



Grŵp Goruchwyllo Iechyd  
Gwaed Cenedlaethol  
**Blood Health National  
Oversight Group**

# ANNUAL REPORT 2022 - 23

**Blood Health National Oversight Group (BHNOC)**

<https://bhnog.wales.nhs.uk>

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# EXECUTIVE SUMMARY FROM BHNOG CHAIR

Welcome to the 2022-23 Blood Health National Oversight Group (BHNOG) Annual Report. As Chair of the BHNOG, I am extremely proud to take this opportunity to update you on the work undertaken on behalf of the BHNOG in 2022 -23 and to inform you of our future projects and work plans.

2022–23 has been a transition year as we leave some of the impact of the COVID pandemic behind but still face its ongoing challenges across NHS Wales. The BHNOG has continued to work with transfusion teams and clinical colleagues across Wales to ensure a safe and sufficient supply of blood for our patients. However, blood supply challenges remain with extended blue (pre-amber) alerts in Spring - Summer 2022, during which time, BHNOG worked with of key stakeholders establishing a blood shortage group to support the blood supply chain.

BHNOG and the Blood Health Plan<sup>1</sup> continues to play a system leadership role in the transfusion community in Wales. Our key messages this year remain as strong and focused as ever with the safe and appropriate use of blood, together with the provision of blood for those who need it most being our fundamental objectives.

To achieve these objectives, we have continued to deliver on service critical areas of work and have included in this report a data section to provide overview and scrutiny of our key measurable outcomes. These Key Performance Indicators (KPIs) (Appendix 1) have been established to improve and build on good practice.

We thank you as representatives and leads within your Health Boards (HBs) for the work you have done with the BHNOG and request that you continue to work with us to ensure that we can both deliver and where possible exceed the requirements of a first-class transfusion service providing exemplary care for both patients and the population of Wales.



Dr Brian Tehan, Consultant Anaesthetist, Betsi Cadwaladr University Health Board (BCUHB)  
Chair of BHNOG

# INTRODUCTION

Blood transfusions are essential, lifesaving treatments used every day within NHS Wales. Transfusion however is not a risk-free procedure, and the possibility of transfusion reactions or transmission of infection must always be considered as part of the overall treatment plan.

***It is therefore critical that blood and blood components are only given when needed and where no other suitable alternative exists.***

Blood supply challenges continued as the world returned to life after COVID resulting in extended shortage alerts during the Spring and Summer of 2022, making us again realise the criticality of a safe and effective blood supply for the people of Wales. We know that even with proactive management of the supply chain and continual review of demand this will remain challenging.

To help with these challenges, a Blood Shortage Group (BSG) was established under the auspices of the Blood Health National Oversight Group (BHNOG). The group compiled of BHNOG workstream leads and other key stakeholders advocate the message of appropriate blood use aligning with Patient Blood Management (PBM) principles and working collaboratively to address any shortage issues and ensure a safe and sustainable supply chain.

