

Surgeons and Canadian Association of General Surgeons. Three case-based scenarios evaluated surgeons expected ED investigations and management for SA with varying severity of disease (simple - SA vs perforated - PA) and sex (male vs female). Differences across scenarios were determined by ANOVA and direct comparisons were reported using proportions and odds ratios with 95% confidence intervals. **Results:** Surveys were completed by 82 surgeons. Across the 3 cases, CBC (227/246, 92.3%) and urinalysis (188/246, 76.4%) were the sole investigations expected in >75% of responses. Expectations differed across cases for use of blood cultures ($p < 0.001$), electrolytes ($p < 0.001$), sexually transmitted infection testing (0.015) and ultrasound (US) ($p < 0.001$). Blood cultures (26/82, 31.7% vs. 4/82, 4.9%; OR 9.05 95% CI 2.88-37.33) and electrolytes (58/82, 70.7% vs. 33/82, 40.2%; OR 3.59 95% CI 1.79-7.24) were expected more often in severe disease. US was expected more often in females (58/82, 70.7% vs. 25/82, 30.5%; OR 5.51, 95% CI 2.68-11.38). Expected management differed across cases for fluid boluses ($p = 0.01$), intravenous (IV) analgesia ($p < 0.001$) and antibiotics ($p < 0.001$), with all differences attributed to severity of illness (fluids 73/82, 89.0% vs. 59/82, 72.0% OR 3.16 95% CI 1.28-8.33; IV analgesia 66/82, 80.5% vs. 42/82, 51.2% OR 3.93 95% CI 1.86-8.45; antibiotics 44/82, 53.7% vs. 10/82, 12.2% OR 8.34 95% CI 3.59-20.44). **Conclusion:** Severity of illness and sex of the child impact the ED investigations and management expected by surgeons consulted for suspected appendicitis. Further research focusing on how these expectations influence patient outcomes should be conducted. Collaborative ED-surgery protocols for the diagnosis and management of acute appendicitis in children should be established.

Keywords: appendicitis, children, physician expectations

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Do patients presenting to the emergency department with a mental health crisis have access to community healthcare resources?

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Introduction: The emergency department (ED) is often the first point of access to the health care system for patients with an acute mental health crisis. Outpatient resources are limited, typically do not operate after hours, and patients and their families often lack sufficient information on where and how to access mental health services within their communities. The objective of this study was to determine which community healthcare resources patients attempted to access for their mental health condition prior to presenting to the ED. **Methods:** Between April 2016 to June 2017, a convenience sample of adult (18 years) patients presenting to an academic ED (annual census 65,000) with a mental health complaint were invited to complete a 23-item, paper-based survey. The questionnaire was pilot-tested and peer-reviewed for feasibility and comprehension. **Results:** Of the 200 patients who completed the survey, mean (SD) age was 37 (16) years and 96 (48%) were male. 20 (10%) patients were brought to the ED involuntarily by police services. 175 (88%) had been previously diagnosed with a mental health condition, the most common being depression and/or anxiety ($n = 134$, 67%). 47 (24%) patients indicated they were currently only connected to a primary care provider, while 94 (47%) patients indicated they had existing relationships with multiple mental healthcare providers. 117 (59%) patients attempted to see an alternative healthcare provider prior to coming to the ED. 78 (39%) patients had a pending scheduled appointment with a healthcare provider for their mental health condition, 44 (56%) of which were within 7 days of their ED visit, but chose to seek care in the ED. 38 (19%) patients either had a referral with no

appointment date set, or had an impending mental health appointment scheduled more than 30 days from their ED visit. **Conclusion:** These findings suggest that most patients seeking ED care during a mental health crisis do so despite being connected to alternative healthcare providers and outpatient services. Future studies should attempt to determine reasons why patients with mental health conditions seek care in the ED, and examine barriers to mental health care in the community and outpatient setting.

