

compare ED case-mix. Further work is required to accurately characterize ED patient case-mix.

Keywords: triage, case mix

P064

Effect of increased availability of pre-authorized radiological test ordering on CT scan utilization in the emergency department

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Introduction: Computed tomography (CT) scan utilization has increased dramatically over the past 25 years. This has sparked concern for potential overuse leading to unnecessary radiation exposure for patients and increased health care costs, without any improvement in health outcomes. In order to improve workflow through the Emergency Department (ED) at our institution, an existing pre-authorization policy during weekday business hours allows emergency physicians to order CT scans directly without the need for approval from a radiologist. This policy was recently expanded on September 28, 2015 to allow pre-authorized CT scan orders during weekday evening hours. The objective of our study is to evaluate the impact of increased availability of pre-authorized CT scan ordering on CT scan utilization and patient flow through the ED at two tertiary care hospitals in London, Ontario. **Methods:** This is a retrospective review comparing monthly CT scan utilization rates in the pre-implementation period from September 28, 2014 to February 28, 2015, to rates in the post-implementation period from September 28, 2015 to February 28, 2016. Length of stay parameters including time from physician initial assessment to CT scan order, completion, report and patient discharge will also be compared between the groups. **Results:** Results will be presented at CAEP 2016. No significant difference is expected in the monthly number of CT scans ordered per registered ED visits between the pre- and post-implementation groups. We also anticipate a significantly shorter average length of stay for patients receiving a CT scan in the post-implementation group. **Conclusion:** We expect there will be no significant increase in CT scan utilization with increased availability of pre-authorized CT scan ordering in our EDs. We also anticipated decreased patient length of stay leading to improved patient flow through the ED. Findings may offer support for organizations to safely implement or increase availability of pre-authorized CT scan orders to help improve patient flow and decrease costs in the ED.

Keywords: computed tomography, emergency medicine, utilization

P065

Surveying ED transition of care: satisfaction, awareness of risks and barriers to the implementation of a standardized protocol

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Introduction: Patient handoffs have been identified as the primary cause of error affecting patient safety. The lack of standardization - and the often-avoidable errors that occur as a result - profoundly affect patient care and emergency department (ED) administration. Our study set out to evaluate emergency doctors' awareness of these safety concerns, as well as their satisfaction with handoff practices currently used in their respective EDs. We also aimed to identify the potential barriers to the use of a standardized approach to patient transition of care. **Methods:** Guided by a modified Delphi method, a 29-question survey was developed by a panel of experts on patient transition of care. A printed version of the survey was distributed to ED doctors attending a local emergency medicine conference. An electronic version was

subsequently distributed to all ED doctors registered as members of our provincial professional organizations. **Results:** We achieved a 68% response rate. Amongst the 309 participants, 51% (95%CI 44-56%) acknowledged that handoffs between emergency doctors are a frequent cause of error related to patient care. Frequent interruptions (77% (95% CI 72-82%)) and heavy workloads (73% (95%CI 68-79%)) were identified as the main factors negatively influencing the quality of handoffs. Despite 61% (95%CI 56-68%) satisfaction with the currently employed methods, 74% (95%CI 68-79%) of the respondents believe that handoffs would benefit from standardization and 83% (95%CI 79-88%) are open to changing their current practices. In addition, 53% (95%CI 48-60%) believe that the tools used for transition of care can be improved. Apprehension regarding the increase of handoff burden (86% (95%CI 81-90%)) was identified as the primary barrier to the implementation of a standardized handoff protocol. **Conclusion:** Doctors are generally satisfied with current handoff practices used in the ED. Nevertheless, their awareness of the possible risks associated with transition of care may be driving their openness to adapting their practice, potentially towards a more standardized approach given the conceivable benefits to patient safety. In light of these results, we aim to develop a comprehensive, standardized handoff protocol, and to evaluate its applicability in the ED with a prospective study.

Keywords: safety, handover, administration

P066

Comfort of emergency medicine physicians in implementing early goal directed therapy for sepsis

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Introduction: The recently published ProMISE, ARISE and ProCESS trials demonstrated that protocol-based resuscitation (EGDT) of ER patients in whom septic shock was diagnosed did not improve outcome when compared to usual care. The objective of this project was to survey McMaster emergency physicians in areas including sepsis definition, clinical recognition in adults, self-rated skills assessment, attitudes towards skills augmentation and compare results to the cohort surveyed 11 years ago, close to the introduction of EGDT. **Methods:** Full time faculty at McMaster's Department of Emergency Medicine and ER residents were surveyed anonymously using an electronic survey. The questions covered demographics and training data, identification of septic patients, sepsis intervention and attitudes towards skills augmentation. **Results:** A total of 18 physicians responded to the electronic survey to date. All respondents were able to correctly input definitions for SIRS, sepsis, severe sepsis and septic shock. The majority of respondents felt the best strategy to identify potentially septic adults involved monitoring abnormal vital signs (67%) with some stating serum lactate assessment (33%). Of the 11 possible interventions options provided to care for septic patients, respondents appeared more comfortable with placement of lines, giving vasopressors and appropriate use of fluids for resuscitation. This was compared to more specialized interventions like initiating IV steroids in vasopressor dependant shock despite adequate fluid loading. 22% of respondents believed that patients without respiratory compromise with clinically severe sepsis should be intubated which was found to be 48% in the previous cohort surveyed 11 years ago. 78% believed patients in septic shock without respiratory compromise should be intubated, reassuringly similar to the previous survey result of 87%. **Conclusion:** Emergency physicians at our Canadian institution are comfortable with the skill set required to care for patients with sepsis. Respondents surveyed to date were all comfortable with important resuscitative measures including accurate identification, placement of lines and appropriate fluid administration and were receptive

to additional training. Our study emphasizes that our physicians have the skill set to identify and provide care for sepsis using their clinical judgment in cases that may not require protocolized based care.

