be a specific time (most common) or some other measure of effectiveness (for example, "all alive" for "extricate patients" if we know some patients are in very poor condition).

Hazards and LIMFACS – Note specific hazards (either normal to the site, resulting from the emergency, or resulting from the response) that effect operations. Note any limiting factors that will make the response more difficult (for example, "radio repeater down – use simplex").

Assignments – Assign EMS resources to each Tactical Priority.

WEST VIRGINIA EMS SYSTEM	West Virginia Office of EMS Mass Casualty Incident Management **Staffing Worksheet**	MCI-11

Incident	**Date**	**Time**

Position		**Agency**	**Person**
Incident Command			
Operations Section Chief			
	Medical Group Supervisor		
	Extrication Unit Leader		
	Extrication Team Leader		
	Extrication Team Leader		
	Triage Unit Leaders		
	Triage Team Leader		
	Triage Team Leader		
	Triage Team Leader		
	Fatality Manager		
	Treatment Unit Leader		
	Red Area Manager		
	Yellow Area Manager		
	Green Area Manager		
	Medical Supply Manager		
	Transportation Unit Leader		
	Ambulance Staging Manager		
	Medical Communications		
	Transport Recorder		
	Transport Loader		
	Air Ambulance Coordinator		

WEST VIRGINIA EMS SYSTEM	West Virginia Office of EMS Mass Casualty Incident Management **Accountability Worksheet**	MCI-12

Incident	**Date**	**Time**

Unit	**Assignment**	**Released**	**Accountability Checks**					
			1	2	3	4	5	6

Action Taken:

Accountability Worksheet
MCI-12

Incident – The name or number of the Incident as currently being used. This may be a facility name, a location, a sequential number or other identifier.

Date – Today's date.

Time – The time in 24-hour clock time that this particular worksheet page was initiated.

Unit – List each EMS response unit on-scene by agency and unit number.

Assignment – List first assignment on the first line. If reassigned, note the new assignment on the second line or third line, as needed.

Released – Enter the time the unit is released for return to quarters or normal service.

Accountability Checks – Blocks are provided for up to six accountability checks. Based on your standard operating procedures, you may either enter the number of personnel reported or the time of the check in the block. If time is not entered here, the time each check process is completed for all units should be noted in the **action taken** section.

Action Taken – Note any action taken to account for units that do not reply or in the event of persons identified as missing with the time the action is taken.

WEST VIRGINIA EMS SYSTEM	West Virginia Office of EMS Mass Casualty Incident Management **Extrication Worksheet**	MCI-2

Incident	**Date**	**Time**

Scene Sketch:

No.	**Patients**	**Problem**	**Unit**	**Start**	**Complete**

Notes:

Special Resources Used	
Time	Unit Identification

Time	**Task**	**Time**	**Task**
	Set Up		Treatment
	Assign Resources		Monitor Personnel
	Locate Victims		Account for personnel
	Triage		Complete

Extrication Worksheet
MCI-2

Incident – The name or number of the Incident as currently being used. This may be a facility name, a location, a sequential number or other identifier.

Date – Today's date.

Time – The time in 24-hour clock time that this particular worksheet page was initiated.

Scene Sketch – Make a rough sketch of the scene, indicating major elements. Draw and label areas of responsibility assigned to teams for extrication and the locations of ongoing operations. Note any special hazards that affect the extrication operations. Key each operation location with a number.

No. – Enter the operation number from the scene sketch.

Patients – Note the number of patients and triage category, if available.

Problem – Note a brief description of the extrication problem.

Unit – Note the unit assigned to the problem.

Start – Record the time of start of extrication.

Complete – Record time the extrication is complete.

Notes – Use to record any additional information.

Time and Task – Record times key tasks are started.

Special Resources – Record the time in and the identification of any special units called.

WEST VIRGINIA EMS SYSTEM	West Virginia Office of EMS Mass Casualty Incident Management **Triage Worksheet**	MCI-3

Incident	**Date**	**Time**

Scene Sketch:

Triage Team Reports

Team	Red	Yellow	Green	Black	Total	Notes
Total						

Time	**Task**	**Time**	**Task**
	Assign Triage Teams		Safeguard BLACKS
	START		Personnel Count
	Assign Porter Teams		Patient Count
	Clear Scene		

Triage Worksheet
MCI-3

Incident – The name or number of the Incident as currently being used. This may be a facility name, a location, a sequential number, or other identifier.