Keywords: mental health, community healthcare resources, emergency department

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Emergency medicine resident perspectives on journal club as a community of practice and its impact on clinical medicine

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Introduction: Despite revolutionary changes in the medical education landscape, journal club (JC) continues to be a ubiquitous pedagogical tool and is a primary way that residency programs review new evidence and teach evidence-based medicine. JC is a community of practice among physicians, which may help translate research findings into practice. Program representatives state that JC should have a goal of translating novel research into changes in clinical care, but there has been minimal evaluation of the success of JC in achieving this goal. Specifically, emergency medicine resident perspectives on the utility of JC remain unknown. **Methods:** We designed a multi-centre qualitative study for three distinct academic environments at the University of British Columbia (Vancouver, Victoria and Kelowna). Pilot testing was performed to generate preliminary themes and to finalize the interview script. An exploratory, semi-structured focus group was performed, followed by multiple one-on-one interviews using snowball sampling. Iterative thematic analysis directed data collection until thematic sufficiency was achieved. Analysis was conducted using a constructivist Grounded Theory method with communities of practice as a theoretical lens. Themes were compared to the existing literature to corroborate or challenge existing educational theory. **Results:** Pilot testing has revealed the following primary themes: (1) Only select residents are able to increase their participation in JC over the course of residency and navigate the transition from peripheral participant to core member; (2) These residents use their increased clinical experience to perceive relevance in JC topics; and (3) Residents who remain peripheral participants identify a lack time to prepare for journal club and a lack of staff physician attendance as barriers to resident engagement. We will further develop these themes during the focus group and interview phases of our study. **Conclusion:** JC is a potentially valuable educational resource for residents. JC works as a community of practice only for a select group of residents, and many remain peripheral participants for the duration of their residency. Incorporation of Free Open-Access Medical Education resources may also decrease preparation time for residents and staff physicians and increase buy-in. To augment clinical impact, the JC community of practice may need to expand beyond emergency medicine and include other specialties.

Keywords: graduate medical education, qualitative research, knowledge translation

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Occupational therapy in the emergency department: sustaining results

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Introduction: An emergency department visit may represent a sentinel event for someone who is older and frail, signalling a slide into dependence and functional decline. The gold standard for the treatment of frail older adults is a comprehensive geriatric assessment, involving consideration of multiple domains including mobility and function in activities of daily living. Despite this, when a chart audit was conducted in a Canadian metropolitan emergency department, none of the patients age 65 and older had a documented assessment of their function or mobility. In response, an occupational therapy program was implemented. The goals of this program were to reduce the number of unnecessary hospital admissions related to patient functional impairments, and to increase function, safety, and independence for patients upon discharge from the emergency department. **Methods:** The pilot project, which was completed in 2013, was evaluated using a mixed methods approach. Positive patient outcomes at that time included a reduction in avoidable admissions and better support for patients upon discharge from the emergency department. A survey of emergency department staff indicated that occupational therapy consultation added value to the diagnostic and discharge planning processes. However, due to changes in administrative priorities, several service redesigns were required. Multiple PDSA cycles were completed, and the development of a logic model guided and focused program development. **Results:** A reassessment of program objectives was conducted using 2015 data, which found that the number of patients seen by the occupational therapist remained the same, as did the percentage of patients discharged with support of occupational therapy intervention, such as provision of adaptive equipment or referral to community rehabilitation referrals. The percentage of patients discharged due to occupational therapy as a primary contributing factor rose slightly, and staff satisfaction with the program remained high. **Conclusion:** This evaluation proves that the provision of occupational therapy services in the emergency department is sustainable, benefits patients, and can be incorporated into the emergency department workflow and culture.

