initial trauma. During a median follow-up of 2.6 years (IQR: 1-5), 192 participants (0.30%; 95%CI: 0.25%-0.35%) were hospitalized for OP and 73 (0.10%; 95%CI: 0.07%-0.13%) were diagnosed with OUD. Having filled an opioid prescription within 3-months of injury was associated with an increased hazard ratio of OP (2.6; 95%CI: 1.9-3.5) and OUD (4.0; 95%CI: 2.3-7.0). However, history of OP (2.7; 95%CI: 1.2-6.1), of substance use disorder (4.3; 95%CI: 2.4-7.9), or of opioid prescription filled (2.7; 95%CI: 2.1-3.5) before trauma were also related to OP or OUD. **Conclusion:** Opioid poisoning and opioid use disorder are rare events after hospitalization for trauma in older patients. However, opioids should be used cautiously in patients with history of substance use disorder, opioid poisoning or opioid use during the past year.

Keywords: opioid poisoning, opioid use disorder, trauma

LO92

The effect of prehospital intravenous fluids on mortality in trauma: a systematic review and meta-analysis

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Introduction: Hemorrhage is the primary cause of death in 39% of trauma patients. In prehospital trauma management, there is debate over pursuing a 'scoop-and-run' approach versus early intravenous (IV) fluid therapy. We evaluated the literature regarding the effect of prehospital IV fluid therapy on mortality in adult trauma patients. **Methods:** A librarian-assisted search was conducted in PubMed, Medline and Embase. The population was adults with blunt and/or penetrating trauma. The intervention was total prehospital IV fluid volume 0-500 mL, and the control was prehospital fluid volume >500 mL. The outcome of interest was in-hospital mortality. Randomized controlled trials (RCTs), cohort and case-matched studies were included. Two reviewers used the Cochrane Risk of Bias (RoB) and Risk of Bias in Non-randomized Studies of Interventions (ROBINS-I) tools to evaluate biases, and kappa was calculated for inter-rater agreement. A summary relative risk (RR) of in-hospital mortality was calculated and heterogeneity (I2) analysis performed using RevMan 5 software. **Results:** Four RCT's and eleven observational studies were identified, with n = 15,448 patients. Two RCTs and four observational studies were excluded due to non-English language, and the location or volume of IV fluid administered, leaving eight studies with n = 4,568 patients. Inter-rater agreement was high with the ROBINS-I (unweighted κ=0.8841) and RoB tool (unweighted κ=0.8276). Two studies found decreased mortality, one found increased mortality, and five found no significant relationship to mortality with 0-500 mL prehospital IV fluid. The summary relative risk of mortality with 0-500 mL IV fluid compared to >500 mL IV fluid was not significant (RR = 0.98 [0.87, 1.11]). The heterogeneity for all studies was high (I2 = 84%), but was low (I2 = 0%) with removal of two studies. **Conclusion:** The majority of studies did not find a relationship between the volume of prehospital IV fluids and in-hospital mortality. Study heterogeneity was low except for two studies: this may be explained by mortality only being recorded at emergency department discharge in one study, and the high rate of penetrating gunshot and stabbing wounds in the other. There is a paucity of high-quality RCTs on the topic, and many studies are at significant risk of bias. Further research is needed to delineate the best approach to IV fluid therapy in adult trauma patients.

Keywords: intravenous fluid, prehospital, trauma

LO93

A single center randomized control trial of intravenous lidocaine for the management of traumatic rib fractures