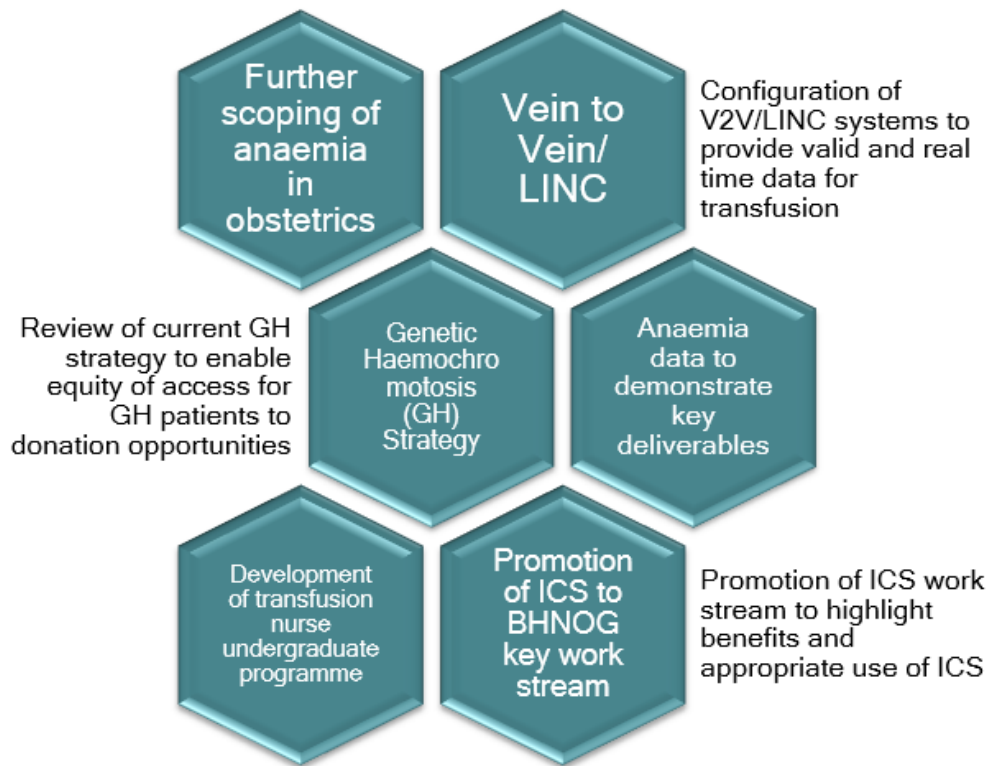
The overall aim of the BHNOG is to continue to provide staff both in the transfusion community itself and those in clinical teams across NHS Wales who use blood components with an overarching strategy for blood health for Wales.

Implementation of core strategic aims and best practice principles will allow us to develop a resilient system of patient care within transfusion with safety and quality at its core.



# PRIORITIES IDENTIFIED IN 2021 – 22 ANNUAL REPORT

The following priorities were identified in the 2021 – 22 Annual Report.



Ongoing work in 2022 – 23 meant that 2/6 these priorities were fully met with the remaining 4/6 progressing. These can be identified as follows:

- 1. Further scoping of anaemia in obstetrics:** *currently part of the Welsh Government funded Value Based Healthcare (VBHC) anaemia programme. Will be looked at further in 2023 – 24*
- 2. Vein to Vein/LINC (Laboratory Information Network Cymru):** *ongoing work with both programmes. Scheduled for completion 2024 – 25*
- 3. Genetic Hemochromatosis Strategy:** *Strategy developed and work ongoing to implement. This will form part of a Bevan and Safe Care Collaborative projects over the next 12 months.*
- 4. Anaemia data to demonstrate key deliverables:** *Ongoing as part of the VBHC anaemia programme for 2023 - 24*
- 5. Development of transfusion nurse undergraduate programme:** *programme available from September 2022*
- 6. Promotion of Intra- Operative Cell Salvage (ICS) to BHNOG Key workstream:** *approved September 2022*

## CHALLENGES TO THE BLOOD SUPPLY IN 2022 - 23

Following COVID and the return to 'normal' life challenges in maintaining the blood supply are still apparent. As mentioned in the overview the Welsh Blood Service (WBS) was in blue (pre-amber) alert for over 12 weeks in Spring – Summer 2022.

During this time in addition to the active management of the blood supply across the whole of the supply chain several other initiatives were also progressed.

These included:



Agreed reduction of hospital stocks to below 10% of previous stock holding. This provided stabilisation of the supply chain and avoided the need to move to amber alert



Establishment of BHNOG Blood Shortage Group (BSG) to advocate prudent use of blood within both the laboratory and clinical settings



Once blood stocks had fully stabilised the completion of a blood shortage tabletop exercise '**DIM GWAED**' involving all Health Boards to ensure resilience of the supply chain and escalation procedures as necessary

This piece of work will continue 2023 – 24 to ensure provision of a robust and resilient blood supply chain.

# WORK STREAMS: PROGRAMMES OF WORK

The BHNOG continued the work of their four key workstreams in 2022 – 23.



