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Establishing Procedural Confidence in Emergency Medicine: The Role of a Dedicated Intern Procedure Lab

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Authors

Laterza, Cosimo
Gilbert, Benjamin

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We found no statistically significant correlation between procedure counts and competency score except for central venous access which had the highest procedure count (figure 1 and 2). Our findings affirm the benefit of utilizing simulation to identify procedure incompetency especially in the least-performed procedures.

Procedure	Procedure Count				Competency grade			
	Minimum	Maximum	Mean	Median	Minimum	Maximum	Mean	Median
LPs	0	7	3	2	0.882	0.971	0.937	0.941
Intubations	3	27	18	19	0.786	1.000	0.918	0.952
Thoracostomy	1	7	4	5	0.789	1.000	0.951	0.974
Central Venous Access	3	40	22	24	0.905	1.000	0.973	0.976
Total	0	40	12	6	0.786	1.000	0.945	0.952

Figure 1. Statistical Measures of Central Tendency for Procedure Count and Competency Grades.

61 How Single Accreditation Has Changed the Composition of Residency Programs

Zina Bwabi, Hannah Blakely

Background: Since the Match® was established, allopathic (MD), osteopathic (DO), and international medical graduate (IMG) students have utilized it for residency placements. DOs applied primarily through the American Osteopathic Association while MDs applied through Accreditation Council for Graduate Medical Education. The transition to a single accreditation system in 2020 led to a shift in the percentage of MDs, DOs, U.S. IMGs, and non-U.S. IMGs in residency programs.

Objective: This study evaluates how the move to single accreditation for DO graduates has changed the residency makeup in multiple specialties over 2014 to 2024.

Methods: Match® results were gathered from the National Resident Matching Program® database to evaluate the differences between emergency medicine (EM), family medicine, internal medicine (IM), general surgery, and orthopedic surgery. The differences in percentage of matched senior MDs, DOs, U.S. IMGs, and non-U.S. IMGs in each year were evaluated. Analysis was performed via ANOVA and chi-squared to test for significance of a p-value of < 0.05. A linear trend was used to establish the rate of available resident program positions in relation to the number of applicants per cycle.

Results: Between 2014 and 2024, there has been a significant increase in DO senior graduates and decrease in MD senior graduates in residency programs since the transition to single accreditation. The biggest increase is seen in EM as the number of DOs rose from 9.99% to 36.22% and number of MDs fell from 78.33% to 44.45%. Non-U.S. IMGs percentage increased significantly for EM, family medicine, and IM. Linear trendlines in applicants per year grew at a larger rate than available resident positions.

Discussion: The transition to single accreditation allowed DO recipients more opportunity to match into their desired

programs while raising the competitiveness in specialties like EM, Family Medicine, and Orthopedics. The number of total applicants rises each year at a faster rate than available program positions, but some programs continue to have unfilled spots. More research is required to further understand the reason for increased preferences towards DO students and why some programs remain unfilled despite the increase of yearly applicants.

62 Establishing Procedural Confidence in Emergency Medicine: The Role of a Dedicated Intern Procedure Lab

Cosimo Laterza, Benjamin Gilbert

Background: Simulation-based training is essential for improving procedural skills and confidence among emergency medicine interns. Although simulation is widely used, much literature focuses on general orientation programs rather than targeted skills labs. Limited procedural exposure before internship can reduce confidence and affect proficiency. To address this, a focused Intern Procedure Lab was introduced before the academic year to enhance procedural confidence. **Objective:** To evaluate the impact of a dedicated Intern Procedure Lab on procedural confidence among first-year emergency medicine residents. **Methods:** This prospective study included 22 first-year emergency medicine residents from a residency program at a large academic hospital in New Jersey over two years. The Intern Procedure Lab, held in the hospital's simulation center, consisted of six procedural stations. Each station was led by, developed and curated by PGY2/3 residents. Each station provided 20 minutes of structured instruction on indications, contraindications, complications, materials, steps, and microskills, followed by practice attempts. Pre- and post-lab confidence levels were assessed using a 10-point Likert scale for both individual and overall procedural confidence. Statistical analysis was performed with a paired one-tailed t-test. Additionally, a site-specific procedure guide was created by the senior residents for future use within the department. **Results:** Confidence improved significantly, with an average increase of 2.59 (99%CI 2.57-2.61) from pre-lab (M=4.11, SD=1.1) to post-lab (M=6.81, SD=1.2) assessments. Each procedure showed a statistically significant confidence gain (p<0.01). Participants valued the lab's relevance and effectiveness, while senior residents appreciated ownership of teaching.

Conclusion: The Intern Procedure Lab successfully enhanced procedural confidence in first-year emergency medicine residents, meeting a critical training need. The procedure guide was an invaluable addition as site-specific instruction was previously lacking. The lab's design demonstrates significant impact and can serve as a model for similar programs. Study limitations include a small sample size,