

Radiology Services: Update on Progress – Swansea Bay University Health Board

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Summary report

Introduction

- 1 In 2017 we reviewed the radiology services as set up within the former Abertawe Bro Morgannwg University Health Board (ABMUHB). There were two radiology services at that time:
 - ABMUHB West – comprising Morriston and Singleton Hospitals in Swansea; and
 - ABMUHB East – comprising Neath Port Talbot Hospital and the Princess of Wales Hospital in Bridgend.
- 2 Our report, [Radiology Service – Abertawe Bro Morgannwg University Health Board](#), concluded that weak strategic planning across the services, in combination with increasing demand, significant workforce challenges, and aging equipment, was leading to reporting backlogs and other risks to future delivery.
- 3 The Auditor General's 2018 national report on [Radiology Services in Wales](#) also highlighted several issues threatening the sustainability of radiology services across Wales. These issues include staffing challenges; aging and underutilised equipment; weaknesses in IT systems; long waits for examination results; and opportunities to improve scrutiny and strategic planning.
- 4 Both of these reports set out recommendations for Abertawe Bro Morgannwg University Health Board (ABMUHB) to improve strategic, operational, financial and workforce planning, equipment replacement programmes, modelling demand, maximising capacity, performance information and monitoring arrangements. The 2018 national report also identified additional challenges that required a co-ordinated approach by NHS Wales.
- 5 In 2019, the Welsh Government published an [Imaging Statement of Intent](#), setting out a commitment to adopt a new co-ordinated strategic approach to developing high quality, effective and sustainable imaging services. The National Imaging Programme Strategy Board (NIPSB) was established in 2019 to oversee the implementation of the Imaging Statement of Intent and promote innovation and new ways of working in imaging services in Wales. The NIPSB has been undertaking work to assess the progress made by NHS Wales.
- 6 On 1 April 2019, the Welsh Government introduced changes to the boundaries of ABMUHB and Cwm Taf University Health Board. The ABMUHB sites at Neath Port Talbot Hospital, Singleton Hospital and Morriston Hospital became part of the new Swansea Bay University Health Board. The Princess of Wales Hospital, formerly part of ABMUHB, became part of the new Cwm Taf Morgannwg University Health Board.
- 7 Radiology services at the three main hospital sites across the Swansea Bay University Health Board (the Health Board) were brought together to form the Radiology Directorate as part of the Clinical Support Services Division. Since the boundary changes in 2019, the COVID-19 pandemic has changed the landscape in

which the Health Board operates, posing new challenges and opportunities for service delivery.

- 8 We undertook a high-level assessment of the progress made by the Health Board to address our recommendations. In undertaking this work, we:
- asked the Health Board to complete a self-assessment of progress;
 - reviewed documentary evidence to support the self-assessment, as well as board and committee papers; and
 - interviewed several officers to discuss progress, current issues, and future challenges.
- 9 A summary of our findings is set out in the following section with more detailed information provided in **Appendix 1**.

Our findings

- 10 Our overall conclusion is that **the Health Board has improved the way it plans and delivers radiology services. The establishment of a single Radiology Directorate in April 2019 has enabled the service to respond consistently to the challenges it faces. Systematic demand and capacity planning has provided a clear foundation on which to make the case for increasing service hours and the associated additional workforce requirements. Strong operational leadership has raised the profile of the Radiology Directorate, ensuring that it is integral to organisational planning. However, there is little discussion of radiology services by the Board and its committees.**
- 11 In summary, the status of progress against each of the previous recommendations is set out in **Exhibit 1**.

Exhibit 1: status of 2017 recommendations

Total number of recommendations	Implemented	Ongoing action	No action	Superseded
10	6	4	0	0

Source: Audit Wales

- 12 We found that the Health Board has made good progress to address our recommendations because:
- the establishment of a single Radiology Directorate following the boundary change on 1 April 2019 helped to address a number of the issues highlighted in our previous report;
 - review of peer review arrangements has resulted in a consistent and systematic approach across radiology modalities and specialities;

