Hospital Drills: Preparations for Mass Toxicological Event (MTE) — The Israeli Experience (1997–1999)

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An accidental or deliberate mass toxicological event will present an utmost challenge to the medical community. Israel Defense Force's Home Front Command assists the Ministry of Health in preparing hospitals to cope with the event. An intensive planning, instruction, and equipping process terminates with a large-scale hospital drill.

The Hospital MTE deployment scheme is outlined, areas of responsibilities, materials and methods, and inspection methods and issues are discussed. Twenty-two MTE drills took place in 20 hospitals since November 1997; half of them were not anticipated. The number of simulated casualties ranged from 5–200.

The main lessons gained concerning medical organization and quality of care included: 1) deficient relevant information disclosure to staff; 2) inefficient utilization of the decontamination facility; 3) inadequate respiratory care during patient transportation; and 4) disregard for the synergistic effects of combined injuries. Control and coordination were limited by: 1) personal protective equipment; 2) a lack of real-time assessment of the burden levels throughout admission and treatment sites; 3) difficulties maintaining law and order within hospital sites; 4) inadequate medical charting; 5) failure to maintain patient privacy; and 6) insufficient collaboration with firstresponders. Most of these lessons were implemented in the subsequent drills, which became more sophisticated and realistic. Drills succeeded in building the confidence and collective memory among hospital staff and management, as well as implementing simple and feasible guidelines concerning incident diagnosis and management. Some future exercise plans are discussed.

Keywords: control and coordination; drills; exercises; hospitals; management; mass toxicological events (MTE); terrorism

"Packing" of the Thoracic Cavity — A Technique to Treat Uncontrollable Intrathoracic Bleeding

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Polytraumatized patients often suffer from additional serious thoracic injuries. Experience during the Vietnam War have demonstrated that ruptures of the liver, mainly caused by gunshots, could have been treated successfully by "packing" the injury. Until the definitive operative intervention can be accomplished, the liver is compressed by "towels" to prevent exsanguination.

Given these findings, we tried this technique in desperate cases of uncontrollable intrathoracic hemorrhage. This massive hemorrhage was the result of severe thoracic trauma in three cases, and in one case, the result of an injury caused by a failed transthoracic puncture. After "packing" the thoracic cavity, the "towels" were removed three days later. In the meantime, the circulation and coagulation (DIC) had been stabilizized, and PEEP-ventilation was practiced without problems. Three of the four patients survived without further complications; one died after 10 days, from a neurosurgical problem.

Conclusions: In desperate cases of severe, uncontrollable bleeding, this technique could be done by general surgeon in order to gain time for a transport to an unit with a thoracic surgeon. Therefore, we regard our method as a new useful way to treat massive hemorrhage within the thorax, when other treatment fails, no specialist is near by, or when there is a large number of patients with thoracic injuries during catastrophes.

Keywords: hemorrhage; intrathoracic bleeding; packing; trauma