

NHS Wales Blood Health Plan 2024 - 2027



This plan has been produced on behalf of NHS Wales

Executive Summary

Blood component **transfusions** are essential, **life saving** treatments used everyday across NHS Wales. **Transfusion** however is **not a risk-free** procedure and there is always a possibility of transfusion reactions or transmission of infection. It is therefore **critical** that **blood** is given only **when needed** and where **no** other **suitable alternative exists**.

The NHS Wales Blood Health Plan (BHP) has been developed to drive the optimisation of blood health and transfusion practice in Wales. The Plan identifies three strategic aims to achieve this:

1. Support individuals to manage their blood health and wellbeing avoiding unnecessary intervention.
2. Use evidence and data to inform planning, improve practice and reduce variability.
3. Place safety and quality at the core of care reducing inappropriate use and promoting innovation.

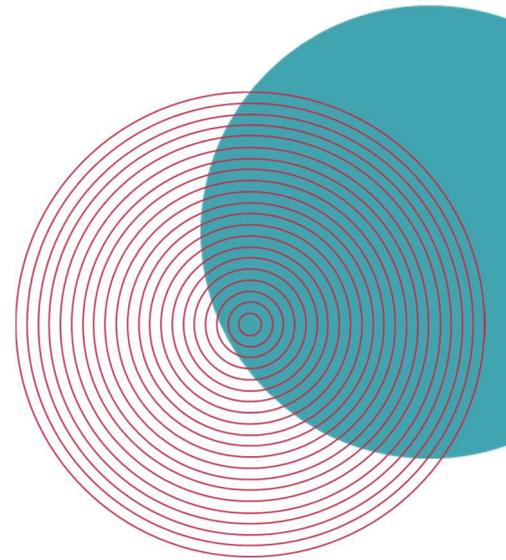
The aims draw on the principles of Patient Blood Management¹, Prudent Healthcare² and A Healthier Wales: our plan for health and social care (2022)³ to deliver an integrated transfusion strategy for Wales.

The BHP defines specific actions within its three strategic aims to facilitate delivery of specific outcomes and measures of success. The actions build on the significant progress made over the last twenty years following the implementation of the Blood Safety and Quality Regulations (2005)⁴. This is the third iteration of the BHP.

The progress to date has been primarily achieved through a collaborative leadership approach via the Blood Health National Oversight Group (BHNOG) working with key stakeholders to deliver the outcomes.

Given the collaborative nature of the BHP it is expected that each Health Board/Trust in Wales will work towards its implementation ensuring that the strategic aims are incorporated into each of their Integrated Medium-Term Plans (IMTPs) or equivalent.

This BHP supersedes the previous two plans WHC/2017/028⁵ and WHC/2021/027⁶ and should be used in conjunction WHC (2002) 137⁷ and WHC (2007) 042.⁸



Overview

In Wales as in the rest of the UK, blood is provided by volunteer blood donors who freely donate in the knowledge that it will be used to treat patients. The BHP sets out the direction of blood transfusion practice in Wales. It has been produced by and is owned by NHS Wales.

Previous iterations of the plan have chosen not to focus on the requirements relating to blood donation eligibility, blood testing/screening and component manufacture and whilst these will not be looked at per se this version of the plan will include scrutiny of the robustness and sustainability of the whole blood supply chain thereby ensuring its sufficiency and suitability to meet the requirements of the patient population in Wales.



The BHP will focus on the principles of Patient Blood Management (PBM) and Prudent Healthcare focussing on the importance of maintaining good blood health and the appropriate use of blood components in a clinical setting.

Its aim is to identify core actions which facilitate best practice. The collection, analysis and interpretation of key data and baseline information will be used to measure success against these actions.

