Maintaining the Emergency Preparedness of a Department of Social Work Services in a General Hospital—Challenges and Resolutions

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Background: The function of hospital social workers is to help patients and families cope with illness and medical treatments. As part of multidisciplinary teams, hospital social workers work with patients, families, and community services.

In the immediate aftermath of mass-casualty incidents, the Department of Social Work Services at Hadassah University Hospital provides a number of non-medical tasks that relate to the management of information. The department focuses on the psychosocial needs of the injured, their families and the public-at-large. These procedures are provided by three teams of social workers: (1) a team in the Center for Emergency Medicine that deals with the injured; (2) a team that runs the Telephone Information Center, which provides information to the public about identified injured and helps search for the missing; and (3) a team that manages the Family Center, which deals with the families who come to the hospital searching for injured relatives.

Description of Program: The need to maintain the Emergency Preparedness of a hospital-based Department of Social Work Services is challenging. A description of the procedures instituted to ensure the preparedness of staff will be presented.

The Emergency Preparedness Program includes:

1. The establishment of a Coordinator of Emergency Preparedness position within the Department of Social Work Services (and ongoing redefinition of the functions of the Coordinator);
2. Ongoing training of social worker staff in Emergency Preparedness, including refresher workshops and training at regular intervals;
3. Inclusion of Emergency Preparedness Training in the Orientation Program of new social workers;
4. Participation of social work staff in hospital-wide emergency exercises;
5. Ongoing coordination with other emergency coordinators within the hospital (nursing staff, communications specialists, security personnel, etc.);
6. Ongoing coordination with social work and Emergency Services in the community (municipal services, police, etc.); and
7. Continually updating of technical services (computers, telephone lines, etc.)

Conclusions: The need to provide psychosocial services and offer in-service training is a constant challenge for Departments of Social Work Services in fast-paced general hospitals. Although social workers are trained in crisis intervention, emergency preparedness for mass-casualty casualty incidents involves a new set of professional skills that hospital social workers must master alongside their regular functions and proficiencies.

Keywords: hospitals; mass-casualty incidents; preparedness; social workers; social services;
Prehosp Disaster Med

Consequence Analysis of Aqueous Ammonia Spills: Haifa Ammonia Storage Case Study

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Source-term modeling is the key feature in predicting the consequences of releases from hazardous fluids. In some installations, gases, like ammonia, are refrigerated and stored in low-pressure tanks. Failure of such vessels is unacceptable because of the potentially catastrophic consequences of a highly toxic gas release.

A model was developed for estimating and quantifying the risk posed by refrigerated liquid spills. The research focuses in analysis of cryogenic liquid spill as a source term. The ammonia vessel (20,000 tons) in Haifa Bay was taken as a test case.

At the first stage, the newly developed source-term model estimates the vaporization rate and net mass evaporating into the air from a spill. At the second stage, four widely-used dense gas dispersion models (ALOHA, HGSYSTEM, SLAB, and DEGADIS) were used to calculated downwind ammonia gas concentrations following the spill scenario. At the last stage a simple dose-response model based on the Probit function was used to estimate the number of casualties.

The developed model was used to calculate of risk from the Haifa ammonia vessel in different scenarios. Thereore, it is an important computational tool for environmental safety assessment.

Keywords: aqueous ammonia; chemical spill; chemical storage; Haifa; storage
Prehosp Disaster Med

Results of a Simulation Model of an Earthquake Produced in Vrancea on the Population and Healthcare System

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Objective: The objective of this study was to continue the previous evaluations of morbidity and specific mortality due to an earthquake measuring 7.2 on the Richter Scale, with the main seismic wave lasting a duration of 10–15 seconds.
Methods: This study presents the data from a simulation of an earthquake measuring 8.0 on the Richter Scale occurring in the Vrancea area, with a main wave duration of 15 seconds.
Results: The computer program Epi Info 6.04D was used and a unique calculation algorithm was developed to obtain the results. The main results of the simulation were: (1) 22 expected casualties; (2) 3,336 deceased; and (3) 4,034 trapped casualties.
Conclusions: An evaluation of urban vulnerability, estimation of the expected number of casualties, and evaluation of the hospital and prehospital systems' capacity and structures are needed. Also, an accurate prehospital intervention system must be developed and a medical emergency system must be implemented as the infrastructure for the medical

https://doi.org/10.1017/S1049023X00023414 Published online by Cambridge University Press