missions in which there is an extreme risk for mass casualities (e.g., situations such as battles, disasters, and emergencies). In the present work, a Disaster and Emergency ISE is analyzed as a multidimensional problem. The dimensions of the environment include: (1) disciplines; (2) processes; (3) means; (4) players; (5) time; and (6) resources. Special attention is focused on the content and quality of information, standards, and formats of presentations that are aimed at knowledge enhancement rather than just data exchange. The authors assess time as a crucial parameter that should be taken into account within ISE.

This approach has been the basis of the Supercourse, a library that contains >2,800 free lectures on disaster prevention issues. With the distribution of hurricane lectures in 2005, the use of the Supercourse demonstrated that "Just-In-Time" knowledge can be distributed rapidly and virtually free-of-charge throughout the secure network.

The next step to satisfy time requirements of a modern ISE, is to organize the Supercourse into fast reaction units. The non-commercial scope of the Supercourse is based on the fact that there are numerous experts that are eager to share their knowledge and while the actors on the battlefield lack of time to solve commercial problems. This approach also has been implemented in the Italian Disaster Data Base (IDDB)—a collection of information shared by government institutions, professionals from different fields, non-governmental organizations, and volunteers. The Supercourse and IDDB experience potentially could serve as a model for ISE construction.

Keywords: data sharing; disasters; emergencies; Information Sharing Environment; network
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(185) A Disaster Exercise Is a Useful Environment to Test Scientific Instruments for Disaster Research

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Introduction: Evaluation of medical care during disasters is difficult. During a national disaster exercise (DE), three research instruments (RI) were tested.
Objectives: The main objectives were to investigate the possibility to use a DE as a scientific instrument and to evaluate the DE. Part 1 tested an existing quantitative evaluation tool (ET) of the Health Incident Management System (HIMS). Part 2 tested a triage registration format (TRF) for victim distribution planning (VDP). Part 3 assessed the Casualty Distribution Plan (CDP) and hospital treatment capability (HTC).
Method: The ET was translated, adapted to the national structure, and presented as a questionnaire using a 5-point Likert scale. Data on VDP were gathered from registrations of Mobile Medical Teams, casualty collection points, ambulances, trauma center (TC), and mock victims. Registrations from ambulance services and TC were used for CDP and HTC.
Results: Of all participants, 90% (n = 217) could be contacted about the HIMS; >95% of all questions were answered. The effects of the HIMS were noted as positive except for multidisciplinary cooperation. The VDP of 52 (51%) patients who reached the TC could be traced. Data from triage charts (87%), ambulance charts (57%), TC charts (100%), and MV forms (95%) were retrieved. The TRF could be used to evaluate patient flow; triage decisions could not be evaluated. At one location, patient flow exceeded the established HTC during one hour.
Conclusions: Existing and new disaster RI can be tested during a DE. Improvements, like validation of the RI, have been identified and can be tested during future DE.

Keywords: disaster exercise; disaster research; evaluation tool; Health Incident Management System; research instrument
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(187) Main Factors in Estimating Travel Time after Disasters

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Traveling after events caused by manmade or naturally occuring hazards is an important factor to consider when managing such events. Naturally-caused events such as earthquakes, tsunamis, and floods can impact transportation networks and human behaviors.

By recognizing main factors that can impact the performance of a transportation network, a conceptional method for estimating travel time during events is presented. The methods of this research include observing the human behaviors and physical damage after disasters and classifying them into different groups. By using this method, the main problems after the occurrence of events are recognized, and the associated time delay is evaluated. The results of this research provide a procedure for estimating the travel time for emergency and other types of vehicles after disasters.

Keywords: disaster; event; preparedness; transportation; travel time
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(188) Primary Healthcare System in Small Islands

