Y PWYLLGOR ANSAWDD, DIOGELWCH A PHROFIAD
QUALITY, SAFETY AND EXPERIENCE COMMITTEE

DYDDIAD Y CYFARFOD: **DATE OF MEETING:**	13 February 2024
TEITL YR ADRODDIAD: **TITLE OF REPORT:**	Digital Update: Radiology Electronic Test Requesting (ETR) in Welsh Clinical Portal (WCP)
CYFARWYDDWR ARWEINIOL: **LEAD DIRECTOR:**	Huw Thomas, Executive Director of Finance
SWYDDOG ADRODD: **REPORTING OFFICER:**	Anthony Tracey, Digital Director Carolyn Williams, Head of Digital Innovation and Transformation

Pwrpas yr Adroddiad (dewiswch fel yn addas) **Purpose of the Report** (select as appropriate)
Er Gwybodaeth/For Information

ADRODDIAD SCAA **SBAR REPORT**
Sefyllfa / Situation

The purpose of the report is to provide the Committee with an update on a number of Digital Transformation projects which have an impact on quality, safety and patient experience.

The following projects considered within the paper are:
- Radiology Electronic Test Requesting (ETR) in Welsh Clinical Portal (WCP)
- Electronic Prescribing and Medicines Administration Solution (ePMA)

Future updates will include;
- Wider impact of improved referral management between primary and secondary care, and internal hospital referrals
- Electronic patient flow and e-observations.
- Electronic pathology results and notifications

Cefndir / Background

Digital projects that can be used to improve quality and safety can range from simple applications, such as online appointment booking, to complex systems, such as electronic health records, telemedicine, and artificial intelligence. Digital projects have the potential to improve the quality, safety, and patient experience of healthcare by enabling better access, coordination, efficiency, and innovation.

For example, in terms of quality, electronic health records can provide a comprehensive and accurate view of a patient's medical history, allergies, medications, and test results, which can reduce errors, duplication, and delays. Digital projects can also support evidence-based practice, clinical guidelines, and quality indicators, which can enhance the effectiveness and consistency of care. Furthermore, digital projects can enable continuous monitoring, feedback, and improvement of healthcare processes and outcomes.

Furthermore, the digital projects outlined in the report can improve the safety of healthcare by reducing the risks of harm and adverse events. For example, computerised test order entry can prevent medication errors, such as wrong dosage, drug interactions, and allergies, by alerting the prescriber of potential issues and suggesting alternatives. Leading to improved reporting, analysis, and prevention of incidents, such as infections, falls, and surgical complications, by providing timely and reliable data. Additionally, the projects highlighted can enhance the security and privacy of patient information, by using encryption, authentication, and access control mechanisms.

Finally, referencing patient experience, the projects included within the report can enable patient-centered care, by providing personalised, tailored, and holistic services, such as remote monitoring, telehealth, and self-management tools. Moreover, having a full integrated order comms approach, i.e. pathology and radiology tests will reduce the "waste" within the healthcare system.

Asesiad / Assessment

The projects outlined within the paper are essential for delivering the quality, safety, and patient experience agenda within healthcare. They can improve the information, communication, and coordination of healthcare services, as well as the effectiveness, efficiency, and innovation of healthcare practices. However, the projects also pose significant challenges, such as technical, financial, organisational, and ethical issues, which require careful planning, implementation, and evaluation. Therefore, the digital team have implemented a robust benefits realisation approach, ensuring that projects are aligned with the strategic goals, values, and needs of the healthcare system, the providers, and the patients.

Appendix 1, provides a more detailed brief of the work to date in the procurement of an Electronic Prescribing and Medicines Administration Solution (ePMA), however, the bullet points below provide a summary:

- The ePMA programme is a Welsh Government initiative to implement electronic prescribing and medicines administration systems across all secondary care settings in NHS Wales, with the aim of improving patient safety, quality, and efficiency of care.
- Hywel Dda University Health Board (HDdUHB) has conducted a local procurement process through the All-Wales Framework and identified a preferred supplier for the ePMA solution. The Full Business Case will be submitted to the Health Board's governance approval process and then to the Welsh Government. The contract award and implementation are expected to start in April 2024.
- ePMA programme will provide several benefits, such as reducing prescribing errors, improving patient outcomes, streamlining information sharing, releasing staff time, and enhancing data and audit capabilities. However, the programme also faces some risks, such as delays in approval, funding, or implementation, staff resistance or training issues, and technical or interoperability challenges.

