Health Systems s64

will be referred to development of regional collaboration tools and human resource development programs.

Prehosp Disaster Med 2017;32(Suppl. 1):s63-s64 doi:10.1017/S1049023X17001728

A New Framework and Guideline for Hospital Disaster and **Emergency Planning in Turkey**

Sidika Tekeli Yesil¹, Emine Emer², Serkan Yilmaz³, Mehtap Bulut⁴, Tulay Akgun⁵, Duygu Baskirt⁶, Nuvit Ozgunter Divrik⁶, Hakan Karakas⁷, Hasan Odabasioglu⁶, Fadime Yilmaz Tasci⁸, Gulgun Tezgider⁹, Yesim Unal¹⁰

- 1. Health Management In Disasters, Hacettepe University Institute of Public Health, Ankara/Turkey
- General Directorate Of Emergency Health Services, Ministry of Health, Ankara/Turkey
- 3. Department Of Emergency Medicine, Kocaeli University Medical Faculty, Kocaeli/Turkey
- 4. Department Of Emergency Medicine, Istanbul Medipol University Medical Faculty, Istanbul/Turkey
- 5. Member Of Board Of Directors, International Association of Medical Rescue Teams, Bursa/Turkey
- 6. Department Of Health Services In Emergencies And Disasters, Izmir Provincial Health Directorate, Izmir/Turkey
- 7. Department Of Health Services In Emergencies And Disasters, Diyarbakir Provincial Health Directorate, Diyarbakir/Turkey
- 8. Disasters And Civil Defense Unit, General Secretary of the Association of Istanbul Beyoglu Public Hospitals, Istanbul/
- 9. Member Of Board Of Directors, Emergency Support Foundation, Duzce/Turkey
- 10. Department Of Health Services In Emergencies And Disasters, Istanbul Provincial Health Directorate, Istanbul/Turkey

Study/Objective: A new regulation and guideline for hospital disaster and emergency plans in Turkey have been launched. This study presents the content of the guideline and shares the experiences regarding the process.

Background: Since the 1999 the Marmara earthquake in Turkey, health officials have taken steps towards preparing the health system for disaster situations. The new framework for hospital disaster and emergency plans (Hastane Afet ve Acil Durum Plani – HAP) is one of these steps. Until March 2015 hospitals were preparing their plans without a standardized format. Following the regulation No: 29301 dated 2015, all hospitals (public, private, university, military) have been obliged to prepare their plans according to the new framework and a corresponding guideline.

Methods: The guideline was prepared by a team of experts from the field and academia with different backgrounds. International guidelines such as WHO-EURO's notes for Hospital Emergency Response Plan, Hospital Incident Command System (HICS), WHO-PAHO's Hospital Safety Index were used as references, but the guideline was prepared considering the national experiences and needs.

Results: The framework covers all phases of the disaster cycle. HAP is an umbrella plan, which includes three sub-plans; emergency response plan, incident action plan, special sub-plans. The guideline has three main chapters and a

comprehensive annex. Parallel to the guideline is a set of training materials, such as slides and drill and exercises that have been prepared. To date nearly 200 health personnel in six sessions have been trained as HAP trainers.

Conclusion: With this new framework hospitals will have comprehensive plans, hence better prepare themselves for and respond more effectively to the next disaster. HAP will also enable hospitals to work in harmony during emergencies and disasters, as they have been using the same framework and format. Additionally, it will be easier for hospitals to be part of upper level planning. But there are still challenges to overcome, such as the integration of all disaster plans at all levels, low levels of motivation among health personnel for disaster preparedness, and time and source limitations considering the trainings. Prehosp Disaster Med 2017;32(Suppl. 1):s64

doi:10.1017/S1049023X1700173X

Using Rapid Improvement Event Methodology for Disaster Planning Improvement During Information Technology Failures

Charles Little¹, Christopher Mcstay¹, April Koehler², Justin Oeth², Kelly Bookman¹

- 1. Emergency Medicine, University of Colorado Denver, Aurora/ CO/United States of America
- 2. University of Colorado Health, Aurora/AL/United States of America

Study/Objective: We describe a use of process improvement methodology in disaster planning.

Background: Modern hospitals are very dependent on Information Technology (IT) systems to function. Over the past decade, most US hospitals have transitioned to Electronic Health Records (EHR) with integrated laboratory and radiology systems. Unplanned IT failure represents an internal disaster threatening patient care. The University of Colorado Hospital experienced a complete IT loss for 10 hours impacting care. Many planning assumptions about reverting to "paper" processes were challenged by the large number of changes needed immediately, coupled with the lack of staff familiarity. The incident management system was overloaded with the detailed tasks required for effective response. The traditional disaster response of an After Action Review (AAR), followed by an improvement plan, was felt to be insufficient to rapidly develop the needed corrective processes. Typically the AAR assigns future improvement changes to be made but doesn't make real-time decisions. Methods: A Rapid Improvement Event (RIE) was performed focusing on the emergency department with results designed to be applicable throughout the hospital. The RIE was preceded by a structured preparatory phase, consisted of a two-day participatory phase with key leadership present to make immediate decisions, and followed by a dissemination phase. Very detailed hospital plans were developed for processes of downtime registration, patient flow, laboratory testing, and radiology processes. Additionally, the process for obtaining specialty consults and admitting patients to the hospital were developed. These templates are now in use in the emergency department and undergoing revision for internal hospital use for future unplanned IT downtimes.

