

Keywords: '3 M' model; assessment; Australia; de Boer; Disaster Readiness Emergency Department (DRED) Score; emergency departments; preparedness, scoring system

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Review of Disaster Preparedness of Australian Emergency Departments

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Introduction: Emergency departments (ED) often are the first part of the health system to be affected in a disaster. How prepared are they?

Methods: This review was a prospective, postal survey distributed to the directors of all adult and mixed (adult and paediatric) Australian Emergency Departments. Those not accredited by the Australasian College for Emergency Medicine (ACEM) were excluded. Surveys were sent to 78 departments. Overall responses were reviewed, as were groupings by state, role delineation, annual attendances, hospital bed numbers, and access block. Actual disaster plan activation also was reviewed. The survey assessed all aspects of disaster preparedness from risk assessment and planning, to staffing, training, education, equipment, and funding. The impact of recent world events on preparedness was reviewed while departments also were asked to assess their own ability to manage disasters using a Likert-like scale.

Results: The response rate was 78%. There was no significant difference in response rates between various states or various ACEM role delineations. There was a large variation in levels of disaster preparedness between departments. The majority had a reasonable level of planning, but provided limited education, training, or exercises. Those most prepared were those departments from New South Wales or Victoria with a Major Referral role. The Sydney Olympics had a significant effect on preparedness, but there was little correlation with previous disaster plan activation.

Keywords: education; emergency departments; equipment; exercises; funding; hospitals; management; planning; preparedness; risk assessment; staffing; training

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Findings of Health Reporting as Criteria of Preparedness in Emergencies

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Within last decade, the status of the public health system of Russia has changed drastically. The changes might be considered as a critical event for survival of state medical services and the new development of commercial medicine services.

This paper describes major tendencies of primary and integrated health characteristics of the population. For this purpose, an organization of public health services, methodology of health status assessment and situations in different regions of the European territory of Russia, its relationship to emergency medicine, and the criteria used for health system preparedness will be analyzed.

In public health and in disaster medicine, health monitoring is based on a large body of data that include parameters of activity of subordinated services as well as for the whole the system. This includes, first of all, hierarchical organization of initial statistical data collection, the subsequent transformation of the data into databases, data analysis, and presentation of output information.

Some approaches and conclusions of modern health monitoring methodology that serve as groups of basic indices for preparedness criteria elaboration and for decision-making include:

Group 1 — (a) Evaluation of demographic parameters and structure of population; (b) Evaluation of the health state dynamic in different sub-populations; (c) Evaluation of morbidity and mortality for specific diseases; and (d) Evaluation of causality of mortality. This group includes up to 36 basic integrated tables. Analysis of this group gives us basis for evaluation of health reserves capacities.

Group 2 — (a) Evaluation of resources and estimation of qualitative and quantitative parameters of public health system; and (b) Evaluation of general state and quantitative parameters of availability of medical, prophylactic and sanitary organizations, and the number of medical and nursery personnel. It includes indices of access of the Russian population to all kinds of medical services provided by the state public health system. This group includes 25 basic integrated tables. Analysis of this group gives us basis for evaluation of health system capacities and its potential applicability during emergencies.

Group 3 — Specific evaluation of parameters of availability of maternal and children services related to health indices for pregnant women, those for births, abortions, perinatal and fetal mortality, etc. This group includes nine integrated tables and gives us a basis for evaluation of specialized medical services in emergencies and their capacities in various emergency-prone regions.

Group 4 — Evaluation of medical and sanitary severity in emergency situations, resources of medical emergency services required for their permanent readiness. This group includes six integrated tables and provides a basis for preparedness evaluation of disaster medicine service.

Keywords: data; decision-making; development; disaster medicine; emergencies; evaluation; monitoring; preparedness; public health; Russia; services

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Description and Evaluation of Crash Program to Prepare Healthcare Professionals to Manage Casualties and to Instruct Their Colleagues Concerning Non-Conventional Warfare

