Reviewer's report

Title: Transfusion triggers (threshold) within early goal directed therapy protocols

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Reviewer: Cynthia So

Reviewer's report:

Thank you for the opportunity to review this paper.

The authors address an important problem of interest, namely the integration of Patient Blood Management (PBM) into the early goal directed therapy (EGDT). To focus on PBM within EGDT is a good thing and using restrictive triggers are usually a good first step to implement PBM. However, I have some major concerns:

1. The title refers to the use of transfusion triggers within EGDT protocols. In the abstract (p2), the study question is stated as: “could EGDT bundles have better outcome if a restrictive transfusion practice is adopted?” Then the authors discuss this issue and refer to published studies regarding triggers. However, in the conclusion the authors add a remark on a PBM program employing multiple strategies”. The latter is only scarcely discussed in the text and not supported by studies. The only conclusion that can be made is that a restrictive transfusion trigger may be appropriate in this context. Another thing that was not clear to me was that “autologous blood transfusion” was stated as one of the key words. Together with the remark in the conclusion that a PBM program employing multiple strategies to minimize exposure to blood products should be the new standard of care” (p4), I believe the authors would like to go a step further with the use of autologous blood as blood saving alternative, however, this is not discussed further in the paper at all. Could the authors be more specific on this issue what they mean by this PBM program?

2. The authors should also discuss the published evidence for autologous transfusions in the text if they include these as a strategy in their PBM program, including its cost-effectiveness.

3. The authors mention the group of high-risk surgical patients to which the EGDT has expanded on p. 2. It is not clear to me if the authors intended to have a specific group in mind for which the PBM program is most suitable for. I expect this may be the elective high risk surgery patients, since the concept of PBM programs originates from elective surgery. Please elucidate.

4. A Hb level of 8 g/dL and a Ht of 30% are not the same. What trigger do the authors find appropriate to use in their PBM program?

Level of interest: An article of importance 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:
I declare that I have no competing interests