Investigations ordered for patients with and without an intellectual or developmental disability (IDD) in the emergency department

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Dear Editor,

A large body of research has shown that adults who have an intellectual/developmental disability (IDD) experience poorer health [1] and premature mortality [2] compared to non-disabled adults. Patients with IDD have also been shown to utilize emergency rooms at higher rates than patients without disabilities and to have a greater rate of repeat visits [3]. It is crucial therefore that we understand how having an IDD could potentially influence the standard of care that patients receive in emergency departments.

To examine this issue, we are conducting retrospective chart reviews of adults visiting emergency departments in the Eastern Health region of Newfoundland and Labrador who present with a complaint of abdominal pain. Charts were examined with the goal of comparing rates of investigations (bloodwork, diagnostic imaging, and urine testing) ordered between patients with IDD and those without IDD. Abdominal pain was selected as an appropriate presentation through which to make this comparison because the population with IDD has high rates of gastroesophageal reflux disease, constipation and the occurrence of helicobacter pylori [4]. Additionally, for patients with IDD, gastrointestinal problems have been associated with increased emergency department utilization [5].

To-date, data have been gathered from a total of 2415 emergency department charts. Thirteen charts were

positively identified as belonging to patients with IDD. This equates to 0.54% of the total sample. Of the IDD group, 100% had bloodwork ordered, 69.23% had imaging ordered, and 61.54% had urine testing ordered. Of the non-IDD group, 86.42% had bloodwork ordered, 73.17% had imaging ordered and 60.41% had urine testing ordered.

When analyzed using multiple logistic regression, with age and sex held constant, these preliminary results have not shown significant differences between the IDD and the control group with regards to any of the three kinds of investigations, although there were some trends, for example imaging was somewhat less likely to be ordered for patients with IDD. In some ways, this lack of a significant difference is reassuring as there was no evidence found that patients with IDD are receiving less comprehensive workups than other patients. However, it could be argued that given their propensity for chronic disease and increased challenges in obtaining accurate medical histories, these patients should be investigated more rigorously than the general population. There are several reasons to think that patients with IDD may benefit from receiving more investigations.

This study is highlighting the challenges in obtaining accurate and informative data on IDD patients visiting emergency departments. Care should be taken to obtain accurate information for IDD patients in order to improve their health care and reduce this population's use of emergency services. More research is needed to uncover whether under-recognition of IDD is playing a role in their health care and how large that effect might be. An additional future avenue for research is to determine if the investigations ordered for patients with IDD at initial influences their rate of repeat visits.

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Author contributions All authors contributed to the study conception and design. Data collection and analysis were performed by NEM. The first draft of the manuscript was written by NEM and all authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

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Code availability This project was completed using publicly available applications and packages of R.

Declarations

Conflict of interest The authors declare that they have no conflict of interest.

Ethics approval This project was approved by Memorial University of Newfoundland's Health Research Ethics Board (# 2020.306) and by Eastern Health's Research Proposal Approval Committee.

Consent to participate Not applicable.

Consent for publication Not applicable.

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