Reviewer's report

Title: Frail-VIG index: a concise frailty evaluation tool for rapid geriatric assessment. Results of a 24-months prospective follow-up

Version: 1 Date: 22 Nov 2017

Reviewer: Thomas Brothers

Reviewer's report:

I had the pleasure of reviewing this Research Article, which evaluated the construct and predictive validity of a novel frailty index based on a comprehensive geriatric assessment (CGA), dubbed the "Frail-VIG". The authors found that, among 590 inpatients admitted to a Spanish geriatrics acute care ward, the Frail-VIG appropriately reflected the characteristics of frailty indices developed in other settings and could discriminate risk of mortality at 24-months.

Major strengths of this study include its relatively large sample size and its use of prospectively collected clinical data.

Limitations of this study include reporting around methodology.

Overall, I feel this paper includes valuable data that may help advance the implementation of frailty assessment into clinical practice. I have a few suggestions that I hope might improve the manuscript.

Major issues:

1. Overall:

I feel like the relationship between the CGA and the Frail-VIG could be made clearer - is this data already being collected as part of a CGA, and then tallied to calculate the Frail-VIG? Or is it being collected outside the standard clinical CGA process? If the NECPAL tool is already being collected, why not use that data as well in the Frail-VIG? Is the NECPAL tool use separately from the standard clinical CGA process?
2. Abstract, Conclusions:

I feel that the Conclusions presented in the Abstract do not necessarily reflect the conclusions of the paper. It may well be true that the Frail-VIG has a more rapid administration and better predictive capacity than other frailty measurement instruments, but neither of these were the objectives or findings of this study. Please consider re-writing the abstract conclusions to more closely reflect the study's objectives and principal findings.

3. Methods, page 7, lines 166-167:

The authors describe that the Frail-VIG contains "only 22 questions", yet the Barthel Index is one of the variables. Depending on which version is used, the Barthel Index itself is comprised of 10 questions. Wouldn't this make the Frail-VIG contain at least 31 questions? Or is the Barthel Index already being collected separately on every patient? Please consider clarifying.

Specific comments:

4. Methods, page 8, lines 188-190:

I commend the investigators for attempting to capture a patient's baseline frailty level, prior to their acute illness.

5. Methods, page 8, lines 190-193:

Regarding variable scoring, the authors state that variables are scored as 1 or 0 with the exception of the NECPAL test. In Table 1 it appears that the ADL variable is scored out of 3 and cognition is scored out of 2. Please consider clarifying.

6. Methods, page 9, lines 204-206:

The groups of FI severity seem to be defined by those values that can be rounded to the nearest 0.1 groupings. Were these groups pre-specified before the analysis was conducted? Or determined post-hoc because they allowed for a clear separation in survival curves? Please consider clarifying in the text of the manuscript.
7. Results, page 11, lines 252-253:

Was time of administration of the Frail-VIG measured or reported in a systematic way? Please consider providing more information on how administration time was measured.

8. Discussion:

There is an existing literature on previous studies that combined the variables in a comprehensive geriatric assessment to make a frailty index. I suggest that you consider engaging with this literature in the discussion section of the manuscript. These studies are reviewed in:


A selection of such studies in hospitalized, acute care patients, includes:


Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Unable to assess

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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