

typical multicasualty event, the first-in paramedic (or the medical commander) provides an initial report by radio to the dispatch or communications center, relaying information such as type of incident, estimated number of victims and severity of injuries, presence of any hazard, number and type of additional resources needed, additional agencies requested (eg, police, fire), and recommended staging location of incoming vehicles. As soon as possible, and if personnel are available, a logistics officer or team is designated by the medical commander.

Communications

Experience with modern multicasualty event management has shown communications to be the weak link in many incidents. Multiple jurisdictions and agencies may lack radios equipped with a common radio frequency, centralized radio relay equipment may be damaged, telephone services may be disabled, or simple frequency congestion may occur owing to heavy use. Lately, cellular telephones have added greatly to the ability to communicate from the field during disasters. In large-scale events, amateur radio operators have provided assistance. This is a particularly useful resource in remote areas.

In typical events, on-scene EMS units should designate a radio frequency for communications with the central dispatch center to coordinate patient distribution and requests for additional resources. When disparate ambulance companies are involved that do not usually share a common frequency, they can still communicate with a central coordinating center if the federally designated UHF Med Channels (10 frequencies set aside for communications between ambulances and receiving hospitals) are temporarily used for this purpose.

Triage

A. GENERAL CONSIDERATIONS

Triage is a process of sorting patients and classifying them by categories in terms of relative urgency. It ensures that those who need treatment sooner receive it and that limited resources are not wasted on victims for whom care can be delayed with little chance of harm. Although triage systems are used in most busy emergency departments and are usually familiar to emergency workers, those used in disasters have an important difference: patients whose injuries are so severe that their survival is unlikely are given a *low* triage priority.

This situation can be difficult for many emergency workers to accept, but it is important because diversion of precious limited resources to moribund victims makes them unavailable to others who could be saved. The objective in disaster triage is to categorize patients in a way that will do the most good for the largest number and to ensure that limited resources are efficiently utilized.

B. TRIAGE CATEGORIES

The most effective triage systems are simple and require no complex scoring methodology. A 4-level system is commonly used in the United States:

- 1. Immediate (I)**—Patients have life-threatening injuries that probably are survivable with immediate treatment. Examples are tension pneumothorax, respiratory distress, major internal hemorrhage, and airway injuries.
- 2. Delayed (II)**—Patients require definitive treatment, but no immediate threat to life exists. Patients can wait for treatment without jeopardy. Examples include minor extremity fractures, laceration with hemorrhage controlled, and burns over less than 25% of body surface area.
- 3. Minimal (III)**—Patients have minimal injuries, are ambulatory, and can self-treat or seek alternative medical attention independently. Examples include minor lacerations, contusions, and abrasions.
- 4. Expectant (O)**—Patients have lethal injuries and will die despite treatment. Examples include decapitating head injuries, major third-degree burns over most of the body, and destruction of vital organs.

C. ASSESSMENT METHODS

The method for rapidly assessing patients and deriving triage categories is based on evaluations that can be made quickly, easily, and by individuals with limited medical training. One such system employed in California is termed START (simple triage and rapid treatment; see Figure 4-5). Whatever system is used, the person with the greatest amount of experience, medical knowledge, and good judgment should be assigned the role of assigning triage categories.

D. TRIAGE TAGS

Detailed patient assessment information cannot practically be recorded in the field during a disaster, yet the need to communicate medical information about the patient to subsequent rescue workers still exists. Therefore, triage tags that are simple and visual have been devised that can be attached to the patient (Figure 4-6).

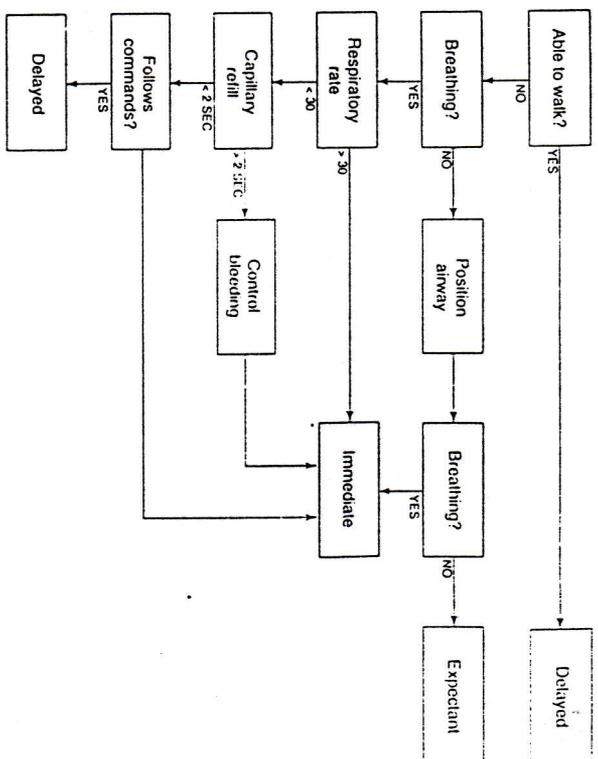


Figure 4-5. START triage algorithm.

Treatment

In a disaster or multicasualty event, personnel and equipment may be in short supply. Hence, initially, treatment is limited to *minor* medical care, that is, only essential and urgently necessary treatments, such as endotracheal intubation, pressure dressings, and intravenous lines for volume or essential drug administration. Prophylactic intravenous lines, for example, are omitted. Simplified triage using the ability to follow commands, as in the Glasgow Coma Scale, has been shown to have excellent predictive power in identifying patients who require urgent trauma care. The military has adopted the concept of "minimal acceptable care," but this has never been adopted by civilian hospitals. Indeed, surgeons of the International Committee of the Red Cross have used this approach in handling civilian casualties of military conflicts wherein 70% of the patients survived for as long as a week without definitive medical care.

Generally, a casualty collection point is designated in a convenient, safe, and sheltered location near the disaster site. The area is subdivided into sections for each triage category (ie, immediate, delayed, minimal, expectant), identifiable by colored tags, tapes and cones.

ents, or the like. The areas should have controlled access and egress points to prevent violation of the triage and loading priority organization. Arriving EMS personnel and auxiliary health care workers should be assigned by the medical commander to each area as needed. Victims, once directed to a treatment area by the triage officer, should be reassessed and treated according to need and the limitations of austere medical care. At any point, if a victim's condition changes, the victim may be moved to another area.

Victims in the expectant category are segregated and made comfortable. The dead are often not immediately extricated from the disaster site but are left for the medical examiner to remove at the conclusion of the event, unless public health reasons or security considerations require them to be moved to a temporary morgue.

Transport & Distribution of Patients

Ambulances or other transport vehicles (eg, bus or van) are directed to a specified loading location at a controlled egress point near the treatment areas. A transport officer (sometimes called a loading officer) continually surveys the number of victims in each area and,