Appendix 2 of the document provides an update on the work to date in the implementation of electronic radiology requesting within the Welsh Clinical Portal (WCP).

- The project is part of the Welsh Government's plan for Health and Care in Wales, and is delivered by Digital Health and Care Wales (DHCW) through the Welsh Clinical Portal (WCP) programme. The project will enable clinicians to electronically request tests via WCP, and provide a consistent and legible information to the radiology department. The project will also reduce unwarranted variation, data quality issues, unnecessary repeat investigations, and provide a whole process audit-trail.

- The project has identified some organisational risks if the Radiology ETR function is not implemented as per the Welsh Government requirements and timeline, such as reputational risk, delays in improving patient safety, and low digital maturity. The project also reported some DATIX incidents due to paper requests being lost or delayed.

It is important for the committee to note that there is significant business change required to adopt such systems and approaches outlined above, which requires the coordination of clinical and operational teams to ensure that delivery is sustained and embedded into the current and future ways of working.

Argymhelliad / Recommendation

The Committee are asked to:
- **NOTE** to the contents of the report for Radiology Electronic Test Requesting (ETR) in Welsh Clinical Portal (WCP) and Electronic Prescribing and Medicines Administration Solution (ePMA)
- **NOTE** that future updates will include the wider impact of improved referral management between primary and secondary care, and internal hospital referrals, electronic patient flow and e-observations and electronic pathology results and notifications

Amcanion: (rhaid cwblhau) Objectives: (must be completed)	
Committee ToR Reference: Cyfeirnod Cylch Gorchwyl y Pwyllgor:	3.10 Provide assurance to the Board in relation to improving the experience of patients
Cyfeirnod Cofrestr Risg Datix a Sgôr Cyfredol: Datix Risk Register Reference and Score:	DATIX ref HDD5764 Redress LFE RL119 – confidential risk
Parthau Ansawdd: Domains of Quality Quality and Engagement Act (sharepoint.com)	7. All apply 1. Safe 2. Timely 5. Equitable
Galluogwyr Ansawdd: Enablers of Quality: Quality and Engagement Act (sharepoint.com)	3. Data to knowledge 4. Learning, improvement and research 5. Whole systems persepctive
Amcanion Strategol y BIP: UHB Strategic Objectives:	3. Striving to deliver and develop excellent services 5. Safe sustainable, accessible and kind care 6. Sustainable use of resources
Amcanion Cynllunio Planning Objectives	5c Digital Strategy 6a Clinical services plan 6b Pathways and Value Based Healthcare

Amcanion Llesiant BIP: UHB Well-being Objectives: Hyperlink to HDdUHB Well-being Objectives Annual Report 2021-2022	10. Not Applicable

Gwybodaeth Ychwanegol: Further Information:	
Ar sail tystiolaeth: Evidence Base:	Included within the body of the report
Rhestr Termau: Glossary of Terms:	Included within the body of the report
Partïon / Pwyllgorau â ymgynhorwyd ymlaen llaw y Pwyllgor Ansawdd, Diogelwch a Phrofiod: Parties / Committees consulted prior to Quality, Safety and Experience Committee:	Not Applicable

Effaith: (rhaid cwblhau) Impact: (must be completed)	
Ariannol / Gwerth am Arian: Financial / Service:	The impact of the digital projects contained within the report have the possibility to release productivity and efficiency gains within the services, releasing time for clinical and administrative teams.
Ansawdd / Gofal Claf: Quality / Patient Care:	The impact of having electronic systems are as follows: - Improved accuracy and completeness of patient information: Electronic systems can help reduce errors and improve the accuracy of patient information by providing a centralised location for storing and accessing data. - Enhanced coordination of care: Electronic systems can facilitate communication and collaboration among healthcare providers, improving the coordination of care and reducing the likelihood of medical errors. - Improved patient outcomes: By providing healthcare providers with timely and accurate information, electronic systems can help improve the quality of care and ultimately lead to better patient outcomes.
Gweithlu: Workforce:	The systems outlined within the report will provide increased efficiencies. The solutions included within the paper will streamline administrative tasks, freeing up time for healthcare providers to focus on patient care.
Risg: Risk:	Included within the paper, and will be monitored on a regular basis
Cyfreithiol: Legal:	Not applicable

