

Greater patient-centricity in anaemia care requires Europe to implement patient blood management, rethink blood use and embrace innovation

A Blood and Beyond Joint Declaration

Anaemia is a serious problem affecting millions of Europeans. It is common among people undergoing surgery, and in patients with many of the non-communicable diseases that are the largest causes of ill-health and mortality in Europe, including cancer, chronic kidney disease, cardiovascular disease, gastrointestinal disease, diabetes mellitus and various infectious diseases ❶. **Advances in anaemia care would benefit an immense patient population across European countries.**

At present, red blood cell (RBC) transfusions are a cornerstone of the management of anaemia caused by various diseases, notably malignant and non-malignant blood diseases.

In these settings patients are often dependent on regular, life-long transfusions where currently no treatments for their chronic anaemia are available ❷.

Yet, transfusions are associated with various negative effects for patients, healthcare systems and society at large ❸. Frequent, regular transfusion therapy can be debilitating and time-consuming for patients, impairing their quality of life. Long-term transfusions also come with risks and complications, such as transfusion reactions, and iron overload, and substantial costs and challenges to the medical and public health systems ❹. There is **a pressing unmet need for more patient-centric care pathways for the treatment of anaemia that focus on disease management – including early diagnosis of anaemia - and provide alternatives to blood transfusion.**

These may include new ideas, tools and policies not only on the use of donor (or 'allogeneic') blood transfusions, but also on the means to better manage and preserve the patient's own blood, such as patient blood management (PBM) ❺.

Accordingly, the World Health Organization (WHO) has recently issued a Policy Brief ❶ and undertaken effort ❷ in collaboration with experts to stimulate implementation of PBM globally. As stated in the Policy Brief, the WHO's Guidance on PBM Implementation will be released in 2023.

PBM is a patient-centred, systematic, evidence-based approach to improve patient outcomes by managing and preserving a patient's own blood, while promoting patient safety and empowerment ❸. While PBM primarily aims to optimise medical, surgical and/or obstetric patient outcomes, it can also significantly reduce the use of blood products and save healthcare costs ❹. PBM should be implemented alongside optimal blood use, which is associated with strict adherence to clinically indicated transfusions at the minimal effective dose, helping to further minimise transfusion ❶ in that regard, greater involvement of patients and shared decision making remains to be applied more systematically in clinical practice. There is ample evidence demonstrating that **proper implementation of PBM and optimal blood use programmes**, practically when practiced in parallel, can reduce mortality and the need for follow up care and lower transfusion rates and unnecessary blood transfusions – thereby reducing transfusion risks, cutting healthcare costs, and relieving pressure on the blood supply to help ensure blood is available for those who need it most and whose life depends on blood transfusion.

Blood and Beyond recommends that implementing PBM and optimising blood use become shared goals for the European Union and all member states, to



Protect patients with anaemia and improve their health outcomes, with care pathways orientated toward patient-centred disease management of anaemia, but also blood loss and bleeding disorders, rather than specific treatments (e.g. blood transfusion)



Manage blood effectively and avoid unnecessary use, helping to safeguard already scarce supplies – by shifting focus away from increasing overall supply and towards better management of blood (both patients' own blood and transfused blood), as well as monitoring and early diagnosis of anaemia, blood loss and bleeding disorders



Facilitate therapeutic innovation that brings value to patients and societies, by addressing current unmet medical needs and the underlying causes of anaemia



Support sustainability of European health systems

» Aligning the EU Blood Directive with WHO guidance on PBM

In Europe, the current revision of the EU Blood Directive offers a vital and timely opportunity to help member states improve their national health systems through policies and practices that benefit patients while supporting blood supply sustainability and reducing healthcare costs ⁶.

It aims to provide a future-proof framework for the availability, quality and safety of blood and blood components, applying lessons learnt from the pandemic – thereby improving the resilience and sustainability of national blood ecosystems, which are key components of healthcare systems. **PBM – including prevention and early diagnosis of anaemia and therapeutic innovation – and optimal blood use offer solutions to some of the current challenges that the Directive aims to address.** These aspects are deeply interlinked with the issues covered by the legislation, as they impact the demand for blood and hence its supply and availability. This requires EU legislators to consider the bigger picture, **align the revised legislative framework with state-of-the-art clinical practice as defined by WHO** (including PBM), and **recognise the role of patient-centred anaemia care.**

In this context, policymakers, public health authorities, regulators, payers, hospital managers and budget holders, healthcare providers and all relevant stakeholders should **act collectively to support a more patient-centric approach to routine detection and etiology-specific management of anaemia, blood loss and bleeding disorders**, and thereby patients' quality of life and cost-effectiveness of health systems.

At policy level, this can be activated via the revised EU Blood Directive as well as other EU and national frameworks related to patient safety, quality care and healthcare systems strengthening.

