Reviewer’s report

Title: Use of Natural language processing to improve predictive models for imaging utilization in children presenting to the Emergency Department

Version: 2 Date: 04 Nov 2019

Reviewer: Jiaping Zheng

Reviewer's report:

The authors addressed most of my initial concerns with the manuscript. One remaining question is about the baseline comparison. The authors added a discussion of a similar system that was developed for an adult population. It would be helpful to report the performance of this system using the same metrics like AUC as in the current study.

In addition, I think the wording of the sparse term cutoff point is confusing. It's clearer to explicitly say that words occurring less than 0.1% of the time are removed.

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.

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 am able to assess the statistics
Quality of written English
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Acceptable

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