Reviewer’s report

Title: On the alert: future priorities for alerts in computerized decision support identified from a European workshop

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Reviewer: Stefan Russmann

Reviewer’s report:

General comments

In this manuscript Coleman and other workshop participants provide a summary of a recent European workshop on computerized decision support (CDS). They particularly emphasize challenges related to finding the right balance between sensitivity and specificity that CDS-generated alerts must find in order to improve patient safety in clinical settings.

Because the manuscript summarizes the discussions of a workshop, a reviewer can obviously not really suggest changes to the content of the manuscript. However, one can certainly state that the topic should be of high interest to the readership of BMC MI&DM and beyond, that the manuscript is overall well structured and well written, and that the discussions and results of this workshop presented here provide an up to date overview and (European) perspective of critical issues and challenges related to CDS. The manuscript therefore fulfills its primary mission, namely to provide a state of the art overview and guidance for future research and development related to CDS.

Most specific thoughts and conclusions of the workshop can more or less also be found elsewhere in the (cited) literature, and it does not appear that a revolutionary new insight or future CDS concept emerged from the workshop. However, this cannot necessarily be expected and it also does not compromise the value of this comprehensive, clearly structured, well-balanced and clarifying overview on CDS for researchers in the field as well as any other interested reader.

Major comments

1. The manuscript should state the date of the workshop

Minor comments

1. Page 8/9, section: it appears counter-intuitive that a sensitivity below 70% (or any other threshold value) of a CDS may result in a worse human performance compared to no use of a CDS. Furthermore, if sensitivities below 100% are referred to as risky, should one then also compare these to existing risks in today’s clinical practice where no CDS is used or oversensitive CDS can result in essentially complete alert fatigue? Maybe the authors can add some additional
thoughts on those challenges.

2. There is little information on studies that systematically evaluate(d) specific CDS, maybe due to limited time at the workshop. Nevertheless, I wondered whether this was also discussed at the workshop and, if so, could be briefly mentioned here.

3. The value of an alert may be limited for a clinician if there is no specific patient management implication / recommendation. Did the participants have any specific thoughts on this issue that could be presented here?

4. Page 14, discussion: why should an alert hierarchy aim to generate one clinically relevant alert per prescription? Many prescriptions may have no relevant problem, whereas some may have more than one that would justify an alert.

5. Are there any future workshops / follow-up meetings or further action planned by the organizers?

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**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