

Introduction: Emergency Physician (EP) performance comprises both quality of care and quantity of patients seen in a set time. Emergency Department (ED) overcrowding increases the importance of the ability of EPs to see patients as rapidly as is safely possible. Maximizing efficiency requires an understanding of variables that are associated with individual physician performance. While using the incidence of return visits within 48 hours as a quality measure is controversial, repeat visits do consume ED resources. **Methods:** We analysed the practice variables of 85 EPs working at a single academic ED, for the period from June 1, 2013 to May 31, 2017, using data from an emergency department information system (EDIS). Variables analysed included: number of shifts worked, number of patients seen per hour (pt/hr), an adjusted workload measurement (assigning a higher score to CTAS 1-3 patients), percentage of patients whose care involved an ED learner, and the percentage of patients who returned to the ED within 48 hours of ED discharge. Resource utilization was measured by percentage of diagnostic imaging (ultra sound (US), CT scan (CT), x-ray (XR)) ordered and percentage of patients referred to consulting services. We performed principal component analyses to identify bench marks of resource use, demographic (age, EM qualification, gender) and other practice related predictors of performances. **Results:** Mean pt/hr differed significantly by EM Qualification for CTAS 2-4, with 1.71/hr (95% Confidence Interval=1.63-1.77) by FRCPS physicians, compared to 1.89/hr by CCFP(EM) (CI=1.81-1.97). There were no differences for CTAS 1 and 5. Other variables associated with a significantly lower pt/hr, included a greater use of imaging, (CT: $p=0.0003$, XR: $p=0.0008$) although this was did not reach statistical significance with US ($p=0.06\%$). Female gender, older age, number of patient consultations for CTAS 3 and more patients seen by a learner were all associated with lower pt/hr. Pt/hr was a better predictor ($R^2=45\%$) for EP resource utilization than adjusted workload measurement ($R^2=35\%$). Higher use of CT was associated with fewer return visits in <48 hrs (0.13% lower). Male gender, younger age, number of patient consultation for CTAS 3 and fewer patients seen by a learner were all associated with an increase in return visits. **Conclusion:** We found a significant difference in pt/hr rates and return visits within 48 hours between EPs with different age ranges, gender, and EM certification. Increased use of CT scan and x-ray, and consultation for patients CTAS 3 were associated with lower pt/hr. Return visit rates also varied in association with diagnostic imaging use, age, gender and number of patients seen by a learner. Further research is needed to assess the association with these variables on quality of care.

Keywords: emergency physician productivity, emergency department efficiency

LO69

Factors related to the eventual publication of abstracts presented at the Canadian Association of Emergency Physicians annual meeting from 2013-2017

V. Srivatsav, BHSc, I. Nadeem, B. Zhang, S. Upadhye, MD, MSc, Michael G. Degroote, School of Medicine, McMaster University, Hamilton, ON

Introduction: Much of the research presented at conference meetings never go on to be published in peer-reviewed literature, thereby limiting the dispersion of these findings to a larger audience. We sought to assess if this was true with regard to CAEP meetings, by establishing the publication rate and factors correlated with publication of CAEP abstracts in peer-reviewed journals from 2013-2017. **Methods:** We conducted a scoping review that included all CAEP abstracts from 2013-2017, obtained through the Canadian Journal of Emergency

Medicine. Two reviewers screened and extracted data from all abstracts individually, with any conflicts resolved by a third reviewer. Data extracted from abstracts included province of authors, sample size, study design, the presence of statistically positive or negative findings, status of publication, date of acceptance to a journal, and journal of publication. Databases searched for publication status included MEDLINE, EMBASE, The Cochrane Library and Ovid Health Star. A level of evidence (LOE) was assigned using the 2011 Oxford Centre for Evidence-Based Medicine criteria. **Results:** All abstracts (1090) from 2014-2017 have been analyzed thus far. Inter-rater agreement for data extraction was high (value 0.85). 17.1% (186/1090) of abstracts presented at the conference had a corresponding full text publication in the peer-reviewed literature. Articles were published in 102 different journals, with the greatest number of publications in the Canadian Journal of Emergency Medicine (CJEM) (15.1%, 28/186), followed by Academic Emergency Medicine (10.2%, 19/186). The mean time to publication was 51 weeks (95% CI 43,59). 30.6% (57/186) of published abstracts had statistically positive findings, while 10.8% (20/186) had negative findings. A significant difference was present between publication findings and publication status ($p<0.0001$, chi-squared). 68.8% (128/186) of published articles were of level III evidence. A statistical difference was found between LOE and publication status ($p<0.0001$, chi-squared). **Conclusion:** A large number of abstracts presented at CAEP are presently unpublished. There may be a publication bias in the literature as a greater number of studies with positive findings have been published. Additionally, two-thirds of studies published are of level III evidence. An increasing emphasis should be placed in publishing studies with higher levels of evidence, and more studies with negative findings.

Keywords: evidence-based medicine, level of evidence, quality of research

LO70

Interrater agreement and time it takes to assign a Canadian Triage and Acuity Scale score pre and post implementation of eCTAS

S. McLeod, MSc, J. McCarron, T. Ahmed, BSc, S. Scott, BSc, H. Ovens, MD, N. Mittmann, PhD, B. Borgundvaag, MD, PhD, Schwartz/Reisman Emergency Medicine Institute, University of Toronto, Toronto, ON

Introduction: In addition to its clinical utility, the Canadian Triage and Acuity Scale (CTAS) has become an administrative metric used by governments to estimate patient care requirements, ED funding and workload models. The Electronic Canadian Triage and Acuity Scale (eCTAS) initiative aims to improve patient safety and quality of care by establishing an electronic triage decision support tool that standardizes the application of national triage guidelines (CTAS) across Ontario. The objective of this study was to evaluate the implementation of eCTAS in a variety of ED settings. **Methods:** This was a prospective, observational study conducted in 7 hospital EDs, selected to represent a mix of triage processes (electronic vs. manual), documentation practices (electronic vs. paper), hospital types (rural, community and teaching) and patient volumes (annual ED census ranged from 38,000 to 136,000). An expert CTAS auditor observed on-duty triage nurses in the ED and assigned independent CTAS in real time. Research assistants not involved in the triage process independently recorded the triage time. Interrater agreement was estimated using unweighted and quadratic-weighted kappa statistics with 95% confidence intervals (CIs). **Results:** 1200 (738 pre-eCTAS, 462 post-implementation) individual patient CTAS assessments were audited over 33 (21 pre-eCTAS, 11 post-implementation) seven-hour triage shifts. Exact modal