

Research & Development Strategy

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Velindre NHS Trust



Gwasanaeth Gwaed Cymru
Welsh Blood Service

Acknowledgement

We would like to thank the R&D departments of NHS Blood and Transplant and the Scottish National Blood Transfusion Service for with their insights and ongoing support.

We thank our colleagues at the Welsh Blood Service and Velindre NHS Trust for their time and their enthusiasm during the formulation of this strategy.

Illustration

Cover	a biomedical scientist performs complex investigations for hospital patients.
Page 5	a member of our platelet apheresis collection team.
Page 8	laboratory staff member of the microbiology testing laboratory.
Page 19	the location of recipients of stem cell donations from the Welsh Bone Marrow Donor Registry.
Page 22	a blood donor uses a tablet during pre-donation registration.
Page 26	the three components produced from blood donation: platelets, red blood cells and plasma.
Page 29	A biomedical scientist confirming the ABO blood groups of donated blood.

Mae'r ddogfen hon ar gael yn Gymraeg a gellir ei lawrlwytho yn www.gwaed-cymru.org.uk.

This document is available in Welsh and can be downloaded at www.gwaed-cymru.org.uk.

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Foreword

The Welsh Blood Service is committed to research and development and I am delighted to present this new strategy. There are pockets of excellence in research practice in the Welsh Blood Service which we must celebrate and promote, but this strategy challenges us to go further and develop a new organisational approach to research and development.

To deliver on the ambitions of this plan requires all of us at Welsh Blood Service to contribute. Health and care services are constantly evolving and it is important we ready ourselves for emerging advances in care such as regenerative medicine, personalised therapies and technological revolutions.

As a research active healthcare organisation we will deliver better services to the donors we care for and the patients whose care we support. Our focus will be on working with partners and involving all staff in achieving this. We want to be a confident and outward focused organisation, expanding our horizons and open to working with a range of new partners. This will allow us to ensure we deliver our services based on the best available evidence and, in return, ensure we contribute our unique sets of skill and experience. The Welsh Blood Service has delivered an excellent service for many years. We must now challenge ourselves as to how we are using our talents in this endeavour.

Cath O'Brien

Director, Welsh Blood Service

I welcome this strategy which sets a clear ambition for the Welsh Blood Service to transform its research activity, as part of Velindre NHS Trust and NHS Wales working with partner organisations to improve donor and patient care.

Steve Ham

Chief Executive, Velindre NHS Trust



Our Vision

Welsh Blood Service will advance donor care and transfusion and transplantation medicine through the inception and participation in high quality health services research.

Our vision for the Welsh Blood Service is that it is an organisation where high quality research and development is performed as part of our normal day-to-day activity.

We will actively engage in collaboration to ensure our research efforts achieve the best quality, outcome and reach as possible.

Context

The Welsh Blood Service (WBS) is a unique organisation within the Welsh healthcare system. We enable the provision of a range of major healthcare services to the people of Wales and provide knowledge, expertise and service in the area of blood donation, transfusion, standards, transplantation and public involvement. Our service provisions are multifaceted and highly skilled. In 2016, we completed a major expansion in our service extending our provision to all of Wales.

The Welsh Blood Service is reliant on the generosity of our donors, who are a source of inspiration for the service. Each of our donors should feel the service is using their donation to the maximum of its ability to save and improve others' lives.

We have the potential to contribute our knowledge and expertise to a range of healthcare settings. Our research strategy will affirm our commitment to making this contribution; it focuses on the most efficient and effective ways we can achieve this, and reinforces that commitment to perform high quality research that will have an impact.

We are a constituent part of Velindre NHS Trust and this strategy aligns with the Trust's mission to 'Deliver Quality, Care and Excellence' and is informed and underpinned by Velindre NHS Trust's organisational values of being Accountable, Bold, Caring, and Dynamic. As part of NHS Wales, the service faces broader challenges. Research activity and evidence-based innovations are a means of tackling this challenge.

The Welsh Blood Service has commenced an ongoing programme of modernisation. Recent advancements include the expansion to an all-Wales service, the implementation of world-leading technologies in our donor clinics, and a major IT upgrade for our inventory and production systems. Our modernisation has brought the R&D contribution of the organisation into focus. Our previous efforts have been more confined to a supportive role, such as our work for the Biomedical Excellence for Safer Transfusion Collaborative, or in narrow specialised topics. However WBS has the potential to do more, and we

have untapped enthusiasm and expertise. In the formulation of this strategy, we consulted widely. First and foremost we sought the active involvement of our colleagues within the service and the Velindre Trust through workshop events. These internal consultations identified our strengths and defined our aspirations. The strong message was that our colleagues wanted an R&D function to be part of the first class service that they took pride in delivering. We also consulted with leading academics and clinicians to ascertain their collaborative expectations of us. We sought the advice from other UK blood services regarding their approach, direction and management of an R&D function within their own organisation.