» Improving patient-centered EU data collection efforts

The collection of patient-centred data will be crucial to underpin and inform the necessary changes in policy and practice – allowing better anticipation of anaemia, blood loss and bleeding disorders, their prevention, diagnosis and management. Improved and harmonised EU data sets are needed for this, including real world evidence on quality of life, health outcomes and cost-effectiveness. This should ensure that data is comparable. The new European Health Data Space has a vital role in this regard; and complementarity shall be ensured in the data collection work of various stakeholders. Further, **monitoring and forecasting the evolution of the patient population** mostly affected by or at risk of anaemia, blood loss and bleeding disorders, will be important to anticipate future needs.

» Stepping up efforts in other areas

Other priorities to support greater patient-centred care addressing these challenges include: **increasing professional education and awareness about PBM** to support implementation in Europe; **strengthening collaborations** between healthcare providers (especially between hospital and primary care settings) and multidisciplinary care practices; and pursuing efforts to **harmonise clinical transfusion guidelines and practices.**

These can be facilitated at the EU level through:

- EU-funded projects on PBM
- Supporting medical training on PBM and optimal blood use
- **Setting up an EU Network of Comprehensive Anaemia Care Centres that apply PBM.**

This Blood and Beyond Joint Declaration was introduced during a workshop of the Blood and Beyond initiative on 17 May 2022 and was subsequently endorsed by:

Dr Vanessa Agostini, Director, Transfusion Medicine, San Martino Polyclinic Hospital; Director, Regional Blood Centre Liguria Region, Italy

Dr Maria Domenica Cappellini, Department of Clinical Sciences, University of Milan, IRCCS Ca' Granda Foundation Maggiore Policlinico Hospital, Milan, Italy

Nicola De Nittis, Board member, DEGETHA & Friends, Germany

Dr Androulla Eleftheriou, Executive Director, Thalassaemia International Federation (TIF), Cyprus

Dr Irwin Gross, Emeritus Chief of Pathology, Director of Clinical Laboratories, Eastern Maine Medical Center (EMMC), USA; Co-Chair, World Health Organization (WHO) Expert Group on PBM

Prof Axel Hofmann, Visiting Professor, Institute of Anaesthesiology, University Hospital Zürich, Switzerland; Adjunct Professor, School of Medicine, University of Western Australia

Prof Antonis Kattamis, Division of Pediatric Hematology-Oncology, First Dept of Pediatrics, University of Athens, Aghia Sofia Children Hospital, Greece

Dr Esther Oliva, Department of Haematology, Grande Ospedale Metropolitano Bianchi-Melacrino-Morelli di Reggio Calabria, Italy

Dr Manuel Pizarro, Member of the European Parliament



European Kidney Patients' Federation (EKPF)



European Union of Private Hospitals (UEHP)



Haematology Nurses & Healthcare Professionals Group (HNHCP)



International Foundation for Patient Blood Management (IFPBM)



Thalassaemia International Federation (TIF)



The MDS Alliance

REFERENCES

- ¹ World Health Organization (WHO). The urgent need to implement patient blood management: policy brief. Published online 2021. Accessed April 15, 2022. <https://apps.who.int/iris/bitstream/handle/10665/346655/9789240035744-eng.pdf?sequence=1&isAllowed=y>
- ² Blood Use in Europe: Learning from the Impact of COVID-19. A Blood and Beyond Policy Briefing.; 2021:12. Accessed April 15, 2022. https://media.bloodandbeyond.com/wp-content/uploads/Blood-use-in-Europe-learning-from-the-impact-of-COVID-19_-May-2021.pdf
- ³ Blood and Beyond: Rethinking Blood Use in Europe to Improve Outcomes for Patients.; 2020:20. Accessed April 15, 2022. https://media.bloodandbeyond.com/wp-content/uploads/Blood_and_Beyond_Rethinking_blood_use_in_Europe_Updated_November_2020.pdf
- ⁴ World Health Organization (WHO). WHO Action framework to advance universal access to safe, effective and quality assured blood products 2020 - 2023. Accessed April 22, 2022. <https://www.who.int/news/item/19-02-2020-who-action-framework-to-advance-universal-access-to-safe-effective-and-quality-assured-blood-products-2020--2023>
- ⁵ Shander A, Hardy JF, Ozawa S, et al. A Global Definition of Patient Blood Management. *Anesth Analg*. 2022; Publish Ahead of Print. doi:10.1213/ANE.0000000000005873
- ⁶ Busoi MD, Pizarro MDM, Sokol MT. Why the EU should boost Patient Blood Management implementation in Europe and align EU legislation with WHO guidance. *www.euractiv.com*. Published November 30, 2021. Accessed April 22, 2022. <https://www.euractiv.com/section/health-consumers/opinion/why-the-eu-should-boost-patient-blood-management-implementation-in-europe-and-align-eu-legislation-with-who-guidance/>

Blood and Beyond is a multi-stakeholder initiative developed and funded by Celgene, now part of Bristol Myers Squibb, involving experts from the fields of haematology and patient blood management, nursing, patient advocacy, health economics and hospital management.