### PREHOSPITAL and DISASTER MEDICINE

The Official Journal of
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The principal mission of Prehospital and Disaster Medicine (PDM) is the distribution of information relevan to the practice of out-of-hospital and in-hospital emergency medical care, disaster medicine, and public healtl and safety. PDM provides an international forum for the reporting and discussion of scientific studies, both quan titative and qualitative, that have relevance to the above practices. Its major objectives are: 1) the improvement of the types and quality of the care delivered to patients with perceived medical emergencies and to victims of multicasualty accidents or disasters, including the public health and safety aspects of such events; and 2) the prevention and/or mitigation of the occurrence of such events and of the effects of these events upon the human population and environment.

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### FIRST PAN-AMERICAN CONGRESS OF EMERGENCY AND DISASTER MEDICINE Abstracts of Scientific Papers

San José, Costa Rica March 1998

Use of Military Hospitals in Disaster Response Michael Weddle, MD, PhD, FACEP Cumberland, Maryland USA

Military resources frequently are requested and deployed in support of civilian response efforts following natural disasters. The Armed Forces bring with them the organizational ability and transportation assets needed to move resources quickly to a disaster site. This can be accomplished even when the site is in an isolated area. When responding to casualties, these assets can be used to evacuate disaster victims to remove acute care health facilities or to insert deployable military medical units into or near the disaster site. There has been controversy in the health sector regarding the appropriate use of military medical resources.

Deployable military hospitals are sophisticated systems of structures, equipment and personnel designed to provide remote medical care for combat support operations. These hospitals are frequently requested following disasters both because of the perceived need to replace damaged health care facilities and the political advantages of such high visibility resources for civilian leaders. The high cost of these resources, their narrow, traumaoriented mission and relatively slow deployments limit their usefulness in disaster response. There has been little strategic planning regarding when such mobile units should be utilized.

In this report, a review of the literature and interviews with personnel involved in medical unit deployments following Caribbean storms is used to develop indicators for the utilization of military hospitals. In addition to the development of such indicators, it is recommended that a broader range of available health assets be developed to provide more flexibility in response operations, and that a portion of this graded response be provided through the development of local or regional health resources.

Keywords: disasters; evaluation; hospitals; military; mobile hospitals; resources; transportation

The Montserrat Volcanic Eruptions: Lessons Learned

Regarding Casualty Management Vernon Le R. Buffong, MBE, ED, DDS, MPH; Mark E. Keim, MD<sup>2</sup>

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- 2. Assistant Professor Emergency Medicine, Emory University Atlanta, Georgia USA

On 25 June, 1997, pyroclastic flows from the volcanic

eruption at Montserrat resulted in the death of 19 persons and the serious injury of 11 others. The avalanche, containing an estimated 4-5 million tons of rock, ash, and super-heated gases, traveled down the mountain with very little warning. This event also dealt a major blow to the medical and national infrastructure, and severely curtailed air transportation to and from the island. This hindered off-island assistance as well as evacuation from the island. Many of the casualties and survivors were trapped in the countryside and required rope rescue using helicopters. Two of the three sites pre-designated as Advanced Medical Posts (AMP), had to be abandoned. Cases were managed at one site near the heliport.

Medical care for casualties was provided according to the tenets of the Mass Casualty Management (MCM), course provided by PAHO for the Caribbean region. This course includes basic didactic and field training in needs assessment, field organization, triage principles, and patient management. Indications from medical responders after this 25 June 1997 event suggest that the MCM course was invaluable as a framework upon which to rapidly build and organize their response. Among the key needs identified were the following:

Response Capabilities:

a) Specific, detailed responder roles;

- for transport of casualties from b) Protocols impact zones to medical facilities;
- c) pre-tested, well-drilled procedures for setting up AMP's within 60 minutes after event; and
- d) Well-disseminated memoranda of agreement with off-island governments and in-island sectors for assistance in medical management and evacua tion.

Additional Training:

- a) Burn care;
- b) Triage
- c) Patient stabilization processes;
- d) Air-based search and rescue;
- e) MCM training for wide cross section of popu
- f) Care for mentally-ill/disoriented;
- g) Mortuary issues; and h) Stress debriefing for responders, (particularly those with relatives as casualties).

Keywords: disaster medicine; helicopters; mass casualty management; PAHO; triage; volcano

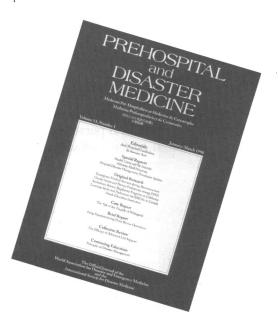
# "By nature, people are pretty much the same, it is learning and practice that sets them apart."