The result is this ambitious strategy, designed to be relevant to our colleagues and feasible for the service to deliver. This strategy allows us to form synergistic partnerships, capture and disseminate our work and leads us to advance knowledge and practice globally.

Our Aims

Research and development activity in the Welsh Blood Service will have the following aims:

- **Drive Improvement**
- **Increase Our R&D Activity**
- **Be Open to Collaboration**
- **To Build Our Reputation**

Our Objectives

In order to use the evidence-based practice approach in our work we need to derive that evidence. We will derive this evidence through research and development (R&D)ⁱ, and use it as a tool to optimise the quality and efficiency of what we do. We want to build our reputation as a research-active blood establishment that produces high quality research, drives further development and publishes our findings, enabling patient and donor health to be improved by what we do. We want to be an organisation that is open to collaboration and works with mutually interested parties in order to achieve our research aims.

Drive Improvement

Ensure our R&D efforts are of the highest quality

We will re-establish the Welsh Blood Service R&D Groupⁱⁱ which will oversee all R&D activity within WBS. The leadership for the delivery of this strategy is within the remit of this R&D Group. As we want R&D activity to drive increases in the quality and efficiency of our service all proposed R&D activity will be reviewed by the WBS R&D Group for its scientific benefits and only those demonstrating a high level of quality will be approved to be taken forward.

To ensure a robust yet streamlined governanceⁱⁱⁱ of our projects we will align our review and oversight with the corporate permission processes within Velindre NHS Trust. The R&D facilitator role will form a satellite function of this permission process, locally leading on governance, expert advice and guidance on research policy and procedure while linking into the Velindre R&D function.

ⁱ Our definition of R&D activity includes NHS Research, academic research, and further development resulting from a research activity and service evaluation work, which may be performed solely by WBS alone and also performed in collaboration with other parties.

ⁱⁱ Welsh Blood Service R&D Group is an internal committee composed of the relevant senior management, operational staff and governance staff. The secretariat for the WBS R&D Group will be the R&D Facilitation Lead, who will coordinate activity. The WBS R&D Group will work in close collaboration with the WBS Senior Management team.

ⁱⁱⁱ The term governance means the application of the *Research Governance Framework for Health and Social Care in Wales* through Velindre NHS Trust processes.

Link R&D activity with advancement in care

We want R&D activity to build the evidence base for both WBS's care and practice but also to support the wider healthcare provision that our service supports. The R&D Group will objectively review proposed projects on this aspect and will take proactive steps to ensure findings are fed back into practice. At the outset of any R&D activity, we will ask our researcher or collaborator to indicate the intended route to publication or information dissemination. During the project or at the completion of the project (as appropriate), the dissemination of the findings will be examined and actioned. Facilitation and training will be offered to enable the results of the research to be disseminated through the appropriate channels. We will also effectively communicate with our donor and service users to raise awareness of the outcome of research on the improvement of their care.

Obtaining sustainability for R&D activities

In order for ongoing activities to achieve sustainability, we must fully integrate the financial aspect within the organisation and have an organisational R&D funding scheme. All research activity will be cost-analysed prior to R&D Group scrutiny.

Funding will be identified and where possible sourced for R&D activity. Sources could be the charitable and internal funding, external sources or any combination of these. In line with costing models agreed for contracted NHS R&D activity, any activity will have a capacity building and overhead element applied to the costings of a project. Capacity building elements of funding are to be reinvested in the organisation in order to achieve sustainability. When appropriate, significant R&D project plans will be included in the Velindre NHS Trust's Integrated Medium Term Plan. This inclusion will allow greater planning and delivery of our research goals.

There is a role for commercial awareness of our activities. However, it is early in the life cycle for this aspect to be addressed in detail. Once our offering is more established we will revisit this aspect of business. Any external funding (see section *Obtaining external funding*) will be formally governed through NHS governance procedures to ensure cost neutrality for the NHS. Articulate and

upfront costing and contract arrangements will be made following Velindre NHS Trust's Research Governance processes. Allocation of internal funding will be recommended by the R&D Group and governed by the Senior Management Team.

To Increase Our R&D Activity

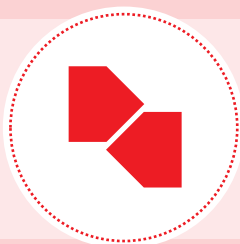
Organise and co-ordinate our R&D activity

Advances in healthcare are made in a number of different ways, from discoveries in the laboratory to observations in large populations. We believe that all these types of research and development are important and we will support all valid approaches to high-quality R&D. Therefore we will support a range of research types from laboratory-based work to more clinical- and demographic-based approaches. We will organise our R&D activity into four encompassing themes. These themes will be aligned to the service provision within WBS, although they are not mapped directly to specific departments. This will enable the separation of the management of R&D-related activity from the operational demands, and allow us to add balance within the activity taking place within the service. The four themes will be: Donor Care and Public Health, Transplantation, Products, and Therapies.

