Reviewer's report

Title: The impact of performance status and comorbidities on the short-term prognosis of very elderly patients admitted to the ICU

Version: 3 Date: 1 June 2014

Reviewer: Hayley Gershengorn

Reviewer's report:

Zampieri and Colombari have done a very complete job in responding to both my concerns and those of my co-reviewer. I have two remaining comments:

1. I worry that comparing the calibration, goodness of fit, and discrimination of the new model (including PS, comorbidities, code status, and SAPS) to that of SAPS in this dataset is potentially flawed. The new model was constructed on this dataset but the SAPS score was not. The fit of the new model will, almost by definition, I believe, be better on this dataset, therefore. The more “correct” way to compare the fitness characteristics of the new model and the SAPS score would be to compare them both using a third, entirely independent, dataset. I would ask that the authors at the least address this issue in the limitations section of the discussion section.

2. In the last paragraph of the results section, the authors provide the results of the sensitivity analysis suggested by my co-reviewer excluding patients with non-full code status. The plan to conduct this sensitivity analysis should be mentioned in the methods section.

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:

none