

pre-existing clinical relationships (experienced group), family and friends of people who use opioids and general public (non-experienced) through the University of Alberta Faculty of Art and Design. **Evaluation/Results:** A total of 30 voluntary participants provided their informed consent and engaged in a simulated overdose scenario using a set of prototype instructions developed by a professional information designer. Through repeated data sampling, the following points were observed and will be integrated in the next iteration of design: It isn't clear to people what opioids are. It isn't clear to people that giving a dose of naloxone will not harm a person, especially if they have not overdosed. Almost none of the participants called 911. People seem to read pictures and text equally in the non-experienced group, but in the experienced group, typically read the pictures. Many participants stated that they knew how to do rescue breaths, but did not perform them correctly. Performing the procedure is a not the same as being asked about how to perform the procedure. **Discussion/Impact:** Even with new instructional prototypes, many participants identified components that were unclear or confusing. The experienced group made less mistakes than the non-experienced group. They seemed to be more invested or interested in saving a friend's life. These instructions will go through another round of design to incorporate feedback from end users. The final product will be part of a larger provincial emergency medicine initiative that includes participant led design and education around emergency response in opioid overdose settings.

**Keywords:** human centred design, naloxone, quality improvement and patient safety

### MP30

#### Implementing buprenorphine/naloxone in emergency departments for opioid agonist treatment: a quality improvement initiative

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**Background:** Buprenorphine/naloxone (bup/nal) is a partial opioid agonist/antagonist and recommended first line treatment for opioid use disorder (OUD). Emergency departments (EDs) are a key point of contact with the healthcare system for patients living with OUD. **Aim Statement:** We implemented a multi-disciplinary quality improvement project to screen patients for OUD, initiate bup/nal for eligible individuals, and provide rapid next business day walk-in referrals to addiction clinics in the community. **Measures & Design:** From May to September 2018, our team worked with three ED sites and three addiction clinics to pilot the program. Implementation involved alignment with regulatory requirements, physician education, coordination with pharmacy to ensure in-ED medication access, and nurse education. The project is supported by a full-time project manager, data analyst, operations leaders, physician champions, provincial pharmacy, and the Emergency Strategic Clinical Network leadership team. For our pilot, our evaluation objective was to determine the degree to which our initiation and referral pathway was being utilized. We used administrative data to track the number of patients given bup/nal in ED, their demographics and whether they continued to fill bup/nal prescriptions 30 days after their ED visit. Addiction clinics reported both the number of patients referred to them and the number of patients attending their referral. **Evaluation/Results:**

Administrative data shows 568 opioid-related visits to ED pilot sites during the pilot phase. Bup/nal was given to 60 unique patients in the ED during 66 unique visits. There were 32 (53%) male patients and 28 (47%) female patients. Median patient age was 34 (range: 21 to 79). ED visits where bup/nal was given had a median length of stay of 6 hours 57 minutes (IQR: 6 hours 20 minutes) and Canadian Triage Acuity Scores as follows: Level 1 – 1 (2%), Level 2 – 21 (32%), Level 3 – 32 (48%), Level 4 – 11 (17%), Level 5 – 1 (2%). 51 (77%) of these visits led to discharge. 24 (47%) discharged patients given bup/nal in ED continued to fill bup/nal prescriptions 30 days after their index ED visit. EDs also referred 37 patients with OUD to the 3 community clinics, and 16 of those individuals (43%) attended their first follow-up appointment. **Discussion/Impact:** Our pilot project demonstrates that with dedicated resources and broad institutional support, ED patients with OUD can be appropriately initiated on bup/nal and referred to community care.

**Keywords:** opioids, quality improvement and patient safety, transitions in care

### MP31

#### Safely reducing emergency physician admission rate through audit and feedback

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**Background:** Most admissions to hospitals occur through the emergency department (ED). The impact of emergency physicians' decisions to admit a patient to hospital can have wide ranging effects on health care spending, hospital congestion and patient outcomes. A growing body of evidence shows that outpatient management of conditions such as diverticulitis, heart failure and pulmonary embolism is both safe, effective and can reduce costs. **Aim Statement:** To support emergency staff in making safe, informed decisions to appropriately reduce admission rates without increasing the rate of patients returning and being admitted. **Measures & Design:** Significant variability in admission rates between emergency physicians exists and no correlation between actual and self-reported admission rates is observed. One means to change behavior is through audit and feedback, however a Cochrane review on this topic concluded that it was only effective if specific conditions were met; findings which were incorporated into this project. An audit tool was created comparing individual physicians' admission and "bounce back" rates to their peers. The tools contained averages for the individual and site for admission and bounce back rates and were shared with physicians every 2 months. Physicians were divided into three equal groups, low, medium and high admitters and targets established. Department heads met with high admitters. **Evaluation/Results:** The project was started in September 2016. Admission rates in the three physician groups were compared in the ten months before September 2016 (prior) and after January 2017 (post). September to December 2016 was considered the "rollout" period and not included in the analysis. Significance was tested using a Permutation test and a p-value cut off level of 5%. Nine emergency departments took part. Seven sites experienced a significant decrease in the admission rate of top admitters, three showed a significant increase in the rate of low admitters and two showed a significant increase in the rate of medium admitters. Pooled results showed a decrease in the admission rates of the top admitters and no significant change to the medium or low admitters. **Discussion/Impact:** Comparing the pre- and post-periods yielded a decrease in admissions of 773 patients on an annualized basis. The

impact of the change in the top five highest admitters at the biggest three hospitals estimated an annualized beds savings of 25.3 beds.

