

The National Support Team can provide early, remote, rapid needs assessment within two hours after an alarm is activated and a departure for further assessment on site within six hours. The Joint Task Force should be prepared for departure within 12 hours.

A National Support Team has been educated and trained, and was used during the Lebanon evacuation of Swedes this last summer.

**Keywords:** disaster; emergency; international; preparedness; support; Sweden

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### Importance of Establishing Partnership Abroad for Efficient Disaster Relief

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**Introduction:** MH Thamrin Healthcare Group (Thamrin) in Jakarta requested the Japanese non-profit organization (NPO) Humanitarian Medical Assistance (HuMA) provide medical support in Yogyakarta, an area affected by the Java tectonic earthquake on 27 May 2006. This medical collaboration sprang from a long personal relationship between the President of Thamrin and several core members of HuMA. Humanitarian Medical Assistance offered medical services, and Thamrin managed the logistics.

**Medical and Logistic Collaboration:** Thamrin already had made the following arrangements by the time HuMA arrived in Jakarta: (1) location for the basic clinic and the disaster field mobile site; (2) transportation to disaster area from Jakarta; (3) transportation of overweight medical equipment to Yogyakarta; (4) accommodation for HuMA volunteers; (5) availability of communication tools; (6) accurate estimation of the total budget to reduce total time spent exchanging money; (7) establishment of local staff; and (8) sites for severe injured patients. With these logistics in place, HuMA was able to begin activity immediately.

**Preparedness for Future:** This Java relief mission proved the importance of having established partnerships abroad for efficient disaster relief. After this disaster relief collaboration, we, HuMA and Thamrin had exchanged Memorandum of Understanding for disasters in future. Regularly collaborating and exchanging information with medical counterparts native to an area and understanding the local system enables quick medical care rescue operation when disasters strike that area.

**Keywords:** collaboration; disaster relief; Japan; medical services; partnerships

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### Just-in-Time Training for Medical Reserve Corps Unit Volunteers in a Point of Distribution Clinic Operation: Does it Work?

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The Nassau County Department of Health (NC-DOH) developed a public health Medical Reserve Corps Unit (MRC) to assure adequate surge capacity during public health crises, such as epidemics. With >300 members from diverse backgrounds, including physicians, nurses, pharmacists, veterinarians, dentists, and social workers, the challenge was to develop a program that rapidly would train the MRC to operate cohesively during public health emergencies. The decision was made to utilize a “just-in-time training” (JIT) methodology.

A program for JIT for Point of Distribution (POD) Clinics was developed and implemented. To prepare for JIT, all members received basic training on the incident command system and its utilization by public health. The training emphasized the importance of following the chain of command and using emergency response functional roles. Participants were provided examples of job action sheets and shown how to use them.

The effectiveness of the training was tested when the NC-DOH initiated a massive POD clinic for senior citizens. Over two days, 7,628 seniors reported to one POD location for influenza vaccination. MRC members were utilized to augment POD staffing. At the POD site, each member received a job action sheet and a brief tutorial on his/her emergency response functional role. The operation was evaluated on multiple levels, including the ability of MRC volunteers to function in the POD. All MRC members were fully able to perform their functional POD roles. All MRC members (and the senior citizens) rated the experience as positive.

**Keywords:** clinics; incident command system; just-in-time training; medical reserve corps; public health; roles

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### Comparison of Hospital Incident Command Systems (HICS) in Hospitals of Four Different Countries: Does HICS Mean the Same Everywhere?

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**Introduction:** Hospital Emergency Incident Command System (HEICS) was developed in California following the 1970 earthquake there. The system has been widely recommended within the medical community across the world. Today, it is known as Hospital Incident Command System (HICS). The aim of this study was to determine the similarities, differences, and the originality of HICS in Turkey, South Korea, Greece, and the US.

**Methods:** The applicability, modifications, as well as the usefulness of the U.S.-originated HICS system in Turkish, South Korean, and Greek hospitals were studied. The response of hospital staff in exercises when >20 patients arrive at the emergency department at the same time also was studied. The experiences of providers, medical response provided for the injured following a terrorist attack, scenarios used in different exercises, and overall response systems in these three countries also were evaluated. The presence of similar responses given for similar threats were documented. Within the three nations, the areas studied included: (1) medical response systems against terrorism; (2) scenarios and/or systems about the medical response to a chemical accident or terrorist attack; and (3) medical response systems for nuclear accidents or terrorism.

