A total of 350 charts were reviewed. The primary data abstracted for the initial transfusion, and subsequent transfusion if applicable, from each reviewed chart included clinical and laboratory data reflective of the transfusion guideline. Based on these data, the transfusion event was classified one of three ways: indicated based on hemoglobin level, indicated based on patient's symptomatic presentation, or unable to determine if transfusion indicated based on charting. **Results:** The year before guideline implementation, the total number of transfusions initiated at a hemoglobin of between 71-80 was 31 of 146 total transfusions. This number dropped by 23.6% to 22 of 136 in the year following guideline implementation. The number of single-unit transfusions increased by 28.0% from 47 of 146 in the year prior to 56 of 136 in the year after guideline implementation. The initial indication for transfusion being unable to be determined based on charting provided increased by 120%. The indication for subsequent transfusions being unable to be determined based on charting increased by 1500% ($P < 0.05$). **Conclusion:** These data suggest that implementing transfusion guidelines effectively reduced the number of transfusions given in the ED setting and increased the number of single-unit transfusions administered. However, the data also suggest the need for better education around transfusion indications and proper documentation clearly outlining the rationale behind the decision to transfuse.

Keywords: transfusions, value-added care

P005

Regional anesthesia in Canadian emergency departments: Emergency physician practices and impressions

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Introduction: The use of regional anesthesia (RA) by emergency physicians (EPs) is expanding in frequency and range of application as expertise in point-of-care ultrasound (POCUS) grows, but widespread use remains limited. We sought to characterize the use of RA by Canadian EPs, including practices, perspectives and barriers to use in the ED. **Methods:** A cross-sectional survey of Canadian EPs was administered to members of the Canadian Association of Emergency Physicians (CAEP), consisting of sixteen multiple choice and numerical responses. Responses were summarized descriptively as percentages and as the median and inter quartile range (IQR) for quantitative variables. **Results:** The survey was completed by 149/1144 staff EPs, with a response rate of 13%. EPs used RA a median of 2 (IQR 0-4) times in the past ten shifts. The most broadly used applications were soft tissue repair (84.5% of EPs, n = 126), fracture pain management (79.2%, n = 118) and orthopedic reduction (72.5%, n = 108). EPs agreed that RA is safe to use in the ED (98.7%) and were interested in using it more frequently (78.5%). Almost all (98.0%) respondents had POCUS available, however less than half (49.0%) felt comfortable using it for RA. EPs indicated that they required more training (76.5%), a departmental protocol (47.0%), and nursing assistance (30.2%) to increase their use. **Conclusion:** Canadian EPs engage in limited use of RA but express an interest in expanding their use. While equipment is available, additional training, protocols, and increased support from nursing staff are modifiable factors that could facilitate uptake of RA in the ED.

Keywords: nerve block, pocus, regional anesthesia

P006

Time for a national conversation: Practices and perspectives on HIV testing in Canadian emergency departments

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Introduction: Improved access to HIV testing would benefit the one in six Canadians living with undiagnosed HIV, and potentially reduce transmission. Emergency departments may be the first or only point of contact with the healthcare system for people exposed to HIV; however, HIV testing remains inaccessible in many EDs in Canada. **Methods:** We used a grounded theory approach to characterize the experiences and context of HIV testing in Canadian EDs. We conducted semi-structured phone interviews with ED and public health practitioners from a purposive sample of urban, rural, academic, and community ED catchment areas. Thematic analysis was performed through iterative readings by two authors. Results were triangulated through consultation with public health and HIV experts. **Results:** Data were obtained from 16 ED physicians and 8 public health practitioners. HIV tests were infrequently performed in the EDs of our sample. Informants from higher incidence regions believed that greater availability of HIV tests in the ED would benefit the populations they serve. In half of the sample, rapid HIV tests were available. However, indications for testing were most often occupational or known high-risk exposure. Notably, two urban EDs in British Columbia screened all patients who otherwise needed blood tests (opt-out), but had shifted to opt-in testing at the time of this study. Consent practices and perceived requirements varied widely between sites; this confused or frustrated physicians. Most EDs were unable to offer a test result to patients during their visit as results were not available until days to weeks later. Commonly, the ordering physician was responsible for communicating results. Some EDs had an assigned physician managing all results on a given day while others relied on public health units for follow-up. All EDs reported access to public health clinics for ongoing care. Barriers to offering a test in the ED included time required for consent, discomfort with pre-test counselling, delay in results availability and unclear processes for follow-up. **Conclusion:** We describe substantial regional and within-site variation in HIV testing practices across a diverse sample of EDs across Canada. These findings highlight disparities in access to HIV testing and warrant a national discussion on best practices for testing in EDs with an emphasis on reducing barriers for high-risk populations and addressing unmet needs.

