Reviewer’s report

Title: Relative importance of four functional measures as predictors of 15-year mortality in the older Dutch population

Version: 0 Date: 30 Oct 2018

Reviewer: Soham Al Snih

Reviewer's report:

Overall

- Note about data presentation (Page 12 line 54-55) should be included in methods section

- According to the method section, only those with p<0.1 needs analysis with stratification for sex, which means that those with no interaction did not need stratification. Please justify why at the end all measures were further analysis were stratified by sex. (page 15 line 1-5)

- Please mention the statistical value of each result in the last paragraph (page 15 line 35-45)

You may want to highlight the result that Lower body performance is better predictor for woman.

Typo in page 15 line 22 should be HR

Some explanations were unclear Please explain what is model 1 and what is model 2. Please highlight the difference between results in model 1 and model 2 for both men and woman.

- Table 3 and 4:

the notes should be incorporated into the table for easier reading. For example: lower body performance (0-12), men teritel 1 (0-7), tertile 2 (8-9), tertile 3 (10-12), etc.

please explain in the text how did those confounders in model 2 were considered relevant to be included in the model.

-figure 1 and 2: please explain what di you mean by separate model and combined model
Comments for Discussion

Please describe the relevant confounders on page 15 line 57

Page 16 line 10-12 "these remaining as the only significant predictors…” please confirm what did it remain from (i.e. remains after adjusting to what factors?

Please explain how do the peak flow with least correlation with the others turns out to contribute the most in predicting mortality (page 16 line 20-25)

Page 16 line 38-43: Excellent! you pointed out the importance of your study (difference observed for men and women) Please highlight this and elaborate more.

Page 17 line 3-9: please explain how grip strength may relate to the mortality.

Page 17 line 16-25: very good! You have explain well hoe peak flow may relate to mortality.

About the strength of your study: Don't forget to add the comparison between genders as one of your strength (page 17 line 38-39)

About the limitation of your study: Pease mention the limitation related to the bias of a retrospective cohort study. (page 17 line 43-45)

Future study (page 17 line 55-59): future study may be done to developed scoring system to predict mortality from your findings.

Overall, the discussion part contains important information but the information seems scattered. My suggestion is for the discussion to focus first on comparing the prediction values of the measures in men vs women (which I think is one of the most important finding in the study). Then, the discussion is followed by discussing the result of each measures; Group the information (comparison of your result vs previous result) according to each measures (e.g. one paragraph about each peak flow, lower body performance, hand grip strength and self-reported functional limitation).

Comments for Conclusion

The first sentence contained several grammatical errors, please apply some correction.

What did you mean by "relatve contribution model"
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.

Yes

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

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Please indicate the quality of language in the manuscript:

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