

average assessment score across the group as a whole (95% CI 0.4-0.8, P = 0.00043). Survey data showed that 96.4% of the group reported improved confidence and 92.8% reported improved accuracy.

Conclusions: This study suggests implementing a formal radiology curriculum has the potential to significantly improve an EM resident’s ability to accurately and confidently interpret radiographic images. Limitations included sample size, generalizability and selection bias.

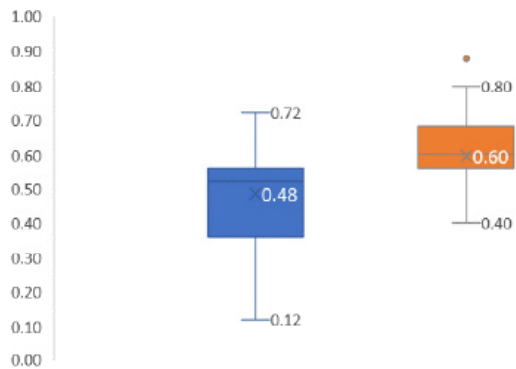


Figure 1. Quiz results: total.

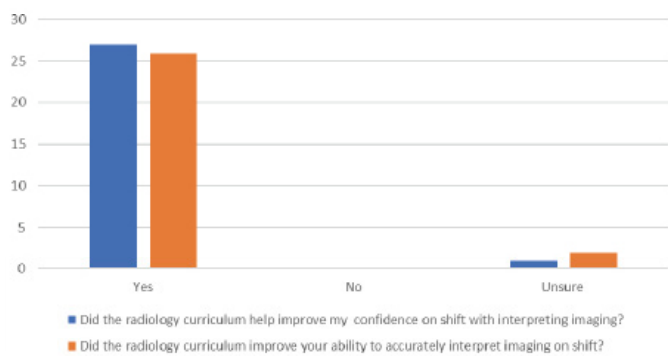


Figure 2. Post-survey: total.

18 Expanding an Emergency Medicine Sub-Internship Mentorship Program

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Background: Mentorship is fundamental in medical education for trainees to receive career development advice. There are few formal mentorship programs designed for medical student success in both rotations & residency applications.

Objectives: We expanded an EM mentorship program for

4th-year EM-bound medical students on their sub-internship at an urban tertiary care hospital in Brooklyn, NY. Resident & attending mentors developed relationships with students & provided advice for the rotation along with the holistic residency application process. The goal was for students to view the mentorship positively & report that the program improved their performance.

Methods: Interns, senior residents, and attendings volunteered as mentors for 4th-year medical students. Mentorship groupings were based on schedules and pre-rotation survey responses. Resident mentors were trained to review patient presentations, differential diagnoses, and the application process with the students. Attending mentors were given a 1-hour presentation reviewing NRMP match data to guide students on applying. Students were sent a post-mentorship survey on their experiences. The data was analyzed via statistical analysis.

Results: Of the 40 sub-interns, 85% (n=34) responded. 100% (n=34) of students recommended continuing the program, 94.1% (n=32) rated the program helpful, and 76.5% (n=26) felt the program helped their performance. 64.7% (n=22) met their resident mentor out of work and 73.5% (n=25) had a shift with them. 29.4% (n=10) met their attending mentor out of work and 35.3% (n=12) had a shift with them. 67.6% (n=23) stated they will keep in touch with the resident mentor while 58.8% (n=20) were unsure if they will keep in touch with the attending mentor.

Conclusion: The data support that a formal mentorship program for medical students during their clerkship was beneficial. Including attending & resident mentors allow students different perspectives on the rotation & application.

19 External Validation of the Fresno Test - An Evidence-Based Medicine Assessment Tool

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Background: Evidence based medicine (EBM) is an entrustable professional activity for medical students entering residency. We have used the Fresno test for assessment of our emergency medicine (EM) clerkship EBM curriculum since 2018. It is a validated tool for assessing EBM competency and is composed of twelve free-response questions scored with a detailed rubric. Inter-rater reliability (IRR) for scoring this test was reported as 0.76 to 0.98 in the original development of this tool, however, there have been limited external validation studies for medical student cohorts.

Objectives: We sought to evaluate the IRR of the Fresno test as scored by multiple independent graders in our cohort of medical students as a measure of external validation of this tool.

Methods: In 2020-2021, grading of the Fresno test was done by a group of four faculty and two senior residents, with two individuals grading the test independently

for each student. EBM expertise and previous grading experience with the Fresno test varied among the graders. Each grader submitted scores on a separate spreadsheet and were blinded to their colleague’s responses during the grading process. The scores for each of the twelve questions in addition to the total score were collected for every test. Cronbach’s alpha (C. alpha) was used to determine the IRR of the test.

Results: 97 tests were scored by two independent graders. There was good IRR for the total scores (C. alpha = 0.90). Of the twelve questions, ten had good IRR (C. alpha = 0.77-0.97) and two had acceptable IRR (C. alpha = 0.64-0.69).

