

Complex, Yellow for Urgent, and Green for stable. Problems ranged from simple prescription refills to dangerous falls and pulmonary embolism and heart failure. Numerous patients with lacerations, sprains, minor fractures, and/or abscesses and infections that needed both incision and drainage as well as IV antibiotic administration were encountered. Oxygen and nebulized treatments were made available using a multiple patient manifold connected to a single Oxygen tank. Simple chemistries and a hematocrit measurements were available. The hospital was able to augment diagnostics with advanced laboratory studies and X-ray and Computerized Axial Tomography Scanning (CT) as needed. Direct radiologic-viewing was available by laptop computer, and final reading interpretations were provided by radiologists from the hospital. A total of 1,067 patients were seen during the 9 days of 10 to 12 hour shifts. The number of hours were gradually decreased with the intention to phase out of services November 15 when two other hospitals were scheduled to come online.

**Keywords:** hospital; hurricane; overcrowding; overstaffing; public health; relief

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## Poster Presentations—Theme 13: Public Health

### (210) Model for Medical Records for International Disaster Relief Operations

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The ability to triage a large number of patients during an international disaster relief operation (IDR) is important. In order to ensure effective triage and treatment, useful and practical medical records are necessary. In 2003, the Shinchi's Medical Record (SMR) for IDRs was proposed. The SMR is contained on only one sheet of paper that includes the medical record, laboratory data, and prescribed drug sheet. Use of SMR also registers the urgency class and primary diagnosis. Use of the SMR was simple, inexpensive, and easy to prepare for many patients. After the publication of the SMR,<sup>1</sup> the instrument was revised according to the advice of 61 doctors and nurses who had participated in IDRs. The laboratory data sheet was deleted, because few medical teams were able to use laboratories in field medical facilities. The authors referenced the same kind of medical records used by the Japan Medical Team for Disaster Relief, the International Committee of the Red Cross, and other non-governmental medical teams. According to this medical record information, the SMR was revised and renamed the "IDR Medical Record". The IDR Medical Record is more useful because it is easier to record the chief

complaints and symptoms. This Medical Record should enhance effective medical relief activities in IDRs.

#### References

1. Shinchi K: Proposal of a model for medical records for international disaster relief operations. *Mil Med* 2003;168:120–123.

**Keywords:** international disaster relief operations; medical records; model; relief

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### (211) Assessment of Major and Minor Events that Occurred in the Kingdom of Bahrain during the Last Century Using a Disaster Severity Scale Score

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**Introduction:** Epidemiological research about disasters is difficult to perform, since data collection may not be possible during the disaster.

**Objectives:** The objectives are to enumerate and assess the severity of the disasters that occurred in the Kingdom of Bahrain during the last century using a Disaster Severity Scale (DSS), to set a standard method for the classification of previous disasters, and to improve disaster management and planning.

**Methods:** Data will be collected from reports of the Civil Defence Directorate and the Ministry of Interior of the Kingdom of Bahrain and will be used to calculate the DSS Score. Disasters will be classified into major and minor disasters according to the number of deaths and severity of the damage. The number of deaths will be compared with the obtained DSS Score. A seasonal trend for different types of events will be obtained to assess if there is a relationship between the type of event and the time of the year in which it occurred, as related to the weather conditions existing at that time.

**Keywords:** Bahrain; deaths; Disaster Severity Scale; major events; minor events

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### (213) Tehran Residents' Knowledge, Attitude, and Practice Regarding Earthquake Preparedness

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**Introduction:** Earthquakes are the most prevalent natural hazard to result in a disaster in Iran. More than 70% of all Iranian cities—including the capital, Tehran—have been built over zones of geological weakness (faults). Preparedness in disaster management can minimize the loss of life and property, and one of the most basic elements of any disaster preparedness program is public education. Assessing the public knowledge, attitude, and practice (KAP) is a crucial first step in designing successful educational initiatives. **Methods:** This research comprised a succession of qualitative and quantitative studies that together produced the input necessary for devising recommendations for educational interventions.