**Results:** After comparing the results, the differences in response and possible gains following studies that could be done by study groups were identified.

**Conclusion:** Synergistic messages about our observations of disaster medical response experiences in hospitals in Turkey, South Korea, Greece, and the US also have been identified.

**Keywords:** disaster medical response; Greece; Hospital Incident Command System terrorism; South Korea; Turkey

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### Experiences with Frozen Blood Products in the Netherlands Military

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**Introduction:** During peace-keeping and peace-enforcing missions abroad, the Netherlands Armed Forces uses deep frozen blood products stored at -80°C. This study was initiated to validate the quality of the frozen and subsequently thawed products both in the Netherlands and at the site of administration, with special attention to quality control and compliance with (inter)national regulations and guidelines.

**Methods:** Leukodepleted red cell concentrates were glycerolized using the automated cell processor, ACP215, and frozen to -80°C. After thawing, the units were deglycerolized both in the Netherlands and in Iraq using the ACP215, and stored in Nutricel rejuvenating (AS-3) solution for two weeks at 4°C. Leukodepleted fresh frozen plasma units were thawed after release from quarantine, repacked, and frozen to -80°C. Prior to and after the -80°C freezing, concentration of factors V and VIII was determined. Dimethyl Sulfoxide (DMSO) was added to leukodepleted, plateletpheresis units to a final concentration of approximately 5%. The platelets were concentrated and frozen to -80°C. After thawing, the platelets were suspended in thawed deep frozen plasma (DFP) and the platelet count and pH were determined.

**Results:** The quality of blood products, frozen and thawed in the manner described, is in compliance with the European and US guidelines for standard red cell concentrates, plasma, and platelets.

**Conclusions:** A frozen blood bank facility with a stock of frozen, universal, donor blood products can easily, effectively, and safely be used in remote areas, to compensate for periods when few or no donors are available, when the

resupply of blood is impaired and/or when many patients are suddenly in need of blood products.

**Keywords:** armed forces; frozen blood products; The Netherlands; product standards; quality control

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### Session 6: Planning 1

*Chairs: TBA*

#### Relationship between Transformational Leadership and the Organizational Performance of Hospital-Based Disaster Coordinators Using the Multifactor Leadership Questionnaire

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**Objectives:** The United States National Response Plan is rooted in the perspective that disaster preparedness is the responsibility of all jurisdictional levels, from federal to local. The purpose of this study was to assess the leadership styles of the local hospital disaster coordinators in Louisiana who activated their response system and interfaced with other jurisdictional systems during Hurricanes Katrina and Rita.

**Methods:** Hospital performance was assessed to explore its relation to leadership style. Index cases were identified under the National Hospital Bioterrorism Preparedness Program. The analysis included three groups: (1) Designated Regional Coordinators (n = 22); (2) Designated Hospital Coordinators at acute-care facilities (n = 73); and (3) Designated Hospital Coordinators at non-acute care facilities (n = 40). The survey tools were: (1) the Multifactor Leadership Questionnaire; and (2) the Emergency Preparedness Indicator survey. Hospital contexts (i.e., profit structure and licensed bed size) were assessed to explore the potential moderating effects of the relationship of leadership style to performance scores.

**Results:** Transformational leadership had a positive association with hospital performance scores. No significant moderating effects were found, which indicated that the coordinators had similar leadership styles not only between hospitals, but across the statewide hospital response system.

**Conclusion:** The results of this study offers the field of hospital disaster preparedness a benchmark for other programs that support the development of leadership skills at the local level. Implications, limitations, and future studies for leadership research in disaster planning are discussed.

**Keywords:** disaster coordinators; hospital; leadership; organization; preparedness; relationship; questionnaire

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#### Surge Capacity: A Conceptual Framework for Disaster Preparedness and the Need for Reassessment and Research to Develop Readiness Benchmarks

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**Background:** Surge capacity is defined as the ability of a healthcare system to respond to a sudden increase in