

The significant percentage of patients were eligible for ECPR upon presentation to Regina Emergency Departments. Patients who were eligible had low survival rates and poor neurological outcomes, suggesting that ECPR could prove to be a valuable clinical tool that could improve patient outcomes in Saskatchewan. There were considerable differences in patient eligibility percentages based on different criterion. Differences in inclusion/exclusion criteria, modifying the expected annual number of ECPR eligible OHCA patients, could provide valuable information on required resources and planning for implementation of an ECPR program in a smaller centre, such as Regina.

Keywords: extracorporeal cardiopulmonary resuscitation, extracorporeal membrane oxygenation, out of hospital cardiac arrest

P066

A quality improvement project to improve access to automated external defibrillators in the Niagara region community

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Background: Over 35,000 Canadians lose their lives to cardiac arrest each year. CPR and automated external defibrillator (AED) use are modifiable factors. Survival rates drop by 7-10% each minute that defibrillation is delayed, and survival rates are less than 5% after 12 minutes of ventricular fibrillation which stresses the need for bystander AED use in out-of-hospital arrests. Niagara Region lacks a publicly accessible registry of AEDs. AED access is a major focus in King County, Washington which has higher survival rates and has all AEDs registered with Emergency Medical Services. **Aim Statement:** This project aims to log 100 or more AEDs within a year into a publicly accessible registry and to connect the registry information to medical trainees in the Niagara region and all employees of the Niagara Health System involved in patient care. **Measures & Design:** PulsePoint is an application used to register AEDs within the Niagara region. PulsePoint allows users to geotag AEDs while tracking data entries. Over 16 weeks, 4 PDSA cycles tested the effectiveness of logging methods for AEDs including opportunistic logging, daily emailed reminders, and contacting organizations with high likelihood of having an AED. Information about the project and registry was shared with residents and medical students in Niagara. A second phase of cycles involves relaying information to Niagara Health system employees and the medical community. A final cycle will target a broader group of local organizations with intermediate probability of having AEDs. Primary outcome measures include the numbers of regional AEDs logged and members reached by knowledge sharing cycles. **Evaluation/Results:** PulsePoint was found to be an effective, free, publicly accessible resource to log AEDs within the Niagara region. The initial round of 4 PDSA cycles added a total of 56 new AEDs within the region, which were logged into PulsePoint app and the Excel spreadsheet. Through the fourth PDSA cycle, 136 businesses were contacted and made aware of the project and the AED application. In addition, 138 health-related colleagues and medical students were contacted to raise awareness. PDSA cycles five through eight are currently ongoing or in the planning stages. **Discussion/Impact:** Raising awareness among emergency services and sharing information about the registry to local CPR training providers will be paramount. Creating awareness of PulsePoint and installing AEDs in locations that currently lack such devices could ultimately improve cardiac arrest survival rates within Niagara Region.

Keywords: quality improvement and patient safety

P067

Ondansetron and rehydration in pediatric gastroenteritis

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Introduction: Gastroenteritis (GE) is one of the most common causes of emergency room visits, especially in pediatrics. The Canadian Paediatric Society and Choosing Wisely have issued high-grade recommendations to physicians working in the Emergency Department. It suggests, trying oral ondansetron followed by oral rehydration before installing venous rehydration in children with GE with adequate hydration or mild to moderate dehydration. This quality of medical care evaluation aims to determine if these recommendations were being applied for children aged 6 months to 12 years, with adequate hydration status or mild to moderate dehydration, who presented to the Chicoutimi emergency room between November 2016 and November 2018. **Methods:** Practice conformity was assessed according to two explicit criteria: prescription of oral ondansetron and appropriate mean of rehydration. A data collection tool was created and files were reviewed by investigators after standardization. Several secondary outcomes were assessed, including, among others, duration of symptoms, the number of vomiting and diarrhea. The hydration status was measured according to the capillary refill, feeling of skin to the touch, condition of buccal mucosa, tears, heart rate and mental status. These variables were analyzed to understand their impact on practice conformity. We excluded cases in which there was infections needing antibiotics, hypoglycemia, hemodynamic instability, no vomiting in the last 24 hours, convulsions and history of diabetes. **Results:** A total of 270 patient files were analyzed, 181 of which were included. Oral ondansetron was tried in 49% of children. Rehydration was adequate in 55% of cases. The hydration level was written in 18% of files and the hydration status noted by the emergency room physician overestimated the dehydration score in 16% of cases. When hydration status was well assessed, adequate rehydration was observed in 63% of cases, while ondansetron was attempted in only 44% of cases. **Conclusion:** Use of oral ondansetron and adequate mean of rehydration to treat children aged 6 months to 12 years with GE in Chicoutimi emergency department is suboptimal. The difficulty of adequate dehydration assessment may be one of the causes. Concerted dehydration assessment grid and a group prescription for the administration of ondansetron during the nurse triage may constitute potential solutions.

Keywords: gastro-enteritis, ondansetron, pediatrics

P068

Interrelationship between spatial abilities, anatomy knowledge and technical skills performance: a systematic review

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Introduction: Spatial ability has been defined as a skill in representing, transforming, generating and recalling symbolic, non-linguistic information. Two distinct human spatial abilities have been identified: visualization and orientation. A sex difference in spatial abilities favouring male has been documented. A pattern of negative effects with increasing age on spatial abilities has also been demonstrated. Spatial abilities have been correlated to anatomy knowledge assessment using practical examination, three-dimensional synthesis from two-dimensional views, drawing of views, and cross-sections in a systematic review. Spatial abilities have also been correlated to technical