

drug therapy; 4) antiseptic dressings covering the burn wounds; and 5) prophylaxis of catalepsy. Depending upon the prognosis of the burned victims, evacuation should be directed to specialized medical centers.

The stage of specialized aid occurs in medical centers according to the stage of the burn illness and the wound severity. Treatment tactics are directed to prevent acute respiratory insufficiency and infection complications. Active surgical measures for speedy restoration of a skin covering using effective physical methods for burn treatment include and, etc.

Keywords: acroionotherapy; burn centers; burns; complications; disasters; evaluation; magneto-laser therapy; mass casualties with burns; pain, relief of; shock; stages; surgery; transportation; treatment

Plenary Session II

Health Disaster Management Guidelines for Evaluation and Research in the Utstein Style

Wednesday, 13 May, 15:00–16:00 hours

PL2: Health Disaster Management Guidelines for Evaluation and Research in the Utstein Style

Knut Ole Sundnes, MD;¹ Marvin L. Birnbaum, MD, PhD;² and the International Steering Committee of the Task Force on Quality Control of Disaster Management³

1. Medical Services of the Norwegian Armed Forces and Baerum Hospital, Oslo, Norway
2. Departments of Medicine and Physiology, University of Wisconsin
3. The Task Force on Quality Control of Disaster Management of the World Association for disaster and Emergency Medicine (WADEM) is comprised of the following members: Jacov Adler, United Nations Department of Peacekeeping Operations and Israel; Marvin L. Birnbaum, MD, PhD, USA; Professor Johan Calltorp, PhD, Sweden; Professor S. William A. Gunn, MD, Switzerland; Dr. O. J. Khatib, MD, Organization of African Unity; Professor Michele Massellis, MD, Italy; Ernesto A. Pretto, MD, MPH, USA; Robert Souria, United Nations Department of Humanitarian Affairs; Knut Ole Sundnes, MD, Norway, Chairman; Takashi Ukai, Japan

Collaborating Organizations:

Mediterranean Club for Burns and Fire Disasters; Nordic Society of Disaster Medicine; Nordic International Rescue Foundation; Organization of African Unity; Prehospital and Disaster Medicine; Swedish National Board for Health and Welfare; United Nations Department of Humanitarian Affairs; World Association for Disaster and Emergency Medicine

Introduction: It only is 10 years since Disaster Medicine research moved from anecdotal and after-incident reports into some scientific structure. However, progress in Disaster Medicine has been slowed substantially due to: 1) inconsistency in reporting; 2) the techniques mandated by the circumstances of disaster require the use of techniques currently not well-understood in medicine; and 3) there remains some confusion in the use of terms. There did not exist any standardized mechanisms for the

assessment of the efficacy and efficiency of responses to disasters. Most reports have been anecdotal or organizationally specific, and access to many such reports has not been universal. Hence, much of the information currently collected is not distributed widely and hence, the lessons that could be learned are not available for modification of future responses.

The over-riding objective for the development of the Template was to provide sufficient structure to research and evaluations of medical responses to disasters to be able to enhance the efficiency and efficacy of future responses. This objective has several components; 1) the provision of information that will be useful in the continuous quality improvement of the efficiency and efficacy of disaster responses; 2) the promulgation and further development of research/evaluation techniques that are useful in disaster circumstances; and 3) the furthering and clarification of the terminology used in Disaster Medicine.

Methods: The need for the development of the Template was discussed first in Pittsburgh in 1994, and the work has been ongoing since. Partial funding was obtained from the Norwegian Ministry. An international Steering Committee consisting of persons knowledgeable in Disaster Medicine was appointed, and this group developed the first draft of the Template. (*Prehospital and Disaster Medicine* 1996;11(2):82–90) This version, then, was the principal topic of discussion at an International Congress conducted at the Nordic School of Public Health in Gothenburg, Sweden. The discussions at the Congress led to the current version of the Template. The Utstein model for the study of cardiac arrests was used as a basis for Template development.

Results: Terms currently in use were examined carefully and some definitions modified so that they fit more accurately into the language used specifically by the Template. This allowed uniformity and removed some of the confusion that could have existed as one attempts to understand the Template.

The current version of the Template consists of two principal sections: I) the components that should be addressed in the study of medical responses to disasters; and II) the Evaluation/Research Template. The first of these two components lists and discusses considerations and areas for study of responses to disasters, and recognizes that it is not possible to describe the medical effects of a disaster without understanding the Pre-event Health Status of the affected population in the area(s) being studied. Further, it separates the Event responsible for the catastrophe from the Insult resulting from the Event. The magnitude of the insult is a function of the magnitude of the event and the absorbing capacity of the affected society to the event. Given the knowledge of the Pre-event health status in the area of exploration, it then is possible to judge the severity of the event. This is done using initial and subsequent assessments of the damage created and the Assessments of Needs for assistance. The Response, then, must address all or some element(s) of the Needs as identified in the Assessments. The real question is how and to what extent the response(s)

(intervention) affected the health status of the population. The medical component of a disaster exists only until the health status of the population affected has returned to the Pre-event level.

