

Results: Only 26% of the staff that returned the questionnaire actually had participated in any of the hypothetical exercises. Therefore, the exercises provided only limited training to a small number of the staff involved in the response. The staff involved in the Bali response believed that their years of experience and knowledge of Royal Perth Hospital were what assisted them most in their response. Moreover, the results indicated that only 22% of the staff was aware of changes to the disaster plan post-exercise.

Conclusions: However, in the Royal Perth Management Report (2002),¹ which was written on the “Bali Bombing Incident”, two recommendations regarding changes to the plan were made, therefore indicating that the previous exercises had not evaluated adequately parts of the disaster plan, particularly in relation to the care of relatives.

Reference

1. Harley H: Bali Bombing Incident. Royal Perth Hospital Management Report. Unpublished Report. Perth, Western Australia, 2002.

Keywords: Australia; disaster planning; hypothetical exercises

Prehosp Disast Med 2005;20(2):s47-a48

Knowledge, Attitudes, and Behavior of Occupational Physicians Related to Burn Cases: A Cross-Sectional Survey in Turkey

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Introduction: Occupational physicians provide the primary care of victims of burn cases at the workplace. In Turkey, it is routine to certify physicians for work in occupational medicine. This study aimed to evaluate the knowledge, attitudes, and behavior of occupational physicians regarding burn cases.

Methods: A total of 510 occupational physicians working in Ankara, Turkey were surveyed by mail, and 101 (19.8%) physicians responded. Most of these physicians ($n = 67$, 66.3%) had encountered burn cases within the previous year.

Results: The most frequent type of burn injury was scalds ($n = 55$, 54.5%) followed by thermal injuries ($n = 37$, 36.6%). Of the respondents, 22 (21.8%) knew the most appropriate classification of burn injuries. Regarding first-aid treatments prior to triage, only 4% chose the valid items. The mean rate of positive attitudes of the participants toward the first aid of different types of burn injuries was 70.8%. Only 31.7% of the physicians surveyed used up-to-date, first-aid modalities.

Conclusion: Turkish occupational physicians have inadequate knowledge and inappropriate attitudes toward the first aid and primary care of burn victims. With the vital support of the Burn and Fire Disaster Institute at Baskent University, nationwide educational policies could be improved and assessed.

Keywords: attitudes; behavior; burn; first aid; occupational; physicians; primary care; Turkey

Prehosp Disast Med 2005;20(2):s48

Free Papers Theme 16: Public Health-2

Free Papers Theme 17: Tsunami-2

Theme 12: Emergency Medical Services Systems Design

Chair: Frank Archer

Effective Planning for Disasters: The Hospital Response

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During a natural or human-made disaster, the hospital emergency physician cannot flee; the physician must receive the casualties and decide the right course of action, based on the gravity and number of victims. The physician must plan the response of all the hospital services and key figures (anesthetist, surgeon, traumatologist, vascular and or thoracic surgeon, chief of nurses, chief of security). It fundamentally is important that the emergency department follow an “all-hazards” approach to achieve a competent and efficient hospital response regardless of the situation (natural disasters, such as earthquakes or storms, or human-made disasters, such as chemical, nuclear, or biological attacks).

Analyses of recent mass-casualty incidents (Tokyo 1995, New York 2001, Madrid 2004) have confirmed that 80% of casualties make their way to the nearest hospital on their own. Because they are not triaged on-site, there is a risk that the hospital could be overwhelmed by casualties, causing it to become ineffective. Protecting the hospital resources is a high priority in such situations, and the emergency physician's role is crucial. The authors describe the methodology for building an effective plan to handle a massive influx of casualties. Six essential stages will be highlighted: (1) education; (2) risk analysis; (3) inventory of resources; (4) possible scenarios; (5) management; and (6) action.

Keywords: disaster; emergency department; hospital; Italy; planning

Prehosp Disast Med 2005;20(2):s48

Preparing a National Health Emergency Plan

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Introduction: Following the shocks of 11 September 2001 and the severe acute respiratory syndrome (SARS), the New Zealand Ministry of Health stepped up preparations and is now completing a National Health Emergency Plan (NHEP) that encompasses the whole health sector.

Background: Like all countries, New Zealand faces the risks of terrorism and pandemics. In an increasingly complex and unsafe world, it is clear that central health agencies must take a key role in focusing on public health threats.

The New Zealand health sector has a devolved model with central funding and local autonomy. However, any response to national health emergencies must necessarily involve central planning and national control. The National Health Emergency Plan has dealt with these tensions by developing a modular and free form plan from which local health managers can select the elements they

need to mitigate, respond to, and recover from a health emergency.

