

exclusion criteria totaled 342 (73.2%), and 45 charts (9.6%) were missing documentation and thus deemed ineligible.

**Conclusions:** ED-initiated ECMO is a promising intervention as salvage therapy for a subset of cardiac arrest patients. Given that this technology comes with significant expense and logistical challenges, ECMO must be reserved for patients meeting strict criteria. The results of this chart review suggest an existing patient population at our institution that may benefit from an ECMO protocol.

## 50 Revisions to National EM M4 Examinations Improve Item Performance

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**Background:** Two forms of the National Emergency Medicine (EM) Fourth-year (M4) Examination became available in 2011 and 2012 for assessment of students at the end of EM clerkships. The 50-item examinations assess knowledge in a published EM4 curriculum and contain items written according to published item writing guidelines. Examination performance statistics are assessed annually with a goal of revising examination items as needed to maintain average examination score of around 80% with items of varying degrees of difficulty.

**Objectives:** To identify items with undesirable difficulty (too high or too low), replace them with new items, and reassess performance of replaced items.

**Methods:** Item performance data, including difficulty score (pDiff, the percentage of students answering an item correctly), were collected using test administration software, LXRTets, from July 2014 to March 2015. Six items on V1 with pDiff > 0.95 and four items on V2 with pDiff < 0.4 were replaced by new items covering the same topics. Item performance data was collected following replacement of items from July to October 2015.

**Results:** 1790 students completed V1 in the initial time period, during which time the average pDiff of the six items on V1 selected for replacement was 0.97 (SD 0.01). Following replacement of these six items, 1012 students completed the revised V1 and average pDiff of the revised items decreased to 0.59 (SD 0.29). Two of the six new items were noted to be particularly difficult, with pDiff of 0.14 and 0.25. When these two items were removed from analysis, the pDiff of remaining four new items was 0.78 (SD 0.12). The average V1 examination score decreased from 81.5% (SD 3.7) pre-revision to 78.2% (SD 4.2) post revision. 471 students completed V2 in the initial time period, during which time the average pDiff of the four items on V1 selected for replacement was 0.30 (SD 0.08). 384 students completed V2 following replacement of these four

items, and the average pDiff of the four items increased to 0.76 (SD 0.05). The average V2 examination score increased from 78.4 (SD 4.4) to 83.1 (SD 5.1).

**Conclusions:** Replacement of very easy and very hard items on the National EM M4 Examinations resulted in improved performance in eight of ten replaced items. Ongoing revisions are planned to continue refining performance of the examinations.

## 51 SLOE Lower Third Ranking: Is it the Kiss of Death?

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**Background:** The Standardized Letter of Evaluation (SLOE) was implemented to help better understand an applicant's strengths and weaknesses, and better compare them with their peers. The questions are stratified into top 10%, top third, middle third and lower third. Many authors of SLOE's are concerned that a global assessment of an applicant in the lower third is the "kiss of death."

**Objectives:** Capture adherence to SLOE ranking guidelines and assess whether a ranking in the lower third adversely impacts a student's ability to match in Emergency Medicine.

**Methods:** : In 2015, an IRB approved survey was sent to the Council of Residency Directors' listserv regarding medical student advisement. Respondents were asked if their program adhered strictly, loosely, or not at all to the recommendation to equally distribute students within the thirds. They were asked about their interview practices and match characteristics for students in the top, middle and lower third on their global assessments.

**Results:** See Table 1

In a separate question, sixty nine percent of respondents felt that applicants that they rated in the lower third were well suited to become respectable EM physicians.

**Conclusions:** Less than half of EM programs reportedly adhere to SLOE ranking guidelines strictly but most programs reportedly adhere at least loosely. Most programs interview students ranked in the lower third. Programs adhering strictly to ranking guidelines were more likely to interview students in the lower third than those adhering loosely or not at all. Given one third of respondents did not know if they matched an applicant ranked in the lower third, it is difficult to assess how many of these students actually matched. At least 28% of programs did match applicants ranked in the lower third, and programs adhering loosely to guidelines were more likely to match students from the lower third. Lastly, the majority

Table.

