

handovers were observed. Information was often missing regarding airway (present 22%), breathing (54%), medications (59%), and allergies (54%). Handover structure lacked consistency beyond the order of identification and mechanism of injury. Only 28% of handovers had a dedicated question and answer period. Of all questions asked, 35% were questioning previously given information. EMS returned to categories of information unprompted in 84% of handovers. The majority of handovers (61%) involved parallel conversations between team members while EMS was speaking, which was associated with a greater number of interrupting questions from the trauma team (3.15 vs. 1.82,  $p = .001$ ). There was a statistically significant disparity between the self-evaluation of EMS handovers and the perceived quality determined by nurses and trauma team leaders. **Discussion/Impact:** At our trauma centre, we have identified the need for handover standardization due to poor information content, a lack of structure and active listening, significant information repetition, and discordant expectations between EMS, nurses, and TTLs. We intend to use our results to guide the development of a co-constructed framework integrating the perspectives of all team members on the trauma team.

**Keywords:** emergency medical services, handover, quality improvement and patient safety

#### P080

##### Trauma experiences of rural emergency physicians: a self assessment

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**Introduction:** The purpose of this study was to identify, through self-assessment, how comfortable rural emergency medicine (EM) practitioners are in treating critically ill trauma patients, the resources available to treat such patients and their comfort with performing trauma procedures. Our goal is to enhance rural trauma care by identifying obstacles rural EM physicians face in Saskatchewan. **Methods:** This was a cross sectional survey study, emailed to family physicians practicing rural EM in Saskatchewan identified through the Saskatchewan Medical Association database. Inclusion criteria included physicians who are providing EM care currently or within the past year. Rural was assumed to be communities in Saskatchewan that were outside of Saskatoon and Regina. The survey was an anonymous self-assessment regarding demographics, training, hospital resources and comfort. **Results:** 113 physicians of the 479 rural physicians agreed to participate, 78 met our inclusion criteria. Most (67%) were from communities with less than 10,000 population, 70% had less than 300 ED visits per month. Most (68%) were less than 45 years of age. In terms of training, 57% had completed undergraduate training out of Canada and 63% had completed residency training in Canada. Most had been practicing for more than 2 years (76%). Most (59%) had current ATLS credentials, however only 37% had ever completed the EDE course. Regarding available resources, most centers had plain radiography (99%), POCUS (68%), PRBC (78%) and TXA (93%). However, fresh frozen plasma (41%) and platelets (26%) were not widely available. Comfort was measured on a Likert scale. The types of trauma that respondents were least comfortable with included pediatric (39%), vascular (46%), spine (56%) and genitourinary (60%). The types skills that participants were least

comfortable with included pericardiocentesis (19%), and surgical airway (25%). The majority had not performed Pediatric endotracheal tube insertion (79%), surgical airways (99%), pericardiocentesis (99%), central venous line placement (80%) and needle thoracostomy (71%) within the past 12 months. **Conclusion:** This self-assessment helped us identify aspects of rural trauma medicine that are the most challenging for rural practitioners. Understanding the most difficult challenges in light of the critical resources available to rural trauma medicine providers will inform future professional development initiatives.

**Keywords:** rural, self-assessment, trauma

#### P081

##### The summer of the e-scooter: a multicenter evaluation of the emergency department impact of rentable motorized scooters in Calgary

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**Introduction:** Calgary's introduction of rentable electronic scooters (e-scooters) in July of 2019 was met with wild popularity, representing the third most popular launch after Tel-Aviv and Paris. The present study aims to characterize the injury burden seen in all Calgary Emergency Departments (EDs) and Urgent Care Centres (UCCs) attributable to e-scooters since their 2019 introduction. **Methods:** We retrospectively reviewed all electronic medical records of patients presenting to Calgary EDs or UCCs with the term "scooter" in the triage note, where exclusion criteria are considered for non e-scooter injuries (e.g. non-motorized scooters). Trends in scooter injuries will be compared between April - October 2018 (control arm preceding e-scooter introduction) and April - October 2019. Injury incidence, types, patient demographics, and relative risk compared to bicycle-related injuries will be determined. Descriptive statistics will be calculated. Moreover, 33 ED visits were brought in by EMS and provide information about injury types and locations of injuries involving EMS transport. **Results:** Preliminary data reveals 540 scooter-related visits (3.10% admitted/transferred) between July 8th and September 30th 2019 (mean age of 28, 56.30% male). Conversely, the number of bicycle-related visits and motor vehicle related injuries were 1482 and 586 (9.90% and 9.70% admitted/transferred) respectively over the same time period suggesting a greater burden but likely a lower per-ride incidence of injury requiring ED or UCC care. Moreover, between July 8th to October 1st 2019, 33 e-scooter presentations involved EMS (21.21% admitted to hospital), where 12.12% involved upper extremity injury, 21.21% were lower extremity injuries, and 6.06% were head injuries (mean age of 34, 48.48% male). Conversely, estimated EMS transfers to EDs or UCCs for bicycle injuries and motor vehicle injuries were 197 and 463 respectively over the same time period. ICU admissions or fatality were not recorded. **Conclusion:** Representing the most comprehensive study of e-scooter injury patterns in Canada to date, we here demonstrate a significant injury burden attributable to e-scooters following their introduction in Calgary in 2019. Bicycle-related and motor vehicle injuries were both more prevalent in this time period, and required more EMS visits. Further characterization of injury types, injuries and comparison with injury patterns prior to e-scooter introduction is yet to be determined.

