

Bleeding news



Opportunities for improving platelet transfusion practice: A large retrospective audit across 22 hospitals

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Platelet transfusion is still a very common practice in modern hospital medicine, particularly in haematological, critical, and surgical patients. However, there is increasing evidence that many platelet transfusions are performed with no clear clinical benefit, and that they could even be associated to complications. The work by Ryan et al., published in the British Journal of Haematology in 2026, provides one of the largest audits conducted to date on platelet transfusion practice, as well as highly relevant data for Patient Blood Management programmes.

It is a retrospective, multicentre study analysing transfusion practice in 22 hospitals during a five-year period (2017–2022). Over 821,000 hospital admissions were included and over 56,000 platelet transfusion events were identified, which makes this work one of the largest observational analyses on this topic. The authors assessed whether transfusions met the recommendations in clinical guidelines or not, based on the clinical context, setting transfusion thresholds based on prophylaxis, invasive procedures, bleeding, anticoagulation, heart surgery, ECMO, and immune thrombocytopenias.

The most relevant finding in the study is that approximately 23% of platelet transfusions did not conform with the guidelines, i.e. they were potentially unnecessary. Contexts with a higher amount of inappropriate transfusion were primary prophylaxis, heart surgery, invasive procedures, patients on antiplatelet treatment and immune thrombocytopenias, such as ITP, HIT and TTP. Moreover, a wide variability was observed between hospitals and medical specialities, both in terms of transfusion thresholds and guideline compliance.

This study confirms something many clinicians suspected—platelet transfusion is still too liberal. There are probably multiple reasons for this, including fear of bleeding, clinical inertia, legacy transfusion culture, surgical pressure, difficulty to interpret platelet function and a lack of audit and feedback systems. The finding that non-conforming transfusions were more frequent at the beginning of the hospital admission is particularly interesting, and it suggests that the first transfusion is the most important one from the perspective of transfusion quality.

From the standpoint of Patient Blood Management, this work comes with very significant implications. If roughly one in every four transfusions is unnecessary, we have a huge opportunity to improve patient safety, reduce reactions to transfusions, decrease costs, and preserve resources. Platelets have a short half-life and limited availability, and so they should be used with extreme care.

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Heart surgery appears as one of the scenarios with the most overtransfusion. This is possibly due to the presence of antiaggregation, extracorporeal circulation, and alterations of the platelet function. In this context, viscoelastic tests and platelet function tests may help making more rational decisions than those solely based on platelet count.

Among the strategies proposed by the authors to improve transfusion practice, we can highlight the implementation of alerts in the electronic clinical history when the platelet count is above the recommended threshold, a blood bank review before releasing platelets in certain cases, the performance of regular audits, and the comparison of results between hospitals, as a tool for quality improvement.

The study presents significant strengths, such as the large sample size, its multicentre nature, and the analysis of real-world clinical practice. However, it also presents the limitations typical of retrospective studies, such as the dependence on electronic records, the difficulty to retrospectively define bleeding, and the lack of data on platelet function or viscoelasticity.

In conclusion, this article conveys a very clear message—the problem with unnecessary transfusion is not just about red blood cells, but also about platelets, and probably to a larger extent. For years we have learnt to be restrictive with haemoglobin, but we have not yet internalised a restrictive strategy with platelets. The optimization of platelet transfusion will probably be one of the pillars of Patient Blood Management for the next few years.