

software and EPIC platform. Analysis of these cases will allow us to define when errors occur, what is the type and severity of the error, how long it took to relay the discrepancy to a treating physician, and what was the subsequent management impact. **Evaluation/Results:** We discovered 712 cases with radiological reading discrepancies, 168 major, 527 minor, and 17 incidentals. Interestingly, a significant portion of major (severely affecting care/life-threatening) discrepancies were reported from radiology residents, especially on CT images, although emergency physicians had the most discrepancies (mostly minor). Radiology residents were seen to have more discrepant reports during after-hour services while emergency physicians did not show any specific pattern of discrepant reporting. The average time to report a major discrepancy to a treating physician is 8.8 hours, where the maximum time taken was 104 hours and the minimum was 0.2 hours. 56% of reports with major discrepancies made no mention of who was notified. **Discussion/Impact:** By identifying weak points in radiological reporting, our results will allow us to provide suggestions at an administration and teaching level to minimize discrepancies. It is critical to create a workflow where mistakes are mitigated, and communication is efficient and standardized to prevent patient harm from delayed or incorrect diagnosis.

**Keywords:** emergency department, quality improvement and patient safety, radiology discrepancy

#### P041

##### Point-of-care ultrasound utilization and monetary outcomes (POCUMON) study

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**Introduction:** Point-of-care ultrasound (POCUS) is an integral tool in the modern emergency physician's toolkit. Evidence suggests many imaging and lab investigations are ordered without true medical indications; it is unknown how POCUS utilization impacts health care costs at a patient level. The purpose of this study was to assess whether POCUS use in the emergency department (ED) was associated with cost savings via decreased laboratory and radiographic testing. **Methods:** POCUMON is a single-center, prospective pilot study. The participants were a convenience sample of ED staff physicians and PGY-5 Emergency Medicine (EM) residents working in the ED from July-October 2019. Physicians who used POCUS as part of their assessment had the cost of their patient investigation plans compared with those proposed by a control group of ED physicians simultaneously on-shift. The control group was blinded to the POCUS findings but had access to the patient and medical record. The lab investigations and imaging studies ordered by both groups were recorded with respective costs. Data were analyzed using a paired T-test, with sub-group analyses. Ethics approval was obtained from the Queen's University HSREB (No.6026732). **Results:** 50 patient assessments using POCUS were captured in the study period. 76% of patient assessments were performed by EM staff physicians; 94% of control assessments were provided by EM staff physicians. Patient chief complaints included abdominal pain (7), chest pain/dyspnea (10), flank pain (3), pregnancy concerns (4), trauma (7), extremity complaints (4), back pain (3), and other (12). The POCUS group had a trend for lower number of laboratory tests ( $4.7 \pm 0.44$  vs  $5.22 \pm 0.39$ ;  $p = 0.28$ ) and imaging studies ( $0.94 \pm 0.14$  vs  $1.1 \pm 0.11$ ;  $p = 0.33$ ). Overall health care costs were similar in both groups, with a

trend to cost savings in the POCUS group ( $\$142.00 \pm 15.44$  vs  $\$174.60 \pm 17.00$ ;  $p = 0.12$ ). Subgrouping identified significant cost savings in the POCUS group for patients with a chief complaint of flank pain ( $\$43.64$  vs  $\$248.82$ ,  $p = 0.01$ ). **Conclusion:** POCUS use was not associated with significant health care cost savings. ED POCUS usage did see a trend towards decreased laboratory and imaging investigations. Patients presenting with flank pain had significantly lower expenditures associated with their visit when POCUS was incorporated into their assessment. Large scale prospective studies are needed to investigate if POCUS is associated with cost-savings in ED patients.

**Keywords:** cost analysis, point-of-care ultrasound

#### P042

##### Workplace-based assessment in emergency medicine: how do physicians use entrustment anchors?

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**Introduction:** Competency based medical education (CBME) has triggered widespread utilization of workplace-based assessment (WBA) tools in postgraduate training programs. These WBAs predominately use rating scales with entrustment anchors, such as the Ottawa Surgical Competency Operating Room Evaluation (O-SCORE). However, little is known about the factors that influence a supervising physician's decision to assign a particular rating on scales using entrustment anchors. This study aimed to identify the factors that influence supervisors' ratings of trainees using WBA tools with entrustment anchors at the time of assessment and to explore the experiences with and challenges of using entrustment anchors in the emergency department (ED). **Methods:** A convenience sample of full-time emergency medicine (EM) faculty were recruited from two sites within a single academic Canadian EM hospital system. Fifty semi-structured interviews were conducted with EM physicians within two hours of completing a WBA for an EM trainee. Interviews were audio-recorded, transcribed verbatim, and independently analyzed by two members of the research team. Themes were stratified by trainee level, rating and task. **Results:** Interviews involved 73% (27/37) of all EM staff and captured assessments completed on 83% (37/50) of EM trainees. The mean WBA rating of studied samples was  $4.34 \pm 0.77$  (2 to 5), which was similar to the mean rating of all WBAs completed during the study period. Overall, six major factors were identified that influenced staff WBA ratings: amount of guidance required, perceived competence through discussion and questioning, trainee experience, clinical context, past experience working with the trainee, and perceived confidence. The majority of staff denied struggling to assign ratings. However, when they did struggle, it involved the interpretation of WBA anchors and their application to the clinical context in the ED. **Conclusion:** Several factors appear to be taken into account by clinical supervisors when they make decisions regarding the particular rating that they will assign a trainee on a WBA that uses entrustment anchors. Not all of these factors are specific to that particular clinical encounter. The results from this study further our understanding on the use of entrustment anchors within the ED and may facilitate faculty development regarding WBA completion as we move forward in CBME.

**Keywords:** assessment, education, entrustment