UC Irvine

Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health

Title

Impact of Implementation of Prehospital Run Reviews into Resident EMS Curriculum

Permalink

https://escholarship.org/uc/item/5wn7s29w

Journal

Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health, 23(4.1)

ISSN

1936-900X

Authors

McGuire, Sarayna Klassen, Aaron Rentz, Lisa et al.

Publication Date

2022

Copyright Information

Copyright 2022 by the author(s). This work is made available under the terms of a Creative Commons Attribution License, available at https://creativecommons.org/licenses/by/4.0/

implementing evidence-based practices in EM, including initiating buprenorphine for patients in moderate to severe withdrawal •Support the transition of patients with OUD to long-term care for ongoing treatment.

Introduction: Opioid use disorder (OUD) is a chronic medical condition with alarming repercussions, including death and disability. Although, healthcare organizations, nationwide, have launched multiple initiatives to put an end to this epidemic, deaths related to opioids continue to be on the rise. More specifically, initiatives that involve abstinence have been shown to be less effective and are associated with high rates of relapse, including detoxification, rehab, 12-step programs, and Narcotics Anonymous. Medications for Opioid Use Disorder (MOUD), however, seems to be a promising approach to achieve recovery and reduce relapse. Our institution received a grant from the Ohio Department of Health to implement a program, called SAFER, that provides comprehensive care for patients with OUD presenting to our emergency department (ED). Our goal is to maximize the involvement of emergency medicine (EM) residents in implementing this program.

Curricular Design: The residency leadership identified three resident champions, who were involved in the process of developing and implementing SAFER in our ED, which will be launching in December 2021. The resident champions were trained by the SAFER educational specialist team. Through a train-the-trainer model, the champions will be educating their co-residents on the process of identifying the patients that can benefit from this comprehensive care program and ensuring their enrollment. This is achieved through a PowerPoint educational module that introduced the residents to the program followed by weekly updates on the evolution of the program during the didactics.

Impact/Effectiveness: We believe that involving the EM residents in this program will help improve the outcomes of patients with OUD, including reducing opioid overdose deaths, increasing retention in treatment, and decreasing relapse. We will be utilizing quantitative assessment tools to examine the effectiveness of this program.

19 Beyond ACLS: Training your novice resuscitationist for cases when the patient does not follow the algorithm

Alaa Aldalati, James Homme, Alexander Finch

Learning Objectives: To train Emergency Medicine residents how to properly and safely handle complex scenarios that require resuscitation outside the normal Advanced Cardiovascular Life Support (ACLS) algorithm using pericode algorithms using both high and low fidelity techniques.

All Emergency Medicine residents get basic training running a code during their ACLS certification in the United

States. However, there are not many easily applicable and accessible courses that provide comprehensive detailed training on peri-arrest scenarios. Beyond ACLS is a 1-day training course that took place in our simulation center. Residents were first given a questionnaire regarding their confidence and knowledge on scenarios that may require them to deviate from the ACLS algorithm. Residents were subsequently split into groups of three, each consisting of an intern, junior and senior resident. The intern was responsible for airway, the junior was running the resuscitation and the senior was overseeing the whole process, ultimately inserting them into an attending position to guide their junior colleagues. After that, each team ran a total of 8 stations, each with different scenarios designed to challenge them in different cardiac situations. These stations also helped them develop strategies to think outside the box when circumstances or presentations are not normal. They also focused on team dynamics and teamwork in which learners practiced how to interact with other medical staff that may be present during resuscitations. The stations used both high and low fidelity techniques, as well as ultrasound training. After the conclusion of the session, the same questionnaire was given to the residents to account for differences in confidence and overall knowledge.

20 Impact of Implementation of Prehospital Run Reviews into Resident EMS Curriculum

Sarayna McGuire, Aaron Klassen, Lisa Rentz, Aidan Mullan, Matthew Sztajnkrycer

Learning Objectives: Describe the impact of implementing a longitudinal resident run review process on resident EMS education, specifically ACGME-identified EMS training objectives.

Background: ACGME requires EM residencies provide experience in emergency medical services (EMS), particularly in prehospital medical oversight.

Educational Objectives: To evaluate the impact of a longitudinal resident run review process on resident EMS education.

