(C31) Oktoberfest Tent Blowdown

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Introduction: On 17 October 2007, a severe weather event occurred in Tulsa, Oklahoma. The resulting storms caused to collapse of two large tents and several smaller tents at an Oktoberfest celebration causing 23 injuries that required evacuation to emergency departments.
Methods: This paper is a retrospective analysis of the regional health system's response to this event consisting of police, fire, emergency medical services (EMS), hospital, regional hospital emergency operations center, and the public health response. Data from the Tulsa Fire Department, the Emergency Medical Services Authority (EMSA), the receiving hospitals, and coordinating services were reviewed and analyzed. The EMS patient care reports for all 23 patients were reviewed and analyzed using triage designators assigned in the field, injury severity scores, and critical mortality.
Results: The EMTs and paramedics from Tulsa Fire Department and EMSA provided on-site care under unified incident command. All EMS patient transports were by EMSA ambulance using six local hospital emergency department services. Aeromedical evacuation was not used due to the proximity of the hospitals and the weather, with wind gusts up to 80 miles. Of the 23 patients transported by EMS, two were hospitalized, one with a critical spinal injury, and one with critical head injury.
Conclusions: Analysis of the 2007 Tulsa Oktoberfest mass casualty incident revealed rapid police, fire, and EMS response despite challenges of operations while dark under severe weather conditions and the need to treat a significant number of injured victims. There were no fatalities. Of the patients transported by EMS, a minority sustained critical injuries, with most sustaining injuries amenable to discharge after emergency department care.
Keywords: critical mortality; emergency medical services; disaster response; health system response; mass casualty incident; Oklahoma; Oktoberfest; severe weather; trauma; triage; tent; Tulsa
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(C32) Efficiency of Emergency Relief with Emphasis on the Transportation System—Case Study of Zone 6 in Tehran, Iran

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Emergency relief has an important role in reducing casualties. The performance of the transportation network is an essential factor in the efficiency of search, rescue, and relief operations. Following disasters, traffic can impact emergency travel time. In this study, the performance of the transportation network in Zone 6 of Tehran, Iran was studied. This research consisted of two techniques, the hazard identification method and What-If Analysis.

The results of this research indicate that some physical and non-physical operations can impact the efficiency of emergency travel time in the zone of study. Emergency relief in the zone of study is a function of the location and traffic flow in the area. Therefore, changing the methods of selecting safe roads to attain optimum emergency travel times is recommended.
Keywords: disaster; emergency; relief; Tehran; transportation
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(C33) Injuries due to the Bam Earthquake in Iran

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Introduction: Iran is a country with an area of 1,648,195 km^2 with a population of >8,000,000 people. The devastating earthquake in the Bam District of Kerman Province struck on 26 December 2003 when the population was sleeping, and left a total of 29,878 dead and 22,628 injured. It had a magnitude of 7.4 on the Richter scale. The aim of this study was to determine the frequency of physical injuries.
Methods: The data of 206 patients were collected from the medical records.
Results: The majority of patients were in the 20–29 year age group. The female/male ratio was 1.51. The overall mortality rate was 2%. Most frequent injuries were lower extremity, pelvic, and spinal fractures respectively. Of the extremity fractures, 4.9% had open fractures, 95.1% had closed, and 19 patients underwent fasiotomy due to compartment syndrome. Of the pelvic fractures, 7.9% were unstable. Of the cases, 32% with vertebral fractures had spinal cord injuries. Other injuries were less frequent and included pneumothorax, hemothorax, abdominal viscous injuries, rib fracture, and head injuries.
Conclusions: The main problems in the victims were orthopedic. Hospitals must prepare to treat these injuries.
Keywords: Bam Earthquake; disaster; hospitals; injuries; Iran
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(C34) Cyclone Nargis—The Team Singapore Experience

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Introduction: Cyclone Nargis struck on 02 May 2008 and was the worst disaster due to natural hazards in the recorded history of Myanmar. It left >146,000 people dead and thousands more homeless. More than 200 hospitals and 400 clinics were destroyed by the cyclone. Singapore was the first non-bordering country to send a medical team to help Myanmar with the disaster relief efforts and carried out operations using mobile teams.
Methods: Demographic and medical data from the medical records were collected and analyzed.
Results: A total of 4,489 patients were seen in nine days at hospitals, eight camps/villages, an orphanage, and an elderly care facility. Of the patients, 65% were female. More than a quarter of the patients were <12 years of age and 16.5% were >60 years old. The pediatric patients suffered mainly