This separation of activity into themes will allow a 'shared ownership' approach to R&D projects. It will allow an effective and efficient means of being inclusive of internal resources and personnel. It will also allow easier interfacing and communication with external parties.

It is envisaged that a lead person for each of the research themes will be identified by the Senior Management Team, who will then lead the activity within the theme and be the designated theme lead for the WBS R&D Group.

Our Research & Development themes in the **Welsh Blood Service**



Transplantation

includes topics surrounding solid organ and stem cell transplantation, histocompatibility and immunogenetics and donor registries



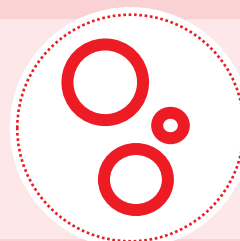
Donor Care and Public Health

includes topics surrounding donor recruitment, retention, eligibility and care and public health and surveillance



Products

includes topics surrounding blood components, which include immunohaematology, testing, component and product manufacturing, quality management, and the evaluation of equipment and materials



Therapies

includes topics surrounding cellular and other blood therapies

Developing our workforce capability

The profile of R&D experience at WBS is diverse. The profile ranges from persons entirely naive to research, through to those who may have sporadic experience of research, to staff who have up-to-date knowledge of R&D in their area and who also may possess academic research qualifications.

We need to be mindful of this diversity within our workforce when assessing this strategy's impact on the workforce capabilities. In order for our colleagues to deliver research, they may need additional training and education. We will adopt a tailored and layered approach to developing the workforce capability for R&D.

When establishing R&D projects, the required skills for the project will be assessed and then adequately provided for. Training provision will need to be multifaceted and tailored for our workforce and organisation. A 'just in time' training model will avoid overprovision and underutilisation of training and also enable training events to fit with operational service demands. The training delivery will be continuously reviewed by the R&D Group in order to ensure that an optimised model for delivery is utilised.

R&D-related training may be arranged in-house through the WBS Training & Development Department or through Education & Development at Velindre NHS Trust. External providers of training and education include the Health and Care Research Wales, and our collaborator's own training provision.

All staff will have some aspect of research awareness included in their Performance Appraisal and Development Review. The activity required to support this will be provided through the staff development activities described in section *Embed a positive culture around R&D activity*.

Individuals who have more substantial R&D activity in their role will have this aspect of their working addressed in detail within their Performance Appraisal and Development Review and through training that supports professional revalidation.

Developing our workforce capacity

We will identify ways to develop the workforce required to support our R&D projects.

At the beginning of any project, the proposed activity will be reviewed by the R&D Group and the consequence on workforce resources will be defined and identified. Currently there are a small number of staff within WBS who have a research remit in their role. Initially this group will serve as the primary support for R&D projects and act to utilise the expertise and resources of their colleagues within their work setting. We wish to involve more staff in research, both as leaders and contributors. Therefore the capacity of this small group will be reviewed, and we recognise that we need to access and secure support in developing our workforce through external partnership and collaboration. For example, we will examine and use backfill arrangements using funding either from WBS's own budget or, when available, from external schemes (see section *Obtaining external funding*).

It is envisaged that the implementation of the strategy will make a number of indirect demands on the support services within WBS. These additional demands will be made on estates, facilities, library support, IT support and in the communication output of the organisation. We will define, quantify, plan and manage this in the appropriate way as a change in service planning, enabling the relevant departments to respond and deliver.

Embed a positive culture around R&D activity

We will aim to provide an environment where staff feel engaged with an active research agenda. We will do this by raising awareness of research and its benefits and implementing a programme of events and activities which will aim to encourage staff engagement. In-house library services will be strengthened and promoted through closer working ties with Velindre NHS Trust provision and internal support. The reporting or publication of our research projects will be promoted and publicised both internally and in our collaborator's literature.

Be open to R&D collaboration

Actively seek collaborative partners to develop R&D projects

The main approach we will take to develop a program of research activity will be to work in collaboration with other bodies.

We will stimulate dialogue between academia, clinicians and industry. We will bring them together with our own staff to inform each other and foster possible avenues for research projects. This approach will allow the Welsh Blood Service access to cutting edge research initiatives and will ensure our efforts will make advances in the field.

In any sector, we wish to work with leaders in the field and so we will seek out leading individuals and groups who share our research objectives. We will make links with these groups and work towards bringing together the skills from different disciplines and fostering research ideas.

- International and UK Industry

We will pursue opportunities to work on R&D projects with commercial partners when their aims are synergistic with ours. We will provide fast responses to enquiries and have costing and contract tools to hand to aid negotiation and set-up.

There are a number of organisations and bodies whose function is to implement translational health research to the care of patients. We will aspire to work with these bodies and then participate in projects when relevant to our R&D strategy.

