Chapter 54
Medical Incident Command

Learning Objectives

• Outline the components that define a major incident.
• Identify the components of an effective incident command system.
• Outline the activities of the preplanning, scene management, and postdisaster follow-up phases of an incident.
Learning Objectives

• Identify the five major functions of the incident command system.
• List command responsibilities during a major incident response.
• Describe the section responsibilities in the incident command system.

Learning Objectives

• Identify situations that may be classified as major incidents.
• Describe the steps necessary to establish and operate the incident command system.
• Given a major incident, describe the groups and/or divisions that would need to be established and the responsibilities of each.

Learning Objectives

• List common problems related to the incident command system and to mass casualty incidents.
• Outline the principles and technology of triage.
• Identify resources for the management of critical incident stress.
Declaring a Major Incident

- Major incident is critical phase of response
  - If EMS unit is dispatched to scene that has this potential, crew should be advised or should declare (per established protocol) they are responding to possible major incident or mass casualty incident (MCI) and will confirm on arrival
    - Allows other agencies to be contacted, can be placed on standby
    - Allows time for determination of availability of other resources

Declaring a Major Incident

- Direction and area hospitals should also be alerted
- Receiving hospitals need information on number of patients and severity of injuries as soon as possible
  - Can begin to prepare for patient arrival

Declaring a Major Incident

- Major incident should be declared when
  - Two or more ambulance units are required for adequate treatment, particularly in rural areas where communities may have only one ambulance
  - Hazardous or radioactive materials or chemicals in significant quantity are involved
  - MCI results in a large number of patients and requires special EMS resources, such as helicopters, rescue teams, or several rescue or extrication units
What effect do you think lack of organization could have on rescue operations, scene safety, patient care, and transportation in a mass casualty incident?

Incident Command System

• Historically, emergency management of a major incident often resulted in response of many different agencies
  – EMS
  – Fire service
  – Rescue organizations
  – Law enforcement
  – Others

• Often times, each of these agencies operated independently with little or no interagency organization
  – Difficult to determine who was in charge of scene
  – Difficult to determine what emergency services were needed or were being provided
Incident Command System

- Incident command system (ICS) was developed to address these concerns
  - Organizes interagency functions and responsibilities
  - In 2004, ICS was included as part of National Incident Management System (NIMS) of Department of Homeland Security
  - All emergency response agencies at every level of government are required to use at all incidents regardless of type, size, or complexity

Incident Command System

- Provides for a number of arrangements
  - Single jurisdiction and single agency involvement
  - Single jurisdiction and multiagency involvement
  - Multijurisdiction and multiagency involvement
  - Allows ICS to be adapted to needs of any agency or to size, nature, or geographic location of particular incident requiring emergency management
  - Must be capable of being expanded from dealing with nonmajor incident to major one in logical way

Incident Command System

- Use of ICS as standard operating procedure for small incidents allows smooth transition when major incident occurs
- Other components
  - Common elements of organization
  - Terminology
  - Procedures
Incident Command System

• System should be put in place with the least possible disruption to existing systems (EMS, fire, and law enforcement agencies)
• Should be simple enough to keep operating and upkeep costs to minimum

Incident Command System

• Can easily be used at minor incident in which units dispatched to scene are sufficient to handle event
  – Can be expanded if more units are needed for minor incident that becomes major one
  – Use of ICS is critical whenever it becomes apparent need for extended operations will quickly overwhelm responding units

Incident Command System

• Federal law now requires use of ICS in response to all types of incidents
  – ICS is flexible system
  – Used in both public and private sectors in all incidents
  – Much of success of ICS is due to its application of common organizational structure and key principles in standardized way
Incident Command System

- ICS organization is built around five major components
  - Command
  - Finance/administration
  - Logistics
  - Operations
  - Planning

Incident Command System

- Apply
  - During major event
  - In preparation for major event
  - In management of response to major event
Command Function

• At most incidents, responsibility of command should belong to one person who assumes function of command
  – Should be individual with ability to coordinate variety of emergency activities
  – Cornerstone of ICS structure

Command Function

• Initial command should be determined by preplanned system of arriving emergency units and personnel (e.g., first or second arriving EMS, fire, or law enforcement unit)
• Person assuming command is incident commander (IC)
  – Must be familiar with ICS structure
  – Must be familiar with operating procedures of other responding agencies
  – Need not be person with highest rank or most medical training (although this is commonly the case)
  – Should be person best able to manage emergency scene effectively

