Reviewer’s report

Title: Comparison of neonatal red cell transfusion reporting in neonatal intensive care units with blood product issue data: a validation study

Version: 0 Date: 24 Jan 2017

Reviewer: Amy Keir

Reviewer’s report:

Thank you for the opportunity to review this study.

Summary

The authors provide a validation study comparing RBC transfusion data collected by a specialised database (NICUS) and blood (Blood Watch) product issue data.

The paper is well presented, clearly written and concise. However, the message the paper is trying to convey could be made stronger. After reading the article through several times, I did not come away with a clear message of why it was important to undertake this particular study. Whilst, it is reassuring to know that the data from NICUS database and the Blood Watch database compare favourably, perhaps it would be worth considering using this validation data as a smaller part of a study utilising the clinical data it examined.

Abstract

Well written and concise. Study aims are clear as are the conclusions.

Background

This section could be strengthened to show the reader why it is important that this study is undertaken.

Methods

Appropriate for the study aims and outlined clearly.

Minor query: Why was 2007-2010 selected? Is one of the databases examined not collecting neonatal transfusion data anymore?

Ethics
Ethics approval gained.

Statistical analysis

Statistical analysis appears thorough and appropriate to my non-expert review - formal statistical review may be warranted.

Results

Clear - no concerns.

Discussion

As a validation study, I would have expected the discussion to start with overall findings of the study in direct relation to its aims. A more focused discussion on the importance of the study's findings and why they matter would assist the reader.

Where does this study sit with what is already known in the literature? Are there any other similar studies available? Other literature is only briefly mentioned (page 11, lines 40-43) in the discussion.

Strengths and limitations of the study discussed.

Conclusion

Appropriate and clearly related to the study's aims/findings.

Overall suggestions

As discussed previously, if the authors presented a stronger argument for why it is important to undertake validation studies and why this particular one is important, it would strengthen the manuscript significantly. Certainly from my point of view (clinical), I have struggled to gain a clear understanding of why it was important to undertake this study.

Again, including this validation study as part of a larger study examining the transfusion data in detail would be useful.

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.

I recommend additional statistical review

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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