

Results: We received responses from 242 physicians (47% EPs, 40% GPs, 13% others). The majority (78%) reported little/no knowledge on determining driver fitness and 94% had little/no training around guidelines, reporting, and laws involving fitness to drive. Most (88%) agreed that physicians should be obligated to advise medically unfit patients not to drive, and 74% reported that they often warn patients not to drive. The majority of physicians also chart their opinion of patients' fitness to drive (67% do so more than twice per year). Most respondents (70%) indicated that it is "always appropriate" to report *definitely* unfit drivers whereas only 25% indicated that it is "always appropriate" to report *potentially* unfit drivers. However, in practice physicians see far more unfit drivers than they report to licensing authority: 67% of physicians encounter definitely unfit drivers more than twice per year but only 19% report definitely unfit drivers more than twice per year and 34% never report definitely unfit drivers. Compared to other physicians, EPs reported less knowledge and training about criteria for determining fitness to drive, were more likely to feel that reporting unfit drivers was not their responsibility, and were less likely to report unfit drivers to licensing authorities. **Conclusion:** Our findings indicate a need for more education and information resources to help physicians, particularly EPs, identify and manage medically unfit drivers. Although most physicians warn unfit drivers not to drive and document this in medical records, many medically unfit drivers are not reported to licensing authorities, a potential public health problem that should be further investigated.

Keywords: driver fitness, motor vehicle crashes

P025

The Dunning-Kruger effect in medical education: double trouble for the learner in difficulty

J. Bryan, MD, H. Lindsay, MD, University of Toronto, Toronto, ON

Introduction: It is difficult for learners to perform accurate self-assessments. This difficulty may be exaggerated in unskilled learners, a phenomenon termed the Dunning-Kruger Effect (Dunning & Kruger, 1999). Learners with the least amount of knowledge or skill may paradoxically be more likely to evaluate themselves favorably compared with their peers. This phenomenon is particularly relevant in medicine where we rely on self-directed learning not only in many of our undergraduate and postgraduate programs, but in guiding the pursuit of continuing medical education. The objectives of this study are to 1) determine whether the Dunning-Kruger Effect is present in medical education settings, 2) to determine the quality of studies in this area, and 3) to determine how this effect, if present, could influence approaches to the learner in difficulty. **Methods:** This is a review of the literature. PubMed databases were searched for all relevant articles. Included studies reported self-assessment of medical trainees or staff and comparison with an external rating. Studies were identified using select keywords and MeSH terms. Only studies published in English were included. No publication date limits were adopted. The Medical Education Research Study Quality Instrument (MERSQI) was used to assess study quality. Both authors independently abstracted data and rated study quality. **Results:** Eighty-six articles were identified in the PubMed search. On abstract review, 45 studies were found to meet criteria for further full article review. Studies were variable in setting and approach to self and external assessment. Criteria were not met for pooled analyses/meta-analysis. Results are presented as a summary of findings with special consideration of findings based on level of training (undergraduate, postgraduate, staff clinician). **Conclusion:** This review summarizes the current literature on the Dunning-Kruger Effect in medical education and provides an assessment of the quality of studies

in this area to date. The potential relevance of the Dunning-Kruger Effect in medical education is discussed as are implications for interventions to support the learner in difficulty. Additional study in this area is indicated, in particular given the significant upcoming changes to postgraduate medical education in Canada in the era of Competence By Design (CBD).

Keywords: self-assessment, Dunning-Kruger, education

P026

Need for training in medical education: staff emergency physician perspectives

J. Bryan, MD, F. Al Rawi, MD, T. Bhandari, BSc, MD, J. Chu, MD, S. Hansen, MD, M.Z. Klaiman, MD, MSc, University of Toronto, Toronto, ON