Command Function

• Command must be established immediately
  – Must be clearly identified
  – All others at scene must be informed as to who is in command
  – As more qualified person arrives, command may be transferred per standard SOPs
  – Transfer of command is usually done face-to-face
Command Function

• Once established, command should take following steps
  – Assume effective command mode and position
  – Transmit brief reports by radio to communications center, identifying location of command post
  – Evaluate situation quickly
  – Develop management strategy
  – Request more resources and provide assignments as needed

Command Function

• Once established, command should take following steps
  – Implement personal accountability and safety system
  – Control and assign divisions and/or groups as required
    • Should be consistent with needs of incident, SOPs, or disaster plans
    • Provide units with operating objectives
  – Provide ongoing effective command and progress reports until relieved by higher-ranking person

Command Function

• Once established, command should take following steps
  – Develop command organization by delegating authority to subordinates
    • Helps to accomplish incident needs and objectives
  – Review and evaluate effectiveness of site operations and revise these operations as needed
  – Return units to service and end command when appropriate
Types of Command

• Command may take single or unified form
• Single command
  – One person is responsible for entire operation
  – Works well for incidents with limited jurisdictions or responsibilities
  – Works best in small events of short duration

• Unified command
  – May be needed in large events or as small incident evolves
  – Specialized organizations are identified and personnel unify to complement command
    • EMS
    • Fire
    • Police
    • Health department
    • American Red Cross

• Unified command
  – Stimulates cooperation ("right" agency leads command at "right" time)
  – Provides for balanced decision making
  – Facilitates interoperability (ability of multiple organizations to communicate effectively) when many different communication frequencies and communications equipment are used by responding agencies
Types of Command

• Unified command
  – Allows agencies with different legal, geographic, and functional authorities and responsibilities to work together effectively
  – Done without affecting individual agency authority, responsibility, or accountability

Types of Command

• Unified command may be indicated in incidents such as those with
  – More than one political jurisdiction affected
  – Multiple agencies within the jurisdiction
  – Multiple geographical and functional agencies
Where do you think command should be located in a mass casualty situation confined to one area?

Types of Command

• In either single or unified command, IC may delegate authority for certain activities by activating additional sections
  – Operations
  – Planning
  – Logistics
  – Finance/administration
• These sections help to meet needs of situation

Types of Command

• Incident commander bases decision to expand (or contract) ICS organization on three major incident priorities
  – Life safety
    • IC’s first priority is always safety of responders and public
  – Incident stability
    • IC is responsible for deciding on strategies to minimize effect of incident on area
    • Strategies should maximize response effort while using resources effectively
Types of Command

- Incident commander bases decision to expand (or contract) ICS organization on three major incident priorities
  - Property conservation
    - IC is responsible for minimizing damage to property while achieving incident objectives
  - When expansion of command is required, IC establishes other general staff positions

Section Responsibilities

- In ICS, manageable span of control (number of people one section chief can manage effectively) falls within range of three to seven, with five being optimum
  - In some cases, span of control indicates that incident organization must be expanded to allow effective management of situation
  - In such cases, IC assigns one or more of general staff sections to sections chiefs
Section Responsibilities

- In ICS, manageable span of control (number of people one section chief can manage effectively) falls within range of three to seven, with five being optimum
  - Section chiefs must be strong supervisors and managers
    - Chief role in ICS is to “make things happen”
    - Enact plans and strategies of incident commander
    - Ensure that all rescuers in their sections are working toward common goal
    - Which of four sections may be needed varies, depending on scope of incident
    - IC makes determination

- Section chiefs should not become involved in physical tasks
  - Examples: carrying litters or operating rescue equipment
  - Allows them to maintain control and supervise section
Section Responsibilities

- General responsibilities of section chiefs
  - Accomplishing objectives set by command
  - Monitoring work progress
  - Redirecting activities as necessary
  - Coordinating related activities with other sections
  - Requesting additional resources as needed for section
  - Monitoring welfare of personnel from each section
  - Providing command with frequent reports
  - Reallocating resources within section

Section Responsibilities

- Section chief should report to command
  - When job is assigned
  - When job is accomplished
  - If job cannot be accomplished