It will support clinical teams to make the right decision for their patient to actively use blood where needed and avoid inappropriate transfusion whilst building on the principle of:

‘Right blood,
Right time,
Right patient’



Context/Background

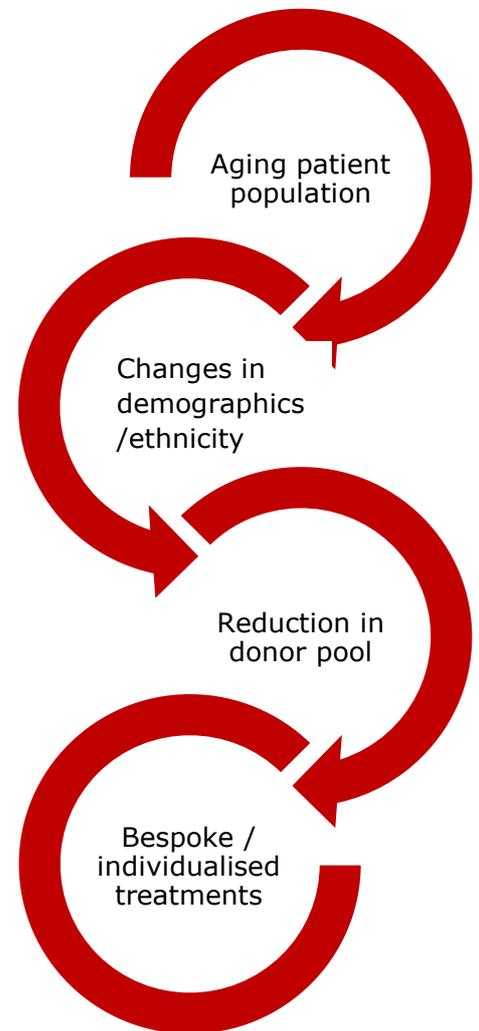
The population of Wales is aging. A Healthier Wales: our plan for health and social care (2022) builds on the philosophy of prudent healthcare with emphasis on supporting individuals to manage their own health and wellbeing, avoiding unnecessary intervention. This principle aligns with the ethos of blood health and has been adopted as the first strategic aim of the BHP.

As our population is living longer many will suffer from chronic and/or complex clinical conditions. Blood components are currently used in clinical care pathways for a range of conditions; the population most likely to suffer from these conditions are those aged 65 and over with this group accounting for over 50% of all blood transfused⁹. Although there has been an overall decline in blood use over the last 10 years, as treatments evolve, and more bespoke interventions become accessible there will be some blood components which will see an increase in use and become more of a challenge to supply. This will be exacerbated by changes in ethnicity and diversity across Wales which will require an evolving donor pool to meet the changes in components required.

The All-Party Parliamentary Group for Ethnicity Transplantation & Transfusion have stated that 'mixed and minority ethnic patients requiring a blood transfusion face enormous health inequalities. It is vital that there is equal access to transplants and transfusions for mixed and minority ethnic patients.'¹⁰

Added to this, the aging population is impacting not only on demand but also on supply as the current donor pool grows older and the requirement to recruit more younger and ethnically diverse donors remains challenging there is a risk that supply will not keep up with demand even with the decreases seen in blood use.

The stability and robustness of the blood supply chain is therefore fundamental to ensuring sufficiency of blood for patients in Wales.



Challenges for the blood supply

The NHS Wales Red Cell Shortage Plan¹¹ has been developed strategically across Wales to ensure that any shortages in the blood supply chain are actively managed for resilience and sustainability.

The plan identifies roles and responsibilities across the supply chain advocating a whole supply chain approach to its management from the vein of the donor to the vein of the recipient. The plan is endorsed at a national level by the BHNOC and has established a supporting Blood Shortage Group that underpins best practice and appropriate use.



The Infected Blood Inquiry¹² (IBI) will provide one of the biggest challenges that transfusion will face over the coming years. The IBI is due for issue in Spring 2024 with the recommendations for improvements and learning anticipated to be extensive. The BHNOG has already focussed on practice improvement and will continue through the BHP to provide the leadership, direction and strategy required to positively respond to these recommendations.

One of the key messages will be that of appropriate use and only transfusing patients when no alternative is available. The principles of PBM will support this.

