sustaining OHCA appear to have similar survival rates when compared with non-First Nations patients, suggesting similar baseline care. Interestingly, First Nations patients sustaining OHCA were significantly younger than their non-First Nations counterparts. This may reflect a higher burden of cardiovascular disease, suggesting a need improved prevention strategies.

Keywords: emergency medical services, First Nations, out of hospital cardiac arrest

P116

Impact of young age on outcomes of emergency department procedural sedation

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Introduction: Procedural sedation in the emergency department (ED) for children undergoing painful procedures is common practice, however little is known about sedation in very young children. We examined the effect of young age on sedation outcomes. **Methods**: This is a secondary analysis of an observational cohort study of children 0-18 years undergoing procedural sedation in six pediatric EDs across Canada. We compared presedation state, indication for sedation, medications, sedation efficacy and four main post-sedation outcomes (serious adverse events (SAE), significant interventions, oxygen desaturation and vomiting) between patients who ≤2 years with those >2 years. Pre-sedation state, medications, indication for sedation and time intervals were summarized using frequency and percentage and compared with chi2 test. Logistic regression was used to examine associations between age group and outcomes. **Results**: 6295 patients were included; 5349 (85%) were >2 years and 946 (15%) were ≤2 years. Children ≤2 years were sedated most commonly for laceration repair (n = 450; 47.6%), orthopedic reduction (165; 17.4%) and abscess incision and drainage (136; 14.4%). Children >2years were sedated most commonly for orthopedic reductions (3983; 74.5%). Ketamine was the most common medication in both groups, but was used most frequently in children ≤2 years (80.9% vs 58.9%; p < 0.001). There was no difference in the incidence of SAE, significant interventions or oxygen desaturation between age groups, however children ≤2 years were less likely to vomit (Table 1). Young children had decreased odds of a successful sedation (OR 0.48; 95% CI: 0.37 to 0.63). On average, patients ≤2 years were sedated for 7 minutes less (74.1 vs 81.0 p < 0.001) and discharged 10 minutes sooner (90.1 vs 100.8 p < 0.001). Table 1 ≤2 years (n = 946) >2 years (n = 5349) OR (95%CI)* p-value n(%) n(%) Serious Adverse Event 8 (0.85) 59 (1.0) 0.76 (0.43-1.7) 0.477 Significant intervention 10 (1.0) 76 (1.4) 0.74 (0.34-1.4) 0.374 Oxygen Desaturation 50 (5.3) 303 (5.6) 0.93 (0.67-1.3) 0.640 Vomiting 14 (1.5) 314 (5.9) 0.24 0.13-0.41) <0.001 *Reference category: ≤2 years. **Conclusion**: Children ≤2 years most commonly received ED sedation for laceration repair using ketamine. Young age was not associated with a significant difference in SAEs, significant intervention or desaturation but was associated with decreased odds of vomiting and of successful sedation.

Keywords: pain, pediatric, sedation

P117

Procedural skills training in emergency medicine physicians within the Edmonton zone: a needs assessment

