

### Treatment of Children with Severe Road Trauma at the Prehospital Stage

*Dr. Rasmik Keshishian; Professor Leonid Roshal, MD; Dr. Leonid Puzhbitsky; Dr. Taisia Chernysheva; Dr. Denis Ratin; Dr. Svetlana Borisova; Dr. Mihail Vertopetov; Dr. Natalia Selutina*

Research Institute of Pediatrics Russian Academy of Medical Science, Moscow, RUSSIA

Mortality analyses of children with severe road trauma indicate that nearly half died during the prehospital stage and 34.4% of them died even before the arrival of the medical brigades. The main mortality factors during the prehospital stage were shock and bleeding (38.2%). Destruction of vital function regulation caused death in 16.3% of injured, and respiratory insufficiency in 15.8%. Factors incompatible with life were present only in 30%; 70% of the injured could have survived had professional medical aid arrived in time.

Drivers and policemen are the first to reach the victims, but their medical skills are very low. At the same time, our legislation forbids them to render even first aid. To lower children's mortality rate, it is necessary to improve medical training of drivers and policemen, and make alterations in the present legislation.

**Key words:** children; legislation; prehospital; roads; survival; traffic; trauma

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### Co-Ordination of Transboundary Collaboration in Emergencies

*Gennady Kipor*

ARCDM "Zaschita", Moscow, RUSSIA

The history of formation of an international system for preparedness and adequate response to major emergencies extends for more than 30 years. From our point of view, the principal component of this system is the delivery of prompt, medical, humanitarian care, as only in this particular case, can one really speak about rescue of human lives or relief of human sufferings.

At present, the only central coordinating mechanism of humanitarian care delivery is based in the UN Office for Coordination of Humanitarian Affairs (OCHA), but the medical aspects of humanitarian assistance are managed mainly in the WHO Department of Emergency Humanitarian Affairs (EHA).

The goal of the presentation is to demonstrate how the OCHA coordinating levels, namely—strategic, tactical, and operational—determine the mechanisms and tools of coordination in different countries and regions when delivering humanitarian medical care. Our presentation emphasizes detailed practical models promoting the analysis of prolonged activity of Disaster Medicine service, primarily in complex emergencies (situations complicated by local armed conflicts). It is stated that in the initial phase of forming contingents of refugees (or temporarily displaced persons), the adequacy of response influences the levels of morbidity, mortality in temporary camps, and the subsequent dynamics of the public health of the affected popu-

lation. Specific field practice examples are given, as well as processes of continuity, succession, and adequacy of delivery of different types of humanitarian medical care. The mission of peacemaking activity, presuming the formation of a temporary demilitarized zone in complex emergencies (as it is clear from field experience), can be realized adequately only in the obligatory presence of hospitals (temporarily medical posts), where medical treatment and delivery of all types of medical care are organized.

Humanitarian medical care is considered a triggering mechanism for a temporary armistice between conflict parties. The feasibility of developing principles of humanitarian medical pacifism irrespective of political and other interests of parties in conflict, and organization of participants delivering humanitarian aid is discussed. Ethical postulates of paramount importance for the priority of the health of displaced persons in complex emergencies are suggested as a principles reflecting priority of health importance.

**Key words:** care, medical; complex emergencies; coordination; displaced persons; ethics; humanitarian; public health

**E-mail:** rcdm.org@g23.relcom.ru

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### Epidemiological Status of the Baltic Region as a Potential Challenge for the Onset of a Crisis Situation

*Gennady Kipor*

ARCDM "Zaschita", Moscow, RUSSIA

Statistical data on dynamics of contagious diseases in the countries of Baltic region demonstrate their unstable epidemiological status and the presence of the latent threat in case it becomes impossible to take organizational and practical measures to stabilize the situation. A group of experts from 11 countries, created by an initiative of the Norwegian government, analyzed the situation, and identified five basic problems of international importance for which decision-making could promote the epidemiological welfare of the Northern Europe as well as of its other regions. The decision-making process is connected with a considerable increase of statistical data on morbidity and the factors provoking its spread, in particular—with an increase of a number of migrants from those region where the given forms of diseases spread to a major degree. Finally, proceeding from the experience and assessment of the situation, there now exists a certain latent "biosocial threat" for the emergence of a critical situation, which is likely to develop into a prolonged catastrophe.

The goal of this presentation is to provide a brief description of the problem and some step technologies for its resolution. This aim has global significance as the given example of the situation analysis represents a model of coordinating administrative and organizational decisions and launching international executive mechanisms for realization of medical humanitarian assistance in the field of emergency epidemiology. The main problems of the Baltic region epidemiology are the following: (1) a great number of HIV-infected patients and sexually-transmitted dis-

eases, (2) pronounced increase in antibiotic resistant organisms and an urgent necessity to improve the control of in-hospital infections, (3) profound and targeting extension of epidemiological surveillance and vaccination control of the lay public (4) considerable spread of tuberculosis (TB) as compared with the mean level for Europe, including drug resistant forms of TB, and (5) modernization of primary medical care (WHO definition) in the treatment of communicable diseases.

