Results: This tool builds upon previous design efforts by applying a standardized method for examining the situational dynamics associated with the incident. These include: (1) hospital demographics; (2) disaster plan characteristics; (3) impact of 2005 hurricane season; (4) hospital decision-making and incident command; (5) movement of patients within the facility; (6) movement of patients to other facilities, and (7) hospital recovery.
Conclusions: Applying a standardized hospital evacuation tool provides an opportunity to study both individual and regional hospital evacuation decision-making so that Incident Management Teams may better prepare for the likelihood to evacuate.
Keywords: benchmarking; data collection; decision-making; disaster; evacuation; hospitals; hurricane; incident management teams; regional; standardization
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Video Technologies in Emergency Health Research in Assessing Quality of Care: A Study of Trauma Resuscitation Milestones

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Background: Studies have demonstrated that trauma resuscitation times are predictive of patient outcomes and increased delays are detrimental to patient care. Use of video technologies in emergency research is a novel way of ensuring quality of care and efficiency. Resuscitation times, milestones, and factors that influence golden hour trauma patient care in the emergency department were assessed.
Methods: Following Institutional Research Board approval, video-recorded images of 145 patients presenting with major trauma were analyzed retrospectively during a four-week period. Time to computed tomography (CT) scan, conventional *x*-rays, Lodox Statscan, endotracheal intubation (ETI), insertion of chest tubes, and central venous access was measured from the time of patient admission. A multivariate analysis was performed to account for the influence of diurnal and on-call teams, patient census, Injury Severity Score (ISS), and the effect of Glasgow Coma Scale (GCS) score on time to resuscitation milestones.
Results: The video analysis of trauma resuscitation showed 100% compliance with time to CT within two hours in patients with GCS ≤13. Reduced GCS score and high Injury Severity Scale score were strongly predictive of time to CT and ETI in a multivariate regression analysis (p <0.001). Use of Lodox Imaging low emergency department census was associated with significantly reduced resuscitation times.
Conclusions: Video recording has the advantages of providing accurate times to interventions that are not hindered by poor documentation or the memory of those involved. It can be a useful tool in resuscitation quality evaluation and for identifying variances in process flow that helps addres inefficiencies in emergency care.
Keywords: emergency health; quality of care; research; resuscitation; trauma; video
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Emergency Management in the United States: Fifty Years of Policies, Politics, and Disasters

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Introduction: Emergency management aims to protect victims from disasters. Questions remain regarding how hazards become disasters, their functional attributes, related policy decisions, and who benefits from resulting actions. This presentation discusses who benefits the most from disaster policies and the role that political and social power plays among different socioeconomic groups.
Methods: A review of the literature was performed using keywords on disaster management, public policy, and disaster epidemiology, economic, and social impacts of disasters.
Results: Since 1953, >1,800 disaster declarations have been issued, with <2% for anthropogenic incidents. Sixty-one people per month have lost their lives, mostly from storms with >US$800 billion in damages. Those most protected from disasters are those with greatest loss risks, not the most vulnerable, with an influence from race, class, and socioeconomic status. The failure of the market to provide affordable private disaster insurance forced the government to offer programs such as the National Flood Insurance Program (NFIP), in which the average yearly premium equals US$500 and favors groups with more political and social power.
Conclusions: Disaster costs are distributed widely but benefits are concentrated among powerful special interest groups. Relief represents a small portion of disaster assistance for those who lack the economic, social, or political means to take advantage of it effectively, with the rest supporting more affluent groups. Emergency management must be centered on vulnerability for more equitable distribution of benefits.
Keywords: disaster policy; disaster sociology; disaster vulnerability; emergency management; research
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Compassion Fatigue: The Consequences of Caring

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Introduction: Post-traumatic stress disorder (PTSD) is familiar to many people who have experienced horrific life events. Now, it has come to light that the healthcare professionals who care for these individuals also are at risk for a phenomenon known as "Secondary or Vicarious Traumatization" (ST/VT), and "Compassion Fatigue"(CF). For emergency room staff in particular, the research is almost non-existent.
Methods: Surveys were administered, including a CF self-test from the American Continuing Education Network, the Compassion Satisfaction and Fatigue test, and the Professional Quality of Life Scale.
Results: Preliminary results from nursing staff at an Ontario Level-1 Trauma Center indicated that 70% of staff was at moderate to very high risk of compassion fatigue and had high score for psychological symptomatology.
Conclusions: Compassion Fatigue and Vicarious Traumatization are taking a toll on emergency room pro-

fessionals and increasing the early retirement of experienced staff. It is time to begin the awareness campaign to both prepare new graduates and recognize it in senior staff. How much is enough for our nurses and doctors to give of themselves and their own lives in caring for others in emergency and traumatic life events?

