

**ABSTRACTS OF
SCIENTIFIC PAPERS
AND SYMPOSIA
STOCKHOLM, SWEDEN**

**International Conference on
Emergency and Intensive Care
in Disasters
27 November–29 November 1994**

An international conference on emergency and intensive care in disasters was staged in Stockholm, Sweden, in November 1994, to celebrate the opening of the Disaster and Emergency Medical Center (DEMC) at Stockholm Soder Hospital. A unique decontamination station for research and training is at DEMC, and the special focus was chemical, nuclear, and biological disasters, with a number of symposia devoted to this theme. A chemical-disaster exercise also was presented in DEMC's facilities.

Medical priorities and ethical problems when handling mass casualties in disaster and war situations were the subject of other symposia. The experience of telemedicine in disasters and in urgent and emergency care also was reported from centers in Italy, Norway, and Canada, and a special workshop demonstrating the technique was given. In the following abstracts, the various symposia are outlined.

**I.1
The Adaptation of Medical Care to Patient
Overload or Lack of Drugs and Materials**

Karl Axel Norberg, MD, PhD

National Board of Health and Welfare, Stockholm, Sweden

In a severe crisis or national disaster, there may not be sufficient resources available for typical peacetime ambitions and, as a result, setting priorities will be necessary. Generally, the following priorities are accepted for war-disaster situations: 1) save lives; 2) preserve function; and 3) provide palliation.

The Swedish National Board of Health and Welfare, with the help of experts, has studied these problems in a project covering a large number of medical specialties. The results will be published as general advice and guidelines to be followed in the provision of medical care in such circumstances.

The aim has been that the necessary changes should not affect drastically the end medical results. It is of the utmost importance that the required reduction of medical care is performed in a balanced way. The following fields have been studied: 1) wartime hospital care—medicine and surgery; 2) general medicine in primary care; 3) nephrology and dialysis; 4) what to do with the children if war or disaster strikes; 5) civilian dental care; 6) transients; 7) infectious diseases; 8) intensive care; 9) technical methods in medical care; 10) laboratory analyses: clinical, chemistry, and microbiology; 11) hospital psychiatry; 12) infusion fluids; 13) rehabilitation; 14) war surgery; and 15) anesthesia. The medical facilities needed to treat individual patients can be minimized. Adequate supplies of essential drugs, materi-

als, and equipment, however, must be available to avoid compromising optimal medical results. Furthermore, social, psychological, and psychiatric problems caused by disaster and war situations must be taken into account.

Conclusions from our studies include:

- 1) Making room for the wounded (Swedish hospitals can decrease the number of beds available for medicine, peacetime surgery, etc., by $\frac{1}{3}$ – $\frac{1}{2}$), and these patients need to be taken care of by the primary-care services;
- 2) Drugs and materials must be used sparingly;
- 3) Priorities have to be changed (see the aforementioned accepted priorities), but medical results for the great majority of patients should be aimed at achieving peacetime levels; and
- 4) Significant decreases in the medical standards must be accepted for certain categories of patients.

Thus, the various areas of medical care can be divided into two groups:

- 1) Peacetime care can be decreased by a large extent, 30%–50% or more (e.g., elective medicine, surgery, intensive care); and
- 2) Care necessary to continue or to increase (e.g., trauma care, burns, dialysis).

Training of doctors to manage the demands of a period of crisis is of utmost importance. Research, development, and education in this field will be beneficial not only for disaster medicine, but also for the optimal use of restricted resources in standard medical care.

**I.2
Medical Priorities in Disasters:
Ethical Problems**

Åke Grenvik, MD, PhD, Professor

Director, CCM Training Program, University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania USA

During the most recent hostility in which the United States participated actively, i.e., retaliating the Iraqi invasion of Kuwait, the U.S. Army utilized only three triage categories. These were: 1) those who needed immediate treatment for a significant chance of survival; 2) those whose treatment could be delayed, yet resulted in acceptable outcome; and 3) those considered hopeless, regardless of medical and surgical intervention. However, in peacetime, it is more common to utilize the following four categories: 1) patients who require immediate intervention to save their lives; 2) patients who require intervention within a