

Program (CHIRPP) collects data on injuries in children presenting to the emergency department (ED). Our objective is to examine the clinical presentations and outcomes of refugee children with injuries presenting to a tertiary care paediatric ED. **Methods:** Our paediatric hospital has approximately 70,000 ED visits per year of which 13,000 are due to injuries and/or poisonings. The CHIRPP database was accessed to identify children with injuries presenting to our ED from April 2014 to March 2017 with Interim Federal Health Program (IFHP) registration status. All patient charts were reviewed to extract demographic and clinical care information. **Results:** There were 74 children with 81 ED visits during the study period of whom 19% were transferred from other facilities. Most of them (72%) were males with a mean age of 8.7 years (standard deviation 4.29). There were significant medical histories in 32% of children. The presentation to our ED (greater than 24 hours post-injury) was seen in 25% of visits. Twenty five percent of injured children were seen in our ED. The distribution of Canadian Triage Acuity Score (CTAS) scores 1, 2, 3, 4, and 5 were 0%, 16%, 37%, 46% and 1% respectively. However, subspecialty consultations were required in 69%, 60% and 27% of CTAS 2, 3 and 4 children respectively. Overall, 46% of all patients required subspecialty consults. The top three categories of injuries include fractures (23%), soft tissue injuries (20%) and lacerations (17%). More than half (56%) required diagnostic imaging. Most (89%) were treated in ED and discharged (average length-of-stay 3 hours 55 minutes) and 11% required admissions. 47% of children lacked primary care physicians. **Conclusion:** Almost half of refugee children with IFHP status require DI testing, sub-specialty consultations and primary care referrals when presenting to our ED with injuries. Follow up arrangements are needed as many do not have access to primary care providers. This demonstrates a need for securing primary care providers early for this vulnerable population.

**Keywords:** refugee, children, injuries

#### MP06

##### **Predictors of hypothermia upon emergency department arrival in severe trauma patients transported to hospital via emergency medical services**

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**Introduction:** Hypothermia in severe trauma patients can increase mortality by 25%. Active re-warming decreases mortality and is recommended in trauma management guidelines. Despite this, many emergency medical services (EMS) vehicles do not carry equipment for active re-warming. This study sought to determine the local rate of hypothermia in major trauma patients on trauma centre arrival (TCA), and to establish which patients are at highest risk by identifying factors present in the pre-hospital setting associated with hypothermia in a humid continental climate. **Methods:** This single-centre retrospective chart review included adults (age 18) in the local trauma registry (trauma team activation or injury severity score >12) from January 2009-June 2016. Patients were excluded if: temperature on TCA unknown or 38°C, not transported by EMS, or if there was >24 hrs from injury to TCA. The primary outcome was the rate of hypothermia (<35°C) in major trauma patients transported by EMS on arrival at the local trauma centre. Secondary outcomes included hospital length of stay and survival to discharge. Logistic regression was used to identify predictors of hypothermia on TCA; it included the following factors: age, sex, weight, number of comorbidities, injury severity, injury mechanism, EMS modality, direct transport from scene or referred from peripheral hospital, time on scene, transport time, local temperature, and

pre-hospital heart rate, systolic blood pressure (SBP), intubation, and volume of crystalloid. **Results:** A total of 3070 adult traumas were included, 159 of which were hypothermic on TCA a rate of 5%. Multivariate analysis identified seven risk factors for hypothermia: intubation pre-hospital (OR 8.10,  $p < 0.001$ ), blunt trauma (OR 3.37,  $p = 0.044$  vs. penetrating, and OR 7.35,  $p = 0.023$  vs. other), direct transport (OR 1.94,  $p = 0.005$ ), number of comorbidities (OR 1.14,  $p = 0.036$ ), injury severity (OR 1.03,  $p < 0.001$ ), 1°C local temperature drop (OR 1.03,  $p < 0.001$ ), and 1mmHg SBP drop (OR 1.01,  $p < 0.001$ ). Ninety-four percent of normothermic patients and 69.2% of hypothermic patients survived to discharge. Average length of stay was 7.98 and 15.23 days respectively. **Conclusion:** Avoidance of hypothermia is imperative to the management of major trauma patients. Those at highest risk in a humid continental climate are severely injured blunt trauma patients with multiple co-morbidities, a low pre-hospital SBP and EMS intubation. Future studies should focus on the benefits of pre-hospital rewarming in these high-risk patients.

**Keywords:** trauma, hypothermia, emergency medical services

#### MP07

##### **Rate of return: prevalence and correlates of revictimization among sexual and domestic assault cases presenting to the emergency department**

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**Introduction:** Many survivors of sexual and domestic assault return to violent environments following post-assault care. The objective of this study was to estimate the annual prevalence of revictimization and examine factors associated with return emergency department (ED) visits following their initial encounter for sexual or domestic assault.

**Methods:** The Sexual Assault and Partner Abuse Care Program (SAPACP) at The Ottawa Hospital is the only program in Ottawa offering emergency and forensic care for survivors of sexual assault and domestic violence. Information on demographics, assailant characteristics and clinical presentation were extracted from the SAPACP case registry (January 1 2015- January 31 2016). We conducted descriptive analyses to describe the study sample, and bivariable and multivariable logistic regression modelling to assess factors most strongly associated with revictimization using odds ratios (OR), adjusted OR (AOR) and 95% confidence intervals (CI). **Results:** Among 377 unique patients seen at the SAPACP, there were 409 encounters for sexual and domestic violence. There were 24 revictimization cases (6.4%) with the number of repeat visits ranging from 2-6. There were 343 (91.0%) female patients and 182 (48.3) under the age of 25. There were 243 (64.5%) sexual assaults, 125 (33.2%) physical assaults, and 42 (11.1%) verbal assaults. Compared to patients who presented once, revictimized patients were more likely to have experienced violence from a current or former intimate partner (AOR:3.02, 95% CI:1.24-7.34), have a substance use disorder (AOR:5.57, 95% CI:2.11-14.68), and were more likely to be taking anti-depressants (AOR:3.34, 95% CI:1.39-8.01). **Conclusion:** This study has identified a high prevalence of revictimization, with some clients being revictimized as many as 6 subsequent times. Key factors to help identify patients at risk of revictimization are assaults by intimate partners, having substance use problems, and being on antidepressants. Reducing revictimization and preventing further violence is a critical component of care to ensure survivors are safe following their ED encounter.

**Keywords:** sexual assault, domestic violence, intimate partner violence