Health Systems s65

Results: The use of rapid improvement events is reviewed in the context of disaster, after action reviews, and examples of developed downtime processes will be discussed.

Conclusion: Rapid improvement event methodology can be used to effectively develop disaster preparedness plans.

Prehosp Disaster Med 2017;32(Suppl. 1):s64–s65 doi:10.1017/S1049023X17001741

An Accelerated Incident Command System Course for Hospital Leadership

Charles Little

Emergency Medicine, University of Colorado Denver, Aurora/United States of America

Study/Objective: To design and implement a four hour Incident Command System (ICS) course for training hospital leadership personnel.

Background: Incident management is a key component in hospital disaster response. The higher level US classes, designated FEMA IS-300 and 400, are recommended for training leadership involved in disaster management. Both classes are 16 hours in duration each, and this length of time is prohibitive to getting senior leadership trained. We recognized the cohort of hospital leadership to be taught, represents a select group of highly educated learners who would be capable of rapidly learning ICS.

Methods: We developed a four hour accelerated course that pulls elements of general incident management together in a hospital specific curricula. Online IS 100, 200 and 700 are required as prerequisites. The course integrates basic ICS principles with elements of IS 300 and 400 applicable to hospitals. This material is taught as a blend of review, new lecture content and practical exercises.

Results: The curricula has been successfully piloted with 20 senior physicians and nurse managers. Initial results show they were able to comprehend the material and demonstrate practical application.

Conclusion: An accelerated ICS training course can be used to successfully train hospital leadership in disaster management.

Prehosp Disaster Med 2017;32(Suppl. 1):s65 doi:10.1017/S1049023X17001753

Emergency Preparedness amongst Health Professionals for a Mass Casualty Incident (MCI) in the State of Assam, India *Utpal Kumar Tamuli*

Research Wing, Academy of Trauma, Guwahati/India

Study/Objective: The objective of the study was to identify the basic skills and knowledge of the Health Professionals; impact of the training provided by experienced Doctors and Public Health Professionals of our NGO 'Academy of Trauma' (AOT); and to spot the barriers in handling Mass-Casualty Incident (MCI) in the state of Assam, India.

Background: Assam is prone to natural disasters (flood, earthquakes) and manmade disasters due to its unique geopolitical position. Such disasters slow development, causing massive impact on existing health care services. Realizing that there

is a gap in preparedness of the health care system in handling MCI, our NGO "Academy of Trauma" has imparted training amongst 850 Doctors and 1,250 paramedics for capacity building in Emergency Trauma Care in all districts of Assam. Methods: Academy of Trauma (our team) followed the World Health Organization (WHO) module for trauma training for disasters, with modifications to suit local needs/conditions. Preand Post-training evaluation was conducted to evaluate and determine the impact of the training. We conducted trauma simulations regularly. Interviews were held with focus groups. Field Studies were done to assess the vital barriers of MCI.

Results: A significant improvement of skills and knowledge post-training. Inadequate ATLS knowledge. Under-trained Human Resources. Poor Transport & Communication facilities. A lack of Mock Drills. Insufficient logistics & infrastructure. Improper on-site management. Lack of Community Participation. A pessimistic attitude of the Doctors. Technobureaucratic hindrance. Financial Constraints.

Conclusion: The reports of the training were submitted to the responsible authorities periodically and steps are being initiated to improve the quality of the health services. Existing programs, like training of Medical Professionals, increased within the number of Trauma Centers; provisions of well-equipped ambulances and boat-clinics; procurement of basic logistics; establishment of a telemedicine system; and public awareness campaigns are on the fast track to improve mass-casualty incident handling in the state of Assam.

Prehosp Disaster Med 2017;32(Suppl. 1):s65 doi:10.1017/S1049023X17001765

Health Risks of First Responders following a Meteorological Disaster

Katie Subbotina

Emergency Management, Paladin Security, Toronto/Canada

Study/Objective: The objective of this study is to create a comprehensive list of health hazards following meteorological disasters, to aid first responders in preparation for their deployment.

Background: Globally there were a total of 125 meteorological disasters in 2016, a number of which required international deployment of first responders. Deploying responders arrive at the location of the event in various states of their personal health, and thus will have different responses to existing health hazards. If previous deployments are not taken into consideration, for example, they can hinder response efforts by introducing contaminants to an already vulnerable population, as was the case in Haiti which caused 8,300 deaths from Cholera bacterium. It is imperative to effectively prepare first responders for their deployment to prevent them from becoming victims themselves, using limited local resources and to ensure that they are available to perform their duties for the duration of their deployment.

Methods: There are three models for studying health; they are biomedical, sociological, and political economy (Birn, 2009, p133). Each model identifies areas of concern and directs research methodology, however, neglects to consider the complexity of health that would address an individual's vulnerability