

Introduction: Hospital preparedness for a massive influx of victims relies, to a certain extent, on actions, programs, and systems that are created and executed ahead of time, but also on the knowledge, skills, and professional competences of the hospital's staff. This study aims to understand the factors influencing the preparedness of Tunisian University Hospital staff in facing a massive influx of victims.

Method: This is a multi-method qualitative descriptive study, conducted in nine general University Hospitals (UH) in Tunisia; the first component was a phenomenological design via open-ended interviews; the second component was a qualitative observational non-participatory design via field observations.

Results: 17 participants were recruited, in an intentional non-probabilistic way. Participants to this study discussed issues related to the material and financial resources of their hospitals; the psychological impact of managing an influx of victims; their training, their involvement in the process, and the norm versus the circumstances in the field. Which led to the conclusion that: "For multiple reasons, the Tunisian University Hospitals are not ready to properly manage a massive influx of victims"

Conclusion: This multi-method qualitative study discussed the factors that affected the preparedness of staff and readiness of UHs included. Factors were mainly resources (material and financial), psychological burden, lack of training, lack of involvement in the process and issues related to evidence-based practice. Data collected supports the idea that more research and more practical interventions need to be performed to increase the preparedness level of Tunisian UHs and their staff.

Prehosp. Disaster Med. 2023;38(Suppl. S1):s165-s166

doi:10.1017/S1049023X23004302

Trauma-related Mental Health in the Context of the COVID-19 Pandemic: Findings from a 'Living' Systematic Literature Review

Anouk van Duinkerken^{1,2}, Mark Bosmans PhD¹, Christos Baliatsas PhD¹, Elske Marra PhD³, Michel Dücker PhD^{1,2}

1. Netherlands Institute of Health Services Research, Utrecht, Netherlands
2. University of Groningen, Groningen, Netherlands
3. National Institute for Public Health and the Environment, Bilthoven, Netherlands

Introduction: This contribution is based on the findings from a 'living' systematic literature review seeking to understand the short and long term health impact of the COVID-19-pandemic. Emphasis is placed on the prevalence and risk factors of trauma-related mental health outcomes in the context of the pandemic. Especially when it comes to Post Traumatic Stress Disorder (PTSD), it is questionable whether exposure types that are typical to the pandemic match the essence of the disorder. Our objective is to verify whether the international literature sufficiently distinguishes pandemic related exposure from other risk factors such as social demographic characteristics and non-pandemic related exposure to threats and life events.

Method: This part of the 'living' systematic literature review is conducted under the umbrella of the Dutch Integrated Health Monitor COVID-19. In order to guide a research-driven data collection, several databases were searched for studies published during the pandemic. At the moment of abstract submission the protocol was published in Prospero and screening was in progress. Observational, quantitative studies including a specified exposure/event and a trauma-related mental health outcome measure are included. The included studies will be categorized based on type of exposure/event. Pooled prevalence will be calculated if studies are sufficiently homogeneous.

Results: In progress.

Conclusion: The results from this literature review are likely going to confirm that a substantial part of the international literature is polluted with studies promising to contain information on PTSD and other trauma-related health effects of the COVID-19 pandemic, yet running short of linking symptomatology to particular types of exposure and risk factors. If this is the case, a risk exists that public health authorities are being recommended to apply preventive and curative trauma-focused interventions based on an ambiguous knowledge base. The results will be presented during the conference.

Prehosp. Disaster Med. 2023;38(Suppl. S1):s166

doi:10.1017/S1049023X23004314

Methods for Hospital To Promote Disaster Preparedness Against Loss of Power

Junko Ikeuchi

Setsunan University, Osaka, Japan

Introduction: The 2018 Hokkaido earthquake caused a power outage in all of Hokkaido. In Japan, several hospitals have generators for outages. However, when electricity is lost, several hospitals are disrupted because they are accustomed to having a stable power supply on a daily basis. This study describes the efforts of a hospital that were not accustomed to disaster response to evaluate and implement power-loss countermeasures. The purpose of this study is to measure the usefulness of hospital power-loss countermeasures.

Method: 1) Classification of Japan's existing power-loss countermeasures.

2) Hospital evaluation of the classified power-loss measures.

3) Confirmation of the usefulness of the hospital's power-loss countermeasures.

Results: Power-loss countermeasures were classified into four categories. 1.) Equipment enhancement: this measure is expensive but can prevent loss of power, 2.) Purchase of goods: this measure is inexpensive and alternative power is available, 3.) Manual creation, and 4.) Training. Training measures can help smoothen the hospital's response after a loss of power. A hospital evaluated whether those measures were appropriate for that hospital. As a result, some of the measures were immediately put into practice.

Conclusion: This hospital was not accustomed to disaster response, and at first, they did not seem to know where to apply countermeasures. However, after implementing the measures, the hospital announced within its organization that the next step was training. It became clear that by presenting specific

measures and evaluation methods, the hospital could create good practices. In the future, web-based evaluation methods should be developed so that all hospitals in Japan can work on measures to counteract power loss.

