

likely to work in austere work environments. This research raises questions of the safety of pharmacists working outside their scope and in austere environments and whether it is safe for them, their patients, and the broader community.

Prehosp Disaster Med 2019;34(Suppl. 1):s101–s102

doi:10.1017/S1049023X19002097

Are They Qualified and Trained to Manage Disasters?

Mr. Kevin Rowe-Rowe

Free State Department of Health, Bloemfontein, South Africa

Introduction: In the South African environment, the possibility of lack in the disaster response education and training fraternity was attempted to be mitigated with legislation. The National Disaster Management Framework (2005:162–169) states that national, provincial, and municipal organs of state need to plan, organize, and implement training programs relevant to their respective areas of responsibility. The South African Disaster Management Act (South Africa, 2002:19) encourages a broad-based culture of risk avoidance and the promotion of disaster management education and training throughout South Africa.

Aim: As an organ of the state and a role-player in disaster management the Free State Emergency Medical Services (FS EMS) is responsible for making strategic decisions. Managers and supervisors are obliged to be trained and educated in disaster management. The study ascertained whether managers and supervisors are being trained and educated in disaster management as required by legislation.

Methods: The project made use of quantitative data whereby fifty EMS managers and supervisors in the Free State Provincial Government (FSPG) were assessed by using a questionnaire.

Results: The study found that 66% of the respondents did not receive training to equip them to fulfill their disaster management functions. The remaining 34% indicated that they did receive aspects of disaster management training.

Discussion: Based on the quantitative scores for the different indicators, the research found that there are shortcomings in disaster management qualifications and training among the EMS supervisors and managers in the FSPG EMS. However, the findings make it clear that there are several positive aspects in the already established practice of disaster management education and training in the FS EMS. The results indicated that there is an opportunity for revision and improvement that will contribute and empower the FS EMS managers and supervisors to meet legislative requirements towards disaster management training and education.

Prehosp Disaster Med 2019;34(Suppl. 1):s102

doi:10.1017/S1049023X19002103

Are We Ready for Bioterrorism? Health Personnel were Affected by Contaminated Meat Cooked at a Daily Routine Hospital Kitchen

Mr. Volkan Ülker^{1,2}, Ass.Prof. Dr. Özcan Erdoğan¹

1 Bezmilâem Foundation University, İstanbul, Turkey

2 Sakarya University Research and Education Hospital, Sakarya, Turkey

Introduction: Salmonellae are gram-negative motile bacilli. The transmission of salmonellae to a susceptible host usually occurs from the consumption of contaminated foods. Most persons infected with *Salmonella* develop diarrhea, fever, and abdominal cramps 12 to 72 hours after infection. The illness usually lasts four to seven days, but can be severe enough to require hospitalization.

Aim: Describe a hospital kitchen based mass foodborne infection.

Methods: Descriptive analysis of the foodborne infection event.

Results: 310 health personnel were contaminated from lunch that was cooked at our hospital kitchen. On that day 70 patients came to the emergency department for complaints of vomiting, fever, and diarrhea. During the next two days, we canceled all planned surgical operations. At the second day, we followed 80 patients and third day 150 patients came to our emergency services. Our emergency services and intensive care units were blocked because of personnel illness. We examined all patients, got blood tests and stool stains and cultures. Because of this mass casualty contamination, our infection control committee gave formal information that suspicious of Salmonellosis. 13 of 310 infected health personnel were hospitalized. They got intravenous saline and electrolytes support like calcium and potassium. After two days we got Results of stool cultures, there was inoculation of *Salmonella* types. None of them died.

Discussion: We realized that we are not ready for mass casualty incidents like this contamination. Because our patient flow was really blocked. We had to call in new doctors and nurses from different hospital staffs. The event was similar to bioterrorism conditions and we suddenly have to put in place hospital disaster plans at the beginning of decontamination. This situation made us to recognize bioterrorism agents like *Salmonella* types. We have to raise awareness of the community about chemical, biological, radiological and nuclear agents attacks.

Prehosp Disaster Med 2019;34(Suppl. 1):s102

doi:10.1017/S1049023X19002115

Assessing the Efficacy of a One-day Structured Induction Program in Orienting Clinical Staff to a Novel Prehospital Medical Deployment Model

Ms. Crystal Gao^{1,2}, Dr. Zheng Jie Lim^{1,3}, Ms. Sabrina Yeh^{1,2}, Dr. Scott Santinon^{1,4}, Mr. Scott De Haas¹, Ms. Kristy Austin¹

1. St John Ambulance Victoria, Mount Waverley, Australia

2. Monash University, Clayton, Australia

3. Ballarat Health Services, Ballarat Central, Australia

4. Alfred Health, Melbourne, Australia

Introduction: St. John Ambulance Victoria provides first aid and medical services at a variety of mass gathering events (MGEs) throughout Victoria. Volunteer healthcare professionals and students (termed “volunteers”) form Medical Assistance Teams (MAT) at these MGEs. MAT deployments manage a variety of patient presentations which include critically ill patients. This reduces high acuity patient transfers to the hospital and, where possible, avoid ambulance and hospital utilization.

Aim: To determine the effectiveness of interdisciplinary pre-hospital simulation workshops in preparing volunteers for MAT deployment at MGEs.

