at six months in one RCT, but not at five years in a prospective comparison study. Function improved in two different RCT's with NTG patch use at 0.72mg/24h and 1.25mg/24h when compared to placebo. Five years after cessation of treatment, there was no difference between NTG patch and placebo. **Conclusion:** Overall, the included studies demonstrate that the use of NTG patches compared to placebo improves short term and long term pain relief, as well as elbow function. However, more studies are required to bridge the gaps between the existing studies and reduce heterogeneity between the study designs.
Keywords: lateral epicondylitis, nitroglycerin

MP020

Do real-time Twitter metrics correlate with traditional emergency medicine post-conference speaker evaluations?

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Introduction: Traditional post-conference speaker evaluations are inconsistently completed; meanwhile, real time social media tools such as Twitter are increasingly used in conferences. We sought to determine whether a correlation exists between traditional conference evaluation for a speaker and the number of real-time tweets it generated using data from a CAEP conference. M**ethods:** This study utilized a retrospective design. The hashtag #CAEP14 was prospectively registered with Symplur, an online Twitter management tool, so that all tweets related to CAEP conference 2014 were stored. A tweet was associated with a session if it mentioned the speaker name, or if the tweet content and timing closely matched that of the session in the schedule. A tweet classification system was developed to differentiate original tweets from retweets, and quotes from comments generating further discussion. Two authors assessed and coded the first 200 tweets together to ensure a uniform approach to coding, and then independently coded the remaining tweets. Discrepancies were resolved by consensus. One author reviewed post-conference speaker evaluation, and abstracted the value corresponding to the question "The speaker was an effective communicator". We present descriptive statistics and correlation analyses. **Results:** A total of 3,804 tweets were collected, with 2,218 (58.3%) associated with a session. Forty-eight (48%) (131 out of 274) of sessions receiving at least one tweet, with a mean of 11.7 tweets per session (95% CI of 0 to 57.5). In comparison, only 31% (85 out of 274) of sessions received a formal post conference speaker evaluation ($p < 0.005$). For sessions that received at least one traditional post-conference evaluation, there was no significant correlation between the number of tweets and evaluation scores ($R = 0.087$). This can be attributed to the fact that there was minimal variation between evaluation scores (median = 3.6 out of 5, IQR of 3.4 to 3.7). **Conclusion:** There was no correlation between the number of real-time tweets and traditional post-conference speaker evaluation. However, many sessions which received no formal speaker evaluation generated tweets, and the number of tweets was highly variable between sessions. Thus, Twitter metrics might be useful for conference organizers to supplement formal speaker evaluations.
Keywords: social media, altmetrics, program evaluation

MP021

Contributing factors and time delays in management of difficult airways in the emergency department - a retrospective analysis

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Introduction: Delays in definitive management of difficult airways in the Emergency Department (ED), often involving coordination with expert consultation from Anesthesia and/or Otolaryngology, can lead to devastating outcomes. Currently at our ED there is no standardized approach to identifying and/or managing predicted difficult airway scenarios. We sought to determine the most common factors contributing to predicted difficult airways in the ED, and areas of time delays in securing a definitive airway. **Methods:** We conducted a retrospective analysis at a tertiary academic centre (>160,000 ED visits/yr) over a 5 year period. A research assistant screened all cases of "Stat" pages from the ED to the Anesthesia service. An ED clinician performed a thorough review of the charts to confirm difficult airway cases. A single reviewer extracted data on patient demographics, factors associated with a difficult airway, and specific time intervals throughout a patient's clinical course. We present descriptive statistics with 95%CI. **Results:** 45 cases met our inclusion criteria between Jan 2010-Dec 2014. 16 were excluded and a total of 29 cases of difficulty airways in the ED were included in our final analysis. The average age was 56.7 (95% CI 50.1-63.4) years, and 68.9% were male. The most common factors contributing to difficult airway included: Obesity (48.2%), previous history of head/neck malignancy/radiation (27.6%), and facial edema (20.7%). 25 (86.2%) required expert assistance from Anesthesia/Otolaryngology for definitive airway, and 8 (27.6%) survived to hospital discharge. The mean time between decision to intubate and "Stat" anesthesia page was 14.0 (95% CI 8.7-19.3) mins. The mean time from "Stat" anesthesia page to arrival of anesthesia MD was 8.4 (95% CI 6.0-10.7) mins. The mean time between arrival of anesthesia MD and definitive airway was 12.1 (95% CI 7.4-16.8) mins. The mean time between decision to intubate and definitive airway was 35.5 (95% CI 27.9-43.1) mins. **Conclusion:** We found a number of common factors contributing to a patient's risk of having a predicted difficult airway in the ED, as well as areas of significant time delays in the unstandardized, multidisciplinary management of these cases. Future work is needed on developing, implementing, and evaluating more standardized difficult airway response protocols in the ED.
Keywords: difficult airway, anesthesia, quality improvement

MP022

Anticoagulation use in patients with atrial fibrillation/flutter in Canadian emergency departments since the introduction of the novel anticoagulants

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Introduction: Despite strong evidence that antithrombotic drugs in atrial fibrillation/flutter (AF) patients reduce stroke risk, previous emergency department (ED) pre-novel anticoagulant (NOAC) studies have shown that most discharged patients are not optimally treated. This study sought to determine baseline antithrombotic management in AF patients, and appropriate antithrombotic prescription upon ED discharge since the introduction of NOACs. **Methods:** Consecutive AF patients discharged by the ED physician from three academic EDs in Toronto, Canada were retrospectively identified using ECG data. Primary AF was defined as AF in patients ≥ 18 years without congenital heart disease or other acute medical conditions. All management and disposition decisions were left to the discretion of the emergency doctor. **Results:** From July 2012 to October 2014, 691 patients with primary AF were identified. Of these, 34.4% (n = 238) had new onset AF and 66.4% (n = 459) were discharged home directly from the ED. Of those with previously known AF (n = 453), 44.2% (n = 200) were on anticoagulation at ED arrival (warfarin 59.5%, dabigatran 23.0%, rivaroxaban 11.5%); 25.6% (n = 116) on antiplatelets, and 29 (6.4%) on both.

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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 ≥ 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