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Introduction: Traumatic rib fractures (RF) are a common occurrence with 10% incidence in all trauma patients and are associated with significant morbidity and mortality. Adequate analgesia is paramount for preventing pulmonary complications and reducing morbidity and mortality. There is evidence of intravenous (IV) lidocaine's effectiveness and safety in the post-operative thoracic and abdominal surgical patient and we hypothesize that it may be ideal in trauma patients with RF. We evaluated IV lidocaine's analgesic efficacy in this population. **Methods:** A single-centre, double-blind, randomized control trial comparing a 72-96 hour IV lidocaine infusion plus standard analgesics to placebo infusion plus standard analgesics. Participants were adult trauma patients diagnosed with two or more RFs requiring hospital admission. A total of 36 patients were enrolled over 5 months in 2019. The study was powered to detect a 20% reduction in pain scores, which is determined to be clinically significant. **Results:** The primary outcome was mean pain score at rest and with movement, as measured on the Visual Analog Scale (VAS). There were consistent trends toward reduced VAS pain scores at rest and with movement in the lidocaine group as compared to placebo group with mean scores of 3.49 [SD 2.02 95% CI] and 7.08 [SD 1.71 95% CI] in the lidocaine group and 3.83 [SD 1.93 95% CI] and 8.03 [SD 1.44 95% CI] in the placebo group, at rest (p value 0.624) and with movement (p value 0.110), respectively . Secondary outcomes were patient satisfaction as measured on the VAS which demonstrated a score of 7.79 [SD 1.82 95% CI] in the lidocaine group and 6.63 [SD 1.77 95% CI] (p = 112) in the placebo group, and total morphine equivalents (ME) used (including breakthrough doses) that demonstrated a trend towards a reduction in the lidocaine group with 210.9 mg [SD 180.0 95% CI] compared to the placebo with total ME used of 309.9 mg [SD 221.8 95% CI]. Other secondary outcomes were protocol adherence, incidence of respiratory failure, hospital and ICU length of stay, mortality, incidence of lidocaine toxicity, and treatment regimens (non-opioid analgesics). **Conclusion:** These results demonstrate a trend towards lidocaine's analgesic benefit during rest and the critical times of patient movement and mobility, which has been demonstrated to be paramount in the reduction of respiratory complications from rib fractures. The results also tend towards a reduction in morphine equivalents, although the trial was not powered to demonstrate this

Keywords: pain management, traumatic rib fractures

LO94

Evaluation of stroke and bleeding outcomes among patients managed in the emergency department for newly diagnosed atrial fibrillation

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Introduction: Atrial Fibrillation (AF) is the most common arrhythmia seen in patients presenting to the emergency department (ED). AF increases the risk of ischemic stroke which can be mitigated by anticoagulant prescription. National guidelines advise that emergency physicians initiate anticoagulation when AF is first diagnosed. We aimed to evaluate the 90-day incidence of stroke and major bleeding

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among emergency patients discharged home with a new diagnosis of AF. **Methods:** This was a health records review of patients diagnosed with AF in two EDs. We included patients ≥ age 18, with a new diagnosis of AF who were discharged from the ED, between 1st May 2014 and 1st May 2017. Using a structure review we collected data on CHADS65 and CHADS2 scores, contraindications to direct oral anticoagulant (DOAC) prescription and initiation of anticoagulation in the ED. Patient charts were reviewed for the diagnosis of stroke, transient ischemic attack (TIA), ischemic gut, ischemic limb or other systemic embolism within 90 days of the index ED presentation. We extracted data on major bleeding events within 90 days, defined by the International Society of Thrombosis and Haemostasis criteria. All data were extracted in duplicate for validation. **Results:** We identified 399 patients fulfilling the inclusion criteria, median age 68 (IQR 57-79), 213 (53%) male. 11 patients were already prescribed an anticoagulant for another indication and 19 had a contraindication to prescription of a DOAC. 48/299 (16%) CHADS65 positive patients were initiated on an anticoagulant, 3 of whom had a contra-indication to initiation of anticoagulation in the ED (1 dual antiplatelet therapy, 2 liver cirrhosis). 1/100 CHADS65 negative patients was initiated on anticoagulation. The median CHADS2 score was 1 (IQR 0-2). Among the 49 patients initiated on anticoagulation, 3 patients had a stroke/TIA within 90 days, 6.1% (95% CI; 2.1-16.5%). There were no bleeding events 0.0% (95% CI; 0.0-7.3%). Among the 350 patients who were not initiated on anticoagulation in the ED, 4 patients had a stroke/TIA 1.1% (95% CI; 1.1-2.9%) within 90 days and 2 patients had a major bleeding event. **Conclusion:** Prescription of anticoagulation for new diagnoses of AF was under-utilized in these EDs. The 90-day stroke/TIA rate was high, even among those given an anticoagulant prescription in the ED. No patient had an anticoagulant-associated bleeding event.

