

P082**Current state of POCUS usage in Canadian emergency departments**

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Introduction: Point of care ultrasound (POCUS) has many applications in Emergency Medicine which are proven to improve patient outcomes. Training programs and guidelines for its use are available but its utilization metrics across Canadian Emergency Departments are unknown. This study aims to provide a comprehensive national assessment of POCUS usage, with a key component comparing training with patterns of use.

Methods: A survey was distributed via email to all staff adult emergency physician members of the Canadian Association of Emergency Physicians (CAEP). The survey included questions related to training, attitudes towards POCUS, POCUS utilization, and barriers to POCUS use. Standard descriptive statistics were calculated, and differences in mean POCUS usage between groups were measured using a one-way analysis of variance (ANOVA). **Results:** The survey received 189 responses from emergency physicians from across Canada, 81% of which viewed POCUS as “useful and essential”. Respondents indicated that on average, POCUS was used during 71% (SD 29%) of shifts and on 23% (SD 17%) of patients. POCUS was most commonly used for basic applications, including thoracoabdominal trauma (FAST), cardiac assessment in arrest (trans-abdominal), and assessing for pericardial effusion. The most commonly cited barrier to wider POCUS adoption was a lack of training, with 41% of respondents identifying this as an issue. Correspondingly, formal POCUS training and certification were associated with significantly higher POCUS usage: usage rates ranged from 11.5% (SD 10.5%) of patients for those with formal training but no certification to 39.5% (SD 16.4%) of patients for those with a POCUS fellowship ($p < 0.001$). **Conclusion:** The presented results from this survey provide an initial overview of the current state of POCUS usage in Canadian Emergency Departments. In summary, a higher level of training was associated with higher POCUS usage, and over a third of the respondents cited lack of training as a barrier to adoption; this suggests that efforts to facilitate POCUS utilization should focus on improving access to formal training and certification. Future work will involve further evaluation of additional barriers preventing POCUS usage in the ED, with the goal of providing information that will encourage changes that support widespread POCUS adoption.

Keywords: point of care ultrasound, ultrasound, point of care

P083**IV fluid resuscitation of sepsis patients in London, ON: a retrospective chart review**

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Introduction: The Surviving Sepsis Campaign (SSC) suggests that hypovolemic patients, in the setting of hypoperfusion, be administered 30 mL/kg crystalloid fluid within the first 3 hours of presentation to hospital. More recent evidence suggests that fluid resuscitation within 30 min of sepsis identification is associated with reduced mortality, hospital length of stay and ICU days. This study describes Emergency Department (ED) fluid resuscitation of patients with septic shock and/or sepsis-related in-hospital mortality, prior to implementation of a sepsis medical directive.

Methods: Retrospective chart review of adult patients (18+ years), presenting to two tertiary care EDs between 01 Nov 2014 and 31 Oct 2015, with ≥ 2 SIRS criteria and/or ED suspicion of infection and/or ED or hospital discharge sepsis diagnosis. Data were abstracted from electronic

health records. Patients with septic shock, or who expired in the ED/hospital, were selected for manual chart review of clinical variables including: time, type and volume of ED IV fluid administration. **Results:** 13,506 patient encounters met inclusion criteria. In-hospital mortality rates were 2% (sepsis), 11.5% (severe sepsis), and 24.1% (septic shock). Of patients hypotensive at triage, fluids were administered to 33/50 (66.00%) septic shock patients, and 22/43 (51.16 %) patients who eventually expired. For all septic shock and expired patients (943), median time to IV fluid initiation was 60.50 minutes [29.75 to 101.25] for septic shock and 77.00 minutes [36.00 to 127.00] for expired patients. Median volume of fluid administered was 1.50L [1.0 to 2.00] for septic shock and 1.00L [1.00 to 2.00] for expired patients. Of septic shock and expired patients, IV fluid administration and body weight data was available for 148 encounters (15.6%). Within this group, 19 (12.8%) received no IV fluid. 90 (60.8%) received 0.1-75% of their recommended IV fluid volume. 25 (16.9%) received 75.1-125%, and 14 (9.4%) received $>125.1\%$ of their recommended fluid volume. **Conclusion:** In this study, severe forms of sepsis were often treated with <30 mL/kg crystalloid fluid. Fluids were administered outside of the recommended 30 min, but within the 3 h, time windows. In-hospital mortality was consistent with published data. Future research will examine a broader data set for IV fluid resuscitation in sepsis, and will measure the impact of a fluid resuscitation in sepsis medical directive.

Keywords: sepsis, resuscitation, crystalloid

P084**“iPads on!”-Does the provision of iPad devices within an emergency department improve the frequency of access to departmental web KT resources?**

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Introduction: Barriers to implementing effective Knowledge Translation (KT) in Emergency Departments include lack of awareness, lack of time and limited access to resources. In our teaching hospital emergency department (ED), we implemented a new department website (www.sjrhem.ca) to provide improved access to our KT resources. Having published the website, we wanted to know if the addition of conveniently situated pre-configured iPads would increase access to the website from within the department. **Methods:** The website was developed and first published in April 2014. Two iPads (Apple Inc.) were preconfigured with icons linking directly to targeted pages on our website, including the physician schedule, academic calendar. The iPads were securely located at physician charting desks in October 2014. We used Google analytics to record of webpage visits for 25 weeks before and after the installation of the iPads. Comparisons of mean weekly visits were made using the Student T test (GraphPad Prism). **Results:** The mean weekly page views for the website increased after the installation of the iPads from a baseline of 103 (95%CI 83.9-121) to 198 (181-215); an increase of 95% (71-120; $p < 0.001$). Limiting analysis to devices utilising our hospital IP address we saw a 403% increase in mean weekly page views from 6.4 (4.35-8.45) to 32.2 (26.7-37.8; $p < 0.001$). There was a clear step increase in website access from the date of iPad installation. Comparing the increases in average weekly views for those pages with direct link iPad icons (Clinical 11.4 before, 16.6 after, 46%, Schedule 30, 39, 30%, Calendar 10.7, 46.3, 330%, Home 84.1, 115.4, 37%) to the top accessed pages without iPad icons (Research 4.3, 6.2, 44%, Ultrasound 4.9, 9.8, 100%) did not, other than for the calendar page, demonstrate an observable difference. However, when analysed by views originating the hospital IP address, the pages