the design of a freely available toolkit for provincial implementation by expert working groups, 5) design of 8 key QI metrics by a modified Delphi process, and 6) identification of process measures for QI data collection by implementation metrics. **Evaluation/Results:** PDSA1-2; 150-hospitals were surveyed. 33% of hospitals lacked MHPs, mostly in smaller sites. Major areas for QI were related to activation criteria, hemostatic agents, protocolized hypothermia management, variable MHP naming, QI metrics and serial blood work requirements. PDSA3; 3 Delphi rounds were held to reach 100% expert consensus for 42 statements and 8 CQI metrics. Major areas for modification were protocol name, laboratory resuscitation targets, cooler configurations, and role of factor VIIa. PDSA4; adaptable toolkit is under development by the steering committee and expert working groups. Implementation is scheduled for Spring 2020. PDSA5; the 8 CQI metrics are: TXA administration < 1 h, RBC transfusion < 15 min, call to transfer for definitive care < 60 min, temp >35°C at end of protocol, Hgb kept between 60-110g/L, transition to group-specific RBC by 90 min, appropriate activation defined by ≥6 units RBC in the first 24 hours, and any blood component wastage. **Discussion/Impact:** MHP uptake, content, and tracking is variable. A standardized MHP that is adaptable to diverse settings decreases complexity, improves use of evidence-based practices, and provides a platform for continuous QI. PDSA6 will occur after implementation; we will complete an implementation survey, and design a pilot and feasibility study for prospective tracking of patient outcomes using existing prospectively collected inter-hospital and provincial databases.

Keywords: massive hemorrhage protocol, quality improvement and patient safety, resuscitation systems

LO42

A systematic review of short-term use of therapeutic opioids for children and future opioid use disorders

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Introduction: Despite an overall decline in opioid prescriptions in Canada, healthcare visits, hospitalizations, and deaths due to opioid-related harms continue to rise for children. Clinicians urgently require high quality synthesized evidence to inform personalized decisions regarding opioid use for children. The objective of this systematic review was to examine the association between short-term therapeutic exposure to opioids and development of opioid use disorder. **Methods:** A medical librarian conducted a comprehensive search of 10 databases from inception to May 2019. Two authors independently assessed studies for inclusion. Studies were eligible if they reported primary research in English or French, and study participants had short (<14 days) or non-specific duration of therapeutic exposure to opioids before age 18 years. Primary outcome was the development of an opioid use disorder; secondary outcomes included opioid addiction, dependence, misuse, and abuse. Data extraction involved two independent reviewers utilizing a standardized form. Methodological quality was assessed using the NIH tools for observational studies. Results are described narratively. **Results:** The search identified 4,072 unique citations; 82 were selected for review, and 17 were included (3 retrospective cohort, 4 prospective cohort, and 10 cross-sectional). All studies took place in the USA. A total of 1,562,503 participants were analyzed. Nine studies were administered in schools, 3 used administrative data. While most settings were non-specific, 1 study examined opioid use in dentistry, 1 in trauma, and 1 in organized sports. One comparative study showed an association between short-term therapeutic use and opioid misuse. Two studies showed opioid related adverse events (e.g., overdose) among cohorts exposed to short-term use. The remaining 14 studies did not specify duration of exposure; therefore, confirming whether misuse was due to short-term therapeutic exposure was not possible. **Conclusion:** A small number of studies in this review suggest an association between short-term opioid use and opioid misuse; however, further analysis is underway with consideration of methodological limitations of the individual studies (final results pending). Careful consideration of the risk and benefits of short-term opioid use should be undertaken prior to prescribing opioids. PROSPERO Registration Number: 122681.