Keywords: health services accessibility, human immunodeficiency virus, marginalized populations

P007

Cunningham reduction of anterior shoulder dislocation facilitated by inhaled low-dose methoxyflurane – a pilot study

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Introduction: The Cunningham reduction method for anterior shoulder dislocation offers an atraumatic alternative to traditional reduction techniques without the inconvenience and risk of procedural sedation and analgesia (PSA). Unfortunately, success rates as

https://doi.org/10.1017/cem.2020.215 Published online by Cambridge University Press

low as 27% have limited widespread use of this method. Inhaled methoxyflurane (I-MEOF) offers a rapidly administered, minimally invasive option for short-term analgesia. We conducted a pilot study to evaluate the feasibility of studying whether I-MEOF increased success rates for atraumatic reduction of anterior shoulder dislocation. **Methods:** A convenience sample of 20 patients with uncomplicated anterior shoulder dislocations were offered the Cunningham reduction method supported by methoxyflurane analgesia under the guidance of an advanced care paramedic. Operators were instructed to limit their attempt to the Cunningham method. Outcomes included success rate without the requirement for PSA, time to discharge, and operator and patient satisfaction with the procedure. **Results:** 20 patients received I-MEOF and an attempt at Cunningham reduction. 80% of patients were male, median age was 38.6 (range 18-71), and 55% were first dislocations of that joint. 35% (8/20 patients) had reduction successfully achieved by the Cunningham method under I-MEOF analgesia. The remainder proceeded to closed reduction under PSA. All patients had eventual successful reduction in the ED. 60% of operators reported good to excellent satisfaction with the process, with inadequate muscle relaxation being identified as the primary cause of failed initial attempts. 80% of patients reported good to excellent satisfaction. **Conclusion:** Success with the Cunningham technique was marginally increased with the use of I-MEOF, although 65% of patients still required PSA to facilitate reduction. The process was generally met with satisfaction by both providers and patients, suggesting that early administration of analgesia is appreciated. Moreover, one-third of patients had reduction achieved atraumatically without need for further intervention. A larger, randomized study may identify patient characteristics which make this reduction method more likely to be successful.

Keywords: methoxyflurane, procedural sedation and analgesia, shoulder dislocation

P008

Care of palliative patients by paramedics in the 911 system

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Introduction: Palliative Care aims to relieve suffering and improve the quality of living and dying in patients with life-limiting, progressive conditions. Many patients and families prefer to stay at home at end of life. Despite this, many access 911 in times of apparent crisis. It has been noted in the literature that a well functioning palliative care system includes considering Emergency Medical Services as part of the patients' circle of care. Training in palliative care is traditionally limited or absent for prehospital clinicians, including Paramedics and Emergency Medical Services Physicians. Furthermore, in our region, there are currently no medical directives available to Paramedics within the 911 system specifically addressing the needs of palliative care patients. **Methods:** A feasibility study (Expanding Care by Paramedics for Palliative Patients – EC3P) was designed to evaluate implementation of a new palliative care medical directive with trained teams of Paramedics available to respond to 911 calls. As part of this study, a pre-implementation retrospective chart review was performed. Patient care records were screened for "palliative" within the past medical history and text fields. Information about dispatch and scene times, patient demographics, details of patient encounter, and disposition of the patient were recorded. Descriptive statics were used. **Results:** Data was reviewed for all calls in 2018. Call data was reviewed to exclude those that were pediatric (<18yo) and those whose palliative status was unknown or unclear. There was a total of 318 calls. The majority of the calls (83%) were between 7am and 8pm, with peaks at 10 am and 6pm. The majority were transported to hospital (74%), 16% were transferred to hospital initiated by their palliative care physician, 20% "refused" transport, and 6% were declared dead and not transported. The most common reasons for calling 911 were new symptoms or a sudden worsening of chronic symptoms, followed by needs exceeding caregiver capacity; the third most common was lift assist without apparent injury. **Conclusion:** Much is unknown about the palliative patient population as it intersects with prehospital emergency care. This study will help provide information needed to guide further research and implementation.

Keywords: emergency medical services, palliative care

P009

Quality improvement and implementation of urine culture follow up process

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Background: The diagnosis of urinary tract infection (UTI) is made based on symptoms, urinalysis and urine culture. While simple urinary tract infections do not require routine culture, the Infectious Disease Society of America (IDSA) Guidelines state that complicated urinary tract infections should have urine cultures performed to determine which antibiotics are effective, as there is a higher risk of infection with resistant organisms. We hypothesized that the rate of urine cultures sent for complicated UTI is less than is recommended by the literature. **Aim Statement:** We aimed to implement a follow-up reporting system for Urinary Culture in patients diagnosed with complicated UTIs and raise our Urinary Culture rates in this population to 80% by June 2019. **Measures & Design:** We performed a single-center chart review using Emergency Department (ED) charts of non-admitted patients. They were audited daily for two weeks to obtain a sample of patients who had a discharge diagnosis of urinary tract infection, pyelonephritis or cystitis. Charts capturing these diagnoses were assessed to see if a culture was clinically indicated and if it was ordered. Charts were screened for the presence of any of the following criteria indicating complicated UTI: known structural or functional abnormality of the urinary tract, genitourinary obstruction, pregnancy, immunosuppression, diabetes, indwelling or intermittent catheter use, fever, male patient, clinical pyelonephritis, antimicrobial failure, or transfer from a nursing home. Data was then compiled to determine culture rates in complicated and uncomplicated UTIs. This prevalence rate established the baseline performance in the ED which was used to inform the quality improvement project. **Evaluation/Results:** Over a two week period, 26 patients were discharged from the ED with a diagnosis of UTI, with 17 of these patients meeting criteria for complicated UTI. Only 6 of 17 complicated UTIs were sent for urine culture, therefore our pre-implementation culture rate was 35%. After initial data collection, a follow-up system was designed ensuring that urine culture and sensitivities results would be compiled and reviewed daily at Hamilton Health Sciences. This system was created with input from key stakeholders including department chiefs, core lab services, ED physicians and business clerks. A discrepancy form was created for documentation of culture result recognition and any required patient follow up ie. antibiotic change. In October 2019, the system had been implemented for a month, after which another chart review was completed. 27 cases were captured, 18 of which were complicated. The

https://doi.org/10.1017/cem.2020.215 Published online by Cambridge University Press