and the number of organ systems involved for all casualties. Then by choosing an optional number of casualties that corresponds to the capacity of local air traffic, and the computer program will randomly compose a new list of casualties similar to that of the consultative group.
Result: It can provide a model for predicting the problems for which the hospital's disaster organization should prepare e.g., resource allocation and need of equipment and examples of probable anatomic injuries. Additionally, it is a valuable teaching tool for triage training, prediction of mortality, survival time, hospital length of stay, and disability.

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Key words: AIS-score; anatomic injury pattern; computing; prediction; teaching tool
E-mail: sm1dyr@hotmail.com
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Preparation of Chartered Helicopters for a Disaster in Japan

Prof. Masahiro Takiguchi, MD
Department of Emergency and Critical Care Medicine, Hirosaki University Hospital, Hirosaki City, Aomori Prefecture, JAPAN

One of the major problems following the Hanshin-Awaji Great Earthquake of 17 January 1995 in the Hanshin area was that helicopters were not used effectively for the medical evacuation and transportation of the victims, even though there were many helicopters prepared for that use. This was related to the lack of knowledge by doctors that the helicopters could be used for the transportation of severely injured or ill patients from Kobe to undamaged facilities. The doctors never had used helicopters for the transport of patients.

Following the Great Hanshin-Awaji Earthquake, the Fire and Rescue Department of Government have intended to regularly use helicopters for the rescue and transport of emergency patients, but they still have not been used effectively. Hence, the Department of Health and Welfare and Labor of the Japanese Government organized a system to hire and use the chartered helicopters that are in possession of civil aviation companies for immediate use at the time of a disaster. This system is now being developed and soon will be contracted with the Tokyo Metropolitan Government, to prepare for the next big earthquake in the south Kantoh areas.

Key words: civil aviation; earthquake; evacuation; helicopters; private; transportation
E-mail: takihem@cc.hirosaki-u.ac.jp
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Using Catecholamines in Prehospital Settings by French Mobile Intensive Care Unit

K. Tazarourte; L. Goix; N. Bertozzi; J.M. Felden; P.I. Rouge, SAMU 77-
SMUR Melun C.H. Marc Jacquet, Melun

Introduction: Very few studies have been undertaken concerning the use of catecholamines in prehospital reanimation efforts. The aim of the present study conducted among mobile intensive care unit physicians is to estimate the indications for the use of different catecholamines in the prehospital stage of emergency care.
Methods: This study took place from March to November 2000, and involves 182 mobile intensive care units (MICU). Eleven regions were chosen at random among the 22 French regions. A telephone conversation took place with the physician on duty, chosen at random, in each of the 182 MICUs. During the conversations, each physician answered a preselected questionnaire concerning the use of different catecholamines according to the etiology of the state of shock.
Results: Of the 182 physicians questioned, 175 (96%) agreed to participate. Dobutamine and adrenaline are available in most of the MICUs. Four units did not have dopamine, and 42 declared having noradrenaline on board. During a hemorrhagic state of shock, all physicians said they used catecholamines if the systolic blood pressure remained <90 mmHg despite intravenous fluid therapy (IFT); 76 (43%) said they used adrenaline first, 72 (41%) said they used dopamine, 5 (3%) used noradrenaline, and 19 (11 %) used dobutamine. In septic shock, 101 (58%) of the physicians used dopamine first, 34 (19%) used dobutamine, 27 (15%) used adrenaline, and 13 (7%) used noradrenaline. In the case of carbamate medication poisoning with blood pressure <90 mmHg despite IFT, 94 (62%) of the physicians used dobutamine first, 25 (16%) used dopamine, 22 (12%) used adrenaline, and 9 physicians said they didn't know. 158 (90%) MICUs are able to apply non-invasive blood pressure monitoring, 7 MICUs have the facilities for invasive monitoring of blood pressure in a prehospital scene.
Conclusion: Catecholamines are used often in reanimation for a state of shock in the prehospital stage. However, it seems necessary to rationalize their use with the help of protocols according to the etiology of shock.

Key words: blood pressure; catecholamines; criteria; hypotension; intravenous fluids; mobile intensive care units (MICU); prehospital; reanimation; shock states
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Videotape Recordings for Evaluation of Quality of Prehospital Trauma Care: First Experiences with a New Technique

A. Thierbach; B. Wolcke; G. Scherer
Clinic of Anaesthesiology, Johannes Gutenberg-University, Mainz, GERMANY

Introduction: Schneider *et al*[1] assessed the structural and procedural quality of the Mainz emergency medical services

(EMS) system providing prehospital basic and advanced cardiac life support using on-line tape recordings of prehospital cardiopulmonary resuscitation (CPR) efforts. In the evaluation of advanced trauma life support, voice recordings pose problems because of surrounding noise, the much more complex setting and the more differentiated treatment compared to advanced cardiac life support. Michaelson *et al*[2] described the usefulness of videotaping in trauma admitting areas when used to improve quality.

