

fasciotomies, and integration into the incident command system. Two levels of instruction are provided; one for physicians and one for nurses. Triage techniques also are taught using a tabletop exercise and a real-time computer simulation of triage under disaster conditions. In the animal laboratory workshop, students practice endotracheal intubation, cricothyrotomy, chest tube thoracostomy, and central and intraosseous line placement. In the crush injury laboratory session, students practice amputations, fasciotomies, and muscle compartment pressure monitoring on fresh frozen human cadaver arms and legs. The MDR model has been successfully implemented in two sites in the United States, both in California.

**Keywords:** course, training; education; exercises, tabletop; hospitals; laboratory; medical responses; model; physicians; nurses; response; simulations; training; triage;

## S2-2

### Training on Disaster Medicine in the Philippines and the Western Pacific Region

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Being one of the most disaster-prone areas of the world, the Philippines needs to have adequate preparedness measures for different kinds of emergencies. The various efforts conducted to help improve disaster management in the country are presented in the paper. Agencies that are involved range from academic institutions, line agencies of the government, non-governmental organizations, and even community based organizations.

In the Western Pacific Region, the World Health Organization has been assisting member countries in strengthening national capacities for disaster preparedness. Plans for future training activities also are presented. There is a need for the development of more training programs in the health aspects of disasters, and there should be greater collaboration between disaster management/relief organizations and the training institutions.

**Keywords:** agencies; capacities; collaboration; disaster management; Disaster Medicine; organizations; preparedness; training; World Health Organization (WHO)

## S2-3

### Education for Major Accidents and Disasters in Sweden

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The predominant disaster risks in Sweden are accident risks (transport accidents, chemical and biological accidents, radiation accidents, fires, explosions). The risk of

natural disasters (e.g., earthquakes, typhoons, floods, drought) with large numbers of dead and injured is small in Sweden. Terrorism and war can lead to serious mass injury situations. At the same time, problems with the supply of drugs and material may arise.

In Sweden, 21 politically largely independent regions (County Councils, etc.) have the responsibility for providing and financing medical care. On behalf of the Government, the National Board of Health and Welfare — a central autonomous authority under the Government — has the primary task to evaluate the outcome and supervise the quality and safety within Medical Care, Social Welfare, and Public Health.

The National Board also bears the overall responsibility within its field of responsibility, for planning and supply for war and national emergencies. This includes the education and training of medical personnel to ensure adequate preparedness for medical care both in peacetime disasters and wartime. Part of the funding needed for such education and planning is transferred from the defence budget.

The objectives of education in Disaster Medicine are to provide basic knowledge of management of medical care in a disaster. It also helps to increase the interest for medical preparedness. The aim of the education is to train/provide: 1) Work under special environmental circumstances; 2) Treatment of conditions that are unusual to most doctors and nurses, such as severe trauma cases, injuries caused by nuclear, biological, or chemical agents etc.; and 3) Information to non-medical personnel (“key” personnel in hospital management, etc., technicians)

The courses are given as follows:

- 1) National courses, organised by the National Board of Health and Welfare, (approximately 500 educated per year, 4–5 days/course funded with equivalent of \$875,000 USD/year from Defence budget):
  - Management in hospitals and on the accident site;
  - Methods for work in a rescue staff;
  - Casualty care in case of nuclear and chemical accidents as well as hypothermia;
  - Public health and investigation techniques – infectious diseases;
  - Surgery in disaster conditions;
  - Trauma specialist teams;
  - Debriefing teams;
  - Financial support to County Councils.
- 2) Courses provided by the County Councils (approximately 10,000 educated per year, 1–2 days/course, funded with equivalent of \$3,250,000 USD/year from Defence budget) include locally adapted courses and exercises such as:
  - management at accident site;
  - decontamination;
  - Information to politicians.

**Keywords:** curricula; Disaster Medicine; disasters; education; financing; preparedness, medical; quality; risks; safety; training courses