Keywords: narcotics, opioid misuse, opioid use disorder

LO43

First Nations emergency care visits in Alberta: Descriptive results of a retrospective cohort study

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Introduction: Emergency care serves as an important health resource for First Nations (FN) persons. Previous reporting shows that FN persons visit emergency departments at almost double the rate of non-FN persons. Working collaboratively with FN partners, academic researchers and health authority staff, the objective of this study is to investigate FN emergency care patient visit statistics in Alberta over a five year period. **Methods:** Through a population-based retrospective cohort study for the period from April 1, 2012 to March 31, 2017, patient demographics and emergency care visit characteristics for status FN patients in Alberta were analyzed and compared to non-FN statistics. Frequencies and percentages (%) describe patients and visits by categorical variables (e.g., Canadian Triage Acuity Scale (CTAS)). Means and standard deviations (medians and interquartile ranges (IQR)) describe continuous variables (e.g., distances) as appropriate for the data distribution. These descriptions are repeated for the FN and non-FN populations, separately. **Results:** The data set contains 11,686,288 emergency facility visits by 3,024,491 unique persons. FN people make up 4.8% of unique patients and 9.4% of emergency care visits. FN persons live further from emergency facilities than their non-FN counterparts (FN median 6 km, IQR 1-24; vs. non-FN median 4 km, IQR 2-8). FN visits arrive more often by ground ambulance (15.3% vs. 10%). FN visits are more commonly triaged as less acute (59% CTAS levels 4 and 5, compared to non-FN 50.4%). More FN visits end in leaving without completing treatment (6.7% vs. 3.6%). FN visits are more often in the evening – 4:01pm to 12:00am (43.6% vs. 38.1%). **Conclusion:** In a collaborative validation session, FN Elders and health directors contextualized emergency care presentation in evenings and receiving less acute triage scores as related to difficulties accessing primary care. They explained presentation in evenings, arrival by ambulance, and leaving without completing treatment in terms of issues accessing transport to and from emergency facilities. Many factors interact to determine FN patients' emergency care visit characteristics and outcomes. Further research needs to separate the impact of FN identity from factors such as reasons for visiting emergency facilities, distance traveled to care, and the size of facility where care is provided.

Keywords: First Nations

https://doi.org/10.1017/cem.2020.99 Published online by Cambridge University Press

LO44

Birth cohort hepatitis C screening in an academic emergency department in Canada: preliminary results

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Introduction: Epidemiologic and modeling studies suggest that between 45 and 70% of individuals with chronic hepatitis C virus (HCV) infection in Canada remain undiagnosed. The Canadian Association for the Study of the Liver (CASL) recommends one-time screening of baby boomers (1945-1975). Screening programs in the US have shown a very high prevalence of previously undiagnosed HCV among patients seen in the emergency department (ED). We sought to assess the feasibility of implementing a targeted birth-cohort HCV screening program in a Canadian ED setting. **Methods:** Patients born from 1945 to 1975 presenting to the ED of a downtown Toronto hospital were offered HCV testing. Patients with life-threatening conditions, unable to provide verbal consent in English or intoxication were excluded. Blood samples were collected by finger prick on Dried Blood Spot (DBS) collection cards and tested for anti-HCV antibody with reflex to HCV RNA. Patients with positive HCV RNA were referred to a liver specialist. **Results:** During a 27-month period (July 2017 - Sept 2019), 8363 patients in the birth cohort presented to the ED during daytime hours. 80% (6714) met eligibility criteria, and 48.4% (3247) were offered testing. Screening was performed by non-medical staff (mean 8/day, median spots on DBS 4). 345 (10.6%) had been previously tested, and 639 (19.7%) declined. 2136 (65.8%) patients underwent testing: median age 58.4 years (40-82), 1117 male (52.3%). Of these, 45 patients (2.1%; 95% CI 1.5%-2.7%) were anti-HCV positive: 32 (76.2%) were HCV RNA positive, 10 (23.8%) negative and 3 not done due to inadequate DBS sample. 26 patients (81.3%) were linked to care and 3 (9.4%) lost to follow-up. HCV prevalence in the ED was significantly higher than the general Canadian population (2.1% vs 0.7%; $p < 0.0001$) but much lower than reported rates in American EDs (2.1% vs 10.3%; $p < 0.0001$). **Conclusion:** Acceptance of HCV screening in the ED birth cohort was high and easily performed using DBS to ensure the majority of positive samples were tested for HCV RNA. Challenges included implementation that limited number of people tested, and linkage to care for HCV positive patients. HCV prevalence among this ED birth cohort was higher than the general population but lower than seen in the ED in the US. This may in part be due to exclusion of individuals with more severe medical issues, refusal by higher risk subgroups, or population and healthcare system differences between countries.