Enw Da: Reputational:	Reducing the impact of errors, is one of the primary objectives of implementing the systems included within paper which will have an impact on the reputation of the Health Board. Each of the systems will provide an auditable record of each transaction which will allow improvements in monitoring and learning.
Gyfrinachedd: Privacy:	Not applicable
Cydraddoldeb: Equality:	Not applicable

Appendix 1 - Electronic Prescribing and Medicines Administration Solution (ePMA)

Hywel Dda University Health Board (HDdUHB) along with all the other health boards and trusts across Wales will be required to adopt and implement an Electronic Prescribing and Medicines Administration Solution (ePMA), which will replace the current paper-based systems. The Welsh Government requested that Digital Health and Care Wales (DHCW) undertake a national scoping exercise, in addition to developing an All-Wales Commercial Framework of suppliers who could supply such a solution.

HDdUHB's local Procurement Process through the All-Wales Framework has identified a preferred supplier. However, the Full Business Case will now be submitted through the Health Board's governance approval process before the Procurement Process can be completed. The next steps will entail the approval submission process to the Welsh Government and the preferred supplier can then be contracted.

The Full Business Case will be presented to the Digital Assurance Group on the 7 of February 2024, it is hoped with a view to the recommendation to proceed to the Sustainable Resources Committee on the 22 February, Executive Board on the 28 March 2024, before being submitted the Welsh Government.

In September 2021, following an independent review, a Ministerial statement was published regarding e-prescribing in Wales. Subsequently, Digital Health Care Wales were mandated by the Welsh Government to establish a portfolio to deliver digital medicines transformation across NHS Wales.

The aim of this portfolio is to fully digitalise the electronic prescribing environment across all care settings in Wales, and associated processes to increase efficiency and safety, as described in the recommendations from the Strategic Review on The Future of Electronic Prescribing in Wales, 2021.

Procuring and implementing hospital e-prescribing and medicines administration (ePMA) systems across all secondary settings in NHS Wales that build on a set of common open standards and principles that provide end-to-end e-prescribing secondary care capabilities together with interoperability with other care settings in Wales and the Shared Medicines Record. The capability to transfer Outpatient prescriptions electronically to community pharmacists is included. This capability will be delivered via the Secondary Care electronic Prescribing and Medicines Administration (ePMA) programme.

The Secondary Care e-Prescribing and Medicines Administration (ePMA) Programme, as part of the Digital Medicines Transformation Portfolio (DMTP), has being established to deliver the second element of the wider strategy.

It was agreed at the July 2021 NHS Wales Leadership Board that Digital Health and Care Wales would manage the framework establishment process, whereby suppliers who meet the agreed clinical and technical threshold requirements and standards for an ePMA solution are made available on the framework for health boards and trusts to enter a contractual arrangement with. Suppliers must be able to meet the requirements in relation to the defined data and architecture standards to ensure interoperability. Health boards and trusts will be responsible for the contractual agreement with their preferred ePMA supplier.

When ready, after undertaking local scoping and development of the national software requirement specification to fit local needs health boards can call off services from the framework

(i.e., Mini Competition). Health boards have also had to sign up to a National Minimum Viable Product which meets national requirements.

Locally, the most pressing drivers for change have been identified through the interviews conducted with stakeholders from across the organisation and analysis of existing documentation. Over 340 staff were engaged via 1-1 interviews, in-person drop-in engagement sessions, virtual group engagement sessions across clinical, operational, technical and administrative teams across HDUHB.

