disasters, is a common phenomenon in several countries. In Brazil, the Armed Forces have a history in providing humanitarian assistance to victims of emergencies through their field hospitals, such as medical and dental care, laboratory and imaging diagnosis, and pharmaceutical services.
Aim: To verify pharmaceutical services preparedness of military units in an institution of Brazilian Armed Forces to disaster response and humanitarian aid.
Methods: A transversal study was carried out. The methodological approach was based on a logical model and indicators related to the preparedness of pharmaceutical services. Field research was carried out and good storage practices were investigated in loco. Key stakeholders were interviewed based on an open-ended questionnaire on the preparedness of pharmaceutical services. Interviews were transcribed and analyzed for overall content, according to analytical categories stemming from the literature and indicators prior defined.
Results: Key stakeholders of three military units were interviewed, and official documents and guidelines were also analyzed. Some pronounced shortcomings were identified, such as the lack of a specific budget for medicines management, no surplus of health supplies, lack of appropriate transports, and need of capacity building of health professionals and support team. The existence of a disaster plan, selection of essential medicines for primary reaction, forecasting of medicines, field hospitals as mobile and adaptable health structures, and a system for military mobilization are some of the strengths identified. Two military units are better structured in the management of pharmaceutical service. The third unit still needs to mature its processes to fit the health purposes of its mission.
Discussion: These findings can subsidize the improvement of pharmaceutical services' efficiency and quality in means of providing better response in emergency situations supported by the Brazilian Armed Forces.

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A Pilot Investigation of the Effect of Transport-Related Factors on Care Quality in a Moving Ambulance

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Introduction: Providing patient care in a moving ambulance can be difficult due to various transport-related factors, (e.g., accelerations, lateral forces, and noise). Previous research has primarily focused on cardiopulmonary resuscitation (CPR) performance effects but has neglected to investigate other care interventions.
Aim: To test a range of different care interventions during different driving scenarios.
Methods: A workshop with ambulance practitioners was held to create a list of care interventions to be tested. Two ambulance practitioners were recruited to drive an ambulance on a closed test-track while performing care interventions on simulation models. Three driving scenarios of differing difficulty were used. Main outcome measures were estimates of workload using the NASA Task Load Index (TLX) and task difficulty. G-forces and video-data were also collected.
Results: Estimated workload increased overall as the difficulty of the driving scenario increased, as did task difficulty estimates. However, some care scenarios and interventions were affected less. For example, placing intravenous access increased greatly in difficulty, whereas saturation and blood pressure measurements had more modest increases. TLX scores showed that the primarily estimated physical workload and effort that increased, but also mental and temporal demands for some care scenarios. The more difficult driving scenarios primarily increased the variability of measured G-forces but not necessarily the overall driving speed, indicating that force variability is an important factor to study further.
Discussion: The study was intended as an initial pilot test of a wide range of care interventions. It will serve as input to future, larger studies of specific interventions and transport-related factors. Overall, this small pilot indicates that more interventions than only CPR should be studied in moving ambulances to investigate potential performance effects. This is important for traffic, patient, and work safety for ambulance workers and patients.

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A Pilot Study of Surge Capacity in the Metropolitan Area of South Korea

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Introduction: Seoul is the third most densely populated area in the world except for the city-state. However, a national disaster plan has not yet been established.
Aim: From September 2017, representatives of seven regional emergency medical centers in Seoul met monthly and decided to investigate basic data for the future establishment of surge capacity planning.
Methods: Staff, supply, space, and systems for surge capacity were surveyed in seven hospitals. The additional surveyed data were as follows: hospital incident command system and actual operational experience; performance of disaster drill; safety and security plan; estimation of surge capacity in normal operating conditions and extreme operating conditions; alternative therapeutic spaces; back-up plan to call non-duty medical staff; decontamination equipment; contingency plan for stuff shortage; etc.
Results: All the hospitals reported they have hospital incident command systems and held disaster drills every year, however, the two hospitals (28.5%) had no real experience of hospital incident command system activation. Five hospitals (71.4%) did not have a safety and security plan. They replied they can treat average 7.7 emergency patients (Korean Triage and Acute scale

(KTAS) ≤ 3), 10 non-emergent patients (KTAS>4), 0.9 surgical patients and 0.7 unstable patients simultaneously in normal operating conditions. In extreme operating conditions, they replied they can treat average 26.4 emergency patients (KTAS ≤ 3), 54.3 non-emergent patients (KTAS>4), 37 surgical patients and 2.3 unstable patients simultaneously. The two hospitals (28.5%) had no alternative therapeutic spaces, no back-up plan to call non-duty medical staff and no contingency plan for stuff shortage. Three hospitals (42.9%) did not have decontamination equipment.