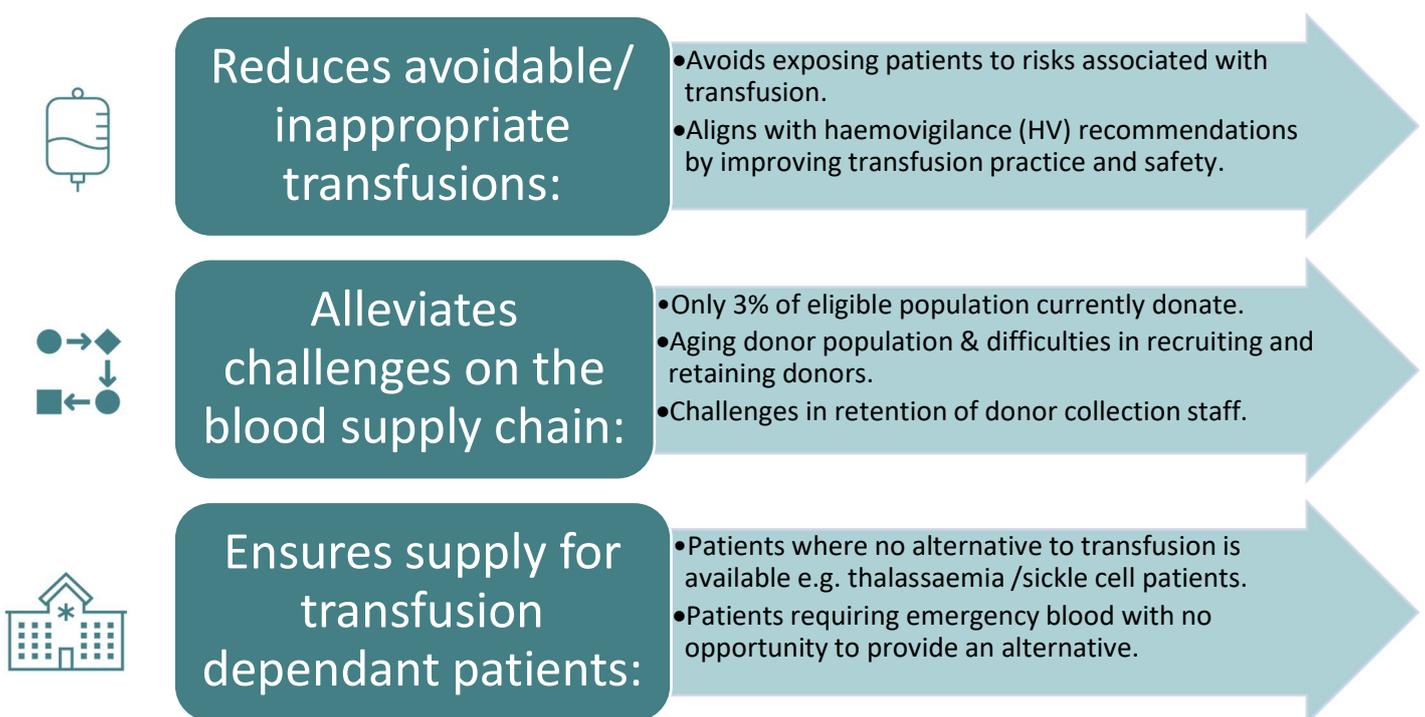
Although improvements in transfusion practice have occurred through numerous audit and educational initiatives considerable variation in practice is still observed in blood use across Wales. Whilst this may for some health boards be associated with geographical logistics and patient demographics there is evident room for advancement through continual improvement processes and addressing poor or outdated practices.

There is extensive evidence to support the associated risks of transfusion including, longer hospital stays and increased morbidity from surgical procedures¹³. The BHP endorses the principles of PBM which focus on a multidisciplinary approach to implementing evidence-based transfusion practice.