Anaemia



Appropriate use of  
O D Negative



Appropriate use of  
Platelets



Intra-Operative  
Cell Salvage

## Anaemia Management Work Stream

In 2022 funding was received via the Welsh Government 'Value Based Healthcare' funding stream to support the development of the current BHNOG anaemia workstream into a full All Wales Anaemia management programme.

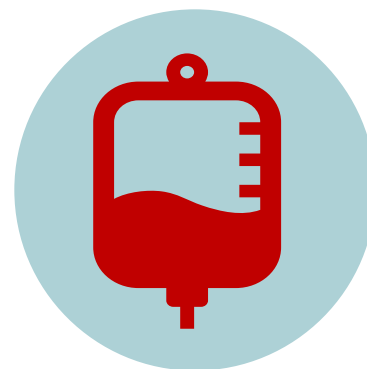
The funding allowed expansion of the existing work force to include three full time Regional Anaemia Clinical Coordinators, Clinical and Operational leadership support together with Project Management and Business Analyst roles.

The funding is for a 2-year fixed term timeline to implement the previously agreed All-Wales Pre-operative Anaemia Pathway<sup>2</sup> in all HBs across Wales. The following project outcomes were completed in 2022 – 23.

1. Agreement for a standardised pathology reflex testing algorithm to support a consistent approach and allow for the capture of relevant pathway data
2. Recruitment of staff to all the roles identified previously
3. Assessment of key demographic data to construct current baseline information for each health board. This baseline data will be used by the project team to develop integrated patient clinical pathways in each Health Board.

## Appropriate Use of O D Negative Red Cells (O D neg)

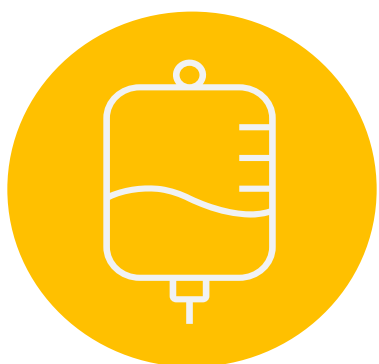
In 2022 - 23 the work of the workstream continued to emphasise the importance of active stock management and appropriate use of O D negs. The blood supply chain shortages in 2022 meant that there was sustained focus on ensuring that the All-Wales O D neg guidance<sup>3</sup> was implemented and to support this a Gap analysis was sent to all HBs to assess compliance. In 2023 this was supported by distribution of a bespoke action plan for each HB requesting updates on both weak and strong areas of compliance.



Development of the ongoing amalgamation of the current O D neg and Major Haemorrhage (MH) dashboards into one consolidated document was trialed in early 2022 and has been ongoing since (*please refer to KPI data in Appendix 1*).

Taken together these two key pieces of work facilitate a more holistic view of O D neg usage, empowering transfusion teams to discuss with their clinical colleagues the management, use and conservation of O D negs as part of the overall Wales strategy.

## Appropriate Use of Platelets



The work stream saw a consolidation in 2022 – 23 of the platelet key performance indicators used to support the platelet supply. The work stream has two wastage KPIs and monitors data from across the whole supply chain.

Wastage KPIs are set at levels agreed as both challenging to encourage improvement but realistic given the acknowledged complexities of the supply chain and unpredictability in demand.

In October 2022 the appropriate use of platelets audit was revisited by Specialist Registrars across all HBs. The audit was performed to assess compliance of clinical practice against the British Society for Haematology Guidelines<sup>4</sup> for platelet transfusions in adults. Results were very encouraging with a 100% compliance in several areas. Further information is available in Appendix 1.



## Intraoperative Cell Salvage (ICS)

In September 2022, following a review of current workstream activity it was proposed and agreed to promote ICS from a working group to a key work stream. ICS will replace the Single Unit Transfusion/Transfusion Associated Circulatory Overload workstream whose work is being picked up by Hospital Transfusion Teams & the SHOT working group respectively. ICS supports the appropriate use of Cell Salvage as part of our Patient Blood Management (PBM) strategy. It is a long-established practice in Wales and has been supported both financially and in an administrative capacity by Welsh Blood Service (WBS) since 2007.