Finance/Administration Section

- Important for tracking costs and way reimbursement is handled
- Section is seldom used in small-scale incidents
- Considered essential if incident grows in magnitude and costs (e.g., a presidential declaration of a disaster)
**Finance/Administration Section**

- Functions
  - Time accounting
  - Procurement
  - Payment of claims
  - Estimation of costs

**Logistics Section**

- Responsible for providing
  - Supplies and equipment (including personnel to operate equipment)
  - Facilities
  - Services
  - Food
  - Communications support
Logistics Section

- Main function is to provide gear and support to responders
- Essential equipment for supporting medical incident
  - Supplies for airway, respiratory, and hemorrhage control
  - Burn management
  - Patient packaging and immobilization

Logistics Section

- Resources for moving and transporting patients (people, ambulances, buses) may be needed
  - Medical unit of logistics section cares for incident responders
    - Does not care for civilian victims
  - Often part of logistics section is used for routine daily incidents
    - Responder rehabilitation
  - Support branches are parts of logistics section
Operations Section

- Directs and coordinates all emergency scene operations
- Ensures safety of all personnel

Operations Section

- Operations section chief is in charge of tactical operations at incident
  - Accomplishing tactical objectives
  - Directing front-end activities
  - Participating in planning
  - Modifying action plans as needed
  - Maintaining discipline
  - Accounting for personnel
  - Updating command on progress or lack of progress of operation
Planning Section

- Staff function of planning section is to provide past, present, future information about incident and status of resources
- Duties may include creation of a written or verbal incident action plan (IAP)
  - IAP defines response activities and use of resources for specified period

Planning Section

- Operational periods can vary in length
  - Should be no longer than 24 hours
  - 12-hour operational periods are common for large-scale incidents
- IAPs may be indicated when
  - Resources from several agencies are used
  - Several jurisdictions are involved
  - Incident is complex (e.g., changes in shifts or personnel required)
Preparing for a Major Incident

- Major incident involves three phases
  - Preplanning
  - Scene management
  - Postdisaster follow-up (or after-action review)

Phase 1: Preplanning

- Efforts by agencies to work together and to plan ahead are crucial to management of major incident
  - All agencies that will be called upon in incident must agree to preplan
  - Must address common goals and specific duties of each group
  - Multiagency efforts succeed as result of frequent meetings and practice sessions or exercises (drills or "tabletop" exercises)
  - Should include system of sorting or prioritizing care, treatment, transportation

Phase 1: Preplanning

- Another component is identification of hazards in a community (risk)
  - May include
    - Manufacture, storage, and transport of hazardous materials
    - Fire threats
    - Population base at various times of day
    - Violence and other potential social problems
Phase 1: Preplanning

- Inventory of resources that may be needed during major incident includes
  - Shelter and mass feeding
  - Air evacuation
  - Medical equipment, supplies
  - Heavy equipment, power generators, lighting
  - Communications equipment
  - Law enforcement personnel
  - Specialized rescue services

Phase 2: Scene Management

- Development of strategy to manage incident scene (scene management)
  - Closed or contained incidents
    - Can be managed with local resources and personnel
  - Open or uncontained incidents
    - May affect large geographical areas and many jurisdictions

Phase 2: Scene Management

- In these incidents, many federal, state, and local agencies become involved
  - Regardless of size of incident or number of agencies involved, scene management calls for coordinated effort
    - Effort must ensure effective response and efficient and safe use of resources
**Phase 3: Postdisaster Follow-up**

- "Lessons learned" from incident
- Methods of improvement
  - Emergency response
  - Planning
  - Community protection
  - Should assess stress-related anxiety and illness among emergency workers that may have resulted from incident

**Mass Casualty Incidents**

- ICS at mass casualty incident is expanded when number of casualties or nature of event overwhelms available resources (local/regional threshold)
  - In communities where local threshold is low, frequent use of ICS for practice is encouraged
  - When mass casualty incident is identified, command must quickly determine how best to expand ICS to meet needs of event
    - Sections, groups, divisions must be put into place according to size and scope of incident

**Mass Casualty Incidents**

- Typically, initial expansion of ICS for mass casualty incident requires establishment of
  - Medical group (including triage and treatment subcomponents, called units)
  - Transport group
  - Extrication/rescue group for disentanglement and/or removal of victims from hazardous areas
  - If more than 5 groups are activated, operations section typically is established
How do you think you’ll feel when you arrive first on the scene of a major medical incident?

