Reviewer’s report

Title: Impact of Pharmacy-Led Medication Reconciliation on Admission to Internal Medicine Service: Experience in Two Tertiary Care Teaching Hospitals

Version: 2 Date: 30 Apr 2019

Reviewer: Alexandra Perez Rivera

Reviewer's report:

This is a single arm descriptive and exploratory analysis of a pilot medication reconciliation service led by pharmacists. The authors are to be commended as they are trying to deliver optimal pharmaceutical care in Lebanon. However, I think this study has significant limitations and the manuscript is not well organized.

The authors should consider the following: If medication reconciliation has been proven to be an effective service already (regardless of the setting or country), then the next question would be: In Lebanon, how can pharmacists be introduced in the current system/flow of patient care to deliver specialized pharmaceutical care and is it cost-effective for the hospital?

Here are my specific comments:

Background:

1. 144-158: The authors should clearly state where the background information that exists on medication errors and medication reconciliation in coming from (United States? other countries?) and then contrast with the lack of data from Lebanon.
2. 144-165: Provide documented epidemiological data to show the impact of medication errors and effects of medication reconciliation.
3. 152: Add an official definition of medication reconciliation
4. 167: "standardized medication reconciliation" was not defined
5. 173-176: The primary and secondary objectives do not match all the results that were provided. The population is not defined, and the outcomes were not all included.

Methods:

1. I suggest a section titled: Participant selection: 181-182: how were they patients identified? Through the medical record? On admission? 182-183: what is the definition of
unresponsive? May be change to patients which you were not able to do an interview in English or Arabic were excluded, instead?

2. The intervention was not described in one place/section. How were patients identified? Who made the first encounter? How were any interview proxies identified? Which were the steps to be followed as the medication history was being obtained? An overview of which questions were asked? When did the supervising pharmacist come in? How long were the interviews supposed to take?

3. I separate section for: main outcomes and measures. Outcomes presented in the results section were not introduced in the methods section.

4. Why was the MATCH Toolkit selected? Is this validated?

5. 203-204 and 209-210: who was in the medical team? How did these communications occur? If the pharmacists were the ones doing the categorization, was there any bias introduced?

6. 204-205: was this documented in the results section?

7. 209: what was the framework used to make the proximal cause categorization?

8. The statistical plan was poorly described. The authors only talk about the dependent outcome but did not mention any independent variables.

Results:

1. 240: how was a previous medical record defined? Communication with which physician? This was not introduced in the methods section.

2. 254-259 and 265-269: this section was confusing as written. I wasn't sure what was being presented and then figured out it was the unintended discrepancies.

3. 260-264: should be presented after describing unintended discrepancies.

4. Table 3: when presenting the drug classes a heading saying prescription and OTC medications were being presented.

5. I was not able to follow the regression analysis results at all, mostly because it was poorly described in the methods section.

Discussion:

Overall, this is a repetition of the results and new results are presented as well. This section should focus on the implications of the observed results. There is very little focus on the limitations which are big: no control arm and high risk of bias.

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.

No

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

No

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.

I am able to assess the statistics

Quality of written English
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Needs some language corrections before being published

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