Arolygiaeth Gofal Iechyd Cymru
Healthcare Inspectorate Wales

HIW Ionising Radiation (Medical Exposure) Regulations Inspection Report (Announced)

Cardiac Catheterisation Laboratory and Interventional Hybrid Theatre, Glan Clwyd Hospital, Betsi Cadwaladr University Health Board

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Healthcare Inspectorate Wales (HIW) is the independent inspectorate and regulator of healthcare in Wales

Our purpose

To check that healthcare services are provided in a way which maximises the health and wellbeing of people

Our values

We place people at the heart of what we do. We are:

- Independent – we are impartial, deciding what work we do and where we do it
- Objective - we are reasoned, fair and evidence driven
- Decisive - we make clear judgements and take action to improve poor standards and highlight the good practice we find
- Inclusive - we value and encourage equality and diversity through our work
- Proportionate - we are agile and we carry out our work where it matters most

Our goal

To be a trusted voice which influences and drives improvement in healthcare

Our priorities

- We will focus on the quality of healthcare provided to people and communities as they access, use and move between services.
- We will adapt our approach to ensure we are responsive to emerging risks to patient safety
- We will work collaboratively to drive system and service improvement within healthcare
- We will support and develop our workforce to enable them, and the organisation, to deliver our priorities.

Contents

1. What we did

Full details on how we conduct Ionising Radiation (Medical Exposure) Regulations inspections can be found on our website.

Healthcare Inspectorate Wales (HIW) completed an announced Ionising Radiation (Medical Exposure) Regulations inspection of the Cardiac Catheterisation Laboratory (cath lab) and Interventional Hybrid Theatre, Glan Clwyd Hospital, Betsi Cadwaladr University Health Board on 4 and 5 May 2022.

Our team for the inspection comprised of two HIW Senior Healthcare Inspectors and a Senior Clinical Diagnostic Officer from the Medical Exposures Group (MEG) at UK Health Security Agency (UKHSA), who acted in an advisory capacity. The inspection was led by a HIW Senior Healthcare Inspector.

Note, the inspection findings relate to the point in time that the inspection was undertaken.

This (full) report is designed for the setting and describes all findings relating to the provision of high quality, safe and reliable care that is centred on individual patients.

A summary version of the report, which is designed for members of the public can be found on our website.

2. Summary of inspection

Quality of Patient Experience

Overall summary:

Responses from patients indicated that they were very satisfied with the service provided by staff within the department.

Arrangements were in place to promote the privacy and dignity of patients. Staff treated patients in a kind and respectful manner.

There were suitable arrangements in place to meet the communication needs of patients attending the department.

This is what we recommend the service can improve:

- Improve the patient feedback process.

This is what the service did well:

- Well maintained environment with good signage
- Very positive patient experience comments
- Good promotion of the Welsh language with signage and staff able and willing to speak Welsh to patients.

Safe and Effective Care

Overall summary:

We found that compliance with IR(ME)R 2017 was very good from the evidence available and discussions undertaken with staff. This included staff awareness of their IR(ME)R duty holder roles and responsibilities.

We found arrangements were in place to provide patients visiting the department with good, safe and effective care. Information provided indicated that appropriate arrangements had been implemented by the service to ensure there was an effective clinical audit programme in place.

The level of Medical Physics Expert (MPE) involvement was also considered to be very good.

Policies and written employer's procedures required under IR(ME)R were available. These would benefit from some updating and ensuring that the requirements under IR(ME)R are fully covered for both the cath lab and interventional hybrid theatre.

We identified some areas for improvement including the need to ensure pregnancy checks were carried out appropriately and that these checks were documented.

This is what we recommend the service can improve:

- Improve the content of the employer's procedure on pregnancy checks to clearly establish how pregnancy checks are recorded in each area

- Ensure consistent documentation of the pregnancy checks on the relevant systems

- Formally entitle cardiac nurse advanced practitioners as non-medical referrers

- Include relevant references to the cath lab and interventional hybrid theatre throughout the employer's procedures

- Change the dignity curtains in the day unit in a timely and appropriate manner.

This is what the service did well:

- The level of MPE support evident in all areas

- Establishment of image optimisation teams with the intent to set this up in cardiology

- High standard of clinical auditing with results shared with staff and improvements implemented, where appropriate

- Clinical audit including the reference to audits across the health board.

Quality of Management and Leadership

Overall summary:

A management structure with clear lines of reporting and accountability was described and demonstrated.

The department was being well managed and comments from staff indicated that they felt supported by senior staff within the department. It was clear from our inspection that there was a good rapport between department staff and senior managers.

Employer's procedures as required under Schedule 2 were generally of a good standard. Some needed to be updated and reviewed.

This is what we recommend the service can improve:

- Ensuring that all procedures and protocols have a consistent version control and are reviewed in a timely manner
- All unintended exposure, error, near miss or incident are reported by staff
- That staff feel secure raising concerns about unsafe clinical practice and that they would be confident that their concerns would be addressed.

This is what the service did well:

- Clear management and leadership
- Annual renewal of entitlement letters outlining scope of practice
- Completing all mandatory training.