|                  | #  | %   | *No Interviews | *<5% of Interviews | *5-15% of Interviews | *15-30% of Interviews | Skipped Question | Matched Low 1/3 | Did not Match Low 1/3 | Not Sure | Skipped Question |
|------------------|----|-----|----------------|--------------------|----------------------|-----------------------|------------------|-----------------|-----------------------|----------|------------------|
| All Respondents  | 96 |     | 5%             | 36%                | 42%                  | 11%                   | 5%               | 28%             | 40%                   | 30%      | 21%              |
| Strict Adherence | 39 | 41% | 5%             | 23%                | 51%                  | 13%                   | 8%               | 26%             | 41%                   | 28%      | 5%               |
| Loose Adherence  | 51 | 53% | 6%             | 43%                | 37%                  | 10%                   | 4%               | 31%             | 37%                   | 31%      | 0%               |
| No Adherence     | 6  | 6%  | 0%             | 67%                | 17%                  | 17%                   | 0%               | 17%             | 50%                   | 33%      | 0%               |

\*Estimated percentage of applicants interviewed with a lower third ranking (outside of the institution's home students).

of respondents who rated students in the lower third still felt these applicants would become respectable EM physicians.

## 52 Social Media in Emergency Medicine Resident Education: A Needs Assessment

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**Background:** The use of social media has been well documented as an adjunct resource within the field of medical education. Platforms that fall within the broader term of “social media” include Twitter, Facebook, web logs (“blogs”), podcasts, YouTube videos and more. The field of emergency medicine in particular has embraced social media as evidenced by the rise of the FOAMed (Free Open Access Medical Education) movement. Emergency medicine residents around the country already utilize social media resources and many residency programs have started their own Twitter accounts and blogs. To our knowledge, however, no formal needs assessment data has been published on the topic to help guide the development of future resources.

**Objectives:** We aimed to assess the needs and attitudes of emergency medicine residents and faculty toward educational social media resources.

**Methods:** A voluntary, anonymous survey was developed through Qualtrics and sent via email to all emergency medicine residents and faculty of one four-year academic emergency medicine residency program in June 2015.

**Results:** The survey was emailed to 212 individuals with a response rate of 35% (75). Of the respondents, 39% (29) were residents with the remainder representing fellows (2) and attending physicians (44). Of the respondents, 76% already do or would consider using social media for educational purposes. Of all social media platforms, blogs and podcasts were voted to be the most useful for medical education. 44% of respondents have a Twitter account and 46% of respondents read educational blogs regularly. 95% of respondents agreed that the residency program should have a social media presence and 91% agreed that they would like to see a social media platform used for educational purposes within the residency. The Twitter content voted to be most useful for

educational purposes included cases with multiple-choice questions, EKGs and radiology images. The blog content voted to be most useful for educational purposes included EKGs, critical care pearls and ultrasound pearls.

**Conclusions:** Of those who responded to the needs assessment, attitudes toward educational social media resources were favorable, with the majority already utilizing these resources for educational purposes or expressing an interest in doing so.

## 53 Teaching EPA 10: A Simulated Clinical Experience Improves Novice Medical Student Knowledge and Comfort in Recognizing Patients Requiring Emergent Care

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**Background:** Core entrustable professional activities (EPAs) are workplace activities that the AAMC has proposed all students should be prepared to perform upon entering residency. Emergency physicians are uniquely prepared to teach and assess EPA 10: “Recognize a patient requiring urgent or emergent care and initiate evaluation and management.”

**Objectives:** We hypothesized that implementing EPA 10 simulation training for novice medical students would be feasible, acceptable to learners, and increase self-reported comfort with EPA 10 functions.

**Methods:** All first year medical students (n = 147) participated in an EPA 10 training course within two weeks of matriculation in an observational, cross-sectional study. A week prior to the course, students attended a 2-hour introduction to EPA concepts. The course included a 20-minute introduction covering course objectives: performing an “AMPLE history,” assessing an unconscious patient, completing a primary survey, and performing closed-loop communication in critical situations. Students completed four low-fidelity simulation stations, including: (1) a case-based vital signs module, (2) a standardized patient encounter involving altered mental status after syncope, (3) a simulated trauma patient evaluation after a fall, and (4) a team-based