Scene Assessment

- First EMS unit to arrive at scene should make quick and rapid assessment (size-up) of situation
  - If arriving unit is two-paramedic crew, one paramedic assumes function of command
    - Second paramedic begins triage
  - More precise and full assessment should be performed as soon as safety and time allow
Scene Assessment

- Fuller assessment should include
  - Type of incident and potential duration
  - Whether entrapment or special rescue resources may be needed
  - Number of patients in each triage category
  - Initial assignments for incoming units
  - Need for any additional resources to manage incident

Communications

- Command must immediately establish radio contact with main communications center or emergency operations center (EOC)
  - Most jurisdictions maintain EOC as part of their community’s preparedness program
  - EOC is where department heads, government officers and officials, and volunteer agencies gather to coordinate their response to emergency event

Communications

- Command and EOC share similar goals
  - Function at different levels of responsibility
    - IC is responsible for on-scene activities
    - EOC is responsible for entire community-wide response to event
Communications

- Radio traffic can be very distracting
  - Incident personnel must observe strict radio and/or phone procedures
  - Use clear, plain English
  - All transmissions should be short and to point

Obtaining Resources

- More units should be requested as soon as need has been identified or anticipated
  - Communications center should have written SOP for requesting mutual aid
  - Support may include obtaining food, shelter, and clothing for victims
  - IC is responsible for providing instructions for deployment of resources
    - Personnel should stay with their vehicle until instructions are received

Obtaining Resources

- Staging techniques that may be used to deploy resources effectively
  - Lining vehicles up at scene to facilitate egress
  - Staging away from limited access highway
  - Identifying formal staging area with assigned staging officer
Obtaining Resources

• “Tool box” theory of strategic deployment of resources can be used
  – Identifies resources (“tools”) specific to incident
  – Uses only needed resources
  – Issues instructions for deployment of resources

Group or Division Functions

• Number of groups or divisions needed at major medical incident varies
  – Common groups and their responsibilities
    • Extrication/rescue
    • Treatment
    • Transportation
  – Staging area, rehabilitation area, and support branch are also important parts of incident organization

Extrication/Rescue Group

• Responsible for managing patients who are trapped at scene
  – Search
  – Rescue
  – Initial triage
  – Tagging
  – Treatment before transfer of patients to treatment group
Extrication/Rescue Group

• Patient care includes only assessment and treatment of life-threatening injuries
  – Examples
    • Need to open airway
    • Control severe bleeding
    • Cover open chest wounds

Extrication/Rescue Group

• Responsible for site safety and personnel safety
  – Supply self-contained breathing apparatus
  – Atmospheric monitoring if indicated for explosive or oxygen-deficient atmospheres
  – Protective clothing
• Responsible for evaluating and directing resources needed for extrication and rescue

Extrication/Rescue Group

• Rescue/extrication group responsibilities
  – Determining whether triage and primary treatment will be conducted on site or in treatment group area
  – Attaching tagging assignments to injured patients
  – Evaluating resources needed for extrication of trapped patients and for their delivery to treatment group
  – Ensuring site safety
  – Evaluating resources needed for triage and primary treatment of patients
Extrication/Rescue Group

- Rescue/extrication group responsibilities
  - Communicating resource requirements to command
  - Allocating assigned resources
  - Supervising assigned personnel and resources
  - Collecting, assembling, and assessing walking wounded
  - Reporting progress to command
  - Reporting “all clear” to command when all patients have been extricated and delivered to treatment group
  - Coordinating with other groups

What dilemmas might you face when doing triage at a multiple casualty incident?

Treatment Group

- Works closely with rescue/extrication group in patient care
  - As patients are delivered, are recategorized according to medical needs
  - Provides advanced care and stabilization until patients are transported to medical facility
  - Most paramedics and hospital personnel are assigned to this group
Treatment Group

• With large number of patients, area usually is further divided into immediate and delayed treatment zones
  – Helps in the determination of priorities for patient transport
  – Immediate treatment patients include those with life-threatening injuries
  – Delayed treatment patients include walking wounded and those whose care and transport can be delayed if necessary
  – Triage monitoring is function of all groups involving ill or injured patients
    • Continuing component of ICS

Treatment Group

• Treatment group responsibilities
  – Locating suitable treatment area that satisfies hazardous material (hazmat) concerns, if applicable (e.g., uphill/upwind/upstream), and reporting that location to rescue/extrication group and command
  – Evaluating resources required for patient treatment and reporting those needs to command
  – Providing secondary triage of patients arriving in treatment area; tagging patients if not already done