A model scenario for the preparatory response stage, a process of making strategic decisions, and tactics of their implementation in the system of the Baltic Sea countries' readiness for predictable, ecosocial, epidemiological threat have been developed as a result of the situation analysis.

**Key words:** assessment; Baltic countries; biological threat; communicable diseases; critical situations; data; epidemiological threats; epidemiology; HIV; primary care; sexual transmission; surveillance; tuberculosis; vaccination

**E-mail:** rcdm.org@g23.relcom.ru

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### Management Development Process in 2001 Disaster Medicine

*Gennady Kipor*

ARCDM "Zaschita", Moscow, RUSSIA

Substantial growth of new technologies, the dynamics of society, and macroecological shifts connected with these processes, give rise to a great number of disasters. The main strategy of human "survival" in the next century inevitably will be associated with the formation of an international, sufficiently effective system for coping with emergencies and the provision of adequate preparedness for disasters. Otherwise, all accumulated income of the community would not be enough for emergency relief, including medico-sanitary relief and emergency aftermath operations.

The main goal of this presentation is to discuss in principal improvements in management technologies in 2001-Disaster Medicine. A brief history of international management in humanitarian responses to emergency is provided. The most effective response structures and coordination hierarchy in large-scale emergencies are given when emergency relief operations are performed under the auspices of the UN Office for Coordination of Humanitarian Operations with involvement of the EHA/WHO experience, expertise, and medical humanitarian aid.

A hierarchy of strategies at the international level of emergency humanitarian assistance and their brief characteristics is described. An original form of strategy for donation engaging, allocation, and formation of permanent committees providing management in the disaster prone countries is proposed. It also is discussed in each specific case to confirm the necessity to appoint at the level of a Prime Minister's Office, a permanent representative or coordinator-in-chief on emergency problems who is capable of managing preparedness processing and decision-making on strategies for safety promotion in emergencies. The establishment of regional task forces consisting of such representatives and working groups responsible for differ-

ent regions and main aspects of medico-sanitary prevention and emergency response is proposed. This procedure would promote a higher level of mitigation, preparedness, and mobilization of resources and manpower in the urgent phase of emergency response. Decision-making of the problem at the initial stage by incorporation of appropriate items in the conference memorandum is discussed. The possibility of developing a principal fundamental document, that can constitute a basis for the "Code of International Humanitarian Support for Medical Care in Emergencies" as a preamble in the "Guidelines on the Use of Military and Civil Defence Assets in Disaster Relief" is proposed and discussed.

**Key words:** care, medical; code; disasters; hierarchy; humanitarian assistance; international; management; organization; phases; strategies; technologies

**E-mail:** rcdm.org@g23.relcom.ru

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### Infectious Diseases during the Flood Disaster in Mozambique 2000

*Hisayoshi Kondo; Tetsuya Mizutani; Masabiro Hashizume; Takako Kyogoku; Saeko Yamamoto; Shinji Nakakubo; Emiko Taniguchi; Michiko Inoue; Megumi Otsuka; Miyori Suzuki; Tsutomu Yamagishi; Tsutomu Murakami; Takako Suzuki; Keiichi Okitsu; Katsunari Harada; Tatsuo Ono; Seiji Tashiro; Hiroshi Koike*

Japan Disaster Relief Medical Team for the Flood Relief in Mozambique and the Division of Radiation Health, National Institute of Radiological Sciences, Chiba-City, JAPAN

**Introduction:** The types of medical care that are predominantly needed after a disaster vary and depend on its cycle or its nature. After a flood disaster, it has been pointed out that diarrhea-characterized diseases such as cholera, dysentery, and malaria are likely to break out. Therefore, accurate information to identify any occurrence of infectious diseases is essential for effective relief activities in flood disasters.

**Methods:** The Japan Disaster Relief (JDR) Medical Team was sent to Mozambique where the flood disaster occurred during a period from January to March 2000. Taking this opportunity, the Team tried to collect information that could be useful for elucidating the post-flood epidemic of the infectious diseases through the use of medical care activities, epidemiological investigation, and laboratory testing. The JDR Medical Team executed its operation for two weeks in the Hokwe region of the State of Gaza, in the mid-south section of Mozambique where the damage was the greatest. Through medical care activities, the information was collected from medical records. Through epidemiological investigation, the information was collected by accessing the data at local medical facilities, by interviewing inhabitants/evacuees, and by conducting water analysis. Through laboratory testing, information was collected on items related to malaria and diarrhea-characterized diseases.