Keywords: quality improvement and patient safety, allied health care, frail elderly

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Point of care biliary ultrasound in the emergency department (BUSED): implications for surgical referral and emergency department wait times

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Introduction: Patients with uncomplicated biliary disease frequently present to the emergency department for assessment. To improve bedside clinical decision making many emergency medicine physicians have pursued specialized training to perform point of care biliary ultrasound in the emergency department (BUSED). The purpose of this study was to determine the usefulness of BUSED in predicting the need for surgical consultation and intervention for biliary disease. **Methods:** A retrospective study of 283 consecutive patients visiting the emergency department who received a BUSED scan from December 1, 2016 to July 16, 2017. Physician interpretations of the BUSED scans were collected from the electronic image storage and interpretation system. Additional data was collected from the electronic health record including lab values, the subsequent use of diagnostic imaging, and outcomes data including disposition, surgical consultation or intervention, and 28 day follow up for representation or complication. Descriptive statistics and logistic regression were performed. **Results:** Of the patients who received a biliary POCUS scan, 29% were referred to general surgery, and 43% of those referred proceeded to eventual cholecystectomy.

Factors found to be independently predictive of surgical intervention on point of care BUSED scans included presence of gall stones (OR 13.01, 95% CI 5.02 to 27.1) and increased gallbladder wall thickness (OR 6.01, 95% CI 1.7 to 11.1). A total of 30% of patients receiving BUSED required at least one additional, radiology based imaging test (CT or diagnostic US). Average emergency department length of stay was substantially longer for those who required additional imaging as compared to those who were able to be diagnosed by BUSED alone (16.1 versus 5.2 hours, 10.9 hours 95% CI 10.6 11.2, $p < 0.05$). **Conclusion:** Point of care biliary ultrasound performed by emergency physicians provides timely access to diagnostic information. Positive findings of gall stones and increased gall bladder wall thickness are highly predictive of the need for surgical intervention. Future, prospective studies are warranted to determine if point of care sonography is sufficient to proceed to surgery in select cases of uncomplicated biliary disease.

Keywords: point-of-care ultrasound, biliary disease

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Preparedness of Canadian physician offices for paediatric emergencies

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Introduction: Background: Studies in the US have demonstrated that many primary care staff and offices are inadequately prepared for paediatric emergencies. Although the Canadian Paediatric Society (CPS) recently reaffirmed their Guidelines for Paediatric Emergency Equipment and Supplies for a Physicians Office, no evaluation has been made regarding the impact of publishing these recommendations, or on the state of preparedness for paediatric emergencies in family physician offices. Objectives: The aim of this study was to evaluate awareness and adherence of family physicians in Ontario to the CPS guidelines on preparedness for paediatric emergencies. **Methods:** We conducted a province-wide, cross-sectional survey of 749 randomly selected family physicians. Participants were asked to complete a 14-question survey regarding clinic characteristics, incidence of paediatric emergencies, and preparedness of the clinic in the case of a paediatric emergency. Ethics approval was obtained from the regional Ethics Review Board. **Results:** 104 physicians responded to our Ontario survey (response rate of 14.8%). 71.2% of respondents reported seeing more than 10 children per week, and 58.7% had experienced at least one paediatric emergency in the past year. The proportion of physicians reporting paediatric emergencies within the last year increased with the number of children seen - 37.9% of physicians who saw fewer than 10 children per week reported an emergency, compared to 85.7% of those who saw more than 40 children per week. 85.6% of respondents reported that they were unaware of the CPS guidelines on paediatric emergency preparedness. Only 9.6% of respondents were aware of the guidelines, and even fewer, 3.8% had read them. Of the physicians who were unaware of the guidelines, 4.5% [CI=0.2, -0.09] engaged in mock code sessions, 29.2% [CI=0.2, 0.2] were up-to-date on Paediatric Advanced Life Support (PALS), 1.1% [CI=0.03, -0.01] had written protocols outlining safe transport of children to hospitals, and 50.6% [CI=0.4, 0.6] stocked half or more of the recommended supplies. In comparison, of the physicians who were aware of the guidelines, 14.3% [CI=0.3, -0.04] engaged in mock code sessions, 35.7% [CI=0.1, 0.6] were up-to-date on PALS, 7.1% [CI=0.2, -0.06] had written protocols, and 78.6% [CI=0.8, 0.8] stocked half or more of the recommended supplies. **Conclusion:** A large proportion of respondents had experienced at least one paediatric emergency in the past year, but were overall under-prepared. The majority of respondents, 85.6%, were not aware of the