Curricular Design: Within the residency, senior (PGY-2/3) EM residents participate in 1-2 EMS shifts per month. Discussion between an EM resident and EMS faculty led to the decision to incorporate into a pre-existing on-line EMS follow-up/care feedback request process the option of a formal run review. An outreach nurse received all EMS requests and assigned run reviews to senior residents to be completed during upcoming EMS shifts. Residents were provided patient details and a run review template with the following suggested sections: summary of patient care, positive aspects and areas for improvement of care, potential learning points, and suggested educational resources. Upon

completion, run reviews were sent back to the nurse who returned them to the prehospital personnel. Sixty-two run reviews were completed between 9/30/20 and 11/22/21. Eighteen PGY2/3 residents were surveyed in November 2021 to evaluate the curricular impact.

Impact: Fourteen resident responses were included in analysis (78% response rate). The majority agreed the process had provided a meaningful introduction to off-line medical control (93%), increased awareness of the prehospital environment and its limitations (78%) and provided insight to the practice and educational needs of EMS (86%). Those completing >3 reviews more strongly agreed the process improved upon interdisciplinary interactions with EMS compared to those completing <2 (p = .014). Implementation of a resident run review process within our residency's longitudinal EMS curriculum provided an opportunity to address ACGME-identified EMS training objectives. Future efforts should seek to evaluate the quality of these resident run reviews from the medic perspective.

21 Innovative Teaching Format: Environmental Emergencies

Alexander Tymkowicz, Yahuda Wenger, Erich Heine, Sara Baker

Learning Objectives: 1. Create content that varies in teaching format and requires active engagement by a small group of residents for six twenty-minute sessions 2. Teach a variety of environmental disaster medicine topics and their subsequent workup and management

Introduction: We present an Innovative Teaching Format (ITF) focusing on Environmental Emergencies developed during our 2021-2022 academic year at Orlando Health Emergency Medicine Residency Program, an ACGME accredited, Level 1 trauma center. The curriculum was introduced to PGY1-3 residents. Resident assessments were provided pre- and post- ITF.

Curricular Design: ITF: Environmental Emergencies is designed to review six environmental medicine categories, each the focus of 20-minute small group learning sessions. Topics include snake envenomation, altitude sickness, dysbarism, lightning strike, marine envenomation, and hypothermia. Stations are designed with intent to be engaging and require active participation, as well as vary in teaching style and format. Formats included SIM sessions, virtual hiking expeditions and toxic animal encounters, tabletop discussions, and oral boards cases. Seven staff members are required for this curriculum: six expert educators for stations, and one coordinator. Pre- and post- test assessments were given to residents with a total of 18 objective content questions and a subjective self- assessment. Google Forms via a QR code was utilized for pre- and post- test assessments.

Impact: We recorded 29 resident responses to our pretest and 26 responses to the post-test. Average number of correct answers on the pre-test were 3.66/9 compared to 5.23/9 on the post-test. On a numbered scale from 1-10, residents initially reported confidence levels of 5/10 in knowledge, diagnosis, and treatment of environmental emergencies. Residents reported improvement of all categories on the post-test with a response of 7, 8, and 8 respectively. Although the ITF curriculum requires substantial preparation and many involved staff, these findings suggest those investments are worthwhile. Conclusion: Innovative Teaching Format: Environmental Emergencies is an enriching way to teach residents varying environmental emergency topics.

22 Night School: A Pilot of Emergency Medicine Morning Report for the Night Shift

Christopher Reisig, Justin Allen, Ramona Vanel, Marissa Cohen, Diksha Mishra

Learning Objectives: We piloted a structured learning model for residents on night shift ("Night School") and assessed learners' perceptions of Night School's value to their EM education.

Introduction: For many residencies, Morning Report is a cornerstone of their educational model. At the same time, junior residents may spend significant portions of their EM rotations on evening or night shifts, meaning they often go without daily, structured education during their formative training years. Despite this fact, to date there exists no reports of EM residencies instituting a didactic equivalent to morning report for residents on night shift.

Objective: We piloted a structured learning model for residents on night shift (termed "Night School") and assessed learners' perceptions of Night School's value to their EM education.

Curricular Design: Night School is a case-based learning model covering subjects from the EM Model of Clinical Practice. Depending on the material covered, sessions may be entirely oral, multimedia, simulated, or procedurally-based. Unlike Morning Report, Night School is attending-facilitated and kept under 30 minutes to decrease learners' extraneous load and fatigue. As part of the initial rollout, a core group of nocturnists were recruited to develop Night School cases and to ensure a uniform approach to sessions. On average, this team has conducted approximately 3 to 4 sessions a week since inception.

Impact: To date, learners' perceptions of Night School have been extremely positive. Despite the fact that 36% (N=72) of participants were "Tired" or "Very Tired" at the time of Night School, 89.5% (N=57) of respondents felt "Very Engaged" by the sessions. 86% (N=72) gave