Reviewer’s report

Title: A computational method to quantitatively measure pediatric drug safety using Electronic Medical Records

Version: 1 Date: 14 Nov 2019

Reviewer: Edita Runjic

Reviewer's report:

Thank you for asking me to review this paper.

It emphasizes the important question about drug safety in pediatric population and proposes novel method for measuring the drug safety levels. Authors did a good job on presenting their method that could be helpful in addressing the problems of insufficient drug safety data.

Here are some points for the authors to consider:

I had trouble understanding rational behind drug clusters and associated diagnoses shown in table S1. Some diagnoses repeated through different clusters and there were inconsistencies with diagnoses in the same cluster (example: cluster NO 5 should be associated with pneumonia and there is Myocardial injury diagnosis associated with that group; cluster NO 7 should be kidney group and there is Acute upper respiratory infection diagnosis associated with that cluster, etc.).

Further explanation about process of obtaining drug clusters and list of drugs for each cluster could be useful.

There are some grammatical and language errors throughout paper.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

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

Unable to assess

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 recommend additional statistical review

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

Needs some language corrections before being published

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