ment programs. Standard No. 1600 will become effective in the spring of 2000. The committee in charge of developing this standard is comprised of 25 experts, including representatives from the Federal Emergency Management Agency (FEMA), the International Association of the Fire Chiefs (IAFC), the American Insurance Services Group, and the National Coordinating Council on Emergency Management (NCCEM). The committee has composed a comprehensive paper to build "disaster resistant communities". The paper addresses the process of hazard analysis, risk assessment, as well as public and leadership awareness and leads to emergency activities. The disaster activities are described in four related phases: 1) Mitigation; 2) Preparedness; 3) Response; and 4) Recovery. This presentation will outline these phases as well as the planning process for both the public and private sector.

The disaster planning process should include as many entities as possible (public, private, business, first responders, neighborhood groups, churches, charitable and nonprofit organizations, and other specialists). In order to be prepared, it is crucial that every person and organization know their respective role(s) and responsibility(ies) in advance. All parties must be trained on a regular basis (drills, table-top scenarios, full-scale exercises) and allowed to make suggestions on how to refine the current plan.

Using the example of the 1994 Northridge Earthquake, this presentation will demonstrate how the Californian Comprehensive Emergency Management (CEM) worked. It will display how Mitigation, Preparedness, Response, and Recovery activities were addressed before, during, and after the impact.

The most common management tool used in the USA for emergency situations is the Incident Command System (ICS). This presentation will explain the principles and structures of the ICS including unified command and span of control. Different agencies (law enforcement, emergency medical services (EMS), fire, hospitals, military, public works) and jurisdictions (Federal, State, Local) were able to communicate, coordinate, and cooperate their resources using the ICS in the earthquake event.

The objective of all disaster efforts is to reduce the occurrence and/or the impact of catastrophic situations on life, environment, and property.

Keywords: disaster, management of; earthquakes; exercises; incident command system (ICS); mitigation; National Fire Protection Association (NFPA); Northridge Earthquake; planning; preparation; recovery; response

V-3
Automatic Advisory Defibrillator

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University Hospital Edouard Herriot, Lyon, France

Circulatory arrest due to ventricular fibrillation causes 40 to 50 thousand sudden deaths each year in France: that is, 1 person in every 1,000. Such fibrillation occurs in 85% of non-traumatic, unexpected, circulatory arrest outside of hospitals.

When faced with this type of distress, emergency teams must begin cardiopulmonary resuscitation with the well-accepted procedures of the chain of survival. When the victim is inanimate and does not react, the first team member on the scene must systematically make an initial assessment and raise the alarm. When the most experienced team member arrives, s/he must check to confirm that the victim is in a coma, that s/he is not ventilating, and that there is no carotid pulse.

Two emergency gestures then are performed simultaneously:

1) Cardiopulmonary resuscitation is begun by controlling the free passage of the upper airways, setting up efficient artificial ventilation, and exerting thoracic pressure;
2) The other workers prepare the automatic advisory defibrillator. The two electrodes that are pre-connected to the device are applied according to the possible access to the thorax. The pads are applied either to the upper part of the right hemithorax and the lower part of the left hemithorax. If the message is that a shock is required, priming the charge for defibrillation takes 9 to 15 seconds to trigger according to the power level chosen... button is activated. It then becomes possible to press this button to deliver a shock. Once the shock has been administered, the device performs another analysis.

In favourable cases, the victim recovers consciousness with normal spontaneous ventilation and efficient circulation. It then is preferable to continue oxygenation using a high-concentration oxygen by mask and to place the patient in the recovery position. But, be careful, because another episode of ventricular fibrillation may occur at any moment!

This is why the presence of the Mobile Intensive Care Unit is mandatory since the victim can be managed properly on site and on the way to hospital. Therefore, by placing this equipment in emergency vehicles involved in prehospital settings, for example, emergency services, intensive care, and cardiology units. The time taken to diagnose and treat a large number of episodes of ventricular fibrillation should be reduced. In this way, the presence of automatic defibrillators should lead to saving a considerable number of patients with unexpected ventricular fibrillation, and help them to achieve a much improved cerebral and functional outcome.

Keywords: automatic advisory defibrillator; cardiopulmonary resuscitation (CPR); training; ventricular fibrillation

General Session (11)
International Repatriation
Tuesday, 11 May, 9:00-10:00
Chair: ***Linda M. Dann, Masahiro Takiguchi***

G-54
Emergency Medical Evacuation Program for Expatriates in Russia

Dr. Tom Löfstedt, MD; Mr. Juhani Missonen
Euro-Flite Air Ambulance, Helsinki, Finland

In the late 1980s, the Emergency Medical Assistance Group, Ltd. (EMA) together with the air ambulance

company Euro-Flite Ltd. Air Ambulance developed a medical evacuation program for patients coming from Russia to Finland or to another western country. Annually EMA/Euro-Flite arranges some 70 air-ambulance flights from Russia and other previous Soviet states.

