medical decision-making in case of disproportions between the large number of victims and the restricted capacities of the medical service. The ISS is a multimedia, hypertext, computer program which is intended to retrieve the necessary information to provide accurate timely diagnosis and to choose optimal treatment for burn patients, especially in mass flame disasters.

Using this system, a physician can retrieve data needed for determination of burn shock severity and shock prognosis on the basis of clinical, functional, and laboratory data as well as the details of optimal anti-shock therapy. The ISS also allows retrieval of required information on the methods of respiratory function, restoration in thermo-chemical injuries of the respiratory system, methods of parenteral and enteral probe feeding, modern tactics of skin plasty, necessary information for triage, and medical aid to victims at the scene, as well as at medical evacuation staging, particularly for specialized hospitals. It includes hundreds of color videoimages of victims with burns of different severities and localization, a glossary of more than 700 terms, and audio support and digital videoclips that illustrate different treatment methods in acute and subsequent stages of burn illness.

The search for necessary information can be accomplished by means of "keywords." In-context-stipulated search with logical conditions also is available. The system can be used not only as an electronic guide for selection of medical actions in cases of disaster, but also can be implemented as a very good visual aid for training. More detailed information on the ISS application can be obtained from the Central Institute of Traumatology and Orthopaedics (Facsimile: 095-154-3139).

Key Words: burns; decision; disaster; information support; multimedia training

An Introduction to the Global Health Disaster Network (GHDNet)

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In May 1995, the Global Health Disaster Network (GHDNet) was started with the concept of a disaster-oriented project of the Global Health Network (GHNet) at the University of Pittsburgh. The goal of the GHDNet is networking people who are involved in disaster management. Those with various backgrounds, i.e., health-care professionals in disaster and emergency medicine, paramedics and firefighters, public health specialists, are welcome to the network. Being started primarily in Japan, the project will be extended to the United States and the rest of the world. The GHDNet project in Japan consists of following three components: 1) *Establishment of WWW home pages*—In July 1995, the GHDNet Home Page (http://hypnos.m.ehime-u.ac.jp/GHDNet) was launched as the first Japanese home page focused on disaster and emergency medicine. Moreover, we have helped to start more than 20 home pages for disaster related organizations and individuals. The WADEM home page (http://hypnos.m.ehime-u.ac.jp/GHDNet/WADEM) is one of the home pages on our server;
2) *Networking people by mailing lists*—We started four mailing lists: The Mailing List for Disaster and Emergency Medicine; The Mailing List for Fire and Disaster Prevention; The Mailing List for Japan Red Cross; and The Disaster and Public Health Mailing List. We also are active members of the World NGO Network (WNN) and Inter C-Net which are mailing lists for NGO activities and for public officers in charge of disaster management; and
3) *Networking people through medical associations*—We maintain home pages for the following medical associations: The World Association for Disaster and Emergency Medicine (WADEM); The Japanese Association for Acute Medicine; and The Japanese Association for the Surgery of Trauma.

It will be our mission to make a link from WWW home pages for these associations and mailing lists to the classical systems for urgent information transmission, i.e., telephone and facsimile.

Key Words: disaster medicine; Internet; telecommunication; www

Quality Management System Implementation within the Viennese Red Cross Ambulance and Disaster Service

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The Vienna Red Cross (VRC) offers various social and medical services to the Viennese community. To assure quality of care, the VRC has implemented a Quality Management System and accomplished successful ISO 9001 certification in October 1996.

An arm of the VRC is its Ambulance Service that provides ALS and BLS Emergency Medical Services, convalescent services, transport of handicapped children and family practitioner-response services. About 130,000 responses are provided per year. Some 600 VRC providers of different levels (drivers, emergency medical technicians, physicians) and from different labor backgrounds (employed, civil servants and volunteers) team up to serve the public.

To further improve quality in such a diverse organizational structure, special "quality teams" have been established. The team consists of EMS providers, managers, and members from other involved VRC departments, e.g., administration, public relation, billing. The teams also developed a quality assurance system according to the 20 ISO 9001 standards as a basis for further Total Quality Management efforts.