In 2022 – 23 the All-Wales ICS Network (AWICSN) have:

- identified Clinical and operational leads for each of the Health Boards (HB) across Wales.
- undertaken a survey to identify resources and equipment used in each HB
- revised the ICS data collection form to encourage the capture of more valid data
- revised the ICS annual reports to allow for benchmarking and data comparison across Wales
- drafted Key Performance Indicators (KPIs) which are currently out for review

The 2022 – 23 ICS annual report identified a total 2038 ICS data collection forms submitted for analysis. This was an 18.5% increase on 2021 – 22. The two largest specialty users across Wales were Orthopaedic surgery 38% (775 /2038) and obstetrics 25% (506/2038).

2023 – 24 will look to introduce KPIs for ICS providing data on positive patient outcomes together with scrutiny of ICS, which is funded centrally to ensure value for money as part of the BHP strategy for prudent red cell use.

## Serious Hazards of Transfusion (SHOT) Working Group

The SHOT working group continued to build on 2021 – 22 incident management with a range of associated safety and educational initiatives.

Developments and innovations introduced in 2022 – 23 include:

- I. Updating the current incident reporting tool to an electronic version for each Health Board to improve data integrity and analysis
- II. In collaboration with the UK SHOT team hosted a SHOT Roadshow to celebrate its 25-year anniversary
- III. Completion of Human Factors Toolkit (based on SHOT) which is being hosted on the BHNOG website <https://bhnog.wales.nhs.uk/education/human-factors-toolkit/>
- IV. Construction of a Gap Analysis tool for HBs to allow them to benchmark their SHOT recommendation responses across Wales

One of the challenges that faced the SHOT group was how to manage ongoing actions in light of the publishing of the next SHOT report. This has been particularly problematical and has initiated a review of the SHOT working group remit to accommodate.

This will be a part of the ongoing service improvement process 2023 – 24 which will see the BHNOG SHOT working group review the current workplan with the UK SHOT team to look at mutually beneficial pieces of work focussing effective use of resources whilst avoiding duplication

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## EDUCATION STRATEGY GROUP

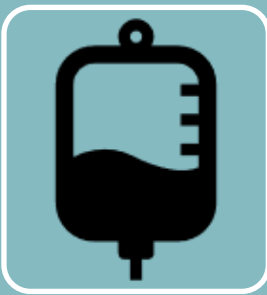
In 2022, the Education strategy<sup>5</sup> which was approved at the end of 2021 was developed into a work group for BHNOC. Approval of the Education Strategy Group terms of reference (ToR) and appointment of the Education Strategy Chair has provided a starting point to fully develop an All Wales integrated transfusion education programme for health care professionals in Wales.

Several key milestones were achieved in 2022 – 23 these include:



### Blood Transfusion Training Package for Pre-registration Nursing Students (Wales)

- Collaborative package developed for all 2nd & 3rd year undergraduate nursing students in Wales
- Available from September 2022



### Independent Authorisation of Blood Transfusion (IABT) (formerly NABT)

- Review of current course specification and rebrand from NABT to IABT
- Review of IABT policy to align with new specification and futureproof qualification



### Blood Transfusion Training (BTT) e-Learning

- National provision of e-Learning moved to the electronic staff record (ESR)/Learning@Wales to align with other mandatory training
- BTT is a suite of courses created to support healthcare workers to undertake their role in the transfusion process safely

For more information about educational courses please go to <https://bhnog.wales.nhs.uk/>.

# ADDITIONAL BHN OG PROJECTS/EVENTS

## BHNOG Communications

Effective and timely communication between BHNOG and the community it serves is an integral component of the success of the oversight group. In 2022 communications to HBs included engagement with Hospital Transfusion Committees, Medical Directors and Welsh Government amongst others.

In August 2022 the BHNOG launched its own website: <https://bhnog.wales.nhs.uk/>. The website was developed by the Blood Health Team in collaboration with internal IT colleagues and a commercial website partner.