Date – Today's date.

Time – The time in 24-hour clock time that this particular worksheet page was initiated.

Scene Sketch – Make a rough sketch of the scene, indicating major elements. Draw and label areas of responsibility assigned to the Triage Teams or individuals.

Team – Identify the units assigned to triage. If individuals are assigned to areas, identify individuals.

Red, Yellow, Green, Black – Record the number of patients reported in each category by each Team.

Total – Total up the number of patients reported by each Team and by color code. Cross check your arithmetic.

Notes – Note additional information as needed.

Time and Task – Record the times key tasks are started.

WEST VIRGINIA EMS SYSTEM	West Virginia Office of EMS Mass Casualty Incident Management **Fatality Worksheet**	MCI-31

Incident	**Date**	**Time**

Scene Sketch:

Number	**Sex**	**Description**	**Condition**

Individual Completing Form:	Agency:

Fatality Worksheet
MCI-31

Special Instructions – Do not move the remains unless it is necessary to preserve them from destruction. All observations on this sheet should be made as the remains lie in place. **Remember: the Office of the Chief Medical Examiner is responsible for the dead. Assistance from the Chief Medical Examiner may be requested.**

Incident – The name or number of the Incident as currently being used. This may be a facility name, a location, a sequential number or other identifier.

Date – Today's date.

Time – The time in 24-hour clock time this particular worksheet page was initiated.

Scene Sketch – Make a rough sketch of the scene indicating the major elements. Label **clearly** identifying elements (such as roads, buildings, runaway number, etc). For each set of remains located, place a circled number on the worksheet with the approximate distance and direction from a feature that will be there when the Medical Examiner arrives (such as a large piece of wreckage, a building, etc.).

Number – Enter each remains number placed on the sketch.

Sex – If the sex of the remains is obvious, note M for male, F for female. If unknown, write in UNK. Do not guess – if there any doubt, mark as UNK.

Description – Write in a description of the remains as you see them, such as severed hand, torso, missing one leg, head, both arms." Do not guess about the status of the parts of the remains that are not visible.

Condition – Note other information that would help the Medical Examiner's staff account for the remains, such as "badly charred" or "no obvious wounds, wearing a brown suit." Use general descriptions and avoid valuation. For example, a wedding band is a "yellow metal band" not "gold", stones are "clear stones" not "diamonds".

Individual Completing Form – Enter your name.

Agency – Enter your agency.

WEST VIRGINIA EMS SYSTEM	West Virginia Office of EMS Mass Casualty Incident Management **Treatment Worksheet**	MCI-4

Incident	**Date**	**Time**

Red Team		**Yellow Team**		**Green Team**		**Medical Supply**	
Patients	Time	Patients	Time	Patients	Time	Item Ordered	✓
Staff	Time	Staff	Time	Staff	Time		
Notes:							

Time	**Task**	**Time**	**Task**		
	Set up area		Move to transport		
	Secondary triage		Monitor staff		
	Assign teams		Personnel count		

Treatment Worksheet
MCI-4

Incident – The name or number of the Incident as currently being used. This may be a facility name, a location, a sequential number or other identifier.

Date – Today's date.

Time – The time in 24-hour clock time that this particular worksheet page was initiated.

Red Team, Yellow Team, Green Team - Write in the number of patients and time when reported to you by the Team Leaders or as needed to monitor flow of patients for each patient treatment team. Set-up a regular schedule of making these checks so you will know what the current patient loading is – every 15 minutes is a starting point. Report these figures to the Medical Group.

Write in the number of staff and the time at the same time you check the patient flow.

Medical Supply – Record key supply needs reported by the Medical supply Manager. As they are ordered, check them off.

Notes – Use this area to record any other information needed to help manage your unit.

Time and Task – Record the times key tasks are started.

