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The Landscape of Pediatric Training in Emergency Medicine Residencies

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popular) voter registration platform in a busy public hospital emergency department serving underrepresented patients.

**Background:** Historically, there have been low levels of voter registration amongst impoverished and minority citizens. Due to societal constructs, these patients are overrepresented in public hospitals. In the 2016 Presidential election, only 62.4% of Illinois eligible voters were registered despite policy having a direct impact on healthcare.

**Objectives:** To evaluate the feasibility of a voter registration system in a public hospital emergency department (ED).

**Methods:** A prospective observational description of the implementation and feasibility of voter registration using the *Vot-ER* platform was done in a large, municipal urban ED. *Vot-ER* is a national nonpartisan initiative developed for ED voter registration<sup>2</sup>. We implemented it from August to October 2020. A proposal was approved by hospital administration and respective stakeholders after an extensive legal review that took 7 weeks due to institutional ordinances at the hospital. A training module was presented at residency conference and distributed to all ED providers. Registration posters from *Vot-ER* were posted in the ED. We distributed electronic QR codes printed on badges for clinicians. Patients were offered voter registration by clinicians in English and Spanish via *Vot-ER* who tallied online registration.

**Results:** Voter registration was initiated by 51 patients. Patients without cell phone data access to register on site were given a website link.

**Discussion:** This platform provided an easy and quick way to register patients at a public hospital. Considering the limited resources required, brief training, and number of patients who initiated registration we feel that a public hospital ED is a feasible location to connect underrepresented patients to voter registration. Given the impact of policy on healthcare, providing underrepresented patients an opportunity to register should be a social emergency medicine priority.

## 59 The Impact of Sleep on In-Training Examination Scores among Emergency Medicine Residents

*Kristin Weeks, MD; Michael Takacs, MD, MPH; Christian DeFazio, MD; Joelle Borhart, MD*

**Learning Objectives:** understand the impact hours of sleep the night before the In-Training Examination (ITE) has on examination scores and consider possible interventions to resident work schedules leading up to the ITE

**Background:** Sleep deprivation is a fundamental challenge of shift work and has been shown to impact emergency medicine physician-residents' performance and coordination. It is not known if sleep deprivation impacts performance on the in-training emergency medicine examination (ITE). We

hypothesize that more sleep the night prior to the examination is associated with higher examination scores.

**Methods:** We administered a cross-sectional 12-question electronic survey to physician-residents in emergency medicine residency programs in the United States in April 2020. Our sampling frame was residents of program directors (N=366) receiving the Council of Residency Directors in Emergency Medicine (CORD) listserv. We constructed a multivariable logistic regression model of scoring at least 70% on the ITE by hours of quality sleep the night before the examination.

**Results:** 286 (90%) respondents who completed the survey reported hours of sleep and were included in the analysis. Independently of sex, year in residency, rotation and hours off clinical duties before the examination, each additional hour of sleep (range <1 to 9 hours) received the night prior to the ITE was associated with 1.25 greater odds (95% confidence interval (CI) 1.01-1.55) of scoring greater than 70% on the examination. The adjusted odds of scoring greater than 70% on the ITE were 7.22 times (95% CI 2.85-18.27) greater for third- and fourth-year residents (versus first and second) and 3.26 times greater (95% CI 1.02-10.43) for residents who had been off-service for 19-24 hours prior to the examination (versus 0-6).

**Conclusion:** Increased hours of sleep were significantly associated with higher ITE scores. Attention should be given to shift work prior to the ITE, and physician-residents should be given time-off clinical duties the night prior to the ITE to allow for greater hours of sleep. Residents should be educated about fatigue mitigation and the importance of maximizing sleep off-duty.

## 60 The Landscape of Pediatric Training in Emergency Medicine Residencies

*Jillian Nickerson, MD, MS; Aditi Ghatak-Roy, MD; Katie Donnelly, MD, MPH; Xian Zhao, MD, MEd*

**Learning Objectives:** 1) To describe the landscape of pediatric training in EM residencies; and 2) to evaluate the confidence Program Directors (PDs) have in their graduating trainees' ability to care for pediatric patients.

**Background:** Several studies have demonstrated that Emergency Medicine (EM) providers are uncomfortable caring for pediatric patients relative to caring for adult patients. Pediatric training in EM residents has not been evaluated since 2000.

**Objectives:** 1) To describe the landscape of pediatric training in EM residencies; and 2) to evaluate the confidence Program Directors (PDs) have in their graduating trainees' ability to care for pediatric patients.

**Methods:** We conducted a survey study of EM PDs. PDs were identified from the American Medical Association

residency database. Two follow-up emails were sent over 3 weeks if no response was received. We collected information on program demographics, rotations, and didactic methods. We measured PDs' confidence of graduating residents' competence.

