TRANSITION SERIES
TOPICS FOR THE EMT
BRADY

TOPIC 55

Multiple-Casualty Incidents
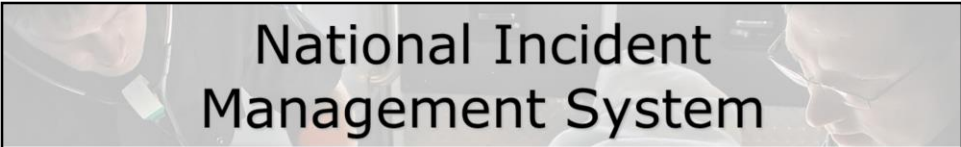and Incident Management

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Objectives

- Review what an MCI event is.
- Discuss the NIMS framework.
- Discuss how the ICS within NIMS is to be deployed during an MCI.
- Review the START triage format.
- Discuss the psychological stress that may arise in EMS secondary to an MCI.

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Review objectives.

National Incident Management System

- Components
  - Preparedness
  - Communication and Information Management
  - Resource Management
  - Command and Management
  - Ongoing Management and Maintenance

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Review what is entailed in each component of NIMS.

The Incident Command System (ICS) is a subset of the NIMS.

It is based on successful business practices and decades of lessons learned in the organization and management of emergency incidents.

The ICS is a flexible, cost-effective system that can be used to match the complexities and demands of a single or multiple incidents.

It is applicable across all disciplines and is legally required to be used during some incidents, such as those involving hazardous materials.

Every agency that responds to a disaster is required to be NIMS compliant.

Various levels of incident management training are available to emergency personnel.

The courses "FEMA IS-700: NIMS, An Introduction" and "ICS-100: Introduction to ICS," or their equivalents, are required for EMTs; however, particular organizations and positions might require additional training.

Incident Command System

- Six major functional areas
  - Command
  - Operations
  - Planning
  - Logistics
  - Finance/Administration
  - Intelligence and Investigations

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Figure 55-1 The incident commander directs the response and coordinates resources. Wearing reflective vests makes it easier to identify personnel.

Incident Command System

- Branch units
  - Triage
    - Primary and secondary
    - Red, yellow, green, black
  - START triage
    - Respiratory status, perfusion status, mental status

The START triage is performed primarily to initially categorize older children and adult patients for priority movement to the triage unit.

It should not take an EMT more than 30 seconds per patient to complete.

After the patients are tagged appropriately, they can be identified, sorted, treated, and transported according to their criticality by rescue personnel at the incident.

Incident Command System

- Treatment
  - Care based on priority
  - Safe distance from incident
  - May be more than one treatment area

The treatment unit provides emergency care based on the priority assigned to the patient.

Patients should be fully immobilized, if needed, and moved from the triage unit to the treatment unit in order of their priority.

The treatment area should be a safe distance from the incident and close to the area where the ambulances arrive.

Larger-scaled incidents may require use of more than one treatment unit.

A morgue should be established and used appropriately.

Figure 55-2 Patients are treated after triage, in order of priority.

Incident Command System

- Transport
    - Ensures ambulances are accessible
    - Coordinates with Incident Commander
    - Considers transport destinations, needs of the patients, volume, distance, etc.

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The transport unit leader ensures that ambulances are accessible and that transportation does not occur without the direction of the incident commander.

Patients should be transported based on their priority.

The transport unit leader should radio the hospital and provide a brief patient report and estimated time of arrival.

Ambulatory patients may be transported via bus with adequate personnel and supplies once the more critical patients have been transported.

Incident Command System

- Communications
  - A plan should be made prior to any incident
  - Take into consideration things like terrain, capabilities, dead spots, channel gridlock, etc.

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A communication plan should include the following:
•Incident-related policies and standards
•Systems and equipment to be used
•Training necessary to achieve integrated communications
•Responsibility assigned to those operating the system and equipment
•A reliable backup system

Incident Command System

- Follow-through
  - After transport to hospitals, EMS helps facilities in follow-through care
  - Coordinated by the Incident Commander

After all the patients have been transported from an incident scene, the emergency personnel assist hospital personnel in follow-through care if necessary.

If an EMT's assistance is needed, the facility's incident manager will provide instructions to the EMT.

If the EMT's assistance is not needed at the hospital, the EMT should prepare to respond to other emergency calls.

Psychological Stress

- Stress
  - May affect EMS providers
  - Could happen during, after, or long after event
  - Relief efforts may help limit the effects of stress
  - There should be organized stress management plans and activities

Psychological stress often affects the rescuers as well as the patients at the scene of a multiple-casualty incident.

