VIRGINIA
MASS CASUALTY INCIDENT MANAGEMENT

Module I
AWARENESS LEVEL
Participant Manual

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MASS CASUALTY INCIDENT MANAGEMENT
Module I
RESPONDER LEVEL
3rd Edition

I. COURSE OBJECTIVES

A. On 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 Virginia Triage Tags.

II. INCIDENT MANAGEMENT SYSTEMS

A. **Location:** Given 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.

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 people - make sure you become familiar with the system in use in your jurisdiction.

D. **Types of disasters:** These events can cause mass casualty incidents.

1. Natural disasters (floods, hurricanes)

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 enough people to overwhelm the resources usually available in a particular system or area.

F. **Goals of MCIM**

1. Do the greatest good for the greatest number
2. Manage scarce resources
3. Do not relocate the disaster

G. **<u>Do the greatest good</u>!**

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. **Resource Demands:** It places great demands on resources, including equipment, rescuers, and facilities.

I. **<u>Don't relocate the disaster</u>!**

1. Patient prioritization at the scene is important for casualty 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 5 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. **<u>The success of the operation will be the effective use of the 5 Ss.</u>**

C. **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 (6) debris that poses a threat to rescuers or their vehicles.

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. 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 Orderly Pattern

4. Maintain Count

5. Minimal Treatment

H. **Triage:** Triage is a French word meaning “to sort.”

IV. TRIAGE

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. By separating out 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

5. 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 a 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 GREEN patients:

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

2. In Virginia we tape each of these as a GREEN patient. Some systems do not tag GREEN patients. We do - without taping you cannot identify them easily as part of the MCI.

C. Move in an orderly pattern:

1. Move through the patients in an orderly pattern.

2. Assess each casualty you come to 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.

3. Save a small piece of triage ribbon.

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. S.T.A.R.T. assessments should last approximately 10 - 15 seconds per patient.

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 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 - **PEFUSION.** 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 manual

I. See JumpSTART algorithm at end of manual

J. **Secondary triage:**

1. Secondary triage and tagging could 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 VIRGINIA TRIAGE TAG

A. **Construction:** Made with white weather resistant material - designed for use with a ballpoint pen.

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 not always obtainable.

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 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 provided for time treatment actions are taken and for 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 be more efficient in all elements of mass casualty management.

C. **Greatest good:** Remember, that 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 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 S.T.A.R.T./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 Virginia Triage Tag:**

1. Was designed to make patient categorization easier and

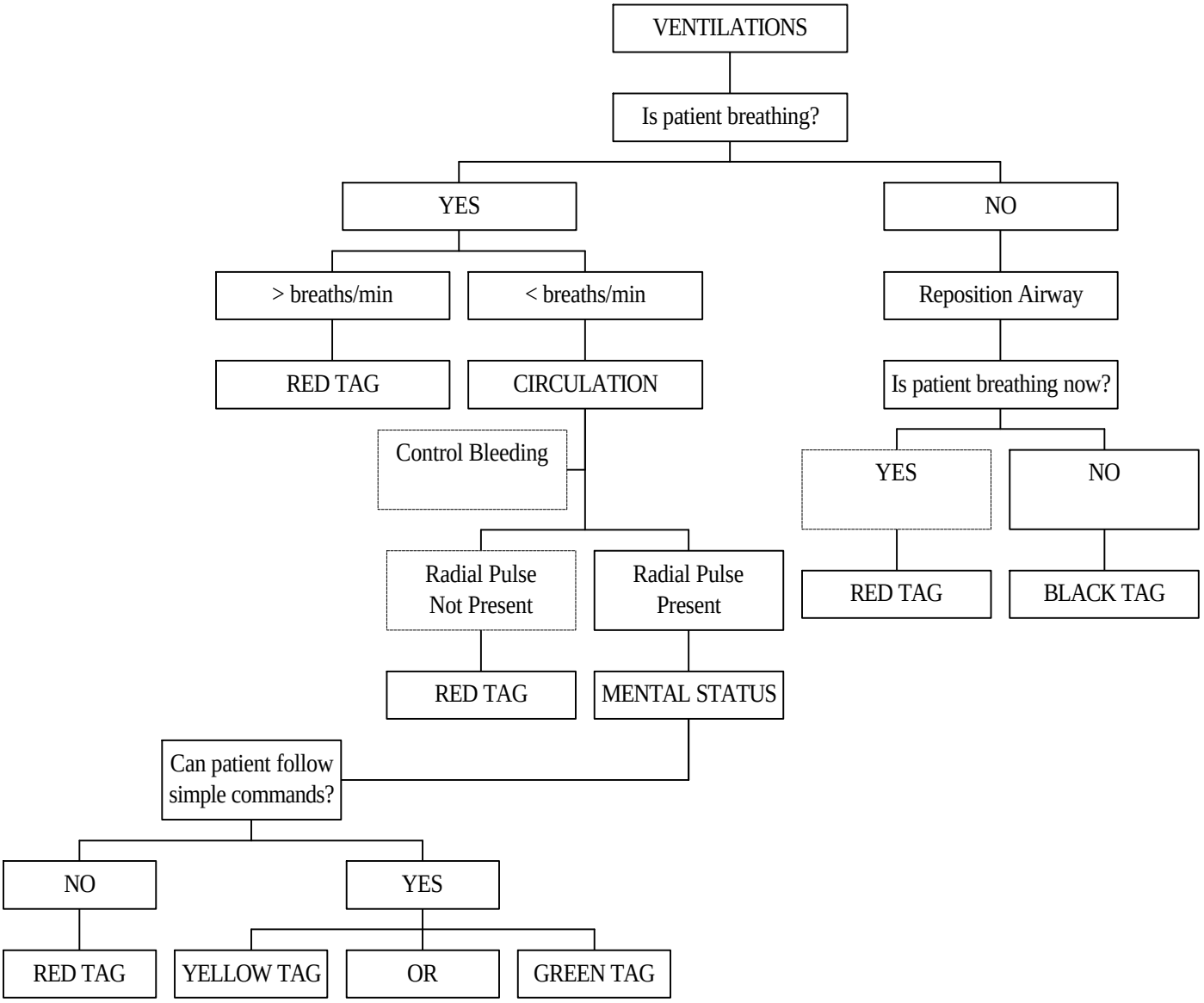
2. To provide a continuous documentation tool.

