This month we are going to discuss our response to a Mass Casualty Incident or an MCI. We have our system protocols that follow the Region IX guidelines for MCI, but we must always remember that departmental SOG’s or MABAS (Mutual Aid Box Alarm System) Division plans may also dictate how an incident shall be handled.

To discuss an MCI, we first should go over the Incident Command System or ICS. ICS is a standardized on-scene incident management concept designed specifically to allow responders to adopt an integrated organizational structure equal to the complexity and demands of any single incident or multiple incidents without being hindered by jurisdictional boundaries.

In the early 1970s, ICS was developed to manage rapidly moving wildfires and to address the following problems:

- Too many people reporting to one supervisor;
- Different emergency response organizational structures;
- Lack of reliable incident information;
- Inadequate and incompatible communications;
- Lack of structure for coordinated planning among agencies;
- Unclear lines of authority;
- Terminology differences among agencies; and Unclear or unspecified incident objectives.

In 1980, federal officials transitioned ICS into a national program called the National Interagency Incident Management System (NIIMS), which became the basis of a response management system for all federal agencies with wildfire management responsibilities. Since then, many federal agencies have endorsed the use of ICS, and several have mandated its use.

An ICS enables integrated communication and planning by establishing a manageable span of control. An ICS divides an emergency response into five manageable functions essential for emergency response operations: Command, Operations, Planning, Logistics, and Finance and Administration.
Once we arrive at the scene of the incident, one of our first priorities is to establish communications with the Emergency Department and advise them of the situation based on your scene size up. Advising them of the situation will allow them to start working on a list of area hospitals and what they are able to handle.

Once the incident has been evaluated and as they are triaging the victims, we can usually determine if this is a small scale, medium or large scale incident. Now we will look at each one to see what the differences are.

**Small Scale Incident**- Definition: The number of patients, nature of injuries and appropriate resources can be on scene (within 15 minutes- secondary response time) to allow for normal delivery of care and transport. Time sensitive patients can be transported within a 10 minute scene time!

For the 1 ALS/1 BLS or 2 BLS patients per ambulance you will need to have personnel in the back of the ambulance to manage care for both patients PLUS need to have appropriate medical equipment to manage 2 patients. All persons in the back of the ambulance need to be restrained. We must also remember that while we may have multiple patients, we need to consider HIPAA and to be careful discussing private medical information in the back of the ambulance during transport if the patients are not related.

A Small Scale Incident will require more than routine resources to mitigate the incident
- The incident usually involves between three and five ambulances
- May transport one (1) ALS and one (1) BLS patient, or two (2) BLS patients per ambulance
Incident Command (IC) or designee: Initial communication may be via dispatch just alerting the hospital of an incident. They most likely will not have specific information about the incident or how many/what type of patients. The IC or designee from the scene needs to contact the hospital as soon as they are able to communicate the necessary information.

- Closest appropriate hospital: closest hospital vs. trauma center
- Contact the CLOSEST APPROPRIATE HOSPITAL using normal modes of communication. State, “We are on the scene of a Small Scale multiple patient incident.”
- Report event description, specific number of patients, general patient descriptions and the closest appropriate hospitals.
- After conferring with the closest appropriate hospital, transport the agreed upon number of patients to that hospital.
- If the closest hospital cannot take all the patients from the incident, IC or designee will assign each transporting ambulance a destination hospital.
- If EMS desires to transport more than 2 patients to a designated hospital, the ECRN must confirm that they will take more than the initial 2 patients.
- You must then communicate the transportation of those patients to the closest hospital.
- All transporting ambulances should contact their destination hospitals with patient care reports (abbreviated reports are acceptable). All radio reports must begin with, “We are transporting patients from a small scale multiple patient incident, include name/location of incident.”
- When the number of ill or injured patients exceeds the routine transport of patients to the nearest hospitals, contact the Resource Hospital to coordinate remaining patient distribution (look to escalate event to medium/large scale incident).

Medium Scale Incident- Definition: A Medium Scale Incident exists when capabilities exceed the typical initial emergency response. A MABAS request may be indicated to provide the required resources to manage patient care at the scene.

Incident Command (IC) or designee: Initial communication may be via dispatch just alerting the hospital of an incident. They most likely will not have specific information about the incident or how many/what type of patients. The IC or designee from the scene needs to contact the hospital as soon as they are able following the field report to communicate the necessary information.

A Medium Scale Incident exists when capabilities exceed the typical initial emergency response.