The key drivers for change being:
1. Increasing patient safety
2. Improved patient centred care and associated outcomes
3. Staff experience and efficient use of resources
4. Maximising use of digital tools and innovation
5. Access to health intelligence data
6. Optimised audit and governance processes

Investing in a secondary care ePMA solution will tackle these drivers for change and help realise HDUHB's digital ambition of improving to become the most digitally integrated care organisation in NHS Wales which will enable the delivery of patient centred, high quality, safe and sustainable care to our community.

The options, benefits, and risks were developed collaboratively through workshops and engagement with stakeholders from across the Health Board.

DHCW have been working on a set of benefits intended to be measured nationally. At the time of writing this Business Case, the national benefits have been agreed at the National Board in conjunction with Health Boards. Where baselining and measurement methodology has not been agreed for certain national benefits, measurement and baselining methodology has been agreed locally, understanding this may need to change if changed and agreed nationally. The majority of overarching benefits are likely to include seamless integration with current secondary care systems providing clinicians with real time access to clinical Information, streamlining information sharing & decision making and releasing staff time and resources to be put back into the care environment. Moreover, the ePMA system will significantly reduce transcribing or illegible documentation, prescribing errors, as well as the errors that occur in administrating medication to patients; be that wrongly administered medication, delayed, or omitted doses, therefore, a significant improvement in safety and patient experience.

Utilising a National Supplier Vendor Framework (a pre-requisite to releasing the national funding available from the Welsh Government), two suppliers responded to the ITT (Nervecentre and Better UK). HDdUHB has identified a clear winning preferred supplier that was validated at the ePMA Procurement Subgroup Meeting on the 20th of December 2023 and was ratified by the ePMA Steering Group on the 21st of December 2023. Due to the current financial climate facing NHS Wales and HDdUHB, the Full Business case will have to go through a series of governance meetings for approval that include, Digital Assurance Group on the 7th of February 2024, it is hoped with a view to the recommendation to proceed to the Sustainable Resources Committee on the 22nd of February the Executive Board on the 28th of March 2024, before being submitted the Welsh Government.

The delivery of this programme will be challenging. Whilst the case for change for a secondary care ePMA solution across HDUHB is compelling, careful planning for the design and implementation phases will be required to deliver against HDUHB's strategic ambitions. It is recognised that effective change management, staff engagement and communications and visible clinical leadership will be critical to the success of this Programme, and a robust training

plan and approach will need to be designed and approved in collaboration between HDUHB (including representation from all relevant clinical and hospital staff user groups as well as digital and technology staff) and the chosen system implementation partner.

Organisational Risk

The risks of implementing ePMA are well documented in the Full Business Case, reported and recorded on the risk registers held by the National Programme Board, local ePMA Steering Group, local Pharmacy Risk Board and where appropriate on the Executive Risk Register. However, there has been significant risks identified should the ePMA programme not be implemented or significantly delayed, some of these are listed below:

1. Patient safety and experience may be at risk if the programme is not implemented or delayed.
2. HD health board runs the risk of being left behind in relation to updated systems and process, this also has an impact on patients being repatriated to their own health boards via transfer if this system is not implemented or delayed.
3. The health boards Digital Maturity Plans are at risk of not being realised if the system is not Implemented or delayed.
4. The health boards reputation may be at risk, A ministerial priority not implemented may attract unwelcome attention from many stakeholder groups.
5. Implementation funding from Welsh Government may be at risk if extended delays are experienced.
6. Staff recruitment and retention could be at risk if the system is not implemented, as staff may be attracted to health boards that invest in updating user systems and process. This could add to the already significant staff recruitment and retention issues being faced by the health board.

Further information can be found in the full business case that will be presented to the Board at their March 2024 meeting.

Appendix 2 – Electronic Radiology Requesting

Hywel Dda University Health Board (HDdUHB) along with all the other health boards across Wales have the opportunity to adopt functionality that enables Radiology Electronic Test Requesting (ETR) in Welsh Clinical Portal (WCP), digitising the current paper-based solution. As part of the Welsh Government's plan for Health and Care in Wales, they have requested that Digital Health and Care Wales (DHCW) undertake a national scoping exercise alongside a representative (Senior Digital Project Manager) from the Health Board to digitise Radiology requesting.