WEST VIRGINIA EMS SYSTEM	West Virginia Office of EMS Mass Casualty Incident Management **Treatment Log**	MCI-41

Incident	**Date**	**Time**
Unit (Optional Use):		

Patient	**Status**	**Priority**	**Notes**	**To Transport**
Name: Bar Code:				
Name: Bar Code:				
Name: Bar Code:				
Name: Bar Code:				
Name: Bar Code:				
Name: Bar Code:				
Name: Bar Code:				
Name: Bar Code:				
Name: Bar Code:				
Name: Bar Code:				
Name: Bar Code:				

Treatment Log
MCI-41

Incident – The name or number of the Incident as currently being used. This may be a facility name, a location, a sequential number or other identifier.

Date – Today's date.

Time – The time in 24-hour clock time that this particular worksheet pages was initiated.

Unit – This worksheet can be used in the individual treatment teams within the Treatment Unit. If used this way, enter the color code of the Treatment Team in this block (Red Team, Yellow Team, or Green Team).

Patient – Enter the patient triage tag number. If a tag with a numbered pull-off is used, peel and stick the numbered pull-off here.

Status – Enter the patient triage color code (Red, Yellow, Green). If the Unit block was used to identify a Treatment Team, the color code does not need to be entered unless it represents a color change and a transfer to another team.

Priority – Use this block to further rank patients within a triage color code.

Notes – Enter additional information when needed.

To Transport – Enter the time in 24-hour clock time when the patient is transferred to the Transportation Unit.

WEST VIRGINIA EMS SYSTEM	West Virginia Office of EMS Mass Casualty Incident Management **Transportation Worksheet**	MCI-5

Incident	**Date**	**Time**
Hospital (Optional Use):		

Patient Triage Tag Number	**Status**	**Hospital**	**Unit**	**Time**
Patient Name:				
Patient Name:				
Patient Name:				
Patient Name:				

Transportation Worksheet
MCI-5

Incident – The name or number of the Incident as currently being used. This may be a facility name, a location, a sequential number or other identifier.

Date – Today's date.

Time – The time in 24-hour clock time that this particular worksheet page was initiated.

Hospital – This is an optional line. If there are a large number of patients going to several hospitals, a separate page can be used for each hospital. In this case, write in the name of the hospital on this line and use the sheet for all patients going to this facility. **Do not use the hospital block below.**

Patient – Enter the patient triage tag number. If a tag with a numbered pull-off is used, peel and stick the numbered pull-off here.

Name – Space is provided in the patient block to write in the name of the patient if you track names in the field.

Status – Enter the patient color code.

Hospital – Enter the hospital to which the patient is being dispatched.

Unit – Enter the number and agency identifier for the ambulance on which the patient is loaded.

Time – Enter the time the ambulance departs in 24-hour clock time.

WEST VIRGINIA EMS SYSTEM	West Virginia Office of EMS Mass Casualty Incident Management **Communications Log**	MCI-51

Incident	**Date**

Frequencies or Means

A:	B:	C:	D:	E:

Time	Station Calling	Freq	Message

Communications Log
MCI-51

Incident – The name or number of the Incident as currently being used. This may be a facility name, a location, a sequential number or other identifier.

Date – Today's date.

Frequencies or Means – Enter either the actual radio frequency or standard designator for each frequency, one to a lettered block (for example, A: MED 10). This form can also be used to make a record of telephone conversations, faxes sent, etc. In this case, enter either "phone" or "fax" as appropriate in a lettered block.

Time – Enter the time in 24-hour clock time for each communication.

Station Called – Enter the designator of the station that was called.

Note that this section is set up for a transmission protocol that leads with the station called and ends with the station doing the calling (for example, "Medical Group this is Community Hospital").

Station Calling – Enter the designator of the station making the call.

Freq – Enter the frequency letter from the bar above. If only one frequency is in use, this column can be left blank.

Message – In general, make a record of every set of radio transmissions or phone conversation that involves the Medical Communicator and gives directions, reports resource or situation status, or otherwise passes information of value in resolving the incident. Do not attempt to run a log of every transmission. Make a brief note of the information passed in the transmission. Include the key data, but do not try to use complete sentences or standard punctuation. Normally record only messages that are for your station or that you originate. However, if key information that you need (such as hospital loadings) is passed on the frequency by other stations, use the log to note this.