Methods: A one-day, simulation-based training session within the MAT environment was implemented to introduce volunteers to the management of various scenarios faced at MGEs. All volunteers were provided an orientation to the equipment and setting up MAT deployments at MGEs. Volunteers then participated in interdisciplinary group-based scenarios such as cardiac arrest management, drug intoxication, spinal injuries, agitated patients, and airway management. To determine the effectiveness of this training session, volunteers were invited to participate in a post-training survey, comprising of Likert scores and open-ended responses.

Results: Seventeen volunteers attended the training session with 10 (58.8%) completing the post-training survey. Volunteers were satisfied with environment familiarization in the MAT (Average 4.47/5.00) and found the simulation-based training helpful (Average 3.67/4.00). The induction overall was well-received (4.60/5.00) with volunteers feeling more confident in being deployed at MGEs (4.20/5.00).

Discussion: The results of the simulation-based training session were positive with volunteers receptive to the need for a training day prior to MAT deployment at MGEs. The simulation session enables volunteers to be comfortable with working in MAT and managing a diverse range of patients at MGEs. This session is likely to improve interdisciplinary communication and teamwork in the MAT. Future research is aimed at following these volunteers after several MAT deployments to improve the training session for future participants.

Prehosp Disaster Med 2019;34(Suppl. 1):s102–s103
doi:10.1017/S1049023X19002127

Assessing the Impact of a New Emergency Triage System on Head Injury Mortality: Tikur Anbessa Specialized Hospital Emergency Department in Addis Ababa, Ethiopia

Dr. helena Fantaye¹, Dr. Amanuel Lomencho², Dr. Pol de vos³

- 1 Ministry Of Health, Ethiopia, Addis Ababa, Ethiopia
- 2 American Medical Center, Addis Ababa, Ethiopia
- 3 Institute of Tropical Medicine, Antwerp, Belgium

Introduction: One of the improvements in Ethiopia's emergency medical system was the introduction of a five-level Emergency Triage System (ETS) in January 2015 that was piloted in selected Addis Ababa hospitals.

Aim: To assess the effect of this intervention on the head injury mortality in Tikur Anbessa Specialized Hospital (TASH) Emergency Department (ED).

Methods: Data were retrospectively collected from all medical records of head injury patients seen in Adult TASH- ED over two 6 months periods, before and after the new Emergency Triage System implementation: 01/04/2014 – 30/09/2014 versus 01/04/2016 – 30/09/2016. An inclusion criterion was age above 13 for the records that could be retrieved. Exclusion criterion was "patient declared dead on arrival." Mortality and patterns of head injury were compared pre- and post-intervention. Chi-square was used for the analysis using STATA 14.

Results: A total of 522 Head injury patients were analyzed in the ED in both the pre- 258 and post-264 intervention study periods. Among head injury admission in the ED in both study periods, the highest number of patients were Road Traffic Accident/ RTA/ victims, males and young age (<30). Mortality rate among head injury patients decreased from a pre-intervention 44 (17.05%) to post-intervention 27 (10.2%) (OR=0.55 9.5% CI (0.32, 0.95), p=0.02). The median age of death was 45 years in pre- and 40 years in the post-intervention period, with ages ranging from 13 to 85 and 13 to 96 years, respectively. The proportion of deaths from moderate head injury decreased significantly from 14.0% in pre-intervention to 6.3% in the post-intervention period, respectively (p<0.001).

Discussion: The Emergency Triage System at TASH-ED has decreased mortality caused by head injury. This could increase life years saved and productivity in a cost-effective and easily achievable way in resource-poor settings.

Prehosp Disaster Med 2019;34(Suppl. 1):s103
doi:10.1017/S1049023X19002139

Assessment of Emergency Medical Rescue Ability of Secondary and Tertiary Hospitals in One City Responding to the Risk of Production and Storage of Hazardous Chemicals

Dr. Xu Hu

West China Hospital, sichuan university, Chengdu, sichuan, China

Introduction: With the development of the economy and the expansion of the hazardous chemicals industry in one city, it is necessary for the city to establish an evaluation model of emergency medical rescue capability for hazardous chemicals production, storage, and exposure risk.

Aim: Establish an emergency medical rescue capacity evaluation model for secondary and higher hospitals in a city to deal with exposure risks of hazardous chemicals.

Methods:

1. Develop an expert consultation form
2. Develop a survey on the status quo of emergency medical rescue capacity of hospitals in secondary and above hospitals in response to exposure and risk of hazardous chemicals production and storage.
3. Calculate the weights of the first, second, and third-grade indicators, and establish a comprehensive evaluation model for the rescue capacity assessment of Chengdu hospitals.

Results: Five levels of first-level indicators were obtained, namely, the weights of the five indicators of "centralized admission ability," "hospital comprehensive ability," "emergency management ability," "material equipment capability," and "health emergency team" were 0.2884, 0.2219, 0.1938, 0.1507, and 0.1453, respectively.

Discussion: The establishment of an emergency medical rescue capacity evaluation model for the risk of exposure and storage of hazardous chemicals in secondary and higher hospitals in a city is related to five capabilities, the most important of which is the ability to focus on admission.

Prehosp Disaster Med 2019;34(Suppl. 1):s103
doi:10.1017/S1049023X19002140