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Basic Life Support and Opioid Overdose Management: Knowledge and Attitudes Among Students Matriculating into Medical School

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## 9 Assessing for Gender Disparities in the Selection of Chief Residents of Emergency Medicine Residency Programs

Zitek T, Volz E, Steinberg J / Kendall Regional Medical Center; Abbingdon Hospital; Jefferson Health

**Background:** Although the number of women physicians has been increasing, there may be gender disparities in the assessment of female emergency medicine residents.

**Objectives:** The rate at which female emergency medicine residents become chief residents is similar to that of males. This study sought to determine if female emergency medicine residents are less likely to become chief residents than males.

**Methods:** In July 2017, an anonymous survey was distributed to the program coordinators of all accredited emergency medicine residency programs in the United States. The survey requested the number of males and females in each graduating class from 2015 to 2017. The percentage of female residents who were chief residents was calculated and compared to that for males. Secondly, an analysis was performed to see if region of the country or method of chief resident selection was associated with the chances of females becoming chief residents.

**Results:** Program coordinators from 57 residency programs responded to our survey (34% response rate). Of the 683 females in the three graduating classes, 182 (26.6%) were selected as chiefs. This percentage was very similar for males: 26.7% (311/1164). No differences in the female chief residents percentages were seen based upon region of the country. Females were more likely to be chief residents in programs that selected chief residents by resident vote. No other factor relating to how chief residents are selected was found to have a statistically significant association with the percentage of female chief residents.

**Conclusions:** We found no evidence of a gender disparity with regards to the selection of chief residents for emergency medicine programs.

## 10 Association between Embedding CME Codes in Web-Based Residency Didactic Feedback Forms and Faculty Completion Rates

Scott K, Delgado M, Conlon L, Mamtani M / Perelman School of Medicine at the University of Pennsylvania

**Background:** Achieving high completion rates of resident feedback forms remains a challenge in most GME programs. In our program, we identified a void in the feedback provided to residents during weekly didactic conferences. Despite the design and implementation of an electronic, mobile device friendly feedback form, there remained poor faculty completion of the form.

**Objective:** Determine if embedding conference CME codes into a web-based conference feedback form increases faculty completion of the feedback form.

**Methods:** We conducted a 20-week intervention trial. Weeks with cancelled or off-site conferences were excluded. During the pre-intervention period (June 2018-September 2018) a mobile device friendly feedback system via Google Forms was distributed and accessed via email and electronic calendar invites. During the intervention period (October 2018-January 2019), we stopped displaying the conference CME codes on the white board of the conference room and instead embedded them directly in the online conference feedback form, such that they could only be viewed upon completion of the form. We performed a t-test of means to determine differences in faculty completion rate by week between the pre- and post-intervention periods.

**Results:** During the pre-intervention period, a mean of 5.0 faculty/week completed feedback forms. During the post-intervention period, the completion rate increased to 13.2 faculty/week (5.0 vs 13.2,  $p < 0.0001$ ).

**Conclusion:** Embedding CME codes in a web-based residency didactic feedback form was associated with significant increase in faculty completion rates of these forms. While this study was limited by a pre/post design, there were no known other interventions deployed during these time periods aimed at increasing faculty attendance or form completion rates. This suggests that leveraging the redemption of CME codes is a simple, no-cost solution to increase faculty engagement with web-based residency didactic feedback forms.

## 11 Basic Life Support and Opioid Overdose Management: Knowledge and Attitudes Among Students Matriculating into Medical School

MacDonald N, Zhang X, Papanagnou D / Sidney Kimmel Medical College at Thomas Jefferson University

**Background:** Basic Life Support (BLS) skills are typically included in undergraduate medical education (UME) curricula. Despite this training, graduating students continue to demonstrate substandard skills retention. In the setting of the opioid epidemic, these skills are essential. Opioid overdose management (OOM) training should occur in conjunction with BLS training. To date, there is a paucity of literature that describes incoming medical students' knowledge and attitudes on these topics prior to beginning their studies.

**Objectives:** To describe medical students' knowledge and attitudes towards Basic Life Support (BLS) and opioid overdose management prior to their medical training to inform curricular change in undergraduate medical education.

**Methods:** We conducted an observational, cross-sectional study of 1st-year medical students at a major academic

medical school in Philadelphia, the epicenter of the opioid epidemic. Survey items assessed participants' knowledge and attitudes on BLS and OOM. The survey was voluntary, and deployed through Qualtrics.

