

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 pre-test 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

the didactic sessions highest marks for quality, and 98% (N=59) of participants felt that Night School was a valuable addition to their night shifts. Our pilot suggests there is a need and appreciation for structured, educational experiences among residents on night shift and that Night School merits continued curricular development.

How ready was your mind for night school?

72 responses

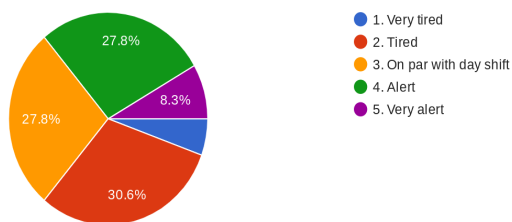


Figure 1.

Do you think Night School is a valuable educational addition to your overnight shift?

59 responses

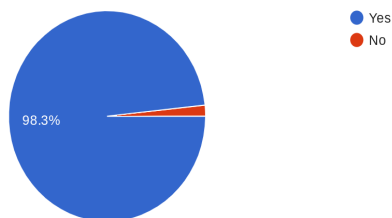


Figure 2.

## 23 The Research Escape-Hunt: An Escape Room for Resident Education on Research Design and Evidence-Based Medicine

Timothy Fallon, Tania Strout, Robert Anderson, Carl German

**Learning Objectives:** We sought to develop a research escape-hunt to teach EM residents: 1) predictive statistics and diagnostic test characteristics, 2) interpretation of data and statistical analysis, 3) study design, 4) informed consent for research, and 8) the ethical principles guiding research.

**Introduction:** Research and evidence-based medicine are important parts of residency training and the ACGME identifies scholarly activity as a core requirement for EM. EM training programs take a variety of approaches to addressing these requirements and there is not a standard, widely accepted curriculum available.

**Curricular Design:** We considered ways to incorporate active, participatory learning experiences that effectively engage adult learners. Within the CORD community, escape-

hunts have demonstrated efficacy for other EM content. An escape-hunt was developed with each station focused on one topic and requiring participants to solve a series of puzzles. Prior to the event, participants reviewed materials covering the content including summary sheets and podcast links. The escape-hunt served as an opportunity to further explore and reinforce the asynchronous content. Faculty members were present to help guide teams through the stations and to answer questions about the content. Teams worked to solve each station with the first team to successfully complete all nine stations winning a prize. A subsequent COVID-impacted event was held the following year utilizing Zoom breakout rooms, demonstrating that this innovation can be successfully implemented both in-person and virtually.

**Impact:** Participants reported high levels of satisfaction (100% (21/21)) and engagement (95% (20/21)) with the activity, increased comfort with the content (91% (19/21)), and demonstrated improvements in knowledge across content areas (91% (19/21)). Participants reported using skills relevant to clinical practice such as ‘working as a team,’ ‘task switching,’ ‘task delegation,’ ‘brainstorming,’ and ‘solving complex problems together.’ Challenges exist related to props cost and the time for development; however, we now have a materials bank that can be used in the future and we have successfully implemented a COVID-safe virtual event, demonstrating the adaptability of this format.

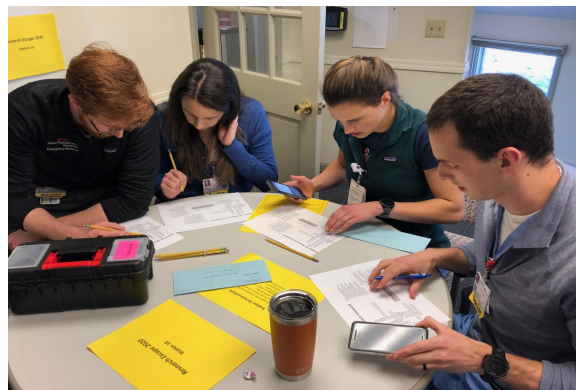


Image 1.

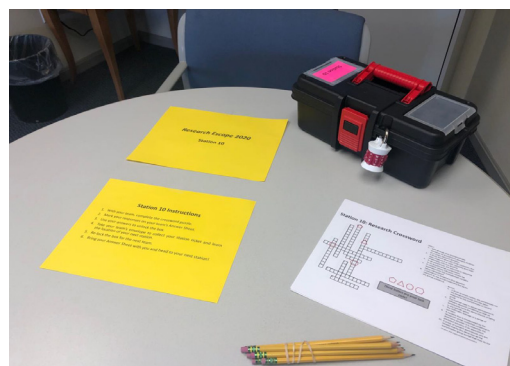


Figure 2.