Regardless of whether these disasters will occur as a result of natural, human-made, or asymmetrical events, it is a given that no other portion of our critical infrastructure will bear as heavy a burden as the healthcare and public health key resource sectors. Proactive (deliberate) planning no longer is a luxury; it is, instead, a national imperative. This presentation is designed to expose medical and public health experts and community leaders on the new challenges facing us in this "Era of Asymmetrical Threats"; review planning and response related to previous high-end disasters, and to consider strategies for the medical and public health management of future catastrophic events.

Keywords: human-made hazard; preparedness; public health
Prehosp Disaster Med

Risk Infections and Bioterrorism

Dr. Krassimir Metodiev
President, International Medical Association Bulgaria, Secretary General, Federation of European Societies for Chemotherapy and Infections, Honorary Consul of Israel, Bulgaria

This presentation is dedicated to the problem of the possible application of severe infections for bioterrorism. The author will describe the most dangerous infections that could be used as agents for bioterrorist attacks. A national and international structure of all medical, civilian, and military organizations, as well as North Atlantic Treaty Organization (NATO) Advanced Research Workshops (ARWs), are provided as an example of how to organize the defense against such threats.

Keywords: bioterrorism; civilian; coordination; infectious agents; military; North Atlantic Treaty Organization
Prehosp Disaster Med

Innovative Medical Shelter for Medical Response

R. Miniati;[1] F. Dori;[1] E. Iadanza;[1] M. Lo Sardo; S. Boncinelli[2]
1. Department of Electronics and Telecommunications, University of Florence, Italy
2. Critical Area Department, CESPRO, University of Florence, Italy

Introduction: During medical emergencies, hospitals represent the final point of the entire rescue process. Therefore, effective mobile health structures must be inserted between hospitals and the place of the event with the aim of providing the best treatment (using appropriate and easy-to-use equipment) for a safer and faster evacuation to hospitals.

Methods: A literature review of national and international disaster medicine standards were used to provide clinical, hygienic, and organizational needs for the medical structure design. Project requirements were obtained by analyzing structural, organizational, and clinical process necessities. Structural requirements to respond to the possibility of installation on every ground type, resistance to every weather condition, and necessity of easy and fast transportation were found.

Results: The designed structure results to be a Longitudinal Expandable Shelter (LES) for medical emergency response organized in three internal functional areas. The possibility of automatic expandability allows for rapid transportation and easy deployment. The functional internal organization consists of three areas: (1) diagnostic; (2) therapeutic; and (3) pre-evacuation monitoring. Furthermore, longitudinal expandability supports the basic hygienic rules in healthcare processes allowing for the unidirectional flow of casualties from dirtier to cleaner areas of the structure.

Conclusions: The LES is an answer to expressed requisites by disaster medicine standards and guidelines. It aims to provide efficient support for response to disasters or emergencies, by improving aspects related to effectiveness, hygiene, and quality of clinical performances.

Keywords: emergency; response; mobile health structure
Prehosp Disaster Med

The Medical Disaster Response: Is It More than a Multiple-Casualty Event?

Dan Nemet MD; Brig Gen (Res) Shalom Ben-Arie
Israeli National Search and Rescue Unit, Home Front Command, Israeli Defense Forces, Israel

The medical management of a major multiple-casualty event whether caused by natural or human-made hazards is a challenging task of utmost importance. Although primary prevention is the most effective mean of reducing casualties, unfortunately, this is not always possible.

In the case of a disaster, medical preparedness is critical, response time is important, especially in a setting in which resources may be limited, and the population might be overwhelmed by the event.

The Israeli National Search and Rescue Unit was established in 1984. Since then, the unit participated in many search-and-rescue operations in Israel and abroad and gained breadth of experience and knowledge in disaster medicine. In order to optimize the ability to cope with the medical consequences of disasters caused by natural hazards and acts of terrorism, it is clear that the knowledge and experience of physicians and others actively involved in the medical management of trauma and other disasters must be shared.

The Israeli Home Front Command recently completed its medical disaster manual of operations. It is believed that sharing experiences and exchanging information with an international team of experts in the field will help to establish guidelines for this growing field of disaster medicine and improve the ability to operate during a disaster.

The following fields of discussion are proposed:

1. Disaster medicine triage: why and how is it different?;
2. Treatment of crush injury: controversies and guidelines;
3. Anesthesia and analgesia in the field;
4. Special equipment development and usage in disaster events;
5. Basic training for medical communities: a two-day disaster medicine course; and
6. Training the community: from preschool to the elderly.

Keywords: cooperation; information; knowledge; management; preparedness
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