

Emergency Response Unit (ERU) that can be applied to a domestic context in Canada.

Background: The Canadian Red Cross has extensive experience working in international settings, both in disaster and development. The ERU of the CRC is a health emergency unit that can respond to international humanitarian disasters, either in the form of basic primary care health services or as a field hospital. Much institutional and individual knowledge and skills have been obtained over years of working in these contexts. We hypothesize that there is a large amount of knowledge and skills that have been learned, that could easily be applied to the Canadian domestic context, but this has never formally been studied.

Methods: Qualitative methodology: Key informant and semi-structured in-depth interviews. Aim for a diversity of perspectives and in-depth accounts. Sampling and recruitment: Purposive/snowball sampling strategies. Participants will include a diversity of professional backgrounds, ERU HCPs (nurses, physicians, mental health, surgeons, anesthetists), ERU team/deputy leaders, logisticians, technicians, security managers, and other CRC managers/directors involved in the deployment of health ERU. Data collection: Experienced research assistants will conduct the interviews by Skype, telephone, or in person. Interviews will be audio-recorded (with consent) and are expected to last 30–45 minutes. All interviews will be transcribed. Demographic information: age range, gender, number of years working in humanitarian settings, role collected.

Results: Analysis: Three team members will independently code the interviews based on a pre-developed code sheet. Key overarching themes developed. Results: Will be discussed in terms of themes/lessons learned. Discussion will include next steps for integrating this knowledge at the domestic level.

Conclusion: Hypothesis: Individual and institutional skills/knowledge/capacities that are acquired through international ERU deployment have application in the Canadian domestic realm.

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Psychological Fitness for Deployment: Personality as a Predictor of Performance

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Study/Objective: To predict peer-evaluated performance of deployed AusMAT members from personality and psychological well-being.

Background: Disaster response personnel are typically selected on the basis of professional training and qualifications. These criteria contribute to the ‘can do’ component of performance. The ‘will do’ component incorporating performance quality and interpersonal effectiveness is generally assessed subjectively. Australian Medical Assistance Team (AusMAT) examined the role of the Five-Factor Model (FFM) personality factors and psychological wellbeing in predicting performance of medical and logistics personnel as measured by peer evaluation.

Methods: During the annual Tour de Timor event in 2016, twenty-three AUSMAT personnel completed the NEO Personality Inventory – 3 (Costa & McCrae, 2010) and the MH30 Mental Health Screen (Response Psychological Services, 2008). Performance criteria were obtained through peer evaluations submitted during deployment, via the online PES50 Peer Evaluation Schedule (Response Psychological Services, 2010). Anonymous data was used to explore the relationship between personality factors and peer-evaluated performance.

Results: Low scores on the personality facet Tender-mindedness and high scores on the facet Order were valid predictors of peer-evaluated performance. Order predicted almost 90% of the variance in the performance criterion, while tender-mindedness predicted almost 50%. Many other directional relationships were observed between both personality and mental well-being with the performance criterion.

Conclusion: AusMAT personnel who demonstrated a realistic, rational and in some ways very clinical approach were rated more favorably by their peers across multiple criteria of deployment performance. AusMAT Logisticians who maintain flexibility while adhering to standards and process more so than their peers are rated very favorably. Establishing a performance baseline measure using peer evaluation enabled improved self-other awareness during the deployment, and provided participants with detailed feedback for self-development. The proportion of variance explained, suggests significant potential for the use of personality measures in AusMAT selection.

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Emergency Medical Services during Mass Casualty

Incidents (MCIs) - Challenges and Proposed Policies

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Study/Objective: To identify consensus-based policies that could be adopted by world-wide Emergency Medical Services’ (EMS) to manage mass-casualty incidents (MCIs).

Background: Medical management in MCIs is often characterized by challenges, such as lack of available resources, insufficient cooperation between first responders, inability to protect personnel, etc. As such challenges are common to EMS services world-wide, there is a need to identify policies applicable to the varied entities.

Methods: Twenty-one challenges concerning EMS’ operation during MCIs were identified. Potential policies to effectively address challenges were disseminated to 38 experts from ten countries. Two cycles of a modified e-Delphi process were conducted; participants were requested to agree/disagree to endorse the policies based on a five-point Likert scale. Policies endorsed by ≥80% of participants were adopted for EMS use during MCIs. Policies that did not achieve consensus were reviewed to identify differences according to experts’ country of origin.

Results: Seventy-six percent (16/21) of proposed policies were endorsed in the first e-Delphi cycle. Four were endorsed by

100% of respondents including: ensure all ambulance services maintain readiness for MCIs; conduct joint training and exercise programs; adopt a common model for managing MCIs; and recognize the authority of only one on-site EMS commander. One policy that was proposed was that the senior EMS officer arriving on-site should not necessarily take over command and was endorsed by 92% in the 2nd e-Delphi cycle. Variability among experts according to origin country was noted concerning: (1) assign ambulances to off-duty EMS staff; and (2) dispatch two BLS and two ALS ambulances as an automatic MCI response.

Conclusion: Clear policies shared by all EMSs are needed to ensure effective management and maximal life-saving capacity in MCIs. The study presents consensus-based solutions to varied challenges common to EMS worldwide. Additional studies are needed to further develop policies into measurable and comparable international standards.

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Evaluation of the Situation of Trainings Provided by Çanakkale 112 Ambulance Services

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Study/Objective: The purpose of this study is to evaluate the present situation as of November 1, 2016, in regard to in-service training provided by the Training Unit of Çanakkale 112 Emergency Medical Services (ÇEMS).

Background: It is important to constantly update and improve personnel training in Emergency Medical Services. The following trainings are provided to personnel in pre-hospital health services: Basic Module Training (BMT), Trauma and Resuscitation Training (TRT), Advanced Life Support Training (ALST), Child Advanced Life Support Training (CALST) and Training for Ambulance Driving Techniques (TADT).

Methods: The study is a descriptive epidemiological study. The data was obtained from the records by Training Unit of Chief of Staff of Çanakkale 112 Ambulance Service.

Results: A total of 395 personnel are employed in ÇEMS. Of those, 57,5% (n = 227) are Emergency Medical Technicians (EMTs); 20,0% (n = 79) are Emergency Medical Technicians (Paramedics). In all, 89,8% of all of the personnel (n = 307) received the BMT; 90,1% (n = 308) received the TRT; 71,6% (n = 245) received the CALST; 61,1% (n = 209) received the ALST. Only 37,0% of them received the TADT. 97% of EMTs (n = 220) received the BMT; 99,0% of them (n = 224) received the TRT; 78,0% of them (n = 177) received the CALST; 70,0%

(n = 160) received the ALST; 32,0% (n = 72) received the TADT. Further, 86.0% of paramedics (n = 68) received the BMT; 87.0% of them (n = 69) received the TRT; 67,0% of them (n = 53) received the CALST; 53,0% (n = 42) received the ALST; and, 23,0% (n = 18) received the TADT. 25,0% of doctors received the BMT; 12,0% of them (n = 2) received the TRT; 38,0% (n = 6) received the CALST and 12,0% (n = 2) received the ALST.

Conclusion: It was concluded that since the BMT and TRT were performed in the city of Çanakkale, the participation of EMS personnel was high; on the other hand, since the ALST and CALST were performed in the city of Bursa, the participation percentage of EMS personnel was lower.

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Changes in Quality of Prehospital Care and Time Delays in Acute Stroke in Tallinn, Estonia from 2005 to 2016

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Study/Objective: The aim of the study was to analyze changes in quality and time delays in prehospital stroke management, and their influence on Door-to-Needle Time (DNT).

Background: Interval between stroke onset and thrombolysis determine the efficacy. Guidelines for stroke management were introduced in 2008 in Tallinn Emergency Medical Services (TEMS). Since 2014, the requirement of pre-arrival information by phone call of a possible thrombolysis patient to the West Tallinn Central Hospital (WTCH)-SS neurologist is in the TEMS guidelines. Since 2014, thrombolysis starts on Computed Tomography table (CT) at WTCH-SS.

Methods: Data of all consecutive thrombolysed stroke patients were recorded prospectively since January 1, 2005 to November 1, 2016 at WTCH-SS. Ambulance records of thrombolysed and non-thrombolysed stroke patients managed by TEMS were retrospectively analysed since 2009. Analysis was conducted for three periods: 2005-2009, 2009- 2011, and 1/1-1/11/2016.

Results: TEMS records were analyzed for 3666 stroke, including 243 thrombosed, patients during selected periods. Changes are depicted in the table. The exact time of onset was recorded on 38.9% (2009-20011) and on 62.4% (2016) of TEMS records. TEMS response time with ECG performed or ECG monitoring was 26.8 and 24.8 minutes, respectively versus 18.2 minutes without ECG. The pre-arrival information of possible thrombolysis to WTCH-SS was recorded in 28.7%. With pre-arrival information mean DNT was 25.8 versus 50.3 minutes without prior call.

Conclusion: TEMS adherence to guidelines has improved, but ECG is performed. DNT times have improved at WTCH-SS. The factors for improved DNT were related to pre-arrival information of possible thrombolysis patients by TEMS and start of thrombolysis in CT.