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. It incorporates three main principles of:

1. Pre-optimisation of the patient
2. Minimising blood loss
3. Blood conservation

The benefits and importance of PBM can be defined as follows:



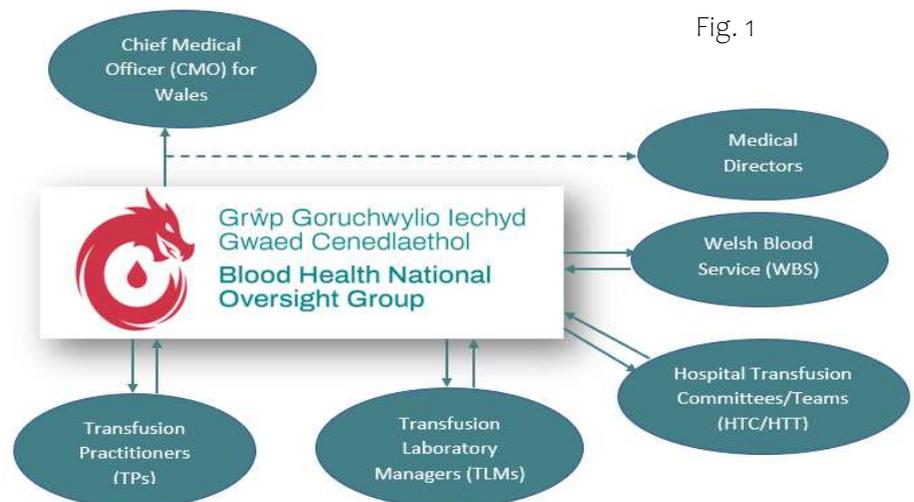
Structure & Governance to Support Transfusion in Wales

The Blood Health National Oversight Group was established in 2017 to oversee the implementation of the Blood Health Plan.

The BHNORG plays a strategic leadership role for transfusion across Wales. It is comprised of representatives from Welsh Government (WG), Welsh Blood Service (WBS) and Hospital Transfusion Committee (HTC) chairs from each of the Health Boards in Wales and subject matter experts from a range of clinical specialties. The BHNORG advocates safe and effective transfusion practice through a collaborative leadership approach.

Engagement with national transfusion meetings and the Welsh Blood Service are bi-directional and BHNORG has a direct link with the Chief Medical Officer (CMO) for Wales and the Welsh Medical Directors.

The interrelationships between BHNORG and NHS Wales can be seen in Fig. 1.



The BHNORG has established four key workstreams and three working groups which align with the three strategic aims to support delivery of the BHP.

BHNORG Key Workstreams

1. Appropriate use of O D negative (O D Neg) red cells: *to focus on where O D Neg units are used and whether it is appropriate. Key performance indicators (KPIs) are used to monitor issues and wastage and guidance has been developed to share best practice supply chain measures. Monitoring appropriate use of O D Neg in Major Haemorrhage Protocols (MHP).*
2. Appropriate use of Platelets: *to focus on appropriate use of platelets in accordance with national guidelines. KPIs are used to monitor wastage.*
3. Anaemia Management: *WG funded programme to implement optimisation of anaemia in pre-operative patients. This workstream will develop data dashboards for all HBs to evidence best practice.*
4. Intraoperative Cell Salvage (ICS): *network of ICS users who have developed standards and best practice guidance for the use of ICS in Wales. Development of data dashboards will be used to evidence benefits of ICS.*

BHNOG Working Groups

1. Serious Hazards of Transfusion (SHOT) Working Group: *to work with transfusion colleagues and SHOT to monitor and review incidents, promoting a just quality culture to improve transfusion safety.*
2. Education Strategy Group: *to enact the BHNOG education strategy for all staff involved in the transfusion pathway ensuring delivery of relevant educational programmes to support transfusion knowledge for healthcare professionals across Wales.*
3. Blood Shortage Group: *to enact the NHS Wales blood shortage plans as and when required. Working across the whole blood supply chain to ensure sufficiency and sustainability.*

The workstreams / working groups work plans are reviewed in accordance with the BHP review cycle to ensure the appropriateness of the BHNOG priorities. The workstreams also align with other UK wide transfusion programmes/guidance such as Choosing Wisely¹⁴ and National Institute for Health and Care Excellence (NICE) NG24 Guidelines¹⁵ for transfusion practice.

The BHNOG and therefore the BHP are independent from WBS however because of its interdependencies with the blood supply chain the WBS Five Year Strategy: Blood and Transplant Services for the Future (2023 – 2028)¹⁶ which specifically considers challenges for the blood supply chain aligns with the BHP.