Through this approach, we will have a balanced portfolio of collaborative projects in terms of the type of collaborator; the timeline of project duration; and the theme of the research within the organisation.

- Academic Institutions

We will positively target universities in Wales as sources of collaboration. Welsh Government's research infrastructure has certain funding streams with eligibility

specific to Welsh collaborations that would then be accessible through this intra-country collaboration.

We will also seek collaborations with higher education institutions from outside of Wales. Specific expertise and further funding streams may be accessed this way. Collaborations will be facilitated through the good use of IT and communication.

We will aspire to contribute to the composition of research proposals and be included on funding applications.

Working with the Higher Education sector allows the Welsh Blood Service to access initiatives and funding and to work alongside experts in their field. This approach will ensure our efforts are of the highest academic rigour and to access a wider scope of knowledge and capability.

- NHS Wales

NHS Wales is a comprehensive service, therefore collaborations within it will allow access to a range of research areas, both general and also specialised services. We wish to work with the Health and Care Research Wales funded infrastructure to perform and support the highest quality translational research.

- Other UK NHS bodies

We must also acknowledge that the NHS in the rest of the UK may also wish to collaborate with us and we will remain open to this. We will also look at our existing links with clinicians and our customer health boards to examine whether there is ongoing or planned clinical academic research activity that the service could engage with.

- The international Blood Services

We will work alongside the research arms of the other national blood services to share practice and strategy. When working with the other nations, we will communicate closely with NHS Blood and Transplant, the Scottish National Blood Transfusion Service and the Northern Ireland Blood Transfusion Service to ensure our efforts are coordinated appropriately. We will be open and receptive to

international collaborative projects. This avenue will allow access to the international community and contribute to the blood and transfusion medicinal field.

Obtaining external funding

When collaborating with non-commercial entities, we will work to obtain funding for our activities either directly from the other party or by being awarded a proportion of funds from a joint project source.

Charitable sources of funding will be applied for when appropriate to the project.

We will pursue relevant opportunities to generate commercial income that will be reinvested into our research capability. We will ensure that personnel time and equipment costs are adequately quantified and costed, and funding streams are scrutinised when working with commercial entities.

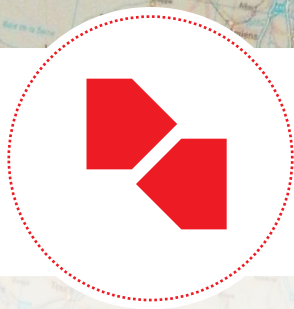
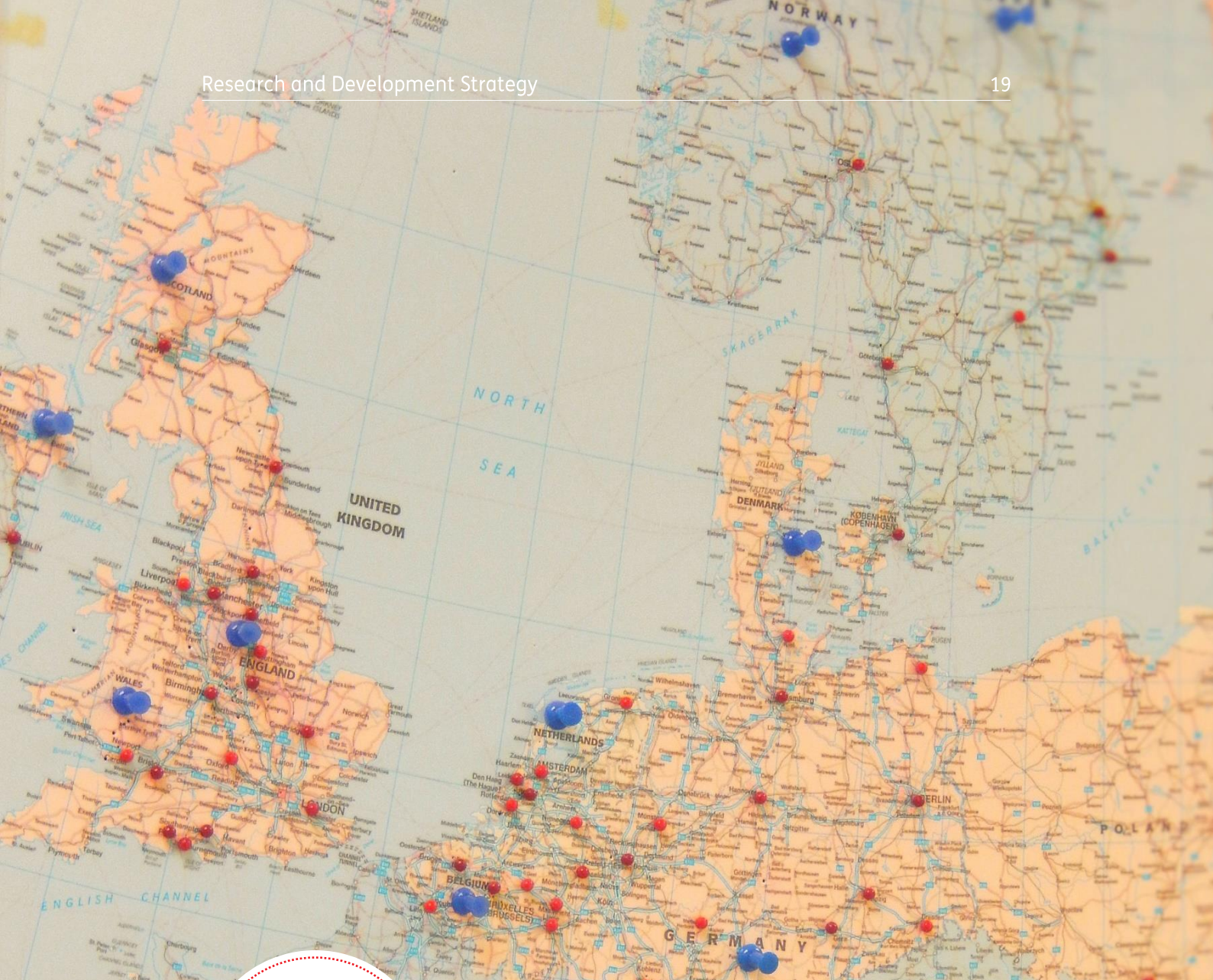
We will work closely with Velindre NHS Trust's Research Governance office to ensure that our process for contract and costing review and finalisation are streamlined. We will have high quality transparent financial information readily available, and deploy a robust cost recovery mechanism.