- the Radiology Directorate has increased its profile in operational planning meetings, enabling it to identify and respond to developments which have the potential to impact on the service;
- radiology outpatient DNA rates are now recorded for use within the Radiology Directorate and shared more widely across the Health Board through the Planned Care Programme Board;
- each of the main hospital sites has access to the same version of RadIS¹ and its appointment booking module, although work to rationalise radiology outpatient appointment booking arrangements is still at an early stage;
- procedures to address the replacement of equipment which poses a risk to patient care or business continuity are consistent and contingency plans are in place through Standard Operating Procedures and the Business Continuity Policy;
- capacity and demand modelling has been carried out to establish the potential to increase the operating hours of scanners and is linked to workforce plans to ensure the availability of staff to support increases in activity;
- the Radiology Directorate contributes to the development of the Health Board's Annual Plan; and
- the Radiology Directorate does not have a single financial plan but the budget for 2021-22 was baselined on the activity for 2019-20 and has been approved while being dependent on activity.

13 In undertaking this assessment of progress update, we identified one new risk in relation to radiology services which is set out in **Exhibit 2**. The Health Board is already aware of this risk.

¹ RadIS is the Radiology Information System used by all health boards. Radiology practitioners use RadIS to manage the service and to keep track of the scans that patients have received.

Exhibit 2: new risk identified during our work

New risks	
Area	Description
Increased demand due to COVID-19 suppressed demand	There is an unknown level of 'pent-up' demand as a result of patients having treatment delayed or not visiting their GP during the pandemic, which could significantly affect the radiology service's ability to respond to referrals and report images in a timely manner. The Health Board has recognised this risk which has been added to the directorate risk register. The risk is regularly reviewed; monitored and managed as part of the directorate, Clinical Support Services Division and Health Board risk management process.

Source: Audit Wales

Recommendations

- 14 In undertaking this work, we have made no new recommendations. However, the Health Board needs to continue to make progress in addressing our previous recommendations which have yet to be fully implemented, see **Exhibit 3**. We have amended the wording of the previous recommendations to reflect the single Radiology Directorate which has been in place since 2019.

Exhibit 3: previous recommendations not yet fully implemented

2017 recommendations not yet fully implemented

- R4 The Radiology Directorate should review and address the coordination of radiology appointments within specialties and across sites, to help distribute demand effectively and to reduce variations in waiting times.
- R7 The Radiology Directorate should establish a radiology strategic plan to:
- show the current position in terms of demand, capacity and available resources;
 - set out a view of where the service needs to be;
 - establish how it will achieve its aims; and

2017 recommendations not yet fully implemented

- inform the development of annual operational plans.

R8 The Radiology Directorate should set clear financial plans to inform their annual operational plans.

R10 The Health Board should ensure clear representation of radiology services on its key committees and groups, by mid-2017.

Appendix 1

Progress to address our 2017 recommendations

Exhibit 4: assessment of progress

Original recommendations to be addressed	Status ²	Summary of progress
R1 The two radiology services should establish a joint action plan, by mid-2017, parts of which may need to be achieved as resources become available, to ensure that peer review of reporting quality is carried out in line with the requirements of professional standards.	Green	<p>In 2017, we found that peer review of the quality of imaging reports was only occasionally carried out and there was no clear plan to address the situation.</p> <p>The proportion of images to be peer reviewed is based on professional guidelines. For consultant radiologists, this is determined by the level of multi-disciplinary team activity. The proportion of images peer reviewed is the same for each modality and specialty across the Health Board. Any shortfalls in peer review are discussed in monthly radiology education meetings.</p> <p>The Health Board told us that approximately 300 scans per week are reviewed by radiologists at Radiology Directorate multi-disciplinary team meetings. Reporting discrepancies are fed back to individual reporting radiologists and may be presented at monthly radiology education meetings.</p> <p>One morning each month is reserved for peer reviewing ultrasound images and reports, which equates to around 1% of sonographer scans. At the time of our</p>

² Green indicates that the recommendation has been implemented; Amber indicates ongoing action to address the recommendation; Red indicates that insufficient or no action has been taken; and Blue indicates that the recommendation has been superseded.

