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Triage in Mass Casualty Incidents: Current Concepts

Triage is the process of prioritizing casualties according to the level of care they require. It is the most important, and psychologically most difficult, mission of disaster medical response, both in the pre-hospital and hospital phases of the disaster. Disaster triage is significantly different than conventional civilian triage. Disaster triage requires a fundamental change in the approach to the care of patients (“crisis management” care).

The objective of conventional civilian triage is to do the greatest good for the individual patient. Severity of injury/disease is the major determinant for medical care.

The objective of disaster triage is to do the greatest good for the greatest number of patients. The determinants of triage in disasters are, however, based on three parameters:

- Severity of injury
- Likelihood of survival
- Available resources (logistics, personnel, evacuation assets.)

The major objective and challenge of triage is to rapidly identify the small minority of critically injured patients who require urgent life-saving inter-

ventions (10-25%) from the larger majority of non-critical casualties that characterize most disasters. In a mass casualty event, the critical patients with the greatest chance of survival with the least expenditure of time and resources are prioritized to be treated first.

Triage is a dynamic decision-making process of matching victims’ needs with available resources. Many mass casualty incidents will have multiple different levels of triage as patients move from the disaster scene to definitive medical care. Disaster medical triage may be conducted at three different levels depending on the level of casualties (injuries) to capabilities (resources.)

Field triage (level 1)

Field triage, often the initial triage system utilized in disasters with mass casualties, is the rapid categorization of victims potentially needing immediate medical care “where they are lying” or at a triage site. Victims are designated as “acute” or “non-acute”. Simplified color coding may be used.

Medical triage (level 2)

Medical triage is the rapid categorization of victims at a casualty collection site or fixed or mobile medical facilities by the most experienced medical personnel available to identify the level of medical care needed based on severity of injury. Triage personnel must have knowledge of the medical consequences of various injuries (e.g., burn, blast or crush injuries or exposure to chemical, biological, or radioactive agents). Color coding may be used:

Evacuation triage (level 3)

Evacuation triage assigns priorities to disaster victims for transfer to medical facilities. The goal is appropriate evacuation (by land or air) of victims according to severity of injury, likelihood of survival and available resources. Categories for medical triage and evacuation triage are the same.

Triage errors

Triage errors, in the form of over-triage and under-triage, are always present in the chaos of mass casualty events. Over-triage is the assignment of non-critical survivors with no life-threatening injuries to immediate urgent care. Under-triage is the assignment of critically injured casualties requiring immediate medical care to a delayed category.

The higher the incidence of over-triage of victims, the more the medical