So far, staff members have been trained by internal quality system auditors, internal quality audits have been conducted, and all staff members have received information, education, and training in quality management issues. Specialty trained "Quality Assurance Partners" take care of the quality system implementation by providing on-scene monitoring, conducting customer interviews, and searching for further improvement aspects.

Key Words: ISO 9001; quality assurance partners; quality management

Military Medical Aid in International Disasters

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The military medical services of many countries are designed to treat soldiers, both male and female, in any situation in any part of the world without reliance on local medical resources. They are experts in life-saving treatment, the evacuation of casualties, and the maintenance of health. In addition, they have considerable experience in medical planning and medical management for the most adverse circumstances. Finally, their equipment is designed to operate in a field environment, and they are trained for rapid deployment to any part of the world. The military, thus, has the potential to provide urgent medical aid to populations in disaster and emergency situations anywhere in the world.

The aid can be provided in one of two scenarios: 1) A dedicated military medical mission—Rwanda; or 2) As part of a wider military mission alongside the medical support to own troops on the ground—Bosnia.

A military medical mission must be of limited duration as it always will be outside the primary purpose of the medical services that exist to support the military forces of the nation. This suggests the need, in any disaster situation, to work closely with the non-governmental organizations (NGOs). Similarly, unless agreed separately, medical supplies and supplementary equipment may need to be provided by relevant NGOs.

Finally, deployment of medical forces in a disaster situation must not only be authorized by the donor government, but also accepted by the recipient nation. These international negotiations may require lead time. Military medical aid mainly exists, therefore, for use in the middle time range of a disaster.

In summary, often there is a misunderstood, but tailor-made source of medical support for disasters. Deployment for civilian disasters is outside the primary role of the services, and thus, there are temporal and resource implications. However, despite limitations, it merits inclusion in the options for international response to world disasters.

Key Words: aid; disasters; disaster response; humanitarian; medical; military aid; responses

Psychosocial Sequelae of Disasters in the Acute Phase and During Mid- and Long-Term Recovery Periods

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Disaster experts have tended to focus more closely on the medical as compared to the psychosocial effects of disasters. The Chernobyl power plant and Armenia earthquake catastrophes will be used as examples of the psychological, family, and community effects of disasters, and how these factors influence physical health.

Differences in response patterns in the acute as compared to the mid- and long-term recovery periods will be examined. The disruptive effects of evacuation, distrust of government information, the continuous overt and covert reminders of the disaster, and the tremendous uncertainty about future health status in the case of radiation and other toxic accidents will be described.

Recent research on adolescents and adults living in an uncontaminated village in the Chernobyl area illustrate the psychological behavioral effects of health uncertainties. Factors influencing the development of post-traumatic stress disorders in the Armenia earthquake victims will be related to extent of trauma, age of victim, and prior trauma history.

In assessing physical illness consequences of disasters, the profound effects of stress on physical health status also need to be taken into account. These stress effects may have an indirect influence on the later development of diseases thought to be related directly to radiation and other forms of contamination. Psychological and physical health findings on Chernobyl power plant workers will also be presented to describe the current state of this group, and to illustrate the variety of factors that contribute to current work performance and health.

Key Words: acute; long-term recovery; psychosocial sequelae

New Methods in Critical Care Medicine

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Background: A rapid biochemical method for staging the endogenous intoxication signs of bacteremia and for monitoring the progress of sepsis has been developed to study endotoxicosis and sepsis in acute and chronic diseases , traumas, burns, etc.

Measurements: The method is based on evaluation of the pull of endogenous substances of low and middle molecular mass and oligopeptides in blood plasma, erythrocytes, and the urine. The stage of sepsis is estimated from spectrophotometric data.

Results: This laboratory index correlated with the severity of the patient's condition in reanimatology, trauma, burns, infectious diseases, and cardiology. It also correlated with probability of mortality. Five stages of endogenous intoxication were described. Starting with the first stage, septicaemia is at least the third stage and with bacteremia determined by blood culture.

Conclusion: This rapid and simple method that is applicable in any clinical laboratory, provides the information necessary for the diagnosis of endotoxicosis, sepsis, and for selection of the detoxification method to be used, and for prognosis of the diseases.

Key Words: critical care; disease staging; detoxification; endotoxicosis; prognosis; sepsis