Original recommendations to be addressed	Status ²	Summary of progress
		<p>review, peer review was on hold due to the pressures to relieve the backlogs. Peer review was subsequently reinstated in September 2021.</p> <p>A new Reporting Radiographer was employed by ABMUHB's Morriston Hospital Delivery Unit (Morriston Hospital and Singleton Hospital) in late 2017 and took the lead for peer review of plain film discrepancy reporting in the unit at that time. Following the boundary change, this role was extended to cover plain film reporting in the Radiology Directorate across the Health Board.</p> <p>Of the total number of reports prepared by a reporting radiographer each week, 5% are selected for peer review. The Radiology Directorate clerical team prepare the data for each reporting radiographer so that the designated single point of contact can forward the information to other radiographers for review. Their findings are returned to the single point of contact so that reporting accuracy can be calculated.</p>
<p>R2 The two radiology services should set out a joint plan to identify ways in which they can reinforce the need for other services to communicate with them about initiatives and changes that will affect the</p>	<p>Green</p>	<p>In 2017, ABMUHB radiography managers told us that they were not always consulted in advance about service changes or waiting list initiatives which would increase the number of patients being referred for imaging and place significant pressure on radiology services.</p> <p>The realignment of the Health Board's services after the 2019 boundary change led to the establishment of the Radiology Directorate and the appointment of a new senior management team for the Clinical Support Services Division. The increased visibility of the service has raised morale amongst radiology staff. The Interim Associate Services Director for the Clinical Support Services Division and the</p>

Original recommendations to be addressed	Status ²	Summary of progress
provision of radiology services.		<p>Deputy Services Director ensure that they represent the Radiology Directorate at key finance, strategy, and planning meetings.</p> <p>Attendance by radiology representatives at key meetings enables them to stay updated of changes occurring elsewhere that may impact on the service, such as changes to care pathways and waiting list initiatives. This enables the service to identify potential capacity shortages in workforce and equipment and to implement plans to address them, for example by developing workforce plans. Staff told us that senior managers have been highly effective in raising the profile of the radiology service within the Health Board.</p> <p>Radiology site leads recognise the importance of being present at routine meetings so that they can gather information and ensure that radiology is part of the discussion when necessary. The radiology site leads attend a number of key routine meetings:</p> <ul style="list-style-type: none"> • Clinical Support Services Division Quality and Safety Group – monthly; • Silver Command meetings took place weekly at the height of the pandemic; • Diagnostic Cell Recovery meetings – fortnightly; • Weekly multi-disciplinary meeting (eg radiologists, surgeons, radiographers, nurses) led by the Director of Therapies and Health Sciences and focussing on clinical issues; • Cancer Review – weekly; • Clinical Cabinet – weekly; and

Original recommendations to be addressed	Status ²	Summary of progress
		<ul style="list-style-type: none"> • Clinical Support Services Division – a monthly meeting focussing mostly on managerial issues. <p>The Radiology Directorate is playing a key role in the facilitation of a move which will see a substantial change to the services provided by the three acute hospitals within the Health Board. Morriston Hospital will become the centre for emergency and specialist services, and Singleton Hospital and Neath Port Talbot Hospital will become centres for planned care and diagnostic services. The Radiology Directorate is represented by the Radiology Services Manager, who attends meetings associated with the planned changes, where discussions cover a wide range of issues including activity, staffing, facilities, and equipment.</p>
<p>R3 The two radiology services should record radiology outpatient appointment (Did Not Attend (DNA) rates and include them in radiology service performance reports.</p>	<p>Green</p>	<p>In 2017, we reported that radiology outpatient appointment DNA rates were not routinely monitored, although managers were confident that the rates were likely to be low for the computerised tomography (CT), (MRI), and non-obstetric ultrasound (US) modalities.</p> <p>Our recent work identified that the Health Board routinely calculates the DNA rate. The DNA rate is the total number of outpatient appointment requests minus those appointments which have taken place, been cancelled, not performed, and are yet to take place. The November 2021 DNA rate was 3.6% across all three Health Board sites. However, at the time of our work the radiology outpatient appointment DNA rate was not reported beyond the Radiology Directorate. We understand that the DNA rates for all modalities have since been added to the performance data for the Planned Care Programme Board. The data is shared on a monthly basis to raise</p>

