Author’s response to reviews

Title: A cross-sectional study examining convergent validity of a frailty index based on electronic medical records in a Canadian primary care program

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Technical Comments:

1) Please remove the Declarations section from after the Abstract.

This was removed as directed.

2) Authors contributions: Please list the exact contribution of each author here. Please identify authors by their initials.

We have added exact contribution of each author as below:

“MA, SK, JD conceived the work, designed the methodology, and drafted the paper. JD collected the data and calculated the eFI; SK calculated the FI-CGA. Data analysis guidance for the FI-CGA was provided by OT, and BV performed the statistical analysis. DR and AC revised the manuscript for important intellectual content. All authors provided the final approval of the version to be published and agreed to be accountable for all the aspects of the work in ensuring that questions related to the accuracy and integrity of any part of the work are appropriately investigated and resolved.”
3) Competing interests: Please state here that Olga Theou acts as Associate Editor on the BMC Geriatrics Editorial Board.

This was added to the competing interests:

“Competing interests: AC developed and validated the electronic frailty index in the United Kingdom. OT acts as Associate Editor on the BMC Geriatrics Editorial Board. Other authors declare that they have no competing interests.”

Reviewer reports:

Dae Kim, MD, MPH, ScD (Reviewer 2): This is a revised manuscript that reports validation of EMR-based frailty index (eFI) in a primary care practice in Canada. The authors adequately revised the manuscript in response to the previous comments. In particular, they clarified in the methods (page 2, eFI paragraph) that the eFI was calculated based on the manual review of all available information in their EMR, which was different from how the original eFI was calculated in the UK (i.e., from claims data). Nonetheless, it is worthwhile to remind that the rationale for the eFI development is to improve case identification for frail older adults without use of additional resources (this was stated in Clegg 2016 Age and Ageing paper). The current eFI calculation relies on labor-intensive review of medical records, which defeats the fundamental purpose of eFI calculation. This should be added to the limitations.

We agree with the reviewer’s comment. This was added as a limitation in the discussion section:

“Another important limitation of this study was that the eFI calculation relied on labour-intensive review of medical records, which defeats the fundamental purpose of the eFI for rapid frailty case-finding in primary care. Since much of the data is in narrative/open text form in Canadian Primary Care EMRs, innovative technologies in computer science such as Natural Language Processing and Machine Learning could facilitate the future automation of the eFI in primary care.”