The patients are escorted mainly to hospitals in Helsinki, but also to other locations in Austria, Belgium, Germany, and Great Britain, where high quality medical care is available. For patients in need of urgent treatment, it is mandatory to provide the care in the closest possible hospital, which meets the highest standards of western medical care. Depending on each case, EMA recommends and arranges a receiving facility. When the patients are sufficiently stable, they can be escorted further to their respective home countries like the USA or Canada.

Many of the escorted patients have been evacuated from remote, oil drilling sites in Western Siberia, where living conditions are very rough and health-care facilities are insufficient. These patients have suffered from both medical conditions such as heart and lung problems or traumatic injuries. Due to the lack of available local health care on the hardship drilling sites, preparedness for both emergency treatment as well as an efficient evacuation program is needed.

The EMA has at least one medical team on stand-by for emergency medical evacuations 24 hours a day. If required, the Euro-Flite dedicated air-ambulance aircraft can depart within as little as two hours from the go-ahead. The medical team and equipment are tailored to meet the special requirements of each case. Thanks to the vast flying experience into Russia, medevacs, even from distant areas in Siberia, are possible without delay.

Keywords: air ambulance; air-medical; evacuation; expatriates; Finland; medical care; responses; Russia; trauma

G-55
Historical Review of Aeromedical Evacuation of Emergency Patients in Japan

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Wounded patients should be evacuated in a short time following their injury in order to save their lives. Evacuation and transport of wounded patients have been performed in Europe, especially by French Army since 1920, not so long after the first flight of an airplane by Wright Brothers at Kityhark, United States of America in 1903.

Dr. Terasu, who studied war medicine in France, gained experience about a aeromedical system for the evacuation and transportation of wounded soldiers by a specially designed airplane by French Army. After he came back from France, Dr. Terasu sent to the headquarters of Empirical Army, a report about the usefulness of aeromedical evacuation using such a specially designed airplane. In 1925, the Air Division of the Headquarters of Empirical Army ordered to Dr. Terasu to design a hospital airplane.

The first hospital airplane was delivered in 1925. In 1932, these airplanes were sent to Manchuria on the occurrence of the Manchurian Incidents. From 1932 to 1934, hospital airplanes evacuated 1,512 soldiers and saved their lives. A total of 33 hospital airplanes were built by 1940. But unfortunately, those airplanes have not been constructed since that time, since the Empirical Army had other priorities for aircraft construction.

There have been no more hospital airplanes built in Japan until now. Compared with other forms of patient transportation, airplanes can transport patients long distances and in a short time. Therefore, they will be very useful during a disaster or catastrophe.

We should prepare aeromedical systems for transportation of the patients by airplane for disasters in Japan.

Keywords: Airmedical transport; hospital aircraft; transportation; trauma

Panel Discussion (3)
Disaster and Mental Health in Asian Countries
Tuesday, 11 May, 10:30-12:30
Chair: Reiko Homma True, Naotaka Shinfuku

PN3-1
Disaster Mental Health in Asian Countries — Towards Culture-Friendly Care

Naotaka Shinfuku, MD, PhD
International Center for Medical Research, Kobe University School of Medicine, Kobe City, Hyogo, Japan

The author worked as Regional Adviser in Mental Health for the Office of the Western Pacific of the World Health Organization for 13 years from 1981 to 1994. During his assignment in Manila of the Philippines, he collaborated with Philippino mental health specialists to promote psychological care for the victims of a series of natural disasters (such as the earthquake in Baguio, the eruption of Mt. Pinatubo, etc.) Also, he outlined the plan to provide mental health care for the population of disaster-torn (mostly man-made disaster) Cambodia.

These experiences have raised his awareness on the importance of psychological care for the victims of disasters. Soon after his return to Kobe, Japan, he experienced the Great Hanshin-Awaji Earthquake on 17 January 1995. Since his office is situated at the center of the Earthquake, he became a victim and at the same time, an observer of physical and psychological problems among the victims. He received and coordinated programs for many specialists from foreign countries (mostly from USA and Europe) to provide psychological care to the victims. However, he found specialists care services less useful in Kobe. Psychological support from volunteers and nearby housewives based on their common sense, has been much more useful to lessen the grief of the victims.

Many victims still are suffering from a variety of psychological and physical problems even four years after the Great Hanshin-Awaji Earthquake. However, the