Reviewer's report

Title: Manual and automated methods for identifying potentially preventable readmissions: a comparison

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Reviewer: Hillary J Mull

Reviewer's report:

This is a timely study with valuable information. The authors have done a good job of summarizing the issue and the discussion is well-reasoned. I think the analysis is not complete and recommend clarification of some of the methodology, as well as additional analyses.

Major Compulsory Revisions:

1) As the literature in this area is growing exponentially, I suggest you update your background and discussion sections. To this end, it would be helpful to discuss how your results differ from van Walraven's recent meta-analysis – he and his co-authors concluded that ¼ of readmissions are avoidable. http://www.ncbi.nlm.nih.gov/pubmed/22070191 These differences likely reflect the subjectivity of determinations of preventability in readmission outcomes. As a result of this subjectivity, it is hard to imagine manual review is a realistic method to compare readmission rates across hospitals and over time. Standardized methods to evaluate readmissions include the CMS measures reported on Hospital Compare, as well as the PPRs. I think you could add more about the strengths and weaknesses of the various readmission measures in your discussion.

2) In the methods section, can you clarify whether you used explicit criteria to evaluate preventability? Did you do anything to standardize the process?

3) I am confused about your chart review process. You reference your earlier work in Medical Care and it appears you used the same sample. But the Medical Care numbers are higher than the sample in your paper (537 vs. 459). Please make clear if you are using the earlier sample and why the numbers are different. Why did you only look at 18 of the 21 hospitals?

4) How did you identify 30 day readmissions? Please add more detail about this. It seems you began with some process to identify readmissions, and then applied the PPR software. If so, how did you deal with readmission chains?

5) The PPR categorizes the reasons for preventability and it appears you also assigned reasons in your manual review process. Please add these analyses to your paper; it would be interesting to see if the PPRs performed better in comparison with manual review for certain categories of preventability versus others.

Minor issues not for publication:
1) There are some formatting problems with the citations.
2) I found two typos: 4th paragraph of methods ("manually" should be "manual") and 5th paragraph of discussion ("automatic" should be "automated").
3) Please use consistent decimal places in Table 1.

Discretionary Revisions:
1) The abstract should include sensitivity and specificity results.
2) Consider changing the title to reference that the study was done in a large healthcare system – this is a real value of the paper!

**Level of interest:** An article of outstanding merit and interest 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:**

The author cites one of my publications. Otherwise, I have no competing interests.