

Keywords: palliative care, pediatrics, ethics

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The “Nightmares-FM” course: an effective simulation-based acute care training method for family medicine residents

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Introduction / Innovation Concept: Acute care skills are difficult to teach but can be improved using high-fidelity simulation training. We developed a comprehensive acute care “Nightmares-FM” simulation course (NM) for our Family Medicine residents and compared it to our standard simulation teaching- episodic Acute Care Rounds (ACR). **Methods:** NM course consisted of an initial 2 day session followed by 3 follow-on sessions interspersed throughout the PGY-1 year. ACR participants got access to 3 sessions interspersed throughout the PGY-1 year, each focusing on a different aspect of acute care. Both groups got access to the NM manual which covered the relevant topics: shock, arrhythmias, shortness of breath, altered level of consciousness and myocardial infarction. The manual is physiology-based and written specifically at the level that an average Family Medicine resident would be expected to perform at during on-call crises or emergency medicine rotations. 12 residents participating in the NM and 12 residents in time-matched ACR filled out questionnaires asking them to rate their level of knowledge of various aspects of acute care. Self-reported changes before and after each session, and at the end of the year, were analyzed using Wilcoxon matched pairs test. End of the year mean scores were compared using a two sided t-test. Finally, we developed a high-complexity acute care Objective Structured Clinical Examination (OSCE): COPD exacerbation with septic shock requiring use of positive pressure ventilation, fluids and vasopressors. The groups participated in the OSCE in February of their PGY-2 year and were graded using a validated scoring sheet marked by two independent expert video reviewers. **Curriculum, Tool, or Material:** NM initial 2-day session significantly improved the resident’s self-assessment scores on all 20 items of the questionnaire ($p < 0.05$). Time matched ACR improved 11 out of 20 items ($p < 0.05$) level. Follow-up NM sessions improved 5-8 out of 20 items, ($p < 0.05$). Follow-up ACR sessions improved 1-5 out of 20 items, ($p < 0.05$). End of the year means were higher for 13/20 items in the NM group ($p > 0.05$) The NM group scored significantly higher on both the mean scores of OSCE individual categories: Initial assessment, Diagnostic workup, Therapeutic interventions and Communication and teamwork ($p < 0.05$) and the Global Assessment Score ($p < 0.026$). **Conclusion:** “Nightmares-FM” course is more effective than our standard curriculum at teaching acute care skills to Family Medicine residents.

Keywords: innovations in EM education, simulation, acute care

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Frailty assessment to help predict patients at risk of ED-induced delirium

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Introduction: Delirium is a frequent complication among seniors in the emergency department (ED). This condition is often underdiagnosed by ED professionals even though it is associated with functional & cognitive decline, longer hospital length of stay, institutionalization and death. Frailty is increasingly recognized as an independent predictor of adverse events in seniors and screening for frailty in EDs has recently

been recommended. The aim of this study was to assess if screening seniors for frailty in EDs could help identify those at risk of ED-induced delirium. **Methods:** This study is part of the *Incidence and Impact measurement of Delirium Induced by ED-Stay* study, an ongoing multicenter prospective cohort study in 5 Quebec EDs. Patients were recruited after 8 hours in the ED exposure & followed up to 24h after ward admission. Frailty was assessed at ED admission using the Canadian Study of Health and Aging-Clinical Frailty Scale (CSHA-CFS) which classified seniors from robust (1/7) to severely frail (7/7). Seniors with CSHA-CFS $\geq 5/7$ were considered frail. Delirium was assessed using the Confusion assessment method and Delirium Index. **Results:** Of the 380 patients recruited, mean age was 76.5 (± 8.9). Male were 50%. Mean stay in the ED was 1.4 day (± 0.82). Preliminary data show an incidence of ED-induced delirium of 8.4%. Average frailty score at baseline was 3.5/7. 72 patients were considered frail, while 289 were considered robust. Among the frail seniors, there were 48.4% (30-66%) patients with ED-induced delirium vs 17.9% (13.7-22.0) in the non-frail ones ($p < 0.0001$). **Conclusion:** Increased frailty appears to be associated with increased ED-induced delirium. Screening for frailty at emergency triage could help ED professionals identify seniors at higher risk of ED-induced delirium. Further studies are required to confirm the importance of the association between frailty and ED-induced delirium **Keywords:** delirium, frailty, seniors

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Listening to care partners: a feasible method to screen for frailty in emergency medical services?

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Introduction: Frailty is a state of vulnerability, and may go unrecognized in emergency medical services (EMS). Identifying frailty earlier may allow for services to be offered proactively to maintain function and prevent further health deterioration. The Clinical Frailty Scale (CFS) can be used to screen for frailty, but has only been validated when used by physicians. Our objective was to evaluate the feasibility and validity of a Care Partner-completed CFS, facilitated by a paramedic or nurse. **Methods:** A prospective sample of older adults (age ≥ 70 years) presenting in two settings (to EMS, following a 911 call, and to Geriatric Ambulatory Care) between February 2009 and March 2010 were included. Care partners completed a survey that included the nine-point CFS, which grades from 1 (very fit) to 9 (terminally ill). Demographic, clinical and outcome data were collected from the health care record, with one year follow-up. Based on clinical evaluations a frailty index was calculated for each patient. In each setting, descriptive statistics were used to compare fitter patients (CFS scores < 5) to frailer ones (CFS scores > 4). **Results:** The mean age was 82.2 ± 5.9 years ($n = 198$) and most were women ($n = 118, 62.1\%$). The Care Partner-CFS was incomplete for 3 surveys. The median CFS score in both the clinic and EMS groups was 5 (interquartile range = 4-6). The Care Partner-CFS correlated moderately with their independently assessed frailty index (0.64; $p < 0.01$; $n = 195$). Most patients ($n = 125$; 64%) had frailty scores > 4 . Frail patients were older and had worse health outcomes than the patients with score < 5 . More EMS patients were severely frail or very severely frail compared to the geriatric clinic patients ($n = 19, 19\%$ vs. $n = 5, 5\%$). **Conclusion:** The Care Partner-CFS is a feasible and valid method for evaluating frailty in the EMS and medical clinic settings where frailty was common. It may be a useful EMS screening tool to identify those that could benefit from comprehensive assessment and follow-up after emergency care. Future