

Results: 193 EPs responded to the survey, with 42% of EPs practicing in Ontario. 35% of EPs were female, the mean age was 48 (95% CI 47.3-48.7), and mean years in practice was 17 (95% CI 16.3-17.7). Academic practice location was reported by 55% of EPs, and 81% reported access to an inpatient psychiatry service. The mean USP score was 21.8 (95% CI 21.1-22.5) with a Cronbach's alpha of 0.75, the median was 22 [IQR 14-29]. The item that had most agreement from EPs was "I would like to help a person who has attempted suicide" (1.58, 95% CI 1.50-1.67), while the item that had the least agreement was "patients who have attempted suicide are usually treated well in my work unit" (2.54, 95% CI 2.40-2.69). **Conclusion:** Canadian EPs have a generally positive attitude toward treating individuals who have attempted suicide. EPs scored highly on a scale that measured willingness to provide care for and empathize with suicidal patients, yet identified that overall care for these patients could be improved.

Keywords: attitude, emergency physician, suicide

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How knowledgeable are Canadian emergency physicians about the risk factors of completing suicide in patients presenting to the ED with suicidal thoughts?

J. Fernandes, BSc, MPH, A. Chakraborty, MBChB, PhD, F. Scheuermeyer, MD, MSc, S. Barbic, PhD, D. Barbic, MD, MSc, University of British Columbia, Vancouver, BC

Introduction: Suicide is the 9th leading cause of death in Canada, and a common reason for patients to present to Canadian emergency departments (ED). Little knowledge exists around Canadian emergency physicians (EPs) knowledge about the risk factors of completing suicide in patients presenting to the ED with suicidal thoughts.

Methods: We developed a web-based survey on suicide knowledge, which was pilot tested by two emergency physicians and one psychiatrist for clarity and content. The survey was distributed via email to attending physician members of the Canadian Association of Emergency Physicians. Data were described using counts, means, medians and interquartile ranges. **Results:** 193 EPs responded to the survey (response rate 16%), with 42% of EPs practicing in Ontario. 35% of EPs were female, the mean age was 48 (95% CI 47.3-48.7), and mean years in practice was 17 (95% CI 16.3-17.7). Academic practice location was reported by 55% of EPs, and 81% reported access to an inpatient psychiatry service. Twenty four (12%) EPs had personally considered suicide, and 45% had experience with suicide in their personal lives. The top three risk factors for suicide identified by EPs were: intent for suicide (90%); a plan for suicide (89%); prior suicide attempt (88%). A majority of EPs were able to correctly identify the other risk factors for completion of suicide except for the following: diagnosis of anxiety disorder (25%), chronic substance use (43%), prior non-suicidal self-injury (37%), low socioeconomic status (34%). **Conclusion:** Canadian EPs have substantial personal experience with suicide. A majority of EPs were able to correctly identify known risk factors for suicide completion, yet important gaps in knowledge exist.

Keywords: emergency physician, knowledge, suicide

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What are the current practices and barriers to screening for suicidal thoughts in Canadian emergency departments?

J. Fernandes, BSc, MPH, A. Chakraborty, MBChB, PhD, F. Scheuermeyer, MD, MSc, S. Barbic, PhD, D. Barbic, MD, MSc, University of British Columbia, Vancouver, BC

Introduction: Suicide is the 9th leading cause of death in Canada, and a common reason for patients to present to Canadian emergency departments (ED). Little knowledge exists around Canadian emergency physicians (EPs) current practices and barriers to screening for suicidal thoughts (ST). **Methods:** We developed a web-based survey on suicide knowledge, which was pilot tested by two emergency physicians and one psychiatrist for clarity and content. The survey was distributed via email to attending physician members of the Canadian Association of Emergency Physicians. Data were described using counts, means, medians and interquartile ranges. **Results:** 193 EPs responded to the survey (response rate 16%), with 42% of EPs practicing in Ontario. 35% of EPs were female, the mean age was 48 (95% CI 47.3-48.7), and mean years in practice was 17 (95% CI 16.3-17.7). Academic practice location was reported by 55% of EPs, and 81% reported access to an inpatient psychiatry service. 142 EPs (82%) reported no protocol for screening for ST in their ED. Of EPs reporting an existing protocol, the most common practice was routine screening at triage (43%). The most commonly identified screening tools were HEADS-ED (25%) and PHQ-9 (21%). 70% of EPs felt the ED was a good place for screening for ST, yet 66% identified slower clinical care as a potential barrier. A strong commitment to treatment and follow up was identified by 68% of EPs as a necessary requirement to implementing ST screening in their ED. A targeted 2-4 question screen was the preferred screening option for 62% of EPs responding. **Conclusion:** A majority of EPs report no protocol for screening for ST in their ED, yet identify the ED as a good place for screening efforts. Potential barriers to widespread ST screening in the ED include a strong commitment to patient treatment and follow up, and diminished clinical efficiency.