As previously identified transfusion plays an integral role in the treatment of patients in Wales. There are currently hospital transfusion teams based in each hospital in Wales whose remit is to ensure the safe and adequate supply of blood for patients in their care.

Hospital Transfusion Teams (HTTs) are multi-disciplinary teams comprising of medical, nursing and scientific staff, and although these roles will vary across health boards, they will all play an essential part in maintaining and improving transfusion infrastructure and transfusion practice in Wales.

Transfusion Practitioners (TPs) are key individuals who are integral to ensuring safe transfusion practice through education and audit. The requirement to maintain a skilled and resilient TP workforce within each HB is fully endorsed and recognised within the BHP. HBs are directed to ensure that this key staff group maintains an integral part of the transfusion process.



Similarly the UK Transfusion Laboratory Collaborative (UKTLC)¹⁷ has highlighted the pivotal role of the hospital transfusion laboratory and its scientific staff within healthcare.

Pressures such as erosion of staff numbers, increasing workload and a lack of appropriately trained scientists means that the service is under constant strain and requires support to maintain viability. The UKTLC publish national UK wide recommendations to support transfusion teams in delivering a high-quality service.

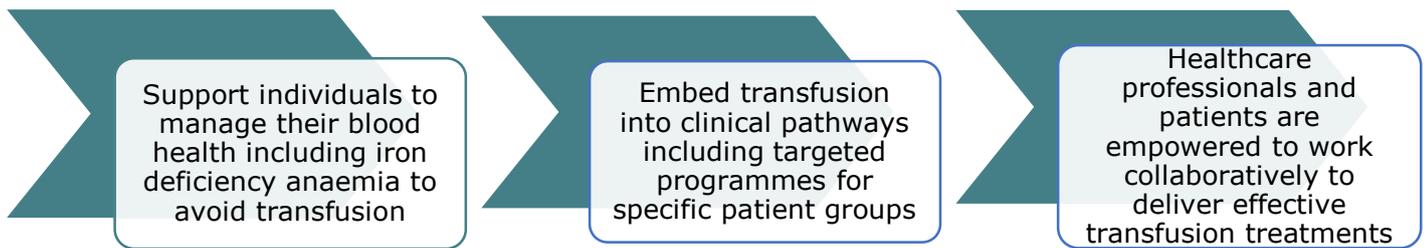
The BHP supports the UKTLC recommendations and reaffirms the need for a high quality, well-educated and motivated scientific workforce to provide a safe and resilient transfusion network at the heart of patient care.

Blood Health Plan Strategic Aims



1. Support individuals to manage their blood health and wellbeing, avoiding unnecessary intervention.

This aim is focused at developing bespoke, individualised treatment for patients/patient groups with the potential to require transfusion; acting to minimise risk and where unavoidable to minimise blood components used.



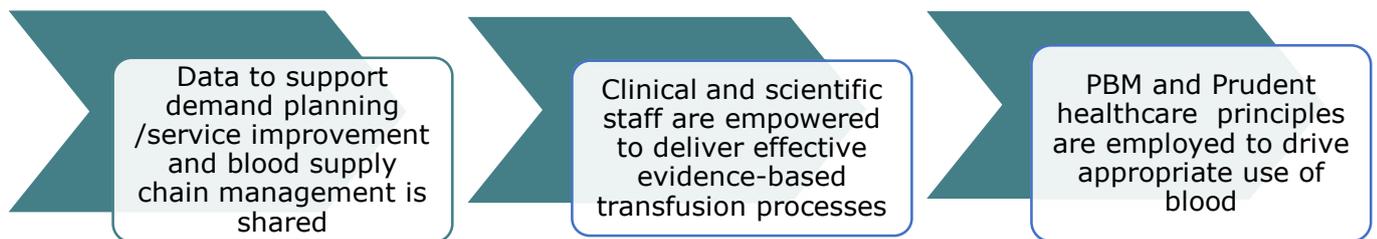
How will we achieve this?