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Introduction: Procedural skills are a key component of an emergency physician's practice. The Edmonton Zone is a health region that comprises eleven tertiary, urban community and rural community emergency departments (EDs) that represents over three hundred emergency physicians. We report the initial stakeholder and site leadership needs assessment used to inform the development of a comprehensive continuing professional development (CPD) procedural skills curriculum for the Edmonton Zone. **Methods**: A list of procedural skills was distributed to the two Edmonton Zone Clinical Department Heads of Emergency Medicine (EM). This list was based on a previous Canadian study that utilized procedures from the Objectives of Training in EM. Based on perceived needs, twenty-five procedures were chosen by consensus from zone leadership and study authors as the initial focus for a skills curriculum. This list was sent via survey to the physician site leads of all EDs in the zone. Each site lead was asked to indicate the fifteen procedure curriculum they felt would most benefit their respective physician groups. Responses were collated to look at all departments as a group and stratified by the type of ED (tertiary, urban and rural community). **Results**: Every site chief of Edmonton Zone EDs completed the survey (100% response rate). Cricothyrotomy and pediatric intubation were the two procedures prioritized by every site. One procedure (ultrasound guided central lines) was prioritized by 10/11 sites while three procedures (ultrasound guided central lines, adult intubation and chest tube insertion) were specified by 9/11 sites as needs. Two procedures (pericardiocentesis and thoracotomy) were named as priorities only by tertiary centers. Conversely, three procedures (extensor tendon repair, anterior and posterior nasal packing) were highlighted by all rural sites, but not consistently by any urban sites. **Conclusion**: Over the next few years, competency-based CPD will emerge for physicians in practice. Our preliminary needs assessment showed that while a common zone-wide curriculum will be possible, targeted curricula tailored to the unique needs of the various types of EDs will also be necessary. This has implications for the resources and teaching requirements needed to deliver effective and recurring CPD courses to an entire health region. A targeted needs assessment to all Edmonton Zone physicians will be the next step to verify and further elaborate on these preliminary results.

Keywords: continuing professional development, curriculum, simulation

P118

Older adults in the emergency department: a retrospective cross-sectional study of the geriatric population in Edmonton emergency departments

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Introduction: The geriatric patient population accounts for an ever increasing proportion of emergency department (ED) visits. Geriatric centered EDs are an emerging area of interest and research. Though there have been past studies looking at older patient presentations at individual hospitals, there is limited data describing geriatric presentations within an entire Canadian geographic health region. This study characterizes the population of older adults utilizing the EDs in the Edmonton Zone, a health region that comprises a total of eleven tertiary (T), urban community (UC) and rural community (RC) hospitals. **Methods**: This retrospective cross-sectional study targeted all patients ≥65 years presenting to the Edmonton Zone EDs between April 1, 2017 to March 31, 2018. Data was extracted from the

Emergency Department Information System (EDIS) database for ten EDs in the health region. Clinical and administrative data points were extracted and examined for each site. **Results**: We analyzed 100,813 ED geriatric patient visits during our study period, accounting for 18.7% of total ED visits to the Edmonton Zone. The five most common triage complaints at ED presentation were shortness of breath, abdominal pain, chest pain with cardiac features, general weakness, and back pain. CTAS scores 1-3 were assigned to 77.8% of geriatric presentations (T: 86.3%, UC: 77.4%, RC: 60.9%). 27.3% of geriatric patients had presented to an ED within the past 30 days (T: 30.0%, UC: 25.4%, RC: 27.7%). On average, 35.3% of older adult ED visits involved a consultation (T: 51.7%, UC 30.8%, RC 14.6%) and approximately 25% of geriatric patients were admitted to hospital during their ED visit (T: 42.8%, UC: 19.4%, RC: 7.1%). The average length of stay (LOS) in the ED (hh:mm) was 10:19 (T: 10:24, UC: 11:38, RC: 5:43). Overall, 2.4% of all geriatric patients left an ED without being seen after initial registration (T: 2.7%, UC: 2.2%, RC: 2.1%). **Conclusion**: Older adults represent a significant proportion of the ED visits in the Edmonton Zone. The triage acuity, LOS, re-presentation, consultation and admission rates varied based on the type of ED, which has implications for resource allocation within the health region. Our results can also direct future targeted initiatives and quality improvement projects to the various types of EDs in the Edmonton Zone, and facilitate planning of ED services for older adults in other health regions who have a similar geographic distribution of care sites.

