**Reviewer’s report**

**Title:** Utilizing patient data from the Veterans Administration electronic health record to support Web-based clinical decision support: Informatics challenges and issues from three clinical domains

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**Reviewer:** Charlene Weir

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Title: Utilizing patient data from the Veterans Administration electronic health record to support Web-based clinical decision support: Informatics challenges and issues from three clinical domains Dashboard Visualizations: Supporting Real-Time Throughput Decision-Making

**Overall Impression**

This article reports on an important topic - and could be useful. However, the range of interested audience is limited (VA) and little is provided regarding generalizability in the scientific sense. The article was a bit hard to read, often redundant and perhaps not an accurate expression of the VA research environment as many tools commonly in use were not mentioned.

**Justification of Research:** The inclusion of 3 different projects is useful and adds some diversity to the paper. However, the authors did very little to show how this work added value to the research world. What other tools are in use for extracting and manipulating data? What is known and not known? How does their experience relate to the big picture issues?

**Quality of Background Review:** There are a large amount of tools, software an approaches in the VA and much of it has been included in research reports and are certainly available to researchers. Hence, it is difficult to get a sense of the nature of their specific experience except from a narrow scope and time slot. For example, no mention is made of Online analytical processing (OLAP) for VA data. Nor did they talk about the DSS national data sets, VINCI, or ProClarity desktops, just to name a few of the VA tools for handling big datasets. Even a dull description of the Clinical Reminder software would have been useful as it is well integrated into CPRS and often used for CDS. Their work seems somewhat local and a bit outdated. The VA Financial and Clinical DataMart overall includes many aggregated datasets along disease registry formats as well as person-level data that merges financial, billing and clinical data. These
datasets can be used with a web-based software tool. It would have been very helpful if the authors had framed their work in this larger narrative. It would have also been important to include something about the VA's future focus and plans. Otherwise, this article is basically outdated before it is published.

Methods: The methods described were more in the line of examples and a real summary of all of the technical challenges they encountered. Solutions to these challenges seemed to focus on regular expression extractions and clinician data input. It was not clear in their descriptions if these were effective (did the clinicians enter in data?) What did they do with the 10% error rate?

Writing: The writing was a bit redundant and the overall paper could use another review. It might be easier to summarize according to problem types and not according to the intervention. The use of acronyms so often was distracting (had to go down to the bottom of the paper to see what they were and I did not know that the first time through).

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.
Unable to assess

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

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.
Not relevant to this manuscript

Quality of written English
Please indicate the quality of language in the manuscript:
Not suitable for publication unless extensively edited
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