

requires little space for storage.

Methoxyflurane has been used for >27 years in the Australian ambulance services, with minimal problems. It now is used widely by those who provide first aid and by volunteer ambulance staff, of particular importance in Western Australia, where the combination of great distances, remote locations, and lack of paid professional responders is a potential disaster in itself!

**Keywords:** analgesic; Australia; methoxyflurane; pain relief  
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### Epidemiology of Burns in Edo State in Nigeria: Need for Appropriate Documentation and Policy Interventions

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A burns incident of epidemic proportions occurred in Edo State, Nigeria, West-Africa in 2001 between the months of January and February that affected 522 people. A survey was done involving gender and age distribution of the victims involved in the incidents. Out of a total of 522 people, 168 (32.2%) were male and 346 (66.3%) were female; 277 (53.1%) were adults and 221 (42.3%) were children. Eight patients (1.5%) did not have gender recorded, and for 34 (6.5%), no age was recorded. The cause of the epidemic involved the accidental mixing of kerosene with petrol at the point of transference of the kerosene from tank wagons to storage tanks in preparation for sale. Early detection of this mixture was impeded by administrative delays resulting in a wider proportion of the population being susceptible to the epidemic. This study served to highlight the need for proper documentation to facilitate speedy and proper intervention(s) in terms of treatment, management, and policy-making. It identified inadequate methods of documentation and record keeping.

It is hoped that this study would help to sensitize the relevant bodies involved in disaster management in Nigeria; to facilitate the development and implementation of adequate and appropriate policies and infrastructure.

**Keywords:** burns; demography; documentation; incident; information; injuries; management; policies  
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### Report of a Calamitous Snowslide

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The so-called "high altitude" usually means that land is >3,000 meters above sea level. Its geographic environment, weather, natural conditions, and atmospheric pressure are special. This article describes the place where snowslides occur in the Tong Gu La Mountains that are 5,400 meters above the sea level (atmospheric pressure = 420 mmHg, the PIO<sub>2</sub> = 68 mmHg). Persons living there may suffer from hypoxia, pulmonary hypertension, polycythemia, retinal haemorrhages, and other acute mountain sicknesses.

Cause of Snowslides—Snowslides usually occur about 5,000 meters above sea level. The snow-capped tops of the mountains are frozen all year. But, the temperature of the lower part of the snow line is only 10–15°C. Therefore, the

internal part of snow gradually dissolves, and the snow loses its support. Eventually, a snow slide occurs. According to the experience of Xi Zang natives, the snowslides usually appear during June and July.

On 10 June 1990, at the Tang Gu La Mountain Pass (Xi Zang Area), which is 5,444 meters above sea level, a snowslide killed 41 border guards. All were young men (<25 years old), and were submerged under a thick layer of snow. They died suddenly of traumatic apnea [asphyxia]. At the time of the snowslide, environmental conditions of high altitude were poor, and communication traffic was blocked. Hence, the news was obtained 25 hours after snowslide had occurred. The clinical signs of those killed showed that all of the dead persons were submerged under a few meters of snow and died of crush syndrome. When the vocal cords closed immediately, the air in lungs and trachea could not be expelled, the intrathoracic pressure became elevated. The organs in the mediastinum such as heart, aorta, venacava, etc., were displaced. Most venous blood was forced toward non-valvular veins of head, neck, and the upper part of thorax. Clinically, there was subcutaneous ecchymosis and emphysema and conjunctival haemorrhages. No fractures were present. These signs corresponded to those associated with traumatic asphyxia. Prophylaxis of Snowslides—Snowslides usually occur in June and July in areas of high altitude (>5,000 meters above sea level). Anyone wishing to pass through such an area is advised to avoid such a route. If such travel is necessary, one should travel on the northerly slope of the mountains. Guides and the natives of Xi Zang usually mark the safety line with marks before large groups of persons pass through the area.

**Keywords:** altitude; avalanche; emphysema, conjunctival[ hemorrhages, conjunctival; snow-slide; traumatic asphyxia  
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### Method to Transfer Patients to Suitable Hospitals during a Disaster Using Personal Radio Stations

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Following the Hanshin-Awaji (Kobe) earthquake of 1995, victims who might have been saved, but needed special drugs and/or equipment, died because they were not transferred to appropriate hospitals. These unfortunate results occurred because rescue teams could not receive information relative to which hospital to convey the patient. After an earthquake, relay stations for telephones and computers may not be available due to disconnected lines, too much access, and blackouts. Therefore, controlling centers for ambulances cannot relay information to ambulances necessary to choose proper hospitals.