Objectives: To give leadership, clarify roles and responsibilities, facilitate and coordinate planning, achieve an effective and consistent response, and improve awareness and capability.

Methods: The health sector is unique in that it deals daily with large and small-scale emergencies from individual tragedies to community-wide events. Hospital front doors are always open. Coupled with an unrelenting pressure on resources and increasing public expectations, this means that many parts of most health sectors have well-advanced plans for dealing with surges in demand. Workforce planning, quality control, immunization strategies, and hospital emergency plans are all aspects of existing work that the National Health Emergency Plan gathered.

As a first step in the process sector and Ministry projects were reviewed to identify those aligned with these objectives. Gaps were identified with help from consultative groups. Projects were begun which filled in these gaps and pulled the disparate strands of work together into cohesive work streams. Responsibilities were decided. A program of meetings, monitoring, and reports was established.

Results: The NHEP has largely taken shape and in the process has helped highlight further capacity and structural issues that need to be resolved to help achieve a higher level of preparedness. It will continue to evolve and develop and a lot more work is yet to come.

Conclusions: The New Zealand health sector is better prepared now than it was for SARS or the Avian flu and, fortunately, is still improving.

Keywords: health; National Health Emergency Plan (NHEP); New Zealand; preparedness; severe acute respiratory syndrome (SARS)

Prehosp Disast Med 2005;20(2):s48-s49

The State of Connecticut Emergency Credentialing System

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Introduction: Disasters may produce a maldistribution of volunteer healthcare workers to acute care hospitals, sometimes causing uncertainty regarding their qualifications to provide medical care and other services. The development and implementation of a regional emergency credentialing system (ECS) for volunteer healthcare workers in the state of Connecticut are described.

Methods: A statewide coalition of key stakeholders in the ECS, including the State of Connecticut Department of Public Health, the Connecticut Hospital Association, and the Yale-New Haven Health System (YNHHS), was convened in November 2002. The coalition developed a plan to: (1) engage all 32 acute care hospitals in Connecticut in the ECS through written agreements that ensure that participating hospitals will recognize the credentials of volunteer healthcare workers credentialed at other participating hospitals; and (2) recruit licensed physicians and mid-level practitioners to serve as volunteer medical providers for those hospitals. Concomitantly, state legislation was adopt-

ed, which incorporated these volunteer healthcare workers into the Connecticut Medical Reserve Corps, providing them with liability insurance and disability coverage. The YNHHS was selected to manage the ECS and maintain its electronic database. In an actual event, acute care hospitals would contact the ECS to request the needed numbers and types of pre-credentialed healthcare workers (HCWs). Volunteer healthcare workers will be contacted by the ECS and then dispatched to the requesting hospital. In 2005, the ECS will begin recruiting other types of volunteer HCWs, including nurses, physical therapists, laboratorians, and radiographers.

Results: Acute care hospitals began participating in the ECS in December 2003. Thirty-one of 32 (97%) acute care hospitals in Connecticut have agreed to participate in the ECS, and recognize the credentials of participating volunteer healthcare workers at their institutions. Physicians and mid-level practitioners began participating in the ECS in January 2004. As of November 2004, 1,586 (9%) of 18,350 licensed physicians and mid-level practitioners in Connecticut have agreed to serve as volunteer medical providers. Participating physicians represent the range of medical specialties. The Joint Commission on the Accreditation of Healthcare Organizations has designated the State of Connecticut ECS as a national model for the United States. The ECS has yet to be activated during an actual event.

Conclusion: Successful implementation of an ECS for acute care hospitals depends on the participation of key stakeholders during development, the sequential roll-out to participating hospitals and volunteer healthcare workers, and overcoming key barriers, such as the lack of liability insurance for volunteer healthcare workers.

Keywords: Connecticut; emergency credentialing system; healthcare workers (HCWs); volunteer

Prehosp Disast Med 2005;20(2):s49

How Can We Reduce On-Scene Time in an Urban Region?

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Tehran, the capital of Iran, has a population of 10 million. It is subject to crowding and traffic jams. In 1998, there were 20 prehospital emergency medical services (EMS) stations, staffed by intermediate emergency medical technicians (EMTs). At that time, the average time between a patient's call and the EMS arrival on-scene was almost 30 minutes.

An assessment to find the causes of these long delays was conducted. The results showed that some of the main causes were: (1) traffic jams, especially in the city center and squares; (2) not enough ambulances; (3) not enough EMS stations; (4) delays in EMS team starting its duties; (5) an overload of false duties; (6) an overload of incorrect diagnoses; and (7) unnecessary transport of patients to hospital.

The prehospital EMS management made the following changes over the next few years: (1) increasing the number of ambulances; (2) cooperating with the firefighting system to increase the number of stations; (3) additional edu-