Treatment Group

• Treatment group responsibilities
  – Providing suitable immediate and delayed treatment areas
  – Allocating resources
  – Assigning, supervising, coordinating personnel in group
  – Reporting progress to command
  – Coordinating with other divisions and groups
On-Scene Physicians

- Physicians who are on scene can provide valuable help during MCI
  - Roles of physicians may include
    - Providing on-scene medical direction
    - Making difficult triage decisions and secondary triage decisions in treatment area
    - Performing emergency surgery to facilitate extrication
    - Performing more detailed patient assessment
    - Providing direction for specific treatments that may be beyond scope of normal paramedic practice

Disposition of the Deceased

- Depending on scale of incident, personnel may be assigned to disposition of deceased
  - Duties may include
    - Working with medical examiner, coroner, law enforcement, other appropriate agencies to coordinate disposition
    - Assisting in establishment of appropriate and secure area for morgue, if needed
  - When possible, deceased victims should be left in location in which they were found until plan has been made for removal and storage of bodies

Transportation Group

- Communicates with receiving hospitals, ambulances, air medical services for patient transport
  - Must work closely with treatment group
  - Help to determine appropriate destinations for injured patients
  - Arrival and departure of transfer vehicles must be coordinated with staging area
Transportation Group

- Transportation group responsibilities
  - Determining patient transportation needs and obtaining appropriate transportation
  - Evaluating resources required to manage patient transportation
  - Establishing ambulance staging area (if command has not already done so) and patient loading areas
  - Establishing and operating helicopter landing zone
  - Communicating with hospitals to determine hospital surge capacity and capability to handle specialty patients

- Coordinating patient transportation allocations with treatment group and hospitals
- Tracking patients leaving site with written log
  - Patient identification
  - Transporting unit
  - Destination facility
- Reporting resource requirements to command
- Coordinating with other divisions and groups
- Advising command when last patient has been transported

Staging Area

- Staging areas are needed for large incidents
  - Help to prevent vehicle congestion and delays in response
  - All emergency vehicles (fire, law enforcement, EMS) should report to this area for direction
  - Other agencies, such as disaster relief services and news media, may be supervised by staging area manager
Staging Area

- Responsibilities of staging area manager
  - Coordinating with law enforcement personnel to block streets, intersections, and other areas to allow setup of staging area
  - Ensuring that all equipment and vehicles are parked in appropriate manner
  - Maintaining log of all equipment in staging area and inventory of all specialized equipment and medical equipment that may be needed

Staging Area

- Responsibilities of staging area manager
  - Reviewing with command resources that must be maintained in staging, and coordinating request with dispatching center
  - Assuming visible position for incoming equipment and vehicles (e.g., leaving emergency lights operating on one vehicle and wearing an identification vest)
  - Coordinating with other divisions and groups

Rehabilitation Area

- Rehabilitation area (rehab area) is part of major incident response plans of many fire and EMS agencies
  - Usually set up outside operational area
  - Allows rescue personnel to get physical and psychological rest
  - With smaller incidents, rehab unit leader usually reports directly to command
  - In large-scale incidents or whenever logistics group is established, rehab unit leader reports to logistics chief
    - In large-scale incidents, more than one rehab area may be needed
Rehabilitation Area

- Rehab leader duties
  - Ensure personnel get medical care and treatment as needed
  - Keep accurate logs of those who enter and leave area
    - Records of medical care and treatments are kept for each person who enters rehab area

Why do you think a rehabilitation area is important?

Support Branch

- Gathers and distributes equipment and supplies
  - May be responsible for obtaining medical supplies from area hospitals, rescue supplies, and other equipment needed at incident
Support Branch

- Support branch responsibilities
  - Determining medical supply needs of other divisions and groups
  - Establishing suitable location for supply operations
  - Coordinating procurement of medical supplies from hospitals with transportation group

Support Branch

- Support branch responsibilities
  - Coordinating procurement of medical supplies that are not available from hospitals
  - Reporting additional resource requirements to command
  - Allocating supplies and equipment as needed
  - Reporting progress to command
  - Coordinating with other divisions and groups

