

low risk MHI patients between the ages of 65-79 present with abnormal CT findings or require neurosurgical intervention when compared to patients over 80 years of age as one of the criteria used in the CCTHR is the age threshold of 65. A secondary objective of this study was to explore abnormal CT rates across these age groupings for otherwise low risk patients on anticoagulants. **Methods:** A retrospective chart review was conducted on all patients over the age of 65 that received a head CT for a MHI in the Kelowna General Hospital ED between 2006-2016. The imaging results for all patients that had no other risk criteria of the CCTHR other than age were reviewed & rates of pathological findings were compared between patients ages 65-79 & 80+ for both patients on anticoagulants & those not on anticoagulants. Differences in rates by age were compared for statistical significance using the chi-squared & Fisher's exact test. **Results:** To date 248 patients have been reviewed & meet the criteria of being >65 & with no other CCTHR criteria. 65% of patients were female & 30% of patients were on anticoagulants. For the patients that were not on anticoagulants, 6 of the 75 (8%) individuals between 65-79 & 9 of the 94 (10%) of those over 80 had abnormal findings on CT ($p = 0.128$). **Conclusion:** Preliminary results of this study population indicate that there are a significant number of abnormal CT findings in patients under the age of 80 suggesting that patients ages 65-79 without any other CCTHR criteria may still benefit from a head CT. Chart reviews are ongoing & updated results including findings for anti-coagulated patients will be presented at CAEP 2017.

Keywords: Canadian CT Head Rules, minor head injury, elderly

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Iterative prototype development of a mobile tele-simulation unit for remote training: an update

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Introduction/Innovation Concept: Rural and remote practice of emergency medicine presents unique challenges, particularly when faced with infrequently encountered cases and procedures. Simulation-based training is a valuable tool in the acquisition and maintenance of knowledge and skills; however, simulators are often located in larger centers and they are not widely outside these centers due to geographic, cost and time constraints. Mobile tele-simulation has the potential to overcome barriers but challenges such as comfort, technical issues and ability to teach desired content via tele-simulation must be addressed. We are developing a mobile-tele-simulation unit (MTU) prototype that will enable emergency medicine practitioners and trainees to access simulation-based instruction in rural and remote settings. **Methods:** Through application of a mixed-methods approach with input of a multidisciplinary team we are iteratively developing an MTU prototype to assess key factors in design and function, including: technical issues, environmental features, and human factors. The Delphi method is being used to collect input from experts on key design components and feedback is also being collected from trainees after participating in trial deployments of the MTU in different educational and environmental settings. **Curriculum, Tool, or Material:** The effective application of the MTU in a variety of learning settings will be optimized through ongoing evaluation in the iterative design cycle. Feedback to ensure a quality learning experience in the MTU will direct features of physical design and technical performance that can be applied in deployment of the unit. In addition, challenges to the delivery of module content and instructional modality/ features of lessons to be executed will be important considerations as we move toward developing content that can effectively be taught using the MTU. **Conclusion:** To ensure

effective use of tele-simulation in the delivery of a meaningful simulation experience to rural and remote trainees a number of important challenges must be overcome. We describe our evolving multi-disciplinary mixed-methods approach to develop an effective mobile tele-simulation unit.

Keywords: innovations in emergency medicine education, simulation, rural medicine

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Quality of life in patients discharged from the emergency department with atrial fibrillation or flutter (AF/AFL): a prospective cohort study

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Introduction: Following an emergency department (ED) presentation for acute atrial fibrillation and/or flutter (AF/AFL), patients often experience anxiety, depression and impaired health-related quality of life (QoL). Emergency physicians may prescribe appropriate thromboembolic (TE) prophylaxis upon discharge; however, the QoL of these patients is unclear. This study measured the QoL of patients with AF/AFL following discharge to determine the factors associated with QoL. **Methods:** Patients ≥ 18 years of age identified by the attending physician as having a diagnosis of acute AF/AFL confirmed by ECG were prospectively enrolled from three Edmonton, AB EDs. Using standardized enrollment forms, trained research assistants collected data on patient demographics factors and management both in the ED and at discharge. Patients' health-related QoL was assessed up to 20 days after their initial ED visit by a telephone interview based on six domains of the short-form 8 health survey. **Results:** From a total of 196 enrolled patients, 121 (62%) were male and the mean age was 63 years (standard deviation ± 14). Most patients had previous history of AF/AFL (71%), and emergency physicians had the opportunity to treat or revise TE prevention therapy in 19% of the patients. The majority (89%) were discharged with prescriptions for antiplatelet or anticoagulant agents, and 188 (96%) were contacted by telephone at a median of 7 days. Most patients rated their overall health between good and excellent (70%); however, 30% assessed their health as fair or very poor. Many also reported having physical limitations (54%), difficulties completing their daily work (42%), bodily pain (32%) and limitations in social activities (32%). Finally, some patients reported having low energy (25%). At follow up, patients receiving adequate TE prevention rated their health to be similar to those without adequate TE prevention (30% vs 23%; $p = 0.534$). **Conclusion:** Overall, patients with acute, symptomatic AF/AFL seen in the ED have impairments in health-related QoL following discharge from the ED. Many factors contribute to this impairment; however, providing patients with appropriate TE prophylaxis at discharge did not explain these findings. Further research is required to explore the impact of AF/AFL on patient's health-related QoL after discharge from the ED.

Keywords: quality of life

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Education and training on mild traumatic brain injury among emergency department physicians: a systematic review

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Introduction: Mild traumatic brain injury (mTBI) is the most common emergency department (ED) brain injury presentation in Canada; however, an evidence-practice gap in mTBI management exists among ED