

caused by a bioterrorist could quickly become an international problem.

Key words: bioterrorism; communication; coordination; detection; investigation; laboratory support; public health; response

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Centres of Research and Expertise for Disaster Medicine in Sweden

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The National Board is a central authority under the government, and is responsible for supervising quality and performance in Medical Care, Social Welfare, and Public Health. On the national level, the Board has the responsibility to ensure the medical preparedness for large-scale disasters and wartime medical care in Sweden. The responsibility for providing medical care to the population lies in the 21 Regional parliamentary organisations (County councils). The Board receives money from the defence budget to support the preparedness of the Country Councils for medical disasters. New threats lead to increased need of scientific knowledge in various fields. Therefore, the Board has decided to establish special centres of research and expertise in several fields of Disaster Medicine. These centres are set up as special research groups connected to university institution/equivalent in close connection with the medical/clinical society. The main aims of these centres are to perform scientific research in their respective fields, to act as experts and to participate in education. A special steering group for each centre with representatives from relevant authorities decides about the aim of the work and follows up the results.

The following centres are planned or established (through 2000): General Disaster Medicine, Psychosocial Preparedness, and Radiation Medicine in Disasters (at the Cancer Centre, Karolinska Hospital, Stockholm), Microbiological Preparedness (at the Swedish Institute for Infectious Disease Control), Disaster Toxicology and Public Health in International Disasters.

Key words: centers; county councils; Disaster Medicine; education; public health; preparedness; research; Sweden
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Clinical Audit of Hypertensive Crisis

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Introduction: The term "hypertensive crisis" (HC) suggests a rapid reduction of the arterial blood pressure. The aim of this work was an assessment of therapeutic efficiency and evaluation of results in terms of hospital mortality relative to the blood pressure (BP) at the admission of the patients, and the magnitude of its reduction during the first 24 hours.

Methods: This prospective study included 125 patients admitted to emergency room for a stroke. The patients had the benefit of indirect monitoring of the BP. Variance analysis and odds ratio calculation were been used ($p < 0.05$).

Results: At admission, the mean values for systolic blood pressure (SBP) was of 216.2 ± 29.07 mmHg, for diastolic blood pressure (DBP) was 121.8 ± 19.51 mmHg, and for mean blood pressure (MBP) was of $151.8 \pm$ mmHg. After 24 hours of hospitalisation, arterial blood pressure reduction was of 38% for the DBP and the MBP, and of 39% for the SBP. No statistical relationship was demonstrated between the reduction in DBP and the mortality; this relation for MBP was weak. Concerning the SBP, the relation is highly significant: the SBP above 220 mmHg at the time of admission increased mortality ($p < 0.003$) as was a reduction of more than 35% during the first 24 hours ($p < 0.005$).

Conclusion: The DBP proposed for the diagnosis of a HC and its therapeutic follow-up does not seem to be a deciding factor of outcome for our patients. The outcome of these patients who present with a cerebral suffering seems more dependant on the SBP in which the rapid and the important reduction is the origin of progression of the cerebral injury.

Key words: blood pressure; hypertensive crisis; emergency room; stroke

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Crisis Management: A Possible Improvised Operational Approach

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In cases of mass casualties, the French hospital and pre-hospital health organization requested the implementation of a field "structure", the Forward Medical Post (FMP). The objective of this structure is to triage, maintain life, and dispatch the victims in order to permit their evacuation in the best possible medical condition and in the shortest time to the nearest appropriate hospital.

In the Bataillon de Marins Pompiers de Marseille (BMPM), we define a Forward Medical Post not as a physical structure, but as a working organization. This organization articulates itself around six functions: a secretary, triage, an Immediate Emergency care function (IE), a Relative Emergency care function (RE), a regulation, and an evacuation. Therefore, every structure, that includes all of these functions and is set up in the field to cope with an influx of victims, can be defined as a forward medical post (whichever its physical form is.)

The organization of a FMP relies on unavoidable rules: (1) the site is decided upon in cooperation with the On-site Commanding Officer; (2) it must be situated in the "safe zone", at the vicinity of the incident as near as possible to evacuation roads and on enough ground surface to receive at least a third of the total number of victims (if known); and (3) the FMP is organized into six zones (one for each

function). Various guidelines also apply but they usually are summarized by "Think but think simple."

Other factors influencing set up include climatic conditions, existent structures, communication axes, security, and safety. Frequently encountered errors are from neglecting to adhere to the guidelines and the space is too small an area to permit a later enlargement of the post.