- ◆ Work strategically across Wales to embed the Pre-operative Anaemia Pathway into patients' clinical pathways for the optimisation of anaemia. Once the pre-op pathway embedded use learning to develop corresponding tools and data pathways to support extension of pre-op anaemia to other groups of patients and the general population.
- ◆ Provide resources and education for healthcare professionals to engage in effective conversation with individuals regarding their blood health and/or transfusion requirements. Use informed consent to offer alternatives to transfusion and promote effective shared clinical decision making.
- ◆ Develop national guidance, protocols and where appropriate targeted and bespoke programmes for specific patient groups requiring transfusion. These will include but are not limited to provision of blood for, thalassaemia patients, Ro blood for sickle cell patients and blood and blood products for patients in community settings e.g. anti-D for prevention of Haemolytic Disease of the Fetus and Newborn (HDFN).
- ◆ Collaborate across the NHS including primary care to promote public blood health messages which support population engagement and ownership. This includes a blood health strategy for donors.
- ◆ Build on infrastructure put in place by the WBS and Health Board experience to develop an All-Wales strategy enabling individuals with Genetic Haemochromatosis (GH) to donate blood. This will help to support this specific group of patients and assist in the sustainability of the blood supply chain.

2. Use evidence and data to inform planning, improve practice and reduce inappropriate use of blood components.



This aim is focused on supporting and empowering healthcare professionals including scientific and clinical colleagues via Health Board/Hospital Transfusion Committees (HTCs) to provide effective, evidence-based transfusion practices for patients. Patient Blood Management (PBM) and Prudent healthcare principles play a strategic role in delivering this.



How will we achieve this?

- ◆ Work collaboratively across the blood supply chain to promote robustness and resilience in each part of the chain. Engage with Hospital/Health Board transfusion teams nationally to develop a strategic approach matching supply and demand thereby ensuring security of supply & that blood is available where needed most.
- ◆ Identify and work strategically with healthcare professionals in the highest blood using specialities to reinforce best practice interventions, promoting blood conservation measures and alternatives to transfusion that align with PBM and Prudent healthcare.
- ◆ Work strategically to interrogate and understand the opportunities presented by accessing national data warehouses and benchmarking for transfusion across Wales.
- ◆ Participate in national self-assessment tools for transfusion practice that allow hospitals/health boards to receive 'live' data which can be used to improve practice and provide real time benchmarking.
- ◆ Encourage active participation in auditing activities at a local, national and international level. Ensure audit reports are clear, direct and timely with recognised action plans and responsibilities for implementation. Promote a service improvement culture that learns from audits.



3. Place safety and quality at the core of care, reducing variability and supporting innovation and development.



This aim will use education, innovation and standardisation to ensure the safety and quality of transfusion practice. Where appropriate we will develop All Wales protocols and standards embracing the 'Once for Wales'¹⁷ principle endorsed by Welsh Government. Reducing variation will support healthcare professionals working in transfusion in Wales to move seamlessly across and within Health Boards without impacting safety.



How will we achieve this?

- ◆ Reinforce a robust incident reporting culture using national haemovigilance reporting systems e.g. SHOT/SABRE, implementing just and effective methods for investigations to support a lessons learnt/human factors approach.
- ◆ Implement the BHNOG Education Strategy for healthcare professionals at all levels of the transfusion pathway including primary care. The strategy will focus on innovative educational programmes for both scientific and clinical staff and support development, skills and career pathways for staff working in transfusion.
- ◆ Play a strategic leadership role in the development of an integrated IT system for transfusion in Wales. This will include the implementation of a Vein-to-Vein solution within hospitals and connectivity to the blood service to support data collection and understanding on how blood is used. All systems implemented will comply with national IT guidance standards.
- ◆ Work strategically across Wales to embed the NHS Wales Red Cell shortage Plan¹¹ into HB plans thereby ensuring a resilient and robust process for management of any shortages
- ◆ Support development and innovation within the transfusion setting by promoting evidence-based practice and cutting-edge practices.
- ◆ Include transfusion in national key patient quality and safety initiatives e.g. *PSN for unknown patient labelling* ensuring that the transfusion voice and input is considered at each stage of the process



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