code. A vector comprised of six body regions, where a digit indicates the presence of an injury in that region and a hyphen denotes no injury in that region was created. This vector, called MIP, is used as a categorical patient characteristic that is analyzed as would any other variable. Data from the 2006 Lebanon war was used to demonstrate the benefits of the application of this approach.

**Results:** This method enables the association of morbidity and mortality more accurately to the exact profile of a complex injury, clarifying the obscured "multiple injury" diagnosis that resulted in loss of information.

Data on 689 soldiers injured or killed in the 2<sup>nd</sup> Lebanon War was used to demonstrate the application. The fatality rate among casualties with only head injuries was 10%, among isolated chest injuries, 12% yet, among combined head and chest, it was 71.4%. Previously, this information would have been lost.

**Conclusions:** The use of MIP enabled the production of a more comprehensive picture of injury due to the detailed recording of injuries that were previously concealed as part of "multiple". The MIP demonstrates that some combinations of injuries are more deadly, indicating causes of mortality previously masked due to the general category "multiple", or the association with one of the components.

Keywords: multiple injuries

Prebosp Disaster Med

## Analysis of Preventable Deaths According to Post-Mortem Reports in Traumatic Deaths

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The aim of this study was to investigate the preventable deaths due to trauma after autopsies and postmortem examinations were performed at the Diyarbakir Council of Forensic Medicine.

In this retrospective study, descriptive, demographic, type of injury, cause of injury, locations of injuries, cause of death, and scene of death data were examined using the reports of the deaths due to trauma at the Diyarbakir Council of Forensic Medicine between 01 January 2008 and 31 December 2008. Medical errors in these deaths and preventable deaths were analyzed using these data.

Of the 747 cases considered, 31 (4.15%) were preventable, 121 (16.20%) were potentially preventable, and 595 (79.65%) were unpreventable. Suboptimal care in 75 (49.34%), delay in treatment 63 (41.45%), missed diagnosis in 16 (10.53%), clinical judgment error in 16 (10.53), missed medical administration in 11 (7.23%), and other mistakes in 6 (3.95%) of the cases have been found.

When the results were compared with the other studies performed in areas where modern trauma care and trauma centers are located, the preventable death were high. As a result,

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forming modern trauma system and trauma centers have a significant role in decreasing the preventable death ratios. **Keywords:** autopsy; forensic science; preventable death; trauma *Prebosp Disaster Med* 

Survey on Willingness of Emergency Department Staff to Work during Mass-Casualty Events Dr. Juliana Poh; Dr. Seth Puneet Singapore Health Services, Singapore

Introduction: The availability of healthcare staff is vital to effective disaster surge response. Factors likely to affect willingness of staff to work during disasters have been studied in the West. Having experienced high staff turnover during the 2003 severe acute respiratory syndrome (SARS) outbreak in Singapore, the aim of this study was to examine such factors in the Asian context.

Methods: Using a self-administered questionnaire, the aim of this study was to gauge the factors influencing willingness of emergency department staff to work during different disasters and possible incentives to improve turn-up rate. Responses were anonymous.

Results: Twenty-six questions were posed to 206 respondents. During a disaster, only 25 (12.1%) would consider resignation. Of these 25, likely triggers for resigning included long working hours for 16 (64%), use of uncomfortable equipment for 16 (64%), enforcement of compliance with protocol for 11 (44%), and communicable disease outbreak for 21 (84%). A total of 202 (98%) would be interested in receiving training for their role in a disaster. Factors affecting willingness to work included fear and concern for family (139; 67.4%), fear and concern for self (82; 39.8%), personal health problems (75; 36.4%) and childcare/eldercare issues (72; 34.9%). A total of 175 (84.9%) would be encouraged to work with a pay increment. The average increment expected was 46% (range = 5-300%). Participants were most willing to work after a building collapse and least willing to work during a chemical disaster or radiation accident. If incentives were offered, the most popular ones would be insurance for death/injury and extra payment per hour, followed by transport facilities, tax rebates, and volunteers for family care.

**Conclusions:** While most staff are likely to continue working during a disaster, willingness to work can be enhanced if barriers are removed and incentives offered. These findings have significant implications for community and organizational emergency planning and policymaking when resources are limited.

Keywords: emergency department; limited resources; mass-casualty incident; personnel; willingness to work Prebosp Disaster Med

## Glycemia: A Means of Triage during Emergencies S. Abrassart; P. Hoffmeyer

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Introduction: Improved survival rates of patients with multiple injuries have increased the general interest in the quality of polytrauma management. A special and simple score is needed for the triage of the polytraumatized. The