

### (A43) Are Injuries due to Terrorism and War Similar? A Comparison of Civilians and Soldiers

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**Objective:** The objective of this study was to compare injuries and hospital utilization and outcomes from terror and war for civilians and soldiers.

**Background:** Injuries from terrorism and war are not necessarily comparable, especially among civilians and soldiers. For example, civilians have less direct exposure to conflict and are unprepared for injury, whereas soldiers are psychologically and physically prepared for combat on battlefields that often are far from trauma centers. Evidence-based studies distinguishing and characterizing differences in injuries according to conflict type and population group are lacking.

**Methods:** A retrospective study was performed using hospitalization data from the Israel National Trauma Registry (10/2000–12/2006).

**Results:** Terrorism and war accounted for trauma hospitalizations among 1,784 civilians and 802 soldiers. Most civilians (93%) were injured in terrorism and transferred to trauma centers by land, whereas soldiers were transferred by land and air. Critical injuries and injuries to multiple body regions were more likely due to terrorism than war. Soldiers tended to present with less severe injuries from war than from terrorism. Rates of first admission to orthopedic surgery were greater for all casualties with the exception of civilians injured in terrorism who were equally likely to be admitted to the intensive care unit. In-hospital mortality was higher among terrorism (7%) than war (2%) casualties, and particularly among civilians.

**Conclusions:** This study provides evidence that substantial differences exist in injury characteristics and hospital resources required to treat civilians and soldiers injured in terrorism and war.

*Prehosp Disaster Med 2011;26(Suppl. 1):s13*  
doi:10.1017/S1049023X11000550

### (A44) Roadmap to Disaster Medicine and Public Health Information

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Reliable & easily accessible health information is needed before, during, and after disasters. The U.S. National Library of Medicine's Disaster Information Management Research Center has developed a portal linking to resources, guides, and tools for use by disaster/emergency personnel in preparing for, responding, to and recovering from disasters (<http://disasterinfo.nlm.nih.gov>). This session will introduce you to many of the disaster health information sources available on the Internet. Disaster information tools, such as the Wireless Information System for Emergency Responders (WISER) and the Radiation Emergency Medical Management (REMM) resource will be demonstrated. WISER assists responders in HazMat/CBRN incidents. Capabilities include support for substance identification, on-site incident management, and health management/guidance. The REMM tool provides guidance for health care personnel about clinical diagnosis & treatment

of radiation injury during radiological & nuclear emergencies. WISER and REMM are available on the Web and as apps for a variety of mobile devices including the Blackberry and iPhone/iPod Touch/iPad. In addition how to access the disaster health literature from PubMed, the Resource Guide for Public Health Preparedness, and other sources will be discussed. Social medial tools for keeping up-to-date will be presented. Topics to be presented: NLM and other US resources for disaster health information. Other sources of disaster health information, including associations; non-governmental organizations, and international organizations. Databases and information aggregators. Disaster information tools and mobile applications Evaluating/assessing information on the web. How to stay up-to-date: listservs, RSS feeds, blogs, Twitter, etc.

*Prehosp Disaster Med 2011;26(Suppl. 1):s13*  
doi:10.1017/S1049023X11000562

### (A45) When Nothing is Left Standing: Nursling's Integral Role during Disaster Response in Indonesia and Haiti

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The purpose of this presentation is to compare the lessons learned in acute nursing care in the post-disaster settings of Aceh Jaya, Indonesia (2004) and Port-au-Prince, Haiti (2010). The impact of such disasters disproportionately affects populations made vulnerable by poverty, marginalization, and structural violence. The recognition of these vulnerabilities heightens the role of the nurse as an advocate for the ill and injured. In addition, the lack of adequate human and material resources on all levels necessitates insisting on best practices for patient care despite the resource constraints. Consideration of best practices begins with rigorous personnel selection of nurses adequately trained in emergency/critical care, complex humanitarian emergencies, and disaster response. A proficient level of resource-specific triage knowledge is required to adequately provide the most effective care to patients. Not infrequently, disaster nursing care involves being tasked with a clinical skill or procedures that would be outside the scope of practice in the home country. While the expansion to such practices often is justified by need, an ethical framework demands consideration of the central tenet of "first do no harm". A heavy burden of coordination among other caregivers, family, and the local staff is required by nurses in this environment. The substantial challenges include communication and continuity of care during the initial response phase among multiple partners with varied backgrounds and goals. Drawing from experiences in Haiti and Aceh, this presentation seeks to define the best practices in disaster nursing care and explore the ethical considerations that arise in such challenging environments.

*Prehosp Disaster Med 2011;26(Suppl. 1):s13*  
doi:10.1017/S1049023X11000574

### (A46) Health Volunteers during the MT. MERAPI ERUPTION: What did Nursing Students Learn?

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**Background:** Undergraduate nursing students are expected to be responsive and competency, particularly during a disaster.

