

Pathology Statement of Intent

2019

This *Statement of Intent* addresses the current challenges facing Pathology services in Wales. It identifies eight priority areas where new strategic approaches are required to facilitate the development of high quality, effective and resilient Pathology services. Central to our ambition is the recognition that effective diagnostic services are essential to both the prevention and management of disease. Improvements in diagnostic services can help transform the patient pathway and patient experience and lead to better patient outcomes, improved benefits for NHS Wales and support economic development. The Statement will help to deliver the Welsh Government's ambitions set out in Taking Wales Forward: Healthy and Active.

In order to realise these ambitions we will consider the future configuration of service models for Pathology, including where these are provided, how they are staffed and accessed, how new and emerging technologies are adopted and disseminated, workforce development, informatics, information support, as well as harnessing the opportunities from research and innovation. In addition, the Statement highlights the importance of a nationally coordinated strategic plan for Pathology services in Wales; ensuring that they are sustainable and deliver evidenced and value based, prudent healthcare.

Pathology is the study of disease. It bridges science and medicine and underpins every aspect of patient care, from diagnostic testing and treatment advice to the use of cutting-edge technologies and the prevention of disease. Pathologists and Healthcare Scientists work with a range of healthcare professionals in different settings to diagnose, treat and prevent illness.

Pathology is involved in 70% of all diagnosis made in the NHS, however, this figure does not reflect the role that pathology has in screening and monitoring and in relation to chronic conditions. Pathology underpins all clinical services and 95% of clinical pathways rely on patients having access to efficient, timely and cost-effective pathology services, within secondary care.

There are numerous specialties within Pathology such as: Blood Sciences, Blood Transfusion, Cellular Pathology, Genomics (including human and pathogen) <https://gov.wales/topics/health/publications/health/strategies/genomics>, Microbiology and Point of Care Testing. This is a not an exhaustive list as pathology covers a wide portfolio of professions and services; however this statement is intended to include all areas of NHS Wales pathology disciplines.

Pathology is a key component in the delivery of prudent health services to the population of Wales and an enabler to other Welsh Government health delivery plans, including cancer and stroke. Current services are under increasing pressure, with changing clinical models shifting the balance of care, which has resulted in a major growth in demand as a result of more effective clinical pathways, increasing numbers of older people with chronic health conditions, increasing cancer incidence, improved technology, new techniques and workforce pressures.

In addition, the fields of genomics, molecular pathology and Point of Care Testing are rapidly evolving, driven by reduction in costs, increased connectivity and technological innovation.

This is moving medicine away from reductionism and closer to personalised medicine. Such technologies enable more precise diagnoses and targeting of treatments, so that patients can be treated in a more individualised way. Advancements in Point of Care Testing also offer the benefit of ‘near patient’ results which have the potential to improve assessment and evidence based decision making for patient management.

Diagnosis closer to the patient can aid the management of life-threatening conditions such as sepsis and infection control, as well as enabling patients to self monitor chronic conditions without visits to healthcare settings.

“Informed Health and Care – A Digital Health and Social Care Strategy for Wales” (Welsh Government 2015) recognises that improving access to information and introducing new ways of delivering care with digital technologies must be at the heart of our service plans and our vision for prudent and value based healthcare. Pathology in Wales is developing the use of digital technology, as it is recognised that the overall benefits of this approach could include: improvements in service delivery, patient safety, communication, error rates, costs and use of data together with artificial intelligence. Challenges associated with the implementation of laboratory information management systems have impeded the modernisation of Pathology services across Wales. High quality informatics systems and digital information are critical for NHS Wales to deliver world-leading, sustainable, effective and efficient pathology services.

It is important that Pathology services, work with all relevant stakeholders to improve services. This is likely to require the development and adoption of standardised testing protocols, benchmarking and behaviour change.

The Pathology community in Wales continues to respond to healthcare demands by changing working practices; the optimal use of technology and “adding value” through service design projects. In addition, variation across Wales has been reduced as a result of a “do once and share” approach and the pathology service has linked diagnostic results to patient outcomes.

Pathology services are under increasing pressure with major growth in demand for blood science tests increasing by around 5% per annum and the complexity of Cellular Pathology has dramatically increased.