This working organization is nothing without the people. The FMP leader is a medic who relies on a Logistic Officer, a Triage Medic, a Regulation Medic, and on a variable number of medics and paramedics (ideally 1 medic for 2 IE victims and 1 medic for 10 RE victims). Distinctive white chasubles or armbands identify them.

A "crisis" implies for managers an immense amount of pressure. The usual approach for coping with a crisis relies on three things: (1) prevention, (2) planning, and (3) training. However, what if your team is unavailable or what if your plans are useless, because they are not adapted to this situation? We propose here an operational crisis approach centred around chaos reduction and casualties reduction.

Chaos reduction is the first unavoidable step resumed in the acronym IRIT: Information, Reinforcement, Immediate action, and Team set up. Information is the first concern; find who is in charge, what's happening, what has been done, what resources are there, verify the sources, make a synthesis. Reinforcements should be requested: remember that more is better, immediate actions denote the use standard operational procedures, and team set up establishes the chain of command. If communication protocols are not predefined, nominate a communication manager who will establish communication network and protocols, nominate a logistic manager who will establish logistic follow-up, traffic procedures, staging areas, vehicles, person and equipment inventory, nominate a medical operation manager who will manage the CCP and FMP.

Casualties reduction is the next step and is summarized by the acronym OSDOR (Objective, Situation, Design, Operational, Reevaluation). Objective identification means team work around rational choice, organizational choice, political choice or team negotiation in the way Allison defines it. Situation denotes looking for the facts, but also survey for crisis potential and probable evolution (What in 30, 60, 90 minutes?). Design a suitable course of actions of at least two different courses of actions (most likely this is between the creation of a "field hospital" and "scoop and run"), evaluate those designs and choose among those actions. Operational implementation means power delegation and mission orders; and finally conduct regular reevaluations (How is the situation evolving? What are the consequences of this evolution on the first 4 points (OSDO) and, if necessary, go again through the entire OSDOR process. Accurate information and managing manpower are the key success factors in crisis management.

Standard procedures are used by the FMP and every victim following the same track. Triage is the first step and victims are assigned to one of two categories: immediate emergencies (IE) or relative emergencies (RE). Registration occurs with the entry secretary. The victim is identified using a simplified medical file. Part of this file is sent to the Regulation Secretary to allow the dispatching of

the victims to hospitals with adapted capabilities. Treatment or simple life support is performed in two different areas (IE and RE zones). Evacuation occurs when the dispatching is done and a team and vehicle are available (priorities are IE followed by RE). We propose to manage a third category of victims (Extreme Emergency or EE) with a specific procedure. For EE victims the simplified file is a specific red file. A member of the collecting rescue team managing the EE victim takes this file directly to the entry secretary and, after registration, to the Regulation Secretary where the dispatching is done without delay. While the team member waits to take this file back, the EE victims and the collecting team simply go through the FMP directly to the evacuation zone. The evacuation occurs as soon as possible, using the collecting team as the evacuation team. Those procedures can be followed only because logistic follow-ups and information treatment (files transit and workout) are strictly managed. Logistic follow-up is the logistic officer's job. Information gathering and transmission are the roles of the FMP Chief. Frequently encountered errors are the arrival of victims in a FMP with the entry secretary not already in function, shunt of the entry secretary, and changes of categorization without transmission of the information at the regulation.

Key words: crisis; field; forward medical post (FMP); information; operations; organization; triage
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Emergency Medicine in the Czech Republic

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During the last decade, the disaster readiness of the Czech Republic has gone through a fundamental systemic transformation determined by two things: (1) the preparation and its later admission into the North Atlantic Alliance (NATO) and, (2) by the preparation of joining into the European Union. To achieve this, the legal environment was transformed to maintain the basic function of the State, even in case of possible crisis situations—whether it is of military or nonmilitary character. A direct result of this change to the security policy of the State became Constitutional Law Nr.110/1998: The Security of the Czech Republic. This law is the foundation for the comprehensive architecture of Crisis Legislation. The central mission of the legal norms that came into operation was the completion of the fundamental obligation of the State to the protection of lives, health, and property.

For this goal, a National System of Crisis Management was developed. The system is based on two organizational structures: (1) a network of crisis management authorities formed by the central and other administrative offices, and (2) on an effective instrument that combines the appropriate aggregation of capacities and means into a system called the Integrated Rescue System (IRS—according to the law). Such a systematic solution ensures cooperation between such bodies as the armed forces, the armed security forces,