As this project will affect clinical and whole system change, that involves every clinical department across every Secondary Care site, including the emergency wards Same Day Emergency Care (SDEC), A&E and Minor Injury Unit (MIU), it has been suggested that the Operational Quality, Safety and Experience Sub Committee can provide a whole system oversight for this programme. Effectively closing the governance loop and providing additional governance, oversight and reassurance for all stakeholder groups.

Radiology e-requesting is the next development in the suite of clinical digital functionality being delivered through the Welsh Clinical Portal (WCP) programme. It is delivering digital radiology test requesting through to digital results notification and sign off.

The project was established to digitise and standardise the method of requesting radiology procedures across Health Boards. The aim of the electronic request form is to provide the radiology department with consistent and legible information to allow the radiology requesting process to run more smoothly and delivers a whole system audit-trail.

The Radiology Department have an aspiration to provide a solution to enable clinicians to be able to electronically request tests via the WCP and to commence a significant transformation project to deploy Radiology electronic requesting across Health Boards via a phased approach.

To date, the Health Board have begun deploying the use of the Radiology ETR form to outpatient wards only and are working closely with the Radiology department to progress this throughout the Health Board.

Enabling Consultants to receive and prioritise referrals electronically is high on the clinical agenda. It is also high on the National Agenda with progress being reported to the Welsh Government on a monthly basis.

The Radiology e-Requesting Project will create a single method for electronically requesting tests across Hywel Dda for those with access to WCP. It will enable those requesting tests to have sight of their request and provide a full service for administration teams within radiology to manage and book appointments.

The solution will be provided by DHCW, utilising both the radiology system (RadIS) and WCP. All data will be hosted nationally within the DHCW data centre, making it accessible across Health Board boundaries over the All Wales Public Sector Broadband Network (PSBN).

Problem solving:
- Removing the need to administer and maintain paper request forms.
- Reducing unwarranted variation in the test requesting process.
- Reducing data quality issues for both patient demographics and test information.
- Reducing unnecessary repeat investigations.
- Providing the whole process audit-trail.

The objectives of the Radiology e-Requesting project are to support services to deliver more effective and efficient services to patients by reducing administration time and reducing errors in order to realise benefits in terms of patient care. The aim is to streamline processes to ensure that there is a standardised approach to requesting tests where possible and to improve the quality and consistency of the data recorded within RadIS and WCP, ensuring a robust audit-trail and digital traceability of requests in one localised platform. By introducing a person-centred approach, this improves efficiency and effectiveness by having improved planning and decision making, improved coordination, resulting in better patient/client experience and safety by releasing time to care.

Following the successful pilot in Respiratory Services for outpatient test requests in August 2022 – October 2022, the Health Board has continued to deploy the use of Radiology Electronic Test Request function in WCP for **outpatient requests only** at present, on a service by service basis. These services include:-

| Service/Department	Deployment date
Respiratory	December 2022
Gynaecology	January 2023
Urology	March 2023
Gastroenterology	March- April 2023
Rapid Diagnosis	May 2023
Physiotherapies including CMATs	August 2023
Trauma & Orthopaedics including Colorectal services	August 2023
General Surgery	September – December 2023
Rheumatology	October 2023
Cardiology	October- November 2023
Haematology	December 2023

Outpatients:-
Quarter 3 has seen an increase of Radiology ETR to across the Health Board, however there remains to be potential for this to increase further to outpatient service which we are working to advance with the Clinical and Radiology teams.

