Impact of Rural Identity on Access to Emergency Health Care for Asthma: Impact of Community Perceptions

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Asthma is responsible for the highest proportion of emergency department attendance in Australia, and previous studies have identified that people with asthma delay seeking medical help during acute asthma episodes, which are associated with increased morbidity and mortality. A survey of rural and remote asthma patients and their families was conducted, which revealed that half of all respondents would call family, friends, neighbors, or local doctors first in an asthma emergency, rather than hospital emergency departments or ambulance services. This response to emergency asthma is distinctly different than a recent clinical audit of suburban asthma patients, who access ambulance services ten times more frequently than they call a local doctor.

Community-based focus groups in four rural areas of southwest Victoria were conducted to explore perceptions on the role of health services and the community in acute asthma management and asthma health promotion. The community-based focus groups identified rural perceptions of asthma that acted as barriers to accessing effective emergency management, as well as the concept of what "country people" do in a health-related emergency. The focus groups also proposed innovative strategies for getting the health promotion and prevention message out into the rural community. The health promotion suggestions of both rural asthma patients and medical health professionals were from a rural perspective, cost-effective, and community-based. These were passed on to the National Asthma Council of Australia as possible improvements to existing asthma health promotion and prevention strategies. This study identified a unique rural identity, which must be acknowledged as distinct, rather than as a barrier to health promotion and management, and can be directed toward creating modern, rural, community-based strategies for better health promotion and prevention.

Keywords: asthma; community-based; emergency services; health; prevention; rural; strategies; urban
Prehosp Disast Med 2005;20(3):s140

High-Speed, Tilt Train Crash—Queensland, Australia

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At 12:06 hours on the morning of 16 November 2004, a high-speed, "Tilt Train" crashed in an isolated area of Queensland, approximately 60 km north of the provincial city of Bundaberg, Australia.

With 156 passengers and seven crewmembers on board, and the nearest emergency resource >50 km away, this incident presented a major logistical and operational challenge for emergency services in Queensland. It also provided the first significant multi-casualty test for the new Queensland Emergency Medical System arrangements.

This presentation describes the operational response to this incident with a particular focus on the coordination and collaboration between the various agencies required to work together to deliver the emergency response. The presentation emphasizes the lessons learned and the key issues faced in providing emergency services to a large-scale incident at a remote location.

Keywords: Australia; emergency services; large-scale incident; response
Prehosp Disast Med 2005;20(3):s140

Health Emergency Preparedness in an Ultra-Peripheral European Region—The Archipelago of the Azores

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Introduction: Emergency preparedness constitutes one of the most fundamental steps in developing the process of disaster management. Small islands and archipelagos, if located in under-developed areas and/or disaster-prone regions of the world, present a huge variety of vulnerabilities and constraints. In such areas, the health sector must assume very particular responsibilities, since the consequences of failing to do so could be catastrophic to the health of the affected population for years after a devastating event occurs. Integrated measures in respective community plans are necessary. In order to identify the best strategies to be followed in terms of health emergency preparedness in such setting, a comprehensive study of the current state of health emergency preparedness on the Archipelago of the Azores was performed.

Methods: The study used several methods: (1) background data collection and review; (2) interviews with relevant senior representatives of local agencies involved in disaster situations, namely those related with emergency pre-hospital transport; (3) questionnaires addressed to medical directors of public hospitals and primary healthcare centers (PHCCs) and to Presidents of Municipal Councils (MC); and (4) on-site observations.

Results: Background reviews and interviews conducted identified important weaknesses, with prehospital medical care and transport. Of the 16 questionnaires sent to the PHCCs and the three sent to the hospitals, 15 (93.8%) and two (66.7%) were returned, respectively. Thirteen of the PHCCs (81.3%) provide emergency and in-patient services. The data indicated that the capacity is poor in terms of staff, emergency equipment, and methods employed. Fourteen PHCCs (93.3%) and one hospital (33.3%) do not have any external or internal emergency plans. A low level of emergency preparedness exists also in several other areas explored. Existing special communication systems were not present. Of the 17 questionnaires sent to the MCs, four were returned, representing a response rate of 23.5%. Of these, only one contained updated data. The observation sites selected confirmed some of the results obtained.

