purpose of this study was to observe the polytrauma population and to correlate lesions with initial blood sugar.
Methods: A prospective study was conducted of 204 patients polytraumatized between January 2006 and December 2007; this database is in conformity with the ethics committee. Patients were selected according to the admission code "polytrauma" with National Committee on Aeronautics Score System (NACA) score ≥4. Blood analysis was performed as soon as the patient arrived. For each patient, the Injury Severity Score (ISS) was compared to the blood sugar level.
Results: The ISS and glycemia curve demonstrates a linear relation between the two values, especially for blood sugar concentration <8. Abdominal injuries always increase the level of blood sugar. Simple limb trauma or spine fracture did not impair glycemia, except when associated with open wound fractures, compression syndrome, or paraplegia. The average glycemia of pelvic trauma was 9.0 and the average ISS was 41. Head injury associated with abdominal or thoracic trauma always enhances glycemia when there are life threatening lesions associated. There was no correlation between ISS and age or sex.
Conclusions: High glucose levels may indicate serious lesions according ISS levels; this correlation provides valuable information for prehospital triage and transfer to the best hospital system.
Keywords: blood sugar; glycemia; Injury Severity Score; polytrauma; triage
Prehosp Disaster Med

Resilience of Hospitals in Crisis

Major Ilana Gens, RN, MPH, MOccH
Israel

Introduction: The health system and general hospitals in Israel constitute one of the main pillars for preparing for emergency situations and improvement of hospitals to cope with varying threats.
Background: The 2nd Lebanon War and the ongoing confrontation around Gaza brought a significant change in the perception of threat, emphasizing the fact that in every conflict, the civilian home front will be one of the main objectives of injury.

Despite these high levels of preparedness, hospitals in northern and southern Israel found themselves in a long-lasting crisis situation. While they were under missile attacks, they were expected to be fully functional level. This long emergency situation was a real test of organizational strength and resilience, and emphasized the need for hospital functioning abilities as an essential and decisive component in creating and reinforcing a sense of resilience of the hospital.
Proposed Model: The literature offers several models that discuss dealing with resilience in three key parameters that affect the resilience: (1) personal safety; (2) family safety; and (3) knowledge/preparedness.

During Operation Cast Lead, the three parameters model, which included the following issues was adopted:

1. *Personal Safety*—In order to improve the level of protection in the hospital, the wards from last floors or one-floor buildings were transferred to shelters or other well protected areas;
2. *Family Safety*—Day care centers were opened within hospital facilities, to provide an adequate answer to disabled education system for the stuff children. One of such centers included >300 children for about three weeks, thus allowed to approximately 95% of stuff to continue their work; and
3. *Knowledge and Preparedness*—During routine hospitals are preparing emergency plans including the emergency deployment of their practice. The hospitals that have experienced this kind of emergency situation before managed by downloading hospital occupancy from 100% to 60% and transferring wards to protected areas in three hours.

Additional Findings: In addition to the parameters described above, several other components were found to be able to affect the hospitals resilience:

1. Independent, internal control and coping capabilities of the hospital;
2. Guarantee that essential workers stay in the hospital; and
3. Support of environmental factors including press.

Summary: Early and proper preparation of hospitals can affect all parameters affecting the resilience level of the hospital, which includes improving the level of protection, dealing with arrangements for child care, developing and drilling emergency plans, and guaranteeing that essential workers remain in the hospital.

The model was tested at two hospitals during a relatively small and limited conflict. More research required in more hospitals for the health system learning.
Keywords: hospital; Israel; preparedness; resilient; safe hospital
Prehosp Disaster Med

Collaboration in Disaster Management

Interagency Collaboration Topology for Counteracting Global Threats

Fernando Galindo;[1] Elin Gursky;[2] Ron LaPorte;[3] Faina Linkov;[4] Alessandra Rosddodivita;[5] Eugene Shubnikov;[6] Elisaveta Stikova;[7] Andrey Trufanov;[8] Natalya Vinograd[9]
1. University of Saragossa, Saragossa, Spain
2. ANSER/Analytic Services, Inc., Arlington, Virginia USA
3. University of Pittsburgh, Pitttsburgh, Pennsylvania USA
4. University of Pittsburgh Cancer Institute, Pitttsburgh, Pennsylvania USA
5. San Raffaele Hospital Scientific Foundation University, Milan, Italy
6. Institute of Internal Medicine, Novosibirsk, Russia
7. University "St. Cyril and Methodius", Skopje, Macedonia
8. Irkutsk State Technical University, Irkutsk, Russia
9. Danylo Halytski Lviv National Medical University, Lviv. Ukraine

Introduction: Counteracting global disasters and mitigating their consequences requires cooperative efforts of diverse national and international entities. Effectiveness of such cooperation depends on the information-sharing environment the agencies act within. In robust and productive information interaction that is reflected by its network topology is needed. The network topology is determined only by the graphical mapping of the configuration and connections between nodes (agency employees). This study