Keywords: emergency physician, screening, suicide

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Observational study of distribution of time and activities over the course of an emergency physician's shift

E. Feng, BSc, Z. Zia, BHSc, C. Tong, MD, N. Cornell, MD, McMaster University, Kitchener, ON

Introduction: The growing scrutiny to improve Emergency Department (ED) wait times and patient flow have resulted in many efforts to increase efficiency and maximize patient throughput via systems improvements. This study investigates areas of efficiency improvement from the Emergency Physician (EP) perspective by examining EP workflow in a two phased observational time-motion study. In the initial phase, the distribution of time and activities of EPs were dissected to identify potential sources for streamlining to maximize physician productivity. The first phase of the study was completed during the period immediately preceding the implementation of an Electronic Health Records (EHR). The second phase of the study will repeat the analysis one year post EHR implementation. This data will be dissected to again identify sources for streamlining in an EHR environment and to identify shifts in work flow from a paper-based system. **Methods:** An observational time motion study was conducted at St. Mary's Hospital ED, in Kitchener Ontario. An observer was paired with an EP for the duration of an 8 hour shift, to a total of 14 shifts in the first phase of the study. Nine task categories were measured concurrently with a stopwatch application on a tablet, along with the number of interruptions experienced by the EP. Means of each category were calculated and converted to percentages, representing the amount of time per 8 hour shift dedicated to each activity. The second phase will be repeated in Fall 2020, 1 year after EHR

implementation. **Results:** A total of 14 shifts were observed, accounting for 112 hours of observation. EP's time was allocated amongst the following categories: direct patient interaction (40.8%), documentation (27.1%), reviewing patient results (18.4%), communicating with ED staff (7.63%), personal activities (5.7%), writing orders (5.1%), communicating with consultants (3.3%), teaching (1.7%) and medical information searches (1.3%). On average, EPs experienced 15.8 interruptions over the course of an 8 hour shift. **Conclusion:** In a paper charting system, the direct patient interaction accounts for the largest timeshare over the course of a given shift. However, the next two largest categories, documentation and reviewing patient data, both represent areas of potential streamlining via clerical improvements. Additionally, detailed measurements of EPs' activities have proven feasible and provides the potential for future insight into the impact of EHR's on EP workflow.

Keywords: productivity, time-motion, workflow

P106

The BPPV Tool: designing a smartphone app to aid in the diagnosis of benign paroxysmal positional vertigo

L. Farnell, BSc, M. Anderson, D. Savage, MD, PhD, R. Ohle, MSc, MBChB, MA, Northern Ontario School of Medicine, Sudbury, ON