Build a reputation as a research-active blood service

We will invite other parties to be informed of our work through meetings, presentations and events. We will have a professional literature and conference stand offering. We will attend relevant events, and where possible, present at them to promote our research offering and to invite enquiries. The representation of our research activity through our internet, social media and publicity channels will be enhanced. We will deliver workshops and meetings at our headquarters when appropriate. We will be quick to respond to queries with a dedicated communication pathway within the organisation to ensure that queries are responded to in a timely manner. We will provide dedicated facilitation time to the task of setting up collaborations. We will have a body of written information on our R&D facilities and capabilities that we can circulate to potential collaborators.

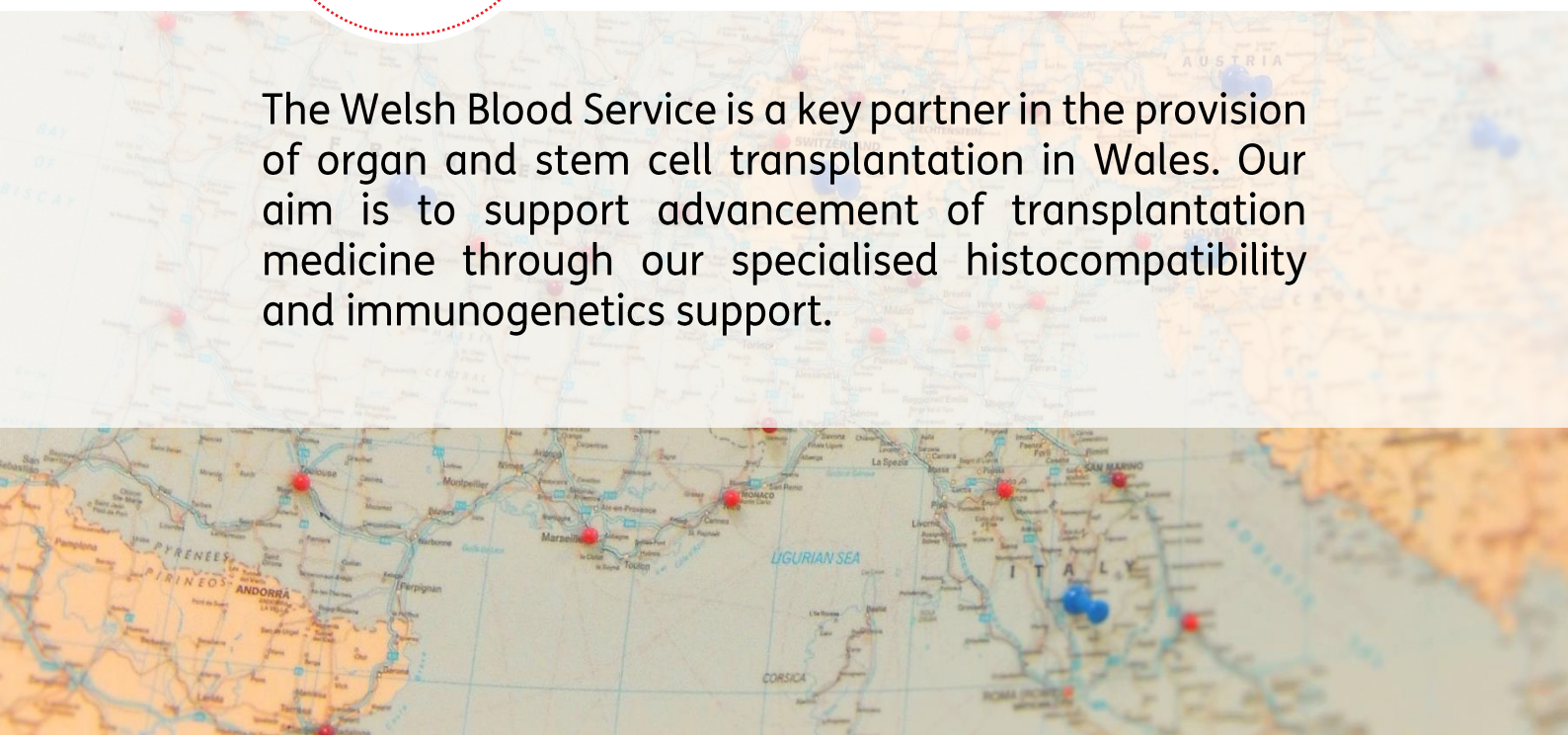
Measuring and defining Progress and Success

