Peer Review File

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Reviewer A

Thank you for your paper and submission. The instigation of effective PBM programs has been shown to be an effectual way to minimize blood loss and anaemia, thereby improving patient outcomes. Creating a framework for this implementation may indeed increase participation from hospitals. While the paper captures a broad idea of this some minor revision is requested:

1) You've mentioned the cost benefit scheme of implementation of tiered certification based on hospital need and touch upon this briefly. Would a financial breakdown of gross estimated cost relative to each certification level better illustrate the approximate amount of a hospital or hospital system might incur? Moreover, is could you provide a representation of money saved over 5 years or 10 years once these protocols are enacted?
Response: We added lines at the end the Certification section to describe this briefly.

2) Many Currencies are used throughout, notably based on the study referenced. Can this be normalized to just one based on your target audience (e.g. AUD vs. USD vs Euro)?
Response: We added USD for Euros in the Implementation section.

3) What are the potential limitations of your discussion, and future areas of PBM programs that need further elucidation?

Response: We added Limitation and Future Direction section to cover this.

4) Table Four you have written (reference #), please appropriately reference as such (#)

Response: Reference citation format corrected in Table 4.

Reviewer B

General
The topic is certainly of interest to a hospital or hospital system looking to start a patient blood management program or one that wants to take it to the next level by obtaining patient blood management certification.
Response: Thank you.

Specific

Introduction

-Patient blood management (PBM) is a (Line 49) – consider inserting prior to this: The global definition of patient blood management is… and removing the extra is. This will help to distinguish this definition from the WHO definition that appears later in the manuscript.

Response: Text inserted.

-There are several transfusion and PBM guidelines (Line 60)- suggest to give a few examples of professional organizations that provide these guidelines and add references to support in case the reader wants to see more.

Response: Added AABB and SABM guidelines with references 5 and 6.

-Chronic risks include iron overload (Line 76)- suggest to add a sentence prior to the chronic risks that include some of the most common acute risks that include febrile nonhemolytic, allergic, transfusion-related acute lung injury (TRALI) and transfusion-associated circulatory overload (TACO).

Response: We added line on acute transfusion risks.

Business Plan

…resource commitment for a more formal program (Line 142)- suggest to reword to resource commitment from the hospital's executive leadership for a more formal program

Response: Edited as suggested.

Stakeholders

-The section on primary stakeholders (Lines 150-163), please make sure this is consistent with Table 1 as the same roles should be listed in both. Please add clinical laboratory scientists to the text and table 1.

Response: Corrected Table 1.

-The section on secondary stakeholders (Lines 181-187 and Table 1) – recommend to add social media to the different means to disseminate awareness about PBM.

Response: Added social media.

Education and Training

-The World Health Organization (WHO) defines PBM (Line 211) – suggest to add: In additional to the global definition of PBM, before this sentence. As with Line 49, there are two different definitions used in the manuscript. If you keep both be sure to delineate that they are different but both equally important to the reader.

Response: Edited as suggested.

-but national implementation would likely yield superior outcomes (Line 244)- suggest to reword to: but national implementation, at least in some countries, would likely yield

superior outcomes. This just emphasizes that it would be much more difficult if not impossible to implement a nationwide PBM program in a non-government run and centralized healthcare system such as the US model.
Response: Edited as suggested.

Implementation
You do not need the euro symbol and the word euros (Line 321) use just one.
Response: "Euros" removed, left symbol.

Levels of Patient Blood Management Certification
-While the text does a nice job of explaining the levels (Lines 335-354) this did not translate well to Table 4. It was difficult to understand how you only need 20 of 24 for level II and 17 of 24 activities for level III and yet the table has only 7 rows. Consider either removing the table or expanding it to include all 24 activities.
Response: Table 4 edited for clarity.

-The manuscript and table goes between the terminology of areas of responsibility and activities. Consider standardizing or clarifying.
Response: Table 4 edited for clarity.

-If the organization is AABB accredited, only one surveyor is required. (Line 371). As this section discusses cost consider rewording to: If the organization is not AABB accredited, an additional surveyor is required.
Response: Edited as suggested.

Table 2
-Transfusion rate- National average 10%- please reference.
Response: Reference #28 added, table edited for clarity.

-Percentage of RBCs transfused with discharge hemoglobin greater than 10g/dL - Identifies potential unnecessary RBCs or dosing opportunities. Consider adding the following reference:
Edwards, J., Morrison, C., Mohiuddin, M., Tchatalbachev, V., Patel, C., Schwickerath, V.L., Menitove, J.E. and Singh, G. (2012), Patient blood transfusion management: discharge hemoglobin level as a surrogate marker for red blood cell utilization appropriateness. Transfusion, 52: 2445-2451. https://doi.org/10.1111/j.1537-2995.2012.03591.x
Response: Reference added (#29)

Table 3
-Blood conservation techniques (e.g. using microcontainers and avoiding unnecessary investigations) – This terminology is too broad and would consider rewording and making consistent with the text: Minimize blood sampling (e.g. using microcontainers, low volume tubes and avoiding ordering labs that do not affect clinical decision making)

Response: Edited as suggested.

-Continuous staff education- consider changing to Ongoing staff education.
Response: Edited as suggested.

Audit and review- consider adding: on a regular basis.
Response: Edited as suggested.

Table 4
-Reference 45 should be 37.
-Reference 39 should be 29.
Response: References corrected.