

reported type of elder abuse detected was neglect followed by physical abuse. Female gender was the most consistent factor associated with elder abuse. Cognitive impairment, behavioral problems and psychiatric disorder of the patient or the caregiver were also associated with physical abuse and neglect as well as more frequent ED consultations. Several screening tools have been proposed, but ED-based validation is lacking. Literature on prehospital- or ED-initiated prevention and interventions was scarce without any controlled trial. Health care providers were poorly trained to detect and care for older adults who are suspected of being a victim of elder abuse.

Conclusion: Elder abuse in the ED is an understudied topic. It remains underrecognized and underreported with ED prevalence rates lower than those in community-dwelling older adults. Health care providers reported lacking appropriate training and knowledge with regards to elder abuse. Dedicated ED studies are required.

Keywords: elder abuse, geriatric, neglect

MP35

Acceptability of older patients' self-assessment in the emergency department (ACCEPTED) – a randomized cross-over trial

V. Boucher, BA, M. Lamontagne, PhD, J. Lee, MD, MSc, P. Carmichael, MSc, J. Déry, MBA, MSc, M. Émond, MD, MSc, CHU de Québec - Université Laval, Québec, QC

Introduction: It is recommended that seniors consulting to the Emergency Department (ED) undergo a comprehensive geriatric screening, which is difficult for most EDs. Patient self-assessment using electronic tablet could be an interesting solution to this issue. However, the acceptability of self-assessment by older ED patients remains unknown. Assessing acceptability is a fundamental step in evaluating new interventions. The main objective of this project is to compare the acceptability of older patient self-assessment in the ED to that of a standard assessment made by a professional, according to seniors and their caregivers. **Methods:** This randomized crossover design cohort study took place between May and July 2018. **Participants:** 1) Patients aged ≥ 65 years consulting to the ED, 2) their caregiver, when present. **Measurements:** Patients performed self-assessment of their frailty, cognitive and functional status using an electronic tablet. Acceptability was measured using the Treatment Acceptability and Preferences (TAP) questionnaires. **Analyses:** Descriptive analyses were performed for sociodemographic variables. Scores were adjusted for confounding variables using multivariate linear regression. Thematic content analysis was performed by two independent analysts for qualitative data collected in the TAP's open-ended question. **Results:** A total of 67 patients were included in this study. Mean age was 75.5 ± 8.0 and 55.2% of participants were women. Adjusted mean TAP scores for RA evaluation and patient self-assessment were 2.36 and 2.20, respectively. We found no difference between the two types of evaluations ($p = 0.0831$). When patients are stratified by age groups, patients aged 85 and over ($n = 11$) showed a difference between the TAPs scores, 2.27 for RA evaluation and 1.72 for patient self-assessment ($p = 0.0053$). Our qualitative data shows that this might be attributed to the use of technology, rather than to the self-assessment itself. Data from 9 caregivers showed a 2.42 mean TAP score for RA evaluation and 2.44 for self-assessment. However, this relatively small sample size prevented us to perform statistical tests. **Conclusion:** Our results show that older patients find self-assessment in the ED using an electronic tablet just as acceptable as a standard evaluation by a professional.

Keywords: acceptability, older patients, self-assessment

MP36

Short-term side effects associated with opioids for acute pain

R. Daoust, MD, MSc, J. Paquet, PhD, A. Cournoyer, MD, E. Piette, MD, MSc, J. Morris, MD, MSc, J. Lessard, MD, MSc, V. Castonguay, MD, MEd, G. Lavigne, DDS, PhD, D. Williamson, MSc, PhD, J. Chauny, MD, MSc, Hôpital Sacré-Coeur de Montréal, Montréal, QC

