Utilization of Physiotherapy in Prehospital Care During Emergency and Disaster: Improving Care and Increasing Capacity

Megan Mitchell PT, DPT, EMT-B Denver Health Medical Center, Denver, USA

Introduction: Emergency medical teams (EMT) are utilized during national and international disasters to improve the response capabilities and provision of quality of care to those impacted. The inclusion of rehabilitation professionals on EMTs is slowly increasing but still has not become standard on Type I teams. The goal of rehabilitation is to optimize function and reduce disability for patients of all ages and in all treatment locations. SPHERE humanitarian standards mandate country emergency response frameworks should include rehabilitation in disaster starting at the acute phase of the incident, but services are typically not provided at the right time or the right place, if at all. After an injury, early education and intervention by rehabilitation can reduce long term injury and improve function. Rehabilitation services continue to be limited to post-acute care and available only to those who have required hospitalization or long-term rehabilitation services. There is a growing body of evidence for the use of physiotherapy in prehospital medical management of acute urgent and emergency injuries and within the emergency department to improve access to care, reduce imaging, reduce use of opioid use.

Method: Literature review was conducted regarding prehospital injuries and rehabilitation services using Google Scholar and University of South Florida library access services.

Results: No reports or documentation for prehospital or emergency department care during natural disasters or conflict response are available from the World Health Organization or other NGOs.

Conclusion: There is a recognition from the medical community of the value and necessity of rehabilitation services across the disaster continuum but remains an under-utilized resource for improving patient care. Conclusion: Rehabilitation should not be available to only those with the most severe long-term injury but should be included at all levels of response with integration into all EMTs.

Prehosp. Disaster Med. 2023;38(Suppl. S1):s36 doi:10.1017/S1049023X23001310

Integrating Management and Operations of Rapid Response Teams and Emergency Medical Teams Programs Globally

Mays Shamout MD, MPH¹, Pryanka Relan MD, MPH², Bridget Fitzgerald¹, Ayramana Correa MPH¹, Flavio Salio PhD², Ashley Greiner MD, MPH¹

- 1. CDC, Atlanta, USA
- 2. WHO, Geneva, Switzerland

Introduction: Health emergencies such as the COVID-19 pandemic, strain health systems and emergency response mechanisms. Identifying critical points during the response cycle where the emergency workforce and operational capacity can be improved can help break the protracted nature of responses. Global health emergency workforce, or health emergency and

alert response teams such as multidisciplinary Public Health Rapid Response Teams (RRTs) and Emergency Medical Teams (EMTs), play critical roles in response to public health emergencies.

The project aims to explore and understand how countries manage and operationalize their RRT and EMT programs. With anecdotal evidence of countries integrating the two historically disparate groups, we propose to examine how countries are jointly or separately addressing legal frameworks and policies; management practices, reporting processes and protocols, training, as well as program operations and standards.

Method: Through existing global partnerships and networks, a convenience sample of national focal points responsible for the management of their RRT and EMT program are sent an online survey followed by participating in a one-on-one interview, and descriptive and thematic analyses.

Results: Sixteen countries representing all six World Health Organization regions with both RRT and EMT programs have been selected for engagement.

Conclusion: Factors contributing to/or against countries' integration of RRT and EMT programs will be identified. Areas of divergence or synergy of plans and standard operating procedures will be mapped. Recommendations for strengthening global health emergency alert and response teams will be generated.

Prehosp. Disaster Med. 2023;38(Suppl. S1):s36 doi:10.1017/S1049023X23001322

The Response by International Emergency Medical Teams Following the Beirut Harbor Explosion in 2020–Who Were They, When Did They Arrive, What Did They Do, and Were They Needed?

Emeli Wolff MD¹, Iman Shankiti², Flavio Salio PhD³, Johan von Schreeb MD, PhD¹

- 1. Karolinska Institutet, Stockholm, Sweden
- 2. World Health Organization, Beirut, Lebanon
- 3. World Health Organization, Geneva, Switzerland

Introduction: On August 4, 2020 a massive explosion struck the Beirut Harbor in Lebanon. Approximately 220 people were killed and over 7000 were injured, of which 12% were hospitalized. Despite being weakened by an economic crisis and increasing numbers of COVID-19 cases, the national healthcare system responded promptly. Within a day, International Emergency Medical Teams (I-EMTs) started arriving. Previous studies have found that I-EMTs have arrived late and have not been adapted to the context and dominating healthcare needs. The aim of this study was to document the organization, type, activity, and timing of I-EMTs deployed to Beirut and to discuss their relevance in relation to medical needs.

Method: Data on all deployed I-EMTs were retrieved from all available sources, including internet searches, I-EMT contacts, and from the World Health Organization (WHO) EMT coordination cell (EMT CC) in Lebanon. The WHO EMT classification was used to categorize deployed teams. Information on characteristics, timing, and activities was retrieved and systematically assessed.