-Confucius

The World Association for Disaster and Emergency Medicine (WADEM) shares the common goal of improving and standardizing the quality of prehospital and emergency care that is available to citizens of all nations. WADEM is dedicated to the ideals of Learning and Practice through a commitment to publishing the journal, Prehospital and Disaster Medicine. WADEM also recognizes the organizations that have show commitment and dedication in the fields of public education, continuing medical education, scientific research, and analyses of medical field practices.

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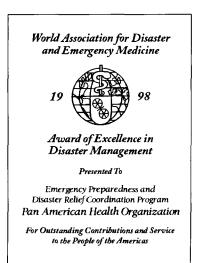
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#### 11th Congress

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# WORLD ASSOCIATION FOR DISASTER AND EMERGENCY MEDICINE

# WADEM

Osaka, Japan May 10-13, 1999

#### **SCIENTIFIC PROGRAM**

The Scientific program will focus on Emergency Medicine/Prehospital Care and Disaster Medicine. It will be composed of Plenary Sessions, Symposia, and Panel Discussions, Free Paper Sessions, and Poster Sessions. The theme of the symposia and panel discussions are planned as follows.

# Symposia and Panel Discussions Disaster Medicine

- Lessons learned from The Great Hanshin-Awaji Earthquake
- 2) How to coordinate for anti-personnel landmines
- 3) Modern technology of warning systems for various disasters
- 4) Volcanic eruption: Short and long-term, direct and indirect health effects
- 5) Emergency response for radiation Accidents
- 6) Mass evacuation for war and civil conflict
- 7) Terrorism including suicide bombing
- 8) Quality management for disaster medicine
- 9) International Assistance



#### **Emergency Medicine**

- 1) How to treat multiple-trauma patients
- 2) New CPR
- 3) Fluid therapy at the prehospital phase
- 4) Advanced therapy of AMI
- 5) Quality management for emergency medicine
- 6) Emergency Medical Services Systems

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WADEM members and non-WADEM members, nurses, paramedical personnel, non-medical personnel concerned with emergency and disaster management, and accompanying persons

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Global Concord for Mitigation of Acute Deaths
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#### **CALENDAR**

11-14 April 1999 Los Angeles, California

16-19 February, 1999
Santo Domingo, Dominican Republic
Evaluation of Preparedness and
Response to Hurricanes Georges and
Mitch, An Interagency Workshop

For More Information: http://www.paho.org/english/ped/ pedhome.htm

8-12 May 1999
Washington D.C. USA
National Disaster Medical System
Annual Conference
For more information: ndms@usa.net

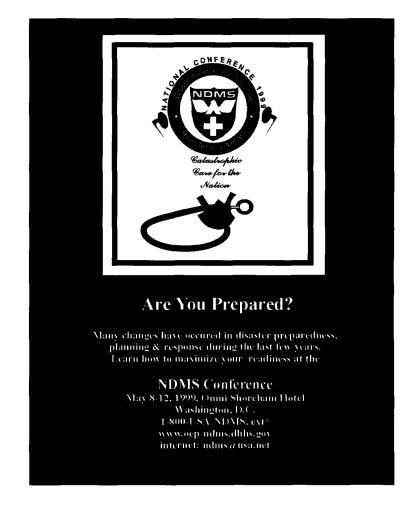
11-13 May 1999 Osaka, JAPAN 11th World Congress for Disaster and Emergency Medicine

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San José, Costa Rica
Hemispheric IDNDR Meeting for the
Americas: Towards a Reduction in the
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III Nordic Congress on Emergency and Disaster Medicine, Kuopio, Finland, 1998

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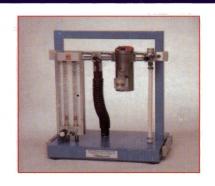
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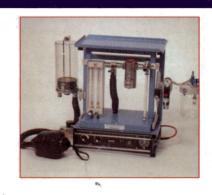
#### Anaesthesia Machine MP-1

This model is designed for use with a "Draw-over" patient system. By using a resuscitator, ambient air is drawn through the vaporizer and to the patient. It also is possible to use oxygen from an oxygen concentrator.



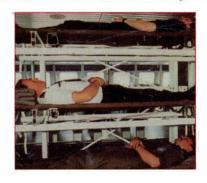
#### Anaesthesia Machine MP-2

This is a MP-1 with flowmeters for O<sub>2</sub> and N2O, as well as an O2 flush value added. The MP-2 works on the same principles a anaesthesia machines found in most hospitals. It can be used as a "Draw-over" machine if the oxygen supply fails.



#### Anaesthesia Machine MP-3

This is a MP-2 with a ventilator, suction, and bag-in-a-bottle system added - a very sophisticated machine. The MP-3 also can be used as a "Drawover"machine similar to the MP-1 and MP-2.



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