ical data suggest that contamination is not a rare event. Currently, contamination response is shaped by the responders' experience with hazardous materials and focuses primarily on ensuring responder safety.

Hospitals must not rely on on-site decontamination, as this always will be incomplete and there always will be some patients who bypass the emergency medical services. Well-documented risks for hospitals include secondary contamination of staff and disruption of hospital services. The selection of the hospitals and performance on the survey were guided by previous survey studies. The response rate was 40%. Similar to previous surveys, it was found that in most cases, hospital preparedness for contaminated patients is low. Decontamination facilities and Personal Protective Equipment (PPE) are absent in many hospitals. Plans appear almost ubiquitous, but include the contamination topic only in about one third of the cases. The ability to implement the plans frequently is doubtful. Contamination-related training and exercises are the exception, not the rule. Awareness of PPE in hospitals is especially low.

The issues associated with "contaminated patients" frequently are not perceived by hospital administration or staff. A coherent responsibility for the management of contamination almost is absent and the spectrum of radioactive, biological, or chemical contaminations is not fully covered by any of the hospitals that participated. Also, there is a lack of authoritative guidance and legislative regulation.

Keywords: contamination; hazardous materials; preparedness; survey; terrorism
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(197) Disaster Readiness of a Singapore Teaching Hospital: The Training of General Ward and Outpatient Clinic Nurses in Disaster Preparedness

J.L. Lee
Emergency Medicine Department, National University Hospital, Singapore, Singapore

Singapore has a population of four million people and is vulnerable to disasters caused by both man-made and industrialized incidents. The National University Hospital is located near Jurong Island that contains heavy petroleum refinery plants and the Tuas Industrial Park in which chemical plants are located. Being the closest hospital to Jurong Island, the National University Hospital must be prepared to manage casualties from incidents occurring at these sites.

Nurses are an integral part of the response to any mass casualty incident. Preparedness training of emergency department nurses in the National University Hospital, a tertiary-level hospital in western Singapore, had been conducted over the years. However, in response to a mass-casualty-incident, the demand for nurses in the emergency department resulted in a revised plan that brought in nurses from the general wards, outpatient clinics, and educational facilities for assistance.

Emergency department nurses and nurses from other facilities are not only being trained to support the prehospital field team, but also are being trained in intensive care skills to assist in intensive care units. The training includes: (1) an Advanced Cardiac Life Support course; (2) a Basic Trauma Course for nurses; (3) a Hazmat course; (4) a Pediatric Advanced Life Support course; and (5) a Basic Critical Care course. The training also includes a competency assessment and a one-week of instruction in the emergency department and the intensive care unit.

This plan has been tested with frequent drills and few recalls.

Keywords: industrial accident; mass-casualty incident; nurses; preparedness; training
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(198) Crisis Center Quality Management

J.M. Servais;[1] J.P. Bair;[2] P. Dewil;[2] F. Vantrimpont[3]
1. Buss, Brussels, Belgium
2. Province de Namur, Namur, Belgium
3. IFCSM, Brussels, Belgium

A Crisis Management Center was implemented at the county level in Namur, Belgium in the 1990s. It requires a permanent team that is in charge of maintenance and alerting the appropriate staff members in case of major emergencies.

The recruited staff members originate from cooperating agencies and services. These services are: (1) fire brigades; (2) health emergency services and public health authorities; (3) police, civil, and armed forces for logistics; and (4) a specialized cell in communication (media, public, and authorities).

Recently, the general organization and management of this Crisis Management Center were reviewed by an external audit company. The Center was labeled International Organization of Standardization (ISO) 9001 in 2005.

The aims, functions, and emergency procedures of the Center will be presented. The decision-making process of each professional group within the Center and the use of communication channels also will be described. Strengths and weakness will be identified in this analysis.

Keywords: Belgium; communication channels; crisis center; health professionals; management
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(199) Disaster Medicine: The Enigma of Development in Afghanistan

A. Taib
Afghanistan Disaster Management Authority, Kabul, Afghanistan

Afghanistan, a disaster-prone country emerging from more than 25 years of war and turmoil, continues to lag behind in various aspects of disaster and emergency management. Disaster medicine is a core competence in any preparedness, prevention, response, and recovery systems. However, it remains a neglected priority within the country's health systems. Lack of statutory approaches, prioritization, capacity, and development of awareness among both the government of the day and its partners in development, chief amongst them world-wide emergency health agencies, continues to contribute to the rising potential of disaster conditions. This paper seeks to marshal support for

the inclusion of disaster medicine in the core, health-based initiatives in Afghanistan and developing countries within the South East Asia Region.

