s44 Monitoring and Evaluation

Conclusion: A standardized evaluation framework will be beneficial to assess deployments. Further research can be done to identify areas within the evaluation framework that should be prioritized.

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Towards a Systematic Approach for the Assessment of Emergency Medical Teams Performance – Promoting and Developing the Implementation of After-Action Reviews Nieves Amat Camacho PhD, Hannah Von Reding MSc, Johan Von Schreeb PhD

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Background/Introduction: A standardized system for assessing Emergency Medical Teams (EMT) performance is essential for enhancing EMT preparedness, response, and quality assurance. An after-action review (AAR) is a qualitative tool used to evaluate actions taken during emergencies, identifying best practices, gaps, and lessons learned. While AARs have been widely applied to assess national emergency responses, their use for evaluating EMT performance is scarcely documented, and guidance is lacking.

Objectives: This proposal aims to promote and support the development of a systematic approach for the assessment of EMT performance during emergencies, through the implementation of suitable AARs methodologies following deployments.

Method/Description: We propose a collaborative approach encompassing academic institutions, EMTs, WHO Secretariat, and other relevant stakeholders, which can focus on developing, testing, and implementing AARs tailored for EMTs by integrating scientific methods and field experiences. Results/Outcomes: Proposed strategy includes actions to:

- Revise previously conducted AARs assessing EMT deployments, including methodology, pillars assessed, feasibility, resources, application of results.
- Identify key elements for a systematic AAR approach that best evaluates EMT performance.
- Test the feasibility and appropriateness of different AARs methodologies in different contexts and emergencies.
- Develop guidance for the implementation of ARRs following EMT deployments, both to assess individual EMT performance and overall EMT response.
- Identify/create a system for sharing AARs, enabling a systematic analysis of experiences from which new knowledge and conclusions are generated.

Conclusion: Collaborative efforts to guide AAR use for the assessment of EMT performance will lead to evidence-based recommendations that strengthen EMT response capacities and contribute to the EMT 2030 Strategic Objectives.

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Five Years of PT EMT: A Cycle of Continuous Improvement

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Background/Introduction: The National Institute of Medical Emergency holds the Portuguese Emergency Medical Team - PT EMT, certified by WHO in 2019, and since then its activity has been growing in several areas: assistance, advice, training, and cooperation between partners.

Our aim is to present the lessons learnt over five years of PT EMT's activity in national and international missions and how the cycle of continuous improvement implemented to date has progressed.

Objectives: Analyze the evolution of the PT EMT and incorporate the lessons learnt into the continuous improvement cycle.

Method/Description: Case study, analysis and reflection on lessons learnt from PT EMT deployments.

Results/Outcomes: From 2019 to 2024, PT EMT was involved in 3 standby international deployments and 20 effective deployments: 8 international, 4 national Mass Gathering events, 1 national insular territory, 3 EU MODEX exercises, 2 mainland Portugal, 1 international territory and 1 MEDEVAC.

The planning, preparation and implementation of each deployment was specific and unique, depending on mission profile. This diversity and number of missions has streamlined internal and external processes, making deployment more efficient and faster, particularly the organization and standardization of medical kit loads, their weight and volume, their packaging for air or land transport, which has made it easier to draw up the cargo manifest.

Conclusion: As a result of the activity described above, continuous improvement processes have been implemented in various areas, namely: data records and collection; communication



strategies with staff pool; team medical readiness; cargo manifest; packaging and transport; mission files preparation; management of clinical and logistical supply chain.

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Innovative Occupational Health System for EMT Staffs Implemented by the EMTCC during Noto Earthquake 2024 in Japan

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Background/Introduction: Past disaster responses have demonstrated the importance of occupational health services for Emergency Medical Team (EMT) members. However, that implementation has been mostly left to individual teams and organizations and with less systematic approaches. During the Noto Peninsula earthquake that occurred in January 2024, the Emergency Medical Team Coordination Cell (EMTCC) activated the new Occupational Health System; J-SPEED Health Check-up for the first time to monitor health status of all EMT members and to provide comprehensive occupational services regardless of their affiliated organizations. Objectives: To review methodology and key achievements of the J-SPEED Health Check-up during the Noto Earthquake 2024 in Japan.

Method/Description: During their deployment, all EMT members were suggested by the EMTCC which was embedded in the local health authority to enter and report their health status daily by using the J-SPEED+ application, which was originally developed to report the EMT Minimum Data Set (MDS) of patients. At the EMTCC, J-SPEED analysis support team conducted data analysis, and Disaster Occupational Health Assistance Team (DOHAT) provided targeted interventions to the individuals identified to be supported.

Results/Outcomes: A total of 20,879 data entries were recorded during the deployment, which triggered 148 interventions by the professional Occupational Health Team. Anonymous summary report was made and shared at every EMTCC meeting.

Conclusion: J-SPEED Health Check-up was successfully implemented. Necessary and targeted occupational health

supports were provided, awareness of the issue was improved among partners.

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Relationship between Fatigue and Presenteeism of EMT Members in Noto Peninsula Earthquake in Japan (2024)

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Background/Introduction: The demanding nature of the EMT members' work in providing care for the affected population in the 7.6 magnitude earthquake that struck the Noto Peninsula, Japan, on January 1, 2024 is noted.

Objectives: This study aims to examine the relationship between fatigue and the presenteeism of EMT members during this disaster.

Method/Description: A cross-sectional study was conducted from January 1st to March 31st using the J-SPEED (Japanese-Surveillance in Post-Extreme Emergencies and Disasters) health check-up among EMT members. The questionnaire items included fatigue level and presenteeism measured using WFun-D (Work Functioning Impairment Scale for disaster), along with information on the type of activity, occupation, duration of working (days), and symptoms due to fatigue. Logistic regression analysis was applied to determine the association between fatigue and presenteeism of EMT members.

Results/Outcomes: Among the 20,551 cases, 66.2% worked in the field, with the majority being operation coordinators (31.8%), nurses (30.9%), and medical doctors (19.9%). Presenteeism is strongly associated with having medium and high fatigue levels (p<0.0001). Other factors associated with presenteeism in EMT members included: working in January (aOR: 2.13, 95% CI: 1.21-3.74), being a medical doctor (aOR: 1.53, 95% CI: 1.15-2.04) or administrative supporter (aOR: 2.07, 95% CI: 1.28-3.36), experiencing symptoms due to stress (aOR: 4.95, 95% CI: 3.80-6.46).

Conclusion: The study reveals a significant relationship between increasing fatigue levels and presenteeism among EMT members. These findings contribute to evidence-based strategies for fatigue management in disaster response scenarios, with implications for improving the effectiveness of medical response efforts in future large-scale disasters globally.

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