- The appropriate ICS positions should be added to match the complexity of the incident.
- A Box Alarm through MABAS is activated for mutual aid response.
- The incident usually involves between 6-10 ambulances.
- A command post is established on the scene.
- Contact the Resource Hospital immediately using normal modes of communications and state: “We are on the scene of a medium scale multiple patient incident, include name/location of incident.”
- Request transportation management, report event description, estimated numbers of patients, acuities and closest hospital and closest trauma centers. Provide the Resource Hospital with a call back number with your name and position.
You may still transport 1 ALS/1 BLS or 2 BLS patients per ambulance and need to have personnel in the back of the ambulance to manage care for both patients PLUS need to have appropriate medical equipment to manage 2 patients.

Once the Resource Hospital receives specific information from the scene, area hospitals are contacted to see what their capabilities are, and then IC/designee is re-contacted with distribution information. This can take several minutes. In the meantime, critical patients may need to be cleared – so they may need to start transporting level I traumas before the Resource Hospital re-contacts IC/designee.

After the Resource Hospital reports hospital capabilities, record information and assign patients and destination hospitals to ambulances. Maintain communication with the Resource Hospital until the scene has been cleared of patients. For each transporting ambulance: report ambulance number, acuities of patients being transported and destination hospital to the Resource Hospital.

Each transporting ambulance contacts the receiving hospital with an abbreviated report and completes a patient care report in Image Trend. “We are transporting patients from a small scale multiple patient incident, include name/location of incident”.

Large Scale Incident: generally extends beyond the capabilities of local control and may require multiple operational periods through incident command.

- Contact the Resource Hospital IMMEDIATELY using normal modes of communication. State, “We are on the scene of a large scale multiple patient incident, include name/location of incident.”
- Request transportation management, report event description, estimated numbers of patients, and estimated patient acuities and closest hospitals. Provide the Resource Hospital with a call-back number and name/position.
- The expectation is that the ambulances that have responded to the incident will be recalled to the scene after delivering their patient to the hospital.
- SMART and JumpSTART triage is to be performed and SMART tags used.
- During a mass casualty/disaster an ambulance may transport:
  - One (1) cot patient and up to 3 seated patients (all restrained)
  - Two (2) cot patients, one on ambulance cot and one on bench seat (both restrained)
  - Must have available space for treating paramedic(s), must be restrained
- Must have equipment, drugs and other supplies to care for all patients during transport
- Transporting ambulances DO NOT call in patient reports to the hospital
- Image Trends reports are not done as all patient care and treatment should be placed on the SMART tag. This tag serves as the patient medical record and pre-hospital report.

Once the scene is cleared, fire/EMS have scene clean up and hospitals continue to take care of the patients received, trying to reunite them with loved ones. Debriefing is important for everyone to share their thoughts and feelings; also what went well and where there may be room for improvement, ie “lessons learned”.
So now that we have discussed how to determine how big our incident is, let’s discuss triage a little more. Your first responding units will be tasked with triage which basically means to sort. We will use our SMART Tags to go to the injured patients and triage them with the START method for adults, or the JumpSTART for pediatric patients.

**RED** – Immediate: Patient has life threatening but treatable injuries requiring rapid medical attention.

**YELLOW** – Delayed: Potentially serious injuries, but are stable enough to wait a short while for medical treatment.

**GREEN** – Minimum: Minor injuries that can wait for longer period of time prior to treatment.

**BLACK** – Expectant: Death or lack of spontaneous respirations after airway is opened.

START stands for Simple Triage And Rapid Transport. Your triage is based off of three different criteria:
- Respiratory,
- Pulses or Perfusion
- Mental Status
The biggest difference with the START and JumpSTART is that we will give an apneic child 5 rescue breaths and see if they start breathing. If they do not, they are tagged black or expectant. Also with the AVPU it is hard to evaluate in children, so we look at inappropriate posturing or unresponsive and if they are appropriate they are delayed.

There are several jobs and responsibilities to handle at a mass casualty incident. Hopefully this review will help you to better understand the roles that you may be responsible to handle.

Ref: Region IX EMS Multiple Patient Incident Plan (MPIP)
Region IX Sop page 46 on Mass Casualty Incidents
START and JumpSTART MCI Triage Tools by Dr. Lou Roemig
1) What are the 3 types of incidents that we can encounter with multiple patients?

   a. ___________________________
   b. ___________________________
   c. ___________________________

2) Which tool is used to triage pediatric patients? _______________________

3) The person that takes control of the scene and coordinates the activities is the?
   ________________________________.