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The possibility of a non-conventional attack on the State of Israel during 2003 encouraged the Emergency Services Department of the Ministry of Health to rapidly develop and implement an educational intervention to prepare healthcare professionals to deal with such an attack. This

presentation will provide a description and evaluation of 19 two-day meetings attended by approximately 2,800 professionals from both hospitals and the community medical system providing: (a) essential knowledge and skills required to deal clinically with a non-conventional warfare attack; and (b) ability to organize an educational intervention in their respective settings to prepare relevant staff to manage Mass Casualty Events stemming from either a chemical or biological attack. The time frame for developing and implementing the education was approximately five months. Evaluation data from an analysis of pre and post-session questionnaires that participants were required to complete, are presented. The pre-session questionnaire was a self-assessment of the participants' level of knowledge required to clinically diagnose and treat victims, and their perceived ability / readiness to organize an educational intervention for healthcare workers in their respective work settings. The post-session questionnaire gathered data relative to the contribution of the two-day meeting to their ability to effectively manage a chemical/biological attack, diagnose and treat the victims, and to implement the educational intervention.

Keywords: attack, biological or chemical; diagnosis; education; evaluation; multi-casualty events; organization; preparedness; training; terrorism; treatment
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Free Papers: Global Sharing: Disaster Public Health

Status of Rural Injured Two Years after 2001 Gujarat Earthquake

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Introduction: It is acknowledged that the effects of disasters in developing countries have been poorly documented. The surgical outcome of hospital care and physical/psychosocial rehabilitation in rural victims were determined two years after the massive 2001 Gujarat earthquake (India).

Methods: The current locations of the displaced victims who were operated on for earthquake-related injuries were determined. A community-health worker interviewed these patients in the local language using an oral questionnaire. They were queried about orthopaedic implants, disability, deformity, residual pain, occupational and economic rehabilitation, shelter, post-traumatic stress disorder (PTSD), and perceptions of the health care rendered.

Results: 133 of the 179 surgically treated, non-urban victims were located in 11 villages. There were 10% missed injuries, 19% infection rate, restricted range of motion in 12%, non-union rate in 23%, and re-operations in 30.5% of

the patients. 51% had resumed their previous occupation, but only 30% had recovered economically. Of the 98% who had their homes destroyed, 89% had their homes rebuilt. Residual sadness was the only significant PTSD symptom.
Conclusions: Following this earthquake (PICE scoring: Stage III, Dynamic, Paralytic, national disaster), the shortcomings of the orthopaedic medical care provided included missed injuries, inappropriately timed and aggressive implant surgeries, short time commitments, lack of follow-up, and a high rate of re-surgeries calling for a need for the training of regular surgeons and physicians in Disaster Medicine. The low infection rate was attributable to the use of potent antibiotics in an unexposed rural population. The occurrence of PTSD was marked three to six months after the event, but was minimal two years post-quake. This study indicates some similarities and some notable differences compared to disaster studies from the developed world.

Keywords: antibiotics; displaced persons; earthquake, Gujarat; follow-up; infection; injuries; orthopedics; outcome; perceptions; post-traumatic stress disorder (PTSD); rural; surgery; training
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Earthquake Relief Activity in Two Islamic Countries: Afghanistan and Iran—What Was the Difference and Which Was Better?

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Introduction: The Japanese Red Cross Society (JRCS) operated earthquake relief activity in Afghanistan and Iran in 2002. Though both earthquakes occurred in rural areas, relief activities were quite different. This presentation reports and discusses the relief activities in both countries.

Methods: An earthquake with a magnitude of 6.2, occurred in northern Afghanistan on 25 March 2002. The JRCS sent Basic Health Care Emergency Response Unit (BHC-ERU) to Afghanistan, and operated an outpatient clinic for two months. The JRCS supported the outreach activities operated by the Afghan Red Crescent Society (ARCS). On 22 June, an earthquake with a magnitude of 6.3 occurred in northwestern Iran. Iranian Red Crescent Society (IRCS) operated well-organized relief activities after the earthquake. The JRCS donated surgical equipment of the ERU, and supported the settlement of a temporary clinic.

Results: In Afghanistan, many non-governmental organizations (NGOs) started relief activities immediately, but withdrew gradually. The JRCS, ARCS, and the International Federation of the Red Cross and Red Crescent Societies treated about 3,000 patients from 05 May to 18 June. In Iran, the IRCS established well-organized relief activity quickly. They immediately dispatched search and rescue teams and created health posts for the evacuated people. In case of an emergency, IRCS had to provide care to 600,000 evacuated people (1% of the population) for three months.

Discussion: Earthquake relief activities in the two Islamic countries differed. For example, independent NGO activities occurred in Afghanistan and the IRCS led the activi-