280
Fellowship in Prehospital and Disaster Medicine

Gans L, Teuscher JA, Aghababian RV
University of Massachusetts Medical Center
Worcester, Massachusetts, USA

As Emergency Medicine has evolved, emergency physicians have assumed responsibility for supervision of prehospital and disaster care. In 1991, the University of Massachusetts Medical Center developed a two-year fellowship in Prehospital and Disaster Medicine. The curriculum includes investigation of current emergency medical services (EMS) models, application of total-quality improvement to EMS systems education, and training requirements for prehospital personnel, plus review of regional and national policy issues in prehospital medicine. The fellow works closely with paramedic-level ambulance and air medical helicopter services based at the university, with particular emphasis on continuing education and case reviews.

Training and education in Disaster Medicine is achieved by participation in disaster planning at all levels. The organization of disaster drills provides opportunities for management of issues and problems encountered during disaster response, as well as interaction with key personnel in related fields. Development of a Disaster Medical Assistance Team (DMAT), which has been deployed to federal disaster responses, allows the potential for first-hand experience with Disaster Medicine. The fellowship provides opportunities for research and publications dealing with Prehospital and Disaster Medicine. To maintain competence in Emergency Medicine, the fellow also serves as attending physician in the emergency department and as a flight physician.

281
Education and Training in Disaster Medicine

Lennquist S, deBoer J,** Nemitz B****
* University Hospital, Linkoping, Sweden
** Ministries van Welzijn, Volksgesondheit en Cultuur Rijkswijk, The Netherlands
*** Service D'Aide Medical-Urgente, Hospital Nord Amiens, France

International statistics show that major accidents and disasters have become significantly more common in recent decades, parallel to and generated by social developments. The goal of health care in these situations is to save lives, preserve function, and reduce suffering as widely as possible. Sound medical knowledge and common sense, though prerequisites, are not enough. All relevant experience clearly demonstrates that if the personnel of rescue organizations and medical services have prepared themselves for such situations, not only in the medical, curative field, but also in other disciplines such as sanitation, nutrition, and epidemiology, the possibilities for optimal results will be greatly increased.

Preparation must include identification of risks, planning of organization and equipment, and, perhaps most important, education and training. All this is covered by the heading Disaster Medicine, which also must include scientific research with collection and analysis of experience and results, as well as evolution of new methods for treatment, planning, and education. Disaster Medicine has been recognized as a special field only in recent decades, but is rapidly becoming established throughout the world.

Education and training are not merely important, but essential for disaster services. Good planning and equipment may be of little or no use if the staff have not received appropriate instruction in the function of the organization or use of the equipment. Education and training must be undertaken at many levels: the general population; rescue workers (police and fire services); ambulance staff; nurses; doctors; specialists; and coordinators. The need, quantitative and qualitative, for generally accepted guidelines for education and training in Disaster Medicine long has been emphasized. Such guidelines would promote international collaboration and assist current efforts to plan and develop centers for training.

The International Society of Disaster Medicine is a worldwide association of doctors and nurses with experience and skills in that field. One of the Society's main aims is to promote and to propagate such knowledge and generally to support all those concerned with organization and/or education in Disaster Medicine. The Society's Scientific Committee has worked since May 1990 to devise such guidelines, which are now presented in the form of an educational curriculum. The purpose of the curriculum is to provide guidance in planning of education and training in Disaster Medicine in all schools of medicine or nursing, and training centers for ambulance crews and other rescue workers.

