with iPad icons were responsible for 88% of landing pages. Over the last two years the department iPads were responsible for 17% of our page views, with 6 of the department guideline pages featuring in the top 20 pages viewed. **Conclusion:** Provision of preconfigured iPad devices within the clinical environment of a busy ED significantly increases access from within that environment to a department website.
Keywords: knowledge translation, tablet device, department website

P085

Dental complaints in the emergency department: a national survey of Canadian EM physicians

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Introduction: Dental complaints and emergencies are a common emergency department (ED) issue that has not been extensively studied. This study aimed to provide an evaluation of Canadian practice patterns and clinical training relating to dental emergencies in the ED. **Methods:** We conducted an electronic survey inviting 1520 Canadian emergency medicine (EM) physicians from CAEP's physician distribution network. Thirty-three questions were asked regarding ED physician training with dental emergencies, practice patterns and comfort with dental care, current available ED dental resources, and how dental care may be improved in Canadian EDs. Standard descriptive statistics were calculated. **Results:** Survey response rate was 15.1%. Respondents were predominantly male (62.8%) with a mean 15.3 years (SD: ±9.8) of practice, and were primarily CCFP-EM (50.7%) or FRCP-trained (25.6%) in either tertiary (48.0%) or community (36.3%) teaching hospitals. They received broad training on dental issues, but this was limited in scope to ≤1 day of residency (61.4%). A combined majority (59.6%) felt their residency left them somewhat to very unprepared for treating dental complaints, and <40% of physicians reported feeling comfortable with specific, common dental emergency procedures, with the exception of avulsed tooth storage (61.1%). For pain management and local trauma exploration, 36.9% felt somewhat to very uncomfortable performing oral and facial nerve blocks. Many respondents do not have access to any dental emergency supplies (48.0%), or do not know if they have any access (14.2%). Furthermore, 18.9% have no access to any professional support for help with dental emergencies requiring advanced management. Respondents believe dental emergency consultant support is an issue at their centre (62.5%). EM physicians want more training with dental emergencies (79.5%) and improved access to dental-specific emergency materials in their departments (63.7%). The greatest barriers to providing good ED dental care were cost to patients (72.7%), physician comfort treating complaints (54.7%), and clear follow-up with outpatient dental professionals (54.3%). **Conclusion:** ED physicians feel relatively unprepared by their residency training to treat dental complaints, and professional dental support is an issue in the majority of EDs. Dental care may be improved with more access to training, to dental ED resources and professional support.
Keywords: dentistry, dental complaints, emergency

P086

Effectiveness of interventions to decrease imaging among emergency department low back pain presentations: a systematic review

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Introduction: Low back pain (LBP) is an extremely frequent emergency department (ED) presentation. Although LBP imaging often results in no change to the ED management, does not identify abnormalities, and has documented risks (e.g., radiation exposure), advanced imaging (i.e., computed tomography [CT], magnetic resonance imaging [MRI]) for patients with LBP has become increasingly frequent in the ED. The objective of this review was to identify and examine the effectiveness and safety of interventions aimed at reducing imaging in the ED for LBP patients. **Methods:** Six bibliographic databases and grey literature were searched. Comparative studies assessing interventions aimed at reducing ED imaging for adult patients with LBP were eligible for inclusion. Two reviewers independently screened study eligibility, completed data extraction, and assessed the quality of included studies. Due to a limited number of studies and significant heterogeneity, a descriptive analysis was performed. **Results:** The search yielded 510 unique citations of which three before-after studies were included. Quality assessment identified potential biases relating to comparability between the pre- and post-intervention groups, reliable assessment of outcomes, and an overall lack of information on the intervention (i.e., time point, description, intervention data collection). The interventions to reduce lumbar spine imaging varied considerably. Study interventions included: 1) clinical decision support (i.e., a specialized X-ray requisition form), which reported a 47.4% relative reduction of lumbar spine radiography referrals; 2) clinical decision guidelines, which reduced referrals by 43.8%; and 3) multidisciplinary protocols, which reported a reduction in the MRI referral rate by 26.1%. Despite reductions in simple imaging, CT use increased in two of the three studies. **Conclusion:** LBP has been identified as a key area of imaging overuse (e.g., *Choosing Wisely* recommendation). Yet, evidence of interventions' effectiveness in reducing imaging for ED patients with LBP is sparse. While there is some evidence to suggest that interventions can reduce the use of simple imaging in LBP in the ED, unintended consequences have been reported and additional studies employing higher quality methods are strongly recommended.
Keywords: diagnostic imaging, low back pain, intervention

