

scanning sessions. Evaluations were conducted before and after each session using expert validated multiple choice questions testing general and procedural knowledge, image recognition and interpretation. Volunteer students were evaluated via direct observation of live scanning using an objective structured assessment of technical skills (OSAT) based on the O-score and then re-evaluated at 2 months post-training to assess PoCUS skills retention. **Results:** 40 second year medical students participated in extended Focused Assessment with Sonography for Trauma (eFAST), cardiac, and gallbladder PoCUS sessions. The live-training sessions significantly improved student PoCUS knowledge beyond what they learned independently for eFAST ( $p < 0.001$ ), cardiac ( $p < 0.001$ ), and gallbladder ( $p = 0.02$ ). The largest improvement was noted in procedural knowledge test scores improving from 44.0% to 84.0% ( $n = 38$ ). 16 students were evaluated after each session with a mean O-score of 2.37. 8 students returned two months later to be re-evaluated demonstrating a change in O-scores for eFAST (2.00 to 2.38,  $p = 0.15$ ), cardiac (2.28 to 2.00,  $p = 0.32$ ), and gallbladder (2.91 to 1.88,  $p < 0.001$ ). **Conclusion:** Procedural PoCUS knowledge benefited the most with hands-on training. eFAST and cardiac PoCUS competency was maintained over time while gallbladder PoCUS competency degraded suggesting that targeted PoCUS skills training may be possible. Further study is required to determine the best use of PoCUS resources in undergraduate medical education.

**Keywords:** competency based assessment, innovations in EM education, point of care ultrasonography

#### MP17

##### **Education innovation: A tool to teach consultation skills using rapid cycle deliberate practice**

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**Innovation Concept:** Consultation skills (the collaborator role) are key for safe and effective Emergency Medicine practice. The tool described uses educational techniques familiar to Emergency Physicians and residents (rapid cycle deliberate practice and focused debriefing) to incorporate teaching of this skill into on-shift clinical teaching of Emergency Medicine residents. **Methods:** We searched the literature for consultation teaching methods. We developed a tool to teach consultation as part of on-shift clinical teaching using pedagogical concepts familiar to Emergency Medicine residents, rapid cycle deliberate practice and focused debriefing. The developed tool has three phases; 1) Introduction to a framework for good consultation skills, 2) Managing push-back and understanding competing frames of reference and 3) Direct observation and feedback on the actual consultation. The tool is designed to be used during a clinical shift. Over a series of consecutive cycles the resident refines a consultation and is eventually directly observed during the actual interaction with a consultant. **Curriculum, Tool or Material:** For each of the three phases the tool provides a framework for the preceptor to use to guide the presentation and discussion. During phases 1 and 2 the resident will present the consultation a number of times and the preceptor will provide focused debriefing allowing the presentation to be refined and optimized. During phase 3 the preceptor provides direct observation of the actual consultation followed by focused debriefing. Phase 1: Focuses on understanding the learners current skill level and presents a framework for a high quality consultation. Phase 2: Introduces the concept of competing frames of reference and push-back

and patient centred strategies for managing this situation. Phase 3: The actual consultation interaction between resident and consultant is observed and debriefed. **Conclusion:** Consultation skills are important in the day to day practice of Emergency Medicine but rarely the subject of specific teaching. The tool presented can be used during clinical shifts to teach consultation skills using pedagogy familiar to both Emergency Physicians and EM residents.

**Keywords:** consultation skills, deliberate practice, innovations in EM education

#### MP18

##### **Addressing unrealistic expectations: a novel transition to discipline curriculum in emergency medicine**

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**Innovation Concept:** Emergency medicine (EM) programs have restructured their training using a Competence by Design model. This model emphasizes entrustable professional activities (EPAs) that residents must fulfill before advancing in their training. The first EPA (EPA 1) for the transition to discipline (TTD) stage involves managing the unstable patient. Data from the University of Toronto (U of T) program suggests residents lack enough exposure to these patient presentations during TTD – creating a disconnect between anticipated clinical exposure and the expectation for residents to achieve competence in EPA 1. **Methods:** To overcome this gap, U of T EM faculty specifically targeted EPA 1 while designing the TTD curriculum. Kern's six-step approach to curriculum development in medical education was used. This six-step approach involves: problem identification, needs assessment, goals and objectives, education strategies, implementation and evaluation. To maximize feasibility of the new curriculum, existing sessions were mapped against EPAs and required training activities to identify synchrony where possible. Residents were scheduled on EM rotations with weekly academic days that included this novel curriculum. **Curriculum, Tool or Material:** Didactic lectures, procedural workshops and simulation were closely integrated in TTD to address EPA 1. Lectures introduced approaches to cardinal presentations. An interactive workshop introduced ACLS and PALS algorithms and defibrillator use. Three simulation sessions focused on ACLS, shock, airway, trauma and the altered patient. A final simulation session allowed spaced-repetition and integration of these topics. After the completion of TTD, residents participated in a six-scenario simulation OSCE directly assessing EPA 1. **Conclusion:** The curriculum was evaluated using a multifaceted approach including surveys, self-assessments, faculty feedback and OSCE performance. Overall, the curriculum achieved its goal in addressing EPA 1. It was well-received by faculty and residents. Residents rated the sessions highly, and self-reported improved confidence in assessing unstable patients and adhering to ACLS algorithms. The simulation OSCE demonstrated expected competency by residents in EPA 1. One limitation identified was the lack of a pediatric simulation session which has now been incorporated into the curriculum. Moving forward, this innovative curriculum will undergo continuous cycles of evaluation and improvement with a goal of applying a similar design to other stages of CBD.

**Keywords:** Competence by Design, innovations in EM education, simulation