Reviewer’s report

Title: Usability Evaluation Methods employed to assess Information Visualisations of Electronically Stored Patient Data for clinical use: A Protocol for a Systematic Review.

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Reviewer: Panos Balatsoukas

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This is a much needed review of interest to both clinicians and health informaticians/system designers or HCI specialists. While there is lots of research going on in areas relevant to the analysis of data in electronic health records, or the design of linked data technologies that harness the power this type of data, there is still little research on how patient data should be presented in electronic health records, and beyond, for effective decision making. More specifically, it is important to understand whether the way patients' health data are presented to clinicians is usable and what are the methods employed to evaluate the effectiveness of different information visualisation techniques used to represent this type of data. This knowledge is important for capacity building in the area of biomedical and health informatics, but also for primary care.

Some minor comments are:

- page 5: the authors state: "Currently there is little ... visualisation techniques". I do not quite agree with the phrasing here. There is lots of guidance in the relevant literature (especially in HCI and health informatics) on how to assess usability of various types of infoVis techniques. What is not well known is "why" and "how" these techniques have been employed across different studies given the heterogeneity of research objectives and types of systems and tasks under evaluation. However, this differs from simply arguing that there is no guidance.

- page 5: The aim should move to the background section - not the methods section.

- page 6 - eligibility criteria : please use bullet points / also what about papers reporting planned usability evaluations, i.e. protocols without the results.

- page 8: "Theses and online repositories will be included in the review" - How are you going to select which ones to use? Is there a list of targeted repositories?

- page 11 / lines 11 - 26: I would only use these as an example given the fact that there are many more visualisation techniques and methods. Also, the majority of systems will include a combination of methods/techniques. Finally, in each category there are many more subcategories, that would provide a more meaningful classification of the studies identified, especially in the case of graphs.
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