The Evaluation/Research Template takes the investigator through the steps of an evaluation. It progresses from the point of Identification of the Question(s) needing evaluation through Feedback to create change. The end-result of the exploration may result in a change(s) in preparedness, absorbing capacity, or responses for future events.

The discussion of the Template also includes an examination of the 12 other key societal functions that inter-relate with the Medical function. The effects of the disaster on these functions may play a significant role in determining the impact on the Medical function and vice versa.

Conclusions: This discussion will describe the Template in some detail and will propose mechanisms for its use. Although developed specifically for the evaluation of medical responses to disasters, the concept is more generic and may well apply to the study of other societal functions in disaster circumstances. It will provide structure to evaluation techniques currently in use, and may have general applicability to the discussions that will take place in this forum.

Keywords: assessment, needs; data collection; definitions; Disaster Medicine; evaluation; event; health status; insult; questions; severity scores; template; research; resilience; Utstein style; vulnerability

Poster Session V

Wednesday, 13 May, 15:00–16:30 hours

P-16

Analysis of Observed Patients in the Emergency Department of Taipei-VGH

*Kuo-Fang Hsu, MD; Lee-Min Wang, MD;
Chorng-Kuang How, MD; Yu-Inn Leu;
Chen-Hsen Lee, MD*

Emergency Department, Veterans General Hospital-Taipei, National Yang-Ming University, Taiwan, Republic of China

Introduction: Observation units provide the best place for doctors to improve their skills and experience in practice and the diagnosis of diseases. All patients observed for >48 hours in the Emergency Department were documented for the future discussion of the causes for a prolonged stay.

Methods: From 01 January, 1998 to 30 November, 1998, more than 6,000 visits were registered per month. The patients were categorized into four groups: 1) critical; 2) emergent; 3) outpatient; and 4) walk-in. The physicians evaluated the patients' conditions in the observation room and searched for factors determining whether a prolonged hospital stay was necessary. These factors included economics, family, medical, psychological, staffed-bed availability, and others. Finally, the decision

was made: 1) discharge; 2) admission; 3) fail to manage; 4) transfer; and 5) others.

Results: 30% of the patients were admitted for observation, and 9% either were transferred or admitted. The average daily number of the observed patients was 50. The duration of the prolonged stay for walk-in > emergent care > outpatient service > critical care.

Conclusion: According to the preliminary reports, we can manage the observed patients within 48 hours and define the reasons for observation in an acute care hospital.

Keywords: emergency department; observation unit; patients, classification of; status; training

P-17

Experience with a Pre-ACLS Training Course in Taiwan

*Shu-Mei Lin; *Ying-Hsin Chen; Shi-Jye Che;
Shiou-Dung Liou; Ming-Ying Liou*

Emergency Room, Department of Nursing, and the Department of Emergency Medicine, Tri-Service General Hospital, National Defense Medical Center, Taipei, Taiwan, Republic of China

Introduction: Advanced Cardiac Life Support (ACLS) derived from American Heart Association (AHA) has become a standard for teaching in Emergency Medicine in Taiwan. The goal of this training course is to change attitudes for dealing with Emergency issues. But, even though the first students trained were well-prepared, the two-day course had different impacts.

Purpose: In order to reduce the anxiety and to increase the compliance of the students associated with the ACLS course, we developed a new lesson named, Pre-ACLS training course. The final aims were to increase the successful pass rate of the formal ACLS test, and to change the behavior of the participants in emergency practices.

Methods: The first 10-week course was arranged as one hour each Tuesday and was conducted from 13 October 1998 to 15 December 1998 in the Tri-Service General Hospital. One ACLS instructor who was qualified by ACLS Joint Committee of the Republic of China designed the courses as with only one ACLS topic per week. Fifteen students consisting of visiting medical staff to nurses enrolled in this class.

Questionnaires were administered before, during, and after the Pre-ACLS training course to collect suggestions and evaluate the instructors' teaching performance. The control group consisted of another 15 students who did not receive the Pre-ACLS training course. After the 10 weeks of the pre-ACLS course were completed, a traditional, formal ACLS training course was provided in order to define the effects of this Pre-ACLS training course.

Results: Most of students favored this Pre-ACLS training course because of less pressure and high learning interest compared with the traditional two-day ACLS training course. Almost all of the students who participated in the Pre-ACLS course passed the ACLS test successfully, whereas the group who had not participated in the Pre-ACLS course had a lower rate of pass.