quite superficial. However, after GHAE, one-week training courses on disaster medicine are held regularly at the National Hospital Tokyo Disaster Medical Center, and realistic disaster drills are adopted and performed mainly in disaster core hospitals.

The establishment of Disaster Medical Assistant Teams (DMATs), composed by emergency physicians, nurses, and emergency medical technicians, has been a long-time dream in Japan. In August 2004, thanks to the efforts of the people concerned, DMATs were organized in Tokyo. This new effort is expected to expand into other areas in the near future. Several other improved areas and their problems are discussed in the presentation.

Keywords: anniversary; assessment; core hospitals; disaster medical assistance teams (DMATs); disaster medicine; education; exercises; Great Hanshin-Awaji Earthquake (GHAE); Hyogo Prefecture; Japan
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Hospital Preparedness for Disasters

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The Pan-American Health Organization (PAHO) and the Mexican Federal Government signed an agreement to establish the voluntary and temporary certification at the institutional, national, and international levels of health installations prepared to face disaster situations.

The Mexican Social Security Institute was interested in this initiative, taking into account the number of hospitals that form its infrastructure: 254 hospitals of medium and high complexity, of which 131 (52%) are situated in high-risk areas, 67 (26%) in medium-risk areas, and only 56 (22%) in low-risk areas.

Because of the aforementioned statistics, a model was designed to certify the hospitals in order to establish a permanent and priority program entitled "Hospitals Prepared to Face Disaster Situations" in agreement with the PAHO recommendations. The Institute, through the Institutional Committee for Disaster Cases, created rules for the creation of the "Hospital Plan for Disaster Cases", which includes structural and non-structural aspects of the organization and specified the governing body for each organization.

Each hospital unit is responsible for designing its own plan, which should designate the actions to be followed in an internal or external disaster in the stages before, during, and after the event, including identifying the risk factors, vulnerability, human resources, and materials at their disposal ("made to measure").

For the certification stage, the Committee designed an "instrument" for quantitative evaluation, which permits the qualification of the medical units to select the hospitals classified as high-resolution level and situated in high-risk areas.

Later assessment visits were programmed and the evaluation procedure was applied. Forty hospitals have achieved this Certification, and others currently are in the process.

At the present time, the Institute is involved in the national level certification stage. This certification will ensure the security of users and installations, and will facilitate a decrease in insurance premiums, which will be reinvested in strengthening hospital security.

Keywords: certification; coordination; disaster; evaluation; hospital; Mexico; preparedness
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Australian Mass-Casualty, Burn, Disaster Plan

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Australia has a series of dedicated burn units. Emergency medial services in capital cities respond to the emergency needs of the population of 20 million. The significant distance involved in transporting patients necessitates a two-phase response to a mass-casualty event: (1) The surge phase is the initial phase of rapid expansion of urgent services provided by core health services of the given state or territories; and (2) The redistribution phase is the protracted period of ongoing needs for medical care that challenges the capacity of the given state or territory due to the prolonged healing and rehabilitation needs of burn survivors.

We intend to develop a coordinated national response for events involving multiple burn casualties. The plan will be based on the international literature in context of local resources and conditions. The plan will interface with the disaster plan of the states and territories in addition to the overseas mass-casualty plans of the Australian Government. The development of the two-phase, kinetic, mass-disaster model is an original concept that provides a template for any mass-casualty event in Australia or overseas. This plan will be discussed.

Keywords: burns; coordination; disaster; mass casualties; phases; planning; response
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Shipping Disasters in the English Channel: A Need for International, Multidisciplinary Rescue

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Belgium

On 06 March 1987, the Herald of Free Enterprise (HOFE), a car ferry transporting 543 passengers and crew, 42 trucks, and 84 cars, capsized one mile away from Zeebrugge harbor. A large rescue operation began at three operational levels. Rudimentary means of rescue were attempted on-board the wreck. Helicopters transported victims from the wreck to a nearby military harbor, and boats were directed towards an empty pontoon. At the pontoon, emergency care was provided and further transport was organized to surrounding hospitals. The available resources made it possible to start advanced life support (ALS) at the triage station, where 21 medical teams received >250 victims within hours after the event. The majority of casualties were due to immersion, while most of the injuries were minor orthopedic trauma, bruises, and cuts, which could be treated easily. A few victims with cardiac arrest and hypothermia were referred to a hospital for

further treatment. Meanwhile, the normal emergency care in the region was secured.