Radiology Electronic Test Request volume per site in December 2023: -
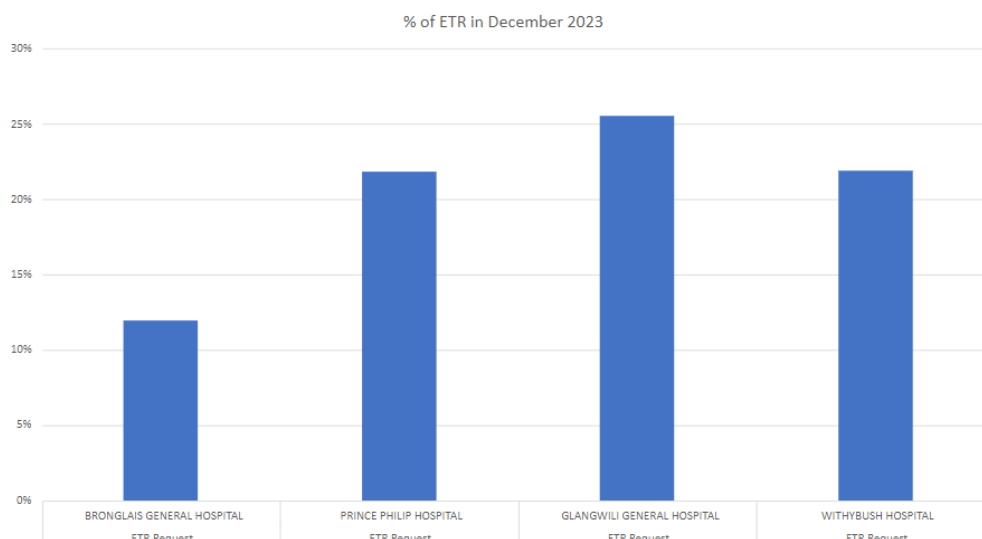
Annual volume of Radiology Electronic Test Requests per site:-

% of Radiology ETR per site
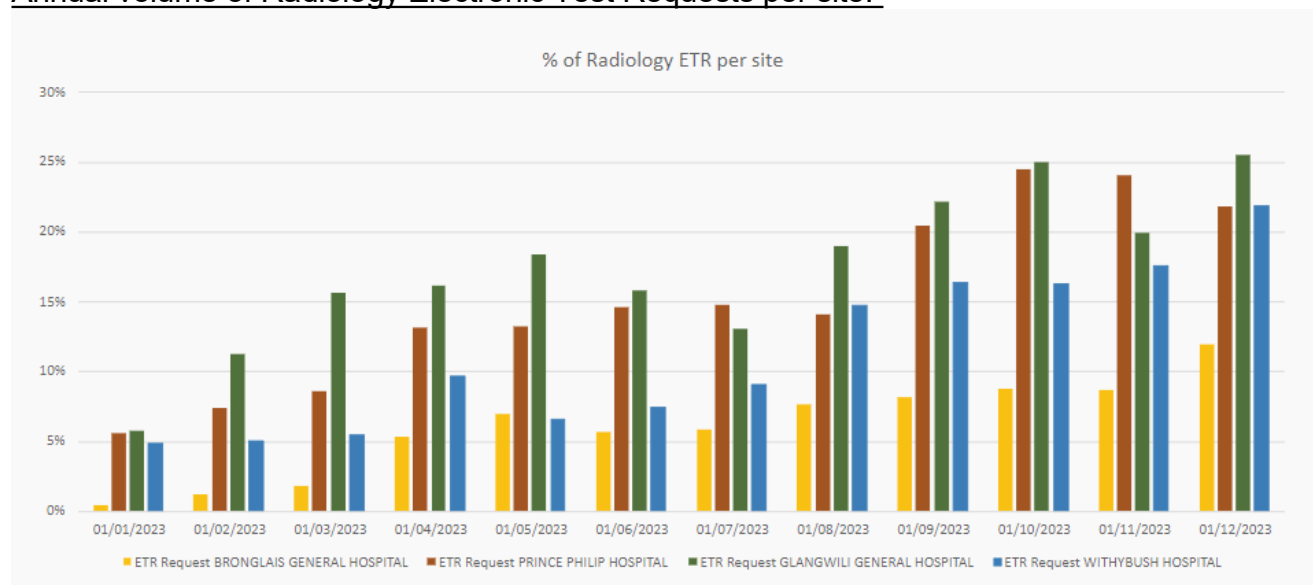
Health Board wide percentage of outpatient radiology electronic test requesting (ETR):-