Results: Nine I-EMTs were deployed to Beirut following the explosion. Five were equivalent to EMT Type 2 (field hospitals), of which three were military. The first I-EMT arrived within 24 hours, while the last I-EMT was set up one month after the explosion. Four civilian I-EMTs provided non-clinical support as EMT Specialized Care Teams. A majority of the I-EMTs were focused on trauma care. Three I-EMT Specialized Care Teams were rapidly re-tasked to support COVID-19 care in public hospitals.

Conclusion: A majority of the deployed I-EMT Type 2 were military and focused on trauma care rather than the normal burden of disease, including COVID-19. Re-tasking of EMTs requires flexible EMTs. To be better adapted, the I-EMT response should be guided by a systematic assessment of both healthcare capacities in the affected country as well as the varying health effects of hazards before deployment.

Prehosp. Disaster Med. 2023;38(Suppl. S1):s36–s37 doi:10.1017/S1049023X23001334

Medics, Mercenaries and Miscreants — A review of Canadian Medical Assistance Teams' EMT Type 1 response to the conflict in Ukraine

Anthony Fong MD^{1,2}, Valerie Rzepka NP-PHC², Jeanne LeBlanc PhD², David Thanh SBStJ², Sarah Scott MD^{1,2}, Daniel Kollek MD^{3,2}, Nathan Kelly RN²

- 1. University of British Columbia, Vancouver, Canada
- 2. Canadian Medical Assistance Teams, Toronto, Canada
- 3. McMaster University, Hamilton, Canada

Introduction: On February 24, 2022, Russia invaded Ukraine, resulting in Europe's largest refugee crisis since World War II. More than six million Ukrainians fled the country—half of these to Poland—and one-third of the population was internally displaced.

Border points became bottlenecks where fatalities were reported—people risked their lives in long queues and subzero temperatures.

Method: This presentation focuses on experiential information obtained during a 17-week deployment of EMT Type 1 both at border points (fixed) and in northwestern Ukraine (mobile). Quantitative and qualitative data were obtained after deployment by online survey with 75 medical, logistical and interpreter volunteers.

Results: Initial teams experienced extremely fluid demands and numerous challenges with security, team adherence to COVID-19 protocols, behavioral issues with less experienced volunteers, and collaboration with novel governmental and non-governmental partners to achieve objectives.

Conclusion: 1. Deployment to a conflict setting requires adherence to the Incident Command System, with daily security briefings and structured handover between teams at the beginning of each deployment.

- 2. Strict adherence to well-defined protocols for the prevention and management of emerging infectious risks such as COVID-19 is necessary, along with contingency plans to isolate infected team members.
- 3. There is a need for standardized pre-deployment vetting, training and orientation of all volunteers—particularly team leaders.

4. Identification of international partners should start predeployment and remain a continuous process during deployment.

Prehosp. Disaster Med. 2023;38(Suppl. S1):s37 doi:10.1017/S1049023X23001346

Introduction of Emergency Medical Team Coordination Cell Assistance Activities in 2022 Moldova EMTCC Operation and Future Suggestions

Yoshiki Toyokuni PhD¹, Raido Paasma MD, PhD², Terry Trewin³, Tatsuhiko Kubo ND, PhD⁴, Tomoki Nakamori MD, PhD⁵, Jiro Oba MD, PhD⁶, Yukiko Habanoⁿ, Kohei Shiotaⁿ, Atsushi Ito⊓

- National Hospital Organization Japan DMAT Secretariat, Tachikawa, Japan
- 2. West-Tallinn Central Hospital, Tallinn, Estonia
- National Critical Care and Trauma Response Centre, Eaton, Australia
- Department of Public Health and Health Policy, Hiroshima University, Hiroshima, Japan
- 5. Yokohama Rosai Hospital, Yokohama, Japan
- 6. Juntendo University, Nerima Hospital, Nerima, Japan
- 7. Japan International Cooperation Agency JDR Secretariat, Chiyoda, Japan

Introduction: Emergency Medical Team Coordination Cell (EMTCC) was established in WHO Moldova Country Office to coordinate responding International EMTs in March 2022. Japan International Cooperation Agency (JICA) sent an EMTCC assistance team to support the WHO-approved minimum data collection for emergency medical teams, Minimum Data Set (MDS), operations and other coordination activities. Introducing activities of the JICA EMTCC assistance team at the Moldova EMTCC will suggest future use.

Method: EMTCC assistance team activities were reviewed. **Results:** There was a wide range of high-level administrative functions in EMTCC, such as planning, logistics, assurance and governance, and human resources. One of the significant functions was introducing MDS to the medical team and extracting the data summaries for reporting to the Moldova Ministry of Health. All these tasks require considerable time

to manage and must be completed promptly for effective EMTCC operations.

Conclusion: The EMTCC coordinator should function as a decision-maker to control the coordination of EMTs communicating with WHO and implementing the EMT initiative. In a disaster, especially in the acute phase of EMTCC activities, more high-level administrative functions will be required with immediate processing. Therefore, it is considered that the EMTCC assistance team should work with the coordinator as early as possible. In addition, all these EMTCC assistance team activities should be standardized and specified in the EMTCC handbook for future operation reference.

Prehosp. Disaster Med. 2023;38(Suppl. S1):s37 doi:10.1017/S1049023X23001358