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Title	Association of material deprivation with discharge location and length of stay after inpatient stroke rehabilitation: a retrospective, population-based cohort study.
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Reviewer 1	Reviewer: 1 Dr. Herbert Manosalva Alzate
Institution	University of Alberta Faculty of Medicine and Dentistry, Neurology
General comments (author response in bold)	Clarify if in the Covariates were considered Stroke Severity, Premorbid cognitive status,variables that may influence the final strokeoutcome. **Thank you for the comment. Unfortunately, thesedata are unavailable at ICES. Although ICES does not contain stroke severity data, we were able to include admission FIM which is a measure of disability level at the time of rehabilitation** **admission.** Most important and most worrisome in the conclusions was found that younger patients were found in the most marginalized areas and received fewer treatments of thrombolysis as compared to the least marginalized group (p=0.011). Could you include the confidence interval and try to offer an explanation why these young patients had less access for treatment. One important clue is to do an investigation about the location of primary stroke centers in the marginalized area discriminating the least from the more affected. Could you include this in your study? Other important clue is to find the availability to the location of a comprehensive stroke center able to offer thrombectomy. This became the standard of care for patients that suffered strokes due to large vessel occlusions (after the randomized controlled trials ESCAPE, SWIFT PRIME, REVASCAT, EXTEND IA, MR CLEAN done in 2014). Because the registry included patients from 2015 and 2016, it is worthy to mention it. **These are excellent points. Although the aim of this particular study was not to investigate the impact of SES on the provision of acute care services, we added a sentence regarding potential future directions in the conclusion (lines314 – 315). Also, you may find the following papers of interest:** 1. **Bray BD, Paley L, Hoffman A, et al. Socioeconomic disparities in first stroke incidence, quality of care, and survival: a nationwide registry-based cohort study of 44 million adults in England. Lancet Public Health.2018;3(4):e185-e193.** 2. **Ader J, Wu J, Fonarow GC, et al. Hospitaldistance, socioeconomic status, and timelytreatment of ischemic stroke. Neurology. 2019;93(8):e747-e757.** 3. **Huang K, Khan N, Kwan A, Fang J, Yun L, KapralMK. Socioeconomic status and care after stroke: results from the Registry of the Canadian Stroke Network. Stroke. 2013;44(2):477-482.**
Reviewer 2	Reviewer: 2 Dr. Christina Loitz
Institution	Alberta Health Services, Healthy Living
General comments	The background section is accurate. Would it bepossible to stay within the

(author response in bold)	word parameters of CMAJ and further contextualize the study to theOntario health system (2012 to 2017)? **Thank you for the comment. We considered adding this, but, ultimately, did not find that itconnected to our outcomes of interest.** The author touches on why the study wasconducted. It may help frame the manuscript further, if more information on the impact of time spent in hospital's has on rehabilitation success and the health care system is explore further. **We are unsure whether we correctly understand the reviewer's comment. LOS is not necessarily considered a measure of rehabilitation success. Change in function (for example, measured as FIM change) or return to the community (as opposed to LTC) would be better measures of success. Several factors may affect LOS. As mentioned in the introduction, we postulated that SES would be associated with discharge destination and given the long wait lists for LTC, itwould impact LOS.** The 2011 ON-Marg was used rather than the2016 ON-Marg. Including the rationale and potential implications of this would provide further transparency. **When re-reading the text, we can appreciate howthis was unclear. Given our observation period, we used BOTH the 2011 and 2016 ON-Marg. The 2011 version was used for individuals admitted between 2012 and 2013 while the 2016 version was used for individuals admitted in 2014 or later. We re-worded this section and added a reference to the 2016 ON-Marg to hopefully make this clearer.** The findings are relevant to health care systems planners and rehabilitation hospital operations. Examining some alternates to extratime in hospital to support a successful rehabilitation and transition home/ care wouldimprove the manuscript. **We agree that the findings should be relevant tohealth care system planners and rehabilitation hospitals. Although we did not examine this in our study, a future study could consider looking at the association between SES and access to community-based services and early supporteddischarge programs.**