The website provides a repository for transfusion related guidance education and information for healthcare professionals highlighting both the work of the BHNOG and providing opportunities for our stakeholders to participate in the collaborative projects promoted by the BHNOG.

Fig. 1 below shows the BHNOG homepage.

*N.B. The website is available in both English & Welsh*

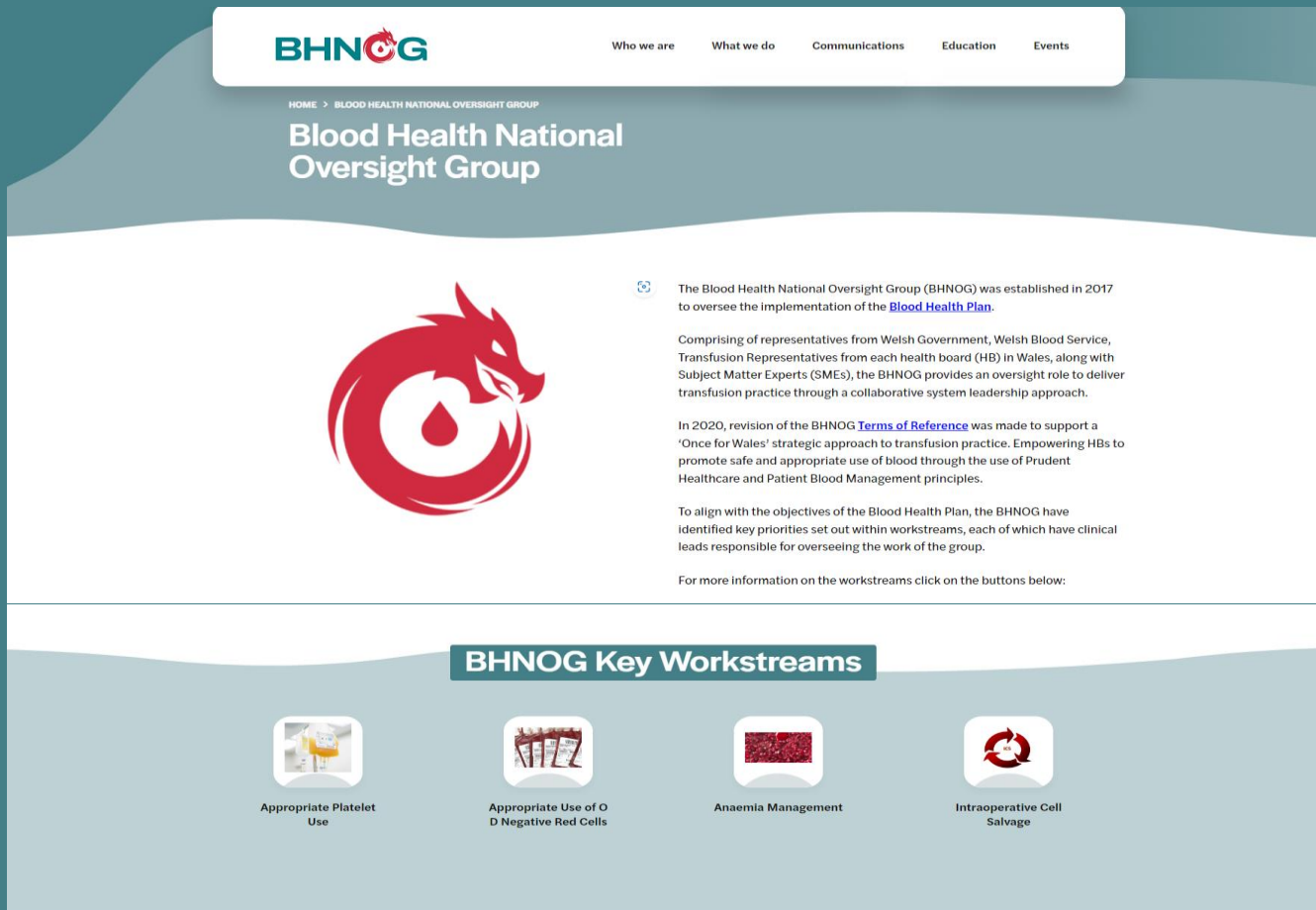



Fig.1

# BHNOG CONFERENCE



**TRANSFUSION FOR A HEALTHIER WALES**

We would like to invite you to join us in celebrating another year of the Blood Health Plan (BHP).