Keywords: frailty, geriatrics, older adults

P119

Characteristics and outcomes of patients with neurologic complaints who leave the emergency department without being seen

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Introduction: Patients with neurologic chief complaints comprised 12.5% of total visits to the University of Alberta Emergency Department (ED) in 2017. Symptoms are often subjective, transient, or atypical, leading to diagnostic uncertainty. Serious diagnoses require timely intervention to mitigate morbidity and mortality, however the proportion of patients who leave the ED without being seen (LWBS) has increased over time. We sought to analyze the characteristics and outcomes of patients with neurologic complaints who LWBS to identify opportunities for improvement in quality and safety of patient care. **Methods**: Data was extracted from the Emergency Department Information System (EDIS) and National Ambulatory Care Reporting System database to select adult patients presenting to the University of Alberta Hospital in 2017 with neurologic complaints as defined by the Canadian Triage Acuity Scale (CTAS). Using standard descriptive statistics we examined demographic and clinical characteristics to compare LWBS patients to all others. **Results**: Of 8,726 total visits 7.54% patients LWBS. These patients tended to be younger on average (39 vs 55 years), with a larger proportion presenting at night (37.69%) and on Monday. The majority were triaged CTAS 3 (68.69%). Their mean length of stay was shorter than all other visits (3.70 vs 9.51 hours). Headache (22.74%), extremity weakness/symptoms of CVA (20.19%), head injury (14.32%), seizure (8.28%), and sensory loss/paresthesia (8.14%) comprised the top 5 neurologic complaints, and were disproportionately presented in LWBS patients; headache (31.76%), head injury (23.71%), sensory loss/paresthesia (12.01%), seizure (11.25%). Patients who LWBS also re-presented to the ED within 72 hours (21.43%), more often than those discharged by a physician (8.29%). **Conclusion**: Patients presenting with neurologic complaints who LWBS are younger, tend to arrive at night, with less acute presentations, however they more frequently return to the ED within 72 hours than those seen and discharged. Patients who LWBS may benefit from education, physician assessment or closer nurse reassessment at triage to increase the quality and safety of care in the ED, reduce return visits and ED utilization.

Keywords: neurology, triage, utilization

P120

Characteristics and outcomes of patients with neurologic complaints who have an unscheduled return visit to the emergency department within 72 hours

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Introduction: Patients with neurologic presenting complaints comprised 12.5% of total University of Alberta Emergency Department (ED) visits in 2017. This group of patients has high rates of EMS utilization, admission, and ED resources including diagnostic imaging and consult services. We sought to analyze the characteristics and outcomes of the patients with neurologic complaints who have an unscheduled return visit (URV) to the ED within 72 hours to identify opportunities for improvement in quality and safety of patient care. **Methods**: Data was extracted from the Emergency Department Information System (EDIS) and National Ambulatory Care System databases to select adult patients presenting to the University of Alberta hospital in 2017 with neurologic complaints as defined by the Canadian Triage and Acuity Scale (CTAS). We additionally selected for return visits to Edmonton Zone EDs within 72 hours. Using standard descriptive statistics, we examined demographic and clinical characteristics of patients with 72-hour URV. **Results**: Of 8,770 total visits, 674 (7.69%) had a 72-hour URV to an Edmonton zone ED. The URV rate was 9.0% in patients seen by a physician and discharged with approval and 23.4-33.3% in patients who left against medical advice (LAMA), prior to completion of treatment (LPCT), or without being seen by a physician (LWBS). The mean age of URV patients was 45.6 years, 56.5% were male, with a mean ED length of stay of 7.37 hours. The top 5 diagnoses for URV patients were headache, migraine, alcohol related disorders, concussion, and transient ischemic attack. 14.7% of URV patients were admitted, 13.5% LWBS, 1.6% LAMA, 1.6% LPCT, and 66.1% were discharged. **Conclusion**: The majority of neurologic complaint patients with URV within 72 hours are those who LAMA, LPTC, or LWBS at index visit. The admission rate for URV patients (14.7%) is lower than for the index ED visit (55%), however these patients have high LWBS rates. Identifying strategies to limit the LWBS rate for these patients would reduce return visits and improve the quality and safety of patient care.

Keywords: neurology, unscheduled return

P121

Prehospital ultrasound use among Canadian aeromedical service providers – a cross-sectional survey

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