Modernising the Pathology workforce has proved difficult as a result of problems of recruitment; retention and resource availability. Many pathology specialties face shortages in Wales, both in medical and scientific professions. Some University Health Boards (UHBs) in Wales are facing significant challenges in recruiting Biomedical Scientists and there is a need for a consistent approach to this national challenge, with UHBs working together to overcome problems. Latest data from the Royal College of Pathology Wales Regional Council Workforce Report for Histopathology highlights the fact that 26% of Consultant posts are vacant.

Since 2008 the Pathology community has re-designed the way in which services are accessed, managed and delivered. Where possible, automation has been introduced; managed service contracts established and services re-designed. . However, it is recognised that there are still major opportunities to transform the service models in pathology across traditional and organisational boundaries, to promote sustainable, cost effective services for the future and the creation of a national pathology network is integral to this whole system approach.

Key Priorities

1. Public Involvement and Engagement

The public are central to healthcare in Wales and should be at the heart of pathology service development. Facilitating meaningful public involvement and engagement will allow the public, patients and professionals to work together as equal partners to co-produce pathology services for Wales. Co-production will promote a values-based approach that focuses on achieving the outcomes that matter to the population of Wales, rather than being over-focused on the service delivery process.

Active public involvement and engagement will be facilitated by providing members of the public access to the support necessary to enable them to be involved.

ACTIONS

- **NHS Wales to continue to develop ways to encourage the public to engage and participate in the co-production of pathology services.**
- **NHS Wales to support and facilitate the promotion and dissemination of exemplars of best practice and the integral role and function of Pathology in patient care.**

2. Workforce Development

Pathology is vital to achieving improved disease diagnosis and appropriate treatments as well as, improving public health by infection prevention and control. Pathologists and Healthcare Scientists are an integral part of clinical teams across all general and specialist medical and surgical care. Seven day services, an ageing population and advances in personalised medicine mean that demands on pathology services will continue to increase.

Training for medical and scientific professionals within Pathology takes between three to ten years. It is important that the investment in training and education includes provision for new trainees, post qualification, registration and continued professional development. The opportunity must be taken to innovate, evaluate roles, skills, responsibilities and, learning from current exemplars, in order to develop the scope of practice of healthcare scientists across all specialities within Pathology.

It is increasingly recognised that prudent, cross-discipline and flexible skill-mix approaches are needed for future workforce models to meet gaps in skills and expertise and facilitate retention/development in healthcare science.

It is also essential that Wales invests in pathology infrastructure to further develop high quality services that attract and retain the highest calibre medical and scientific professionals.

Development of the workforce will require support from NHS Wales (through HEIW) and academic partners to provide high quality education and training courses. Training should be co-produced with the service to ensure that content; models of education delivery, compliance, professional standards and accreditation requirements are met. Doing so will ensure that the new entrants into the workforce will meet the needs of a high quality Pathology service.

More robust national workforce intelligence is required to help model future needs of Pathology services. Similarly, national approaches to job descriptions, plans and advanced practice, broadening access and mobility within professions are required.

ACTIONS

- **NHS Wales will support the adoption of prudent, cross discipline and flexible skill-mix approaches to future workforce models, overcoming professional and specialty boundaries by strengthening skills and expertise, increasing attraction and retention of professions within Pathology.**
- **Health Education and Improvement Wales (HEIW) will support the development of targeted strategies, in conjunction with the *Healthcare Science – Looking Forward*, framework to facilitate the development of a modern workforce for Pathology Services in Wales.**
- **Health Education and Improvement Wales (HEIW) and NHS Wales will support the development of information to provide clarity regarding services and workforce to assist with robust future workforce planning and analysis and outline plans to build and consolidate the clinical and scientific base in NHS Wales Pathology Services.**

3. Equipment and Estates

Reliable, safe and modern pathology equipment is a necessary for an effective and sustainable Pathology service. In order to plan, identify and address the pathology equipment needs of NHS Wales, a co-ordinated national approach will be taken. This will include the identification, assessment, prioritisation and adoption of new technologies.

