

status, last-minute booster doses required, and the number of emails sent by the assessor in processing the records. The number of phone calls made and received were not recorded.

Results: To complete the skills matrix for a field hospital containing an emergency department and operating theater (an EMT type 2), 61 members were nominated. At the time of assessment, 32 (52%) were fully immunized, requiring no further booster doses (vaccinations or serology tests). Three members were removed from the deployment as they were not fully immunized. Last-minute booster doses were required by 27 (44%) members, with a total of 74 booster doses administered (range 0-5). 19 of the booster doses administered were immunizations required to work in any health facility in Australia. The most common vaccines requiring booster doses were rabies (n=21) and typhoid (n=15). 58 emails were sent over a period of 5 days to 24 members to clarify vaccination status.

Discussion: This deployment highlighted a gap in members' perception of their immunization status, leading to delays in deployment readiness for the team. A new electronic system where vaccine status tracking occurs in real time should address this issue.

Prehosp Disaster Med 2019;34(Suppl. 1):s137-s138

doi:10.1017/S1049023X19003030

The Impact of the New European Union General Data Protection Regulation (GDPR) on Data Collection at Mass Gatherings

Dr. Annelies Scholliers^{1,2}, Mr. Dimitri De Fré^{2,3}, Mrs. Inge D'haese², Mr. Stefan Gogaert²

1. Department of Anaesthesiology and Perioperative Medicine, University Hospital Brussels, Jette, Belgium
2. Mass Gathering Solutions, Wambeek, Belgium
3. University Hospital Gasthuisberg, Leuven, Belgium

Introduction: As of May 2018, a new European privacy law called the General Data Protection Regulation (GDPR) is in order. With this law, every organization operating in the European Union (EU), needs to adhere to a strict set of rules concerning collection and processing of personal data.

Aim: To explore the consequences of the GDPR for data collection at mass gatherings in the European Union.

Methods: Since the law was published on April 27, 2016, a thorough reading of the law was conducted by 4 persons with a background in mass gathering health. The GDPR consists of 99 articles organized into 11 chapters. There are also 173 recitals to further explain certain ambiguities. Key articles and recitals relating to healthcare and scientific research were identified. Possible pitfalls and opportunities for data collection and processing at mass gatherings were noted.

Discussion: Under article 4, key definitions are noted. There is a clear definition of "data concerning health". According to the GDPR, health data is a special category of personal data which should not be processed according to article 9(1). However, there is an exception for scientific research (article 9(2)(j)). There are a few safeguards in place, as laid out in article 89. One interesting point is that according to article 89(2), certain derogations can take place if the law interferes with scientific research. The GDPR has major consequences for data collection and processing in the EU. However, with the use of certain safeguards (e.g.,

pseudonymization) there are still ample opportunities for scientific research. It is important to review one's method of data collection to make sure it complies with the GDPR.

Prehosp Disaster Med 2019;34(Suppl. 1):s138

doi:10.1017/S1049023X19003042

Impact Scale for the Continuity of Care in Contingency Management Situations - Operationalization of the Crisis Standards of Care

Mr. Roel Geene¹, Dr. Pieter van der Torn², Dr. Dennis den Hartog³

1. Trauma Centre Southwest, Erasmus MC, University Medical Center Rotterdam, Rotterdam, The Netherlands
2. Itineris Consultancy, Rotterdam, The Netherlands
3. Trauma Research Unit, Department of Surgery, Erasmus MC, University Medical Center Rotterdam, Rotterdam, The Netherlands

Introduction: A common language is needed to compare the impacts of incidents, crises, and disasters among health care coalition members, such as emergency medical services, general practitioners, and hospitals. A generic impact scale was developed, based on the Crisis Standards of Care, and was put to the test during the 2017 and 2018 winter/flu-seasons.

Aim: To define an impact scale for the quantitative assessment of the hospital response to incidents, crises, and disasters.

Methods: An impact scale has to be generally applicable to be useful in the context of a health care coalition. It should be applicable to all hazards and all parties in proactive and reactive, real-time settings. In addition, the scale should be easy to understand and score and should be independent of the various information systems in use. The Crisis Standards of Care were chosen as basis and were operationalized in a seven-point Likert-scale for expert-based scoring: "No impact," "Buffer capacity needed," "Buffer capacity sufficient," "Unusual adaptations to care needed," "Unusual adaptations sufficient," "Disturbance of continuity of care inevitable without external assistance," and "Disturbance of continuity of care inevitable."

Results: During the 2017 and 2018 winter/flu-seasons, crisis managers of ten hospitals scored the scale almost daily for three months. This served as a regional monitor and created the possibility to distribute patients and resources more evenly over the hospitals and with the care sector.

Discussion: The impact scale improved communication and mutual understanding between hospitals and with other health care organizations, and is expected to have helped in maintaining the continuity of care during the 2017 and 2018 winter/flu-seasons. More research is needed on the reliability of the response. Nevertheless, the scale has since become an integral part of the regional contingency planning.

