

not correlated well with AVS ($r = 0.34$).

All of the patients felt better when they left the emergency room with an AVS from 20 to 30 points lower. The intervention time was 45 minutes for traumatic patients, and 81 minutes for patients with abdominal pain and visceral surgery. The effectiveness time on pain is 86 minutes on the average after admission: it has absolutely nothing to do with the initial pain intensity. It is linked directly with the initiating time of treatment.

Discussion: It is difficult to evaluate the levels of pain in an emergency room because: (1) it relies on different kinds of pains and pathologies, (2) treatment needs to be initiated quickly, and (3) it concerns numerous kinds of medical staffs with different backgrounds. If the AVS remains the reference, the use of a simple verbal scale is enough in an emergency room. This immediate evaluation should allow a quick initiation of analgesic treatments (analgesic drugs, physical means) with a short action time.

The current effort will concentrate on the simple, but immediate, evaluation of the pain, and on the analgesic treatment (pharmacological as well as physical).

Key words: analgesia; evaluation; nurses; pain; patients; physicians; treatment

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Principles of a Multilevel Preparation System for an Extreme Situation

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Disaster Medicine (DM) is a constituent of a state system emergency reaction in extreme situations (ES). In a complete approach to a disaster, DM is invoked to take preventive measures following the occurrence of a hazard that produces massive sanitary losses and for the prevention of negative medical consequences of accidents and failures. Training of the population is required for survival, with the population being responsible for rendering first medical care in ES.

For this difficult task (both for the state, and for the society), the Novosibirsk Regional Center for Disaster Medicine provided the following methodological principles for a multilevel system to prepare the population to be able to understand the psychology of conduct, the determinants of survival, and render first aid to themselves as important actions in ES.

This package approach to the training a population that may or may not have a medical education proved that the optimal approach is the combined programs of initial and a continuous process of training with gradual escalation of the information during life (up to school, the educational institutions, army, etc.). In addition, it also presents uniform criteria as algorithms of actions and also of a rating of knowledge of the population, and will facilitate the development of a continual skill set under the preset program.

The system examines the complex decision making of the tasks, and must be taken before a service, as it will be a required condition for the safety of vital activities and the

shaping of personal safety.

Key words: disasters; population; safety; self-care; survival; training

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A Simulation Model of Biological Hazard or Widespread Infectious/ Biological Disaster Focusing on the Characteristics of the Spread of Disease by the Percolation-Diffusion Theory

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Objective: The aim of this study is to create a simulation model of widespread biological hazard and to review its significance.

Methods: The simulation model is created by using the percolation-diffusion theory. The contagion rate, incubation period, infectious period, diseased period, and mortality are arbitrary. In this model, it is premised that no treatment is applied.

Results and Conclusions: This study is preliminary. The results are quite complex. However, parameters that result in an increase in the number of infected patients (infinitely) are a high contagion ratio and long infectious period. However, the number of infected patients will be depressed if mortality rate is high.

Key words: hazard, biological; computer; contagion rate; infection; incubation period; model; mortality; percolation-diffusion theory

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Stroke Patients in the Emergency Medical Services (EMS)

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Introduction: Stroke represents one of the major health care challenges in the world today. Early initiation of therapy can improve outcome. There is increasing interest in the role of the EMS in early stroke therapy, in view of the fact that time is one of the critical factors in stroke treatment. The aim of our study was to analyze time intervals of stroke treatment in the EMS.

Methods: First, all advanced life support units and basic ambulances of a German community EMS-system were equipped with questionnaires that were completed after prehospital treatment of patients with suspected stroke. Secondly, patients with suspected stroke were surveyed by a member of our group. The relevant time intervals and anamnestic and clinical data were documented.