P087

Cellulitis and erysipelas management at an academic emergency department: current practice vs the literature

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Introduction: Cellulitis and erysipelas are common presentations for the general practitioner. Antibiotic therapy targeting beta-hemolytic streptococci and *Staphylococcus aureus* is the mainstay of treatment for children and adults with these infections. Although evidence-based Canadian guidelines for appropriate management exist, inconsistent practices persist. Our objective was to determine the level of adherence to current evidence by emergency physicians at two academic hospitals in Kingston, Ontario. **Methods:** We conducted a retrospective chart review of 200 randomly selected electronic medical records. Records belonged to patients with a discharge diagnosis of cellulitis or erysipelas who were seen in the emergency departments of Kingston General Hospital or Hotel Dieu Hospital between January 1 and June 30, 2015. We manually collected data describing patient demographics, medical history, and medical management. **Results:** There were 707 total visits to the emergency departments in the study period for cellulitis or erysipelas. In our random sample, for those diagnosed with cellulitis, 44% received oral cephalexin alone, which was the most common form of therapy for uncomplicated infection. Of all the patients who received any antibiotics, 36% received at least one dose of parenteral antibiotics, despite only 6.7% showing systemic signs of illness. Emergency physicians chose ceftriaxone for 88% of the patients who received parenteral antibiotics. **Conclusion:** There was wide variation in antibiotic selection and route of administration for

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patients with cellulitis or erysipelas. Ceftriaxone was chosen for most patients receiving parenteral antibiotics, but it may not have been the most effective antibiotic in some cases. Overuse of antibiotics is common, and we believe medication choice should be justified based on disease severity, spectrum of activity, and regional antibiotic resistance patterns, among other factors. In conclusion, we found that emergency physicians could more closely align management plans with current guidelines to improve management of uncomplicated infection and reduce unnecessary administration of parenteral antibiotics.
Keywords: antibiotics, cellulitis, erysipelas

P088

Emergency department utilization of point-of-care ultrasound in the assessment and management of shock

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Introduction: Recent studies have shown that point of care ultrasound is a valuable tool in the assessment and management of shock in the Emergency Department (ED). Despite proven utility, data is limited on the current utilization and quality assurance of POCUS in ED management of shock. The aim of this study was to determine the rate of POCUS use, characterize data collection methods and determine rate of quality assurance in both the ED and Intensive Care Unit (ICU) of a tertiary care academic center. **Methods:** The study included all patients who visited the ED from Jan-Jun 2015 that were transferred to the ICU, and were in shock, as determined by sBP <90, diagnostic code or vasopressor use. Patient charts, as well as wirelessly archived ultrasound studies were reviewed to determine which patients had POCUS performed, and how the results were recorded. By reviewing formal worksheets archived online, it could be determined if a management change was recommended, if studies were over-read for quality assurance and if improvement was recommended to image acquisition or interpretation. **Results:** Both departments used POCUS in roughly half of patients presenting in shock (53% ED, 41% ICU) with no statistical difference in usage (Δ12, 95% CI −0.01 to 0.25; p = 0.06). Most ED studies (87%), had some form of documentation either on paper or online, however few (9%) had a formal worksheet completed. In comparison 71% of ICU studies had a worksheet. There was no difference in the number of performed scans that were saved electronically (66% ED vs 71% ICU; Δ5%, 95%CI −0.13 to 0.21; p = 0.60).In the ICU the majority (77%) of the formal reports recommended a management change as a direct result of scan findings. Furthermore, of worksheets submitted for quality assurance (88%), over half the reviews (55%) suggested an improvement in image acquisition or interpretation. **Conclusion:** To our knowledge, our study is the first to demonstrate that POCUS is only utilized in about half of the shock cases in ED and ICU. Given that the majority of the formally reported studies in the ICU that were over-read for quality assurance found areas for potential improvement and given that the majority of ED studies were reported informally, it stands to reason that POCUS operators in the ED could benefit from a formalized quality assurance program. Future studies should explore potential barriers to implementation of such a program.
Keywords: point of care ultrasound, shock, critical care