Prehosp Disaster Med 2019;34(Suppl. 1):s138

doi:10.1017/S1049023X19003054

Implementing Guidelines for Ambulance Services

Dr. Rubije Hodza-Beganovic, Mr. Henrik C. Carlsson, Mr. Henrik Lidberg, Dr. Peter Berggren
KMC/IMP, Linköping, Sweden

Introduction: If there is consensus about how to handle a patient with a specific condition, from the ambulance service point of view, it matters less for the patient which ambulance arrives to take care of the patient. Guidelines are a way of standardizing treatment or management of the patient for a given patient condition. Clear and implemented guidelines that promote the handling of the patients is done from best practice and are evidence-based according to the best ability of the organization.

Aim: The aim of the current study was to implement guidelines into an organization that was not currently using guidelines. The study was conducted as a collaborative effort between a Swedish pre-hospital training organization and the local ambulance service organization in Kosovo.

Methods: An iterative process of implementing the guidelines was applied:

1. Identify guidelines appropriate for the local organization. For each iteration, five guidelines are chosen.
2. Have the five guidelines translated into Albanian.
3. The guidelines are adapted to local conditions and context.
4. The five guidelines are approved by an expert group.
5. The five guidelines are implemented in the organization.

Results: The initial iteration included was carried out in the form of a workshop where 22 persons (doctors and nurses) from the local ambulance service in Kosovo participated. During the workshop, the first three implementation steps were taken, while remaining steps were carried out by the local organization.

Discussion: With the local management and ambulance personnel involved throughout the process, the implementation of guidelines were delivered in a more feasible way as well as more easily accepted and adhered to. Supporting a standardized treatment or management of the patient will benefit future patients. These standards should be based in evidence-based practice adopted to local conditions.

Prehosp Disaster Med 2019;34(Suppl. 1):s138-s139

doi:10.1017/S1049023X19003066

Improving Emergency Preparedness among Children with Special Health Care Needs in a Pediatric Infant Disease Clinic

Dr. Sukhshant Atti¹, Mr. Eric Persaud², Dr. James Salway², Dr. Ramon Gist², Ms Patricia Roblin², Dr. Stephen Kohlhoff², Dr. Bonnie Arquilla²

1. Emory University, Atlanta, United States
2. SUNY Downstate University, Brooklyn, USA

Introduction: Children with Special Health Care Needs (CSHCNs) are at an increased risk for physical, developmental, or emotional conditions, and require special services beyond what is typically required by children. Improving emergency preparedness amongst families with CSHCNs has been advocated by the Centers for Disease Control (CDC), Federal Emergency Management Agency (FEMA), and The American Academy of Pediatrics (AAP).

Aim: We evaluated the preparedness of children and family members, who are infected, or affected, by HIV illness and require daily medications.

Methods: A convenience sample was used to enroll patients and their parents at a pediatric infectious disease clinic. Surveys were used to assess baseline emergency preparedness. Patients were then given an educational intervention on improving personal preparedness. Participants were provided with emergency go-kit and educational materials. Follow up was completed in 30 days to re-assess preparedness by re-administering the initial survey with additional questions.

Results: Thirty-eight patients were enrolled and 10 were lost to follow up. Data from a total of 28 patients were used for study results analyses. Chi-squared testing was used for non-parametric variable analyses for an $N < 30$. Participants who designated an emergency meeting place outside of their home, post-intervention, were statistically significant-X² (1) = 29.20, p-value <0.0001. Participants who completed an emergency information form, post-intervention, were statistically significant-X² (1) = 13.69, p-value <0.0002. Participants who obtained an emergency kit of supplies for 3 days, post-intervention, were statistically significant-X²(1) = 8.92, p-value <0.0028. Participants who obtained a home first aid kit, post-intervention, were statistically significant-X²(1) = 12.16, p-value <0.0005. Five families obtained an emergency supply of medications, post-intervention-X² (1) = 1.99, p-value = 0.1582. This result was not statistically significant.

Discussion: This study demonstrates that brief educational intervention has potential to improve the preparedness of CSHCNs, including those living with HIV illness.

Prehosp Disaster Med 2019;34(Suppl. 1):s139

doi:10.1017/S1049023X19003078

The Incidence of Post-Traumatic Stress Disorder Among Healthcare Providers After the 2018 Taiwan Hualien Earthquake

Dr. Jen-Hao Nieh, Dr. Pei-Fang Lai, Dr. Kuang-Yu Niu
Hualien Tzu Chi Hospital, Hualien, Taiwan

Introduction: On February 6, 2018, a magnitude 6.2 earthquake struck Hualien, Taiwan. Over 150 patients crammed into the emergency department of nearby hospitals within two hours. Mass casualty incident (MCI) management was activated. During the recovery phase, little attention was paid to the mental health of hospital staff.

Aim: To analyze the prevalence of post-traumatic stress disorder (PTSD) among healthcare providers (HCPs) and explore the possible risk factors.

Methods: 63 HCPs in the emergency department of the single tertiary hospital near the epicenter were included. The Chinese version of the Davidson Trauma Scale (DTS-C) was used to evaluate the prevalence of PTSD. Questionnaires were sent to explore the possible contributing factors.

Results: The average age of the HCPs was 32.7 years (30.3 years for nurses; 40.4 years for physicians). The prevalence of PTSD was 3.2% eight months after the incident. The mean DTS-C score was 8.9/136. Nurses had a higher score than physicians (10.8 and 4.7). HCPs with 6-10 years working experience had the highest score (14.2), while those with less than 3 years experience had the lowest (4.8).