

of the most essential elements of intervention of each of the stages. The aim of this study was to examine the preparation and intervention stages of health administration at institutional and unit levels concerning major radiation incidents.

Planning, training, drills, and evaluation constitute the basic elements of the preparation stage. Institutions should be well prepared beforehand concerning radiation emergencies and have an action plan together with the required equipment and trained staff. Moreover, preparation measures should be practiced using drills and the action plan should be followed.

Keywords: fear; health administration; major incidents; radiation incidents; preparedness

Prehosp Disaster Med

Readiness for Emergency as a Routine in the Public Health Laboratory

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The mission of the Public Health Laboratory of the Ministry of Health is to serve as a leading force for analytical laboratories in Israel. This includes routine monitoring and response to emergency situations. The laboratory's expertise includes microbiology and chemistry of food and water. Routine monitoring according to Israeli and international standards is performed in compliance with international quality assurance standard, ISO/IEC 17025. The laboratory is prepared for emergency response when water or food safety is suspected.

Laboratory Analysis during emergencies differs from routine monitoring in two major aspects: it aims to acute toxicity, meaning high concentration of chemicals or pathogens, and the results are required within a few hours. In both situations, reliable results are essential.

Readiness of the laboratory to unexpected situations can be achieved by harmonization of three tiers: (1) staff; (2) equipment; and (3) quality management. The laboratory staff must be professional with an appropriate academic and experimental background, should perform routine analysis, develop new methods, and follow scientific work. Appropriate equipment must be available and well maintained. The use of modern and diverse equipment is important especially when an analysis of an "unknown" chemical or organism is performed. It can save precious time and man-power. Quality management includes clear standard operating procedures, training programs and participation in international proficiency testing schemes.

The laboratory seeks to combine all of the above-mentioned elements. Highly professional staff performs routine monitoring of water and food quality and is involved in the development of new methods and research, including the development of rapid tests to identify pathogens in water and rapid screening methods for "unknown" chemicals in water. The laboratory has participated successfully in a national training program for rapid testing of unknown chemicals. Participation in proficiency testing has shown stable results with z -factor within ± 2 .

Keywords: emergency; laboratory; preparedness; public health

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Analysis of the Medical Consequences of the Bus Bombing Attack, 2008

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On 03 January 2008 at 17:05 in the city of Diyarbakir, a vehicle carrying soldiers was passing a parked private car. The private car was blown up by remote control. It was later discovered that the car was loaded with 40 kg of A4 type plastic explosive. Ninety-one people were injured. Six people were killed; four died at the scene, two died at the hospital. There were three hospitals nearby: (1) Diyarbakir Military Hospital was five minutes away; (2) Diyarbakir State Hospital was 10 minutes away; and (3) Dicle University Hospital was 30 minutes away from the scene by ground transport and 10 minutes away by air transport. This study reviews the response capabilities on scene, triage realities among health workers and civilians, transport problems, and hospital disorganizations.

Keywords: bus bombing; explosion; hospitals; transport; Turkey

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Emergency and Disaster Mental Health Intervention Training: Stress and Trauma Studies Program

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Introduction: Correct mental health intervention during the first minutes, hours, and days of a disaster is crucial in terms of reducing the initial trauma symptoms and risk for future post-traumatic stress disorder (PTSD). Yet, the majority of trauma training programs mostly emphasize PTSD treatment methods, while interventions during the initial stages of trauma (Acute Stress Reaction (ASR) and Acute Stress Disorder (ASD)) rarely are mentioned or practiced.

Moreover, there is no civilian authority in Israel that regularly trains its workers to be mental health responders in case of a disaster or other crisis.

The Stress and Trauma Studies program was established in order to fill this knowledge and practice gap and to train social work students from the beginning of their studies in ASR-ASD interventions—starting with one person and ending with a disaster intervention.

Program Structure: The program is a three-year program and is studied parallel to the regular social work courses. Each year, the students acquire theoretical and practical knowledge. Practical training includes drills collaborated with other first responders such as: police, fire department, Magen David Adom, Home Front Command, and army medics.

