Reviewer’s report

Title: Design and evaluation of software for the objective and easy-to-read presentation of new drug properties to physicians

Version: 5  Date: 13 November 2014

Reviewer: Harry Hochheiser

Reviewer’s report:

This paper is improved, providing significantly more detail and clarity. I believe that the question is somewhat well-defined, the data and the approach are reasonably sound, and there are no fundamental difficulties. I still have several concerns, many of which might be addressed through appropriate edits and additional detail.

Major Compulsory Revisions

1. This work is built on the largely un-discussed premise that somehow distinct information systems are needed for new drugs. Although the need for education regarding new medications is indisputable, the workflow here seems somewhat troublesome. Specifically, I can imagine situations where users might use this tool to investigate a new drug, and then subsequently reject that option in favor of an older drug. They would then be forced to use a different resource to get detailed information about the older drug. Wouldn't users be better off with a tool that described all drugs? Why is this approach superior?

2. The details of the previous model that informs this work are not available. The authors should provide a description of the main points of this model. Doing so would help the paper illustrate the guiding points behind the design.

3. The design of the system seems potentially inefficient. Why couldn't the highlighted information be shown on the screen all at once, perhaps with controls for drilling down into separate areas? As is, requiring the user to press individual buttons for display of what is new, what other options are available, etc. seems cumbersome and slow. Please justify the design.
4. The evaluation is a bit puzzling. The claim is made that users estimated the time required to form an opinion about the potential of a new drug as being between two and 10 minutes. This seems comparable to the time required to read the two-page US labels described in the introduction. Is the proposed information tool superior to those labels in some demonstrable way?

Minor Essential Revisions

1. The acronym "SPC" is introduced in the abstract without any definition.

2. The description of related work seems to criticize drug fact boxes for being concise and brief. Why is that a problem? This seems puzzling, as I might imagine that those boxes could be a good comparison point for the proposed tool.

3. I found the design section hard to read. A table listing the design decisions made and the goals behind them might facilitate interpretation.

4. I counted at least three places where color-coding was discussed. The diffusion of the discussion of this topic confused me.

5. The "Claude Bernard database" is introduced without reference or description. More details are needed.

6. There is a grammatically incorrect sentence on page 10: "The comparator was that used in the clinical trial and described in the evaluation report of the French National Authority for Health (HAS)."

7. I'm not sure what this sentence means: "We obtained the conclusions of the experts from the 12 evaluation reports."

8. The calculation of the SUS score is not discussed. I assume the standard algorithm was used, but this is not stated directly.

Discretionary Revisions

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published
**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests