Reviewer’s report

Title: The Role and Benefits of Accessing Primary Care Patient Records during Unscheduled Care: A Systematic Review

Version: 1 Date: 13 Jul 2017

Reviewer: Georg Duftschmid

Reviewer’s report:

This is a very interesting review that shows once again that despite numerous existing SEHR systems worldwide there is a lack of solid evidence for the benefits associated with their use. The present review shows this with a particular focus on unscheduled care.

In principle the paper looks very solid to me and most of my suggestions are of type "minor". Please find my suggestions for possible adaptations in the following:

Minor Essential Revisions

1. Line 157: "...49% in Twente 49%." => One percentage too much

2. Line 269-271: The sentence "We can only cautiously generalize the lessons...here..." sound to me as if it should be followed by a set of lessons about "implications for Policy and Practice". Are the following headings ("The need for better...", "Maximizing levels...", ...) meant to be subheadings of "implications for Policy and Practice"? If yes, this should be made more explicit. Otherwise, the authors may consider rephrasing the sentence "We can only cautiously generalize the lessons...here..." to avoid raising expectations by the reader that are not satisfied.

3. Line 292: This sentence sounds a bit as it is EITHER "centrally stored record subsets" OR "access to distributed full records". However, if I think of the numerous IHE XDS implementations world-wide, it seems to me that the variant "access to record subsets that are stored in a distributed way" is also common.

4. Line 309: Please add a reference for the DAMD system.

5. Line 314: Reference (39) is cited twice in this sentence.

6. Lines 314 - 318: This sentence sounds a bit as it is EITHER "opt-in and free access" OR "opt-out and restricted access". I do not have a corresponding example, but couldn't it also be "opt-in and restricted access", e.g. that pharmacies who opt-in get only access to medications data and radiologists who opt-in get only access to imaging reports?

7. Table 1: Where is the explanation for the abbreviation ECS?
8. Table 1, p. 15, line 15: Where is the explanation for the abbreviation NB?

9. Table 1, p. 15, line 32-38: "...is a statistically useful number of observations" => why is this comment on the statistical usefulness only provided for reference (12)? I would recommend to either add a corresponding statement in all cases or remove it for reference (12).

10. Table 1, p. 15, line 49-57: "...however it does not prove it." => It seems to me that also several other stated papers of tab. 1 cannot really prove that the observed outcome was clearly caused by the SEHR. I would recommend to either add this restriction in all cases or remove it for reference (13).

11. References: Some text seems to miss at the empty space between the points for references (10), (11), and (13).

12. References: Ref (15) => Is "al He" really the correct name of the author?

13. References: Incorrect carriage returns seem to have been included at refs (15) and (16).

14. References: Ref (18) => Year is missing, add an URL if possible

15. References: Ref (20) => Source is missing

16. References: Ref (30) => Is "Collective TNe" really the correct name of the author?

17. References: Ref (31) => add an URL if possible

18. References: Ref (35) and (37) are identical

Major Compulsory Revisions

1. Methods, line 66: Even though the authors' focus clearly is on the domain of unscheduled care, I am not convinced that requiring the presence of one of the search terms "unscheduled care" OR "emergency care" OR "after-hours care" was the ideal search strategy. I could imagine that many existing SEHR systems (according to a recent WHO study about 50% of EU member states already have employed SEHR systems on a national level) are applicable in the context of unscheduled care but do not particularly focus on this domain. As an example, the Austrian ELGA system that has been operational since end of 2015 can be accessed from practically all Austrian hospitals and also from outpatient practitioners (I assume that unscheduled care is also to some extent performed by GPs for example). However, I do not remember that I have ever heard or read that ELGA is used for unscheduled care. Requiring these search terms might have led to loosing papers that would have been relevant for your study. This also seems to be underlined by the authors' statement on line 212 about the low number of studies that could be considered. In my opinion the safer (but of course more laborious) search procedure would have been to set these search terms aside and then manually exclude papers that do not seem relevant
for unscheduled care. If this cannot be done, I would recommend to add a corresponding comment to the limitations of the study.

2. Methods, line 66: I assume that the different search terms listed were all joined with a boolean AND in your query. Was this then really also done for the search terms "HIE" and "EHR"? The term EHR is frequently used in the sense of an integrated, person-centered, inter-organizational record, i.e. it already subsumes HIE. In this case, it seems to me that requiring the presence of the term "HIE" in the paper might be too stringent, and would exclude relevant papers from the search. I would recommend to state the search query in a more explicit form (e.g. "("primary care" OR "general practice) AND ("unscheduled care" OR …) AND …")

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

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.

Yes

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:

Acceptable

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?
2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?

If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests.

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal.