

arrest. As this technology rapidly develops and attracts the attention of the scientific community, we present a rapid systematic review protocol that aims to synthesize the scientific evidence that has tested the use of drones to provide emergency medical care. **Methods:** A search strategy incorporating the concepts of 'drone' and 'emergency medicine' was launched in 52 bibliographic databases, including CINAHL and PubMed. Using the artificial intelligence module included in DistillerSR, a reviewer completed the first screening phase by reading the title and abstract of the retrieved articles. To be included, articles had to report empirical research projects that tested the potential uses of drones to improve the quality and accessibility of emergency medical care. These selection criteria were applied to the full text of the included articles during the second screening phase by a single reviewer. The results of these two screening phases will be validated by a second independent reviewer. The bibliography of included studies, relevant scientific journals and literature reviews will be manually searched for relevant articles. **Results:** The search strategy retrieved 1809 articles, of which 22 met our inclusion criteria in the first and second screening phases. Of these, one study used an empirical research design (qualitative interviews) to evaluate the usefulness of drones in emergency medicine, 17 used simulations or scenarios, and four were comprehensive literature reviews on the use of drones to provide healthcare. The final review will synthesize evidence related to the use of drones in emergency medicine and its impact on emergency medical services: nature of the emergency situation (cardiac arrest, blood transfusion), type of drone (fixed wing, quadcopter), tasks performed by drones (transport, surveillance), improvement in access or quality of care (patient's health, time saved in providing services). **Conclusion:** Drone technology is evolving rapidly and the indications for its use in providing emergency care is increasing. This rapid systematic review will focus on scientific studies aimed at testing the effectiveness of drones to improve the quality and access to emergency medical care.

**Keywords:** drones, emergency medicine, review protocol

#### P085

##### What do community paramedics assess? An environmental scan and content analysis of patient assessment in community paramedicine

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**Introduction:** Patient assessment is a fundamental feature of non-emergency community paramedicine (CP) home visit programs. In the absence of a recognized standard for CP assessment, current assessment practices in CP programs are unknown. Without knowing what community paramedics are assessing, it is difficult to ascertain what should be included in patient care plans, whether interventions are beneficial, or whether paramedics are meeting program objectives. Our objective was to summarize the content of assessment instruments used in CP programs in order to describe the state of current practice. **Methods:** We performed an environmental scan of all CP programs in Ontario, Canada, and employed content analysis to describe current assessment practices in CP home visit programs. The International Classification on Functioning, Disability, and Health (ICF) was used to categorize and compare assessments. Each item within each assessment form was classified according to the

ICF taxonomy. Findings were compared at the domain and sub-domain of the ICF. **Results:** Of 54 paramedic services in Ontario, 43 responded to our request for information. Of 24 services with CP home visit programs, 18 provided their intake assessment forms for content analysis. Assessment forms contained between 13 and 252 assessment items (median 116.5, IQR 134.5). Overall, most assessments included some content from each of the domains outlined in the ICF, including: Impairments of Body Functions, Impairments of Body Structures, Activity Limitation and Participation, and Environmental Factors. At the sub-domain level, only assessment of Impairments of the Functions of the Cardiovascular, Haematological, Immunological and Respiratory systems appeared in all assessments. Few CP home visit program assessments covered most ICF sub-domain categories and many items classified to specific categories were included in only a few assessments. **Conclusion:** CP home visit programs complete multi-domain assessments as part of patient intake. The content of CP assessments varied across Ontario, which suggests that care planning and resources may not be consistent. Current work on practice guidelines and paramedic training can build from descriptions of assessment practices to improve quality of care and patient safety. By identifying what community paramedics assess, evaluation of the quality of CP home visit programs and their ability to meet program objectives can be improved and benchmarks in patient care can be established.

**Keywords:** community paramedicine, patient assessment, quality improvement and patient safety

#### P086

##### Awareness and barriers to access of a Ministry of Health mandated 'Do Not Resuscitate' confirmation form: An interim analysis

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**Introduction:** Elderly patients with comorbid illness have poor meaningful recovery after out of hospital cardiac arrest. Many elderly patients decide that if they have a cardiac arrest, they would not want resuscitation. In Ontario, prehospital personnel must provide resuscitation to all patients regardless of previously stated wishes or legal documentation unless they are presented a Ministry of Health mandated 'Do Not Resuscitate' Confirmation Form (MOH-DNRFCF). This study aimed to evaluate the awareness of this form as well as any barriers to its completion. **Methods:** Patients over 70 years of age presenting to the Emergency Department were approached to complete a short survey about their wishes regarding resuscitation, awareness of the MOH-DNRFCF, as well as any barriers to completion. Standard demographic variables were also collected. Patients, with critical illness, with severe dementia, a language barrier or from a nursing home were excluded. The primary outcome was awareness of the MOH-DNRFCF. Standard descriptive statistics were summarized using median [IQR] and simple proportions. **Results:** Preliminary data of 96 patients has been collected. The median [IQR] age of patients recruited was 81 [75-88] years and 54% were female. 49/96 (51%) have wishes to not be resuscitated in the event of cardiac arrest and of those 42 (86%) are not aware of the existence of the MOH-DNRFCF. Of the 7 patients who were aware of the form only 1 had completed one. Barriers to completion included the patient being unsure where to access the form and difficulty in discussing the topic. **Conclusion:** The majority of patients with wishes to be DNR are unaware of the MOH-DNRFCF. This has severe

repercussions as, in the event of an out of hospital cardiac arrest, these patients would be resuscitated by prehospital care providers. Strategies to increase awareness of the form as well as strategies to increase ease of access should be considered to avoid resuscitation that is against patient wishes.