Full details of the conference programme will follow.

The focus for this year's meeting will be placing the patient's wellbeing at the heart of transfusion practice

**YOU ARE INVITED TO JOIN US AT:**

The Blood Health National Oversight Group (BHNOG) Conference  
Llanerch Vineyard, Llantrisant  
on Wednesday 27th April 2022 09.30 – 16.00

To register your interest please contact: WBS.BloodHealthTeam@wales.nhs.uk

*This event is free of charge, refreshments and lunch will be provided*

 Grŵp Goruchwylio Iechyd Gwaed Cenedlaethol  
Blood Health National Oversight Group

In April 2022 BHNOG held its first face to face conference since 2019. The conference entitled; *'Transfusion for a Healthier Wales'* comprised of presentations from key themes of work and innovative and novel areas in transfusion.

72 delegates registered for Conference with 59 attendees. The conference was opened by Dr Jacinta Abraham, Medical Director, Velindre University Health Board, Chair of Wales Medical Directors' group. Highlights of the programme included presentations from our external speakers including:

➤ **Human Factors – Lessons from the Operating Theatres**

Dr Mark Stacey, Consultant Anaesthetist, C&VUHB

➤ **Psychological Safety- Enabling Team Voices**

Rachel Trask, Interim Assistant Director Continuous Improvement, ABUHB

➤ **ACE – Celebrating Success**

Dr Shruthi Narayan, Medical Director, SHOT

The full programme for the day can be accessed from the <https://bhnog.wales.nhs.uk/>.

Conference feedback was very positive with comments such as *'Overall, everything was very interesting. I felt that the conference was very informative, and I have learned a lot'*.

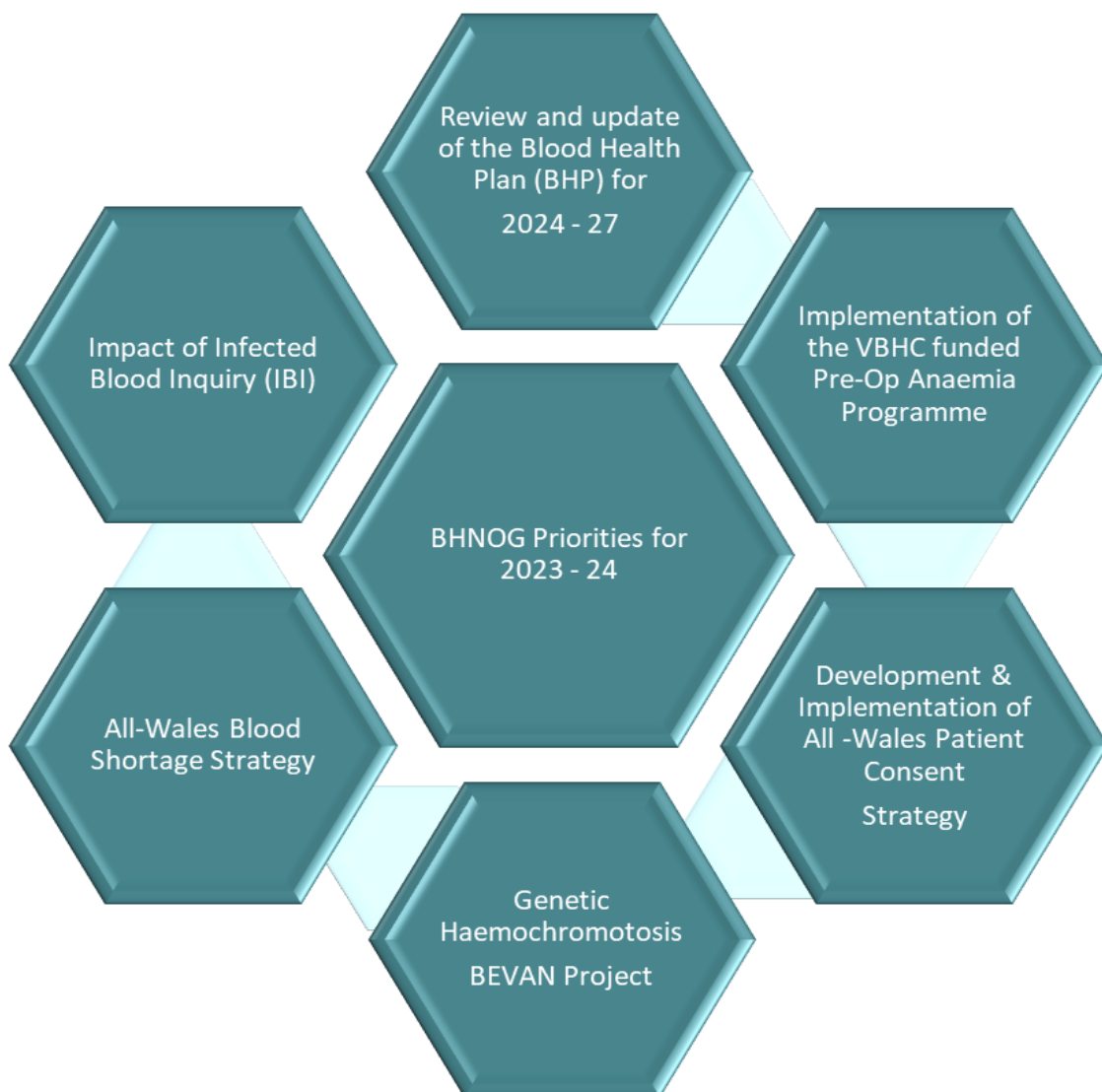
It was agreed to hold conferences bi-annually.