Keywords: Afghanistan; coordination; disaster; emergency health; neglect; preparedness
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(200) Thessaloniki EMS Mass-Casualty Preparedness System: Resources and Structure

D. Ekklisiarchos;[1] K. Fortounis;[2] A. Christodoulou;[2] K. Iliades;[2] C. Matsikoudi;[2] D.M. Boutlis[2]
1. Poligiros, Greece
2. Emergency Medical Services Thessaloniki, Thessaloniki, Greece

Introduction: The Emergency Medical Services (EMS) of Thessaloniki serves a population of 1,000,000 on a daily basis for routine emergency circumstances. In cases of mass-casualty incidents (MCI), there is an emerging need of larger scale planning to meet the requirements of the expanded area of Northern Greece.
Aim: To present the Mass-Casualty Preparedness System (MCPS) of the Thessaloniki EMS.
Methods: All emergency physicians (10–15) and 50 paramedics are involved on a voluntary basis under a plan of rapid response with the use of a waterfall pattern of activation, where each member must activate two others using a checklist.

A sufficient number, depending on the severity of the MCI, of basic life support (BLS) ambulances, Mobile Emergency Care Units, and five special vehicles are available. These include: (1) one Mobile Dispatch Vehicle (with three very high frequency and one Ultra High Frequency receivers, two cell phones, one satellite phone, six telephone lines, one Television-Video set, two laptop-scanner-printer-cameras, and one diesel generator); (2) one Radiation, Biological, Chemical (RBC) Vehicle (with 15 sets of personal protective equipment (PPE) Type B, one chemical agent monitor, 60 paper chemical detectors, four victims isolation boxes, 60 kits for garment and skin decontamination, one decontamination device, and 2 portable showers); (3) one High Capacity Mobile Emergency Care Unit (with five ventilators, advanced life support (ALS) equipment for 20 victims, triage kits, and one diesel generator); and (4) two trucks for general transportation purposes.

Full-scale exercises with the participation of the fire department and civil protection authorities take place at regular intervals.
Conclusion: The Mass-Casualty Preparedness System (MCPS) of the Thessaloniki EMS is a promising new tool, but is in need of further validation.

Keywords: emergency medical services (EMS); emergency vehicles; mass-casualty incidents; Mass-Casualty Preparedness System; resources
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(121) Selling Disaster Preparedness to the Public: Why Are They Not Buying?

A.L. Garrett;[1] D.M. Abramson;[2] I. Redlener[2]
1. Columbia University, New York, New York USA
2. National Center for Disaster Preparedness, New York, New York USA

Annual surveys conducted by the National Center for Disaster Preparedness and the Marist College, both in New York, have established a low level of disaster preparedness activities among US citizens, despite aggressive messaging from authorities and a climate of fear that should promote this type of activity. The authors will present an overview of the types of preparedness messaging that exists in the US, as well as a summary of the longitudinal data. To encourage citizens to make a behavioral change towards greater preparedness, it may be beneficial to explore the problem using a similar approach as other lifestyle modifications, such as smoking cessation or weight loss. Through the application of the established Stages of Change (Transtheoretical) Model, the barriers that likely are preventing higher levels of citizen preparedness can be described and understood better. More effective messaging also can be developed. The Stages of Change Model suggests that individuals who are contemplating a behavioral change (in this case, to take steps toward emergency preparedness for themselves and their family) would fall into one of five "stages", namely: (1) precontemplation; (2) contemplation; (3) preparation; (4) action; and (5) maintenance. Moving individuals from one stage to the next towards a goal of preparedness likely requires a specific approach to be most effective. The current plan of "one size fits all" messaging may be missing an opportunity to motivate as many citizens as possible to develop a family preparedness plan.

Keywords: disaster preparedness; family preparedness plan; messaging; public awareness
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(202) Hospital Disaster Planning—Critical Elements for Success

D.L. Dixon
Western Health, Victoria, Australia

Implementing a comprehensive disaster plan is essential in order to ensure the safety and best outcomes for patients and staff in unexpected and unusual circumstances, when resources and capability are stretched beyond normal operations. Public awareness and expectations dictate the necessity of such a plan for all hospitals, and help to evaluate the effectiveness of implementation of the plan after the event.

Incident response can be described in three phases: (1) stand-by; (2) activation; and (3) stand-down. Action cards outlining staff roles in each phase are beneficial. Developing a clear understanding of an almost militaristic chain of command structure is essential for hospital staff, as it enhances the communication and reporting processes.

A Hospital Management Team must be established. Nominated members allow for appropriate authority to be available at all times. Liaison with external agencies such as