

in the safety of their plan was 7.0/10. MDs felt that 2/10 patients with unrecognized delirium could be discharged (20.0% 95% CI: 2.5 to 55.0%). Their median confidence in the safety of their plan was 7.5/10. **Conclusion:** Despite the potential Hawthorne effect raising initial delirium recognition rates above clinicians' usual practice outside of a study, delirium recognition by both nurses and MDs remains poor in a national sample of ED patients. We also showed that a significant number of these patients could have been discharged with unrecognized delirium. Further research to find novel ways to improve delirium recognition is needed.

Keywords: delirium, recognition

LO57

Pain associated with investigations and procedural interventions commonly administered in the emergency department in older adults: a prospective cohort study

L. Baril, MD, L. Baril, MD, E. Nguyen, L. Santerre, V. Émond, M. Émond, MD, MSc, S. Berthelot, MD, É. Mercier, MD, MSc, Université Laval, Québec, QC

Introduction: Acute pain is frequent among patients visiting the emergency department (ED). In addition to the acute discomfort, pain has been linked to adverse events and poorest outcomes in older adults. However, pain is frequently overlooked by emergency clinicians, particularly in older adults. Advanced age has been linked to poor recognition and under treatment of pain. The contribution of ED investigations and procedures to the patient's pain is unknown. This study aims to determine the intensity of the pain induced by the investigations and procedures commonly performed in the ED.

Methods: In two EDs, a convenience sample of older adults (≥ 65 years old) with at least two investigations or procedures performed during their ED visit were eligible. Patients were excluded if they were hemodynamically unstable, in palliative care or not oriented in time and space. The pain intensity was assessed at bedside by a research assistant for the following investigations or procedures: blood sampling, intravenous catheter, electrocardiogram, X-rays, computed tomography, bedside ultrasound, urinary catheter, cervical collar and prehospital immobilization mattress. The predetermined sample size was 50 pain assessment per investigation or procedure. The pain intensity was assessed using a numerous rating scale (NRS) ranging from 0 (no pain) to 10 (most severe pain), for each investigation or procedure received. NRS results are presented using median (med) and interquartile range (IQR) and classified as followed: no pain (0), mild pain (1-3), moderate pain (4-6) and severe pain (7-10). **Results:** Between June 2018 and December 2019, 494 patients were screened of which 318 were finally included (exclusion: not oriented (n = 113), refusal (n = 27), palliative care (n = 34), other reasons (n = 12)). The mean age of included patients was 77.8 years old (standard deviation = 8.0), 54.4% were female and 78.6% were living in the community. Only 15 patients (4.7%) were known to have cognitive impairment or dementia and 23 patients (7.2%) were on regular or PRN opioid medication at home. The expected sample size of at least 50 pain score assessment per investigation or procedure was obtained for all interventions with the exception of urinary catheter (n = 23) and immobilization mattress (n = 35). For the other investigations or procedures, the number of pain assessment ranged between 51 (cervical collar) and 231 (blood sampling). All investigations and procedures were associated with a median pain score of 0 with the exception of blood sampling (n = 231, med NRS 1 (IQR 0;3)), intravenous catheter (n = 241, med NRS 1 (IQR 0;4)),

urinary catheter (n = 23, med NRS 4 (IQR 1;6)), cervical collar (n = 51, med NRS 5 (IQR 0;8)) immobilisation mattress (n = 35, med NRS 3 (IQR 0;8)). Moderate or severe pain (NRS 4-10) was infrequently reported following most investigations or procedures with the exception of urinary catheter (60.8%), cervical collar (54.9%) and immobilization mattress (48.5%). Cervical collar induced severe pain in 41.8% of the patients. **Conclusion:** Most investigations and procedures commonly administered in the ED to older adults are associated with no pain or low intensity of pain. Severe pain is also infrequently induced by these interventions for most older adults. However, urinary catheter, cervical collar and immobilization mattress are associated with a higher intensity of pain and more than 40% of patients suffering from severe pain following the application of cervical collar. Considering the potential adverse effects of pain and the lack of evidence-based data to support the use of some interventions such as the cervical collar, the decision to use these interventions should be carefully weighted and could include a shared-decision making process. The generalizability of those findings to older adults with cognitive impairment is unknown. Future studies should focus on circumstances in which these procedures are beneficial to the patient to limit the unnecessary pain associated with their use.

