

Hospital Management of Emergencies and Mass-Casualty Events

Implementation of In-Hospital, Mass-Casualty Incident Plan based on the Israeli Model: Challenges of Shifting to the Battlefield Mentality in the Civilian Setting

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Background: Despite eight years passing since 11 September 2001, most civilian trauma centers lack a workable mass-casualty incident (MCI) plan, have not established drills to test a plan, and doubt their ability to implement immediate surge capacity to accommodate the influx of many injured patients. A hospital-wide MCI plan could be developed and implemented in a regional, academic, Level-1 Trauma Center based on the Israeli MCI model.

Methods: Hospital staff completed post-exercise questionnaires that evaluated the hospital's MCI drill using Likert-scaled items measured on a 1–10 (worst to best) scale. Seventeen management algorithms from the Israeli model were assessed via 79 questions. Participants were instructed to only answer questions that applied to their experience during the MCI drill. Responses were aggregated using the median and inter-quartile range (IQR) and participants' comments were collated.

Results: The median results for most metrics showed less than satisfactory staff assessments, and the comments reflect discomfort with the chaotic nature of the drill. The highest score was in staff response (median = 7.0, IQR = 4.0–9.0).

Conclusions: The Israeli MCI model can be adapted to a US trauma center and tested in drills with reproducible performance metrics. Key implementation steps identified include clearing of the emergency department to create immediate surge capacity, rapid mobilization of personnel via reliable communication systems, and delegation of responsibility via surgical leadership. Survey results reflect the chaotic nature of an MCI and the difficulty for staff to shift from routine practice to “battlefield mentality” and “damage control psychology”. Additional experience through periodic drills and awareness of this reality likely will improve hospital preparedness.

Keywords: drill; hospital; Israeli model; mass-casualty incident; planning; preparedness

Prehosp Disaster Med

The Importance of Continuous Debriefing—Lessons Learned during the Second Lebanon War

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Introduction: In July 2006, the Rambam Health Care Campus, a Level-I Trauma Center, treated casualties due to

the Second Lebanon War under the continued rocket attacks on Haifa. This abstract will present the methods and the importance of immediate continuous debriefing after every mass-casualty incident (MCI).

Methods: During the war, after every event causing the influx of a massive amount of casualties, the Trauma Team arranged logistical and medical debriefings. The debriefings took place at the emergency department with the specific teams involved in the treatment. The continuous MCIs allowed for implementation of the lessons of the debriefings for the next patients to arrive.

Results: Developing a mechanism of auditing the performance led to quality improvement by implementing the lessons learned during the MCIs. Examples of quality assurance changes divided into logistic administrative and clinical aspects include:

Logistic Aspects

1. The deployment of the emergency department for MCIs fitted to the special needs of the war. Establishing a separate Delayed Site permitted the treatment of injuries only in the emergency department.
2. Opening a site at the Imaging Department reduced the load at the emergency department and allowed a one-way movement.
3. Expanding the Shock Trauma Site from three beds to seven beds was needed.

Clinical Aspect

1. A team consisting of a Trauma Attending Surgeon and Trauma Coordinator confirms Damage Control Operation in the Operating Room and stopped operations to non-stable patients.
2. The establishment of a Multiple-Injured Admitting Department managed by representatives from all the surgical wards helped in pooling of resources.
3. Systematic visits of the Trauma Unit Team assisted in coordinating treatment.

Conclusions: Debriefing following MCI is the main tool of quality assurance. The debriefing is a learning process based on systematic reviews of what occurred, along with why and how, in order to draw conclusions. The implementation of learned is important for promoting the quality care.

Keywords: debriefing; emergency department; mass-casualty incident; quality assurance; Second Lebanon War

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Multiple Injuries—A Medical and a Methodological Challenge

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Introduction: The increased threat to life due to multiple injuries has been estimated by the Injury Severity Score (ISS) since 1974, yet uniform methods for presenting the particulars of such injuries are new. Knowing the detailed characteristics of the bodily harm beyond the one-digit estimate of severity enables improved preparedness through more suitable care.

This presentation will describe the multiple injury profile (MIP) methodology and demonstrate its useful application. **Methods:** The Abbreviated Injury Scale (AIS) divides the human body into regions noted by the first digit in each