

uninterrupted time, efficiency expectations, unknown patients, provider lack of knowledge and moral distress. Solutions were directed at improving communication between teams and humanizing care to develop a sensibility to quality PPC in the ED. **Conclusion:** Although the perspective of pediatric ED's role in caring for PPC patients is heterogeneous, several barriers to providing high quality emergency PPC can be overcome. Future studies will explore the experiences of PPC families presenting to the ED. **Keywords:** paediatric palliative care, emergency department, ethics

P039

Potential impact on receiving hospital of a prehospital triage system for refractory cardiac arrest: a simulation study

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Introduction: Extracorporeal cardiopulmonary resuscitation (E-CPR) has been used successfully to increase survival in patients suffering from out-of-hospital cardiac arrest (OHCA). However, few OHCA patients can benefit from E-CPR since this procedure is only performed in dedicated centers. Prehospital triage systems have helped decrease mortality from other acute conditions, by directly transporting patients to dedicated centers, often bypassing primary care centers. Our study aimed to quantify the possible impact of a prehospital triage system on the proportion of E-CPR eligible patients transported to E-CPR centers. **Methods:** We used a registry of adult OHCA collected between 2010 and 2015 from the city of Montréal, Canada. Included patients were adults with non-traumatic witnessed OHCA refractory to 15 minutes of resuscitation. Using this cohort, we created 3 scenarios in which potential E-CPR candidates could be redirected to E-CPR centers. We used strict eligibility criteria in our first pair (e.g. age <60 years old, initial shockable rhythm), intermediate criteria in our second pair (e.g. age <65 years old, at least one shock given) and inclusive criteria in our third pair (e.g. age <70 years old, initial rhythm ≠ asystole). These 3 scenarios were compared to their counterpart in which patients would be transported to the closest hospital. The proportions of patients who would have been transported to an E-CPR center were compared using McNemar's test. To obtain a power of 99%, expecting 1% of discordant pairs and using a unilateral alpha of 0.83% (after Bonferroni correction), we needed to include at least 1000 patients. **Results:** A total of 3136 patients (2054 men and 982 women) with a mean age of 69 years (standard deviation 15) were included. In each simulation, prehospital redirection would have significantly increased the proportion of patients transported to an E-CPR center (pair 1: 1.3% vs 3.8%, $p < 0.001$; pair 2: 2.6% vs 7.3%, $p < 0.001$; pair 3: 7.6% vs 29.8%, $p < 0.001$). **Conclusion:** In an urban setting, a prehospital triage system could triple the number of patients with refractory OHCA who would have an access to E-CPR. This implies that centers with E-CPR capability should prepare themselves accordingly for such a system to effectively improve survival following OHCA.

Keywords: out-of-hospital cardiac arrest, prehospital system, extracorporeal resuscitation

P040

Epidemiology of gun related injuries among Canadian children and youth from 2005-2013: a CHIRPP study

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Introduction: Gun related injuries were last reported by the Canadian Hospitals Injury Reporting and Prevention Program (CHIRPP) in 2005. Since that time, Canadian gun control is less stringent and non-powder guns are increasingly popular. We aim to describe trends in pediatric gun related injuries and deaths since 2005. **Methods:** This is a retrospective review of CHIRPP data. The dataset included pediatric (age 0-19 years) gun-related injuries and deaths reported by participating CHIRPP emergency departments (ED) from 2005-2013. Variables were tested using Fisher's exact test and simple linear regression. **Results:** There were 421 records of gun-related injuries in the database. Three hundred and twenty-nine occurred from use of non-powder guns, 85 occurred from use of powder-guns, and in 7 cases the type of gun was not clear. The number of gun-related injuries per 100 000 ED visits remained stable from 2005-2013 with a male predominance ($n = 366$, 87%). Most injuries resulted from non-powder guns and were unintentional. Injuries most often occurred in the context of recreation ($n = 181$) and sport ($n = 51$). One hundred fifty four eye injuries were reported, 98% of which were from a non-powder gun. Forty-six individuals required admission to hospital and 2 died in the ED. Nine of 10 intentional self-harm injuries were inflicted with a powder gun. **Conclusion:** This study describes the injuries and circumstances in which pediatric gun-related injury and death occur in Canada. Unintentional injuries caused by non-powder guns were most common. Though less fatal than powder guns, non-powder guns can still cause life-altering eye injuries. This evidence can inform injury prevention programs to target specific circumstances in which the pediatric population is most vulnerable.

Keywords: guns, epidemiology, injury prevention

P041

The nursing shift: measuring the effect of inter-professional education on medical students in the emergency department

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Introduction/Innovation Concept: Inter-professional education (IPE) involves 'occasions when two or more professions learn with, from and about each other to improve collaboration and the quality of care'. Current literature has found IPE to increase knowledge and skills, improve attitudes towards other professions, and to promote superior clinical outcomes. Health Canada has collaborated to form accreditation standards to support IPE in Canadian medical schools. The proposed educational innovation termed the 'nursing shift,' based out of Kelowna General Hospital's Department of Emergency Medicine, in partnership with UBC's Southern and Island Medical Programs, endeavors to enhance IPE in our institution. **Methods:** This nursing shift was first trialed with third year medical students as a pilot rotation beginning in March of 2016. Based on overwhelmingly positive results obtained from narrative feedback, a formal rotation with the same structure will be implemented in the form of a prospective cohort study with 48 medical students from two UBC sites. One group will attend a nursing shift, while the other group will complete the standard emergency medicine rotation without this nursing shift. Impact will be measured using a mixed-method analysis where students will be asked to provide both quantitative feedback in the form of a questionnaire, and qualitative feedback in the form of a narrative response. The primary outcome will be quantitative score differences between the groups of students, and the secondary outcome will be qualitative results for those who completed the nursing shift. **Curriculum, Tool, or Material:** The innovative educational concept consists of an 8-hour nursing shift where medical students spend the first 4 hours at triage with a nurse learning about