Identification and Communication

- When ICS is in place, all responders must know its organizational structure and lines of radio communication
- Although clothing and identification vary by system, following guidelines usually apply
  - Color-coded vests identify personnel
  - With exceptions of command and division/group communications, most communications are face to face
  - Radio use is intended for command operation
Identification and Communication

- Although clothing and identification vary by system, following guidelines usually apply
  - Radio communications use operation titles instead of personal or unit names
    - “Treatment group to command”
    - “Rescue/extrication group to treatment group”
    - Ensures all participants can reach appropriate person by one radio designation

Radio Communications

- Communications is key function during major incident
  - Preplanning includes identifying radio frequencies to be used in major incident responses
  - Includes planning for ways these frequencies are to be used
    - For example, all responding units should have multichannel radios that use common frequency
    - Within common frequency, separate frequencies should be used for EMS, fire, and other support operations
    - Division and group officers should have portable radios set on channel that permits direct communication with command

Radio Communications

- Channels may be assigned in advance or by dispatching agency at time of incident
  - State, regional, and local communications systems should undergo periodic review
    - Should include controls for activating communications, system frequencies, portable and mobile radio equipment
Radio Communications

• Other communications considerations
  – Radio traffic must be clear, concise, and in plain English
  – Messages should be given thought and prepared before transmission
  – Speaker should clearly identify unit number or division or group
  – All radio traffic should be minimized
  – Face-to-face communication is preferable and encouraged

Common Problems at Mass Casualty Incidents

• Common problems specific to mass casualty incidents
  – Failure to adequately provide widespread notification of event
  – Failure to provide rapid initial stabilization of all patients
  – Failure to move, collect, and organize patients quickly in treatment area
  – Failure to provide proper triage
  – Provision of overly time-consuming care

Common Problems at Mass Casualty Incidents

• Common problems specific to mass casualty incidents
  – Transport of patients prematurely
  – Improper use of personnel in field
  – Failure to distribute patients to medical facilities properly
  – Failure to communicate with local hospitals regarding patient flow and hospital capacity
  – Lack of proper preplanning and of adequate training for all personnel
Principles and Technology of Triage

- Triage is a method of categorizing patients according to priorities of treatment.
  - Assessment of severity of injury is based on:
    - Abnormal physiological signs
    - Obvious anatomical injury (including mechanism of injury)
    - Concurrent disease factors that might affect patient’s prognosis

Principles and Technology of Triage

- Triage is an ongoing process during major incident.
  - Constant monitoring of patient’s condition may reveal need to change initial grouping and priority of treatment.
- Criteria for triage classifications are determined by:
  - Size of incident
  - Number of injured patients
  - Available personnel

Principles and Technology of Triage

- National guidelines have been established for field triage (SALT Triage).
- Another widely recognized model is simple triage and rapid treatment (START) technique.
- Paramedic must be familiar with local methods of triage categorization.
SALT Triage

• SALT Triage
  – Sort
  – Assess
  – Life saving interventions
  – Treatment and/or transport

SALT Triage

• Developed as national all-hazards mass casualty initial triage standard for all patients (e.g., adults, children, special populations)
• Designed to allow agencies to easily incorporate it into their current MCI triage protocol through simple modification

SALT Triage

• Step 1: Sort
  – Begins with global sorting of patients, prioritizing them for individual assessment
    • Patients who can, should be asked walk to designated area and should be assigned last priority for individual assessment
    • Those who remain should be asked to wave (i.e., follow a command) or be observed for purposeful movement
    • Those who do not move (i.e., are still) and those with obvious life threat should be assessed first since they are most likely to need lifesaving interventions
SALT Triage

• Step 1: Sort
  – Priority 1: still/obvious life threat
  – Priority 2: wave/purposeful movement
  – Priority 3: walk

SALT Triage

• Step 2: Assess
  – Individual assessment should begin with limited rapid lifesaving interventions
    • Controlling major hemorrhage through use of tourniquets or direct pressure provided by other patients or other devices
    • Opening airway through positioning or basic airway adjuncts (no advanced airway devices should be used)
    • If patient is child, consider giving two rescue breaths
    • Chest decompression
    • Auto injector antidotes

SALT Triage

• Life saving intervention (LSI) should only be performed within responder’s scope of practice and only if equipment is immediately available
  – Patients should be prioritized for treatment and/or transport by assigning them to one of five categories
    • Immediate
    • Expectant
    • Delayed
    • Minimal
    • Dead
SALT Triage

