

UC Irvine

Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health

Title

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Permalink

<https://escholarship.org/uc/item/8163j8jf>

Journal

Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health, 23(1.1)

ISSN

1936-900X

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Publication Date

2022

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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
Interviewer Sex		
Male	Ref	--
Female	0.485 (0.263, 0.894)	<0.020
Interviewer Rank		
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	--
Interviewee Rank List Group		
Top Third	0.261(0.141, 0.483)	<0.001
Middle Third	0.342 (0.198, 0.591)	<0.001
Bottom Third	Ref	--
Score prior to debrief	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.

Table. Laryngoscope device used based on PGY level.

	PGY-1 N (%) (N=1855)	PGY-2 N (%) (N=5135)	PGY-3+ N (%) (N=8214)
DL	528 (28)	1852 (36)	2421 (29)
HAVL	631 (34)	1486 (29)	1791 (22)
SGVL	696 (38)	1797 (35)	4002 (49)

PGY, post-graduate year; DL, direct laryngoscope; HAVL, hyperangulated blade video laryngoscope; SGVL, standar geometry blade vide laryngoscope.

40 Likelihood Patients with Opioid Use Disorder Encounter ED Staff Members who Hold them in Low Regard: Lessons from Computer Simulation Modeling

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Learning Objectives: 1) Capture ED staff member regard for patients with OUD 2) Determine the likelihood with which a patient with OUD presenting to an ED would interface with staff who hold this subset of the population in low regard.

Hypothesis: OUD patients will likely encounter staff members with low regard

Background: Significant stigma surrounds patients with opioid use disorder (OUD). Stigma repeatedly follows patients into the ED and impacts care. Little is known about the patient’s journey in the ED and the negative regard patients with OUD receive from staff.

Objectives: We sought to: 1) capture ED staff member regard for patients with OUD; and 2) determine the likelihood with which a patient with OUD presenting to an ED would interface with staff who hold this subset of the population in low regard. Given numerous touchpoints of an ED visit, we hypothesize that OUD patients would likely encounter staff members with low regard for OUD patients.

Methods: We deployed the validated Medical Condition Regard Scale (MCRS) to 463 ED staff of an academic ED located in Philadelphia to capture sentiments towards patients with OUD. Data was analyzed by job type (i.e., nurses, physicians, technicians). Descriptive statistics (means, standard deviations) were calculated. Following a flow diagram (Figure 1), we created a simulation engine in Python to simulate the experience a patient with OUD would have in an actual ED. Each interaction corresponds to a juncture point where a patient meets a new staff member during the visit. The staff member is randomly selected from the pool of staff members with that job type, and their respective MCRS score is recorded. The simulation was run for 100,000 virtual patients, each with 5 staff member interactions.

Results: 429 staff members completed the MCRS

(response rate 93%). Patients with OUD will encounter someone with significantly low regard for their condition 15% of the time (2 SD below mean) and someone with significantly high regard for their condition 12% of the time (2 SD above mean).

Conclusions: Results suggest that patients with OUD may face bias when presenting to an ED. As a marginalized population, the probability patients with OUD will avoid care may rise if changes are not made to improve their experience.

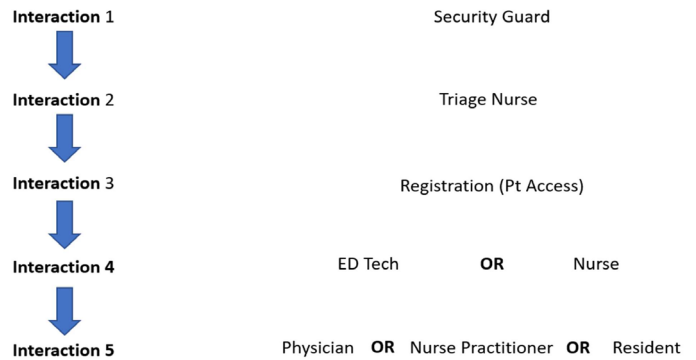


Figure 1. Flow diagram of a sample ED visit with interactions with specific staff members.

41 Lockdown Medical Education: Utilization and Effectiveness of Virtual Modalities for Pandemic-Safe Training

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Learning Objectives: This study aimed to identify and measure effectiveness of common virtual education modalities utilized during the COVID-19 pandemic, as well as which of these modalities are perceived as most effective by medical students.

Background: During the 2019 Novel Coronavirus (COVID-19) pandemic, newly-matched “pre-interns” were displaced from clinical rotations and in-person didactics, many of which are bridges to residency preparedness. During this near-total shift towards virtual medical education, several modalities became commonplace. There has been no large-scale investigation of utilization or effectiveness of these virtual initiatives.

Objectives: This study aimed to identify and measure effectiveness of common virtual education modalities utilized during the COVID-19 pandemic, with the hypothesis that