

Why blood transfusions are essential for modern healthcare



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The campaign tag line for this year's World Blood Donor Day is 'Safe blood for all'. World Blood Donor Day is an initiative established in 2005 by the World Health Organization (WHO) to raise awareness of the requirement for safe, clean blood and to acknowledge the generosity of those who donate their own blood.¹ Countries around the world celebrate World Blood Donor Day every year on 14 June, the birthdate of Karl Landsteiner, an Austrian physician who developed the ABO blood classification system that paved the way for safe blood transfusion. This year's campaign provides an opportunity to ask an elementary question: why is blood donation so important?

Saving lives

Blood donation ensures that a regular supply of all blood types is readily available for patients who require blood transfusions. Millions of lives a year are saved by blood transfusions. Many people of all ages around the world require transfusions of blood or individual blood components (including plasma, platelets and red blood cells) every day. Blood transfusions are required in the treatment of diseases such as anaemia, cancer

and thrombocytopaenia, in order to manage symptoms and improve the quality of life of patients. Unexpected difficulties during pregnancy and childbirth may require blood transfusions to ensure the survival of mother and child, and victims of accidents and disasters may require an urgent blood transfusion simply to survive.



Every few seconds, someone, somewhere, needs blood.²

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The challenging nature of blood

Blood transfusions are an essential component of an effective healthcare system. However, blood transfusions are only possible when a reliable supply of blood is available, which is entirely dependent on the generosity of those willing to donate. The definitive shelf life of blood means that a constant supply is required. Whole blood and isolated red blood cells can only be stored for 35 days, platelets for 7 days and plasma for 3 years.3 The UK National Health Service states that it requires nearly 400 new donors a day to meet current demand and requires approximately 135 000 new donors a year to replace those who are no longer able to donate.4 World Blood Donor Day 2019 advocates that anyone who can donate blood should consider regular, voluntary, unpaid donations to ensure a reliable supply of blood. The compatibility of donated blood with the recipient is a major consideration, not only during blood transfusion but also when targeting specific donors with certain blood types. Donors who are type O negative are known as 'universal donors' as their blood can be transfused into any recipient, regardless of their blood type. Donors with rarer blood types (B negative, AB positive and AB negative) are also highly sought afer. One of the key messages of World Blood Donor Day 2019 is that regular blood donations are required to ensure that everyone has access to compatible blood.

Everyone who can donate blood should consider making regular voluntary, unpaid donations, so that all countries have adequate

blood supplies.²

Raising awareness

Another crucial objective of World Blood Donor Day 2019 is to raise awareness in countries that either do not have a national blood donation policy or any specific legislation pertaining to the screening of donated blood (Figure 1).5 By advocating for such legislation, governments can establish or maintain adequate quality-assurance infrastructure that will permit a reliable supply of clean blood and blood components. Low-income countries stand to make the greatest gains by introducing such legislation as donation rates are often lower compared with those of middle- or high-income countries (Figure 2).5

Figure 1. Percentage of countries with specific legislation covering the quality and safety of blood transfusions⁵

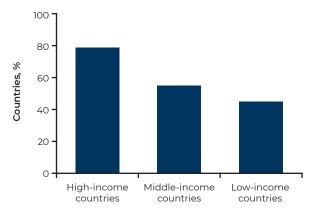
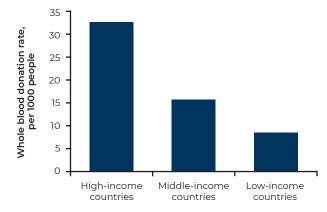


Figure 2. Blood donation rates in high-, middle- and low-income countries⁵



How can I take part in World Blood Donor Day 2019?

Everyone can take part in World Blood Donor Day 2019, whether it is signing up to become a new donor, committing to becoming a regular donor or volunteering with a local blood service to help manage local blood donation sessions. Even spreading the word among friends and family about how blood donation is essential can help raise awareness of this truly noble – and essential – cause.

- World Health Organization (WHO). World Blood Donor Day 2019 About. 2019. https://www.who.int/campaigns/world-blood-donor-day/2019/about. Accessed 6 June 2019
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- 4. NHS Blood and Transplant. Why give blood. 2019. https://www.blood.co.uk/why-give-blood/. Accessed 6 June 2019
- 5. World Health Organization (WHO). Blood safety and availability. 29 May 2019. https://www.who.int/news-room/fact-sheets/detail/blood-safety-and-availability. Accessed 6 June 2019

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