Reviewer’s report

Title: Tweedie Distributions for Fitting Semicontinuous Health Care Utilization Cost Data

Version: 1 Date: 08 Sep 2017

Reviewer: Seamus Kent

Reviewer’s report:

Thank you for your responses. I have picked up further on a couple of points below.

*GLM log-Poisson model*

I would disagree with the author regarding the suitability or unsuitability of the GLM log-Poisson model for cost data. First, cost data is essentially weighted count data. Second, Mihaylova et al. do not argue against Poisson-like models for costs as suggested in the response, but rather simply note that Poisson models and extensions of the Poisson model are widely used for count data. Third, it has been shown in a large number of comparison studies to have very good model fit in comparison to other commonly used models in cost data. I would suggest a stronger case against considering the Poisson should be made if it is not to be considered.

*Assessment of model performance*

I agree with the preference for RMSE over MSE and did not question this. Given that ME and MAE are widely used in the model comparison literature, I think a stronger case against using these should be made in the text if they are not to be further considered.

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:

Needs some language corrections before being published

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