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 Virginia Triage Tags
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.
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

Technical Hazards

Transportation Crashes

Civil Disobedience

Criminal or Terrorist Incidents
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

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

- Report Situation
- Request Assistance
- Rapid Hospital Notification
Set Up

- Staging
- Secure Access/Egress
- Secure Adequate Space
  - Triage, Treatment
  - Transportation
- 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
Immediate (highest priority).

Problems with:
- R – Respirations/airway
- P – Perfusion/pulse
- M – Mental Status
- Severe burns which compromise airway
- Delayed (second priority)
  - Burn patients without airway problems
  - Major or multiple bone or joint injuries
  - Back and spine injuries
- Minor (third priority)
  - “Walking wounded”
  - Minor painful swollen deformities
  - Minor soft tissue injuries
- 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 Virginia - 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

RESPIRATIONS

NO

Open Airway

Breathing?

NO

BLACK

YES

Red (Immediate)

YES

Red (Immediate)

> 30

Next Assessment

< 30

(Immediate)
Step 3 - PERFUSION

RADIAL PULSE CHECK

- ABSENT
  - Red (Immediate)
  - Next Assessment
- PRESENT

- Stop major bleeding
- Raise legs of shocky patients
Step 4 - MENTAL STATUS

MENTAL STATUS

FAILS

FOLLOWS COMMANDS

RED (Immediate)

YELLOW (Delayed)
START

VENTILATIONS

Is patient breathing?

YES

> 30 breaths/min

RED Tag

<30 breaths/min

CIRCULATION

Control Bleeding

Radial Pulse
Not Present

RED Tag

Radial Pulse
Present

MENTAL STATUS

Can patient follow simple commands?

NO

RED Tag

YES

YELLOW Tag

Or

GREEN Tag

NO

Reposition Airway

YES

RED Tag

BLACK Tag

NO
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
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
- **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

- **Scene safety** S-1
- **Scene Size-Up** S-2
- **Send for help** S-3
- **Set-up** S-4
- **START/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
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

- Virginia MCI procedures and incident management systems covered in more detail in Module II of the Virginia Mass Casualty Incident Management Program
ANY QUESTIONS?

APPLAUSE