LETTER TO THE EDITOR

# Addressing the overuse of blood transfusions in healthcare: minimisation approaches

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Dear Editor

We recognise the significance of blood transfusion, a common medical procedure in both public and private healthcare settings. It offers crucial lifesaving benefits in replacing blood lost due to surgery or injury and various diseases like anaemia or leukaemia.

The World Health Organization (WHO) states that around 112.5 million blood donations are collected each year and transformed into various Blood Components (BCs).[1]

Whereas, the benefits of blood transfusions in therapy or as support to other treatments are undeniable, it's important to acknowledge their significant cost. Despite being generally beneficial to patients, blood transfusions are not without certain risks. In some instances, patients may exhibit adverse reactions, also known as transfusion-associated hazards (TAHs), to blood transfusions.[1] The risk of transfusion-associated reactions is heightened by the growing trend of unnecessary transfusions. Even 10% of patients hospitalised with top five medical emergencies require blood transfusion.[2] With expanding rate of blood transfusions, there is an exponential surge of transfusion-related reactions as well which include transmission of infectious agents and bloodborne pathogens like HIV, Hepatitis, and Syphilis[2], allergic and haemolytic reactions, acute organ failure, and even death.

Blood and blood products are frequently prescribed by physicians without thoroughly investigating the root cause. This norm has led to several cases of sudden unanticipated transfusion reactions, creating a shortage of required blood or blood products in many hospitals across the globe. In 2021, research led by Tufa Feyisa and colleagues in Ethiopia brought attention to the improper utilisation of blood transfusions. It indicated that 41.2% of transfusions aimed at managing moderate anaemia were later found to be unnecessary. This study significantly impacted recommendations for both global and local blood transfusion guidelines, thereby minimizing the wastage and shortages of blood products.[3] Similar issues were raised in a study conducted in Uganda, which highlighted blood transfusions being utilized as a rapid solution for a prevalent issue – anaemia in children. Data gathered from two major hospitals in Uganda revealed that half of the transfusions occurred either without pre-transfusion haemoglobin level testing or lacked accurate justification.[4]

Healthcare providers must possess a comprehensive understanding of both the advantages and foreseeable risks to effectively assess and analyse the balance between the advantages and risks. This includes knowledge of preventing transfusion-associated hazards (TAHs), considering overall costs, and being aware of alternative treatment possibilities. According to a review document by Giuliano G., Transfusion practices should follow a structured approach to ensure their appropriateness. This means that blood components should only be transfused In situations where there's evidence of possible therapeutic gain, absence of suitable alternatives, availability of safe and high-quality blood products, and a comprehensive assessment of the associated risks and benefits is conducted prior to proceeding with a transfusion.[5] The International Red Cross suggests that by using blood more wisely, there is potential to decrease the number of transfusions by 30%.[2] Each prescription should be justified, and efforts made to eliminate any unnecessary transfusion episodes.[1] We recommend that hospitals and physicians increase awareness of blood transfusion protocols, emphasizing the importance of maintaining a clear record for each transfusion. This practice helps prevent inappropriate and excessive transfusions.

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