Reviewer’s report

Title: Point-of-Care Versus Central Testing of Hemoglobin During Large Volume Blood Transfusion

Version: 0 Date: 02 Jun 2019

Reviewer: Massimiliano Meineri

Reviewer's report:

The manuscript "Point-of-Care Versus Central Testing of Hemoglobin During Large Volume Blood Transfusion" presents an interesting analysis comparing POC Hb vs. standard labs in a unique population.

The study design is somehow complex and the timing for the comparison between techniques difficult to understand.

There are also another number of issues that require the Authors' attention:

1) Was any power analysis performed?

2) Was the EPOC system used for arterial gas analysis? If so please explain and specify.

3) The Authors stated that there was a time interval between standard and POC tests. In this rapidly changing clinical scenario of ongoing bleeding more than a few minutes between samples seem to make any comparison meaningless.

4) I would suggest the Authors present a graphic representation of the impact of time between samples and value differences.

5) The authors should clearly separate through the paper the two concepts of "massive transfusion protocol" and "massive blood loss".

6) The authors should explain the transfusion protocol, if any, that was in place at their Institution in the study. Would be important to know when Hb level were measured. Was it at the discretion of the treating physician or was it part of the protocol.

7) Inter and intra rater variability for the EPOC system might have been relevant.

8) A table summarizing results from previous studies and differences in techniques would be helpful to the readers.

9) It is not sure why the study setting would be better than the ICU as for others. How would ongoing fluid resuscitation affect the Hb measurements?
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.

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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