Innovation Concept: Dizziness is an increasingly common presenting complaint in the emergency department (ED), accounting for >2% of visits annually or almost 30% of visits in patients aged over 65. Approximately half of all cases of dizziness in older adults are caused by benign paroxysmal positional vertigo (BPPV). The use of computerized tomography (CT) to rule out serious but rare underlying central nervous system (CNS) causes in patients with dizziness in the ED is increasing despite guidelines supporting the use of clinical exam maneuvers such as the Dix-Hallpike test and therapeutic canalith repositioning maneuvers. Evidence indicates that these clinical tools are underutilized due to clinician discomfort or lack of understanding in performing and interpreting the maneuvers, supporting brief and accessible clinical resources that incorporate video examples to address this. **Methods:** Through an iterative process the authors have developed a smartphone app that is designed to facilitate the clinical diagnosis of BPPV and provide treatment maneuvers where appropriate. The app is being tested by clinicians practicing emergency medicine or primary care in Northern Ontario. **Curriculum, Tool, or Material:** The BPPV Tool is designed as a step-wise guide to diagnose BPPV. Clinicians will be prompted to perform specific exam maneuvers based on clinical findings, and can follow short example videos or written directions. Potentially precipitated nystagmus is described along with example videos. Provocative tests include the Dix-Hallpike and Supine Roll. If appropriate, the clinician will be prompted to perform therapeutic repositioning maneuvers such as the Epley or Gufoni, with associated sample videos, descriptions, and billing information where available. If at any point a clinician's exam findings are not in keeping with a diagnosis of BPPV, they will be alerted to this and stop progressing through the app. **Conclusion:** The BPPV Tool is an accessible and easily disseminated smartphone app designed to improve clinician comfort in reliably diagnosing BPPV. Diagnosing this common condition clinically is supported in the literature and can reduce the number of unnecessary CT scans performed, which would reduce healthcare costs and ED length of stay for these visits, and could reduce the number of patient transfers from peripheral sites for imaging.

Keywords: benign paroxysmal positional vertigo, innovations in EM education, mobile app

P107

Use of activity trackers to count steps of older emergency department patients: a feasibility and validity study

J. Estrada-Codécido, MD, MSc, J. Lee, MD, MSc, M. Chignell, PhD, C. Whyne, PhD, University of Toronto/Sunnybrook Health Science Centre, Toronto, ON

Introduction: Mobility is an evidence-based non-pharmacologic strategy shown to reduce delirium and functional decline among older patients in the acute care setting. Activity trackers have been used in previous studies to objectively measure mobility in older hospitalized patients. This study aims to compare the feasibility and validate the accuracy of three accelerometer-based activity trackers (Fitbit Zip, Fitbit Charge HR and StepWatch). This is the first step in a program of research to objectively measure as a potential marker of delirium risk. **Methods:** This is a prospective study of patients 65 years of age and older during their ED visit. We excluded those with critical illness, unable to communicate or provide consent; and any ambulatory impediments. Consenting participants wore the trackers for up to 8 hour, and completed a 6-meter walk test while a research assistant manually counted their steps. Our primary feasibility measure was the proportion of eligible patient for which we were able to recover the tracker and recorded their steps. The primary validation endpoint was the concordance between steps recorded by the tracker compared to a gold standard manual step count over a fixed distance. Sample size was based on the desired precision of the final estimate of feasibility. Intraclass correlation coefficient (ICC) was calculated to assess agreements between devices and manual count. We will report proportions with exact binomial 95% confidence intervals (CI) for feasibility and validity endpoints. **Results:** 41 participants were enrolled in this study. Mean age was 74.6 years (+/- 5.76) and 59% were females. The total subjects that wore the Fitbit Zip, Fitbit Charge HR and StepWatch during study participation was, 40/41 (97.5%, CI 0.87–0.99), 33/34 (97%, CI 0.84–0.99) and 31/32 (96.8%, CI 0.83–0.99), respectively. Total subjects with completed data extracted from the Fitbit Zip, Fitbit Charge HR and StepWatch was, 38/41 subjects (92.6%, CI 0.80–0.98), 34 (100%, CI 0.89–1.00), and 32 (100%, CI 0.89–1.00), respectively. All devices were recovered after use (100%, 95% CI 0.91–1.00). **Conclusion:** Our results suggest: 1) the use of gait-tracking devices in the ED is feasible, 2) consumer and research-grade devices showed good validity against the gold standard, and 3) the use of small, inexpensive, consumer-grade trackers to objectively measure mobility of older adults in the ED.

Keywords: activity trackers, mobility, older adults

P108

Alcohol-related emergency department visits by youth aged 12-24: trends over 4 years in one Canadian centre

H. Murray, MD, MSc, L. Erlichman, BA, T. Graham, BSc, M. Walker, PhD, Queen's University, Kingston, ON

Introduction: Recent evidence shows an increase in alcohol-related emergency department (ED) visits among youth. Highly publicized collegiate rituals such as Homecoming may create a climate for problematic alcohol use. This study describes the frequency of youth alcohol-related ED visits per year and during pre-specified ritualized