Original recommendations to be addressed	Status ²	Summary of progress
		<p>service visibility across diagnostics, other planned care functions and with the Executive Board. Discussions are also ongoing about adding the information to the wider Health Board performance dashboard.</p>
<p>R4 The two radiology services should jointly review and address the coordination of radiology appointments within specialties and across sites, to help distribute demand effectively and to reduce variations in waiting times.</p>	<p>Amber</p>	<p>In 2017 we found that ABMUHB did not have a single booking office to co-ordinate radiology appointments across the two radiology services, limiting opportunities to manage waiting lists across sites to reduce waiting time variation. Managers indicated that it was impossible to have a single booking system when each radiology service operated a different radiology information system.</p> <p>ABMUHB made plans for the implementation of RadIS at the Morriston Hospital Delivery Unit by 1 April 2018. This would mean that the same system would be in use at both radiology sites. However, implementation was delayed.</p> <p>The Health Board moved to a single RadIS system across its three main sites in December 2020. This provided the ability for users to book appointments for all three sites, thereby providing the facility to distribute demand effectively and to reduce variations in waiting times across sites.</p> <p>Discussions have started about establishing single points of booking for each modality which would further increase the efficiency of the booking process and provide a central point of contact for patients.</p>

Original recommendations to be addressed	Status ²	Summary of progress
<p>R5 The Health Board should set out capital replacement plans, and contingency plans, for equipment which poses particular risks to service continuity and patient care.</p>	<p>Green</p>	<p>In 2017, we found that only 55% of the scanners at Morriston Hospital Delivery Unit and only 38% of the scanners at Princess of Wales Hospital Delivery Unit were compliant with the scanner equipment life-span guidance set out by the Royal College of Radiologists³. We saw limited evidence of capital replacement plans and associated contingency plans for equipment which posed a particular risk to patient care and service continuity.</p> <p>Currently, the Radiology Directorate management team populate and review the radiology risk register. New risks are reviewed by the Radiology Directorate Quality and Safety Group before being reported to the Clinical Support Services Division Board for approval. The Division management team scrutinise the radiology risk register every three months to ensure that it is fit for purpose and that the ratings are not over-inflated. Where necessary, risk entries are updated to include changes to risk scores. At the time of our work, there was a high scoring risk associated with radiology equipment on the Radiology Directorate risk register. The ability to invest capital resources is a Health Board risk and there is an intention to include an entry on the Corporate Risk Register regarding the limited capital funds allocation. The equipment risk will be adjusted depending on the monies available and the bids against the funds.</p>

³ For example, in 2017 there was only one digital subtraction angiography unit supporting vascular imaging at Morriston Hospital. It had been in use for 14 years and also supported the vascular network for Mid and West Wales. A mammography scanner which had been in use for nine years at Singleton Hospital was logged as a high risk in the radiology service risk register, but a lack of clarity about the future design of the service was affecting its replacement. It was, however, replaced in 2017.

Original recommendations to be addressed	Status ²	Summary of progress
		<p>Equipment recorded as a risk on the Datix system is entered and prioritised on the Health Board's Major Imaging Replacement Priorities list, which is used to inform the All-Wales Capital Programme and the Discretionary Capital Plan. This risk information is also included in the Health Board's asset log which is maintained by the Capital Procurement Team. Detailed planning for equipment replacement is part of business case development.</p> <p>Contingency plans are incorporated into Standard Operating Procedures which set out what to do in the case of equipment breakdown and routine service downtime. The Health Board's Business Continuity Policy sets out procedures in the event of emergencies such as fire or flooding.</p>
<p>R6 The two radiology services should jointly examine the costs and benefits of increased scanning hours during the week and at weekends, and if appropriate, develop a business case for an increase in scanning hours.</p>	<p>Green</p>	<p>In 2017, the most recently available data for ABMUHB showed that on average scanners were operated for between seven and ten hours on weekdays, but much less so at weekends.</p> <p>Currently, capacity and demand are monitored on an ongoing basis so that daily work plans can be optimised. For example, it was reported that urgent suspected cancer scans are being performed within ten calendar days with only minimal displacement of routine work.</p> <p>The Radiology Services Plan (July 2021) outlines plan arrangements specifically for CT and MRI services in 2021-22 and 2022-23, including:</p> <ul style="list-style-type: none"> • a baseline set on current access performance;