• Green designation
  – Patients with mild injuries
  – Self-limited if not treated
  – Can tolerate delay in care without increasing their risk of mortality should be triaged as minimal

• Black designation
  – Patients who are not breathing even after life-saving interventions are attempted

SALT Triage

• Red designation
  – Do not obey commands
  – Do not have peripheral pulse
  – Respiratory distress
  – Uncontrolled major hemorrhage

• Gray designation
  – If patients have injuries likely to be incompatible with life given currently available resources

SALT Triage

• Yellow designation
  – Remaining patients should be triaged as delayed
SALT Triage

- Prioritization process is dynamic and may be altered by changing patient conditions, resources, and scene safety
  - Triage labeling systems should account for dynamic nature of triage and be easily modifiable for single patient
  - After immediate patients have been cared for
    - Patients designated as expectant, delayed, or minimal should be re-assessed as soon as possible
    - Expect that some will have improved, others will have decompensated

- Treatment and/or transport should be provided for immediate patients first, then delayed, then minimal
  - Expectant patients should be provided with treatment and/or transport when resources permit
  - Efficient use of transport assets may include mixing categories of patients and using alternate forms of transport
  - Some patients may only require treatment at scene and not transport
START Technique of Primary Triage

- START Field Guide was developed by Hoag Memorial Hospital Presbyterian in Newport Beach, California
  - Describes 60-second assessment
  - Focuses on patient's
    - Ability to walk
    - Respiratory effort
    - Pulses/perfusion
    - Mental status

START Technique of Primary Triage

- START Field Guide was developed by Hoag Memorial Hospital Presbyterian in Newport Beach, California
  - Assessment is used to classify victim's status as
    - Minor
    - Delayed
    - Immediate
    - Dead

START Technique of Primary Triage

- START Field Guide was developed by Hoag Memorial Hospital Presbyterian in Newport Beach, California
  - Allows rescuers to quickly identify victims at greatest risk of early death
    - Rescuers can then advise other rescuers of patient’s need for stabilization by tagging patient with color-coded triage tags
Triage Procedure

• Minor
  – Can walk and understand basic commands ("walking wounded")
  – Will be further triaged and tagged as more rescuers arrive
  – Should be directed to remain in their location for further assistance or to walk to treatment or transportation site
  – Initial START triage is directed toward patients who cannot walk

Triage Procedure

• Delayed
  – Meet "30-2-can-do" criteria but cannot walk
Triage Procedure

- Immediate
  - Unconscious
  - Rapid breathing
  - Delayed or absent capillary refill
  - Absent radial pulse
    - Patients not breathing should have their airway opened
    - If they resume spontaneous breathing, considered delayed
    - If breathing does not resume after opening airway, categorized as dead

What conditions might a patient have if the respiratory rate is fewer than 10 or more than 30 breaths per minute?

Triage Procedure

- Repositioning airway and controlling severe hemorrhage are only treatments given in initial triage
  - In mass casualty event, these measures should not delay triage of other patients
  - Depending on circumstances and number of casualties, walking wounded may be able to help provide airway support and control severe hemorrhage for more seriously wounded victims
Triage Tagging/Labeling

- Many types of tags, tapes, ribbons, and labels are used to indicate victim’s triage category (triage tagging system)
  - Two commonly used labeling methods are METTAG system and SMART tag system

Triage Tagging/Labeling

- METTAG uses international agreement on color coding and priorities
  - Red: most critically injured
  - Yellow: less critically injured
  - Green: injuries that are not life or limb threatening
  - Black: died or injuries preclude survival
  - Triage tags and labels should be used routinely for practice so EMS crews become familiar with their use
Triage Tagging/Labeling

• SMART tag system uses five-color triage coding cards that have military barcodes for tracking patients
  – Priority 1 (red) indicates immediate treatment
  – Priority 2 (yellow) indicates urgent treatment
  – Priority 3 (green) indicates delayed treatment
  – Priority 4 (blue) indicates expectant treatment
  – Black cards indicate death

Triage Tagging/Labeling

• Regardless of labeling system used, categorization must
  – Identify priority of patient’s condition
  – Prevent retriage of same patient
  – Serve as tracking system during treatment and transport
Triage Tagging/Labeling

• All tags and labels should have following characteristics
  – Be easy to use
  – Rapidly identify patient’s priority
  – Allow for easy tracking
  – Allow room for some documentation
  – Prevent patients from retriaging themselves

