Reviewer’s report

Title: The predictive validity of three self-report screening instruments for identifying frail older people in the community

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Reviewer: Ivan Bautmans

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This manuscript describes a prospective study investigating the capacity of 3 frailty scales to identify elderly community-dwelling persons prone to develop disability, hospitalization or mortality within 1 year. The results might be improve our insights regarding the interpretation of the scores on the frailty scales. Although there are some language issues, the paper is well written. There are, however, some issues that need further clarification or elaboration in order to allow adequate appreciation of the importance of the results reported.

-Major Compulsory Revisions

--Design & participants: From the information on page 4, it seems that all patients consulting one out of four GP’s within the period Nov 2008 and April 2009 were invited to participate and received questionnaires. The authors should reflect on the sampling bias related to this recruitment strategy. Were any exclusion criteria used? What is the risk that elderly persons presenting cognitive impairments participate in the study, thus affecting the validity of the self-reported data?

--Treatment & blinding: The study might have been biased due to treatments that the participants received (or did not receive) during the follow-up period, thus influencing the occurrence of changes in independency. In addition, the authors should report whether the recruiting GP’s were informed about the outcomes on the frailty questionnaires, which might have influenced their clinical decision making.

--Statistical analysis: On page 6, the authors state that the “case mean substitution” technique was used to impute missing data at baseline on GFI, TFI and SPQ. Since this method imputes data based on the mean score of the remaining (available) items in the questionnaire of that case, it is questionable whether this method is appropriate for the frailty scales (GFI, TFI & SPQ) with mainly dichotomous scores on the items (yes/no). The authors should also report how many cases showed missing data at each assessment.

--Loss to follow-up: 25 subjects were excluded because they were admitted to a nursing home or because their questionnaire was filled-in by another person (page 7). Its seems not a problem to me for gathering questionnaire based information from a subject that lives in a nursing home, nor when the questionnaire is filled-in with assistance from a close relative. The authors should motivate the reason for excluding these data.
More detailed information regarding the origin and type of change in disability level is needed in order to appropriately appreciate the clinical implications of the predictive values of the frailty scales under study. Also, it remains unclear for me why a GP would either undertake extensive assessment of elderly patients presenting signs of frailty or feel that this is burdensome. The authors should consider the possibility that elderly patients show frailty characteristics, and, despite of this, remain fairly stable during a 1-year period regarding physical independency.

**Level of interest:** An article of importance in its field

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have no competing interests.