# FUTURE PRIORITIES FOR 2023 - 24

This Annual Report identifies the key achievements and work programmes undertaken by and on behalf of the BHNOG from April 2022 – March 2023.

The report builds on the previous work through the delivery of PBM, prudent health principles and by supporting continuous improvements in transfusion in Wales. The report emphasises and applauds current momentum whilst acknowledging there is still much to do.

We look forward to your continued support, involvement, and future collaborations as we develop our work plans to deliver a safe, effective, and resilient programme with the aim of providing outstanding transfusion care for the patients and population of Wales.



# REFERENCES & USEFUL DOCUMENT LINKS

1. Blood Health Plan: <https://gov.wales/sites/default/files/publications/2021-09/nhs-wales-blood-health-plan.pdf#:~:text=The%20Blood%20Health%20Plan%20%28BHP%29%20has%20been%20developed,strategic%20aims%20can%20be%20defined%20as%20follows%3A%201.>
2. All Wales Anaemia Pathway: <https://wbs-intranet.cymru.nhs.uk/bht/wp-content/bht-uploads/sites/4/2022/01/All-Wales-Pathway-Final-Version-2.pdf>
3. All Wales O D Negative Guidance: <https://wbs-intranet.cymru.nhs.uk/bht/wp-content/bht-uploads/sites/4/2022/01/All-Wales-Guidance-for-the-Management-Use-of-O-D-Neg-Red-Cells-v2-Dec-2021.pdf>
4. BSH Guidelines for platelet transfusion in patients: <https://b-s-h.org.uk/guidelines/guidelines/use-of-platelet-transfusions>
5. BHNOG Education Strategy: <https://wbs-intranet.cymru.nhs.uk/bht/wp-content/bht-uploads/sites/4/2022/01/Edcation-Strategy-2021.pdf>
6. BHNOG website: [www.bhnoq.wales.nhs.uk](http://www.bhnoq.wales.nhs.uk)

If you would like to know more about the work of the BHNOG or are interested in participating/collaborating with any of the work projects, please contact us at:  
[WBS.bloodhealthteam@wales.nhs.uk](mailto:WBS.bloodhealthteam@wales.nhs.uk)



# APPENDIX 1

Current key data KPIS to provide overview and scrutiny of our measurable outcomes. These will be expanded as our workstreams continue to develop their KPIs.