Keywords: compassion fatigue; coping silent witnesses; vicarious traumatization
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Database as an Evidence Base—Lessons Learned from Terrorism-Related Injuries among Israeli Civilians

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Introduction: Terrorist attacks have become a worldwide threat. Many theories and papers have been published as principles for mass-casualty incident (MCI) management. This presentation will analyze these principles to determine if they are evidence based.
Methods: Data on terrorist-related MCIs in Israel registered by the Israel National Trauma Registry between October 2000 and December 2005 were analyzed.
Results: Between October 2000 and 30 June 2003, 1,661 patients were hospitalized and recorded in the Israeli National Trauma Registry due to terrorist-related injuries, and 55,033 were hospitalized due to other trauma. Among terrorist victims, 55% were between the ages of 15 and 29 years, compared to 22% in this age group for non-terrorist-related trauma patients. The results examined the following questions: (1) Arrival and hospitalization patterns: Do severe injuries arrive first?; (2) Triage: Has triage changed due to new mechanisms of penetrating injuries, such as shrapnel, nails, and bolts included in explosives?; and (3) Differences in resource consumption by casualties due to terrorist attacks.
Conclusions: While theories and papers have been published as principles for MCI management, they do not always match the evidence-based data.

Keywords: evidence base; injuries; Israel; research; terrorism
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Comparison of Disaster Response Approaches in Canada and the United States: Ontario's EMAT vs. Florida 1 DMAT

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Introduction: Approaches in disaster response differ between the US and Canada. Since the late 1980s, the US has developed and maintained the National Disaster Medical System that has responded to numerous disasters within the United States. Since the terrorist attacks in New York on 11 September, Canada has taken an interest in disaster response. The province of Ontario has developed a deployable Emergency Medical Assistance Team (EMAT), modeled in large part on the Disaster Medical Assistance Teams (DMATs) in the US. The author is both the Chief Medical Officer of Florida One DMAT in Fort Walton Beach, Florida and an Incident Commander of the Ontario EMAT, giving him a unique perspective on the similarities and differences in disaster response and preparedness between the US and Canada.
Methods: The paper will be a qualitative comparison of the Ontario EMAT and Florida One DMAT based upon the author's work with the two teams.
Results: Florida One DMAT is an experienced, full DMAT in existence since the late 1980s and based upon three deployable teams of 35 persons each (total 105), whereas the Ontario EMAT normally deploys as a single team of >100 personnel. The DMAT is self-sustaining for a minimum of 72 hours in austere conditions, while the Ontario EMAT depends on existing infrastructure to support its operations (living quarters, food, and water must be available at the deployment site). The DMAT is deployable "anytime, anywhere", while the EMAT is primarily intended for surge capacity to assist overwhelmed existing health facilities. There are other notable differences that will be discussed along with a number of similarities.
Conclusions: The US and Canada have chosen different styles for their disaster response teams. Both models have their advantages and disadvantages but seem to work for the needs of their respective countries.

Keywords: Canada; comparison; disaster medical assistance teams; emergency medical assistance teams; response; United States
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Hospital Emergency Department Referral Patterns in a Disaster

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Introduction: During the past 30 years, the emergency medical services (EMS) system has developed into an effective means of delivering prehospital medical care and transporting ill or injured victims to definitive medical care. A main presumption in most hospital disaster planning is that patient arrival will be through a directed EMS response and distributive transport system allowing for the orderly triage of arrivals and the control of numbers arriving at each hospital serving disaster victims. In spite of these systematic strengths, case reports in the literature and major incident after-action reports have shown that most patients who present at a healthcare facility following a disaster or other major emergency do not necessarily arrive via ambulance.
Purpose: If these reports of arrival of patients outside of an organized transport system are accurate, hospitals and EMS systems should be planning differently for a mass convergence of patients on the healthcare system. Hospitals may need to consider alternative patterns of patient referral including self-referral when performing major incident planning and methods to divert non-critical patients to alternate locations.
Methods: A 25-year retrospective review of published data was conducted to identify reports of patient care during disasters or major emergencies that included the categorization of the patient's method of arrival. Data were aggregated and analyzed using a structured mechanism.