Personal safety, crying, anger, guilt, numbness, preoccupation with death, frustration, fatigue, and burnout are common concerns encountered by EMTs.

Effective stress management should be considered prior to and incorporated into the relief efforts of any MCI.

Case Study

You are called to a local airstrip for a possible "plane down." Normally this airstrip only handles small aircraft that carry 2-4 people. This time, however, a 16-passenger craft attempted an emergency landing due to engine failure and ran off the end of the runway.

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Present case study.

Case Study

- As the first unit that will be arriving on scene, what concerns do you have?
- What type of information about the aircraft do you need as soon as possible?

Concerns include:
•Did the aircraft in fact run off the end of the strip?
•How many people were aboard the aircraft?
•Does the airstrip have a FD or EMR's?
•Is fire suppression en route?
•Are police en route?
•Has the airstrip been temporarily shut down?

Information needed:
•Is aircraft in pieces?
•Any idea number of injured?
•How many available EMS units in system right now?
•How many EMS units can be mobilized within 15-30 minutes?
•Is there arrangements with heavy-rescue in case fuselage needs moved?
•What communications systems are there?

Case Study

When you arrive, you see that the aircraft is upside down at the end of the runway. The right wing has been torn off and is burning about 500 feet away. There is smoke coming from the windows of the passenger compartment, but no open flames. As you draw near, you note that no fire suppression has arrived yet.

On scene tasks include, but is not limited to:
•Notify dispatch of your arrival.
•Determine where to park the ambulance.
•Perform a scene size-up.
•Take BSI precautions.
•Proceed to assess and manage your patient.

Case Study

- What will your actions be with this information? What will you do until the FD and additional support arrive?
- With adequate personnel available, what branch sectors will need to be established?

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For now, you and your partner will need to stay a safe distance from the wreckage.

If there are people walking around the fuselage, instruct them to come your way.

Once person can serve as a triage office as another assumes the role of incident commander and starts communicating with dispatch and other arriving units to coordinate efforts.

•Triage branch
•Treatment branch
•Transport branch at a minimum

Case Study

- What are the components of the START triage system?
- What is the purpose of the "follow-through" at the conclusion of an MCI?

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START triage is performed to initially categorize older children and adults for priority movement to the triage and treatment units.
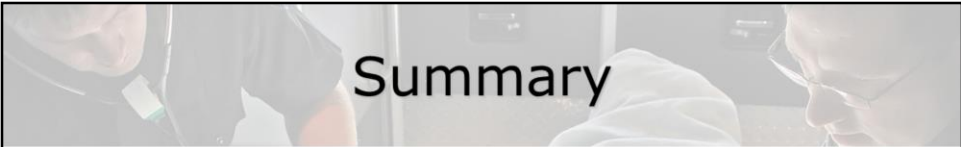
It is comprised of three elements:
•**Respiratory status.** Any patient who is able to walk is considered low priority and is tagged "green." The EMT should assess the respiratory status of those who cannot walk. If the patient is not breathing, the EMT should open the patient's airway. If the patient remains apneic, tag the patient "black." If the patient's respiratory rate is greater than 30 per minute or inadequate, tag the patient "red." If it is less than 30 per minute, assess their perfusion status.

•**Perfusion status.** The EMT should then assess the patient's radial pulse and capillary refill. If the patient has a radial pulse and his capillary refill is less than 2 seconds, the EMT should then proceed to the mental status examination. If the patient's capillary refill is greater than 2 seconds or the radial pulse is absent, tag the patient "red."

•**Mental status.** The EMT should ask the patient to squeeze their fingers. If the patient follows the command, tag the patient "yellow." If the patient is not alert, does not obey the commands, or is unresponsive, tag the patient "red."

The follow through is to now assist the hospital(s) that have just received a number of
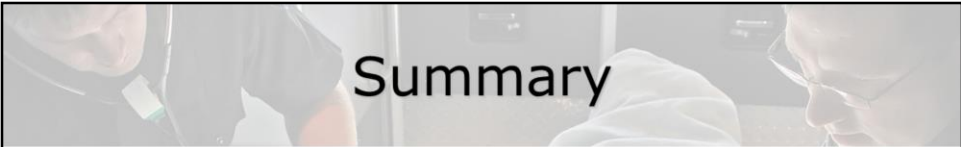
the patients with follow through care.

Summary

- Handling an MCI is a difficult task for most any EMS provider, even with proper education and preparation.
- MCI drills often do not create the same stress and drama an actual event would, but the drill will expose strengths and weaknesses of the system.

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Review as appropriate.

Summary

- It is the responsibility of the EMT to remain abreast of NIMS, ICS, and START so as to be a functional part should an MCI occur.

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Review as appropriate.