287
Survey of Hospital Disaster Preparedness in Osaka, Japan

Kai T, Ukai T,** Ohta M,** Pretto E**
* International Resuscitation Research Center
University of Pittsburgh
Pittsburgh, Pennsylvania, USA
** Senri Critical Care Medical Center
Osaka, Japan

Objective: To investigate the adequacy of hospital disaster preparedness in Osaka, Japan.
Methods: Questionnaires were designed to elicit information from hospital administrators, pharmacists, and safety personnel about self-sufficiency in electric power, gas, water, food, and medical supplies in the event of a disaster. Questionnaires were mailed to 553 hospitals, of which 265 were completed and returned (recovery rate: 47.9%).
Results: Of the responding hospitals surveyed, 16% had an external disaster plan, and 93% did not have backup plans to accept casualties during a disaster, if all beds were occupied. Drug supplies were stockpiled in 7.9% of the hospitals, and 67.4% had medical supplies stockpiled for disasters. Independent electric power generating plans were claimed by 78% of the hospitals. However, 57% of the hospitals estimated that emergency power would not exceed six hours of use due to a shortage of reserve fuel. Reserve water supplies were claimed by 70% of the hospitals. Food for emergency use is stockpiled

in 15% of the hospitals, although 83% reported that it would be impossible to provide meals for patients and staff with no main gas supply.

Conclusions: No hospital fulfilled the criteria for adequate disaster preparedness based on the categories queried. Areas of greatest concern requiring improvement were lack of an external disaster plan and self-sufficiency with backup energy, water, and food supplies. It is recommended that hospitals in Japan be required to develop plans for emergency operations in case of an external disaster. This should be linked with hospital accreditation as is done currently for internal disaster plans.

289
The Development of Medical Didactic Activities for a Better Emergency Organization: The Contribution of Medical Staff in the VII Unit-Sanitaria Ligure "Del Savonese"

Barbero M, Bermano F, Esposito S, Robba F
VII USL Ligure, St. Paul Hospital
Savona, Italy

The care of casualties or those who need medical care is a moral and civil duty. An up-to-date and developed society must have an efficient organization that is able to carry out rescue activities with all available human and technological resources. In Italy, rescue usually is carried out by the Red Cross and voluntary associations with personnel who often are not well-trained.

The practical organization and didactic activities rely on local initiatives. The USL, in cooperation with the local fire department, the Rotary Club, and an organization of doctors on duty in the First-Aid Department, organized a theoretical and practical qualification course in advanced rescue techniques to be used during natural catastrophes and major emergencies. Several phases, lasting 15 days, took place at the local fire department barracks. This organization model for emergency services is of interest to both regional and non-regional hospitals, and it has been contacted by other emergency teams.

A proposition was detailed for collaboration between other links of the "rescue chain" (fire department, Red Cross, police departments, etc.) aimed at improving the adequacy of organization and didactic programs. Since continuous training is the basis for being able to reach real efficiency and efficacy among rescue operations, these simulations of catastrophes have been carried out, and they have involved all components of the rescue chain.

290
Analysis of Interventions in Prehospital Care by Standing Orders versus On-Line Medical Command

Vazquez-de Miguel G, Holliman CJ, Wuerz RC
Pennsylvania State University
Hershey, Pennsylvania, USA

Objective: The aim of this study was to compare the patient care measures performed by paramedics according to standing orders, versus measures ordered by on-line medical command, to determine the utility of medical command orders.

Design: Prospective identification of patient care measures performed as part of a prehospital quality assurance program.

Setting: An urban paramedic service in the northeast United States with on-line medical command from three local hospitals.

Participants: All paramedic transport reports (515) for October–December 1992.

Interventions: All patient care interventions, case-by-case, were recorded and classified if performed in response to standing orders [indirect] or on-line [direct] command orders.

Results: On-line [direct] command gave orders in 79/515 (15.3%) cases; in four of these cases, the orders were erroneous. Paramedics performed 1301/1399 (92.9%) of the total interventions using standing orders. Eleven of 79 command order cases were for additional doses of epinephrine or atropine in cardiac arrest cases, and 26/79 were for interventions already mandated by standing orders. In only 42 cases (8.2%), medical command ordered a potentially beneficial intervention not specified by standing orders or not performed by the paramedic.

Conclusion: On-line [direct] medical command gave orders in only 15% of cases in a standing orders system, but in almost half of these cases, command orders only reiterated the standing orders. More selective and reduced use of on-line command could be performed in this system with no change in the types or numbers of patient care interventions performed.

https://doi.org/10.1017/S1049023X00048755 Published online by Cambridge University Press