Reviewer's report

Title: Direct risk standardisation: a new method for comparing casemix adjusted event rates using complex models

Version: 3 Date: 12 October 2013

Reviewer: Craig Meyer

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1. Is the question posed by the authors well defined?
   Yes.

2. Are the methods appropriate and well described?
   Yes, the methods are now clear and very well described.

3. Are the data sound?
   Yes.

4. Does the manuscript adhere to the relevant standards for reporting and data deposition?
   Yes.

5. Are the discussion and conclusions well balanced and adequately supported by the data?
   Yes, the figures and examples have been improved. The authors have sufficiently addressed limitations of the previous manuscript.

6. Are limitations of the work clearly stated?
   Yes, authors have included limitations of the present work. A discretionary comment is provided below.

1. (D) The arguments in favor of DRS CMF have been tempered appropriately from the previous manuscript with the present evidence and examples. However, in the discussion section, the authors state they don't know in what circumstances indirect standardization should be rejected in favor of the DRS CMF and that this uncertainty can only be answered by a simulation study. Are they planning on conducting this simulation? If so, perhaps state that here. The new method could be most strongly advocated from evidence under controlled circumstances.

7. Do the authors clearly acknowledge any work upon which they are building,
both published and unpublished?
Yes, the authors have made a substantial improvement in citing previous work for comparability of these methods.

8. Do the title and abstract accurately convey what has been found?
Yes, the title and abstract are accurate.

9. Is the writing acceptable?
The writing is acceptable. There are a few typos that have been noted here.

1. (E) Page 3 in the background section, second paragraph, final sentence: Author's have written “There a numerous methods that can be used...”; I assume this should be “There are numerous methods that can be used...”

2. (E) Page 12, bottom paragraph, observed is misspelled observed

3. (E) Page 14, bottom paragraph, remove the extra word from this sentence. Author writes: “We do not not know to what extent...”.

Level of interest: An article whose findings are important to those with closely related research interests.

Quality of written English: Needs some language corrections before being published.

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of Competing Interests:
I declare that I have no competing interests.

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**Declaration of competing interests:**
I declare that I have no competing interests.