

and 1999, 121 terrorist attacks using biological and chemical warfare have been registered in the Monterey Database. In the last decade, the risk of a possible attack involving large numbers of people, in particular, civilians in countries not involved in war, has reached an all-time high.

Hospital emergency units must be ready with plans and treatments in the event of a massive influx of victims. Managing these plans requires calculating the extent of the mass emergency and any peculiar clinical characteristics of the victims themselves, for example: premature diagnoses, competency of the biological agents used, procedures for decontamination, ways of protecting personnel, and specific antidotes.

The health workers in the emergency system, with the assistance of the other emergency services, represent the first line of defense against these types of attacks. The nature of the agent may only become evident after the arrival at the hospital of thousands of sick people. It is vitally important to communicate effectively with the staff regarding the pathological treatment needed for various biological agents, chemicals, and nuclear materials. Above all, there must be collaboration, with anti-poison centers, nuclear NBC forces, and other organizations tasked with responding to such an event.

A four-part protocol will be discussed: (1) risk reduction; (2) preparation; (3) response; and (4) recovery.

Keywords: bioterrorism; health workers; Italy; preparations

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A Consensus Process on the Management of Major Burns Accidents: Lessons Learned from the Café Fire in Volendam, Netherlands

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Introduction: The optimum response to the different stages of a major burns incident still is not established. The fire in a café in Volendam on New Year's Eve 2000 was the worst incident in recent Dutch history and resulted in mass burn casualties. The fire has been the subject of several investigations concerned with organizational and medical aspects. Based on the findings in these investigations, a multidisciplinary research group conducted a consensus study.

Objective: The aim of this study was to further identify areas of improvement in patient care after mass burns incidents.

Methods: The consensus process comprised three postal rounds (Delphi Method) and a consensus conference (modified Nominal Group Technique). The multidisciplinary panel consisted of 26 Dutch-speaking experts, working in influential positions within the sphere of disaster planning and care. In the postal surveys, consensus was reached for 66% of the statements. Six topics were discussed in the consensus conference: three in the plenary part and three during the subgroup meetings. After the conference, consensus was reached for seven statements (one subject generated two statements). In total, the panel agreed on 21 statements. These covered the following top-

ics: (1) registration and evaluation of disaster care; (2) capacity planning for disasters; (3) prehospital care of victims of burns; (4) disasters; (5) treatment and transportation priorities; (6) distribution of casualties (including interhospital transports); (7) diagnosis and treatment; and (8) education and training. A few examples of the statements are:

1. "A uniform mode of registration of the entire emergency care process is needed; it should be suitable for regular, as well as disaster, care."
2. "The government should facilitate optimal collaboration between burn centers in our country and the neighboring countries."
3. "In the current organizational structure behind the medical care in disasters, problems with the hierarchical structure and competencies occur quite often."
4. "The Advanced Trauma Life Support (ATLS) protocol is routinely used for trauma care in Dutch hospitals; in case of admittance of a burn patient, knowledge of the EMBS protocol should be present."
5. "Every rescue worker who attends the scene of the disaster should have received proper training, focused on his tasks."

Conclusion: In disaster medicine, a consensus process is a suitable tool for identifying areas of improvement in the care after mass burns incidents. The statements are useful points to improve planning for future disasters.

Keywords: burns; consensus process; disaster medicine; management; Netherlands

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Meeting the Challenge—Appointment of a Full-Time Emergency Management Coordinator in a Melbourne Healthcare Network

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The growing risk of terrorism-related activities, advances in technology, which increases the potential hazard of major incidents, and legal obligations related to staff and patient safety have led to increased executive commitment and enthusiasm for hospital emergency planning in Australia. Historically, hospital emergency plans were based on system redundancy. Now, plans must identify contingent redundancy options, including measures to address principles of prevention, preparedness, response, and recovery in order to cope with internal and external emergencies, which may impact hospital function.

Until recently, emergency management was an often-overlooked area within hospital operations. The tragic events of 11 September 2001, and the continuing threats to national security highlighted with the Bali bombing in 2002 have ended that complacency worldwide. Now, many organizations have an active interest in strengthening their emergency management programs, however, budget limitations and lack of trained personnel often make meaningful improvements difficult.

Western Health recognizes the importance of committing resources and time to develop and implement an emergency management program, consolidating its commitment

by employing a full-time Emergency Management Coordinator—a pioneering position within Melbourne hospital systems. This role is broad, encompassing not only planning, but also the best practice research related to incident management, facilitation of site-based planning committees, promotion of linkages with local and state government bodies and other emergency service organizations, and the development and dissemination of educational and planning information to staff. This presentation outlines the development of this role, and provides an overview of current progress and challenges.