An evidence based approach to planning, based on the needs of the population will be taken. Configuration of pathology equipment will be undertaken in a manner that is optimal for Wales as a whole. This will require a collaborative approach at a local, regional and national level towards demand and capacity planning and resourcing.

A “value-based” approach to Pathology procurement, which is driven by outcomes as well as costs, will be adopted across NHS Wales and opportunities to improve the existing arrangements for Pathology Service Managed Contracts considered.

ACTIONS

- **Welsh Government and NHS Wales will work together to support the development of a prioritised and sustainable investment programme for Pathology.**
- **NHS Wales will facilitate the development of a co-ordinated approach to identifying, evaluating, prioritising and adopting new pathology technologies across NHS Wales.**
- **NHS Wales will ensure that regional utilisation, workforce considerations and estates are central to equipment procurement decisions.**

- **A “value-based” approach to Pathology procurement will be adopted across NHS Wales and opportunities to improve the existing arrangements for Pathology Service Managed Contracts considered.**

4. Quality and Safety

A strong focus on improving the quality and safety of Pathology services will be central to the future provision and the development of a health and care system that is always learning. Staff and patient safety will be prioritised through the reduction of risk and incidents by using appropriate procedures, the latest technologies (e.g. automation, robotics) and undertaking monitoring, investigating, audit and shared learning. Robust clinical governance systems and compliance with evidenced based clinical quality standards and requirements will ensure that accurate, precise, reliable, clinically appropriate and timely reports are essential for a safe, effective pathology service.

Currently, the All Wales Pathology Quality and Regulatory Compliance Group supports the NHS Wales pathology community in discharging its responsibilities through the development of consistent approaches to regulatory compliance; supporting and sharing best practice amongst Pathology leads in quality and health and safety and working collaboratively across NHS Wales to deliver specific projects and pieces of work.

In future we will seek to build upon the foundations and mechanisms that are currently in place to ensure quality and safety in Pathology services by introducing a Governed National Quality System for NHS Wales that will make services fit for the future.

To promote the availability of information and actively support the established “learning culture” within the pathology community, an enterprise quality management system will be developed and maintained at a national level to work towards standardisation of practice.

ACTIONS

Welsh Government and NHS Wales will support the introduction of a Governed National Quality Framework to ensure:

- **A fully accredited pathology service for NHS Wales, with quality and regulatory requirements met.**
- **Patient safety and the delivery of timely, accurate and informative results that reduce the risk of harm and contribute to direct patient care will remain a priority.**
- **Evidence based, standardised practices and approaches are adopted by NHS Wales.**
- **Unwarranted variation evidenced and acted upon.**
- **Feedback mechanisms on services (patients and referrer facing) are further developed.**
- **Errors, specimen losses, waste and incidents are minimised.**

- **NHS Wales will develop a networked quality management system, maintained at a national level to work towards standardisation of practice.**

5. Services

Emerging trends and technologies provide exciting opportunities for the Pathology community to rethink approaches to the development and delivery of services in the future.

Future strategies for the service need to be developed on the basis of a “whole system” approach. Mapping of clinical pathways to disease groups will enable NHS Wales to acknowledge the contribution that the Pathology community has in effective patient management. It should be recognised that Pathology increases value to the health system and should not be considered on costs alone.

There is an increasing demand for health services and limited resources to support this. People are living longer and often live with multiple co-morbidities as they age. The vision for the development of Pathology services for the future will focus on ensuring that we maximise the opportunities for a patient centred approach and capitalise on the benefits of predictive and preventative medicine and personalised health monitoring.

There is considerable scope to improve the effectiveness of existing services and the Royal College of Pathologists has endorsed the “Choosing Wisely” campaign, which is designed to ensure that only the most appropriate and effective investigations are used.

When considering the design of services we should be “designing for demand”, analysing levels of clinical and patient need and building a responsive service for the system. Within existing NHS Wales planning processes, there is a need to formally recognise that Pathology services are integral to patient care and “add value” through the provision of support or by driving change directly. Engagement and inclusion of Pathology colleagues at the start of the planning process will enable the impact of new clinical pathways on Pathology services to be identified and allow their formal contribution to the clinical pathway development.