Successful implementation of the research strategy will establish our research record and enable the Welsh Blood Service to demonstrate gains in information, knowledge, reputation, staff development and financials. We will establish key performance indicators in regard to publication output. We will include research and development activity in the Welsh Blood Service's annual report. A means of recording and holding our published material relating to R&D will be revisited and developed. Steps will be taken to enable publication of work freely available over the internet. This is for two purposes: first, to raise the visibility of our research and to maximise its impact, and second, to address the growing movement for greater open access to research knowledge gained from public sector sources. We will report the individual stories of discovery and progress. It is also the Velindre NHS Trust R&D committee remit to monitor our performance in regards to this strategy.



Aim in Transplantation

The Welsh Blood Service is a key partner in the provision of organ and stem cell transplantation in Wales. Our aim is to support advancement of transplantation medicine through our specialised histocompatibility and immunogenetics support.



Objective for Transplantation theme

We recognise that we have a role in advancing transplantation services and patient care. We intend to fulfil this by working closely with the providers of these services, building networks that will establish WBS's role in research and development within transplantation healthcare.

Partnership working will be the mainstay of this R&D theme and we will strive to be responsive to requests from key opinion leaders, clinicians, industry and academia. We will work to establish and maintain these relationships.

We will build on our uniqueness and the strength of our services. We have a wealth of data and proven clinical provision that we can use to carve out our place as professional troubleshooters in the clinical sphere.

We will continue to look for improvement in our services through optimisation of our histocompatibility and immunogenetics processes. Optimisation will focus on performance, cost effectiveness and the implementation of innovation in this setting. We will provide access to our existing data (in accordance with governance and ethical approval), to ensure that it can be used to its greatest potential.

We will work with donors and transplantation recipients to investigate their attitudes, knowledge and opinions of transplantation medicine. With the ongoing expansion of stem cell therapy into new clinical indications, we will look at public and patient perception of matching and compatibility and whether our communication and information provision can be improved or expanded.

We will continue to work closely with the transplantation centres of Cardiff and Vale University Health Board and Abertawe Bro Morgannwg University Health Boards to support their R&D endeavours.

Summary

- We will contribute to further understanding in the field of transplantation.
- We wish to further understand the impact of changes in knowledge on the significance of matching with donors and patients.

- We will develop and maintain working relationships with research-active clinicians and academics in the field of transplantation and explore and develop R&D projects in collaboration.



Aim in Donor Care and Public Health

Our aim is for the Welsh Blood Service to take the lead in world-class innovation in the care for donors.



Objective for Donor Care and Public Health theme

Our blood, platelet and bone marrow donors are the mainstay of the organisation, and we strive to ensure that the care that our donors receive is world class. The Donor Care and Public Health theme will encompass R&D work at the cutting edge of current knowledge and evidence-based practice. It will ensure new ideas and applications are tested, new thinking is applied and improvements and expansion in our care will be made.

We will provide authoritative knowledge on best practise by accumulating, processing and publishing data on donor care and our advances, ensuring that care is based on evidence and prudence.

Our donors are a segment of the public; therefore this theme will encompass work at a public-health level, as we recognise that our care could have significant consequences for the public.

We will examine means to reduce the rate and effect of adverse reactions during the donation procedure. Addressing this issue will increase donor health and the willingness of the donor to return to donate again. Prevention of such adverse events will directly benefit donors and improve our operational effectiveness. Adverse event prevention and reduction is an objective for blood services worldwide. WBS can play a full role in this examination. We will look to collaborate with other blood services on this topic and also look for fresh and innovative solutions in this area.