Original recommendations to be addressed	Status ²	Summary of progress
		<ul style="list-style-type: none"> • the net impact of rebalancing outpatient diagnostics from Morriston Hospital to Singleton Hospital and Neath Port Talbot Hospital; • a demand and capacity plan for CT and MRI services so that they can meet targets and respond to increasing demands on the service; • the workforce required to extend internal health board scanner capacity for CT and MRI; • short-term options for the expansion of CT and MR capacity, including quantification of the additional reporting capacity required; and • an update on potential options being explored as a route to support the replacement of one of the two CT scanners at Morriston Hospital; and for an additional MRI scanner at Morriston Hospital. <p>The funding identified within the plan for its implementation was agreed and is to be allocated in two phases. The first tranche is to deliver agreed activity levels for a five-day service and will be available as of 1 February 2022. The availability of the full second tranche of funding to deliver seven-day working will depend on successful recruitment of radiography trainees through the new national streamlined recruitment approach during the summer of 2022. Recruitment of MRI staff for seven-day working is underway and plans for seven-day CT and US scanning services are in place.</p> <p>The Interim Associate Services Manager, Clinical Support Services and the Radiology Services Manager provide detailed monthly performance reports on the delivery of the Radiology Annual Plan targets and milestone.</p>

Original recommendations to be addressed	Status ²	Summary of progress
<p>R7 The two radiology services should establish a joint radiology strategic plan, by mid-2017, to:</p> <ul style="list-style-type: none"> • show where they are now in terms of demand, capacity and available resources; • set out a collective view of where they need to be; • establish how they will work together to achieve their collective aims; and • inform the development of annual operational plans. 	<p>Amber</p>	<p>In 2017, we found that ABMUHB had a separate Integrated Medium Term Plan for each of its two delivery units. They served as strategy documents for the respective radiology services but were almost entirely distinct in terms of their content. There was no strategic overview for radiology services across the organisation.</p> <p>The boundary change in April 2019 led to the establishment of a single Radiology Directorate service and a single management structure. It paved the way for a consistent Health-Board-wide approach to strategic and operational planning of the radiology service.</p> <p>The summary of progress for Recommendation 6 sets out how the Health Board is determining demand and capacity for CT and MRI services in the short and longer term.</p> <p>The Radiology Directorate contributes to the development of the Health Board's Annual Plan. The Planned Care Summary Plan 2021-22 (part of the Annual Plan 2021-22) refers to radiology services, including:</p> <ul style="list-style-type: none"> • implementation of the endoscopy recovery plan; • establishment of service requirements for moving all acute medical patients to Morriston Hospital; and • ongoing capacity and demand analysis in CT, MRI, and non-obstetric US. <p>The Radiology Services Plan (July 2021) focuses on the provision of CT and MRI services. It does not include other areas such as plain film imaging or interventional radiology, so is not a fully comprehensive plan for the service.</p>

Original recommendations to be addressed	Status ²	Summary of progress
<p>R8 The two radiology services should set clear financial plans to inform their annual operational plans.</p>	<p>Amber</p>	<p>In 2017, we found that ABMUHB's radiology services lacked annual operational plans, financial plans, and workforce plans.</p> <p>At the time of our fieldwork for this follow-up review there was no specific radiology financial plan. The Health Board told us there was agreed funding for the service for April 2021-22 based on activity levels delivered in the financial year 2019-20, and it will be activity-dependent.</p> <p>The radiology financial position is reported at monthly directorate meetings. When a budget is exceeded a deep-dive analysis is carried out to identify the cause. While there is a single budget for the Radiology Directorate, each site has its own cost code.</p> <p>Large capital items are logged in the capital replacement plan as a Radiology Directorate item with a site indicator, as opposed to the previous system where they were reported as a site item with a radiology service indicator.</p>
<p>R9 The Health Board should, by mid-2017, establish arrangements to help ensure director oversight of a Health-Board-wide strategic focus on radiology, which should be in addition</p>	<p>Green</p>	<p>In 2017, ABMUHB had two separate radiology services with distinct management structures. Executive leadership was provided by the Medical Director for medical staff, the Interim Director Therapies and Health Science for radiographers, and by the Chief Operating Officer for operational delivery. The separation of management structures and executive leadership limited the potential to ensure a Health-Board-wide strategic focus on radiology services.</p>

Original recommendations to be addressed	Status ²	Summary of progress
to that currently given to the separate radiology services.		An opportunity for significant change arose with the boundary change in April 2019. The establishment of a single Radiology Directorate made it possible to introduce a unified management structure. Up until March 2021, the Executive Lead for radiology services was the Chief Operating Officer. From April 2021, this moved to the Director of Therapies.
R10 The Health Board should ensure clear representation of radiology services on its key committees and groups, by mid-2017.	Amber	While staff told us that the profile of radiology services has increased within the Health Board, there is little discussion of the associated issues at meetings of the Board and its key committees.



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