drinking dates in one academic centre. **Methods:** This was a chart review of patients aged 12-24 with alcohol-related ED presentations between Sept 2013-Aug 2017. The National Ambulatory Care Reporting System (NACRS) database was searched for visits with ICD-10 codes related to alcohol. The Canadian Hospital Injury Reporting and Prevention Program (CHIRPP) database was also searched using the keyword alcohol. Duplicate visits were removed. Visits were excluded if patients had a history of psychosis, were held in the ED for involuntary psychiatric assessment, were homeless, were inmates from a correctional institute, if alcohol use was not mentioned and for complaints of sexual assault/domestic violence. Data abstraction by two reviewers used a standard form with variables predetermined. Differences were resolved with third party adjudication. Interrater reliability of the reviewers was assessed through duplicate review of 10% of randomly selected charts. A further 10% were assessed by a 3rd reviewer for extraction accuracy. **Results:** A total of 3,256 ED visits were identified with 777 meeting exclusion criteria. The remaining 2,479 visits were reviewed and subclassified into injury (51.8%), acute intoxication (45.1%) and mental health issue (3.2%). Interrater agreement was high for extracted variables with Kappa scores > 0.8. Despite a decrease in the region's youth population during the study period (28,325 to 25,125), overall standardized ED visits by youth increased by 12% (66,538 to 78,129). Adjusted for population, youth alcohol-related visits increased by 86.4% from 1,557 in 2013-14 to 2,902 in 2016-17. Co-ingestion of other substances was reported in 292 (11.8%) of visits, with cannabis the most common (57%). The 17 pre-specified ritualized days saw 578 (23.3%) of ED visits. **Conclusion:** Alcohol-related ED visits in youth are increasing in our region. Ritualized drinking dates appear to be particularly risky for youth with high rates of observed ED utilization. Strategies to manage high volume ritual days are being piloted, including temporary diversion to an in-hospital sobriety centre.

Keywords: alcohol intoxication, substance use/misuse, youth

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Does an elevated troponin ultimately matter? An assessment of outcomes in patients presenting to the emergency department with non-cardiac complaints

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Introduction: Acute myocardial infarction (MI) is one of the most time-sensitive diagnoses made in the emergency department (ED). Troponin (TNI) measurement is an invaluable tool; however, its utility depends on the clinical context and is highest where there is a strong pre-test probability. Studies show that most TNI elevations are due to non-cardiovascular causes; however, elevated TNI has been associated with increased morbidity and mortality, often prompting additional investigations. The aim of our study was to compare 1-year cardiac outcomes of patients who presented to the ED with non-cardiac complaints and elevated TNI who had further cardiac testing versus those who did not. **Methods:** We conducted a retrospective chart review of patients ≥18 seen in the ED for non-cardiac complaints with a high TNI from January-June 2016. Patients were stratified into two groups: 1) those who received diagnostic testing for ischemia and/or a cardiac consultation and 2) those without cardiac consultation or testing. Data was also collected on major adverse cardiac events within 1-year of ED presentation. Chi-squared analysis assessed the difference in proportions of outcomes between groups. We present our preliminary data. **Results:** In total, 1500 patients met inclusion criteria and 861 have been analyzed thus far. Of these 861, 209 went on to have either diagnostic testing for ischemia and/or a cardiology consult while 652 had no further investigations. There was no statistically significant difference in the proportion of patients who developed unstable angina ($p = 0.9824$), ST-elevation myocardial infarction (STEMI) ($p = 0.9956$), non-STEMI ($p = 0.9008$), stroke/TIA ($p = 0.9657$), revascularization ($p = 0.8873$), cardiac hospitalization ($p = 0.9446$) or died ($p = 0.8972$), within 1-year of their ED presentation. **Conclusion:** In patients with isolated elevated TNI and non-cardiac complaints, preliminary data showed no difference in mortality or cardiac event rates between those who had further testing/consultations and those who did not. TNI ordering could be cautiously limited to only presenting complaints/preliminary diagnoses likely to have cardiac etiology or sequelae or those in whom further testing would impact management/outcomes. Quality of care may be improved by reducing length of stay in the ED and potential risks of unnecessary tests. Future studies include determining cost implications and classifying what level of TNI elevation in non-ACS patients may predict a future cardiac outcome.

