

**Analysis of Fire Disasters and Burns in Taiwan**

Lee-Min Wang, MD;<sup>1</sup> S.C. Hu, MD;<sup>1</sup> C.H. Lee, MD;<sup>2</sup> J.R. Chiang<sup>1</sup>

1. Emergency Department, Veterans General Hospital, Taipei Society of Emergency and Critical Care Medicine, Taipei, Taiwan 2. National Fire Administration, Ministry of the Interior, Taiwan, Republic of China

Disasters are tragedies that overwhelm our communities, destroy our property, and harm our populations. In recent years, because the environment has been changing from agriculture to industry, the fire disaster has become the major cause of damage to people's life and property in our society.

Fire disaster differs from any other form of disaster in a number of specific ways. It differs first of all in its cause, fire particularly has an increased destructive effect on material goods and livings. For preventive purposes, we report on an analysis of fire disasters in Taiwan from 1978 to 1996 including:

- 1) *Incidence*—the two peak years were 1983 and 1986;
- 2) *Season index*—the most common months are January, October, November and December;
- 3) *Cause*—except unknown origin, electrical, wilderness fires, smoking, cooking, and mechanical abrasion;
- 4) *Duration*—first: from 12:00 to 15:00, second: from 15:00 to 18:00;
- 5) *Mortality*—the mortality depends on the increase in population using the city rate: Taiwan, 2.77%; Taipei, 6.18%; Kaohsiung, 4.42%;
- 6) *Burns*—by age and gender: peak in 0–2 years and 19–45 years; Male > Female; and
- 7) *Causes of burns*—most frequent relate to scalding injuries, second: flame.

**Conclusion:** Fire disasters occur during the Winter season and in the afternoon; the causes of fire disaster depend on building structure; and the mortality rate of fire disaster is high in the city. Therefore, prevention of fire disasters is important:

- 1) Efficiency of fire defense system in buildings is directly or indirectly involved;
- 2) Efficient program of education of the population must be popular and must include the public and the operative, medical, paramedical, and voluntary forces;
- 3) Development of plans in the medical hospital so that they are prepared against fire disasters;
- 4) Establishment of the triage pathway for burned patients in fire disasters; and
- 5) Setting up a network of prehospital care, emergency medical services system and in-hospital care during fire disasters.

**Key Words:** disaster; fire; fire disaster; incidence; mortality; prevention; seasons; Taiwan

**The Earthquake in the Aegion Region in 1995**

N. Zachopoulos;<sup>1</sup> E. Kontospyru;<sup>1</sup> G. Letsios;<sup>1</sup> S. Bakas;<sup>1</sup> D. Lambropoulos;<sup>1</sup> V. Stergiopoulos;<sup>1</sup> M. Kokoliu;<sup>1</sup> C. Bachtis;<sup>2</sup> M. Vaphiadu<sup>2</sup>

1. Nursing Office of the HNEMS, 2. Medical Department of the HNEMS, Hellenic National Emergency Medical Service, Athens, Greece

On 15 June, 1995 at 03:15 h, an earthquake of 6.1 on the Richter scale, struck the major area of the city of Aegion in Peloponnissos, approximately 180 km southwest of Athens. Only one hour after the notification of the Special Branch of Disaster Medicine of the Hellenic National Emergency Medical Service (HNEMS), the first rescue mission comprised of two Mobile Medical Units (MMU) and an ambulance (A) manned with emergency physicians, nurses and rescuers, and carrying special rescue equipment was dispatched to the scene. A further group of two emergency physicians and a disaster manager were brought by helicopter to the city of Aegion.

After the first evaluation of the situation on site, the needs and priorities were established and two rescue groups were dispatched, one to a hotel at Valimitika and one to an apartment house in Aegion city. They began the rescue.

Within hours, more rescue groups arrived from Athens, Patras, and Thessaloniki, as well as from France and Switzerland. Twenty people were extricated dead. Fifteen needed immediate treatment and nursing care.

**Conclusion:** The rapid deployment of the Special Branch of Disaster Medicine of the HNEMS at the disaster site was of crucial importance. With the cooperation of the other rescue groups, they saved lives and relieved the earthquake victims.

**Key Words:** disaster; earthquake; rescue; response; response time

**The Emergency Care in the China Tangshan Earthquake**

Li Zong Hao, MD

Vice President of Chinese Association of Emergency Medicine, Medical Director of Beijing Emergency Medical Center

In the early morning on 28 July 1978, there happened an earthquake in Tangshan City in China that measured 7.8 on Richter Scale. Some 0.95 million people were injured, and among which 0.243 million people died. Several thousand people were permanently disabled.

The earthquake extended to Beijing and Tianjin. The author worked as the chief duty director of the BEMC at the time, and soon after, worked in area where the injured people gathered and provided the on-site emergency care at the transportation hub.

The author suggested that Rescue Emergency Medicine should be founded in the discipline of Emergency Medicine (EM) and Disaster Medicine (DM) so as to satisfy the requirement of the on-site emergency care and medical caring for victims of disasters in modern society. Medical care in severe circumstances cannot operate