We will accumulate evidence for supporting enhanced care for younger donors, addressing matters such as appropriate collection frequency and the use of sophisticated recruitment strategies.

We will address the clinical significance and possibility of offering medical intervention for the management of potential iron loss after donation. Again, this topic is addressed by blood services worldwide. We must seek out our role and contribute as we can. When appropriate, we will establish links with primary care provision in parallel with ongoing research initiatives for this setting.

The Welsh Blood Service is a pioneer in electronic data capture for health screening in the donation setting. We acknowledge that we must exploit this world-leading innovation and our experience of this technology. We will further develop our understanding of the robustness and accuracy of this technology in practice and report on our evidence and experience of this technology.

We wish to advance knowledge mobilisation and so will support the publishing of our accumulating information and evidence in our care practice.

We will investigate means of tailoring donor recruitment. Offering personalised recruitment methods based on demographic factors may lead to a positive effect on reputation and on our retention rates. We will look at the demographic and characteristics of our donors and whether our interaction can be optimised or augmented to enhance our rates of retention.

We will particularly examine our approach for young, first-time or female donors and ask whether different forms of interaction or selection could be beneficial, or if methods combining other factors such as motivation and timing can affect recruitment and retention. We will look for links with blood services that have similar demographics and exchange knowledge, practice and innovation.

We will examine the Did Not Attend (DNA) phenomenon (when donors schedule appointments but do not show) in the donation setting. We will look for new psychology insights to better understand why some donors do not use their appointments.

In order to design and implement donor-related interventions we will need robust support in the understanding of human behaviour and physiological motivations. We will support interdisciplinary research, bringing together behaviourists, psychologists and other experts in this field. This will facilitate the development of donor management studies and increase our understanding of the mechanisms that influence donors' thinking and behaviour. Delving further into motivation, we will examine our contact mechanisms, timing and interactions in order to offer tailored interactions based on the donor's personal attributes and circumstances. This will allow us to work towards making every donor feel rewarded and recognised in a personalised way, which will allow us to improve our retention metrics.