**Results:** We found email addresses for 249 (93%) of the 268 EM programs, of whom 119 (48%) PDs completed the survey. Of these, 79% (92) are 3-year programs with a median of 32 (IQR 24-42) residents from 33 states.

Almost half (57, 42%) of programs had no department of Pediatric Emergency Medicine (PEM) at their institution. PDs mostly reported that pediatric patients made up 10-20% (68, 59%) or 20-30% (33, 28%) of the overall patients seen by residents. In terms of rotations: 91% (110) require a PEM rotation, less than half (47, 43%) at a freestanding children's hospital; 83% (88) require PICU; and only 29% (34) require NICU.

The majority of curricula (70, 62%) are designed by PEM trained faculty, 85% (96) have PEM attendings teach lectures, and most (77, 68%) report that 10-20% of didactic time is spent on pediatrics topics.

PDs were less confident in their graduating residents' competence in the care of pediatric patients as compared to adult patients (Table 1).

**Conclusions:** There remains heterogeneity in pediatric training for EM residents. PDs are less confident in their graduating residents' competency to care for pediatric compared to adult patients.

**Table 1.** Comparison program director's confidence in their graduating resident's pediatric versus adult skills.

		Number (percent) Program Directors confident that ALL residents graduate with competency in this skill	Number (percent) Program Directors confident that fewer than all residents graduate with competency in this skill	p-value
<b>Resuscitation skills</b>	Neonatal	41 (42%)	57 (58%)	<0.0001
	Pediatric	77 (77%)	23 (23%)	
	Adult	99 (98%)	2 (2%)	
<b>Trauma</b>	Pediatric	79 (78%)	22 (22%)	<0.0001
	Adult	99 (98%)	2 (2%)	
<b>Intubation</b>	Pediatric	61 (62%)	37 (38%)	<0.0001
	Adult	101 (100%)	0 (0%)	
<b>Venous access</b>	Pediatric	40 (41%)	58 (59%)	<0.0001
	Adult	98 (98%)	2 (2%)	
<b>Lumbar puncture</b>	Pediatric	73 (73%)	27 (27%)	0.0009
	Adult	92 (91%)	9 (9%)	
<b>Ultrasound</b>	Pediatric	62 (62%)	38 (38%)	<0.0001
	Adult	100 (99%)	1 (1%)	
<b>Urgent care</b>	Pediatric	76 (79%)	20 (21%)	0.12

## 61 The Prevalence of Lesbian, Gay, Bisexual, and Transgender Health Education and Training in Emergency Medicine Residency Programs: Where are we now?

Joel Moll, MD; David Vennard, DO; Rachel Noto, MD; Timothy Moran, PhD; Paul Krieger, MD; Lisa Moreno-Walton, MD, MS, MSCR; Sheryl Heron, MD MPH

**Learning Objectives:** Our primary objective was if EM residencies offer education on sexual minority health. Secondary objectives include the number of actual hours versus desired, identification of barriers, and correlation of education with program demographics. Finally we compared with survey results from 2013.

**Background:** Despite inequities and disparities in Lesbian, Gay, Bisexual, Transgender, Queer (LGBTQ+) health, little education occurs in medical school or residency for emergency physicians. With increased focus on health inequities and disparities, and efforts of many organizations to provide education, we sought to reexamine the status of sexual minority health education in emergency medicine (EM) residencies.

**Objectives:** Our primary objective was to determine if EM residencies offer education on sexual minority health. Secondary objectives include the number of hours vs desired, identification of barriers, and correlation with program demographics. Finally, we compared our current data with past results of our 2014 study.

**Methods:** An identical survey to the 2014 study examining LGBTQ+ training was sent via email to EM accredited programs who had at least a class of residents.

**Results:** A total of 209 programs were identified, with a 54% response rate. The majority (75%) offered education content on LGBTQ+ health, for a median of 2 hours (IQR: 1 – 3) and a range of 0 to 22 hours. Respondents desired more education than offered (Median = 4, IQR: 2 – 5; p<0.001). The largest barrier identified was lack of time in curriculum (63%). The majority of programs had LGBTQ+ faculty and residents. Inclusion and hours positively correlated with presence of LGBTQ+ faculty or residents, University and county programs were more likely to deliver education than private groups (p=0.03). Awareness of LGBTQ+ resident but not faculty differed by region, but there was no significant difference in actual or desired content by region. Conclusion: The majority of EM training programs offer education in sexual minority health, although there remains a gap between actual and desired hours. This is a notable change since the original study demonstrating only 26% in 2014. Several barriers still exist, and the impact and completeness of education remain areas for further study