

be developed. With overwhelming support from physician-educators, a formal pre-clerkship procedural curriculum is poised to redefine the landscape of procedural care for a whole new generation of physicians.  
**Keywords:** pre-clerkship, procedural curriculum, survey

#### MP43

##### Evaluation of undergraduate point of care ultrasound instruction in a rural Canadian medical school

Z. Kuehner, BSc, MD, MSc, M. Dmitriew, BSc, MD, M. Jenkins, BSc, MD, B. Piper, BSc, S. Byce, BSc, MSc, S. Dubois, MPH, C. Zanette, BSc, MD, MSc, Memorial University of Newfoundland, St John's, NL

**Introduction:** Point of care ultrasound is a burgeoning tool in clinical medicine and its utility has been demonstrated in a variety of contexts. It may be especially useful in rural areas where access to other imaging equipment (such as CT) is limited. However, there exists debate about the utility of teaching ultrasound theory and technique to medical undergraduates, particularly those in their first two years of study. This study evaluated the efficacy of teaching undergraduate-tailored ultrasound training sessions to first and second-year medical students at the Northern Ontario School of Medicine (NOSM), a rural-focused medical institution. **Methods:** Sixty students participated in tailored ultrasound teaching sessions that involved both lecture and hands-on components. Participating students were assessed following each session, as well as at study completion, in terms of ultrasound knowledge, anatomy, pathology, orientation, and interpretation of computerized tomography (CT) scans (transferability). Participants' performance was measured against a control group of their peers. Program evaluation was completed using Likert-type scales to determine participant comfort with ultrasound before and after the training, and areas of strength and improvement. **Results:** Participating students showed statistically significant improvement in ultrasound interpretation and anatomical orientation with trends toward improved anatomy and pathology knowledge, and ability to interpret computerized tomography (CT) scans compared to controls. Students participating in the course expressed improved comfort with ultrasound techniques and desire for future integration of ultrasound into their training, but noted that increasing frequency of training sessions might have improved retention and confidence. **Conclusion:** Results suggest that using an undergraduate-focused and system-specific ultrasound training course yields retention in ultrasound interpretation ability and objective improvement in relational anatomy knowledge. Trends toward improvement in general anatomy, pathology and CT interpretation suggest areas of future study.

**Keywords:** medical education, rural innovation, ultrasound

#### MP44

##### Emergency department perceptions of routine in-situ simulation

C. Cox, BSc, MD, MPH, S. Stewart, BSc, MSc, PhD, L. Patrick, BSc, MD, MEd, N. Sowers, BA, BSc, MD, Dalhousie University, Halifax, NS

**Introduction:** Emergency Department (ED) health care professionals are responsible for providing team-based care to critically ill patients. Given this complex responsibility, simulation training is paramount. In situ simulation (ISS) has many cited benefits as a training strategy that targets on-duty staff and occurs in the actual patient environment. Several evidence-based frameworks identify staff buy-in

as essential for successful ISS implementation, however, the attitudes of interdisciplinary front-line ED staff in this regard are unknown. The purpose of this study is to identify contextual trends in interdisciplinary opinions on routine ISS in the ED. **Methods:** Qualitative and quantitative review, exploring the self-reported attitudes of interdisciplinary ED staff: before, during and after the implementation of a routine ISS pilot program (5 sessions in 5 months) at the Charles V Keating Emergency and Trauma Center in Halifax from Feb–Nov, 2018. **Results:** 149 surveys were received. Baseline support for ISS was high; 83% of respondents believed that the advantages of ISS outweigh the challenges and 47% favoured simulation in the ED, relative the sim bay (26%) and 28% were indifferent. The attitudes of direct participants in ISS were very positive, with 88% believing that the benefits outweighed the challenges after participation and 91% believing that they personally benefited from participating. A department wide post-ISS pilot survey suggested a slight decrease in support. Support for ISS dropped from 83% to 67%, a statistically insignificant reduction ( $p=0.098$ ) but a sizeable change that warrants further investigation. Most notably respondents reported increased support for simulation training in a simulation bay relative to ISS in the ED. Respondents still regarded simulation highly overall. Interestingly, when the results were stratified by position, staff physicians were the least positive. **Conclusion:** Pre-pilot or baseline opinions of ISS were very positive, and participants all responded positively to the simulations. This study generates valuable insight into the perceptions of interdisciplinary ED staff regarding the implementation and perceived impact of routine ISS. This evidence can be used to inform future programming, though further investigation is warranted into why opinions post-intervention may have changed at the department level.

**Keywords:** emergency department, in situ simulation, interdisciplinary

#### MP45

##### Rate control management of rapid atrial fibrillation in the emergency department

B. Wong, BHSc, M. Green, MD, I. Stiell, MD, MSc, University of Ottawa, Department of Emergency Medicine, Ottawa, ON

**Introduction:** The Canadian Association of Emergency Physicians (CAEP) Atrial Fibrillation (AF) Guidelines prioritizes early cardioversion and discharge home in the management of rapid AF, however not all patients can be safely cardioverted in the emergency department (ED). Given limited ED-based evidence on rate control, we sought to better understand the burden of disease in AF patients not managed by rhythm control and identify opportunities for improved care. **Methods:** We conducted a health records review of consecutive AF patient visits at two Canadian academic hospital EDs over a 12-month period. We included all patients  $\geq 18$  years with AF on electrocardiogram, a heart rate  $\geq 100$  beats per minute (bpm), and who did not receive cardioversion. Outcomes included: (1) incidence of patients managed by rate control; (2) specific rate control management practices including choice of agent, route of administration, dosing, and timing; (3) adverse events; (4) compliance with CAEP AF Guidelines; and (5) disposition and outcomes. **Results:** Of 972 rapid AF patient visits, 307 were excluded and 665 were included, with mean age 77.2, female 51.6%. Of those included, 43.0% were given rate control medications, most common being metoprolol (72.0%). Admission to hospital occurred in 61.4% of visits, and 77.9% of AF cases were secondary to another medical condition. In