Conclusions: IRR for scoring the Fresno test in our group of graders was consistent with the original developers of the tool. Next steps could explore the variability of IRR among the individual questions and by experience level of grader. For complete external validation, further research is needed to better understand the meaning behind a learner’s score and its relationship to the learner’s level of knowledge.

Table.

Question	Cronbach's alpha
Q1 Write a focused clinical question for this patient encounter that will help you organize a search of the clinical literature for an answer.	0.94
Q2 Where might clinicians go to find an answer to questions like these? Name as many possible types or categories of information sources as you can. You may feel that some are better than others, but discuss as many as you can to demonstrate your awareness of the strengths and weaknesses of common information sources in clinical practice. Describe the most important advantages and disadvantages for each type of information source you list.	0.90
Q3 If you were to search Medline for original research on this question, describe what your search strategy would be. Be as specific as you can about which topics and search categories (fields) you would search. Explain your rationale for taking this approach. Describe how you might limit your search if necessary and explain your reasoning.	0.64
Q4 What type of study (study design) would best be able to address this question. Why?	0.77
Q5 When you find a report of original research on this question, what characteristics of the study will you consider to determine if it is relevant? Include examples.	0.78
Q6 When you find a report of original research on this question, what characteristics of the study will you consider to determine if its findings are valid? Include examples.	0.87
Q7 When you find a report of original research on this question, what characteristics of the findings will you consider to determine their magnitude and significance?]	0.69
Q8 A recent study of the diagnostic accuracy of arterial blood gas in diagnosis of pulmonary embolus included 232 patients with suspected pulmonary embolus, 49 of whom were subsequently determined to have pulmonary embolus. Of those with pulmonary embolus, 41 had abnormal alveolar-arterial oxygen gradient (A-a)DO2. Of the 183 patients determined not to have pulmonary embolus, 118 had abnormal (A-a)DO2. i) Based on these results, the sensitivity of (A-a)DO2 for pulmonary embolus is ___ ii) Based on these results, the specificity of (A-a)DO2 for pulmonary embolus is ___ iii) Based on these results, the positive predictive value of (A-a)DO2 for pulmonary embolus is ___ iv) Based on these results, the negative predictive value of (A-a)DO2 for pulmonary embolus is ___ v) Based on these results, the likelihood ratio positive for an abnormal (A-a)DO2 for pulmonary embolus is ___	0.87
Q9 A recent randomized trial found that 29% of diabetic with coronary heart disease (CHD) treated with pravastatin suffered a recurrent coronary event during 5 years of follow-up, while 37% of the placebo group suffered recurrent coronary events. i) The absolute risk reduction for recurrent events is ___ ii) The relative risk reduction for recurrent events is ___ iii) The number needed to treat (NNT) to prevent one recurrent event is ___	0.92
Q10 The recent HERS study compared women on estrogen supplements to women on placebo. Results revealed a relative risk of venous thromboembolic events of 2.89 for the women on estrogen. This suggests that	0.97

20 Factors That Affect Reactions and Outcomes to Not Being Made Chief Resident

Amanda Smith, Matthew Hysell

Background: Most literature surrounding chief residents discusses process and qualities which predict selection. There is little discussion regarding the potential negative impact on qualified candidates who went unselected.

Objectives: We sought to identify the impact of non-

selection on non-clinical participation (recruiting, teaching, research, etc.) in both the final year of residency and as an attending. We assessed different news delivery styles, resident reaction to the news and delivery, and unanswered questions about the process.

Methods: All graduated candidates who had applied for chief at a single community-based residency but did not get the positions were identified and contacted via phone or text. Consent was obtained. Approximately 30-minute interviews were recorded, with participant permission, and transcribed. A pre-determined set of questions were asked regarding their reaction to the news, how they were told, reasons they were given, and how this affected their participation during the final year of residency and as an attending. Common themes were identified.

Results: We were able to connect with 10 out of 13 (77%) potential participants. See table 1.

Conclusion: While our former residents did not feel significant downstream effects of not being made chief as attendings, most felt significantly decreased motivation to participate in non-clinical activities as residents. Most of our residents had significant questions about why they had not been selected.

Table 1.

Topic	Theme	Sub-theme
News delivery setting	With entire residency Which mentor/program director	Better to know prior to general announcement Public disappointment Trust Respect
How candidates felt	Why not selected Concerns they did not fit the mold Qualified candidates were selected Negative responses to others' support	What did other residents say Who made the decision What were my shortcomings No transparency with criteria Women felt they needed to be cheerleaders Social role vs administrative role Respect for fellow residents Fellow residents expected some to be chief made news handler Faculty who said that they would have supported candidates for chief
Downstream effects	As attending As senior resident	Most felt none at ultimate job Some had decreased motivation to stay on as attending Did not appreciate being asked to take on additional leadership roles when not made chief

21 Feedback on Feedback: Improving Quantity of Individualized Comments from Faculty on Student Evaluations

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Background: The Standardized Letter of Evaluation