Reviewer's report

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

Version: 0 Date: 07 Sep 2017

Reviewer: Michael Szarek

Reviewer's report:

This is a relevant topic for clinical trials in many disease settings however the authors should consider modifying the simulation scenarios so that they are more relevant to trials with composite endpoints that occur in a subset of subjects under study. Specifically, In many studies that have a composite endpoint consisting of a fatal event and potentially recurrent non-fatal event:

-- The nonfatal event often consists of several distinct but related events, e.g., in the CV disease setting, MI, stroke, unstable angina, coronary revascularization, etc.

-- The fatal event is often a subset of all cause death, e.g., CHD death or CV death. So the deaths that are not part of the composite are a competing risk.

-- The risk of the recurrent nonfatal event is orders of magnitude higher than the risk of the fatal event.

-- The experimental treatment is expected to reduce the risk of the recurrent nonfatal event more than the fatal event.

Examples of the above points:


The authors should modify their methods and discussion to be more relevant to settings that are most applicable to the motivation behind their work.
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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