Count of pk_Request_ID													
	01/01/2023	01/02/2023	01/03/2023	01/04/2023	01/05/2023	01/06/2023	01/07/2023	01/08/2023	01/09/2023	01/10/2023	01/11/2023	01/12/2023	Grand Total
ETR Request	171	184	306	393	458	471	455	591	653	733	666	604	5,685
Manually Raised	3,905	3,178	3,927	3,358	4,053	4,068	3,970	3,622	3,254	3,486	3,095	2,383	42,299
Grand Total	4,076	3,362	4,233	3,751	4,511	4,539	4,425	4,213	3,907	4,219	3,761	2,987	47,984
Percentage that is ETR	4%	5%	7%	10%	10%	10%	10%	14%	17%	17%	18%	20%	12%

% of Outpatient Requests that are Electronic (Health Board Wide)
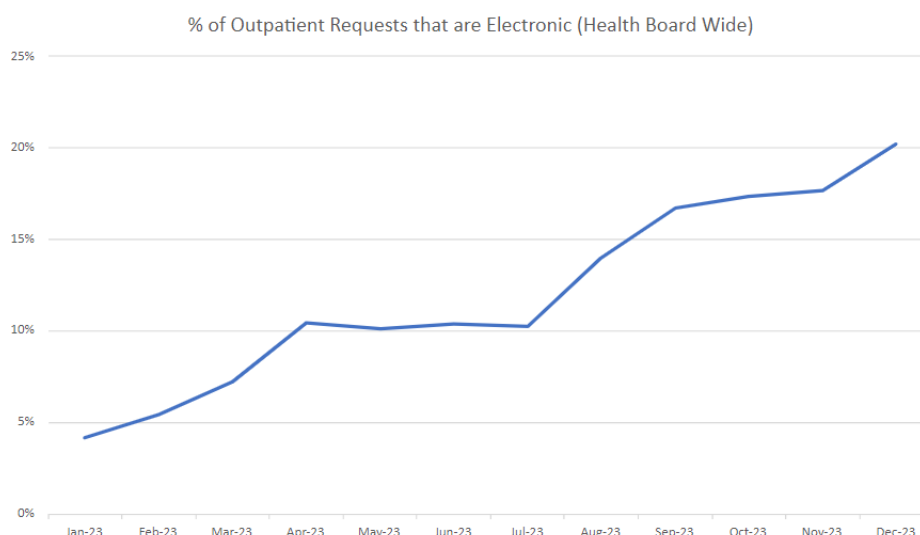
2023/24 to date

6944 electronic requests

198 hours saved for Radiology admin

111 clinicians using ETR for Radiology

Feedback from clinicians has also been captured using a MS form and shows:-
- 100% of clinicians have advised it takes less than 5 minutes to complete a radiology electronic test request (based on 20 responses)

- 80% of clinicians say they felt confident that their electronic request has been acknowledged and accepted into WCP (16 respondents)
- 15 respondents have confirmed that they like:-
    o The transparency of request and ability to see updates
    o The e-request form is easy to use
    o Provides quicker access to raising requests
    o Reassurance that the request has been accepted by radiology
    o My team has access to view my requests and results
    o 1 respondent added that they like: 'Can be done remotely off site, better for the environment'

Inpatients:-

The project team are currently conducting a number of scoping exercises in relation to the deployment of the Radiology electronic test request form for inpatient services, including out of hours requests, to ensure requests are prioritised in a timely manner.

Visits to emergency wards including SDEC, MIU & A&E are also underway to understand the current paper request process and ensuring the required hardware and protocols are in place in preparation to deployment.

The organisational risk identified if the Radiology Electronic Test Request function is not implemented as per the Welsh Government requirements and timeline include:-

1. Reputational Risk
2. Delays to delivering solutions that improve patient safety
3. Demonstrates our digital maturity in accordance with Healthcare Information and Management Systems Society (HIMSS)

Currently requests for imaging are made in a number of ways depending on the clinician requesting, their location, the urgency and the technologies available to them. These can be any of the following:-

- Handwritten request forms.
- Email requests.

These methods involve a significant risk to patient harm due to:-

- No paper trail and visibility of requests logged until received and manually transcribed into the RadIS system by the Radiology administrator
- Paper request does not reach the Radiology department
- Potential duplication of request if not actioned in a timely manner, potentially resulting in patient being exposed to unnecessary radiation.

The Project Team are actively monitoring progress and where possible looking to accelerate the use throughout the Health Board to improve the outcomes detailed above.