I. **Incident Management System:**

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

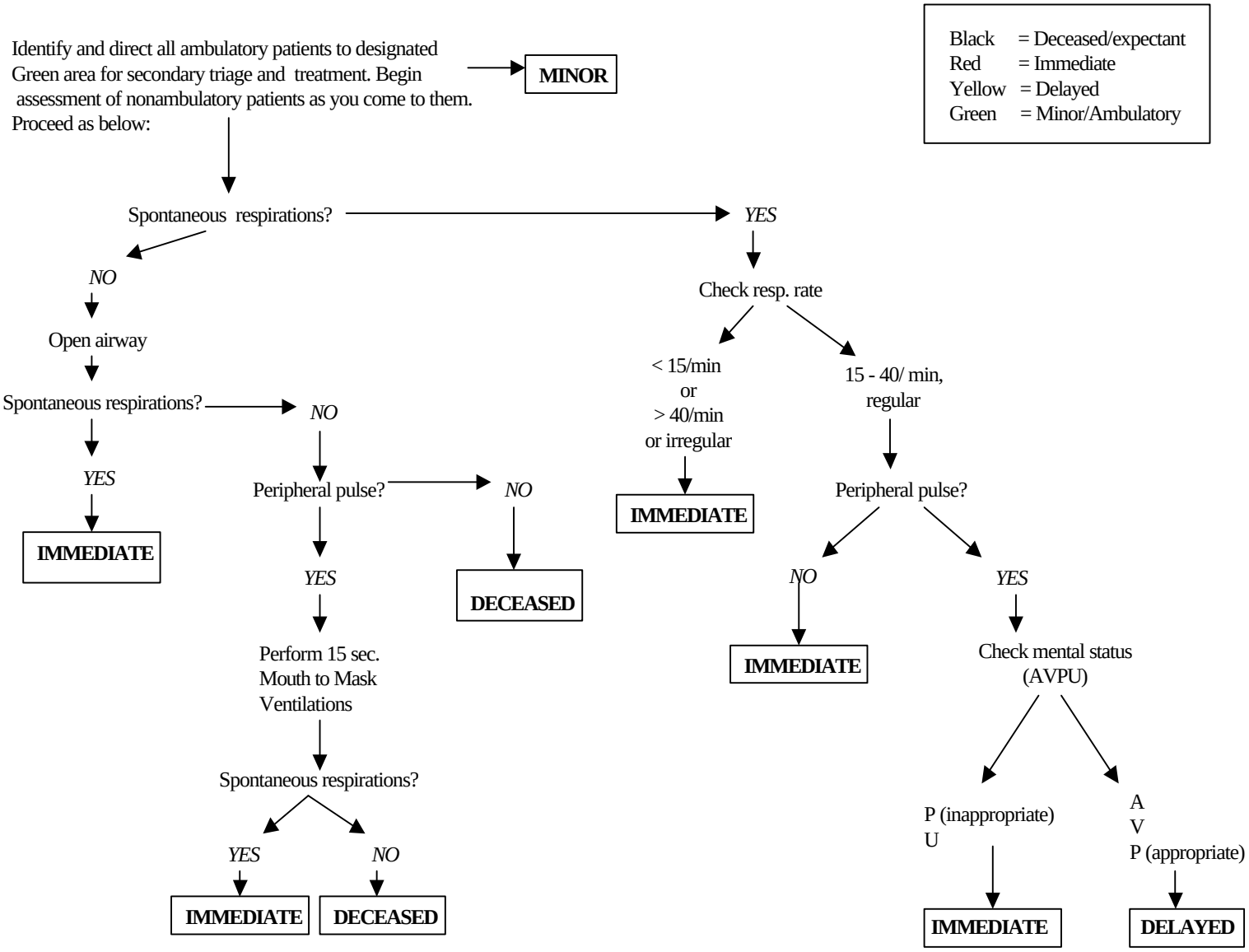
2. Virginia MCI procedures and incident management systems are covered in more detail in Module II of the Virginia Mass Casualty Incident Management Program.

START ALGORITHM



The JumpSTART Field Pediatric Multicasualty Triage System ©

(Patients aged 1- 8 years)



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