Keywords: interventions, older adults, pain

LO58

Using volunteers to improve the experience of older patients in the emergency department

B. Ellis, MBChB, MSc, D. Melady, MD, MEd, N. Foster, MSc, S. Sinha, MD, PhD, V. Lau, BA, S. Saraga, S. McLeod, MSc, PhD, Saskatchewan Health Authority, College of Medicine, University of Saskatchewan, Saskatoon, SK

Introduction: The Maximizing Aging Using Volunteer Engagement in the ED (MAUVE + ED) program connects specially trained volunteers with older patients whose personal and social needs are not always met within the busy ED environment. The objective of this study was to describe the development and implementation of the MAUVE + ED program and the activities performed with older patients by its volunteers. **Methods:** The MAUVE + ED program was implemented in the ED (annual census 65,000) of a large academic tertiary hospital in Toronto, Ontario. Volunteers were trained to identify and approach older patients and others at greater risk for adverse outcomes, including poor patient experience, in the ED and invite such patients to participate in the program. The program is available to all patients >65 years, and those with confusion, patients who were alone, those with mobility issues, and patients with increased length of stay in the ED. Volunteers documented their activities after each patient encounter using a standardized paper-based data collection form. **Results:** Over the program's initial 6-month period, the MAUVE + ED volunteers reported a total of 896 encounters with 718 unique patients. The median (IQR) time a MAUVE volunteer spent with a patient was 10 (5, 20) minutes, with a range of 1 to 130 minutes. The median (IQR) number of patients seen per shift was 7 (6, 9), with a range of 1 to 16 patients per shift. The most common activities the volunteer assisted with were therapeutic activities/social visits (n = 859; 95.9%), orientation activities (n = 501; 55.9%), and hydration assistance (n = 231; 25.8%). The least common were mobility assistance (n = 36; 4.0%), and vision/hearing assistance (n = 13; 1.5%). **Conclusion:** Preliminary data suggest the MAUVE + ED volunteers were able to enrich the experience of older adults and their families/carers in the ED.

Keywords: older patients, patient experience, volunteers

LO59

Reliability of patient reported exposure and outcome data in a prospective cohort study of older adults presenting to the emergency department

N. Selvanayagam, MD, A. Soomro, BSc, C. Varner, MD, MSc, S. McLeod, MSc, N. Clayton, K. de Wit, MBChB, MD, MSc, McMaster University, Hamilton, ON

Introduction: Participant interviews are often considered the 'gold standard' for measuring outcomes in diagnostic and prognostic studies. Participant exposure data are frequently collected during study interviews, but the reliability of this information often remains unknown. The objective of this study was to compare patient-reported medication exposures and outcomes to data extracted from electronic medical records (EMRs) to determine reliability. **Methods:** This was a secondary data analysis from a prospective observational cohort study enrolling older (≥ 65 years) patients who presented to one of three emergency departments after a fall. After patients had consented to participate in the study, they were asked about their use of antiplatelet and anticoagulation medications (exposures of interest). During follow up, participants were asked if a physician had told them they had bleeding in their head (diagnosis of intracranial hemorrhage). Patient-reported responses were compared to data extracted from a structured EMR review. Trained research assistants extracted medication exposure and outcome data from the hospital EMRs in duplicate for all visits to any hospital within 42 days. Inter-rater agreement was estimated using Cohen's kappa (K) statistics with 95% confidence intervals (CIs). **Results:** 1275 patients completed study interviews. 1163 (91%) responded to questioning about antiplatelet use and 1159 (91%) to anticoagulant use. Exact agreement between patient reported antiplatelet use compared to EMR review was 77%, with $K = 0.50$ (95% CI: 0.44 to 0.55). For anticoagulation use, exact agreement was 87%, with $K = 0.68$ (95% CI: 0.63 to 0.72). 986 (78%) patients had a follow up interview after 42 days. Exact agreement between patient reported intracranial bleeding and EMR review was 95%, with $K = 0.30$ (95% CI: 0.15 to 0.45). Using the EMR review as the reference standard, the sensitivity and specificity of patient reported intracranial bleeding was 34% (95% CI: 20 to 52%) and 97% (95% CI: 96 to 98%), respectively. **Conclusion:** In this population of older adults who presented to the ED after a fall, patient reported use of antiplatelet and anticoagulant medications was not a reliable method to identify medication use. Patients who were diagnosed with intracranial bleeding were particularly poor at reporting this diagnosis.