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Introduction: The primary healthcare system has a crucial role in communities located on small islands and archipelagos stricken by an emergency or disaster. The main purpose of the study was to evaluate the level of emergency preparedness of the primary care system in the Archipelago of the Azores in Portugal.
Methods: A questionnaire was distributed to all 16 Primary Health Care Centres (PHCCs) on the Archipelago: (1) 12 Type 1 PHHCs in those that provide emergency care and in-patient admission services; and (2) four Type 2 PHCCs, those that do not provide in-patient services. The survey responses of Type 1 PHCCs were grouped into six main groups based on criteria and analyzed in "benchmarking categories". Scores for each group were proposed. A final score also was established for

each Centre, with a maximum score of 40 points, which corresponded with the highest level of emergency preparedness.
Results: A total of 15 replies were returned (93.8%). Results from each group applied to Type 1 PHCCs will be presented. The final scores indicate a global low level in terms of health emergency preparedness for this type of health units.
Conclusions: An adequate level of preparedness is mandatory for the PHCCs of small islands and archipelagos. Objective analyses are needed to define weaknesses and consequent measures to correct or diminish them. The proposed criteria to evaluate health emergency preparedness in PHCCs can be used as a practical guidance for other small islands around the world.
Keywords: healthcare system; island; isolated; preparedness; primary health care
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(189) Global Standardization and Organized Deployment to Medical Emergencies and Disasters

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It is the intent of this session to address the importance and necessity of standardization to Global Medical Emergencies and disasters. This objective can be accomplished by standardizing competency profiles of individual responders, equipment, and the alignment of non-governmental organizations and militaries.

This session will address the possibility of organizing for domestic, neighboring, and international responses. By relying on systems and methods already in place around the world, this process may reduce morbidity, mortality, and increase resources stored and deployed around the globe. Recent events around the world have reinforced the need to respond more quickly, more effectively, and with "appropriate" resources.
Keywords: deployment; disasters; global standardization; global medical emergencies; organization
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(190) Introduction of a Minor Injury Clinic to Improve Patient Flow

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Objectives: The aim of this study was to facilitate patient flow, reduce waiting times and Emergency Department (ED) length of stay (EDLOS), and to meet established key performance indicators through the introduction of a minor injury clinic (MIC) at Casey Hospital.
Methods: It was determined that a large number of patients present to the Casey ED with minor injuries (up to 45% of category 4 and 5 patients). This workload created long waiting times for such patients. An MIC was established by securing a specific geographical site within the ED, committing nursing and medical staff, and identifying patients (triaged category 4 and 5, with minor injuries). Nurse initiated x-ray was established (NIX) and data were collected pre- and post-implementation of the MIC. This observational study relied on the retrospective chart review of triage waiting times, EDLOS (all patients), and patient and satisfaction surveys (still to be completed).
Results: The data that have been analyzed to date indicate that triage waiting time and EDLOS for all-comers have improved in the face of increasing demand on this new ED at Casey Hospital.
Conclusions: The introduction of a dedicated MIC stream to this ED has successfully improved triage waiting times and EDLOS. Patient flow has improved, and it can be anticipated that patient and staff satisfaction surveys will indicate that the implementation of a MIC can assist in augmenting the streaming of patients in the ED.
Keywords: emergency department; emergency department length of stay; minor injury clinic (MIC); patient flow; surge
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(191) Improving Disaster Response Tools: A Case for Considering Vulnerable Populations and Persons with Disabilities

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Objective: The National Bioterrorism Civilian Medical Response Center (CIMERC) develops enabling tools aimed at producing an effective, integrated response to complex medical emergencies. The CIMERC continues to work to meet the needs of healthcare organizations, emergency managers, and disaster responders challenged by disparate capabilities and limited resources.
Methods: The CIMERC employs consensus-driven methods to develop novel work products and to further enhance existing tools. One example is the Strategies for Incident Preparedness (SIP), a collection of disaster scenarios designed as a training workbook for use by hospitals and healthcare professionals. The workbook presents a series of incidents ranging from naturally occurring to manmade events, and is designed to allow users to tailor the exercises to their specific demographics, geography and regional needs. The SIP presents thought provoking planning and response questions, as well as country specific reference documents to assist with policy development.
Results: The evolution of SIP and its expansion into the international arena has resulted in the incorporation of local knowledge resulting in substantial enrichment of the tool and increased applicability on a global scale. This process has not only led to the inclusion of planning considerations for the disabled, but to a dedicated consensus effort on emergency preparedness and unique planning essentials for vulnerable and disabled populations.
Conclusion: The purposeful inclusion of the disabled community in all stages of disaster planning positively impacts general preparedness and bolsters the ability to address the needs of the disabled. Such a focus presents an opportunity for significant advances along the preparedness continuum.
Keywords: bioterrorism; disability; disaster response tools; National Bioterrorism Civilian Medical Response Center; prepardness; vulnerable population
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