Results: Currently, no research has been performed to examine the effectiveness of the program. Yet, two major findings were emphasized through qualitative research: (1) casualties reported a high standard of student interventions; and

(2) student resilience increased dramatically compared to those in regular social work programs.

Keywords: emergency; disaster; mental health; psychosocial; social work; stress; training; trauma

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Successful Emergency and Disaster Preparedness Course in Israel for Physicians from North America

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Introduction: Since the attacks of 11 September 2001, emergency preparedness has been a priority for healthcare professionals in North America. Therefore, in 2003, with the support of the Israeli Ministry of Health (MOH), the American Physicians Fellowship (APF) created a training program for emergency and disaster preparedness in Israel that was designed for physicians and healthcare professionals. The course encompasses mass-casualty issues, from risk communications, first response, hospital care, and the psychosocial impact on the population, and is based on the Israeli experience.

Methods: The APF's Emergency and Disaster Preparedness Course in Israel is a five-day program conducted twice each year. Lectures from renowned physicians and site visits are held at hospitals throughout Israel (with participation in large, mass-casualty drills), the Ministry of Health, Magen David Adom, Israel Defense Forces Medical Corps bases and population centers that have been under frequent attack. Course participants have hands-on experience at the Messer Simulation Center in treating victims of conventional and CBRN events. The course offers CME credit.

Results: The course has provided approximately 300 attendees with emergency and disaster preparedness training that continues to be relevant eight years after 9/11. Participants are asked for continuous feedback during the course and complete comprehensive written evaluations. These evaluations have been excellent, averaging between 4–5 out of 5. Written comments often include “best course ever taken” and express satisfaction with the content, faculty, drills, and especially the hands-on simulation sessions and site visits. Several participants have become leaders in emergency preparedness in North America

Conclusions: The APF Course in Emergency and Disaster Preparedness has been successful in providing a large number of participants with relevant training in disaster management that is applicable to their healthcare facilities and local communities in North America.

Keywords: disasters; education and training; mass-casualty incident; physicians; preparedness

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Psychological Impact of Terrorist Attacks on First Responders: Influence on Post-Traumatic Symptoms among Volunteers in Ambulance Teams

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Introduction: Terrorist attacks may cause severe post-traumatic stress symptoms among first responding personnel, due the horrors and the atrocities witnessed, and to the fact that they are human-made—not caused by accidents. The aim of this study was to determine this special psychological impact. To test this impact, two separate studies were conducted: one compared two cohorts of Magen David Adom (MDA) young volunteers and the other compared volunteers, who witnessed terrorist attacks with those who did not.

Methods: In the first study, the level of post-traumatic symptoms (PTS) was evaluated during the years 2000 (before the massive terrorist attacks in Israel) and 2002 (during such attacks, which began at the end of 2000), in two cohorts of adolescent MDA volunteers (mean age: 17 years). Both cohorts completed a basic and an advanced course in first aid and have volunteered actively for one year. In the second study, volunteers in the 2002 cohort who witnessed terrorist attacks were compared to volunteers who did not.

Results: Overall, PTS were low, and never reached a clinical level. However, PTS were significantly more prevalent in the 2002 cohort: physiological symptoms were five times more prevalent, and sleep problems increased by a factor of three. Among the 2002 terrorist attacks cohort, volunteers who were exposed to terrorist attacks reported 2–3 times more symptoms than those who were exposed only to routine events.

Discussion: The results indicate the special psychological burden of terrorist attacks on first responders, specifically on adolescent MDA ambulance team volunteers. The willingness to volunteer, combined with the professional training the volunteers receive prior to their work and the continuous attention to their emotional state, all contribute to their strength and ability to cope with painful sights. This is helpful during routine events, and mostly needed during times of terrorist attacks.

Keywords: adolescent; Magen David Adom; post-traumatic symptoms; psychological impact; terrorism; volunteers

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Local Authority Functions in the Field of Civil Defense

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The local authority is a major factor in the treatment of a population, and assistance in emergency situations due to its primary interface with the population with all stakeholders. It has the emergency powers associated with state responsibility.

The local authority is responsible for civil defense in its territory under the Law. Its first and foremost responsibility is to enforce civil defense instructions and act accordingly.