**Keywords:** ambulance, e-scooter, injury

## P082

**Ethical management of incidental findings in emergency care: A critical interpretive literature review**

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**Introduction:** Incidental findings (IFs) are findings discovered in the course of healthcare (e.g., blood tests, genetic tests, imaging) that are unrelated to the primary purpose for which a test was sought. Some IFs constitute new knowledge that have implications for patient autonomy and welfare. IFs found in emergency departments (EDs) are difficult to manage, with one study reporting that of 392 patients with IFs, 122 had no follow-up and 242 had no electronic record of the finding. **Methods:** A critical interpretive literature review was conducted to explore current practices regarding identification, disclosure, and management of IFs in EDs, and to identify ethical challenges that require research focus and policy reform. The search strategy included 'incidental findings' AND 'emergency' and derivatives, retrieving 12,021 studies from databases including PubMed, Scopus, and Web of Science, as well as handsearching and reference list searching. Following screening, 97 studies were included. Data was extracted, analyzed using descriptive statistics, and then critically interpreted to capture key ideas. **Results:** Of 97 included articles, 75 have relevant empirical data. Of the 75, most literature (89%) presented the frequency of IFs in EDs, with an average frequency of 34%. Most (84%) did not report on patient disclosure rates or follow-up rates. When reported, patient notification rates are as low as 2.6% with an average of 15% over 12 studies. Empirical studies included in the review do not address ethical principles or patient preferences on disclosure. The literature reveals suggestions to manage IFs in EDs, including implementation of automatic feedback or alert mechanisms, clarification of responsibilities within treating teams, protocols in radiology departments, and improvements to patient documentation. Test results by letter are noted as insufficient because patients are unable to ask questions. Authors suggest further research on optimal follow-up recommendations to alleviate patient and physician distress. Further results will be presented, critically interpreted, and discussed, with attention to ethical implications and challenges. **Conclusion:** The literature on IFs in EDs focuses too narrowly on frequency, with ad hoc suggestions for practice, research, and policy changes to improve the ethical management of IFs. Numerous factors, including crucial knowledge gaps, contribute to inadequate management of IFs arising in EDs. Research and ethics informed policy guidance is needed.

**Keywords:** ethics, incidental findings, literature review

## P083

**Demographic characteristics of people experiencing homelessness presenting to emergency departments**

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**Introduction:** Despite the visibility of the homeless population, there is limited data on the information of this patient population. Point-in-time counts and survey data from selected samples (such as those admitted to emergency shelter) have primarily been used. This literature suggests that this hard-to-reach population has high rates of presentation at emergency departments (EDs), and as such, EDs often become their main point of contact for health and social services. Leveraging this fact and administrative data we construct a crude census of homeless persons within Ontario. We further examine demographic characteristics of patients experiencing

homelessness, and compare this data to findings from previous literature. **Methods:** All routinely collected administrative health data from EDs located within Ontario, Canada from 2010-2017 were analyzed to examine patient characteristics. Individuals experiencing homelessness were identified by a marker that was adopted in 2009 replacing their recorded postal code with an XX designation. s. Aggregating by LHIN, date and week of year, we examine the overall number of patients experiencing homelessness and number by LHIN location and seasonality. Demographic outcomes examined include age and sex. **Results:** 640,897 visits to the ED over 7 years were made by 39,525 unique individuals experiencing homelessness. Number of ED visits has steadily increased over 10 years in all of Ontario, despite decline in shelter use for individuals. Presentations were concentrated in large urban centres like Toronto, Ottawa and Hamilton. Fewer presentations occur in the spring and summer months and rise in the winter. Male patients presented older and in greater numbers than female patients. The modal female age of presentation is in the 20-24 age category. The modal male age of presentation is in the 25-29 age category. Older male patients were more likely to have multiple presentations. **Conclusion:** The utilization of administrative health data offers a novel, cost-effective method to measure demographic characteristics of people experiencing homelessness. Identifying characteristics of homeless patients through this method allows for a more complete understanding of the characteristics of a hard-to-reach population, which will allow policy makers to develop appropriate services for this sub-group. Furthermore, through analysis of trends of demographics over time, changes in the homeless population can be tracked in real-time to allow for coordination and implementation of services in a time-sensitive manner.

**Keywords:** data, demographics, homelessness

## P084

**Hard-to-reach populations and administrative health data: a serial cross-sectional study and application of data to improve interventions for people experiencing homelessness**

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**Introduction:** Administrative data can aid in study and intervention design, incorporating hard-to-reach individuals who may otherwise be poorly represented. We aim to use administrative health data to examine emergency department visits by people experiencing homelessness and explore the application of this data for planning interventions. **Methods:** We conducted a serial cross-sectional study examining emergency department use by people experiencing homelessness and non-homeless individuals in the Niagara region of Ontario, Canada. The study period included administrative health data from April 1st, 2010 to March 31st, 2018. Outcomes included number of visits, number of unique patients; group proportions of Canadian Triage and Acuity Scale (CTAS) scores; time spent in emergency; and time to see an MD. Descriptive statistics were generated, and t-tests were performed for point estimates and a Mann-Whitney U test for distributional measures. **Results:** Our data included 1,486,699 emergency department visits. The number of unique people experiencing homelessness ranged from 91 in 2010 to 344 in 2017, trending higher over the study period compared to non-homeless patients. The rate of visits increased from 1.7 to 2.8 per person. People experiencing homelessness tend to present later in the day and with higher overall acuity as compared to the general population. Time