Reviewer's report

Title: Patients' functioning as predictor of nursing workload in the acute hospital: a multi-centre cohort study.

Version: 1 Date: 9 May 2010

Reviewer: Susmita Datta

Reviewer's report:

It is a well written and interesting research topic and a nice application of LASSO. However, the authors should address the following comments.

Minor Comments:
1) Spelling of co-linearity should be changed to collinearity.
2) All the Tables and figures should be included while describing the results.

Major Comments:
1) "If the t-test was not significant on the 0.2-level" in Step 2, Page 13 why is the significance level so high here? Is this alpha or false discovery rate after multiple hypotheses correction for all the covariates (ICF variables)?
2) How were the five imputation datasets constructed? Why 5 imputation datasets and why not 6?
3) Authors have selected 16 ICF variables out of 45 ICF variables after doing t-test for significant associations and then used LASSO on those 16 ICF categories, which is strange. As they have used LASSO correctly to include numerous covariates with collinearity why not use them on all 45 ICF variables? If they pre-screen variables with t-test they automatically assume that the covariates are independent which are definitely true in this case. So authors are advised to use all 45 ICF variables at the same time.
4) I would comment similarly on the Barthel Index as well.
5) Authors must plot the fitted value vs. observed value for the sum of the LEP variables to see the accuracy of the fit.

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 have no competing interests.