Reviewer's report

Title: A Richly Interactive Data Visualization Tool for Cohort Studies Using Electronic Medical Records

Version: 3 Date: 30 May 2015

Reviewer: Zhen Zhang

Reviewer's report:

Major Compulsory Revisions

1. Please make the research question clear-- developing a visualization tool for exploratory analysis with the demonstration of its application? or evaluating the usefulness of this tool in clinical research?

2. The clearly stated research question will help determine the title as well. The current title "A Richly Interactive Data Visualization Tool for Cohort Studies Using Electronic Medical Records" makes it sound like the purpose of the tool is specifically for cohort studies, however, after reading the article, it seems that the tool is meant to be used to facilitate "exploratory analysis where the user may not have a well-defined hypothesis".

3. The article needs to be better organized by headings such as the motivation to develop the tool, the technical details of the tool, the end user interface of the tool, the validation of the tool, the application of the tool, and the evaluation of the tool.

Minor Essential Revisions

1. Please define terms used in the article: homogeneous subset, uniform subgroups, visual mining, visual rendering, human-curated visual evaluation, visual aggregation, time stage

2. Please explain more about how to understand the information displayed on those figures.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:
I declare that I have no competing interests