

also ran mobile clinics at the township hospital, the rural healthcare centers, and an orphanage. For the nine operational days, Team Singapore treated a total of 4,710 patients: 62% (2,921) were adults, while 38% were pediatric patients (<12 years old). The most common diagnoses among adults were: Upper respiratory tract infection (URTI) (27.2%); gastritis/gastroenteritis (18.9%); and lower respiratory tract infection (LRTI) (13.8%). The most common diagnoses seen among the pediatric group of patients were: gastritis/gastroenteritis (29.2%); URTI (28.7%); and LRTI (7.5%). Additionally, 6.3% adults came to seek help for long-standing, chronic medical problems (i.e., hypertension and diabetes mellitus). Post-traumatic stress disorder and psychological manifestations were seen in 8.1% of adults and 2.8% of children, while injuries and wounds were treated in 10% and 12% of these groups respectively.

This presentation will share the team's unique experience in the humanitarian response.

Keywords: disaster response; Cyclone Nargis; medical assistance; Myanmar; Team Singapore

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Use of a Common, Inter-Sectoral Template for Observer Reports of Crises

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Introduction: The use of a common template for observer studies is a way of structuring the experiences gained (lessons observed and learned) from such studies. This facilitates the comparison of reports within one's own field as well as between different sectors. It also facilitates the implementation of joint observer activities and joint observer reports, promoting more comprehensive and holistic learning from the events.

Methods: Using the Utstein method for studying disasters and the Swedish Disaster Medicine study organization (KAMEDO) as an inspiration, a number of Swedish governmental authorities and organizations compiled a template for presenting standardized observer reports. The following titles have been identified to be included: (1) Title; (2) Preface; (3) Observers and Authors; (4) Summary and Experiences; (5) Introduction/Material and Methods; (6) Hazard; (7) Background (including pre-event status and preparedness); (8) Event; (9) Damage; (10) Disturbances; (11) Responses; (12) Recovery and Development; (13) Discussion; (14) References; (15) Appendices; (16) Keywords; (17) Index; and (18) Abbreviations.

Results: This template has been used successfully for observer studies within the health sector (evacuation of Swedes from the war in Lebanon, 2006, a power supply failure at a major university hospital in Stockholm, 2007),

within the food sector (Cryptosporidium contamination of water supply in Ireland, 2007, consequences for water supply from floods in the UK, 2007, sewage contamination of water supply in Finland, 2007) and within crisis management and rescue services sectors (floods in the UK, 2007, sewage contamination of water supply in Finland, 2007, wild fires in California, 2007)

Conclusions: The use of a common, standardized template for the documentation of lessons observed and learned from major disasters/crises has proven useful. In addition to enhancing the completeness and learning value of the reports, it also has proven to be a useful tool for stimulating intra-sectoral cooperation and learning.

Keywords: crisis; disaster; lessons learned; lessons observed; observer report

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Poster Presentations—Disaster Reports

(C21) Bampoor Flooding: Case Review

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Earthquakes and flooding are two major incidents in Iran. Each year, several storms occur in Sistan–va–Balouchestan state due to the hot and dry climate and the geographical characteristics of the region. Flooding in Bampoor destroyed many homes, but with no human loss. The objective of this study was to analyze crisis management during the Bampoor flooding in January 2008. Up to 125 mm of rain fell in three days, compared to 143 mm in the last 12 months. Being unable to accurately estimate flood risk and magnitude brought catastrophic results. Flood warning notification should be adjusted according to local culture and understanding in order for it to be effective. All decisions should be considered as being effective in all stages of rescue operations. A solution in one phase can change into a serious threat in the next phase, endangering lives. Integrated and focused management in distributing aid is essential to ensure effective aid assignment. Climatological characteristics should be privileged during reconstruction. Psychological support is essential to the empowerment and rehabilitation of victims. Unrealistic promises can put a negative effect on the trust of the affected population. Crisis management skills in Iran must be developed further. Regional and cultural adaptation is recommended to administer relief.

Keywords: Bampoor flooding; disaster; flood; Iran; planning

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(C22) Reassessment of the Bam Earthquake Five Years Onward

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Background: An earthquake measuring 6.6 Richter in 2003 devastated the historic Iranian city of Bam. During

the response and recovery phases, considerable shortcomings were experienced. Flaws in the management of the various aspects of this disaster were identified to assess what was done or should be done to overcome these shortcomings during future disasters.

