

### Comprehensive approach to patient blood management in India

Dear editor,

The authors in their review article on patient blood management (PBM) in India have made a genuine attempt to review current practices and explore the feasibility of applying appropriate standard-of-care guidelines for PBM in India.<sup>[1]</sup> This is likely the first attempt at a multidisciplinary effort for the development of such guidelines in India.

PBM rests on three pillars: diagnosis and treatment of anemia, minimization of blood loss, and avoidance of unnecessary transfusions.<sup>[2]</sup> While the authors have worked upon consensus in the management of bleeding patients, especially in surgical, trauma, and obstetric settings, we would like to raise the concern of anemia being the major factor driving blood utilization.

Nutritional anemia is a major cause for blood transfusions as noted by the expert committee on the estimation of blood requirement in India. Annually, approximately 6.9 million units of blood are requested to treat nutritional anemia alone.<sup>[3]</sup> An unpublished report from blood utilization in the state of Rajasthan done by these authors has shown that 43% of PRBC transfusions were for anemic patients, and 83% of patients undergoing surgery were anemic. Numerous public health programs have been introduced to address nutritional anemia, especially in pregnant females, but anemia is still a major concern in this population. Correction of nutritional anemia and preoperative anemia can reduce blood requirement by more than 50%.

As the authors have noted, the lack of resources and training impairs the use of point-of-care (POC) viscoelastic tests. While POC tests have been successful in reducing unnecessary transfusions, particularly in cases of trauma, obstetric hemorrhage, and hepatic and cardiac surgery, their effectiveness in the general patient population is not established. Low-cost PBM measures such as adherence

to transfusion triggers, correction of nutritional anemia, and autologous transfusions are easy to implement at all levels of healthcare facilities and may be prioritized for implementation of PBM in India.

The challenges to implementation of PBM are mostly related to the difficulty of changing traditional “physicians’ attitudes” toward transfusion and “transfusion behavior.”<sup>[2]</sup> The inappropriate use of blood components has been documented in various reports across India.<sup>[4,5]</sup> The lack of national evidence-based transfusion guidelines and monitoring mechanisms hampers the implementation of PBM in India. Hopefully more such multidisciplinary efforts can make PBM a reality.

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There are no conflicts of interest.

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