

TE risks, bleeding risks, and TE prophylaxis upon discharge from the ED were examined following assessment for symptomatic acute AF/AFL. **Methods:** Patients  $\geq 18$  years of age identified by the EP as having a diagnosis of acute AF/AFL confirmed by ECG were prospectively enrolled from three urban Canadian EDs. Using standardized patient enrollment forms, trained research assistants collected data on the patient's demographics, TE risk (using the CHADS<sub>2</sub> and CHA<sub>2</sub>DS<sub>2</sub>-VASc score), bleeding risk (using the HAS-BLED score), and management both in the ED and at discharge. Treating physicians were surveyed on their use of risk scores when making TE prophylaxis decisions as well as their estimate of the patient's stroke and bleeding risk. Descriptive analyses were performed. **Results:** From a total of 196 patients, 62% were male and the mean age was 63 years (standard deviation [SD]  $\pm 14$ ). Most patients had previous history of AF/AFL (71%); hypertension was documented in 40% of them and  $\leq 10\%$  had other risk factors (e.g., congestive heart failure, vascular disease, diabetes, previous stroke, transient ischemic attack). Based on the CHADS<sub>2</sub> score and previous management, there was opportunity for new or revised antiplatelet/anticoagulant treatment by EPs in 19% of the patients. Consultations were requested in 28% of the patients, and the majority (89%) were discharged with anticoagulant or antiplatelet agents. EPs expressed concerns that an increased risk of falls, lack of access to facilities for INR monitoring, and significant cognitive impairment would affect their willingness to prescribe anticoagulation. **Conclusion:** Most patients in the ED with acute AF/AFL are receiving the recommended TE prophylaxis; however, given the significant morbidity and mortality associated with AF/AFL, improved short-term prescribing practices for anticoagulants would benefit 1 in 5 ED patients. More research on barriers to EPs prescribing anticoagulants is required to improve clinician comfort in treating this high-risk population.

**Keywords:** emergency department care

#### P051

##### Does knowledge of the Canadian CT Head Rules impact the frequency of CT's ordered?

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**Introduction:** The Canadian Computed Tomography Head Rules (CCTHR) is a validated and well-known head injury clinical decision rule that allows Emergency Room Physicians (ERPs) to determine which patients are most likely to benefit from a diagnostic CT. However, this clinical decision rule is not uniformly adhered to and a number of preventable CT scans are ordered. Choosing Wisely Canada has ranked decreasing unnecessary head CT scans as the number one priority for Emergency Departments (ED). As such, the purpose of this study was to investigate if an educational intervention for ERPs would increase adherence to the CCTHR. **Methods:** In September 2015 the CCTHR were presented and discussed at three ED departmental meetings at Kelowna General Hospital (KGH) a large tertiary hospital in the interior of British Columbia, Canada. Educational materials were distributed to the ERPs and a CCTHR checklist was made available throughout the ED. Rates of adherence to the CCTHR criteria were calculated from MHI patients that were seen in the four years prior to the educational intervention and were compared to rates of adherence for patients 12 months post educational intervention. Only patients that agreed to participate in the Canadian Hospitals Injury Reporting and Prevention Program (CHIRPP) were included in this analysis. Differences in adherence rates were tested using the chi-squared test. **Results:** 477 patients were included in the analysis for the pre-education cohort

(control) and 257 for the post-education cohort (intervention). In the control cohort, 348 of the 477 (73%) of the patients were managed in accordance to the CCTHR compared to 194 of the 257 (75%) in the intervention cohort. There was no statistically significant difference in rates of adherence ( $p = 0.457$ ). In the control cohort, 44 of the 321 (14%) of patients received a CT that did not meet any CCTHR criteria compared to 15 of the 163 (9%) in the intervention cohort. The overall CT imaging rate was 24% in each patient cohort. **Conclusion:** Although adherence rates between the two cohorts were not statistically different, a greater proportion of patients had a CTAS of 2 or 3 and met criteria in the intervention cohort suggesting a higher level of acuity. Imaging rates remained constant at 24%, which was lower than expected if there was full adherence to the CCTHR. Further study is required to determine if educational interventions can improve adherence to the CCTHR.

**Keywords:** minor head injury, computed tomography, Canadian Computed Tomography Head Rules

#### P052

##### The importance of structured ambulance radio patches during termination of resuscitation calls

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**Introduction:** Pre-hospital telecommunication (patches) requires a special type of conversation. Receiving and processing correct information is critical when making clinical decisions, such as a termination of resuscitation (ToR). In a study of radio patches, a common patch structure emerged from the data analysis. Use of this standard structure resulted in shorter and less confusing patches. We sought to understand patch structure to be able to target interventions to improve the quality and efficiency of communication needed for critical clinical decisions.

**Methods:** We undertook a retrospective analysis of all ToR patches between physicians and paramedics from 4 paramedic services, recorded by the Ambulance Dispatch Centre between Jan 01-Dec 31, 2014. Four services used Primary Care Paramedics and 1 service also used Advanced Care Paramedics. MP3 patch recording files were anonymized, transcribed, and read multiple times by the authors. Transcripts were coded and analyzed using mixed methods-quantitative descriptive statistics and qualitative thematic framework analysis. **Results:** The data set was 127 ToR patches-466 pages of transcripts. 116 patches (91.3%) had a standard structure (SS): participant introduction, clinical data presentation, clarification of data, making the decision, exchange of administrative information, and sign off. Paramedics used a mean of 81 words (95CI 74,88) to present the 'clinical data'. Enough data was presented to meet ToR rule criteria in 52 cases (44.8%). Before making a decision to terminate resuscitation, physicians sought clarification in 100 cases (78.7%). After making the ToR decision, some physicians needed to justify their decision by seeking more data in 17 cases (13.4%). Exchange of non-clinical information (numbers, times, name spellings) took a mean of 200 words (95CI 172,228) and averaged 84 seconds or 35% of the average patch time. SS patches used a mean of 558 words, and lasted 234 sec (95CI 215,252). Non-SS patches used a mean of 654 words and lasted 286 sec (95CI 240,332). **Conclusion:** The most common patch structure consisted of participant introduction, data presentation, clarification of data, making the clinical decision, exchange of administrative information, and a sign off. Deviation from this SS resulted in longer patches. When a non-SS patch structure was used, the patching paramedic was tied up 25% longer and unavailable to provide patient care.

**Keywords:** paramedic, communication, termination of resuscitation