between. At each session, participants completed a one-minute pre-test of CC performance, viewed a one-minute training video, practiced CCs for two minutes with real-time feedback, and completed a one-minute post-test. Performance parameters measured were CC depth, rate, release, and hand positioning. A final "compression score" assessed integrated performance across these parameters and served as our primary outcome. Participants also reported pre- and post-training comfort with performing CCs which served as our secondary outcome. **Curriculum, Tool or Material**: Our "Quick Refresher Sessions" (QRS) were completed by participants independently without requiring an assessor or facilitator. A manikin with the ability to record and provide real-time quantitative feedback on CC quality was connected to a laptop running a customized interface. Participants typed in an individualized code and were guided through their six-minute sessions automatically. **Conclusion**: Immediately following the first training session, subjects had significant improvement in compression score (p < 0.001) and skill comfort (p < 0.001). At eight months, both intervention groups, q2m and q4m, achieved higher compression scores than control (p = 0.001 and p = 0.011) and showed greater increase in comfort level (p = 0.002 and p = 0.010). Performance between intervention groups at eight months was not statistically different. Overall, we conclude that independent QRS training every two or four months led to improved CC quality and provider comfort. Future directions include increasing sample size and tailoring training intervals to individual performance.

Keywords: automated real-time feedback, innovations in EM education, resuscitation medicine

LO84
Ready to run the show: development of a new instrument for assessing resident competence in the emergency department

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Innovation Concept: The outcome of emergency medicine training is to produce physicians who can competently run an emergency department (ED) shift. While many workplace-based ED assessments focus on discrete tasks of the discipline, others emphasize assessment of performance across the entire shift. However, the quality of assessments is generally poor and these tools often lack validity evidence. The use of entrustment scale anchors may help to address these psychometric issues. The aim of this study was to develop and gather validity evidence for a novel tool to assess a resident's ability to independently run an ED shift. **Methods**: Through a nominal group technique, local and national stakeholders identified dimensions of performance reflective of a competent ED physician. These dimensions were included in a new tool that was piloted in the Department of Emergency Medicine at the University of Ottawa during a 4-month period. Psychometric characteristics of the items were calculated, and a generalizability analysis used to determine the reliability of scores. An ANOVA was conducted to determine whether scores increased as a function of training level (junior = PGY1-2, intermediate = PGY3, senior = PGY4-5), and varied by ED treatment area. Safety for independent practice was analyzed with a dichotomous score. **Curriculum, Tool or Material**: The developed Ottawa Emergency Department Shift Observation Tool (O-EDShOT) includes 12-items rated on a 5-point entrustment scale with a global assessment item and 2 short-answer questions. Eight hundred and thirty-three assessment

were completed by 78 physicians for 45 residents. Mean scores differed significantly by training level (p < .001) with junior residents receiving lower ratings (3.48 ± 0.69) than intermediate residents who received lower ratings (3.98 ± 0.48) than senior residents (4.54 ± 0.42). Scores did not vary by ED treatment area (p > .05). Residents judged to be safe to independently run the shift had significantly higher mean scores than those judged not to be safe (4.74 ± 0.31 vs 3.75 ± 0.66; p < .001). Fourteen observations per resident, the typical number recorded during a 1-month rotation, were required to achieve a reliability of 0.80. **Conclusion**: The O-EDShOT successfully discriminated between junior, intermediate and senior-level residents regardless of ED treatment area. Multiple sources of evidence support the O-EDShOT producing valid scores for assessing a resident's ability to independently run an ED shift.

Keywords: entrustment, innovations in EM education, workplace-based assessment

LO85
Development of a competency based assessment tool for emergency department point of care ultrasound

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Innovation Concept: Assessment of residents' Point of Care Ultrasound (PoCUS) competency currently relies on heterogenous and unvalidated methods, such as the completion of a number of proctored studies. Although number of performed studies may be associated with ability, it is not necessarily a surrogate for competence. Our goal was to create a single Ultrasound Competency Assessment Tool (UCAT) using domain-anchored entrustment scoring. **Methods**: The UCAT was developed as an anchored global assessment score, building on a previously validated simulation-based assessment tool. It was designed to measure performance across the domains of Preparation, Image Acquisition, Image Optimization, and Clinical Integration, in addition to providing a final entrustment score (i.e., OSCORE). A modified Delphi method was used to establish national expert consensus on anchors for each domain. Three surveys were distributed to the CAEP Ultrasound Committee between July-November 2018. The first survey asked members to appraise and modify a list of anchor options created by the authors. Next, collated responses from the first survey were redistributed for a re-appraisal. Finally, anchors obtaining >65% approval from the second survey were condensed and redistributed for final consensus. **Curriculum, Tool or Material**: Twenty-two, 26, and 22 members responded to the surveys, respectively. Each anchor achieved >90% final agreement. The final anchors for the domains were: Preparation – positioning, initial settings, ensures clean transducer, probe selection, appropriate clinical indication; Image Acquisition – appropriate measurements, hand position, identifies landmarks, visualization of target, efficiency of probe motion, troubleshoots technical limitations; Image Optimization – centers area of interest, overall image quality, troubleshoots patient obstacles, optimizes settings; Clinical Integration – appropriate interpretation, understands limitations, utilizes information appropriately, performs multiple scans if needed, communicates findings, considers false positive and negative causes of findings. **Conclusion**: The UCAT is a novel assessment tool that has the potential to play a central role in the training and evaluation of residents. Our use of a modified Delphi method, involving key stakeholders in PoCUS education, ensures that the UCAT has a high degree of process and content validity. An important next step