Reviewer’s report

Title: A Systematic Comparison of Recurrent Event Models for Application to Composite Endpoints

Version: 0 Date: 22 Oct 2017

Reviewer: Yishu Wei

Reviewer's report:

It is pretty easy to follow and gives good explanations of problem of interest. The topic is very meaningful and is a good guideline in practice.

1. Could BIC being provided in supplementary material to give a rough idea of how different models performs

2. Is there any real data application?

3. In simulation result PWP is pretty similar to AG, which is mentioned in P14/Line4-20. However the explanation and result seems still not too convincing, since the difference is small, especially compared with standard deviation. Is it possible to come up with some simulation which will further differentiate these two approaches? Especially since P14/Line22-24 recommend PWP in general.

4. The bias for all three methods in setting 3a-3e is larger, is there any explanation for this? Since 5000 datasets are simulated in each setting, is it because 200 patients are too small size?
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

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