Reviewer's report

Title: Mining geriatric assessment data for in-patient fall prediction models and high-risk subgroups

Version: 1 Date: 7 November 2011

Reviewer: Alexander Horsch

Reviewer's report:

The article addresses the difficult problem of fall prediction in elderly. It presents a study on a large cohort of more than 5000 subjects. The results basically confirm findings of other research groups. Two different classifiers, decision tree and logistic regression, are compared, achieving similar accuracies (55.4% vs. 63.5% detection of fallers, 67.1% vs. 55.4% detection of non-fallers). Furthermore, high risk groups are identified.

This is excellent work! Research questions are clearly posed. The applied methods are well suited for the study, and the comparison of two very different types of classifiers is of special interest. The data used in the study appear to be sound, missing values are clearly reported, conformant to relevant standards. The authors discuss their study methodology and the results objectively, comparing it thoroughly with published evidence. They clearly state and reflect on the limitations of their study. Work of others is acknowledged carefully. Title and abstract are suitable. The writing of the article is excellent.

Therefore I recommend to accept the article for publication after two discretionary revisions of Table 1: the percentages of missing values should be given with one decimal digit; the entry "0-19" for Lachs score should be explained, e.g. by a footnote.

Munich, 7 November 2011
Alexander Horsch

Level of interest: An article of importance in its field

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 do not have any competing interests.
Alexander Horsch, Munich, 7 November 2011