Introduction: Opioid side effects are common when treating chronic pain. However, the rate of opioid side effects for acute pain has rarely been examined, particularly in the post emergency department (ED) setting. The objective of this study was to evaluate the short-term incidence of opioid induced side effects (constipation, nausea/vomiting, dizziness, and drowsiness) in patients discharged from the ED with an opioid prescription. **Methods:** This was a prospective cohort study of patients aged ≥ 18 years that visited the ED for an acute pain condition (≤ 2 weeks) and were discharged with an opioid prescription. Patients completed a 14-day diary assessing daily pain medication use and side effects. **Results:** Mean age of the 386 patients included was 55 ± 16 years; 50% were women. During the 2-week follow-up, 80% of patients consumed at least one dose of opioids. Among the patients who used opioids, 38% (95%CI: 33-48) reported constipation, 27% (95%CI:22-32) nausea/vomiting, 30% (95%CI:25-35) dizziness, 51% (95%CI:45-57) drowsiness, and 77% (95%CI:72-82) reported any side effects. Adjusting for age, sex, and pain condition, patients who used opioids were more likely to report any side effect (OR 7.5, 95%CI:4.3-13.3) and constipation (OR 7.5, 95%CI:3.1-17.9). A significant dose response effect was observed for constipation but not for the other side effects. Nausea/vomiting (OR 2.0, 95%CI:1.1-3.6) and dizziness (OR 1.9, 95%CI:1.1-3.4) were associated with oxycodone compared to morphine. **Conclusion:** Similar to chronic pain, opioid side effects are highly prevalent during short-term treatment for acute pain. Physicians should be aware and inform patients about those side effects.

Keywords: adverse events, opioid

MP37

Adherence to Canadian Cardiovascular Society guidelines for prescribing oral anticoagulants to patients with atrial fibrillation in the emergency department

D. Hung, BA, M. Butler, BA, BSc, MD, MSc, S. Campbell, MChB, MD, Dalhousie Medical School, Halifax, NS

Introduction: Atrial fibrillation (AF) is the most common arrhythmia treated in the emergency department (ED) and is associated with an increased risk of ischemic stroke. Studies have shown that only oral anticoagulant (OAC) therapy reduces risk of AF related stroke. Our objective was to measure the prescribing practices for OACs for new onset AF at a tertiary ED and two surrounding community EDs, and identify rates of adverse effects within 90 days. The findings of this study will provide quality assurance information for the management of patients with new onset AF. This information has the potential to promote adherence to prescribing guidelines for AF in the ED and the reduction of common adverse events such as ischemic stroke. **Methods:** We conducted a retrospective chart review of 385 patients with new onset AF who presented to the ED between November 2014 to March 2018. We defined new onset as symptoms < 48 hours and had AF confirmed with electrocardiogram. We recorded the selected therapy choice of cardioversion and/or rate control, gender, age, and assessed CHADS-65 score. We recorded who was prescribed

OAC and those who were referred to cardiology, family medicine, or did not have a documented follow up plan. Patients with a previous history of AF or current anticoagulant therapy were excluded. We recorded if any patients returned to the ED within 90 days with ischemic stroke, AF recurrence, myocardial infarction, other embolic disease or death. **Results:** 86 of 294 (29.5%) of patients who qualified under CHADS-65 received OACs appropriately. 64 of 66 (97.0%) of patients who did not qualify under CHADS-65 did not receive OACs appropriately. 5 patients overall returned within 90 days with ischemic stroke, 4 of those were not prescribed OACs, however this was not statistically significant ($P = 0.999$). **Conclusion:** This data suggests that physicians in the study are under-prescribing OACs relative to published guidelines. A larger study is necessary to elucidate the effect of ED OAC prescribing patterns on long-term patient outcome.

Keywords: atrial fibrillation, oral anticoagulant, quality improvement and patient safety

MP38

Are we missing pulmonary embolism in acute exacerbations of chronic obstructive pulmonary disease presenting to the emergency department? Multicenter insights into incidence of concomitant disease and yield of testing