**Keywords:** hospital admissions, physician performance, quality improvement and patient safety

### MP32

#### Mid-morning huddle: a coordinated team approach to facilitating disposition of older adults

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**Background:** Older adults in the emergency department (ED) take an increasingly larger portion of resources, have increased length of stay and a higher likelihood of adverse outcomes. In many cases bad planning, multiple vague handovers, and lack of coordinated care exacerbate this problem. With the impending onset of our aging population this is a situation that can be expected to compound in complexity in the years to come. **Aim Statement:** We describe daily interdisciplinary review of ED patients over the age of 75 years (or otherwise identified as a challenging discharge) to discuss barriers and facilitators to discharge/disposition. We will use data to identify the impact of this particular population to ED flow. **Measures & Design:** This initiative developed from our participation in the Acute Care of the Elderly (ACE) Collaborative and applies Plan/Do/Study/Act (PDSA) cycles and run reports to compare: length of stay; Identification of Seniors at Risk (ISAR) screening tool; ED census, admission/discharge rates, bounce back rates, consulting services, and interdisciplinary participation. **Evaluation/Results:** The average daily census of our ED between the months of July-October of 2018 was over 211 patients/day, of which over 12% were patients 75 years and older. We conducted over 70 huddles, reviewing an average of 11 patients per day. The average length of stay for patients at the time of the huddle was 19 hours, significantly higher than the general emergency population. Next day admission and discharge rates were comparable, 44.8% and 43.1% respectively with the additional patients remaining in the ED with no disposition. Internal medicine was consulted on 30% of all huddle patients and 38.4% subsequently admitted. Thirty day bounce back rates for huddle patients discharged home was 29.3%. Around 60% of patients 75 and older were screened with the ISAR and 55.7% of these were positive (2 or more questions). **Discussion/Impact:** Older patients consume a disproportionate amount of ED resources. Daily interdisciplinary 'geriatric huddles' improved communication between members of the ED team and with consulting services. The huddles enhanced awareness of the unique demands that older adults place on the flow of the ED, and identified opportunities to enhance patient flow.

**Keywords:** emergency department flow, geriatric patients, quality improvement and patient safety

### MP33

#### Predictors of delirium in older patient at the emergency department: a prospective multicentre derivation study

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**Introduction:** Delirium is a frequent pathology in the elderly presenting to the emergency department (ED) and is seldom recognised.

This condition is associated with many medical complications and has been shown to increase the hospital length-of-stay. The objective of this study was to identify the predictor factors of developing delirium in this high-risk population. **Methods:** Design: This study was part of the multicenter prospective cohort INDEED study. **Participants:** Patients aged 65 and older, initially free of delirium and with an ED stay of 8h or longer, were followed up to 24h after ward admission. **Measures:** Clinical and demographic variables were collected by interview and chart review. A research professional assessed their delirium status twice daily using the Confusion Assessment Method (CAM). **Analyses:** A classification tree was used to select predictors and cut-points that minimized classification error of patients with incident delirium. After literature review, nineteen predictors were considered for inclusion in the model (eight non-modifiable and eleven modifiable factors). **Results:** Among the 605 patients included in this study, incident delirium was detected by the CAM in 69 patients (11.4%). In total, fourteen variables were included in a preliminary model, of which six were intrinsic to the patient and eight were modifiable in the ED. Variables with the greatest impact in the prediction of delirium includes age, cognitive status, ED length of stay, autonomy in daily activities, fragility and mobility during their hospital stay. The diagnostic performance of the model applied to the study sample gave a sensitivity of 78.3% (95% CI: 66.7 to 87.3), a specificity of 100.0% (95% CI: 99.3 to 100.0), a PPV of 100.0% (95% CI: 93.4 to 100.0) and a NPV of 97.3% (95% CI: 95.6 to 98.5). **Conclusion:** The delirium risk model developed in this study shows promising results with elevated sensitivity and specificity values. Considering the limited ability to predict and detect delirium among physicians, the potential increase in sensitivity provided by this tool could be beneficial to patients. This model will ultimately serve to identify high-risk patients with the goal of developing strategies to alter modifiable risk factors and subsequently decrease the incidence of delirium in this population.

**Keywords:** delirium, elderly, emergency department

### MP34

#### Elder abuse in the emergency department: a systematic scoping review

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**Introduction:** This systematic scoping review aims to synthesize the available evidence on the epidemiology, risk factors, clinical characteristics, screening tools, prevention strategies, interventions and knowledge of health care providers regarding elder abuse in the emergency department (ED). **Methods:** A systematic literature search was performed using three databases (Medline, Embase and Cochrane Library). Grey literature was scrutinized. Studies were considered eligible when they were observational studies or randomized control trials reporting on elder abuse in the prehospital and/or ED setting. Data extraction was performed independently by two researchers and a qualitative approach was used to synthesize the findings. **Results:** A total of 443 citations were retrieved from which 58 studies published between 1988 and 2018 were finally included. Prevalence of elder abuse following an ED visit varied between 0.01% and 0.03%. Reporting of elder abuse to proper law authorities by ED physicians varied between 2% to 50% of suspected cases. The most common