Introduction: Emergency medicine physicians in our urban/suburban area have a range of training in medical education; some have no formal training in medical education, whereas others have completed Master's level training in adult education. Not all staff have a university appointment; of those who are affiliated with our university, 87 have appointments through the Department of Medicine, 21 through the Department of Pediatrics, and 117 through the Department of Family Medicine. Emergency physicians in our area are a diverse group of physicians in terms of both formal training in adult education and in the variety of settings in which we work. The purpose of this study was to gauge interest in formal training in adult education among emergency medicine physicians. **Methods:** With research ethics board approval, we created and sent a 10-item electronic questionnaire to emergency medicine staff in our area. The questionnaire included items on demographics, experience in emergency medicine, additional post-graduate training, current teaching activities and interest in short (30-60 minute) adult education sessions. **Results:** Of a potential 360 active emergency physicians in our area, 120 responded to the questionnaire (33.3%), representing 12 area hospitals. Nearly half of respondents had been in practice over 10 years (48.44%). Respondents were mainly FRCP (50%) or CCFP-EM (47.50%) trained. 33.3% of respondents had masters degrees, of which 15% were MEd. Most physicians were involved in teaching medical students (98.33%), FRCP residents (80%) and family medicine residents (88.3%), though many were also teaching off-service residents, and allied health professionals. More than half of respondents (60%) were interested in attending short sessions to improve their skills as adult educators. The topics of most interest were feedback and evaluation, time-efficient teaching, the learner in difficulty, case-based teaching and bedside teaching. **Conclusion:** Emergency physicians in our area have a wide variety of experience and training in medical education. They are involved in teaching learners from a range of training levels and backgrounds. Physicians who responded to our survey expressed an interest in additional formal teaching on adult education topics geared toward emergency medicine.

Keywords: education

P027

Nursing duties and accreditation standards and their impacts: the nursing perspective

P.K. Jaggi, MSc, R. Tomlinson, BScN, K. McLelland, MD, W. Ma, MD, C. Manson-McLeod, M. Bullard, MD, University of Alberta, Edmonton, AB

Introduction: With ongoing medical advances and an increase in elderly and complex patients presenting to the Emergency Department

(ED), there is a requirement for nurses to continue to gain new knowledge and skills to provide optimal patient care. Quality initiatives are frequently introduced with the goal of improving patient safety and the effectiveness of care delivery; some being provincial, while others are new requirements from Accreditation Canada. We sought the perspectives of emergency nurses regarding the importance of key ED processes and standards, and their impact on patient care and nurse efficiency. **Methods:** All Registered Nurses and Licensed Practical Nurses throughout the Edmonton Zone EDs were invited to complete an online survey consisting of 23 statements on nursing attitudes (10 on nursing duties) and beliefs (11 on the importance of Accreditation standards and their impacts; two that involved selecting the 5 most important nursing activities). The survey was constructed through an iterative approach. Response options included a 7-point Likert scale ('very strongly disagree' to 'very strongly agree'). Median scores and interquartile ranges were determined for each survey statement. **Results:** A total of 433/1241 (34.9%) surveys were submitted. Respondents were predominantly Registered Nurses (91.4%), female (88.9%), and worked 0-5 years overall in the ED (43.7%). Overall, respondents were favourable ('agree' or 'strongly agree') towards the Accreditation Canada standards and other quality initiatives. They were, however, 'neutral' towards universal domestic violence screening, and whether there is a difference between Best Possible Medication History (BPMH) and med reconciliation. The top five nursing activities in terms of perceived importance were: vital sign documentation, recording of allergies, listening to patients' concerns, hand hygiene, and obtaining a complete nursing history. Best Possible Medication History and the screening risk tools followed these. **Conclusion:** Despite their heavy workload, nurses strongly agreed on the importance of med reconciliation, falls risk, and skin care, but felt that improved documentation forms could support efficiency. Nursing perspective is valuable in informing future attempts to standardize, streamline, and simplify documentation, including the design and implementation of a provincial clinical information system.

Keywords: nursing duties, accreditation standards, quality initiatives

P028

The prevalence of pathological findings identified by next day abdominal ultrasound in patients discharged from the ED

S. Cargnelli, MD, C. Thompson, MSc, T.E. Dear, BSc, A. Sandre, BSc, B. Borgundvaag, PhD, MD, S.L. McLeod, MSc, Schwartz/Reisman Emergency Medicine Institute, Mount Sinai Hospital, Toronto, ON

