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Understanding health equity: a pilot project to collect socio-demographic information on emergency department patients at registration

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Introduction: There is strong evidence that socio-economic factors such as income, housing and ethnicity are linked to health outcome disparities for emergency department (ED) patients. However, lack of real-time patient data has limited our ability to identify, understand and address health disparities. During a 14-week period, we assessed the feasibility and acceptability of the systematic collection of patient-level equity data in a busy tertiary care urban ED. **Methods:** We assessed feasibility by directly observing impact on registration time, percentage of patients on which data was collected, and ambulance patient data collection. We also assessed acceptability to patients, registration staff and clinicians through structured interviews of patients systematically sampled, focus group and surveys of registration staff and survey of clinicians. **Results:** Over the course of the study, equity data was collected on 2017 patients. Capture rate peaked in week 7 with 51% of eligible patients offered the equity questions and 30% answering. Average patient registration time increased from 215 seconds to 345 seconds (60%). Data collection with ambulance patients did not appear feasible. Patients (n = 30) reported being comfortable with most questions except income (47% comfortable). 93% believed it could improve health services. However, a small number of patients voiced concern that the data could result in discrimination. Registration staff required sustained support and engagement, but some continued to feel uncomfortable with offering the questionnaire to some patients.

Conclusion: Large scale collection of equity data is feasible but requires additional resources and sustained staff and patient support. Patient participation rate is likely to remain relatively low and is likely to underestimate disadvantaged groups. Data collection at multiple points within an institution may improve capture rate.

Keywords: administration, equity, health policy

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Emergency department length of stay for alcohol intoxicated patients presenting with head injury

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Introduction: Excessive consumption of alcohol is associated with harm and responsible for up to 30% of emergency department (ED) visits. ED visits and length of stay (LOS) related to alcohol intoxication have increased over the last decade. The objective of this study was to compare the ED LOS of alcohol intoxicated and non-alcohol intoxicated patients presenting to the ED with acute head injury. **Methods:** This was a nested cohort analysis of patients screened for enrollment in a randomized controlled trial assessing minor traumatic brain injury (MTBI) discharge instructions in the ED of an academic tertiary care hospital (annual census 65,000). Patients aged 18 to 64 years presenting to the ED with a Canadian Emergency Department Information System (CEDIS) chief complaint of a head injury or suspected concussion occurring within 24 hours were eligible for study inclusion. Patients were identified as acutely intoxicated by their treating clinical providers. ED LOS for patients acutely intoxicated and those not intoxicated was compared using a Mann-Whitney U test using the Hodges-Lehmann method. Proportional differences were assessed using chi-square statistics. **Results:** A total of 164 patients were included in the analysis, 46 (28.0%) intoxicated and 118 (72.0%) not intoxicated. Median (IQR) ED LOS was 2.9 (1.5, 6.6) hours for intoxicated and 1.8 (1.3, 2.9) hours for non-intoxicated patients (Δ1.1 hours; 95% CI: 0.4, 1.8). Arrival by ambulance was higher in the intoxicated (73.9%) compared to the non-intoxicated (29.7%) group (Δ44.3%; 95% CI: 27.6, 57.1). Patients were more likely to have experienced assault in the intoxicated (34.8%) compared to the non-intoxicated (6.8%) group (Δ28.0%; 95% CI: 14.5, 42.8). There no difference in the proportion of patients who arrived after daytime hours, had a brain computed tomography, received analgesia in the ED, had another traumatic injury or had a history of psychiatric illness. **Conclusion:** One third of patients screened for a randomized controlled trial for MTBI were deemed ineligible for study inclusion due to acute alcohol intoxication. Alcohol intoxication was associated with prolonged ED LOS. Future studies specifically aimed at identifying factors that impact care on this frequent ED patient population are needed.

Keywords: length of stay, alcohol intoxication, head injury

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Measuring health-related outcomes: is social desirability bias an issue we should be exploring while conducting emergency department research?

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Introduction: Social desirability bias is a systematic error in self-report measures resulting from the desire of respondents to avoid embarrassment and project a favourable image of themselves to others. This bias may decrease the accuracy of self-reported health outcomes collected in health research compromise the validity of research findings. This study compared outcomes obtained by patient self-report vs. the same outcomes after undergoing verification and external adjudication, in trial involving patients with acute asthma. **Methods:** Cross-sectional analysis of outcome data obtained in a randomized controlled trial conducted in 6 Canadian emergency departments (ED). Adult patients were allocated to receive usual care (UC), opinion leader [OL] guidance to their primary care provider (PCP), or OL guidance + nurse case-management [OL + CM] for patients (NCT01079000). Asthma relapses and PCP follow-up visits were blindly assessed through patient self-report 30 and 90 days after their ED presentation for acute asthma. Each reported event was verified **through the provincial electronic medical record, the ED Information Systems, and by calling the PCPs' offices**. Two study investigators, blinded to the study interventions, independently reviewed and adjudicated the verified outcomes. Disagreements were resolved by consensus prior to un-blinding. **Results:** Overall, 367 patients were enrolled; more were female (64%) and the median age was 28 years. Overall, patient follow-up was obtained in 85% of cases. The proportion of asthma relapses occurring within the first 90 days were lower when considering patient self-report than when considering the adjudicated outcomes (17%[39/227] vs. 19%[70/367]). The proportion of PCP follow-up visits occurring within the first 30 days were higher when considering patient self-report than when considering the adjudicated outcomes (47%[139/290] vs. 40%[146/367]). The pattern was similar, regardless of the arm of the study (UC vs. OL vs. OL + CM arms); outcome disagreement did not influence the direction of magnitude of the treatment effect. **Conclusion:** Social desirability bias could have influenced the outcomes obtained by patient self-report in this