

health issues over the past ten years. As usage of our Emergency Mental Health and Addictions Services (EMHAS) team continues to rise, it is increasingly important to understand the incidence of NSSI among our youth, explore if NSSI is reported at triage and identify characteristics that may distinguish these adolescents from others presenting for mental health assessment. **Methods:** This is an exploratory research study using retrospective data. Patients who had an Emergency Mental Health Triage (EMHT) form on their health record from an ED visit between June 1, 2017 and May 31, 2018 were eligible. Trained research assistants, using a structured data collection form in REDCap, abstracted data from the EMHT form, the EMHAS Assessment form, the Assessment of Suicide Risk Inventory and our CHIRPP (Canadian Hospitals Injury Reporting and Prevention Program) database. We calculated kappa values and 95% confidence intervals to describe the extent to which the forms agree with respect to identifying NSSI. We will compare the cohort who reports NSSI with the cohort who does not report NSSI using chi-square statistics depending. We will use descriptive statistics to characterize the NSSI patients. **Results:** During the one-year study period 955 patients had an EMHT form completed. In preliminary analysis 558 (58.4%) reported a history of NSSI. Patients reported NSSI on both the EMHT form and the EMHAS assessment form 64.7% of the time (kappa 0.56) indicating moderate agreement. In patients with NSSI, 9.5% of patients reported it only at triage and 25.8% of patients reported it only during their EMHAS assessment. Between group comparisons and descriptive analysis is underway. **Conclusion:** More than half of youth triaged with an emergency mental health complaint in our ED reported a history of NSSI. Screening at triage was moderately effective in identifying adolescents with NSSI compared to an in-depth assessment by the mental health team. Further research is needed to clarify how NSSI relates to risk for suicide.

**Keywords:** non-suicidal self injury

#### P020

##### **Impact of dexamethasone dose on return visits at a tertiary pediatric emergency department**

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**Introduction:** Croup is a common viral upper airway infection in children aged 6 months to 6 years. Although a single dose of dexamethasone decreases return visits, the prescribed dose varies from 0.15mg/kg to 0.6mg/kg. Our objective was to examine the effect of varied dexamethasone dosing on unplanned return ED visits for croup. **Methods:** This was a retrospective chart review of IWK ED patient treatment records from September 1, 2014 – August 31, 2016 of children aged 6 months to 6 years with an ICD-10 discharge diagnosis code of croup. Data were abstracted by trained research assistants using a structured data collection form in REDCap. A sample of 5% of charts had double data abstraction to test for agreement. Our primary outcome was return visits to the ED within 7 days. Secondary outcomes were ED length of stay (LOS), admission to hospital and admission to the pediatric intensive care unit (PICU). Data were analyzed using descriptive statistics and chi-square for between group comparisons. **Results:** The dataset included 1595 patient visits for croup. Data analysis is in progress. Triage acuity as per CTAS included: resuscitation n = 5; emergent n = 351; urgent n = 558; less urgent n = 605; and, non-urgent n = 2. Most patients had no co-morbid conditions (n = 1548). Dexamethasone dosing varied:

0.15 mg/kg n = 64; 0.3 mg/kg n = 838; and, 0.6 mg/kg n = 493. ED LOS was under 1 hour in 483 patients, 1-3 hours in 805, 3-6 hours in 225 and 6-12 hours in 9 patients. Few patients were admitted to hospital (n = 22) and no patients were admitted to PICU. Within 7 days of the index visit, 78 patients had an unplanned return visit to the ED for croup. **Conclusion:** The data analysis is in progress. This study will inform our future research on a practice change in our ED to comply with the dose of dexamethasone recommended by the Canadian Pediatric Society for the treatment of croup in 2017. **Keywords:** croup, return visits, steroid

#### P021

##### **Interventions to reduce emergency department door-to-ECG times: a systematic review**

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**Introduction:** We wished to identify emergency department interventions that lead to improvement in door-to-ECG times for adults presenting with symptoms suggestive of acute coronary syndrome (ACS). **Methods:** Two reviewers searched Medline, Embase, CINAHL and Cochrane CENTRAL from inception to April 2018 for studies in adult emergency departments with an identifiable intervention to reduce median door-to-ECG times when compared to the institution's baseline. Quality was assessed using the 'Quality Improvement Minimum Quality Criteria Set' (QI-MQCS) critical appraisal tool. The primary outcome was the absolute median reduction in door-to-ECG times as calculated by the difference between the post-intervention time and pre-intervention time. **Results:** Two reviewers identified 809 unique articles, yielding 11 before-after quality improvement studies that met eligibility criteria (N = 15,622 patients). The majority of studies (10/11) reported bundled interventions and most (10/11) showed statistical improvement in door-to-ECG times. The most common interventions were: having a dedicated ECG machine and technician in triage (5/11); improved triage education (4/11); improved triage disposition (2/11); and data feedback mechanisms (1/11). **Conclusion:** There are multiple interventions that show promise for reducing emergency department door-to-ECG times. Effective bundled interventions include having a dedicated ECG technician, triage education and better triage disposition. These changes, bundled together, can help intuitions attain best practice guidelines. Emergency departments must first understand their local context before adopting any single or group of interventions.

