Reviewer's report

Title: Influence of hospitalization on prescribing safety across the continuum of care: an observational study

Version: 4 Date: 4 April 2014

Reviewer: Jamie Stone

Reviewer's report:

Major Compulsory Revisions:

Background:
1. First sentence: the way it is written as “hospital admission and discharge” sound like both are taking place in the hospital which would not be a transition across levels of care. This sentence makes me the focus of this project is focused on transitions between the hospital and primary care, I don’t think “transitions” is an appropriate word since the focus is on one setting (the hospital). I would use a different word to describe this or find a way to make it more clear what the setting is that you will be focusing on.
2. second sentence: citations for poor information management being the primary cause? Not sure what is meant by “towards their patients”
3. Overall, this first paragraph does not give a good set up for the rest of the paper. It’s unclear what the topic of the paper will be based on this. The results are about inappropriate prescribing in the hospital but this is talking about transfers between different health care professionals in what sounds like different settings (since you mention medical specialists).
4. Citations are severely lacking
5. Second to last sentence – I’m confused at which transition of care your focus is on, the way it is worded sounds like transitioning between ambulatory care environments after the patient is no longer in the hospital, but the sentence before that made it sound like the environment you are focusing on is the hospital.

Methods

Data Collection
6. It’s stated in the first sentence of the methods that this is an observational study but the data collection section is referring to interviewing patients. As I read further on I note that no observations were completed as part of this study. And there is no detail about how the interviews were conducted or structured.
7. The data are focused on medication lists at admission and discharge. Based on this first sentence of data collection, does this mean you also gathered medication profiles from ambulatory providers as well? There is confusion again when you talk about transitions to and from the hospital but then the data is
solely hospital focused.

8. What was the standardized protocol? What was it based on?

9. It’s unclear why information such as hospital laboratory tests and medical records from past hospitalizations were collected when the focus was on the medication list. It becomes clearer in the next section.

Data Assessment

10. The background section led me to believe that the focus of this study was on transitions of care between different levels of health care but it appears the data analysis was centered on reviewing hospital records for inadequate prescribing? How does this relate to transitions of care?

11. Further description of the clinical decision support software is needed, has it been tested and used in other settings? Lab values were entered? What other data was entered?

Results

Influence of hospitalization on prescribing safety across the care continuum

12. Second sentence: I don't understand how the rate can be 461 per 100 hospitalizations. I don’t think the comparator is clear here. It makes sense to identify how many differences in prescriptions there were vs. some total number related to prescriptions OR to say how many hospitalizations there were at least one difference in, but the comparison is stated is difficult to interpret.

13. “cannot be altered”, “cannot is not the appropriate word, I would simply state that they were not altered

14. Last paragraph, how would you determine “adequate” communication – this first sentence sounds like it belongs in the discussion.

15. I was confused by the focus on kidney function? That seemed to be the only “issue” specific category. Please justify why it was included.

Discussion

16. Last couple sentences, I would add more supporting citations regarding the points you make about how prescribing issues also carry on to ambulatory care. It’s a really important point and I think additional literature would help to strengthen this argument.

Notes to specific questions:

1. Is the question posed by the authors well defined?
I would not consider the question well defined. Based on the backgrounds and previous methods sections, I would have not guessed the data noted in data assessment were those that would have been collected.

2. Are the methods appropriate and well described?
The statistical methods seemed appropriate, but I can’t judge the adequacy of the software used (also note the software was developed by the authors). Is there an article that reports on the reliability and usefulness of the software? The
best practices data on which it is based?
The data collection methods were very unclear. It’s stated in the title and in the first section of the methods that this was an observational study but no observations were described. Interviews are mentioned, but not described. “standard protocol” was mentioned but not described. The reader has no way to judge if the methods of data collection were appropriate.

3. Are the data sound?
Data due to seem sound, but difficult to judge due to lack of description in the methods (see above)

4. Are the discussion and conclusions well balanced and adequately supported by the data?
Yes, I do believe that the discussion has a good base but that more supporting literature should be added to the discussion to strengthen the points made.

6. Are limitations of the work clearly stated?
There is no limitations section, this should be included.

7. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished?
As noted I felt the background section was very sparse. It’s unclear what earlier work the authors have done in this area.

8. Do the title and abstract accurately convey what has been found?
The title is not appropriate given this is not an observational study. The background section in the abstract (as in the paper) is misleading as stated earlier. Comments reported within the specific sections of the paper that are also repeated in the abstract should be addressed in the abstract as well.

9. Is the writing acceptable?
In general yes, I think the results should be written in past tense and some of the transitions don’t seem to be used correctly (e.g. in contrast, meanwhile, accordingly)

Minor Essential Revisions:

Background
1. Second paragraph: Delete “on the other hand”

2. Define what you mean by “prescribing-related risk exposure”

Methods
1. Medication bags? Not sure what is meant by this

Results
1. Second sentence: how is the second sentence “in contrast” to the first?
2. Second paragraph, use of the word “meanwhile” is not the appropriate transition. I'm not sure the word “result” is appropriate as it indicates cause.

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

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests