

MASS CASUALTY INCIDENT (MCI) AN OVERVIEW

As emergency responders, we all respond to hundreds of emergency calls every year, and we have attended many thousands of alarms throughout our careers. A reasonable number of these emergency calls are not serious; maybe a tripped private alarm, a false CO alarm, an overheated automobile on the highway, a routine “frequent flyer” emergency medical call. Most are simply public relations opportunities, but they are, of course, still important.

At times we actually “get” something; maybe we respond to a house fire or a damage accident, or we run a good code. We certainly can bring these incidents to successful conclusion effortlessly, but at the end of the day, that is what the public expects. We will not be judged on those routine undertakings. Our true value as emergency responders will be revealed in our ability to handle more extreme circumstances.

There is one type of emergency that many of us may respond and therefore must be ready for: a true Mass Casualty Incident (MCI).

We constantly practice and prepare for the routine incidents. We study our protocol books, participate in station drills on firefighting tactics, attend classes to stay sharp on medical emergencies, practice with ladders, etc. However, we must not forget to practice our MCI-related skills as well.

This module provides an overview of Mass Casualty Incident components with respect to emergency medical response. Components include:

- INITIAL TRIAGE
- PATIENT EXTRACTION
- SECONDARY TRIAGE/MEDICAL TREATMENT
- TRANSPORTATION OF PATIENTS

Lets get started:

Mass Casualty Incident Defined - A Mass Casualty Incident (MCI) can be defined as an incident that has produced more casualties than a customary response assignment can handle. Types of incidents that can produce mass casualties include, but are not limited to:

- Multiple vehicle collision
- Building collapse
- Mass transit accidents
- CO Emergencies
- HAZMAT incidents
- WMD
- Multiple-shooting victims (Active shooter)
- Chemical exposure

Some of the above incidents can occur accidentally. Any of them can be intentionally Caused.

ICS CONSIDERATIONS:

Mass casualties create the need for expansion of the ICS to include a Medical Sector Officer to be appointed as soon as possible by the IC or Operations Officer. The Medical Officer shall in turn designate as needed: Triage Team(s), Treatment Team(s), and a Transport Officer within the ICS.

If the incident is a HAZMAT or an intentional chemical, biological or radiological release, etc, we need to follow HAZMAT guidelines on appropriate decon and level of protection. The steps below will be undertaken with the appropriate level of personal protective equipment, and decon (if applicable) will be performed on all affected victims per the HAZMAT team guidelines.

I. INITIAL TRIAGE

For the purpose of this Drill, we will be using the START triage model for adult patients, JumpSTART Triage for pediatric patients and the SMART triage tagging system. By using START triage, patients are objectively sorted on how they present. The severity of injury, and, therefore, the treatment and/or transport priority in START triage is sorted by color code. The

tag is simply folded so that the color of the triage category is exposed, then simply slip the tag back into the clear plastic pouch. SMART triage tags contain large color fields so treatment and transport crews can easily see which patients have been triaged to which level. Due to the nature of these incidents, it is likely that properly trained responders with appropriate personal protective equipment (possibly including self-contained breathing apparatus) will be providing initial triage. Those lacking proper training and PPE will receive patients away from the hazardous area or Hot Zone. These responders can set up and work in treatment zones.

Initial Triage can begin immediately after size-up but shall be done as soon as possible. First in units may encounter non-injured and/or slightly injured victims self-evacuating the area of the incident. These victims should be directed to an area of refuge and triage tagged Green or “minor”. Qualified individuals should monitor those green-tagged victims for any changes in their conditions.

The only interventions that are to be performed during initial triage are maintaining an **open airway and stopping uncontrolled bleeding**. Other interventions can be performed once initial triage is completed or after more personnel arrive.

II. PATIENT EXTRACTION

Patient extraction is the act of removing the remaining victims from the affected areas and delivering them to designated treatment areas. Patient extraction can begin as soon as resources on scene allow. Extraction can commence prior to the completion of initial triage but shall begin as soon as initial triage has been completed or additional personnel in proper PPE are available.

