

set customized for the respective rescue teams. The sets will be carried permanently in the rescue equipment by the organization manager of the rescue service team. The equipment is not dependent on electronic components. The cost per sticker set is approximately US\$50. Keeping track of the patient allocations is assured.

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(P2-41) Emergency Medical Response Systems in a University Athletic Program: A Descriptive Analysis

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Introduction: Unpredictable environmental conditions, crowd dynamics, and a variety of medical emergencies create logistical and clinical obstacles when planning emergency medical response coverage for mass-gathering events. In a collaborative endeavor between a university athletics program and an academic division of Emergency Medicine, a stadium emergency medical response system was created consisting of hospital-based healthcare providers and pre-hospital healthcare providers.

Objectives: Provide descriptive statistics relevant to the nature and frequency of injury/illness, location of treatment within stadium confines, and resources used in the care of students, event staff, and spectators during collegiate football operations, to assist in future planning of mass-gathering events.

Methods: A continuously updated, quality assurance database of de-identified, aggregate statistics was utilized to analyze trends regarding aspects of medical operations.

Results: During a 7-game home football season, there were a total of 399 patients encounters, including 1 cardiac arrest (0.25%), 12 “life-threatening” (3.01%), 121 urgent (30.33%), and 266 routine (66.67%). Total season attendance was 201,248 attendees (28,749/game and 19.83 patients encounters per 10,000 in attendance). Twenty-eight patients were transported (1.39 per 10,000), with eight resultant hospital admissions. Encounters varied by complaint, with skin (42%) comprising the largest number of encounters. Other categories included: (1) heat-related (23.5%); (2) allergic (15%); (3) neurologic (10.3%); (4) cardiopulmonary (3.5%); (5) gastrointestinal (3.6%); (6) musculoskeletal (5%); and (7) other (5%). Encounters increased noticeably when the heat index was greater than 80 °F– (29.4 vs. 10.5 per 10,000 attendees).

Conclusions: The collaborative effort by a multi-level provider model adequately covered presenting medical conditions. Consistent with previously literature, a strong correlation existed between heat index and number of patient encounters deemed urgent and routine. Interestingly, the number of “life-threatening” encounters did not appear to vary much with the heat index. Further studies of medical presentations and provider/resource utilization could provide for predictive modeling of future staffing and supply models.

Keywords: athletics program; crowds; mass-gathering events; sporting events; stadiums

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(P2-42) Mass-Gathering Risks in the Beijing Subway System

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Introduction: Mass gatherings pose a significant risk on health and safety. The mass gathering in the subway systems in Beijing represents a daily risk. An average of 4.52 million passengers rode the subway each day between 15 November and 30 November 2010, with the highest daily passenger number totaling 5.14 million. The purpose of this study is to identify the health and safety aspects of mass gatherings in Beijing subways, and proposes strategies that may mitigate these risks.

Methods: The methods included a literature review, field visitation of the subway systems, and interviews of 20 passengers and 10 management personnel from the subway system.

Results: Many safety and health measures has been taken by the Beijing Subway System, including emergency exit signs and other safety signs, prohibition of smoking, firefighting equipment and explosion-proof tanks, safety inspection of bags, and safety education in the subways. However, additional key health and safety aspects were indentified, including: (1) lack of strict flow control of passengers in interchange subway stations; (2) lack of platform safety gates in Line 1, Line 2, Line 13; (3) lack of passenger control during peak hours; (4) lack of biomedical monitoring systems in the subways; and (5) lack of health facilities and rescue equipments in the subways.

Conclusions: Mass gatherings pose great risks on subway passengers in Beijing, including psychosocial risks, biomedical risks, and environmental risks. Additional safety measures need to be taken to ensure the safety and health of passengers in subways in Beijing.

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(P2-43) Utilizing a Unified Health Command Structure for Mass Gathering Preparedness and Response: Lessons Learned from the 2008 Pacific Arts Festival

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Background: The Pacific Arts Festival is a mass-gathering event occurring every four years in Oceania. The 10th festival in American Samoa, July 20 to August 2, 2008, brought 2200 performers and 2500 tourists (a 15% population increase) from 27 Pacific nations to the island. Anticipated healthcare concerns included hospital surge (175% in 2004), HIV/STI transmission, imported/communicable diseases, food/water/sanitation-borne illness, interpersonal violence, and healthcare resource utilization.

Objective: To describe the preparedness and response efforts for this mass gathering event by emergency medical services, the hospital, and the department of health.

Methods: A retrospective review of after-action reports, public health and emergency department surveillance records, and