Working as health volunteers is one strategy to develop these skills. However, little research has investigated the experiences of nursing students working as health volunteers during a disaster.

**Objectives:** This study aimed to investigate undergraduate nursing student perceptions and experiences of being health volunteer during the Mt. Merapi eruption.

**Methods:** A non-experimental, descriptive design was used. A sampling of 25 undergraduate nurse students who worked as health volunteers during the Mt. Merapi eruption completed a self-administered questionnaire. The questionnaire consisted open- and closed-ended questions, and was used to measure students' self awareness and what they have learned. Additional questions were asked to prioritize attributes required to be health volunteers. Data were aggregated and analyzed using a simple, descriptive analysis.

**Results:** Undergraduate nursing students had internal motivation of being health volunteers during disaster. Findings of this study illustrated benefits, future impact of being health volunteer, and required attributes of being good health volunteers.

**Conclusions:** Students' perceptions and experiences during disasters underscores important factors in the promotion of disaster management competency in nursing education.

*Prehosp Disaster Med* 2011;26(Suppl. 1):s13–s14  
doi:10.1017/S1049023X11000586

#### (A47) Disaster Nurses in Developing Countries: Strengthening Disaster Nurses' Competencies through Training and Disaster Drills

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**Introduction:** In many developing countries nurses are the front-line of care, yet do not receive appropriate theoretical or clinical skills related to disaster and emergency medicine. The ICN/WHO have outlined disaster nursing competencies for improving disaster nursing globally. These can serve as a basis for strengthening nursing through increased participation in training programs. In Mumbai, India during December 2010, MEMEX II occurred: a 7 day training in disaster preparedness and humanitarian response. This was the first time nurses were included in a separate disaster nursing track to improve skills and knowledge. **Methods:** Through Cornell and Columbia Universities; faculty, Indian nurses clinical competencies and disaster theory were strengthened through training in clinical trauma management, CPR, disaster preparedness and drills, public health evaluation, and the disaster cycle. 700 participants from medical, education, government and private/public entities collaborated in the training program, culminating in a large scale disaster drill and needs assessment workshop for high-level stakeholders.

**Results:** Nurses improved emergency clinical skills and gained theoretical disaster knowledge for the first time. Nurses located at the disaster event site gained important insight into the role of Emergency Medical Services, police, fire, and civilian defense during disaster response. Triage skills were improved and an evaluation component enabled vital information to be collected for hospital preparedness. A video was made for future training and for evaluation purposes. Nurses planned to establish coordination networks amongst the 9 hospitals present to regularly review disaster preparedness plans.

**Conclusions:** Strengthening nursing competencies in disaster planning and emergency response is vital to advancing nursing in developing countries and building capacity through global networking. Through a multi-disciplinary approach, professional networks can be formed, disaster plans reviewed and clinical skills improved. Nursing input is vital to hospital and community preparedness and nurses must be included in training programs and needs assessments.

*Prehosp Disaster Med* 2011;26(Suppl. 1):s14  
doi:10.1017/S1049023X11000598

#### (A48) The Role of Nurse Leader and Humanitarian: Disaster Planning, Management, and Evaluation

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In the blink of an eye, a disaster caused by either natural or man-made hazard can change the sociocultural, psychological, physiological, and geopolitical integrity of all those that are directly and indirectly impacted. Disasters occur in every part of the world and are nondiscriminatory. Nurses, as the largest group of healthcare providers worldwide, are and should be at the center of disaster planning, management, and evaluation. Nurses are there when prevention is needed, during the crisis, and when the cameras and media are gone and the real work of recovery begins. Nurses remain there when the evaluation of the response, in its broadest sense, occurs and when recommendations must be made for applicable modification prior to the next disaster, as nurses are aware there will be more on the way somewhere in the world. As the second largest nursing organization in the world, the Honor Society of Nursing, Sigma Theta Tau International (STTI), has committed to being a leader in improving the health of the world's citizens. This leadership extends to being at the forefront of disaster planning, management, and evaluation. Through its member's use of knowledge, research, scholarship, service, and learning, STTI has created an environment in which they will impact the shaping of how nurses plan for, respond to, and evaluate disasters globally. This presentation will highlight the expertise that STTI has in the area of disaster planning, management, and evaluation, as well as the work that leaders are conducting to make an impact on the world during times of such crises. Discussion also will center on how STTI is continuing to provide leadership, education, service, and research opportunities in the area of disaster planning, management, and evaluation that can be applied throughout the world.

*Prehosp Disaster Med* 2011;26(Suppl. 1):s14  
doi:10.1017/S1049023X11000604