Reviewer’s report

Title: Migraine day frequency in migraine prevention: longitudinal modelling approaches

Version: 0 Date: 04 Oct 2018

Reviewer: Alessio Gili

Reviewer's report:

The work is overall good and uses these methods for the study of side effects in clinical practice, with future and polyhedral applications (so far they had been applied only to road accidents, etc...).

I am also convinced that modelling data as continuous events rather than categorising data has many advantages, but exclude the Poisson model in its extension as proposed by Conway and Maxwell (1962) and elaborated by Shmueli et al. (2005) for its implementation to model Under- and overdispersed count data is a failure to heal both in the introduction and in the discussion. On the other hand, it would be advisable to introduce in addition to the "RMSE" also the "MAE" (Mean absolute Error" because the RMSE gives a relatively high weight to large errors: this means the RMSE should be more useful when large errors are particularly undesirable, but this will depend on the scope of the method.

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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