

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-