Keywords: anticoagulation, atrial fibrillation, stroke

Moderated Poster Presentations

MP01

Just another day on the job: Workforce experience with violence in emergency departments and urgent care centres

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Introduction: Compared to other areas in Alberta Health Services (AHS), internal data show that emergency departments (EDs) and urgent care centres (UCCs) experience a high rate of workforce violence. As such, reducing violence in AHS EDs and UCCs is a key priority. This project explored staff's lived experience with patient violence with the goal of better understanding its impact, and what strategies and resources could be put in place. **Methods:** To obtain a representative sample, we recruited staff from EDs and a UCC (n = 6) situated in urban and rural settings across Alberta. As the interviews had the potential to be upsetting, we conducted in-person interviews in a private space. Interviews were conducted with over 60 staff members including RNs, LPNs, unit clerks, physicians, and protective services. Data collection and analysis occurred simultaneously and iteratively until saturation was reached. The analysis involved data reduction, category development, and synthesis. Key phrases and statements were first highlighted. Preliminary labels were then assigned to the data and data was then organized into meaningful clusters. Finally, we identified common themes of participants' lived experience. Triangulation of sources, independent and team analysis, and frequent debriefing sessions were used to enhance the trustworthiness of the data. **Results:** Participants frequently noted the worry they carry with them when coming into work, but also said there was a high threshold of acceptance dominating ED culture. A recurring feature of this experience was the limited resources (e.g., no peace officers, scope of security staff) available to staff to respond when patients behave violently or are threatening. Education like non-violent crisis intervention training, although helpful, was insufficient to make staff feel safe. Participants voiced the need for more protective services, the addition of physical barriers like locking doors and glass partitions, more investment in addictions and mental health services (e.g., increased access to psychiatrists or addictions counsellors), and a greater shared understanding of AHS' zero tolerance policy. **Conclusion:** ED and UCC staff describe being regularly exposed to violence from patients and visitors. Many of these incidents go unreported and unresolved, leaving the workforce feeling worried and unsupported. Beyond education, the ED and UCC workforce need additional resources to support them in feeling safe coming to work.

Keywords: lived experience, workforce safety, Workforce-directed violence

MP02

The impact of adoption of an electronic health record on emergency physician work: a time motion study

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Introduction: Adoption of a new Electronic Health Record (EHR) can introduce radical changes in task allocation, work processes, and efficiency for providers. In June 2019, The Ottawa Hospital transitioned from a primarily paper based EHR to a comprehensive EHR (Epic) using a "big bang" approach. The objective of this study was to assess the impact of the transition to Epic on Emergency Physician (EP) work activities in a tertiary care academic Emergency Department (ED). **Methods:** We conducted a time motion study of EPs on shift in low acuity areas of our ED (CTAS 3-5). Fifteen EPs representing a spectrum of pre-Epic baseline workflow efficiencies were directly observed in real-time during two 4-hour sessions prior to EHR implementation (May 2019) and again in go live (August 2019). Trained observers performed continuous observation and measured times for the following EP tasks: chart review, direct patient care, documentation, physical movement, communication, teaching, handover, and other (including breaks). We compared time spent on tasks pre Epic and during go live and report mean times for the EP tasks per patient and per shift using two tailed t-test for comparison. **Results:** All physicians had a 17% decrease in patients seen after Epic implementation (2.72/hr vs 2.24/hr, $p < 0.01$). EPs spent the same amount of time per patient on direct patient care and chart review (direct patient care: 9min06sec/pt pre vs 8min56sec/pt go live, $p = 0.77$; chart review: 2min47sec/pt pre vs 2min50sec/pt go live, $p = 0.88$), however, documentation time increased (5min28sec/pt pre vs 7min12sec/pt go live, $p < 0.01$). Time spent on shift teaching learners increased but did not reach statistical significance (31min26sec/shift pre vs 36min21sec/shift go live, $p = 0.39$), and time spent on non-patient-specific activities –

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