

Based on 2012 Canadian AF guidelines, 60.1% of those who should have received anticoagulation were receiving it. In discharged patients meeting de novo criteria for anticoagulation (n = 130), 20.0% (n = 26) were started on anticoagulation and 23.1% (n = 30) on antiplatelets. In patients with CHADS2 score  $\geq 2$  (n = 61), 26.2% (n = 16) were started on anticoagulation. Warfarin (73.1%) was most commonly prescribed followed by dabigatran (15.4%) and rivaroxaban (11.5%). Age was the only inverse independent predictor for appropriate anticoagulation (OR 0.92 per 5 year of age 95% CI 0.89-0.95,  $p < 0.0001$ ) i.e. older patients were less likely to be anticoagulated. The CHADS2 score was not an independent predictor of appropriate anticoagulation. **Conclusion:** Our study shows a persistent gap in the antithrombotic treatment of ED AF patients irrespective of their risk.

**Keywords:** atrial fibrillation/flutter, novel anticoagulants, stroke prevention

#### MP023

##### Reasons for referral and hospitalization among emergency department patients with syncope

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**Introduction:** Syncope can be caused by serious life-threatening conditions not obvious during the initial ED assessment leading to wide variations in management. We aimed to identify the reasons for consultations and hospitalizations, outcomes, and the potential cost savings if an outpatient cardiac monitoring strategy were developed. **Methods:** We conducted a prospective cohort study of adult syncope patients at 5 academic EDs over 41 months. We collected baseline characteristics, reasons for consultation and hospitalization, hospital length of stay and average total inpatient cost. Adjudicated 30-day serious adverse events (SAEs) included death, myocardial infarction, arrhythmia, structural heart disease, pulmonary embolism, significant hemorrhage and procedural intervention. We used descriptive statistics with 95% CI. **Results:** Of the 4,064 patients enrolled (mean age 53.1 years, 55.9% female), 3,255 (80.1%) were discharged from the ED, 209 (5.2%) had a SAE identified in the ED, 600 (14.8%) with no SAE were referred for consultation in the ED and 299 (7.4%) were hospitalized: 55.5% of referrals and 55.2% of hospitalizations were for suspected cardiac syncope (46.5% admitted for cardiac monitoring of whom 71.2% had no cause identified). SAE among groups were 9.7% in total; 2.5% discharged by ED physician; 3.4% discharged by consultant from ED; 21.7% as inpatient and 4.8% following discharge from hospital. The mean hospital length of stay for cardiac syncope was 6.7 (95%CI 5.8, 7.7) days with total estimated costs of \$7,925 per patient (95% CI: 7434, 8417). **Conclusion:** Suspected cardiac syncope, particularly arrhythmia, was the major reason for ED referral and hospitalization. The majority of patients hospitalized for cardiac monitoring had no identified cause. An important number of patients suffered SAE, particularly arrhythmias outside the hospital. These findings highlight the need to develop a robust syncope prediction tool and a remote cardiac monitoring strategy to improve patient safety while saving substantial health care resources.

**Keywords:** cardiac, resource utilization, syncope

#### MP024

##### Ultrasound-guided femoral nerve block versus fascia iliaca block for hip fractures in the emergency department: a randomized pilot study

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**Introduction:** Regional anesthesia has been shown to be an effective pain control strategy for patients presenting with hip fractures in the emergency department. There are two common methods for performing this block: the femoral nerve block (FNB) and the fascia iliaca compartment block (FICB). The objective of this pilot study is to determine whether one of these two ultrasound-guided block techniques provides superior analgesia to emergency department patients with hip fractures. **Methods:** Emergency physicians at a single institution were randomized to the FNB or FICB training groups. Participants completed a 2-hour practical workshop covering the technique, followed by a questionnaire to assess their comfort with the block. They were asked to perform their assigned nerve block on any patient in the ED presenting with a hip or femur fracture. Physician comfort level and patient pain scores using a visual analog scale (VAS) were recorded before and after the nerve block were recorded. Comparisons were performed using Student's t-test and Fisher's exact test. **Results:** A total of 20 physicians were enrolled in the study, 10 in the FNB group and 10 in the FICB group. There were no significant baseline differences between the groups with respect to ultrasound or nerve block experience. Following the training, 100% of participants in both the FNB group and FICB group felt comfortable performing the block. Nerve blocks were performed in 30/51 (58.8%) of eligible patients in the FNB group and 6/11 (54.5%) in the FICB group ( $p = 1.0$ ). On the 10-point VAS, pain scores decreased by a mean of 4.9 (SD 3.5) in the FNB group and 8.3 (SD 2.4) in the FICB group ( $p = 0.056$ ). In practice, physicians felt comfortable performing the FNB in 52.8% of cases, and the FICB in 85.7% of cases ( $p = 0.21$ ). Mean time to completion of the blocks was similar between the two groups (19 vs 18 mins,  $p = 0.83$ ). **Conclusion:** In this pilot study, we found a non-significant trend towards improved analgesia and higher physician comfort with the ultrasound-guided FICB compared with the FNB in patients with hip fractures. We found no differences in time to performing the blocks. These results require confirmation with a larger sample size.

**Keywords:** ultrasound, regional anesthesia, hip fracture

#### MP025

##### Does your patient really need intravenous therapy? A multicenter variation analysis of physician practice in low-acuity presentations

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**Introduction:** The decision to treat with parenteral therapy may reflect a variable practice pattern among emergency physicians and represent an opportunity to standardize care. Our objective was to describe physician level practice variation for IV therapies in patients with low-acuity presentations and quantify the contribution of IV therapy to prolonging ED LOS. **Methods:** Using administrative data merged with computerized physician order entry information we sampled 48 months of patient variables across four urban EDs (Jan 1, 2014 - Dec 22, 2015). Eligible patients: 1. presented with complaints of abdominal pain, nausea and vomiting or diarrhea or had a discharge diagnosis of cellulitis 2. were in a low acuity category (Canadian Triage and Acuity Scale - CTAS 3 or 4) 3. were triaged to non-stretcher zones of the ED and 4. were not admitted to hospital. The primary outcome was the physician-level variation in the decision to order IV therapies for this patient group; namely one or more of the following: IV fluids, opioid analgesia, antiemetics and antibiotics. Secondary outcomes were a comparison of ED LOS, ED revisits at 7 days and ED revisits resulting in admission at