Ham (personal)-radio stations seem to be the best medium to relay such information from hospitals to controlling centers, because: (1) they are available nationwide; (2) they do not rely on telephone lines; (3) they do not need relay stations; (4) they can operate on independent power; and (5) they are operated on an independent basis. The Japan Amateur Radio League is a voluntary association

organized by Ham-radio enthusiasts, and always is willing to assist during disasters.

It is suggested that the league require its members to be designated operators responsible for informing coordination and control centers about available equipment and drugs in the nearest hospital. I would like to Personal radio operators should be incorporated as members engaged in emergency medicine in order to redefine/widen the scope of emergency medicine.

**Keywords:** advantages; assistance; communications; coordination and control; disasters; failure; HAM radio; hospitals

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## Special Forum: Patient Records in the Disaster Setting

### Emergency Medicine (EM) Physicians' and Nurse's Satisfaction with an Electronic Medical Record (EMR)

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**Introduction:** Electronic medical records (EMRs) are developed to support clinical activities by improving efficiency; however, many clinicians are reluctant to use EMRs because of a concern that the use of these records will increase their workload. The purpose of this study was to assess clinician satisfaction with an emergency department (ED) EMR.

**Methods:** This was a cross-sectional study that surveyed all EM physicians and nurses who recently started to use an EMR at a large urban teaching hospital. The 57-item questionnaire assessed: (1) Computer background/experience; (2) Perceptions regarding EMR use; and (3) Concerns about how their use will impact upon quality of patient care. Quantitative and qualitative data analyses were utilized.

**Results:** Twenty three physicians and 21 nurses responded to the survey; a participation rate of 62% and 27%. All received EMR training, and reported frequent use of the system to enter and view patient data. They found the EMR easy to use, and generally were satisfied with the impact of EMRs on their work. However, they did not believe the EMRs had a positive impact on patient care. They reported confusion in following the sequence of screens, and were concerned with the amount of time it takes to use the EMR and about the confidentiality of patient information. Although similar results were found for physicians and nurses, the nurses reported that they have been able to finish work much faster than before implementation of the EMRs ( $p < 0.05$ ). Computer background/experience did not correlate with satisfaction with the use of an EMR.

**Conclusions:** This survey suggests that EM physicians and nurses favor the use of an EMR despite concerns about its impact upon patient care, their workload, and efficiency.

**Keywords:** electronic data; emergency department management; emergency

medicine

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### Model for Medical Records for International Disaster

#### Relief Operations

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During an international disaster relief operation, use of appropriate medical records could ensure correct registration of patients and could aid in effective triage and treatment. The use of a model, Shinchi's Medical Record (SMR), based on experiences during the Honduras Disaster Relief Operation in November 1998. As part of the Japan Self-Defense Forces International Disaster Relief Operation, the medical unit was confronted with many patients who needed immediate care.

The SMR has many merits:

1. It consists of only one page with the medical record, laboratory data sheet, and prescribed drugs sheet. It is very simple, inexpensive, and easy to prepare;
2. The SMR registers urgency class and primary diagnosis, and directs the medical team to which patient should be treated next;
3. Symptoms can be recorded easily and communicated to medical doctors who cannot understand the local language. The triage officer simply circles the symptoms in the medical record. The SMR includes a drawing of the human body, so that the location of a wound can be easily understood; and
4. The SMR also is used as a clinical examination order sheet and report. Doctors just check the box of the laboratory test that they want to order.

**Keywords:** disasters; medical records; Shinchi's Medical Record; SMR; triage

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### Can Standardization Be Achieved in Disaster Medical Responses? The Australian Disaster Triage Standard

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The combined effects of an aging population, the trend towards day and minimally invasive surgery, plus the increasing cost pressures upon hospitals have significant implications upon the availability of health resources during a mass casualty incident (MCI). Experience from the 2002 Bali bomb explosion, highlight the need to standardize disaster medical responses to facilitate cross-border, mutual-aid arrangements.

In 2002, Standards Australia convened a working party to develop a National Standard for disaster triage. The presentation outlines the progress of the Committee, and the problems that have been identified as barriers to the development of the standard.

**Keywords:** aging; Bali explosion; barriers; bombing; dead; disaster; mass casualty; mutual aid; standards; triage

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