Reviewer’s report

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

Version: 0 Date: 19 Sep 2019

Reviewer: Haitao Pan

Reviewer's report:

The topic is very interesting and needy. However, I have several concerns as follows.

(1) The authors detected drug-diagnosis associations from two EMR datasets, one from a children hospital and one from a general hospital. I cannot see the point of why the authors want to involve the general hospital. Since the different datasets with different drug-diagnosis matrices, it will generate different clusters. How to make fair comparisons based on different clusters? And, what kind of conclusions can be inferred from these analyses?

(2) The paper focuses on developing a quantitative drug safety level for pediatric population under the detected clusters. It it novel and conveys informative messages, however, the authors should not just show which cluster has more safety issue, but should at least try to explain/reveal the reason behind the scene; and also have some discussions about the possible approaches to improve the situations (for each cluster).

(3) The general hospital, Shanxi Dayi hospital, should also be approved by it local IRB.

(4) All figures are challenging to read due to low resolution.

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.

No

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

No

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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