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Interviewers with lower academic rank had higher odds of changing their scores for applicants after a group discussion

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whether medical students feel they benefit from a resident driven mentorship program during their audition rotations.

**Background:** Mentorship is important for professional growth and success in medicine. There are few formal mentorship programs for medical students on audition rotations.

**Objective:** We launched an EM resident-driven mentorship program to help medical students excel in their clerkships, develop relationships, and navigate residency applications. We hypothesize that students will rate the mentoring positively and will report that it improved their performance.

**Method:** Students were assigned a self-selected EM resident mentor for their four-week clerkship at a single institution. Allopathic and osteopathic students were matched with residents from MD or DO schools, respectively. Mentors were instructed to review: patient presentations, differential diagnoses, clinical decision-making tools, rotation advice, and the application and match process. Mentors were instructed to meet with their mentees and to check-in weekly. Following the rotation, students were sent an online anonymous survey consisting of 6 multiple choice and 3 free response questions. Simple descriptive statistics and qualitative methods were employed for data analysis. Initial coding was performed independently by two study authors and then reviewed by a third author with experience in qualitative methodology. Suggestions were merged via consensus into a final code set that was used for thematic analysis.

**Result:** Six audition rotations occurred over the study period. Of the 47 students, 74% (n=35) responded to our survey. 97% (n=34) of participants recommended continuing this program, 91% (n=32) rated this program helpful, and 64% (n=16) stated that this improved their success on the rotation. Preliminary qualitative analysis of students' responses revealed the themes in Figure 1.

**Conclusion:** Preliminary data suggests that students found having a mentor during their audition rotations was meaningful. We believe students can benefit from a resident-driven mentorship program during their auditions.

Theme	Student Response
Clerkship Success	"I met him the first week of the clerkship and he provided me with some useful information on how to tackle the rest of the rotation. He helped me understand what my role should be."
Application Advice	"Getting outside feedback from someone who has so recently experienced the same challenges and found their way through those hurdles was just what I needed."
Enhanced Medical Knowledge	"They can teach from a supervising role because they went through intern year and learned from their own mistakes."
Team Camaraderie	"It can be hard adjusting to a new environment and a friendly face definitely helped."
Program Insights	The "mentor program was very good for general information and also to get a feel for the type of program..."
Safe Space	"It was helpful to have support from someone who truly wanted me to succeed and was willing to help me through the challenges I faced."

Figure 1.

## 37 Integration of Self Evaluation into Emergency Medicine Resident Assessment and Direction (I SEEM RAD)

Jenna Geers, MB BCH BAO; Benjamin Sandefur, MD; Aidan Mullan, MA; James Colletti, MD; James Homme, MD

**Learning Objectives:** We aim to examine resident self-

evaluation using ACGME Milestone criteria as a potential tool in improving the quality of feedback given at scheduled semiannual meetings, which occur after meetings of faculty committees to evaluate residents on Milestone criteria.

**Background:** In 2013 the Accreditation Council of Graduate Medical Education (ACGME) introduced "Milestones" designed to nationally standardize the evaluation of residents during required semiannual Clinical Competency Committee (CCC) meetings. Previous studies compare resident self-evaluation on milestones to faculty evaluation, with varying degrees of agreement, but integration of self-evaluation into the formative feedback process has not yet been directly studied.

**Objective:** To compare the quality of feedback given in semiannual reviews before and after the incorporation of resident self-evaluation into the feedback process.

**Methods:** This was an interventional study conducted in a single residency program at a major academic hospital over one calendar year. Residents first engaged in a semiannual review without self-evaluating. At the next semiannual review, the same residents completed a self-evaluation of ACGME milestones which was provided to the faculty member assigned to conduct their semiannual review. After both semiannual reviews residents and faculty completed brief surveys rating feedback quality. Two-sided Wilcoxon signed-rank tests were used in comparison analysis.

**Results:** One resident did not self-evaluate prior to the semiannual review and was excluded from analysis. Residents found feedback after the self-assessment more actionable (p = .013), insightful (p = .010), and better overall (p = .025). Similarly, faculty felt their feedback was more actionable (p < .001), more insightful (p < .001), better communicated (p < .001), led to improved resident understanding of milestones (p < .001), and were overall more satisfied (p < .001).

**Conclusion:** Integration of self-evaluation into semiannual reviews improves feedback given to residents as perceived by both residents and faculty. Although limited by sample size, the results are promising for a simple, evidence-based intervention to improve feedback during an existing mandated feedback opportunity.

## 38 Interviewers with lower academic rank had higher odds of changing their scores for applicants after a group discussion

Ryan Coughlin, MD; Brian Wood, MD; Jessica Bod, MD; Alina Tsyruchnik, MD; David Della-Giustina, MD; Jessica Ray, PhD; Ambrose Wong, MD; Katja Goldflam, MD

**Learning Objectives:** Interviewers with lower academic rank had higher odds of changing scores after a group discussion in this cross-sectional observational study. Interviewer sex, initial score, and interviewee final rank group (top, middle, or lower third) also had significant

associations with change in score.