**Results:** 258 students of 272 (95% response rate) completed the survey. 88% agree that BLS training should take place immediately upon matriculation. 74% agree that OOM training should also take place upon matriculation. 32% of respondents had been previously certified in BLS / ACLS, and only 15% had previously received any level of OOM training. Students reported a moderate comfort level with administering chest compressions ( $5.14 \pm 2.9$  [Likert Scale 1-10, 10=most comfortable]); and a low comfort level using an AED ( $4.80 \pm 3.1$ ) or assisting an opioid victim ( $3.74 \pm 3.1$ ). With regards to medical knowledge, up to 74% failed to correctly answer knowledge-based questions on basic management principles.

**Conclusions:** Matriculating students do not have adequate BLS or OOM knowledge upon entering medical school, but wish to have these skills taught to them during their pre-clinical training. Findings should inform UME curricular changes to address the growing opioid epidemic.

## 12 Beyond Residency: An Initiative for Continuing Education for Emergency Medicine Alumni

*Jones J, Houseman J, Ladaga N, Singh M, Cozzi N / Department of Emergency Medicine, College of Human Medicine, Michigan State University; Spectrum Health/ Michigan State University*

**Background:** Free Open Access Medical education (FOAM) is a dynamic collection of resources and tools for lifelong learning in emergency medicine. Predominantly social media based, FOAM resources are easily accessible, portable, allowing learners to educate themselves using tools that suit their needs when the time is right for them.

**Objectives:** To assess a computer-based newsletter using FOAM resources, which is distributed monthly to practicing EM alumni from one residency program during the past eight years.

**Methods:** This was a prospective, self-administered online survey sent to 211 physician alumni affiliated with Spectrum Health residency. Each recipient on the mailing list was sent a link to a web-based survey instrument commonly used in academic research. The anonymous survey instrument had 14 open-ended and closed questions to assess the experience, quality, satisfaction with FOAM resources and recommendations. Descriptive statistics were used to summarize the data.

**Results:** Eighty-five respondents completed the survey (40% response rate), including board-certified (91%) and board-eligible (9%) physicians. Respondents averaged 2.2 hours on FOAM resources each month; accessing approximately 19% of

listed educational sites. The majority (94%) felt the content of the FOAM was "of high quality and relevant to my practice" and 83% believed the information would "help in preparation for the national written exams." Overall, 59% of participants utilized the free continuing medical education (CME) sites for credit, averaging 5 CME hours/year. Suggestions to improve the FOAM content included: listing more CME sites (49%), case studies (28%), podcasts and videos (28%), and wilderness medicine resources (22%). Most respondents (86%) felt that residency programs should offer some type of ongoing continuing education to alumni

**Conclusions:** Computer-assisted instruction using FOAM resources was well received by alumni in our EM residency program.

## 13 Burnout and Isolation - Effect of Sharing Residency Experiences in an Anonymous Resident-Only Setting

*Valle K, Alvarez A, Kellogg A / University of Texas Southwestern; Stanford Emergency Medicine Residency Program; Baystate Medical Center*

**Background:** Burnout is characterized by emotional exhaustion, depersonalization and a lack of sense of personal accomplishment. EM residents experience higher rates of burnout compared to other specialties. Medical errors, substance abuse, depression and suicide are all associated with physician burnout. Peer support has worked well in other environments where shared stressors and trauma are present. An anonymous submission platform may provide a safe space for physicians to share their narrative. This project seeks to present the experiences of EM residents utilizing an anonymous submission platform followed by an in-person reading event in a resident-only setting and assess the effect of sharing and hearing other's experiences.

**Objective:** The purpose of this initiative was to assess the utility of shared anonymous peer experiences on resident wellness both from sharing and hearing the experiences of others, as well as to provide an outlet for residents with the goal of fostering increased camaraderie.

**Methods:** 66 residents from a single, urban, county EM residency program were invited to submit their residency stories via a Google Form. Follow-up questions asked what effect the submission had immediately after sharing and whether hearing other's stories would help with the resident's sense of isolation/burnout. After the reading event, residents were surveyed whether the experience affected their wellness positively or negatively.

**Results:** During October 2019, residents were asked to submit their stories. Stories were compiled and read out loud during the resident-only portion of conference. Ten submissions were made, of these, two indicated that