A service specification will be developed to support regional working, based on patient needs and evidence based decisions. The specification will acknowledge geographical barriers and new and emerging technologies and services (i.e. rapid high definition digital image sharing, Point-of-Care Testing). This specification will also include training, research and innovation and quality and safety, as core requirements. In addition, the specification will include an integrated workforce specification, based on tasks, competence (prudent principles) and service needs, rather than historical professional and geographic boundaries.

ACTIONS

- **To improve service efficiency and effectiveness Welsh Government and NHS Wales will identify opportunities to reconfigure service models for Pathology, providing a timeline for delivery and develop regional pathology planning mechanisms.**

- **NHS Wales will establish a formal structured arrangement to deliver Point of Care Testing services in NHS Wales.**
- **NHS Wales will improve the effectiveness of existing services through the adoption of the “Choose Wisely” campaign.**
- **NHS Wales will ensure that pathology services are “designed for demand”, analysing levels of clinical and patient need and building a responsive service.**
- **Welsh Government and NHS Wales will ensure that planning processes formally recognise that Pathology is integral to patient care and facilitate the engagement and inclusion of Pathology colleagues at the start of future planning processes.**

6. Informatics and Information

Connectivity and IT reliability are critical challenges that need to be addressed. Effective and high quality end-to-end informatics systems, incorporating electronic test requesting and electronic patient receipting are essential to the delivery of a world-leading, sustainable, effective and efficient pathology service.

Pathology services in Wales are facing a number of challenges in relation laboratory information management, including standardisation, management information and the availability of ICT staff to support ad hoc and routine testing.

Work is currently being undertaken to provide a robust solution for the governance and management of the new laboratory information system.

A new management information system is an essential requirement to enable the future configuration of services at local, national and regional level.

Opportunities exist to broaden the accessibility of the informatics platforms and how we use data within the system to support a move toward mobile working, near patient care and artificial intelligence.

In addition, the wealth of information held by the Pathology service provides a unique opportunity in relation to the use of data to support research and innovation and the need to explore the use of information systems to support high quality research and also focus on the use of the information that is currently available, is essential. Collaboration with academic partners and industry is necessary, in order to develop structured research and innovation opportunities and the exploitation of the IT resources to release staff to focus more on clinical interpretation, guidance and outcomes.

To support clinical practice and peer review, current Pathology informatics governance arrangements and information sharing protocols in Wales will be revisited and a new configuration developed that best meets the needs of the Pathology services for Wales.

A new set of performance indicators, to support business Intelligence and clinical quality will be developed to widen the range of performance information collated and used to deliver and improve the quality and consistency of Pathology services. This will include routine measurement and monitoring of the demands on pathology

services, the capacity of the services to respond to pressures and, reduce risk and inappropriate variation. Standardisation of measurement will be agreed and adopted across Wales, and clear targets will be set for NHS Wales to achieve.

ACTIONS

- **NHS Wales will revisit the current Pathology Informatics arrangements in Wales and develop a new configuration, further developing and implementing electronic requesting and report receipting that best meets the needs of clinical services in Wales.**
- **NHS Wales working with Welsh Government will develop a new set of performance indicators that will be used to deliver and improve the quality and consistency of Pathology services.**
- **The National Pathology Network will be responsible for monitoring performance against the agreed indicators and reporting progress accordingly to All Wales Chief Executives and Welsh Government.**
- **NHS Wales will consider current Pathology informatics governance arrangements and information sharing protocols to ensure that these meet the needs of Pathology services for Wales.**

7. Research and Innovation

Innovative developments and technological advances provide the opportunity to rethink the way in which we provide services to patients and to ensure that NHS Wales Pathology services are “world class” we need to embrace the opportunities that exist and fully utilise the skills and expertise of the pathology workforce.

Welsh Government investment in an All Wales Digital Pathology System is driving forward collaboration and efficiencies, however, the potential of pathology research and innovation has not yet been fully realised in Wales.

It is recognised that opportunities exist for Pathology to further develop its collaborative relationship with academia and industry at local, regional, national and international levels, in pursuit of innovation and improvement of outcomes for the population of Wales. Scientific skills within Pathology services is a considerable asset to the Life Sciences sector in Wales and working in partnership with industry and academia will help meet the aims of Welsh Government in improving the health, wealth and wellbeing of the population of Wales and supporting the Welsh Government strategy; *Prosperity for All: Economic Action Plan*, through the development of innovative ideas, collaborative working, intellectual property, creation of manufacturing and other skilled employment for the Welsh population.