Methods: Prehospital trauma management performance of a helicopter crew (anaesthesiologist, paramedic, local EMS personnel) was recorded and evaluated using video recordings by a small, flexible, microcamera and a portable video tape recorder carried in a backpack.

Results: The described recording technique—even in remote surroundings—is easy to perform and very reliable. So far, 15 calls involving 32 patients have been evaluated during a two-month period. Mean values for time intervals between landing and take-off were 26 min. Three major time-consuming factors found were: (1) entrapped patients that took additional time of 18 minutes (min) on average; (2) difficult patient conditions (e.g., for the establishment of intravenous lines, endotracheal intubation) that required an average additional time of 18 min.; and (3) the lack of EMS team coordination during invasive measures (e.g., anaesthesia induction, chest tube insertion, etc.) that required an average of 6 min. of additional time.

Conclusions: Videotape recording using a microcamera is a reliable and feasible technique to evaluate the prehospital management of trauma patients and to define areas of quality improvement.

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Key words: advance cardiac life support (ACLS); advanced trauma life support (ATLS); anaesthesia; extrication; intervals; intravenous lines; intubation, endotracheal; quality assurance; trauma; videotape recording

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Medical Support for Children During Mass Gatherings

A. Thierbach; B. Wolcke; M. Lipp
Clinic of Anaesthesiology, Johannes Gutenberg-University, Mainz, GERMANY

Introduction: Mass gatherings are special situations for which mass medical care must be preplanned. Fairs, concerts, parades, and rallies are some events that cause large numbers of people to gather in one place. The extent and quality of medical care was measured at a mass gathering of approximately 100,000 children, meeting at a television-sponsored fun fair.

Methods: Every patient contact was recorded on printed forms, including data such as the number of patients treated, patient gender, parent's escort, time distribution of patient contacts, duration of treatment, diagnosis, therapy, and patient disposition.

Results: Eighty-one male and 111 female patients were included. Only 0.19% of the estimated number of participants) were treated during the 9-hour period. Twenty percent of all of the children up to the age of 10 years, who needed medical help were not accompanied by an adult; 75% of all patient contacts were made during the afternoon; 164 (85.4%) suffered only from minor medical problems or injuries and were treated for less than 10 minutes. The most common complaint was minor trauma, 103 patients (53.6%), followed by minor medical problems, 21 patients (10.9%); insect bites, 20 patients (10.4%); and serious medical problems, 19 patients (9.9%). Treatment provided included dressings, 100 patients (52.1%); local therapy, 68 patients (35.4%); analgesic therapy, 10 patients (5.2%); and others. Only 4 patients (2%) had to be admitted to local hospitals, mainly for diagnostic measures, and 10 (5.2%) were transported to a family practitioner.

Conclusion: Most of the medical needs in this young population were minor. However, medical teams must be prepared for serious, life-threatening medical problems, including trauma, as well. The determining factor for overall quality of care is the rate of hospital admittance, which must be kept as low as possible.

Key words: children; demography; mass gatherings; medical care; preparedness

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Clinical Practice of Cultivating Therapy in Treatment of Burns

Tian Yichun; Huang Canquan; Huang Wei
Shangqiu No.71315 Troop Hospital, Henan, PEOPLE'S REPUBLIC OF CHINA

Objective: To probe into the curative effect of cultivating therapy in deep second- to light third-degree burns.

Methods: We selected the same term in-patients (40 cases) and cultivated their deep second- to light third- degree burns (light second and deep third excluded) with MEBO for external use.

Results: Deep second and light third degree burns in different locations were treated with the same therapy. The duration of both the liquefaction and the healing of the burns was different.

Conclusion: Cultivation therapy can improve the microcirculation and the liquefaction of the wound, and shorten the period of healing.

Key words: burns; cultivation, early; healing; liquifaction; MEBO; treatment; topical

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Collaboration between Firemen, Civil Protection, and Medical Team During Extrication

S. Tonnoir;[1] D. Renard;[1] E. Decan;[2] F. Van Trimpont[2]
1. Sri Mons, Mons, BELGIUM
2. Chu Ambroise Pare, Mons, BELGIUM

Introduction: During an accident with a truck, the driver is