Reviewer’s report

Title: The current application of the Royston-Parmar model for prognostic modelling in health research: a scoping review

Version: 1 Date: 18 Dec 2017

Reviewer: Willi Sauerbrei

Reviewer's report:

The new version has much improved and only some less critical points remain.

1) Ref 41 has P Royston as a co-author. Just state whether any of the other 12 papers (not all have the full author list) has any of the developers (Lambert, Royston, Parmar, p 11, l252) as a co-author. Could be done in Table 1 but a sentence in the text could be sufficient.

2) L 393. I am confused about this sentence. Estimates change when you allow non-proportionality. Please re-phrase.

3) Your 'reporting recommendations' concentrate on the spline part (baseline) whereas the regression part and other issues are completely ignored. I agree that other parts are well handled in the TRIPOD and REMARK guidelines (l 470, refs 3, 45) but you need to better 'combine' these general guidelines with your proposal to report the spline part. Some subheadings could help.

4) Your reporting part is also mixed with proposals for analysis. Is there any evidence for your proposals? Guidance would be most helpful but it needs to be based on empirical evidence. Please restructure the long discussion, consider subheading and whether deletion of some parts improves the paper.

5) I welcome the extension of Table 2. However, reporting guidelines clearly express the importance of providing information about the number of variables investigated, not only the number of variables in the final model. Please add this information.

Level of interest
Please indicate how interesting you found the manuscript:

An article of importance in its field

Quality of written English
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