Discussion: The survey revealed the basic data for surge capacity planning in Seoul. Data from hospitals other than regional emergency medical centers should be collected for the completion of disaster plans.

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Planning for the Use of Imaging in Mass Casualty Incidents

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Introduction: A mass casualty incident presents a challenging situation in any health care setting. The value of preparation and planning for mass casualty incidents has been widely reported in the literature. The benefit of imaging, in particular, forensic radiography, in these situations is also reported. Despite this, the inclusion of detailed planning on the use of forensic radiography is an observed gap in disaster preparedness documentation.

Aim: To identify the role of forensic radiography in mass casualty incidents and to explore the degree of inclusion of forensic radiography in publicly available disaster planning documents.

Methods: An extended literature review was undertaken to identify examples of forensic radiography in mass casualty incidents, and to determine the degree of inclusion of forensic radiography in publicly available disaster planning documents. Where included, the activity undertaken by forensic radiography was reviewed in relation to the detail of the planning information.

Results: Limited results were identified of disaster planning documents containing detail of the role or planned activity for forensic radiography.

Discussion: While published accounts of situation debriefing and lessons learned from past mass casualty incidents provide evidence for integration into future planning activities, limited reports were identified with the inclusion of forensic radiography. This presentation provides an overview of the roles of forensic radiography in mass casualty incidents. The specific inclusion of planning for the use of imaging in mass fatality incidents is recommended.

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Practicing What You Preach

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Introduction: During a mass casualty incident (MCI) seminar in Rome, Italy a survey was used to gauge the self-efficacy and confidence of the participants in managing an MCI. Following the course, a follow-up presentation was held by the Torino EMS Medical Director to evaluate and debrief the Torino Railway incident that occurred one day prior. Students partook in a seminar on MCI management, as well as a debriefing of the Turin Railway accident in which they evaluated the skills used by teams on the scene to manage the incident.

Methods: Medical students partook in a seminar to learn to manage an MCI scene, as well as a debriefing of the Turin Railway accident. Following both seminars, the students were given a survey to assess their sense of self-confidence in managing such a situation.

Results: The mean level of self-efficacy prior to the MCI training (M=3.43, SD+0.42) increased after the training (M=3.71, SD+0.37) and remained at the same higher level (M=3.71, SD+0.51) after the medical students were exposed to the details of the Turin train accident. The overall difference between the mean self-efficacy scores in the three time frames was not found to be significant. The mean level of confidence in managing MCIs prior to the training (M=2.83; SD+0.89) increased after the training (M=3.56; SD+0.53) and remained higher following the presentation of the Turin train accident, despite a slight decrease (M=3.52, SD+0.63).

Discussion: The participants' surveys showed an increase in their self-efficacy and confidence following the course and follow-up presentation. It is our professional recommendation that real-life events be used in such seminars to increase self-efficacy and confidence. The topic will continue to be evaluated further.

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Preparing for Disaster: Behind the Scenes of Maintaining and Deploying an Emergency Medical Team . . . Equipped. Prepared. Ready.

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Introduction: Deploying an EMT to respond to a sudden onset disaster entails significant operational activities and support back home to deploy and support a responding team. These activities also include peacetime operations, exercising, innovation, engagement, training, and development of both team members and operational staff to further knowledge and experience.

Aim: To exhibit the operational activities and complexities of maintaining a deployable cache of equipment and consumables for deploying a self-sustaining Emergency Medical Team (EMT). This includes the elements of managing a high-performance team, human resource management ensuring the readiness of personnel to rapidly respond, maintaining World Health Organization (WHO) international standards for