**Reviewer’s report**

**Title:** Medication errors in primary health care records. A cross-sectional study in southern Sweden

**Version:** 0  **Date:** 14 Jan 2019

**Reviewer:** Daniel Coletti

**Reviewer's report:**

Data in this report describe an investigation in which a researcher conducted medication review over the telephone with a sample of 56 patients who had been seen two weeks previously by a primary care provider. Patient report of their personal medication regimen was compared to the medication list in the EMR; there was only 16% concordance between patient lists and the EMR. The majority of patients had more than one discrepancy, patients who had seen other providers had significantly more discrepancies, and analgesics and cardiovascular drugs were most commonly identified as discrepant.

Examining the complexities involved in maintaining an updated medical record is an important healthcare issue and area of inquiry. The strategy of contacting a patient shortly after a primary care appointment to assess the accuracy of their medication list is interesting. The study has limitations that are outlined in part by the authors in their discussion. I have some additional questions about the procedures for conducting the medication review as well as assumptions made about patients' reports.

1. I think it's important for the authors to describe more about the structured process by which the patients were asked about their medications—for example, were the patients asked to provide unaided recall of what they remembered to be their active medicines, were they asked to review a written list provided to them at the previous primary care appointment, were they asked to gather their medication bottles and review each one, or was another prompting strategy used?

2. Does the investigator have knowledge of whether medication reconciliation was attempted/conducted at the index primary care visit? Interpretation of results, including the reasons for the discrepancies, seems to depend on whether there was patient-provider agreement on the medication regimen at the time of the visit and then was subsequently changed by the patient in the two weeks after the appointment.

3. Along these lines, it is not clear whether the variable "visited a physician outside the PHC" refers to a patient having multiple primary care providers, the utilization of specialists who
might have been asked to provide medication management, or whether this variable refers to having seen a provider subsequent to the index primary care visit (or any/all of the above).

4. The discussion emphasizes the role of the primary care provider in conducting medication reconciliation at each visit and maintaining an accurate medication list. It also states that the medication lists used as a comparator to the patient list were deemed "incorrect." Given that discrepancies included additional drugs, omitted drugs, as well as dose errors, I would appreciate the authors' thoughts on the degree to which discrepancies represented (a) failures to reconcile at the prior visit, (b) patient non-adherence or failure to understand the recommended regimen, and (c) in the presence of multiple prescribing providers- which list best represented a "gold standard" for the medication regimen a patient should have been following.

5. In addition to the Coletti et al 2015 report that considered this issue in a slightly different way, the authors should review additional reports of medication review in primary care in the background section and to compare/contrast their results to existing literature. In particular, consider reviewing prior (and challenging) attempts to assess accuracy in medication lists pre-post medication reconciliation (see Stewart, A. L. & Lynch, K. J. (2014); Stewart et al., 2015).

**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.

Yes

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

No

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