Methods: A review of the management of the Bam disaster was performed by assessing files and data from 17 multi-center studies from 2003–2008. This assessment included data that related to the: (1) early warning phase; (2) time under rubble; (3) time to reach the scene and evacuate casualties; (4) assessment of rescue operations; (5) coordination of rescue teams; (6) triage; (7) trauma management; (8) transfer of equipment (resource mobilization); (9) rate of Disseminated Intravascular Coagulopathy (DIC), Acute Respiratory Distress Syndrome (ARDS), and Acute Renal Failure (ARF); (10) medical care provided; (11) efficacy of foreign field hospitals; (12) assistance of military forces; (13) rate of psychological distress among survivors; (14) provision of water, power, telephone, and healthcare services; and (15) social issues (opium abuse in survivors).

Results: Data relevant to search-and-rescue operations and disaster management indicated shortcomings in human resources, patient transfer, availability of equipment and facilities, and trauma treatment. One percent of victims had compartment syndrome and needed a below-the-knee amputation, 11.6% were septic, 7.3% experienced DIC, 9.1% had ARDS, and 38.9% needed fasciotomy. The average time under rubble was 1.9 hours and the time from rescue to receipt of first aid time was 3.5 hours.

Conclusions: Comprehensive disaster management must not be limited to the response phase but must include preparedness, recovery, and prevention, improvement of healthcare facilities, and provision of organized communication channels between organizations for running a command system and instituting coordination among relief workers. Continuous education, training of the general population and task forces involved in disaster management, and conducting periodic exercise drills also are important.

Keywords: assessment; Bam earthquake; earthquake; Iran; management

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(C23) International Disaster Relief Operation of Chinese Medical Teams following the Earthquake in Indonesia in 2004

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Introduction: The international disaster relief operation (IDR) of Chinese Medical Teams following the earthquake in Indonesia in 2004 is described.

Methods: Four medical teams participated the IDR between 31 December 2004 and 06 February 2005. A total of 190 medical staff including 22 doctors and 78 nurses were dispatched from China. They treated 4,483 patients. The authors examined the activities of the medical teams and also described the role of nurses in the IDR.

Results: The role of the medical team was treating surgical wounds and performing surgical operations during the acute

phase. After that, the role gradually changed to treating infectious diseases, providing safe drinking water, and preventing infectious diseases. The role of the nurses in the IDR was setting up temporary medical facilities, inside arrangement, providing health care to the medical staff, triage, removing stitches, managing commodities and medical waste, interviewing patients, and assisting with medical treatment.

Conclusions: This was the first Chinese IDR in the 21st Century. The role of nurses in this IDR was important for the success of the IDR.

Keywords: China; disaster health; disaster management; earthquake; Indonesia; medical team

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(C24) International Disaster Relief in the Hospital of the Affected Country

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A large-scale earthquake occurred in China on 12 May 2008. The damage caused by this earthquake resulted in 69,000 deaths, 374,000 injured, and 18,000 missing. The Chinese government did not accept international humanitarian support immediately. The Japan Disaster Relief Medical Team was deployed at a Chinese hospital eight days after the earthquake occurred. Japanese doctors and nurses and other specialists were assigned to each department. This paper reports on the experience of performing relief work in the intensive care unit (ICU) of the hospital.

In the ICU, there were some problems with language, medical knowledge and skills, etc. Therefore, after conferring with the Chinese staff, complementary roles were apportioned. Respiration management, posture management, and wound management were performed. These practices required the utilization of highly advanced medical knowledge and techniques for intensive care.

There were many tasks that were performed in the ICU. Furthermore, the Chinese staff was exhausted from the burden of an increasing patient load. The Japanese Team offered human resources that reduced the burden on the Chinese medical staff and thus, were able to improve the quality of the patient care.

Working under such large-scale conditions was new to members of the Japanese medical team. It is necessary for international relief teams to not only offer standard support, but also to recognize the particular needs of the stricken area. Medical personnel must be rich in advanced medical knowledge and technique. Furthermore, adult education and consultation skills are necessary to perform duties in cooperation with the staff of the affected country. Professional knowledge and technique are necessary to support a hospital in a disaster-stricken area. In addition, skills pertaining to adult education and consultations are necessary, and most importantly, flexibility in recognizing local needs.

Keywords: disaster response; earthquake; international assistance; intensive care unit; Japanese Disaster Relief Medical Team; relief

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