4) What are the 4 categories in triage and what does each level mean?

   a. ________________________________
   b. ________________________________
   c. ________________________________
   d. ________________________________

5) A medium scale incident is described as an event that extends beyond the capabilities of local control and may require multiple operational periods through incident command.

   a. True
   b. False

6) NIIMS stands for? ________________________________.

For the rest of the quiz…please triage the following patients. A bus carrying school aged children of various ages and their chaperones on a field trip loses control, slams into the median, then rolls, you are the Triage Officer.
7) A school aged boy is found lying on the roadway 10 feet from the bus. Breathing is 10/min, good distal pulse, groans to painful stimuli.
   a. Red-Immediate
   b. Yellow-Delayed
   c. Green-Minor
   d. Black – Expectant

8) An adult that is kneeling at the side of the road, shaking his head. Says he is too dizzy to walk. Respirations are 20, capillary refill is 2 sec, obeys all commands.
   a. Red-Immediate
   b. Yellow-Delayed
   c. Green-Minor
   d. Black-Expectant

9) A school age girl crawls out of the wreckage. She’s able to stand and walk toward you crying. Her jacket and shirt are torn, no obvious bleeding is noted.
   a. Red-Immediate
   b. Yellow-Delayed
   c. Green-Minor
   d. Black-Expectant

10) A toddler lies with his lower body trapped under a seat inside the bus. They are apneic, remain apneic with modified jaw thrust and has no palpable pulse.
    a. Red-Immediate
    b. Yellow-Delayed
    c. Green-Minor
    d. Black-Expectant

11) Adult female driver still in the bus, trapped by her lower legs under caved in dash. Her respiratory rate is 24, cap refill is 4 sec and she only moans to verbal stimuli.
    a. Red-Immediate
    b. Yellow-Delayed
    c. Green-Minor
    d. Black-Expectant
12) A toddler lies among the wreckage and has a respiratory rate of 50, palpable pulse distally and withdrawals from painful stimulus.
   a. Red-Immediate
   b. Yellow-Delayed
   c. Green-Minor
   d. Black-Expectant

13) A woman is carrying a crying infant. She is able to walk. Respiratory rate is 20, cap refill is 2 seconds and she obeys commands.
   a. Red-Immediate
   b. Yellow-Delayed
   c. Green-Minor
   d. Black-Expectant

14) An infant is carried by the previous woman is screaming but the woman quiets him to a respiratory rate of 34 with a good distal pulse. The child focuses on you and reaches for his mother. There are no significant external injuries noted.
   a. Red-Immediate
   b. Yellow-Delayed
   c. Green-Minor
   d. Black-Expectant

15) A young school aged boy props himself up on the road. Respirations are 28, good distal pulses, answers questions and follows commands. Has obvious deformity to both lower legs.
   a. Red-Immediate
   b. Yellow-Delayed
   c. Green-Minor
   d. Black-Expectant

16) Toddler found outside the bus, lying on the ground in a heap. Apneic, remains apneic with jaw thrust and has a faint distal pulse when palpated.
   a. Red-Immediate
   b. Yellow-Delayed
   c. Green-Minor
   d. Black-Expectant
17) A school aged girl lies among the wreckage. A respiration are 40, absent distal pulse and withdraws from painful stimuli.
   a. Red-Immediate
   b. Yellow-Delayed
   c. Green-Minor
   d. Black-Expectant

18) Adult male lies inside the bus. He is apneic and remains apneic with your jaw thrust.
   a. Red-Immediate
   b. Yellow-Delayed
   c. Green-Minor
   d. Black-Expectant

19) A young teen girl lies among the wreckage and she is crying for someone to please help her up. A man with her says she needs her wheelchair. Respirations are 22, palpable distal pulses alert and only has minor cuts and bruises on her hands.
   a. Red-Immediate
   b. Yellow-Delayed
   c. Green-Minor
   d. Black-Expectant

20) An adult male lies on the ground. Respiratory rate is 20, good distal pulses and obeys commands but states that he can’t move his legs.
   a. Red-Immediate
   b. Yellow-Delayed
   c. Green-Minor
   d. Black-Expectant

If you are NOT a member of the McHenry Western Lake County EMS System, Please include your address on each optional quiz turned into our office. Our mailing address is: Northwestern Medicine – McHenry Hospital EMS, 4201 Medical Center Drive, McHenry, Illinois 60050. We will forward to your home address verification of your continuing education hours.

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