Patients that are tagged red or “immediate” are to be extracted first, followed by those tagged yellow or “delayed” (green or “minor” patients most likely have self-extracted already). Extraction is essential and all possible assistance should be sought. Cots and litters are to be used for extraction when they are available. There may be private sector items on the scene that can be employed to assist with patient extraction. Local response teams have equipment to assist in extraction, but since these assets may not be immediately available, they can be deployed to assist when they arrive. Deliver each patient to the appropriate treatment area. Due to the nature of these incidents, many hazards may still be present in the triage area. Regardless of the distance the treatment areas are from the affected areas, victims shall be moved as carefully and as quickly as those residual threats dictate.

Proper PPE shall be worn during extraction. The level of protection shall be equal to the level necessary for the initial triage teams.

III. SECONDARY TRIAGE/TREATMENT

The nature of a mass casualty event suggests that the affected areas will not be a safe place to establish treatment areas. Hazards may include chemical, biological or radioactive contamination, unstable building components, secondary device threats, fire involving structures

and/or vehicles, limited space, utility issues, etc. The location of the treatment areas will depend on these hazards and threats. If no additional hazard(s) exist, the treatment areas can be established at or near the scene.

Treatment areas shall be established in safe locations so as not to interfere with other units arriving for incident control. Treatment areas shall be marked with colored flags or tarps. Treatment area locations shall also be easily accessible to transport vehicles arriving from medical staging. In MCI incidents, a treatment area for each category of patient (RED, YELLOW, GREEN) shall be established. Patients tagged BLACK shall be left in place. Emergency medical equipment must be brought to the treatment areas to support the treatment teams. Regional response teams have assets for MCI incidents and they will be brought to the scene as soon as possible. Members of on-scene units being used for medical treatment will need to use supplies carried on the apparatus until those additional assets arrive. Each treatment area should have a secondary triage officer and a treatment officer assigned by the Medical Officer, and it shall be staffed with adequate treatment personnel.

All patients delivered to a treatment area will be re-triaged to affirm entrance into the area. Patients with airway problems will be scheduled for immediate transport. The patient's triage category can be upgraded or downgraded by refolding the SMART triage tag to expose the color field relating to their status. Patients being up-triaged or down-triaged shall be moved to the appropriate treatment area.

Treatment for each patient will begin as soon as possible and will follow the local Patient Care Protocols. All patients will be stabilized as soon as possible by individuals assigned to treatment areas with available supplies and equipment. The SMART tag secondary triage calculations identify the order of transport within the triage category. All treatment information will be logged on the triage tag including known history, vital signs, assessments, interventions etc.

IV. PATIENT TRANSPORT

Once sufficient Emergency Medical personnel are assigned to initial triage, patient extraction, secondary triage, and treatment areas, subsequent responding transport units and personnel re-assigned from completed tasks can assist in transport. Depending on the size of the incident, the IC can request transport units other than Local FD Rescue Squads from throughout the county. Transport units will report to Medical Staging and will be assigned by the Staging Officer at the request of the Transport Officer. In large incidents, an oversight communications agency may actually control the flow of patients to various hospitals. The Transport Officer shall fill out and tear off the transport record on the triage tag and keep it for future reference. Patients with minor illnesses/injuries may be transported by unconventional means or mass transit such as local buses.

Note: Only decontaminated patients will be transported.

CONCLUSION: Any time the tones go off, it could be another false alarm, frequent flyer, or faulty smoke detector in a business. It could also be something more urgent. When the alarm sounds, no matter what the emergency, we will handle it. We hear a lot about pre-plan, but what about post-plan? After the incident, and after critique, we can look back and “post-plan” as if the incident were something more serious.

For example, we may have just responded to a two-car motor vehicle collision with three injured occupants. We can mentally apply the START Triage rules to them after the fact. Would they have been tagged red? Yellow? Decide how they would have been tagged, just for practice. What if it were a serious bus accident with thirty patients? Where would treatment areas have been set up? Where would the medical staging area have been located? How would inclement weather have affected treatment area selection?