**Keywords:** door-to-ECG, quality improvement

#### P022

##### **A multimodal evaluation of an emergency department (ED) electronic tracking board utility designed to improve throughput by optimizing stretcher utilization**

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**Introduction:** Access block is a pervasive problem, even during times of minimal boarding in the ED, suggesting suboptimal use of ED stretchers can contribute. A tracking board utility was embedded into the electronic health record in Calgary, AB, allowing MDs and RNs to consider patients who could be relocated from a stretcher to

a chair. Objectives of this study were to evaluate the feature's impact on total stretcher time (TST) and ED length of stay (LOS) for patients relocated to a chair. We also sought to identify facilitators and barriers to the tool's use amongst ED MDs and RNs. **Methods:** A retrospective cohort design was used to compare TST between those where the tool was used and not used amongst patients relocated to a chair between September 1 2017 and August 15 2018. Each use of the location tool was time-stamped in an administrative database. Median TST and ED LOS were compared between patients where the tool was used and not used using a Mann-Whitney U Test. A cross sectional convenience sample survey was used to determine facilitators and barriers to the tool's use amongst ED staff. Response proportions were used to report Likert scale questions; thematic analysis was used to code themes. **Results:** 194882 patients met inclusion criteria. The tool was used 4301 times, with "Ok for Chairs" selected 3914(2%) times and "Not Ok for Chairs" selected 384(0.2%) times; 54462 (30%) patients were moved to a chair without the tool's use. Mean age, sex, mode of arrival and triage scores were similar between both groups. Median (IQR) TST amongst patients moved to a chair via the prompt was shorter than when the prompt was not used [142.7 (100.5) mins vs 152.3 (112.3) mins,  $p < 0.001$ ], resulting in 37574 mins of saved stretcher time. LOS was similar between both groups ( $p = 0.22$ ). 125 questionnaires were completed by 90 ED nurses and 35 ED MDs. 95% of staff were aware of the tool and 70% agreed/strongly agreed the tool could improve ED flow; however, 38% reported only "sometimes" using the tool. MDs reported the most common barrier was forgetting to use the tool and lack of perceived action in relocating patients. Commonly reported nursing barriers were lack of chair space and increased workload. **Conclusion:** Despite minimal use of the tracking board utility, triggering was associated with reduced TST amongst ED patients eventually relocated to a chair. To encourage increased use, future versions should prompt staff to select a location.

**Keywords:** electronic health records, overcrowding

#### P023

##### The BC Emergency Medicine Network: Evaluation approach and early findings

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**Introduction:** September 2017 saw the launch of the British Columbia (BC) Emergency Medicine Network (EM Network), an innovative clinical network established to improve emergency care across the province. The intent of the EM Network is to support the delivery of evidence-informed, patient-centered care in all 108 Emergency Departments and Diagnostic & Treatment Centres in BC. After one year, the Network undertook a formative evaluation to guide its growth. Our objective is to describe the evaluation approach and early findings. **Methods:** The EM Network was evaluated on three levels: member demographics, online engagement and member perceptions of value and progress. For member demographics and online engagement, data were captured from member registration information on the Network's website, Google Analytics and Twitter Analytics. Membership feedback was sought through an online survey using a social network analysis tool, PARTNER (Program to Analyze,

Record, and Track Networks to Enhance Relationships), and semi-structured individual interviews. This framework was developed based on literature recommendations in collaboration with Network members, including patient representatives. **Results:** There are currently 622 EM Network members from an eligible denominator of approximately 1400 physicians (44%). Seventy-three percent of the Emergency Departments and Diagnostic and Treatment Centres in BC currently have Network members, and since launch, the EM Network website has been accessed by 11,154 unique IP addresses. Online discussion forum use is low but growing, and Twitter following is high. There are currently 550 Twitter followers and an average of 27 'mentions' of the Network by Twitter users per month. Member feedback through the survey and individual interviews indicates that the Network is respected and credible, but many remain unaware of its purpose and offerings. **Conclusion:** Our findings underscore that early evaluation is useful to identify development needs, and for the Network this includes increasing awareness and online dialogue. However, our results must be interpreted cautiously in such a young Network, and thus, we intend to re-evaluate regularly. Specific action recommendations from this baseline evaluation include: increasing face-to-face visits of targeted communities; maintaining or accelerating communication strategies to increase engagement; and providing new techniques that encourage member contributions in order to grow and improve content.

**Keywords:** evaluation, network, quality improvement and patient safety

#### P024

##### Obtaining consensus on optimal management and follow-up of patients presenting to the emergency department with early pregnancy complications – a modified Delphi study

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**Introduction:** Complications in early pregnancy are common and have many physical and emotional consequences. Locally, there is no early pregnancy loss clinic or standardized guide in the emergency department (ED) for referral and follow-up decisions, and both initial management of patients and follow up can be inconsistent. This study aimed to obtain consensus on the best approach to initial work-up, management, and follow up for patients who present to the ED with early pregnancy complications, with the goal of using this consensus to produce a standardized guide for emergency provider use. **Methods:** A literature review was completed to produce evidence-based recommendations which were used to initiate a modified Delphi consensus process. A survey was distributed, with three rounds completed. Participants included emergency providers, obstetrician-gynecologists, a radiologist, a sample of family medicine physicians including some involved in primary care obstetrics, and nurse practitioners. An obstetric specialist from outside the local region was also involved. **Results:** Consensus was reached on several key recommendations, however some areas remained without clear accepted best practice. There was consensus that physical components of early pregnancy complications are addressed well, but that we could improve on patient flow and more consistent follow up. Important investigations to be done for patients were identified. The timing of formal ultrasound, necessity and timing of obstetrician consultation, and safety of discharge was addressed for various patient scenarios including stable and unstable patients, with and without adnexal pain, with