Keywords: hepatitis C, screening

LO45

Women's perspectives on early pregnancy complications and supportive care needs: a qualitative multi-site study

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Introduction: Women experiencing early pregnancy loss or threatened loss frequently seek care in emergency departments (ED) or early pregnancy clinics (EPC). The dearth of existing qualitative studies has left understudied questions about how these women perceive their healthcare and which strategies best meet their supportive care needs, particularly in the Canadian context. The objective of this study was to deepen our understanding of these women's experiences and gain insight into how clinicians and healthcare services can lessen the impact of this traumatic event on patients and their families. **Methods:** We conducted a descriptive qualitative study of women who presented to the ED or EPC at an urban tertiary care hospital and an urban community hospital for early pregnancy loss or threatened loss. Purposive sampling was used to recruit patients for in-depth, one-on-one telephone interviews conducted 4-6 weeks after the index visit. Data collection and analysis were concurrent and continued until thematic saturation had occurred. Data analysis was led by two qualitative researchers with support from a multidisciplinary research team following standard thematic analysis techniques. **Results:** Interviews were completed with 59 women between July 2018 and August 2019. Participants ranged in age from 22 to 47 years and reflect the diversity of the multicultural city where the study occurred. Our analysis revealed that the medicalization and normalization of early pregnancy complications among ED and EPC clinicians is at odds with women's general lack of knowledge about the frequency, personal risk, causation, duration, and physical intensity of the miscarriage experience. Women identified the value of rapid access to appointments, point of care ultrasound, detailed care plans, and knowledgeable advice as key to lessening the physical and emotional trauma related to early pregnancy loss. **Conclusion:** This research highlights the physical, emotional, and psychological complexity of a medical situation frequently minimized within the current healthcare system. The results impart important knowledge about which aspects of ED and EPC care are most valued by women experiencing early pregnancy loss or threatened loss and demonstrate the clear need for women and their families to be provided with more education about the totality of the early pregnancy experience, including the possibility of pregnancy complications and loss.

Keywords: early pregnancy loss, miscarriage, patient experience

LO46

Prognostic value of single serum progesterone in the evaluation of symptomatic pregnant patients: a systematic review and meta-analysis

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Introduction: Pain and bleeding complicate 30% of pregnancies threatening viability. The objective of this systematic review is to evaluate the role of a single progesterone level in predicting viability. **Methods:** We comprehensively searched MEDLINE, Embase (OVID), CINAHL and Cochrane databases from inception to July 2019. We included English language studies that enrolled symptomatic first trimester pregnant patients, measured progesterone and reported viability (miscarriage, ectopic or viable). We excluded studies with patients who had progesterone treatment, or conception after induced ovulation/invitro fertilization. We extracted patient characteristics, study setting, mean progesterone, the cut off value and outcome (viability). The quality of the included studies was assessed using Quality Assessment of Diagnostic Accuracy Studies-2 (QUADAS-2) tool. We extracted data for 2X2 tables and report mean, standard deviation (SD), sensitivity, specificity, positive and negative predictive values (PPV, NPV). **Results:** Of the 689 studies screened, 51 studies with 15783 patients were included (1 randomized control trial, 36 prospective, 9 retrospective, 5 prospective case control studies) and 7553

https://doi.org/10.1017/cem.2020.99 Published online by Cambridge University Press