Reviewer’s report

Title: Age, gender and disability predict future disability in the elderly: the Rotterdam Study

Version: 1 Date: 9 September 2010

Reviewer: Ching-Yi Wang

Reviewer’s report:

This study examined an important question in the field of health care and disability prevention for the elderly and has its merit in providing a prognostic model for clinical use. In general, the writing is clear, concise, and acceptable. The title and abstract do accurately convey what has been found. The manuscript adheres to the relevant standards for reporting and data deposition. Limitations of the work have clearly stated. The authors have acknowledged the relevant works upon which they are building. The discussion and conclusions are well balanced and adequately supported by the data currently presented.

A few Discretionary and Minor Essential Revisions suggestions were listed as follows.

Introduction
1. The question posed by the authors is well defined. Just one recommendation, could the authors elucidate the differences between the predictor and the prognostic factors or the advantages of using one another? (Discretionary Revisions).

Method, Data Analysis
1. The predictors might be different for those whose disability status was “getting better”, “staging the same”, or “getting worse” between the baseline and six-year follow up and thus deserve to be examined separately. Could the authors also provide the proportion of people whose disability status was “getting better”, “staging the same”, or “getting worse” between the baseline and six-year follow up? (Minor Essential Revisions)
2. Please add the rationale for including those whose disability status was “getting better” or “staging the same” in the data analysis for this study. (Minor Essential Revisions)

Results
1. In the last sentence of the second paragraph of “Predictors”, it said “The AUC of the basic...0.83, 0.67, 0.81, and 0.81,...0.85, .0.69, 0.82, and 0.83...,” respectively.” There were four AUCs reported. I though there should be three AUCs for all pair-wised comparisons (between the “able” and all other three groups) for each the basic and extended model. The first AUC (0.83, 0.85) reported can not found in table 2 as well. Please clarify this. (Minor Essential Revisions)
Revisions)

Discussion

1. The results of this study found that “age” and “prior disability” were the two strongest predictors of disability status at six years later. However, as the authors noted that age is not modifiable and prior disability can not guide intervention or prevention program. The modifiable predictors for those whose disability status was “getting worse” or “getting better”, between all paired group conditions (no disable, mild disable, severe disable, and death), might be leading different intervention strategies for people at different stages of disability. May be for future studies? (Discretionary Revisions)

2. Could the authors elucidate the advantages of including all participants with different disability status at baseline but rather than including those who were disability free only at baseline in this analysis? (Discretionary Revisions)

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.