Providing services to an area of 1,335 km², with a population of 553,000 people in Melbourne's western suburbs, Western Health employs 3,800 staff members by combining the resources of three leading hospitals and two specialized health programs: (1) an Aged Care and Rehabilitation Program (two nursing homes); and (2) a Drug and Alcohol Program. All hospitals are located within 20 minutes from Melbourne's central business district, and are within a major industrial petro-chemical producing belt for the State of Victoria, incorporating several major transport routes and an international and domestic airport.

Keywords: Australia; emergency medical coordinator; health; Melbourne; Western Health

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Road Traffic Injuries in Shanghai

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Worldwide, road traffic injury has become the primary public safety hazard. According to the World Health Organization (WHO), the total number of motor vehicles in the world is >1 billion, with >80% in the developed countries and <20% in the developing countries. In 2000, an estimated 1.26 million people worldwide died as a result of road traffic injuries. The WHO predicts that road traffic injuries will account for about 2.3 million deaths globally per year by 2020.

In 1978, the Chinese government began an open reform policy. Since then, the national economy has developed rapidly. In 2002, the number of motor vehicles in China totaled 79,756,763. The average increase in the total motor vehicle production is 3.5% globally, and 26.4% in China for the same period. Meanwhile, however, road traffic incidents have increased at relative rates. In 2003, at the time of writing, road traffic incidents totaled 667,507 in China. This resulted in 494,174 injured patients and 104,372 deaths.

The population in Shanghai, at present, is nearly 20 million. There are 1.5 million motor vehicles within the city and the number has increased yearly. The density of population and vehicles is the highest of all Chinese cities. Although there are more and more subways and highways and roads are being widened, road traffic injuries have increased yearly. Statistics show there were 47,088 and 54,197 road traffic incidents in 2002 and 2003, respectively; there were 1,400 and 1,406 resulting deaths and 15,690 and 15,752 injured persons, respectively. Traffic injuries cost 30.05 and 39.72 million Yuan in each of those two years, respectively.

The emergency medical response in Shanghai involves the Shanghai Emergency Medical Service system and Emergency Medical Centers. The mean radius of the pre-hospital medical emergency network is about 15 kilometers. The "1-2-0" telephone system and other emergency numbers, such as the "1-1-0" police telephone number and the "1-1-9" fire telephone number activate the first-aid service system, which provides immediate feedback, and avoids spending time on unnecessary prehospital procedures. These emergency phone numbers have played an important role in emergency medical care in Shanghai.

In 1998, Shanghai East Hospital established a modern trauma care system and a Trauma and Emergency Center. In the Trauma and Emergency Center, there are various experienced specialists working in general surgery, neurosurgery, thoracic-cardiac surgery, orthopedic surgery, urological surgery, and professional enhanced intensive care units (EICUs) under the auspices of a coordinated emergency system. This system has performed successfully and should become the model in the management of road traffic injury patients, especially for patients with multiple injuries and for mass casualties.

Keywords: China; crashes; enhanced intensive care unit; emergency; injuries; public health; road; Shanghai; traffic; World Health Organization

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Rapid Intervention Teams: The Mexican Experience in Prehospital Attention with Emergency Medical Technicians on Motorcycles

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Introduction: In Mexico, increasing population and the corresponding increases in emergency response distances and need for emergency medical services have forced Mexican agencies involved in the delivery of emergency medical services to develop new and creative solutions to achieve their goals.

Methods: The Fire Department of Atizapan County (in the suburbs of Mexico City) implemented a Motorcycle Emergency Medical Technician's Team consisting of a Rapid Intervention Team with emergency medical technicians (EMTs) on motorcycles, as a complement to the already existing teams on ambulances. When an emergency call is received, an EMT on a motorcycle is dispatched immediately to the scene. The EMT arrives at the scene before the ambulance, and in that time starts the treatment of the victim with the equipment carried on board, stabilizes the patient, and provides early medical care (in the "Golden Hour"). At the beginning of the project, none of the EMTs had previous experience with this kind of team, so it was necessary to define the necessary job requirements of the participating EMTs, the proper medical and safety equipment, and the medical training and driving skills required in emergency conditions.

Results: Implementation of the Motorcycle Medical Technician's Team dramatically has reduced the arrival time of the medical care team to the scene and contributed to diminishing the morbidity and mortality of the victims.