**Keywords:** emergency medical service, resuscitation

#### P087

##### **Pilot project: Implementation of a peer support network for geographically distributed learners in the NOSM family medicine/emergency medicine residency program**

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**Innovation Concept:** Residents bear an enormous burden of responsibility for patient care which can lead to stress and mental exhaustion, especially in the face-paced and acute environment of emergency medicine (EM). In addition to numerous demands faced by EM residents, being a member of a geographically distributive residency program presents many unique challenges from a support and wellness perspective. To address these issues we sought to implement a video conferenced peer support network in hopes to foster wellness in the NOSM Family Medicine/EM program, where learners are commonly separated for training. **Methods:** Participants completed a pre-pilot questionnaire that strongly showed interest for this type of novel network. Furthermore residents conveyed that they are reluctant to access formal services and commonly rely on co-residents for support. This pilot program intends to decrease barriers that geography and stigma create that negatively hinder seeking support throughout medical training. Keeping the network small, consisting of only co-residents maintains a collegial and confidential environment that enables colleagues to provide relevant help to one another. Offering this outlet allows the opportunity to debrief and share unique experiences, which can lead to improved knowledge and wellbeing. **Curriculum, Tool or Material:** Informal, co-resident run and easy to access sessions are held twice monthly and average one hour in length. Discussion topics commonly include residency issues, difficult patient encounters and challenging situations. These sessions are conducted via video conferencing making them easily accessible from a distance and also from a comfortable and convenient environment of the participants choosing. Residents have commented that this is a helpful platform to discuss important issues while providing and safe and confidential resource to help cope with residency challenges. **Conclusion:** Further data analysis is underway as we are in the initial stages of implementing the program. In the final stages (April 2018) a pending post-pilot questionnaire will be interpreted to explore barriers, limitations and to determine the role of the network going forward. If found to be effective it is something that can be implemented and adapted for future residents. Other programs can use this feasible model to increase wellness and foster the same supportive environment among residents, especially those separated geographically from peers who may benefit most.

**Keywords:** geographical distributed learning, innovations in EM education, peer support network

#### P088

##### **Emergency physicians' approach to head CT scanning for elderly patients who fall: A survey of Canadian, American, British, and Australian emergency physicians**

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**Introduction:** The number of seniors presenting to emergency departments after a fall is increasing. Head injury concerns in this population often leads to a head CT scan. The CT rate among physicians is variable and the reasons for this are unknown. This study examined the role of patient characteristics and country of practice in the decision to order a CT. **Methods:** This study used a case-based survey of physicians across multiple countries. Each survey included 9 cases pertaining to an 82-year old man who falls. Each case varied in one aspect compared to a base case (aspirin, warfarin, or rivaroxaban use, occipital hematoma, amnesia, dementia, and fall with no head trauma). For each case, participants indicated how "likely" they were to order a head CT scan, measured on a 100-point scale. A response of 80 or more was defined a priori as 'likely to order a CT scan'. The survey was piloted among emergency residents for feedback on design and comprehension, and was published in French and English. Recruitment was through the Canadian Association of Emergency Physicians, Twitter and CanadiEM. For each case we compared the proportion of physicians who were 'likely to scan' with relative to the base case. We also compared the proportion of participants who were 'likely to scan' each case in the USA, UK and Australia, relative to Canada. **Results:** Data was collected from 484 respondents (Canada-308, USA-64, UK-67, Australia-27, and 18 from other countries). Social media distribution limited our ability to estimate of the response rate. Physicians were most likely to scan in the anticoagulation cases (90% likely to order a scan compared to 36% for the base case ( $p < 0.001$ )). Other features associated with increased scans were occipital hematoma (48%), multiple falls (68%), and amnesia (68%) (all  $p < 0.005$ ). Compared to Canada, US physicians were more likely to order CT scans for all cases ( $p = < 0.05$ ). Compared to Canada, UK physicians were significantly less likely to order CT for patients in every case except in the patient with amnesia. Finally, Australian physicians differed from Canada only for the occipital hematoma case where they were significantly more likely to order CT scan. **Conclusion:** Anticoagulation, amnesia and a history of multiple falls appear to drive the ordering a head CT scan in elderly patients who had fallen. We observed variations in practice between countries. Future clinical decision rules will likely have variable impact on head CT scan rates depending on baseline practice variation.

**Keywords:** CT scan, elderly, survey

#### P089

##### **Multimodal oral analgesia for non-severe trauma patients: feasibility and evaluation of a triage-nurse directed protocol combining low-dose methoxyflurane, paracetamol and oxycodone**

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**Introduction:** Insufficient analgesia affects around 50% of emergency department patients. The use of a protocol helps to reduce the risk of oligoanalgesia in this context. Our objective was to describe the feasibility and efficacy of a multimodal analgesia protocol (combining paracetamol, oxycodone, and inhaled low-dose methoxyflurane) initiated by triage nurse. **Methods:** We performed a prospective, observational study in the emergency department at