Keywords: intracranial bleeding, measurement, patient-reported

LO60

Frailty and associated prognosis among older emergency department patients with suspected infection – a prospective, observational cohort study

S. Fernando, MD, MSc, K. Guo, BSc, M. Lukasik, MSc, B. Rochweg, MD, MSc, D. Cook, MD, MSc, K. Kyremanteng, MD, MHA, J. Perry, MD, MSc, University of Ottawa, Department of Emergency Medicine, Ottawa, ON

Introduction: Prognostication and disposition among older Emergency Department (ED) patients with suspected infection remains challenging. Frailty is increasingly recognized as a predictor of poor prognosis among critically ill patients, however its association with

clinical outcomes among older ED patients with suspected infection is unknown. **Methods:** We conducted a multicentre prospective cohort study at two tertiary care EDs. We included older ED patients (≥ 75 years) presenting with suspected infection. Frailty at baseline (prior to index illness) was explicitly measured for all patients by the treating physicians using the Clinical Frailty Scale (CFS). We defined frailty as a CFS 5-8. The primary outcome was 30-day mortality. We used multivariable logistic regression to adjust for known confounders. We also compared the prognostic accuracy of frailty against the Systemic Inflammatory Response Syndrome (SIRS) and Quick Sequential Organ Failure Assessment (qSOFA) criteria. **Results:** We enrolled 203 patients, of whom 117 (57.6%) were frail. Frail patients were more likely to develop septic shock (adjusted odds ratio [aOR]: 1.83, 95% confidence interval [CI]: 1.08-2.51) and more likely to die within 30 days of ED presentation (aOR 2.05, 95% CI: 1.02-5.24). Sensitivity for mortality was highest among the CFS (73.1%, 95% CI: 52.2-88.4), as compared to SIRS ≥ 2 (65.4%, 95% CI: 44.3-82.8) or qSOFA ≥ 2 (38.4, 95% CI: 20.2-59.4). **Conclusion:** Frailty is a highly prevalent prognostic factor that can be used to risk-stratify older ED patients with suspected infection. ED clinicians should consider screening for frailty in order to optimize disposition in this population.

Keywords: frailty, geriatrics, sepsis

LO61

A modified Delphi study to identify trauma care modifiers for older adults

K. Yadav, MD, MSc, V. Boucher, MSc, N. Le Sage, MD, PhD, C. Malo, MD, MSc, E. Mercier, MD, MSc, P. Voyer, PhD, RN, J. Clement, MD, M. Emond, MD, MSc, University of Ottawa / The Ottawa Hospital, Ottawa, ON

Introduction: Older (age ≥ 65 years) trauma patients suffer increased morbidity and mortality. This is due to under-triage of older trauma victims, resulting in lack of transfer to a trauma centre or failure to activate the trauma team. There are currently no Canadian guidelines for the management of older trauma patients. The objective of this study was to identify modifiers to the prehospital and emergency department (ED) phases of major trauma care for older adults based on expert consensus. **Methods:** We conducted a modified Delphi study to assess senior-friendly major trauma care modifiers based on national expert consensus. The panel consisted of 24 trauma care providers across Canada, including medical directors, paramedics, emergency physicians, emergency nurses, trauma surgeons and trauma administrators. Following a literature review, we developed an online Delphi survey consisting of 16 trauma care modifiers. Three online survey rounds were distributed and panelists were asked to score items on a 9-point Likert scale. The following predetermined thresholds were used: appropriate (median score 7-9, without disagreement); inappropriate (median score 1-3; without disagreement), and uncertain (any median score with disagreement). The disagreement index (DI) is a method for measuring consensus within groups. Agreement was defined a priori as a DI score < 1 . **Results:** There was a 100% response rate for all survey rounds. Three new trauma care modifiers were suggested by panelists. Of 19 trauma care modifiers, the expert panel achieved consensus agreement for 17 items. The prehospital modifier with the strongest agreement to transfer to a trauma centre was a respiratory rate < 10 or > 20 breaths/minute or needing ventilatory support (DI = 0.24). The ED modifier with the strongest level