P089

Does the use of ultrasound improve diagnosis during simulated trauma scenarios?

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Introduction: Point of care ultrasound (US) is a key adjunct in the management of trauma patients, in the form of the extended focused assessment with sonography in trauma (E-FAST) scan. This study assessed the impact of adding an edus2 ultrasound simulator on the diagnostic capabilities of resident and attending physicians participating in simulated trauma scenarios. **Methods:** 12 residents and 20 attending physicians participated in 114 trauma simulations utilizing a Laerdal 3G mannequin. Participants generated a ranked differential diagnosis list after a standard assessment, and again after completing a simulated US scan for each scenario. We compared reports to determine if US improved diagnostic performance over a physical exam alone. Standard statistical tests ($\chi 2$ and Student t tests) were performed. The research team was independent of the edus2 designers. **Results:** Primary diagnosis improved significantly from 53 (46%) to 97 (85%) correct diagnoses with the addition of simulated US ($\chi 2 = 37.7$, 1df; $p = < 0.0001$). Of the 61 scenarios where an incorrect top ranked diagnosis was given, 51 (84%) improved following US. Participants were assigned a score from 1 to 5 based on where the correct diagnosis was ranked, with a 5 indicating a correct primary diagnosis. Median scores significantly increased from 3.8 (IQR 3, 4.9) to 5 (IQR 4.7, 5; $W = 219$, $p < 0.0001$).Participants were significantly more confident in their diagnoses after using the US simulator, as shown by the increase in their mean confidence in the correct diagnosis from 53.1% (SD 22.8) to 83.5% (SD 19.1; $t = 9.0$; $p < 0.0001$)Additionally, participants significantly narrowed their differential diagnosis lists from an initial medium count of 3.5 (IQR 2.9, 4.4) possible diagnoses to 2.4 (IQR 1.9, 3; $W = -378$, $p < 0.0001$) following US. The performance of residents was compared to that of attending physicians for each of the above analyses. No differences in performance were detected. **Conclusion:** This study showed that the addition of ultrasound to simulated trauma scenarios improved the diagnostic capabilities of resident and attending physicians. Specifically, participants improved in diagnostic accuracy, diagnostic confidence, and diagnostic precision. Additionally, we have shown that the edus2 simulator can be integrated into high fidelity simulation in a way that improves diagnostic performance.
Keywords: point of care ultrasound (PoCUS), trauma, simulation

P090

Electronic invitations received from predatory journals and fraudulent conferences: a 6-month young researcher experience

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Introduction: Predatory publishing is a poorly studied emerging threat to scientists. Junior researchers are preferred targets as they are under academic pressure to publish but face high rejection rates by many medical journals. **Methods:** All electronic invitations received from predatory publishers and fraudulent conferences were collected over a 6-month period (28th April to 27th October 2016) following the first publication of a junior researcher as a corresponding author. Beall's list was used to identify predatory publishers and James McCrostie's criteria to assess if a conference should be considered as predatory. The content of electronic invitations was analyzed and is presented with descriptive statistics. **Results:** A total of 162 electronic invitations were received during the study period. Seventy-nine were invitations to submit a manuscript. Few invitations disclosed information related to publication fees (9, 11.4%) or mentioned any publication guidelines (21, 26.6%). Most invitations reported accepting all types of manuscripts (73, 92.4%) or emphasized on a deadline to submit (62, 78.4%). These invitations