One-third of the victims died, one-third were hospitalized, and the rest were sent to emergency shelters. DVI and post-traumatic stress disorder played an important role in post-incident management.

On 25 August 1984, the Mont Louis, a French Roro Ship collided with the car ferry Olau Brittannia prior to reaching the Belgian coast. The Mont Louis carried 30 cylinders with 15 tons of UF6. Belgian authorities did not have a full understanding of the content of the cargo and the nature of its risks (radioactivity) until three weeks after the crash.

On 14 December 2002, the Tricolor, a cargo ship with "shoebox" construction similar to the HOFE, transporting 3,000 cars sunk after a collision a few miles out of Zeebrugge. The crew was rescued. Despite all kinds of warning systems, 10 near-collisions and two real collisions occurred within two weeks of the accident.

The high density of maritime traffic in the Channel (20% of the world's maritime traffic) requires planning with cross-border help. The International Maritime Organization made many efforts to make sea traffic safer, but human failure still is possible. The rescue of victims with the combination of drowning, hypothermia, and trauma is very difficult. Catastrophic events at sea always are complex.

Keywords: collisions; drowning; English Channel; high seas; hypothermia; planning; rescue; ships; trauma; treatment
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Use of Simulation in a Computerized Environment in Disaster Planning

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Introduction: Disaster preparedness usually is based on assessment of the risk of major incidents. Plans are designed and tested according to this assessment. If a simulation based on realistic input could be done in a computerized environment, this could create a possibility to test disaster plans. The outcome of these simulations then could be used as an instrument when designing disaster plans.
Results: Med Model simulation was used. A bank of patient data was entered, as well as all ambulance dispatches and patient flow at the emergency wards in three hospitals during three months. Rules for prioritizing and treating patients were entered, as well as times for all dispatches and measures performed on-scene. Real-time calculations from the scene to hospitals and the intensive care unit (ICU) were used. Preventable deaths and preventable complications were used as performance indicators, as well as logistic results in forms of needs for ICU beds. The simulation was used as a test for different scenarios with different focuses that all have to be considered when designing or revising disaster plans.
Conclusion: Simulation of major incidents can be used in a computer environment as a tool to address different issues that need to be considered in disaster plans.

Keywords: computers; disaster plans; Med Model; performance indicators; simulation
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Friday 20th May 2005

Theme 15: Hot Topic—International Humanitarian Disaster Relief—Tensions and Challenges

Chair: Anthony Zwi

Post-Civil War Reconstruction in Sri Lanka—Where and What to Support for Healthcare?

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Introduction: Two decades after the Civil War, the government of Sri Lanka and the Liberation Tigers of Tamil Eelam (LTTE) entered into a mutual cease-fire agreement in February 2003, and the Tokyo Declaration on Reconstruction and Development of Sri Lanka was adopted in June 2003. Following the recent peace process, huge domestic and foreign support for healthcare has been provided mainly to the Northeast districts, although only a few local non-governmental organizations are working in the areas adjacent to the Northeast districts.
Objective: This study sought to describe the current health status in Sri Lanka and suggest an appropriate process of healthcare support for the country.
Methods: The Japanese Red Cross Society and the Sri Lanka Red Cross Society conducted a survey in five provinces in July and October–December 2003, and analyzed the health situation in those areas.
Results: Sri Lanka has a well-structured medical system. However, primary healthcare services, especially in conflict-affected and adjacent areas, have not been provided with sufficient attention compared to the curative services.
Conclusion: The reconciliation among ethnicities is the vital agenda, not only in the Northeast districts, but also in Sri Lanka as a whole. All health projects should aim to facilitate the reconciliation and organization of the grass root volunteers, which is needed to fulfill the mission.

Keywords: health care; Japanese Red Cross Society (JRCS); primary health care; Sri Lanka; Sri Lanka Red Cross Society (SLRCS); support
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Container Contamination as a Possible Source of a Diarrhea Outbreak in Abou Shouk Camp in Darfur Province, Sudan

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Introduction: Diarrhea is one of the five major causes of death in an emergency setting and one of the three main causes of death in children (Curtis & Cairncross, 2003). In June 2004, an outbreak of shigellosis was confirmed in the Abou Shouk camp in the Northern Darfur province of Sudan. Since the camp is currently home to about 7,000 households, an immediate response was necessary.
Methods: As water testing showed no contamination, it was assumed that post-collection contamination occurred.