Conclusions: Despite important improvements in recent years in the Azores, the current local state of health emergency preparedness remains critical and requires urgent

attention. Recommendations to the respective authorities and the establishment of standards for the minimum levels required have become evident. Furthermore, the data obtained constitute a baseline for further studies on this and other related matters. Understanding the most important constraints impeding more sustainable development in health emergency preparedness also could be useful for other similar regions of the globe.

Keywords: archipelagos; Azores; emergency; health; islands; plans; preparedness
Prehosp Disast Med 2005;20(3):s140–s141

Medical Aspects of Mass Casualties Management—Lessons Learned from the Bam Earthquake

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Introduction: At 05:26 hours on 26 December 2003, an earthquake measuring 6.5 on the Richter scale struck the city of Bam and its surrounding villages. The earthquake, with a shallow focal depth (8 km), appears to have had its epicenter very close to Bam. In the affected area, most buildings were designed with extremely poor earthquake resistance. Although the impact of earthquake was limited to a small area (about 16 km in radius), the 2,500 year-old historic city of Bam was destroyed completely.

The earthquake affected approximately 200,000 people. A total of 30,000 persons were killed, 20,000 persons were injured, and 45,000 persons were left homeless.

The entire health infrastructure of the affected area sustained heavy damage (from 40–100%). None of the health facilities were functional, and local health workers were unavailable. The devastating earthquake placed a great burden of injured and traumatized patients on the provincial health system and hospitals in other areas (six cities). More than 12,000 injured patients were transported by air to other cities in the first 48 hours. For the first two days, there was no water or electricity in the town, and drinking water was provided in the form of bottled water. To cover the needs, the city of Bam was divided into 12 zones. Each zone was managed by a medical team deployed from medical universities in other provinces.

The Iranian Red Crescent Society medical teams were deployed to the scene immediately after the earthquake, and during a four-week period, treated thousands of casualties in a field hospital and several medical emergency units. Many other medical teams from around the world arrived in the area during the following days, and a huge, multi-national, multi-organizational medical and relief operation was done.

Conclusion: In this presentation, the following lessons learned from the disaster and its aftermath will be described: (1) general problems; (2) pitfalls and errors; (3) difficulties in performance; and (4) useful experiences.

The triage system, which is highly important in terms of disaster management, will be discussed, and recommendations for an effective triage system in earthquakes will be made. Also, the epidemiologic date of 13,720 casualties has been described, including: (1) day of admission; (2) duration of admission; (3) mean time under the rubble; (4) patient complications; and (5) mortality in hospitals.

This study is the result of data collected from 11 field hospitals, four basic health centers, and several medical units in the area.

Keywords: Bam; data; earthquake; hospital; Iranian Red Crescent Society; mass-casualty event; medical; triage
Prehosp Disast Med 2005;20(3):s141

South Florida Regional Disaster Medical Assistance Team

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2004 was a year of unprecedented hurricane activity for the state of Florida, with four significant hurricanes striking its coastline. In August 2004, Hurricane Charley hit the west coast of Florida, causing severe damage in Punta Gorda and its surroundings. Immediately after the hurricane had passed through Punta Gorda, the National Disaster Medical System/Federal Emergency Medical Agency, both part of the United States Department of Homeland Security, activated a number of disaster medical assistance teams (DMATs) to augment local emergency medical services (EMS) providers.

The main points of the research were:

1. The South Florida DMAT (FL5) was deployed to Port Charlotte Regional Medical Center in Punta Gorda to establish a mobile field hospital in the parking lot outside the emergency department to provide advanced trauma life support (ATLS) and advanced cardiac life support (ACLS) stabilization, as well as prepare for primary and mental healthcare needs;
2. In a seven-day period, the FL5 treated >1,000 patients ranging in acuity from multiple stab wounds to cardiac and respiratory arrests to replacing lost medications and providing psycho-social care to the impacted community;
3. The type of patient encounters, treatment provided, and final disposition all were analyzed;
4. The logistical support and planning issues inherent in being able to respond to a variety of natural and man-made disasters at short notice and in an austere, clinical environment were discussed;
5. An overview of the extended clinical capabilities of the FL5, including administration of blood products and field radiology was given; and
6. The importance of the team pharmaceutical cache, and a review of pharmaceutical items utilized during the deployment were discussed.

Keywords: disaster; disaster medical assistance team (DMAT); Florida; management
Prehosp Disast Med 2005;20(3):s141