Tracking Systems for Patients

• Transportation group officer must keep tracking or destination log that integrates triage tagging system
  – Log should have patient’s name or triage label identification number
  – Tracking log is similar to shipping manifest

• Transportation group officer must keep tracking or destination log that integrates triage tagging system
  – Must have following information
    • Patient identification
    • Transporting unit
    • Patient priority
    • Hospital destination
Transportation of Patients

- Way patients are transported depends on their triage priority and situation
  - Ambulances typically are used
  - Buses may be used to transport large number of stable patients
  - Air ambulances usually reserved for transport of patients in critical condition

Critical Incident Stress Management

- Critical incident stress is potential hazard for rescue personnel
  - Critical incident stress debriefings often are conducted after disaster

Critical Incident Stress Management

- Basic types of services that should be made available
  - Preincident stress training for all personnel
  - On-scene support for obviously distressed personnel
  - Individual consults when only one or two rescuers are affected by incident
  - Defusing services immediately after large-scale incident
  - Mobilization services after large-scale incident
  - Critical incident stress debriefing 24 to 72 hours after event for any emergency personnel involved in stressful incident
Critical Incident Stress Management

• Basic types of services that should be made available
  – Follow-up services to ensure that personnel are recovering
  – Specialty debriefings to nonemergency groups when no other timely resources are available in community
  – Support during routine discussions of incident by emergency personnel
  – Advice to command staff during large-scale events

Critical Incident Stress Management

• Other approaches that can aid stress management
  – Employee assistance programs
  – Counseling
  – Spouse support programs
  – Family life programs
  – Pastoral services
  – Periodic stress evaluations

Summary

• Major incidents are events for which available resources are not adequate to manage number of casualties or type of emergency
• ICS organizational structure should be adaptable to any agency or to any incident requiring emergency management
  – ICS also must be expandable
  – Must be able to expand from dealing with nonmajor incident to major one in a logical way
Summary

• Five major functions of the ICS organization are command, planning, operations, logistics, and finance/administration
• Responsibility of command should belong to one person
  – Should be a person who can effectively manage emergency scene
  – In multiagency and/or multijurisdictional incidents, unified command may be used

Summary

• Planning section should provide past, present, and future information about incident and status of resources
  – Operations section directs and coordinates all operations, also ensures safety of all personnel
  – Logistics section is responsible for providing supplies and equipment (including personnel to operate equipment), facilities, services, food, and communications support
  – Finance/administration section tracks incident and reimbursement costs

Summary

• All participating response agencies must agree to preplan (phase 1 of ICS)
  – Preplan must address common goals and specific duties of each group
  – Phase 2 requires development of a strategy to manage emergency scene
  – Phase 3 includes a postdisaster review of lessons learned from incident and determination of ways to improve
Summary

• Need to expand ICS at medical incident is based on number of casualties and nature of event
• First EMS unit to arrive at scene should make quick and rapid assessment of situation
  – Command must immediately establish radio contact with communications center or emergency operations center
  – Additional units should be requested as soon as need has been identified

Summary

• Common divisions or groups that may need to be established include extrication/rescue, treatment, and transportation
  – Staging area and support branch may also be needed.
  – Rescue/extrication group is responsible for managing trapped patients at the scene
  – Treatment group provides advanced care and stabilization until patients are transported to medical facility
  – Transportation group communicates with receiving hospital, ambulances, and aeromedical services for patient transport

Summary

• Common divisions or groups that may need to be established include extrication/rescue, treatment, and transportation
  – Staging area is used in large incidents to prevent vehicle congestion and delays in response
  – Rehabilitation area allows rescue personnel to receive physical and psychological rest
  – Support branch coordinates gathering and distribution of equipment and supplies for all divisions and groups
Summary

• Problems of mass casualty incidents and incident command systems stem from numerous issues related to communication, resource allocation, and delegation.

• Triage is a method used to categorize patients for priorities of treatment.
  – START triage uses a 60-second assessment and focuses on the patient’s ability to walk, respiratory effort, pulses/perfusion, and neurological status.
  – METTAG system is one of a number of tape, tag, and label systems used to categorize patients during triage.

Summary

• Critical incident stress debriefing is part of a critical incident stress management program.
  – Such debriefing should be part of postdisaster standard operating procedures.

Questions?