Prehosp. Disaster Med. 2023;38(Suppl. S1):s166–s167

doi:10.1017/S1049023X23004326

Simulation Model of Required Pre-deployed Auto-injectors and Stockpiled Antidotes against Chemical Terrorism

Yuichi Koido MD, PhD¹, Kouki Akaboshi MD¹, Ruki Masudome², Manabu Ichikawa², Ayako Takahashi MD³, Akinori Wakai MD¹, Hideaki Anan MD⁴

1. National Hospital Organization Headquarters DMAT Secretariat, Tachikawa, Japan
2. Shibaura Institute of Technology - Faculty of Systems Science and Engineering, Tokyo, Japan
3. Aichi Medical University Research Center for Disaster Medicine, Nagoya, Japan
4. Kanagawa Prefectural Government, Yokohama, Japan

Introduction: Chemical terrorist attacks using nerve gas require patients with immediate administration of antidote, or otherwise they will experience abnormal neurological activity, respiratory arrest, and death. When it occurs in large stadiums at mass gatherings such as the Olympics, under normal medical care systems, preventable deaths occur due to insufficient deployment of on-site auto-injectors and stockpiled antidotes in hospitals. In Japan, the government has stockpiled antidotes in confidential warehouses and deployed auto-injectors around possible terrorist sites. When a chemical attack occurs, a stockpile of antidotes go to hospitals, auto-injectors go to the site, and firefighters and police are allowed to administer auto-injectors to patients. However, few studies are conducted on pre-deployment of auto-injectors and antidotes in chemical terrorism. Therefore, the number of pre-deployment was examined. **Method:** A single chemical attack with 750 patients was assumed. Response was divided into five steps: (1) transportation of stockpiles to hospitals, (2) transportation of auto-injectors to the site, (3) on-site use of auto-injectors, (4) transportation of patients to hospitals, and (5) patient care in hospitals. Computer estimation was used for the time required for transportation for (1), (2), and (4). Desktop exercises were conducted for on-site response time, outpatient response time, and the number of beds available at hospitals for (3) and (5). The values obtained from computer estimation and desktop exercises were imported into the simulation model to measure the number of paramedics, auto-injectors required to be deployed in advance, and the amount of stockpiles required to be delivered to hospitals.

Results: A minimum of 80 auto-injectors and ten paramedics were required to be pre-positioned at the scene. A minimum of 100 ampules of antidote was required immediately at the nearest hospitals.

Conclusion: The pre-deployment of auto-injectors and personnel are essential to reduce the number of deaths in the event of chemical terrorism.

Prehosp. Disaster Med. 2023;38(Suppl. S1):s167

doi:10.1017/S1049023X23004338

Digital Psychological Support Systems for Post-Disaster Reconstruction in Japan: Empirical Study on the Effectiveness of the me-fullness[®] Application

Junko Okuyama MD, PhD¹, Shuji Seto PhD², Tomonori Motokawa PhD³, Tomomi Kato³

1. Tohoku University Hospital, Sendai, Japan
2. International of Research Institute of Disaster Science (IRIDeS), Tohoku University, Sendai, Japan
3. Frontier Research Center, POLA Chemical Industries, INC., Yokohama, Japan

Introduction: Asia is one of the regions most affected by natural disasters such as major typhoons. In Japan, recovery from natural disasters is said to take more than 10 years, and local government officials are primarily responsible for this recovery. In this study, we investigated the effectiveness of the me-fullness[®] smartphone application in maintaining the well-being of local government employees involved in recovery efforts.

Method: We conducted a survey of 35 employees of the town of Shichigahama, one of the areas affected by the 2011 Great East Japan Earthquake. The Chalder Fatigue Scale (CFS), Athens Insomnia Scale (AIS), and Depression, Anxiety and Stress Scale–21 Items (DASS-21) were used as survey instruments. 22 of the 35 employees used the me-fullness application on their smartphones for one month. During the month the application was in use, there was a heavy rain warning and an election for the House of Counselors, which the Shichigahama town employees had to cope with in parallel with the recovery from the Great East Japan Earthquake.

Results: The percentage of insomnia indicated by an AIS score of four or higher was 53.5% (7/13) before and 30.8% (4/13) after the use of the me-fullness application. The percentage of stress was 38.5% (5/13) before and 7.7% (1/13) after the use of the me-fullness application.

Conclusion: This study showed that the me-fullness[®] application could improve the sleep and stress of local government employees and maintain their well-being for a long time during the recovery efforts.

Prehosp. Disaster Med. 2023;38(Suppl. S1):s167

doi:10.1017/S1049023X2300434X

Introducing Advanced Paramedics into the Rural General Practice Team in Ireland – General Practitioners Attitudes.

Fintan Feerick PhD(c)

University of Limerick, Limerick, Ireland

Introduction: As Ireland's population increases and chronic disease becomes more prevalent, demand for limited general practice services will increase. Nursing roles within a general practice are now considered to be standard, yet alternative non-medical professional roles are under-explored within an Irish context. Non-medical personnel such as Advanced Paramedics (APs) may have the capability to provide support to general practice.

Method: A sequential explanatory mixed methodology was adopted. A questionnaire was designed and distributed to a purposeful sample of GPs attending a rural conference followed by