Keywords: early goal directed therapy (EGDT), sepsis, resuscitation

P067

Missed opportunities for prehospital management of anaphylactic reactions

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Introduction: Emergency medical services (EMS) have the opportunity to treat allergic reactions anaphylactic reactions rapidly. However, the rate of recognition and treatment is unknown. **Methods:** This was a retrospective cohort study conducted at two urban emergency departments from 2007 to 2012 including adult patients with allergy and anaphylaxis, both of which were predefined by explicit criteria. The patients of interest were those attended by EMS and transported to hospital. The primary outcome was the proportion of patients who met anaphylaxis criteria in the prehospital setting, but who did not have epinephrine administered. The secondary outcome was the proportion of patients who did not meet anaphylaxis criteria, yet had epinephrine administered. **Results:** Of 2819 overall patients, 491 (17.4%) arrived by EMS. The median age was 38 (IQR 27 to 49) and 60.9% were female. For the 151 (30.8%) patients with anaphylaxis, 55 received epinephrine, (36.4%, 95% CI 27.4 to 47.4%). For the 340 (69.2%) patients without anaphylaxis, 28 received epinephrine (8.2%, 95% CI 5.5 to 11.9%). **Conclusion:** For patients with anaphylaxis and allergic reactions who are managed by EMS, there may be a mismatch between illness severity and treatment.

Keywords: anaphylaxis, epinephrine

P068

Developing a standardized knowledge dissemination tool for communicating the need for Choosing Wisely® in Alberta's emergency departments

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Introduction: Standardized tools for disseminating knowledge summaries of low value or unnecessary care (e.g., testing, procedures and treatments) are limited, but needed to equip clinicians for discussions with patients about care decisions. The objective of this study is to assess the acceptability of a tool developed by our emergency department (ED) team to communicate the evidence supporting the Choosing Wisely Canada® (CWC) and other similar recommendations. **Methods:** A consensus process was used by team members to develop a tool that highlights three areas: Facts, Gaps, and Acts. The Facts portion highlights the current state of knowledge and illustrates the strength of the evidence supporting guideline recommendations. The Gaps section identifies variation in current clinical practice. The Acts section includes larger CWC goals, as well as specific next steps for a demonstration project. Each section contains one key message for clinicians, ensuring the tool is easy to use. **Results:** A test case has been developed for avoiding chest radiographs in patients with an exacerbation of documented asthma. The Facts section reviewed current guidelines for asthma care. The Gaps section collated evidence from a systematic review and primary research. The Acts section recapitulates the CWC recommendations. In order to assess acceptability feedback cycle will be completed using surveys of 50 patients and 50 clinicians. **Conclusion:** While generating the Facts, Gaps, and Acts tool for a CWC

recommendation represents a translational activity, evidence of effectiveness is needed prior to widespread implementation. We report the rational and development of a novel tool to engage clinicians and patients in conversations about unnecessary care in the ED.

Keywords: knowledge dissemination, Choosing Wisely

P069

Gestalt assessment of online educational resources is unreliable and inconsistent

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Introduction: The use of free open access medicine, particularly open educational resources (OERs), by medical educators and learners continues to increase. As OERs, especially blogs and podcasts, rise in popularity, their ease of dissemination raises concerns about their quality. While critical appraisal of primary research and journal articles is formally taught, no training exists for the assessment of OERs. Thus, the ability of educators and learners to effectively assess the quality of OERs using gestalt alone has been questioned. Our goal is to determine whether gestalt is sufficient for emergency medicine learners (EM) and physicians to consistently rate and reliably recommend OERs to their colleagues. We hypothesized that EM physicians and learners would differ substantively in their assessment of the same resources. **Methods:** Participants included 31 EM learners and 23 EM attending physicians from Canada and the U.S. A modified Dillman technique was used to administer 4 survey blocks of 10 blog posts per subject between April and August, 2015. Participants were asked whether they would recommend each OER to 1) a learner or 2) an attending physician. The ratings reliability was assessed using single measures intraclass correlations and their correlations amongst the groups were assessed using Spearman's *rho*. Family-wise adjustments were made for multiple comparisons using the Bonferroni technique. **Results:** Learners demonstrated poor reliability when recommending resources for other learners (ICC = 0.21, 95% CI 0.13-0.39) and attending physicians (ICC = 0.16, 95% CI = 0.09-0.30). Similarly, attendings had poor reliability when recommending resources for learners (ICC = 0.27, 95% CI 0.18-0.41) and other attendings (ICC = 0.22, 95% CI 0.14-0.35). Learners and attendings demonstrated moderate consistency between them when recommending resources for learners ($r_s = 0.494$, $p < .01$) and attendings ($r_s = 0.491$, $p < .01$). **Conclusion:** Using a gestalt-based rating system is neither reliable nor consistent when recommending OERs to learners and attending physicians. Learners' gestalt ratings for recommending resources for other learners and attendings were especially unreliable. Our findings suggests the need for structured rating systems to rate OERs.

Keywords: critical appraisal, e-learning, free open access medicine (FOAM)

P070

Improving handovers in the emergency department: implementation of a standardized team approach

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Introduction: Handovers in the ED are a high risk area for breakdown in team communication, discontinuity of patients' clinical course, and potential medical errors. This is especially true for morning handovers at our center, when one single overnight MD working with limited resources hands over the entire ED to an oncoming day team of MDs and allied health professionals. We describe a quality improvement (QI)