

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 \geq 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 anti-coagulant (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 anti-coagulant 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 anti-coagulant prescription in the ED. No patient had an anti-coagulant-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

R. Tarraf, MSc, PhD, M. Stiphout, MSc, A. Fraser, MPH, H. Hair, MBA, E. Lang, MD, B. Holroyd, MBA, MD, S. Hastings, MSc, PhD, Alberta Health Services, Calgary, AB

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

S. Calder-Sprackman, MD, MSc, G. Clapham, BA, T. Kandiah, BHSc, J. Choo-Foo, BSc, S. Aggarwal, J. Sweet, BSc, K. Abdulkarim, C. Price, BHSc, V. Thiruganasambandamoorthy, MSc, MBBS, E. Kwok, MD, MSc, MHA, University of Ottawa, Ottawa, ON

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 –

physical movement, handover, team communication, and other – did not change (50min49sec/shift pre vs 50min53sec/shift go live, $p = 0.99$). **Conclusion:** Implementation of Epic did not affect EP time with individual patients - there was no change in direct patient care or chart review. Documentation time increased and EP efficiency (patients seen per hr on shift) decreased after go live. Patient volumes cannot be adjusted in the ED therefore anticipating the EHR impact on EP workflow is critical for successful implementation. EDs may consider up staffing 20% during go live. Findings from this study can inform how to best support EDs nationally through transition to EHR.

Keywords: electronic health record, health informatics, time motion study

MP03

Clearing the air: A retrospective cohort study of cannabis-related harms in urban Alberta emergency departments following legalization

M. Yeung, C. Weaver, BSc, E. Lang, MD, R. Saah-Haines, PhD, K. Janz, MD, University of Calgary, Calgary, AB

Introduction: Non-medical cannabis recently became legal on October 18th, 2018 to Canadian adults. The impact of legalization on Emergency Departments (EDs) has been identified as a major concern. The study objective was to identify changes in cannabis-related ED visits and changes in co-existing diagnoses associated with cannabis-related ED visits pre- and post-legalization for the entire urban population of Alberta. Urban Alberta was defined as Calgary and Edmonton, inclusive of Sherwood Park and St. Albert given the proximity of some Edmontonians to their EDs) encompassing 12 adult EDs and 2 pediatric EDs. **Methods:** Retrospective data was collected from the National Ambulatory Care Reporting System, and from the HealthLink and the Alberta Poison and Drug Information Service (PADIS) public telehealth call databases. An interrupted time-series analysis was completed via segmented regression calculation in addition to incident rate and relative risk ratio calculation for the pre- and post-legalization periods to identify both differences among the entire urban Alberta population and differences among individuals presenting to the ED. Data was collected from October 1st, 2013 up to July 31st, 2019 for ED visits and was adjusted for natural population increase using quarterly reports from the Government of Alberta. **Results:** The sample included 11 770 pre-legalization cannabis-related visits, and 2962 post-legalization visits. Volumes of ED visits for cannabis-related harms were found to increase post-legalization within urban EDs (IRR 1.45, 95% CI 1.39, 1.51; absolute level change: 43.48 visits per month in urban Alberta, 95% CI 26.52, 60.43), and for PADIS calls (IRR 1.87, 95% CI 1.55, 2.37; absolute level change: 4.02 calls per month in Alberta, 95% CI 0.11, 7.94). The increase in visits to EDs equates to an increase of 2.72 visits per month, per ED. Lastly, increases were observed for cannabinoid hyperemesis (RR 1.23, 95% CI 1.10, 1.36), unintentional ingestion (RR 1.48, 95% CI 1.34, 1.62), and in individuals leaving the ED pre-treatment (RR 1.28, 95% CI 1.08, 1.49). Decreases were observed for coingestant use (RR 0.77, 95% CI 0.73, 0.81) and hospital admissions (RR 0.88, 95% CI 0.80, 0.96). **Conclusion:** Overall, national legalization of cannabis appears to be correlated with a small increase in cannabis-related ED visits and poison control calls. Post-legalization, fewer patients are being admitted, though cannabinoid hyperemesis appears to be on the rise.

Keywords: cannabis, legalization, policy

MP04

Predicting future ED needs – population trends may not be enough!

S. Weerasinghe, PhD, S. Campbell, MBChB, Dalhousie University, Halifax, NS

Introduction: As the population of Canadian cities grows, public policy planners frequently base predictions of future demand on population trends. We aimed to discover the relationship between demographically defined ED visit rate (EDVR) trends in an academic ED with corresponding population trends in the catchment area. **Methods:** We used administrative data to conduct a retrospective cohort time series to analyze per capita EDVR trends based on CTAS, age, gender and housing status for the period 2006-2015. These were adjusted for population growth using age-gender standardized rates from 2011 census data. All EDVR and Standardized estimates were extrapolated for 100,000 population. **Results:** There were 646 731 visits during the study period, increasing by 25.6% from 56 757 in 2006 to 71 289 in 2015, with an annual incremental linear trend of 1893/year (CI:1593-2192). The highest CTAS2 EDVR increase, 521/year, (95%CI: 433-608) was by non-homeless patients older than 49. CTAS2 visits and the rate in all non-homeless patients increased by 335/year, (95% CI 280-391), while homeless patients less than 30 showed the highest CTAS2 EDVR annual rate increase (1183/year, CI:1448-2218). From 2008-2015, the annual linear per capita CTAS5 EDVR declined by 121/year (CI:79-163). The population of adults in Halifax increased by 1.2%/yr with a linear trend of 4149/year (CI:4012-4287). The highest linear increasing trend was for those older than 49 (2604/year CI:2494-2714), followed by 30-50-year old group (1223/year, CI:1138-1309) with the lowest trend for those aged less than 30 (322/year, CI:170-473). Standardized and non-standardized rate decline (CTAS5) and incline (CTAS2) were statistically similar and were not influenced by population changes. The population older than 49 increased by 38% over the 10 year period, whereas the CTAS2 visit change increased by 250%. If the CTAS2 EDVR trend continues, this rate in 2027 will double that of 2015, even if the population in the catchment area remains stable. **Conclusion:** EDVR trends show an increase in CTAS2 visits driven chiefly by older patients. This trend exceeds the trend suggested by Canadian Foundation for Healthcare Improvement and is significantly more than predicted by population demographic changes. Healthcare administrators will need to bear these disparities in mind as they prepare for future ED capabilities.

Keywords: emergency demands, population trends

MP05

Validation of the Canadian clinical practice guideline clinical decision aid for acute aortic syndrome

B. Paige, BSc, MD, A. Maeng, MD, HBA, D. Savage, MD, PhD, R. Ohle, MSc, MBBCh MA, Northern Ontario School of Medicine, Sudbury, ON

Introduction: Acute aortic syndrome (AAS) is a rare clinical syndrome with a high mortality encompassing acute aortic dissection, intramural hematoma and penetrating atherosclerotic ulcer. Up to 38% of cases are misdiagnosed on first presentation. There is a large variation in use of computed tomography to rule out AAS. The Canadian clinical practice guideline for the diagnosis of AAS was developed in order to reduce the frequency of misdiagnoses. As part of the guideline, a clinical decision aid was developed to facilitate clinician decision-making based on practice recommendations. Our