Reviewer's report

Title: An exploration of risk for recurrent falls in two geriatric care settings

Version: 2 Date: 4 August 2013

Reviewer: Kilian Rapp

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The study analyses variables which predict recurrent falls in people who fall. Two different settings were used: a in-patient rehabilitation unit and a long stay veterans’ unit. Analyses were performed for both settings separately, but for the main analysis data of both settings were combined (probably due to low power of the database). The authors concluded that age and time of the day of the first fall were associated with repeated falls.

Major Compulsory Revisions

It remains unclear how the outcome variable (repeated falls) was defined. Which time period was chosen? One week, one month, one year – or was it each person’s individual observation period? It seems that the latter was the case. However, an increasing observation time increases also the risk of a subsequent fall. Therefore, it is very problematic to compare persons with different observation periods, particularly in two settings in which the mean (median?) length of stay is completely different (40 days vs. 714 days). Furthermore, it is problematic to combine data of such different settings and different mean (median?) age and gender distribution within one analysis. The bivariate analysis (Table 3) is clearly driven by this fact.

My suggestion is to define exactly how a repeated fall is defined and to handle all participants in the same way. Furthermore I would present the analyses only stratified by setting.

Minor Essential Revisions

The Tables can be improved considerably:

Table 1: Headline: All participants or only fallers?
Add %, mean (or median), SD (IQR).

Table 3: Headline: in both units?
Percentages should be summed to 100% in the row and not in the column.
It is not completely clear which category serves as reference category. Add ‘Ref’ or 1.00 as estimate.

Tables 4: Headline: in both units?
Tables 4-6: the columns B, S:E, Wald, df, Sig. are not needed in the table.

The Introduction is well written.
Discussion: why do you think are specific periods of the day in which the first fall occurred associated with repeated falls?

**Level of interest:** An article of limited interest

**Quality of written English:** Acceptable

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

**Declaration of competing interests:**

'I declare that I have no competing interests'