**Results:** Out of a sample of 1,211 Tehran residents, 31.4% demonstrated “poor” knowledge of disaster preparedness. For 31.4% of the sample, the knowledge assessed “moderate”, and the remaining 37.2% had an “acceptable” level of knowledge. The relative frequencies of people with poor, moderate, and acceptable attitude were 25.6%, 32.5%, and 41.9%, respectively. Regarding practice, the percentage of the subjects that were determined to be at a “poor” level was 25.7%, while 29% fell into the “moderate” category, and 45.3% were classified as having “acceptable” practice in terms of disaster preparedness. Statistical analysis of the KAP scores was used to identify the following groups as being at “high risk” for adverse consequences in the event of an earthquake: women, housewives, residents of eastern districts, senior citizens, pensioners, those living alone, poorly educated people, and people living in a rented accommodation or in crowded families.

**Keywords:** earthquake; knowledge, attitude, and practice (KAP); preparedness; public education; residents

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### (214) Handling Crisis or Risks

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A disaster occurs when routine disruption becomes a precise instant in which a hazard reveals itself. Some disaster examples from Argentina include the 2003 Santa Fe floods and the Cromagnon nightclub fire in 2004. Crisis management mechanisms must be improved. This includes setting out organizational priorities to deal with mental health, continuing launched programs, training activities for farm workers, introducing psychosocial aid measures for the assistance of victims and other parties, and lowering risk so that stress does not leave irreparable harm.

A comprehensive risk reduction approach must be promoted. This mitigates impacts by calling on all of the members of a society to make agreements through a strategic plan on the integral measures taken against risks, including responses.

The plan requires the collaboration of different professionals, response groups for emergency and disaster prevention, the involvement of governmental and non-governmental actors, and the participation of the population affected by or vulnerable to tragedies that have occurred in Argentina during the last 25 years. Direct observation of human behaviour in rescue missions, training activities, tests on rescuers, and statistical data must be considered and reviewed.

In this sense, an emergency or disaster is the degree of risk in a society. For this reason, the implementation of a comprehensive risk reduction approach is essential.

**Keywords:** Argentina; disasters; disaster planning; mental health; risks

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### (215) Sickle Cell Patients in the Emergency Department: Report of a Multidisciplinary, Quality Improvement Initiative at an Urban, Academic Hospital

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Sickle cell disease (SCD) is one of the most prevalent genetic diseases worldwide. It affects an estimated 70,000 Americans and healthcare expenditures total (US)\$475 million annually.<sup>1–3</sup> Pain is the most common cause for adult patient hospitalization, accounting for >90% of emergency department visits.<sup>1,2</sup> It is hypothesized that combining the standardization of SCD care in the emergency department with a multidisciplinary, clinical approach will improve patient satisfaction and reduce the cost of care at the emergency department.

Developments include: (1) a standardized emergency department, SCD pain protocol; (2) brief motivational interviewing; and (3) a new multidisciplinary SCD clinic. Clinic referrals will be mediated by social workers, and the clinic team will assist both emergency department patient management and follow-up care.

Statistical process control charts that track monthly intervals will be used in the ongoing evaluation of quality improvement initiatives. Data will be collected on the following: (1) the number of emergency department visits; (2) the number of emergency department patients admitted; (3) length of stay prior to discharge from emergency department; (4) patient satisfaction with emergency department care; and (5) the number of times patients returned to the emergency department within seven days of first admittance. Financial outcomes measured will include: (1) total emergency department charges; (2) reimbursement; (3) cost of care; and (4) net loss.

Baseline emergency department data from January 2005 to August 2006 was collected. There were 341 SCD presentations by 55 patients with a 14.4% admission rate and 20.5% return-rate to the emergency department. Approximate emergency department billing data for pain crisis (excluding admitted patients) totalled \$600,000, with \$145,000 for cost-of-care and a >\$90,000 net loss.

**References:**

1. Ballas SK, Lusardi M: Hospital readmission for adult acute sickle cell painful episodes: frequency, etiology, and prognostic significance. *Am J Hematol* 2005;79(1):17–25.
2. Davis H, Moore RM Jr, Gergen PJ: Cost of hospitalizations associated with sickle cell disease in the United States. *Public Health Rep* 1997;112(1):40–43.
3. Marlowe KF, Chicella MF: Treatment of sickle cell pain. *Pharmacotherapy* 2002;22(4):484–491.

**Keywords:** emergency department; financial outcomes; hospitals; quality improvement; sickle cell disease (SCD)

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### (216) Patient Advocates: Linking Emergency Department Patients to Medical Homes

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**Introduction:** The 14 neighborhoods surrounding the University of Chicago Hospitals (UCH) have Chicago’s highest rates of “ambulatory-care-sensitive condition” hos-