WEST VIRGINIA EMS SYSTEM	West Virginia Office of EMS Mass Casualty Incident Management **Landing Zone Worksheet**	MCI-52

Incident	**Date**	**Time**

LZ Sketch:	Aircrew Briefing:
	LZ Lat:
	LZ Lon:
	Landmark:
	Approach From:
	Size:
	Hazards:
	Lighting:

Aircraft	Type	Patients	Operational	Winds:
				Visibility:
				Precip:
				Other:
				Airspace Restriction

Hospitals Receiving Patients by Air		Time From:
Facility	From Scene:	Time To:
		By:
		Contact:
		Altitudes:
		Area:

Notes:

Landing Zone Worksheet
MCI-52

Incident – The name or number of the Incident as currently being used. This may be a facility name, a location, a sequential number or other identifier.

Date – Today's date.

Time – The time in 24-hour clock time that this worksheet page was initiated.

LZ Sketch – Make a simple sketch of the location of the landing zone, relation to the incident area, and the location of key landmarks (from the air) and hazards.

Aircraft – Enter the aircraft identification of each available helicopter.

Type – Enter the aircraft model.

Patients – Enter the number of patients the helicopter can normally carry.

Operational – Enter the time the aircraft became available. Note any limitations on performance (altitude, number of lifts, range, etc.).

Hospitals Receiving Patients by Air – Note the name of the **Facility** and the distance and direction the facility is **From Scene**.

Aircrew Briefing – Note the information to brief inbound helicopters on radio contact. Include the **LZ Lat**itude and **LZ Lon**gitude and distance and direction from an easily recognized **Landmark**. Determine best direction to **Approach From** and the **Size** of the LZ. **Hazards** (type and height) can be briefed from the LZ sketch. At night, brief what type of **Lighting** is in use. Provide current weather information, **Winds** (direction from), **Visibility**, and **Precip**itation.

Airspace Restriction – If airspace has been restricted, note the **Time From, Time To** and **By** which air traffic control facility restriction was issued. Note the phone number of the contact to release the airspace or negotiate problems. Record the **Altitudes** and **Area** covered by restriction.

Notes – Enter any additional information needed.

WEST VIRGINIA EMS SYSTEM	West Virginia Office of EMS Mass Casualty Incident Management **Staging Worksheet**	MCI-53

Incident	**Date**	**Time**

In	Agency/Unit	Crew	Class	Assignment	Out

Notes and Special Instructions:

Supplies to Scene	
Blankets	Backboard
Oxygen	Dressings
IV Sets	Splints
Airway	

Staging Worksheet
MCI-53

Incident – The name or number of the Incident as currently being used. This may be a facility name, a location, a sequential number or other identifier.

Date – Today's date.

Time – The time in 24-hour clock time that this particular worksheet page was initiated.

In – Enter the time the resource arrives in Staging in 24-hour time.

Agency/Unit – Enter the agency and unit number of the resource.

Crew – Enter the number of personnel in the resource crew.

Class – Enter the classification of the resource (i.e., ALS, BLS, HR, etc.).

Assignment – Enter the assignment given the unit while in Staging.

Out – Enter the time the resource leaves Staging in 24-hour time.

Notes and Special Instructions – Record any special instructions received from the Medical Group Supervisor.

Supplies to Scene – Circle the supplies that needed to be carried forward to the Medical Supply Manager. Add items not listed.

Mass Casualty Incident Management
Self-Study Program Examination

Name: _____

Certification Number: _____**Agency:** _____

Date Completed: _____

---

1. List the three "Goals of MCI Management".

   a) _____
   b) _____
   c) _____

2. What are the "Five Ss" of EMS's initial roles and responsibilities?

   S-1: _____
   S-2: _____
   S-3: _____
   S-4: _____
   S-5: _____

3. Name the four (4) colors used in the START triage process and the associated priority.

   _____/_____
   _____/_____
   _____/_____
   _____/_____

4. As they relate to START triage, identify:

   R: _____
   P: _____
   M: _____

5. Define a mass casualty:

   _____
   _____
   _____

6. List three (3) core concepts of an Incident Management System.

   _____
   _____
   _____

Please mail the completed examination to your regional office.