Results: Data of 700 patients were obtained: 38% of patients suffered an acute ischemic stroke; in 12%, symptoms were due to intracranial hemorrhage. Thirty-eight percent were treated by an emergency physician at the scene; 50% received EMS treatment within 2 hours; and

63% within the first 6 hours after onset of symptoms. The median time interval from EMS alarm to hospital admission was 42 minutes (16–105 min). Cranial computerized tomography was performed within a median time interval of 228 minutes after EMS alarm (47–1,408 min), and within 188 minutes (3–1,385) after hospital admission, respectively.

Conclusion: Early initiation of treatment is crucial regarding prognosis and outcome in stroke patients. Starting therapy in the EMS provides the possibility of early treatment, thus enabling time limited therapeutic regimens like neuroprotection and thrombolysis. Parallel to advanced trauma life support algorithms (ATLS), in-hospital treatment of stroke patients should be optimized to reduce time delays.

Key words: diagnosis; emergency medical services; scans; stroke; time intervals; outcome; prognosis; treatment

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Efficacy of MEBO Bandaging in Treating Second-degree Burns

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Objective: To observe the efficacy of MEBO bandaging method in treating burn wounds.

Methods: Patients with second-degree burns who were hospitalized during the same period were selected for treatment with MEBO bandaging.

Results: 180 cases of superficial and deep second-degree burns all were cured. Wounds healed without any hyperplastic scar.

Conclusion: MEBO bandaging method for treating second-degree burns gives very reliable efficacy and is easy to apply. It is worthy of adoption.

Key words: bandaging; burns; healing; second degree; MEBO; scar; wounds

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Improving Capabilities in Prehospital Trauma Life Support

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Introduction: Prehospital Trauma Life Support (PHTLS) is the action taken on the injured before entering medical service such as at a firstaid station. China is one of unfortunate countries where various disasters happen everyday. Therefore, it is necessary to perfect PHTLS.

Hypothesis: Based on the analysis of the current situation of PHTLS in Shanghai, the authors hold that the best approach for improving the capabilities for PHTLS are as follows:

1. The most important measure is to increase the speed of the critical care response to disaster. This is of great

importance for lowering the incidence of disability and mortality of the injured. This may be accomplished by bettering the personal mental status, communication apparatus, first-aid station distribution, vehicles, and so on

2. Increasing the level of critical care provided at the scene of the disaster also is vital. This demands incorporating the concept of taking action without sophisticated medical support, counterplans, a transient conduct system, practiced skills for critical care, essential medicines and medical instruments in the ambulances, and practice during peacetime.

Conclusion: A strategy for enhancing the delivery of PHTLS during a disaster is proposed.

Key words: China, critical care; life support; prehospital; responses; speed; trauma

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Effects of Noradrenaline on Absorption of Organophosphorus Pesticides during Animal Lavage

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Objective: To look for an effective substance to use for lavage.

Methods: After pouring different concentrations of noradrenaline into a rat's stomach, we observed the change of the rat's gastric mucous membrane. We also poured DDVP into dog stomachs. The dogs were allocated into three groups: the model group (no lavage), the experimental group (lavage using adrenaline) and the control group (lavage using NS). Cholinesterase activity, blood pressure, and heart rate were monitored.

Results: When using noradrenaline, maximum concentration (0.03%), there was no change in the rat's gastric mucous membrane. The cholinesterase activity decreased in the model group, and was minimal in the experimental group ($p < 0.01$).

Conclusions: Lavage using noradrenaline (0.008–0.016%) may be safe and may decrease the continuous absorption quantity of poison. Lavage using a 0.008% noradrenaline solution provided the best results. Lavage using a solution of noradrenaline (0.008%) for organophosphorus pesticide poisoning shows promise for clinical use.

Key words: cholinesterase; lavage; noradrenaline; organophosphates; poisoning

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Analysis of Serious Organophosphate Poisoning

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From June 1995 to September 1999, 67 serious cases of organophosphate poisoning were rescued. Of all of the cases, 7 cases (10.4%) were male, 60 cases (89.6%) were female. The average of the ages was 29.5 years. These cases