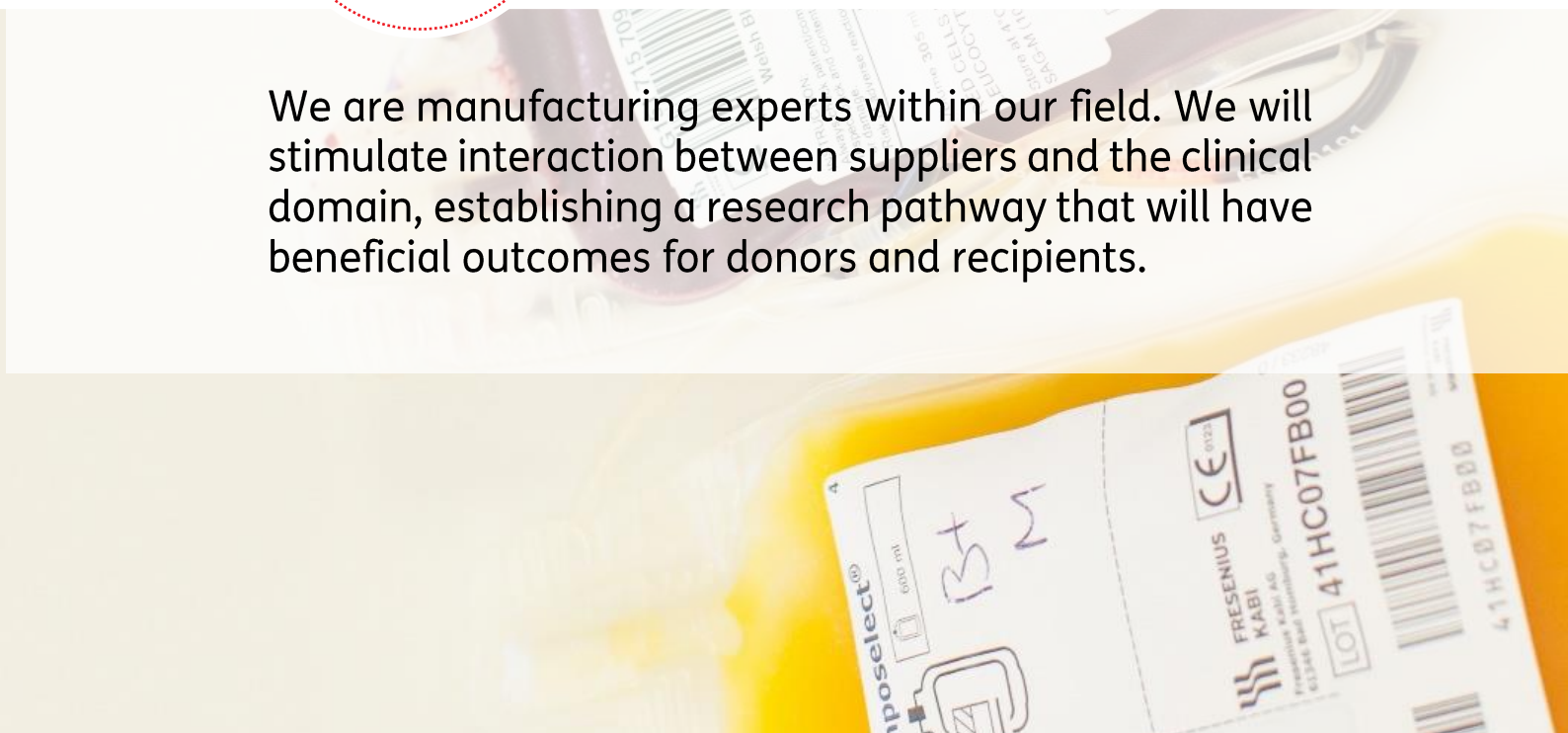
Summary

- We will provide authoritative evidence on the care of our donors.
- We will aim to maximise our donor recruitment and retention through developing, implementing and evaluating novel interventions and strategies.
- We have the potential to support other topics of research, such as population health and wellbeing, public health and health communications.



Aim in Products

We are manufacturing experts within our field. We will stimulate interaction between suppliers and the clinical domain, establishing a research pathway that will have beneficial outcomes for donors and recipients.



Objective for the Products theme

The Products theme will encompass R&D activity in our manufacturing capabilities. Welsh Blood Service uses a variety of testing, manufacturing and distribution processes in the production of blood components. Our state of the art production facilities and quality assurance laboratory are all housed in one centre at our Talbot Green headquarters.

We will use our production capability to offer a research solution for the evaluation and refinement of processes. We will work with our equipment manufacturers and suppliers to have streamlined, productive and effective processes and mechanisms that could lead to increased effectiveness of our produced components. We will horizon-scan for technological advancements in production methods to enable us to have access to state-of-the-art technologies. We will seek opportunities to work with equipment manufacturers to trial and implement new equipment and technology with our existing manufacturing process. We will seek to improve engagement between ourselves and suppliers through fresh approaches to joint working.

In this highly technical field, we will invest in our relationship with our suppliers and manufacturers, working in partnership to allow access to real-time clinical information and the sharing of our manufacturing capabilities. Existing data on our performance in component manufacturing will be examined to look for areas where we can act dynamically and deploy our capabilities differently. We will look for optimisation; to have an efficient production while ensuring ongoing safety. Where possible, we will do this in partnership with suppliers and manufacturers to ensure maximum effectiveness and the co-creation of knowledge. This interdisciplinary approach will contribute to the development of new technologies and provide an opportunity for industry investment.

Focusing on further developing and refining our platelet delivery, we will stimulate interactions between the medical field, manufacturers and patient groups to accelerate technological development in a way that directly impacts our production and positively affects platelet donors and recipients.

Summary

- We will horizon-scan for methods of improving our manufacturing, ensuring our manufacturing processes are lean and efficient.
- We will assess new technologies that have the potential to improve supply.
- We will contribute to the knowledge of blood component performance in the clinical setting.



Aim in Therapies

We will raise the services ambition in support advancements in the immuno-, biological- and cellular therapies field, in line with the service's ambition for future delivery of regenerative medicines and other therapies.

Objective for the Therapies theme

We need to expand and align our service provision for both the advancement in the regenerative medicine field and the expansion of the clinical indication for stem cell-related therapy. This work may occur in a number of sectors of our service such as laboratories, manufacturing or logistics, and may also require donor involvement. We will remain abreast of service developments and the potential future demands that may be made of our organisation.

We have the capabilities to assist the development of new therapies by working alongside researchers. We can offer a greater understanding of therapy delivery in the NHS setting. We will share our expertise of embedding correct therapeutic approaches into standard medical care. We will build on our existing provision and work to provide an evidence base with which the Welsh Blood Service may ensure its role in therapy provision.

We will do this by increasing our connectivity with other bodies in this therapeutic field, both nationally and internationally. We will seek collaboration and offer ourselves as a research partner for scientific and medical groups working in this field, increasing the links and offering a gainful exchange of ideas, knowledge and experience.

Summary

- We will explore the potential avenues for research and development in this expanding field.
- We will collaborate with healthcare researchers and encourage and facilitate cooperation.
- We will examine new technological approaches and test their methodologies

Welsh Blood Service

Ely Valley Road
Talbot Green
Pontyclun
CF72 9WB

wbs.research@wales.nhs.uk
01443 622119



Gwasanaeth Gwaed Cymru
Welsh Blood Service



GIG
CYMRU
NHS
WALES

Ymddiriedolaeth
GIG Felindre
Velindre NHS Trust