Introduction: Abdominal pain is the most common complaint in the emergency department (ED), accounting for approximately 7% of all visits. Of the patients discharged from the ED with this complaint, 25% will carry a diagnosis of undifferentiated abdominal pain and many will subsequently have an outpatient ultrasound for further assessment. The objective of this study was to determine the proportion of outpatient ultrasounds with findings requiring intervention within 14 days. **Methods:** This was a retrospective chart review of non-pregnant patients aged 18 to 40 years, presenting to an academic ED (annual census 65,000) with an abdominal complaint for whom the emergency physician arranged an outpatient (next day) abdominal ultrasound from November 2014 to November 2015. Data was abstracted by trained research personnel independently and in duplicate and inter-rater agreement was calculated for 25% of charts. **Results:** Of the 315 included patients, 261 (82.9%) were female and mean (SD) age was 28.5 (5.9) years. 28 (8.9%) patients had ultrasounds requiring intervention within 14 days. Of these, 8 (28.6%) had appendicitis, 6 (21.4%)

had cholecystitis, 5 (17.9%) had gynecological, 5 (17.9%) had urological and 4 (14.3%) had gastrointestinal diagnoses. However, 15 (53.6%) patients requiring intervention within 14 days had symptoms which had improved or resolved at the time of the US. Of the 287 (91.1%) patients not requiring intervention, 92 (32.1%) had unchanged, 120 (41.8%) had improved, 52 (18.1%) had resolved and 5 (1.7%) had worsened symptoms at the time of follow-up. Of the non-intervention patients, 13 (4.5%) required alternative imaging (CT scan). **Conclusion:** The large majority of patients with abdominal pain discharged from the ED with planned next day US were found to have either no pathology or pathology that did not require further ED management. However, 8.9% of patients had pathological findings requiring intervention within 14 days and half of these had symptoms that had resolved or improved at the time of the US. Next day US imaging remains a viable option for identifying patients with serious pathology not appreciated at the time of their ED visit.

Keywords: abdominal pain, outpatient ultrasound, pathological findings

P029

Paramedic and nurse-staffed rural collaborative emergency centres: the rate of relapse for discharged patients

A. Carter, MD, J. Cook, MD, M. Beals, BSc, J. Goldstein, PhD, A. Travers, MD, MSc, J. Jensen, MAHSR, T. Dobson, MPH, S.A. Carrigan, MSc, CHE, P. Vanberkel, PhD, Dalhousie University, Halifax, NS

Introduction: Collaborative Emergency Centres (CECs) provide access to care in rural communities. After hours, registered nurses (RNs) and paramedics work together in the ED with telephone support by an emergency medical services (EMS) physician. The safety of such a model is unknown. Relapse visits are often used as a proxy measure for safety in emergency medicine. The primary outcome of this study is to measure unscheduled relapses to emergency care. **Methods:** The electronic patient care record (ePCR) database was queried for all patients who visited two CECs from April 1, 2012 to April 1, 2013. Abstracted data included demographics, time, acuity score, clinical impression, chief complaint, and disposition. Records were searched for each discharged CEC patient to identify unscheduled relapses to emergency care, defined as presenting back to EMS, CEC, or any other ED within the Health Authority within 48 hours of CEC discharge. **Results:** There were 894 CEC visits, of which 66 were excluded due to missing data. The dispositions from CEC were: 131/828 (15.8%) transferred to regional ED; 264/828 (31.9%) discharged home; 488/828 (58.9%) discharged with follow up visit booked; and 11/82 (1.2%) left the CEC without being seen. There was 37/828 (4.5%) visits which relapsed back to emergency care, all of whom were discharged from CEC or left without being seen: 3/828 (0.4%) relapsed back to EMS (two taken to regional ED and one to CEC); 16/828 (1.9%) relapsed to regional ED (by walking-in); and 18/828 (2.2%) had a relapse to the CEC (walk-in). 516/828 (62.3%) CEC visits were resolved in a single visit.

Conclusion: This study was based on only two of the 7 operating CECs due to accessing paper-based charts for multiple health regions. We also acknowledge the limitations of using relapse as a proxy for safety, and that low volumes and acuity will make detection of adverse events challenging. Albeit a proxy measure, the rate of patients who relapse to emergency care was under 5% in this case series of two CECs. Most patients had their concern resolved in a single visit to a CEC. Further research is underway to determine the effectiveness, optimal utilization and safety of this collaborative model of rural emergency care.

Keywords: paramedic, health system design, collaborative practice