Keywords: non-cardiac, non-cardiovascular, troponin

P110

Chest tube thoracostomy in the ED: predictors of complications

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Background: Chest tube thoracostomy is frequently performed in the emergency department (ED) for patients with traumatic thoracic injuries. However, this procedure is associated with a high complication rate. **Aim Statement:** The aim of this study was to describe and assess predictors of complications following chest tube thoracostomy. **Measures & Design:** A retrospective chart review was conducted in a level 1 trauma center. Patients aged ≥16 who required a chest tube for a traumatic injury between 2016 and 2019 were identified. Variables including demographic data, Charlson Comorbidity Index, mechanism of injury, Injury Severity Score (ISS), chest tube insertion and technique (i.e. position, dislodgement, obstruction, organ perforation), complications and interventions were collected using a standardized data collection form. A second reviewer assessed all ambiguous files. Descriptive statistics and adjusted odds ratios were calculated. **Evaluation/Results:** 179 patients were included in the study, of which 141 were male (79%). Mean age was 54 ? 18 and median ISS was 17 (Q1-Q3: 9-27). 207 chest tube thoracostomies were performed for pneumothorax (81%) or a hemothorax (38%) mainly after a blunt injury (92%). 183 standard chest tube (88%) and 24 pigtail catheters (12%) were installed. Overall, emergency medicine physicians/residents performed 70% of these procedures and 54% were performed by residents. Sixty-one patients (34%) suffered a total of 73 complications: 45 were infectious (62%) and 28 were technique-related (38%). Pneumonia was the most frequent complication (19%) followed by reintroduced or replaced chest tube (12%). After adjusting for the ISS, there was no statistically significant association between the type of tube (OR 0.36 95% CI: 0.08-1.68), the medical specialty (OR 1.19 95% CI: 0.55-2.58) or the level of training (OR 1.29 95% CI: 0.63-2.64) of the clinician and the incidence of at least one complication. **Discussion/Impact:** Our results show that one out of three patients experienced at least one complication following a chest tube thoracostomy in the ED, which confirmed existing literature (5%- 38%). After adjustment, the type of tube used, the

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specialty and level of training of the health professional who performed the procedure was not associated with the incidence of at least one complication.
Keywords: chest tube, predictors, thoracostomy

P111
Kussmaul's sign for the diagnosis of right ventricular myocardial infarction
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Introduction: Kussmaul's sign, the absence of a drop in JVP or a paradoxical increase in JVP on inspiration, can be elicited clinically as an indicator of right ventricular myocardial infarction (RVMI). RVMI poses unique diagnostic and management challenges. It complicates 30-50% of inferior MI and is associated with increased mortality when compared to inferior MI without RV involvement. Early recognition allows maintenance of preload by avoiding use of nitroglycerin, diuretic and narcotic medication, and treatment with fluids and vasopressors. We reviewed the evidence for Kussmaul's sign for diagnosis of RVMI. **Methods:** We conducted a librarian assisted search using PubMed, Medline, Embase, the Cochrane database, relevant conference abstracts from 1965 to October 2019. No restrictions for language or study type were imposed. All studies with patients presenting with acute myocardial infarction were reviewed. Two independent reviewers extracted data from relevant studies. Studies were combined when similar study populations were present. Study quality was assessed using the QUADAS-2 tool. Random effects meta-analysis was performed using metaprop in Stata for the 3 reference standards combined. Subset analysis for each of the 3 reference standards was completed. **Results:** We identified 122 studies: 10 were selected for full text review. Eight studies had comparable populations with a total of 469 consecutive patients admitted to the coronary care unit with acute inferior myocardial infarction and were included in the analysis. Prevalence of RVMI was 36% (CI 95% 31.8–40.5). References standards for the diagnosis of RVMI included echocardiography, 16 lead ECG and haemodynamic studies. A gold standard for diagnosis of RVMI is lacking and thus the reference standards were combined. Kussmaul's sign had a sensitivity of 69.3% (CI 95% 46.3 - 85.5, I2- 86.7%), specificity of 95.1% (CI 95% 75.6 - 99.2, I2- 89.3%) and LR + 14.1 (CI 95% 2.6-73.2). Subset analysis of echocardiography, ECG and haemodynamic studies revealed sensitivity of 45%, 77% and 82% (I2- 62%, N/A, 70%) respectively and specificity of 92%, 84% and 92% (I2- 86%, N/A, 86%). **Conclusion:** Kussmaul's sign is specific for acute right ventricular myocardial infarction and may serve as an important clinical sign of right ventricular dysfunction requiring preload preserving management.
Keywords: clinical exam, Kussmaul's sign, right ventricular myocardial infarction