Further narrative around KPI data is available from your HB transfusion team.

1. <b>ISSUES AND WASTAGE KEY PERFORMANCE INDICATORS:</b> <i>the following data provides the KPIs for All Wales issues and wastage data from 01/04/2022- 31/03/2023. Specific Health board can be obtained from your transfusion team</i>		
Measure	KPI	Actual
1a. O D Neg as a percentage of issues	12%	12.36%
1b. O D Neg wastage	10%	7.62%
1c. Hospital Platelet wastage	15%	15.76%
2. <b>MAJOR HAEMORRHAGE KEY PERFORMANCE INDICATORS:</b> <i>the following data provides KPIs for All Wales Major Haemorrhage data from 01/04/2022 – 31/03/2023. Specific Health board can be obtained from your transfusion team</i>		
2a. O D Pos emergency units used for unknown males	80%	53%
2b. Sample taken before first red cell unit Transfused	95%	83%
3. <b>EDUCATION Completion Rates:</b> <i>the following information is taken from key BHNOG educational programmes delivered in 2022 – 23. The data shows the total number of students who have completed each course. Further information on each qualification can be found at <a href="http://www.bhnog.wales.nhs.uk">www.bhnog.wales.nhs.uk</a></i>		
3a. Senior Student Assistantship (SSA)	403 students	
3b Non -Medical Authorisation of Blood Transfusion	17 delegates	
3c. Undergraduate nurse education	332 student nurses	
4. <b>BHNOG WEBSITE ANALYTICS:</b> <i>analytics are provided by Google based on the number of users of the website from the launch in September 2022 – 31<sup>st</sup> March 2023</i>		
4a. Number of new users accessing the website	568	
4b. Number of returning users accessing the website	168	
5. <b>AUDITS &amp; SURVEYS:</b> <i>the following identifies the audits undertaken on behalf of the BHNOG for 2022 - 23. Unless otherwise stated these audits are pan Wales. Specific Health Board data can be obtained from your transfusion team. All data is recorded as compliance with the standard defined</i>		
<b>5a. QS138: NICE Quality Standards</b>	Compliance Levels	
QS1: Patient was investigated for Iron Deficient Anaemia before admission to surgery	80%	
QS2: Adults having surgery and expected to have moderate blood loss are offered Tranexamic acid	51%	
QS3a: Patient clinically re-assessed between units	39%	
QS3b: Haemoglobin (Hb) checked between units	44%	
QS4: People who have received a transfusion were given verbal and written information about transfusion	39% verbal 3% both	
5b. <b>BSH Guidelines for adult platelet transfusion</b>		
PS1: patients with reversible cause for BMF and no other risk factors for bleeding, the threshold for prophylaxis is a plt count of $10 \times 10^9/l$	76%	
PS2: patients are prescribed no more than one adult dose for prophylactic use	91%	



PS3: patients with chronic BMF are not routinely given prophylactic platelet transfusions	100%
PS4: prior to procedure if no additional risk factors present, threshold for platelet count is as stated in BSH platelet guideline	100%
PS5: patients do not require platelet transfusion prior to bone marrow biopsy	100%
<b>5c. NBTC Codes</b>	
Indication Code given	29%
<b>6. SHOT:</b> <i>the data identifies the total number of SHOT reportable incidents (including Serious Adverse Reactions and Events) across all HBs. From April 2022 – March 2023. Specific HB data can be obtained from your transfusion team</i>	
6a. SHOT reportable incidents (SAE & SAR)	25
<b>7. Intra-Operative Cell Salvage (ICS) Data:</b> <i>the following data identifies the number of ICS reports analysed from April 1<sup>st</sup>, 2022– 31<sup>st</sup> March 2023. Specific HB data can be obtained from your transfusion team</i>	
7a.Total number of ICS reports analysed	2038
7b. Two Largest ICS speciality users	
Orthopaedic Surgery	775/2038 = 38%
Obstetrics	506/2038 = 25%