in emergency department and time to see an MD were greater among people experiencing homelessness. **Conclusion:** Administrative health data allows researchers to enhance interventions and models of care to improve services for vulnerable populations. Given the challenging fiscal realities of research, our study provides insights to more effectively target interventions for vulnerable populations.

Keywords: data, homelessness, interventions

## DAG

Remember that patient you saw last week – Characteristics of patients experiencing unanticipated death following emergency department discharge

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Background: The emergency department (ED) is an at-risk area for medical error. We measured the frequency and characteristics of patients with unanticipated death within 7 days of ED discharge and whether medical error contributed. Aim Statement: This study aimed to calculate the frequency of patients experiencing death within 7 days after ED discharge and determine whether these deaths were related to their index ED visit, were unanticipated, and whether possible medical error occurred. Measures & Design: We performed a single-centre health records review of 200 consecutive cases from an eligible 458,634 ED visits from 2014-2017 in two urban, academic, tertiary care EDs. We included patients evaluated by an emergency physician who were discharged and died within 7 days. Three trained and blinded reviewers determined if deaths were related to the index visit, anticipated or unanticipated, or due to potential medical error. Reviewers performed content analysis to identify themes. Evaluation/Results: Of the 200 cases, 129 had sufficient information for analysis, translating to 44 deaths per 100,000 ED discharges. We found 13 cases per 100,000 ED discharges were related and unanticipated deaths and 18 of these were due to potential medical errors. Over half (52.7%) of 129 patients displayed abnormal vital signs at discharge. Patients experienced pneumonia (27.1%) as their most common cause of death. Patient characteristic themes were: difficult historian, multiple complaints, multiple comorbidities, acute progression of chronic disease, recurrent falls. Provider themes were: failure to consider infectious etiology, failure to admit high-risk elderly patient, missed diagnosis. System themes included multiple ED visits or recent admission, no repeat vital signs recorded. Discussion/ Impact: Though the frequency of related and unanticipated deaths and those due to medical error was low, these results highlight opportunities to potentially enhance ED discharge decisions. These data add to the growing body of ED diagnostic error literature and emphasize the importance of identifying potentially high risk patients as well as being cognizant of the common medical errors leading to patient

**Keywords:** medical error, quality improvement and patient safety, unanticipated death

## P086

Violence prevention strategies in emergency departments: Key informant interviews

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Introduction: Emergency Departments (EDs) are at high risk of workforce-directed violence (WDV). To address ED violence in Alberta Health Services (AHS), we conducted key informant interviews to identify successful strategies that could be adopted in AHS EDs. Methods: The project team identified potential participants through their ED network; additional contacts were identified through snowball sampling. We emailed 197 individuals from Alberta (123), Canada (46), and abroad (28). The interview guide was developed and reviewed in partnership with ED managers and Workplace Health and Safety. We conducted semi-structured phone interviews with 26 representatives from urban and rural EDs or similar settings from Canada, the United States, and Australia. This interview process received an ARECCI score of 2. Two researchers conducted a content analysis of the interview notes; rural and urban sites were analyzed separately. We extracted strategies, their impact, and implementation barriers and facilitators. Strategies identified were categorized into emergent themes. We aggregated similar strategies and highlighted key or unique findings. Results: Interview results showed that there is no single solution to address ED violence. Sites with effective violence prevention strategies used a comprehensive approach where multiple strategies were used to address the issue. For example, through a violence prevention working group, one site implemented weekly violence simulations, a peer mentorship support team, security rounding, and more. This multifaceted approach had positive results: a decrease in code whites, staff feeling more supported, and the site no longer being on union "concerned" lists. Another promising strategy included addressing the culture of violence by increasing reporting, clarifying policies (i.e., zero tolerance), and establishing flagging or alert systems for visitors with violent histories. Physician involvement and support was highly valued in responding to violence (e.g., support when refusing care, on the code white response team, flagging). Conclusion: Overall, one strategy is not enough to successfully address WDV in EDs. Strategies need to be comprehensive and context specific, especially when considering urban and rural sites with different resources available. We note that few strategies were formally evaluated, and recommend that future work focus on developing comprehensive metrics to evaluate the strategies and define success.

Keywords: violence in healthcare, violence prevention

## P087

A comparison of how emergency physicians and plastic surgeons evaluate and triage pediatric hand fractures: a prospective trial of the Calgary Kids' Hand Rule

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Introduction: Hand fractures in children are common and most are adequately managed with immobilization alone. There is a subset of fractures that require surgery as well as a fear of growth plate disturbance. For these reasons, triaging the so-called "complex" fractures that require specialized care by a hand surgeon is critical. In an effort to improve triaging for pediatric hand fractures, we previously derived and internally validated a prediction model for pediatric hand fracture triage using multivariable logistic regression with bootstrapping. The primary outcome was "complex fracture", a definition we assigned to any fractures that required surgery, closed reduction or more than four appointments with a plastic surgeon. The model identified six significant predictors of complex fractures: angulation, condylar involvement, dislocation or subluxation, displacement, open fracture,