P082

Ethical management of incidental findings in emergency care: A critical interpretive literature review

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Introduction: Incidental findings (IFs) are findings discovered in the course of healthcare (e.g., blood tests, genetic tests, imaging) that are unrelated to the primary purpose for which a test was sought. Some IFs constitute new knowledge that have implications for patient autonomy and welfare. IFs found in emergency departments (EDs) are difficult to manage, with one study reporting that of 392 patients with IFs, 122 had no follow-up and 242 had no electronic record of the finding. **Methods:** A critical interpretive literature review was conducted to explore current practices regarding identification, disclosure, and management of IFs in EDs, and to identify ethical challenges that require research focus and policy reform. The search strategy included 'incidental findings' AND 'emergency' and derivatives, retrieving 12,021 studies from databases including PubMed, Scopus, and Web of Science, as well as handsearching and reference list searching. Following screening, 97 studies were included. Data was extracted, analyzed using descriptive statistics, and then critically interpreted to capture key ideas. **Results:** Of 97 included articles, 75 have relevant empirical data. Of the 75, most literature (89%) presented the frequency of IFs in EDs, with an average frequency of 34%. Most (84%) did not report on patient disclosure rates or follow-up rates. When reported, patient notification rates are as low as 2.6% with an average of 15% over 12 studies. Empirical studies included in the review do not address ethical principles or patient preferences on disclosure. The literature reveals suggestions to manage IFs in EDs, including implementation of automatic feedback or alert mechanisms, clarification of responsibilities within treating teams, protocols in radiology departments, and improvements to patient documentation. Test results by letter are noted as insufficient because patients are unable to ask questions. Authors suggest further research on optimal follow-up recommendations to alleviate patient and physician distress. Further results will be presented, critically interpreted, and discussed, with attention to ethical implications and challenges. **Conclusion:** The literature on IFs in EDs focuses too narrowly on frequency, with ad hoc suggestions for practice, research, and policy changes to improve the ethical management of IFs. Numerous factors, including crucial knowledge gaps, contribute to inadequate management of IFs arising in EDs. Research and ethics informed policy guidance is needed.

Keywords: ethics, incidental findings, literature review

P083

Demographic characteristics of people experiencing homelessness presenting to emergency departments

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Introduction: Despite the visibility of the homeless population, there is limited data on the information of this patient population. Point-in-time counts and survey data from selected samples (such as those admitted to emergency shelter) have primarily been used. This literature suggests that this hard-to-reach population has high rates of presentation at emergency departments (EDs), and as such, EDs often become their main point of contact for health and social services. Leveraging this fact and administrative data we construct a crude census of homeless persons within Ontario. We further examine demographic characteristics of patients experiencing homelessness, and compare this data to findings from previous literature. **Methods:** All routinely collected administrative health data from EDs located within Ontario, Canada from 2010-2017 were analyzed to examine patient characteristics. Individuals experiencing homelessness were identified by a marker that was adopted in 2009 replacing their recorded postal code with an XX designation. s. Aggregating by LHIN, date and week of year, we examine the overall number of patients experiencing homelessness and number by LHIN location and seasonality. Demographic outcomes examined include age and sex. **Results:** 640,897 visits to the ED over 7 years were made by 39,525 unique individuals experiencing homelessness. Number of ED visits has steadily increased over 10 years in all of Ontario, despite decline in shelter use for individuals. Presentations were concentrated in large urban centres like Toronto, Ottawa and Hamilton. Fewer presentations occur in the spring and summer months and rise in the winter. Male patients presented older and in greater numbers than female patients. The modal female age of presentation is in the 20-24 age category. The modal male age of presentation is in the 25-29 age category. Older male patients were more likely to have multiple presentations. **Conclusion:** The utilization of administrative health data offers a novel, cost-effective method to measure demographic characteristics of people experiencing homelessness. Identifying characteristics of homeless patients through this method allows for a more complete understanding of the characteristics of a hard-to-reach population, which will allow policy makers to develop appropriate services for this sub-group. Furthermore, through analysis of trends of demographics over time, changes in the homeless population can be tracked in real-time to allow for coordination and implementation of services in a time-sensitive manner.

Keywords: data, demographics, homelessness

P084

Hard-to-reach populations and administrative health data: a serial cross-sectional study and application of data to improve interventions for people experiencing homelessness

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Introduction: Administrative data can aid in study and intervention design, incorporating hard-to-reach individuals who may otherwise be poorly represented. We aim to use administrative health data to examine emergency department visits by people experiencing homelessness and explore the application of this data for planning interventions. **Methods:** We conducted a serial cross-sectional study examining emergency department use by people experiencing homelessness and non-homeless individuals in the Niagara region of Ontario, Canada. The study period included administrative health data from April 1st, 2010 to March 31st, 2018. Outcomes included number of visits, number of unique patients; group proportions of Canadian Triage and Acuity Scale (CTAS) scores; time spent in emergency; and time to see an MD. Descriptive statistics were generated, and t-tests were performed for point estimates and a Mann-Whitney U test for distributional measures. **Results:** Our data included 1,486,699 emergency department visits. The number of unique people experiencing homelessness ranged from 91 in 2010 to 344 in 2017, trending higher over the study period compared to non-homeless patients. The rate of visits increased from 1.7 to 2.8 per person. People experiencing homelessness tend to present later in the day and with higher overall acuity as compared to the general population. Time

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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

P085

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 harm.
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,

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