Mechanisms to facilitate strategic partnerships will need to be strengthened, to ensure that opportunities to exploit innovation and technology exist and a framework setting out key principles which will underpin collaborative working will be required. In addition, to ensure that Wales maximises the benefits of technology and innovation to pursue the Quadruple Aim and deliver more effective and efficient care, a strategic plan will be developed to ensure that research and innovation opportunities are seized.

ACTIONS

- **NHS Wales will further develop the collaborative relationship with academia and industry at local, regional, national and international levels in the pursuit of innovation and improvement outcomes for the patients and population of Wales. Structured research opportunities and the exploitation of IT resources to release staff to focus on more clinical interpretation, guidance and outcomes will also be explored.**
- **Welsh Government will develop mechanisms to facilitate strategic partnerships, to ensure that opportunities to exploit innovation and technology exist and develop a framework setting out the key principles which will underpin collaborative working.**
- **NHS Wales will develop a Strategic Plan to ensure that research and innovation opportunities are seized, in order to improve health, wealth, wellbeing and prosperity for the population of Wales.**

8. National and Regional Working

A *National Pathology Network*, accountable to NHS Wales' Chief Executives, will be developed to co-ordinate pathology service development and provision for the Welsh Government and NHS Wales. This will include: provision of high quality training and education for the pathology workforce; leading the development of a sustainable Pathology Services Accreditation Scheme; advocating a nationally coordinated, locally delivered service; developing best practice guidance to reduce variation, improve patient outcomes and experiences; co-ordinating pathology research, development and innovation; supporting standardisation of pathology services, including NHS Benchmarking.

The Network will make recommendations on the strategic direction and promote consistency in the delivery of All Wales Pathology services to deliver The Quadruple Aim for all. It will provide advice to All Wales Chief Executives and Welsh Government in relation to pathology investment decisions and the effective use of resources. It will deliver these objectives through a strategic project board, task and finish groups and specialist advisory groups representing all major Pathology disciplines, ICT and laboratory services general management. The Regional Joint Committees will support Health Boards to collaborate more effectively on service redesign and change with three regional footprints covering north, south west and south east Wales.

The chairs of the National Pathology Network working groups will provide annual work programmes for pathology that feed into the IMTP process and also support the prudent healthcare agenda. The Laboratory Services Subcommittee and relevant Specialist Service Advisory Groups (SSAGs) will support the development and publication of best practice guidance to reduce variation, drive standardisation and improve patient experience and outcomes; provide horizon scanning and support research and innovation. The focus of both the National Pathology Network and Laboratory Services Subcommittee will be on continuous improvement.

To drive the strategic development of Pathology services across NHS Wales and maximise the opportunities from the development of One Seamless System for Wales, an All-Wales Pathology Network will need be established to advise and lead the development of a nationally co-ordinated, sustainable service, delivered at

national, regional and local levels, as appropriate. The network will be supported by the NHS Wales Collaborative and will replace the current National Pathology Programme Board and the National Pathology Collaborative. To be an effective vehicle for change, All Wales Chief Executives will need to provide delegated authority to the network, within clearly defined parameters and clear governance and accountability arrangements will need to be established.

ACTIONS

- **A National Pathology Network, accountable to NHS Wales' Chief Executives, to co-ordinate Pathology service development and provision for the Welsh Government and NHS Wales will be established.**
- **A Service specification will be developed to support the development of Pathology services across NHS Wales based on patient centred and evidence based standards.**
- **Laboratory Services Subcommittee and relevant Specialist Standing Advisory Groups, will support the Pathology service improvement agenda.**

Next Steps

A National Pathology Network will be established to support the development of a National Pathology Implementation Plan. The National Pathology Network will be chaired by Len Richards lead Chief Executive for Pathology, NHS Wales and co-chaired by Dr Rob Orford, Chief Scientific Adviser (Health), Welsh Government. The National Pathology Network will engage with the public and other stakeholders to develop the plan and report back to Ministers in 2019.