P112
Strengthening inter-professional collaboration in home-based community paramedic programs
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Introduction: Community paramedic programs are being implemented to leverage existing resources and contribute to a sustainable patient-centered healthcare system. Expanding the role of paramedics into home care requires new collaborative relationships with healthcare providers such as nurses and physicians. Developing effective and productive collaborative relationships will enhance and support the integration of community paramedic programs. Our objective was to describe the barriers and facilitators to effective collaboration between nurses, physicians, and paramedics within home-based community paramedicine. **Methods:** We conducted semi-structured interviews with nurses, physicians, paramedics, and faculty who teach in paramedic programs. We explored the attitudes, perceptions, barriers, and enablers to collaboration in home-based community paramedic programs. Participants were recruited utilizing the professional networks of the researchers as well as snowball sampling. Recruitment in each group stopped when saturation was achieved. We conducted a thematic analysis of the interviews to generate findings related to our objectives. **Results:** We interviewed 33 participants with a typical cross-section of age, years of experience, and education. Overall, participants felt that collaboration was important for effective integration of community paramedics into home care and for ensuring a patient-centered approach to care. Currently, collaboration mostly occurs between physicians and paramedics and community paramedicine appears to be a siloed rather than integrated service. Few collaborative relationships exist between paramedics and nurses, despite the fact that nurses are highly involved in home care. We identified several barriers to effective collaboration including lack of understanding of the contributions of the different health providers, and regulatory and funding constraints. Inter-professional education that supports collaboration and facilitates dismantling of professional and service silos can support the effective integration of paramedics into home care. **Conclusion:** Strengthening networks of collaboration between nurses, physicians, and paramedics can help dismantle silos and enhance inter-professional collaboration to support appropriate integration of paramedics into home care. The willingness and positive attitudes for collaboration are assets that provide an excellent foundation upon which to move forward. Continuing education to support inter-professional collaboration is needed.
Keywords: community paramedicine, inter-professional collaboration

P113
Examining emergency physicians' self-reported opioid prescribing practices for the treatment of acute pain: A Newfoundland perspective
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Introduction: Canadians are the second largest consumers of prescription opioids per capita in the world. Emergency physicians tend to prescribe stronger and larger quantities of opioids, while family physicians write the most opioid prescriptions overall. These practices have been shown to precipitate future dependence, toxicity and the need for hospitalization. Despite this emerging evidence, there is a paucity of research on emergency physicians' opioid prescribing practices in Canada. The objectives of this study were to describe our local emergency physicians' opioid prescribing patterns both in the emergency department and upon discharge, and to explore factors that impact their prescribing decisions. **Methods:** Emergency physicians from two urban, adult emergency departments in St. John's, Newfoundland were anonymously surveyed using a web-based survey tool. All 42 physicians were invited to participate via email during the six-week study period and reminders were sent at weeks two and four. **Results:** A total of 21 participants responded to the survey. Over half