**Background:** Stakes are high for all parties involved in residency recruitment, and a standardized interview scoring process does not exist. Interviewers should consider external influences on their candidate rankings.

**Objective:** We determined the effect of formal post-interview discussions on the interviewer scores of candidates. We hypothesized that interviewer characteristics may be associated with changes in post-discussion applicant scores.

**Methods:** We conducted a cross-sectional observational study of interviewee scores for all applicants to a four-year emergency medicine residency program during the 2017-18 cycle. Scores were obtained for each applicant: first, immediately following the interview and second, following the discussion. We undertook a descriptive analysis of the data and created a logistic regression model to determine odds that the applicant scores changed from pre- and post-discussion ratings for significant interviewee and interviewer factors. The following variables were included in an odds ratio (OR) analysis: interviewer academic rank, interviewer sex, score prior to the discussion, and interviewee final rank group (top third, middle third, lower third of rank list).

**Results:** Twenty-four interviewers and 211 interviewees created 471 unique interviewer-interviewee pairings and scores. In total, 216 (45.8%) scores changed from pre- to post-discussion. Using logistic regression, we found interviewers at lower academic ranks had significantly higher odds of changing their applicant score compared to interviewers at professor rank. Assistant professors (OR 12.777, [5.465-29.870]) and chief residents (OR 9.547, [3.921-23.243]) had the highest odds of a post-discussion score change. Interviewer sex, initial score, and interviewee final rank group also had significant associations with change in score (Table 1).

**Conclusions:** Interviewers with lower academic rank had higher odds of changing their scores for applicants after a group discussion.

**Table 1.** Odds of changing score following discussion.

	Adjusted OR (95% CI)	p-value
<b>Interviewer Sex</b>		
Male	Ref	--
Female	0.485 (0.263, 0.894)	<0.020
<b>Interviewer Rank</b>		
Resident	4.940 (2.155, 11.329)	<0.001
Chief Resident	9.547 (3.921, 23.243)	<0.001
Instructor	4.311 (2.024, 9.184)	<0.001
Assistant Professor	12.777 (5.465, 29.870)	<0.001
Associate Professor	9.562 (2.600, 25.403)	<0.001
Professor	Ref	--
<b>Interviewee Rank List Group</b>		
Top Third	0.261(0.141, 0.483)	<0.001
Middle Third	0.342 (0.198, 0.591)	<0.001
Bottom Third	Ref	--
<b>Score prior to debrief</b>	1.154 (1.015, 1.312)	0.029

### 39 Learning curves for laryngoscopy devices in emergency medicine training: A National Emergency Airway Registry Study

*Samuel Garcia, MD; Benjamin Sandefur, MD; Ronna Campbell, MD; Brian Driver, MD; Michael April, MD; Justin Carlson, MD; Ron Walls, MD; Calvin Brown, MD*

**Learning Objectives:** To compare the learning curve with direct laryngoscope (DL), hyperangulated blade video laryngoscope (HAVL), and standard geometry blade video laryngoscopes (SGVL) in EM trainees.

**Background:** First attempt success is important to mitigate adverse events during emergency department (ED) intubations. Emergency medicine (EM) trainees must be adequately trained using a variety of laryngoscopy devices. Little is known about the learning curves associated with different types of laryngoscopy devices among EM trainees.

**Objective:** To compare the learning curve with direct laryngoscope (DL), hyperangulated blade video laryngoscope (HAVL), and standard geometry blade video laryngoscopes (SGVL) in EM trainees.

**Methods:** We analyzed prospectively collected data from ED patients enrolled in the National Emergency Airway Registry who underwent an orotracheal intubation first attempt by an EM trainee from January 1, 2016 to December 31, 2018. We categorized EM trainees by post-graduate year (PGY) into PGY-1, PGY-2, PGY-3+, PGY-4 or PGY-5 trainees were included in the PGY-3+ group. We used mixed-effects logistic regression including potential confounding covariates of patient age, gender, obesity, medical or traumatic indication, suspected difficult airway, and presence of one or more difficult airway characteristics to assess the association between PGY of training and first attempt success by device.

**Results:** Among 15,204 included intubations, the largest proportion were performed by PGY3+ trainees (Table). DL was associated with improved first-attempt success for PGY-2 (aOR 1.41; 95% CI 1.09-1.82), and PGY-3+ (aOR 1.76; 1.36-2.27) trainees compared to PGY-1. The HAVL was associated with improvement in first-attempt success for PGY-2 (aOR 1.51; 1.1-2.05) and PGY-3+ (aOR 1.56; 1.15-2.13) trainees compared to PGY-1. For SGVL only PGY-3+ (aOR 1.72; 1.25-2.36), was associated with improved first-attempt success for compared to PGY-1.

**Conclusion:** EM trainee proficiency with each type of laryngoscope was greatest at the PGY3+ level of training demonstrating the importance of continued endotracheal intubation.