D. Moussienko, BHSc, D. Lang, L. Skeith, MD, E. Lang, MDCM, University of Calgary, Calgary, AB

Introduction: Patients with Chronic Obstructive Pulmonary Disease (COPD) often present to the ED with acute exacerbations (AE-COPD) of the disease. A potential occult yet fatal disease that might contribute or accompany an AE-COPD presentation is a pulmonary embolism (PE). Previous studies have investigated and report rates of PE in up to 29% of patients presenting with AE-COPD. Misdiagnoses of PE leads to poor outcomes, however, over-testing for PE also presents with substantial risks to the patient and strain on acute care resources. The goal of this study was to pragmatically identify the prevalence and 30-day incidence of PE in patients presenting with AE-COPD to EDs, as well as the burden and yield of PE investigations. **Methods:** We conducted a retrospective analysis of extracted data for patients ≥ 50 years old presenting to one of four emergency departments in Calgary with an AE-COPD since 2013. Patients with a history of outpatient anticoagulation therapy from a community pharmacy were excluded. Each patient chart was reviewed to identify a diagnosis of PE during the admission for an AE-COPD, or 30 days post discharge from an AE-COPD admission or ED presentation. An AE-COPD diagnosis was defined as a primary. **Results:** A total of 9554 AE-COPD ED patient visits were included in the study. 0.69% (95% CI 0.54 to 0.88) were identified to have a PE. 26 of the 66 (39.4%) were diagnosed during an AE-COPD inpatient admission, while 43 (65.2%) were diagnosed within 30 days post-discharge from an AE-COPD admission or ED presentation. Since 2016, 7.4% of AE-COPD patients underwent a CT-PE, while 16.7% underwent a d-dimer. The most common chief complaint in PE patients was dyspnea (75.8%). The mean age of the PE diagnosed was 73.4, with nearly equal representation of both sexes. Many patients had underlying comorbidities, such as hypertension, diabetes, and cancer of various sites, all of which are risk factors for developing a PE. **Conclusion:** The prevalence and 30-day incidence of PE in AE-COPD patients appears to be lower than what was previously reported in the literature. Despite this, a significant proportion of AE-COPD patients were exposed to the risks and burden of a PE work up, with low diagnostic

yield. PE investigations in AE-COPD should be used selectively and could inform a quality improvement indicator. A future prospective study would drastically contribute to whether a PE clinical work up should be recommended and of value to patients.

Keywords: chronic obstructive pulmonary disease, pulmonary embolism

MP39

Reducing overcapacity: applying the LEAN model to length of stay in the emergency department

N. Wilson, G. Bugden, BSc, MD, J. Swain, BSc, Memorial University, St. John's, NL

Introduction: Recently there have been many studies performed on the effectiveness of implementing LEAN principals to improve wait times for emergency departments (EDs), but there have been relatively few studies on implementing these concepts on length of stay (LOS) in the ED. This research aims to explore the initial feasibility of applying the LEAN model to length-of-stay metrics in an ED by identifying areas of non-value added time for patients staying in the ED. **Methods:** In this project we used a sample of 10,000 ED visits at the Health Science Centre in St. John's over a 1-year period and compared patients' LOS in the ED on four criteria: day of the week, hour of presentation, whether laboratory tests were ordered, and whether diagnostic imaging was ordered. Two sets of analyses were then performed. First a two-sided Wilcoxon rank-sum test was used to evaluate whether ordering either lab tests or diagnostic imaging affected LOS. Second a generalized linear model (GLM) was created using a 10-fold cross-validation with a LASSO operator to analyze the effect size and significance of each of the four criteria on LOS. Additionally, a post-test analysis of the GLM was performed on a second sample of 10,000 ED visits in the same 1-year period to assess its predictive power and infer the degree to which a patient's LOS is determined by the four criteria. **Results:** For the Wilcoxon rank-sum test there was no significant difference in LOS for patients who were ordered diagnostic imaging compared to those who were not ($p = 0.6998$) but there was a statistically significant decrease in LOS for patients who were ordered lab tests compared to those who were not ($p = 2.696 \times 10^{-10}$). When assessing the GLM there were two significant takeaways: ordering lab tests reduced LOS (95% CI = 42.953 - 68.173min reduction), and arriving at the ED on Thursday increased LOS significantly (95% CI = 6.846 - 52.002min increase). **Conclusion:** This preliminary analysis identified several factors that increased patients' LOS in the ED, which would be suitable for potential LEAN interventions. The increase in LOS for both patients who are not ordered lab tests and who visit the ED on Thursday warrant further investigation to identify causal factors. Finally, while this analysis revealed several actionable criteria for improving ED LOS the relatively low predictive power of the final GLM in the post-test analysis ($R^2 = 0.00363$) indicates there are more criteria that influence LOS for exploration in future analyses.

Keywords: lean thinking, process efficiency, quality improvement

MP40

Psychological distress in patients following pulmonary embolism diagnosis

A. Tran, BSc, M. Redley, PhD, K. de Wit, BSc, MChB, MD, MSc, McMaster University, Hamilton, ON

Introduction: Pulmonary embolism (PE) is a treatable condition, with a low mortality rate (of around 1% in those who are diagnosed