3. What we found

Quality of Patient Experience

Patient Feedback

HIW issued both online and paper surveys to obtain patient views on diagnostic imaging at Ysbyty Glan Clwyd, specifically the Cardiac Catheterisation Laboratory and Interventional Hybrid Theatre. In total, we received 31 responses. Almost all responses to the questions asked indicated a positive patient experience by users of this service and comments particularly praised staff. Patients were asked in the questionnaire to rate their overall experience of the service. All patients who answered the question rated the service as 'very good'.

The following comments were made regarding patients' overall experience:

> *"The environment is relaxed with noise levels quite low. My only criticism is the air conditioning is providing cold air making the area around the beds uncomfortably cool."*
> *"It was excellent, and everyone made me feel comfortable."*
> *"The medical team were outstanding, providing a professional and caring approach to their procedures and my care."*
> *"It was swift, very professional yet friendly well organised and smooth running. Thanks to the staff and doctors."*
> *"All the staff at the cardiac department were efficient, polite and friendly, [they] made me feel comfortable and relaxed before my procedure."*

Staff Feedback

HIW also issued an online questionnaire to obtain staff views on the Cardiac Catheterisation Laboratory and Interventional Hybrid Theatre. In total, we received 69 responses from staff at the setting. Sixty staff completed the whole questionnaire, with nine partially completing it.

Most staff agreed that patient experience feedback was collected within their department. Also, most staff agreed that they received updates on patient experience feedback in their department and that feedback from patients was used to make informed decisions within their department.

Staying Healthy

Health Protection and Improvement

There were a number of information posters displayed in the various waiting areas and outside the treatment rooms. These included details advising patients of the importance of letting staff know if there was a likelihood, they may be pregnant. These posters were in both Welsh and English.

There were leaflets displayed about healthy eating and we noticed a number of leaflets supplied by the British Heart Foundation.

Dignified care

Communicating effectively

There was a hearing loop available in the main reception area that could also be used in the treatment areas. Bilingual posters were seen to be displayed and there was clear signage displayed that patients could communicate in Welsh if they choose to do so. Staff informed us that access was available to telephone translation services. We were also informed that there were Welsh speaking staff available in the department.

Regarding the Welsh Language Active Offer, four patients indicated that Welsh was their preferred language. Three of the four indicated that they were actively offered the opportunity to speak Welsh throughout their patient journey. They felt comfortable using the Welsh language within the hospital environment. Three of the four said that healthcare information was available in Welsh.

In relation to staff, 13 of the 62 who answered, indicated that they are Welsh speakers. Ten of these wore the ‘Iaith Gwaith’ badge or lanyard. Six said that patients were asked to state their preferred language and six said they sometimes were. Seven staff indicated that they used Welsh in everyday conversations and six sometimes did.

Patient information

We saw that a range of patient information was available and displayed within the department which related to a variety of topics, including what patients should expect with regards to their treatment / procedure. There was also information displayed relating to the measures in place to prevent the spread of COVID-19.

All patients agreed they were involved as much as they wanted to be in any decisions about their procedure or treatment and were given enough information to understand the benefits and risks of the procedure or treatment. They all also agreed they had been given information on how to care for themselves following their procedure or treatment. All bar three patients agreed they had been given written information on who to contact for advice about any 'after-effects' from their procedure or treatment.

Dignity

Staff were seen to be treating patients with respect and in engaging with patients in a friendly but professional manner. There were rooms available with privacy curtains for patients to change their clothes to operating gowns prior to the treatment. Should patients wish to discuss any private issues there was a room available away from the main waiting room to provide privacy.

The doors to the treatment rooms were seen to be closed when any treatment was provided.

All the patients who answered the question agreed that staff treated them with dignity and respect and that measures were taken to protect their privacy. We were told:

> *"Staff were courteous and helpful."*
> *"Staff are caring and attentive."*
> *"The staff were so friendly and made me very relaxed … [they] waited for me to get ready to go with them … I did not feel rushed at all."*
> *"The staff were very efficient and personable. I was very impressed with the way they treated me."*

Over 90 percent of patients agreed they were able to speak to staff about their procedure or treatment without being overheard by other patients or service users. All patients agreed that staff explained what they were doing, listened to them and answered their questions. Patients told us:

> *"To be honest they could not be more helpful every question was answered there and then. So polite checking to make sure all needs were met."*
> *"Kept on telling me what was going on when I wanted to know."*
> *"All staff were wonderful nothing too much trouble explained everything that was going on - warm and friendly made me feel fully at ease."*

Almost all staff respondents agreed that patients' privacy and dignity was maintained and that patients were informed and involved in decisions about their care.

Timely care

Timely Access

Staff we spoke to confirmed that arrangements were made to ensure that in-patients were seen the next day if the procedure had to be postponed. Staff also confirmed that patients were informed of any delay. All patients in the questionnaire agreed it was easy to get an appointment. A patient commented:

> *"Interventional radiology were absolutely brilliant, I rang up … and they saw me the same day."*

All bar one patient agreed it was easy to find their way to the department. Almost all patients agreed they were told at the department how long they would likely have to wait.

Individual care

People's rights

Examples were provided where reasonable adjustments were in place, or made, so that everyone, including individuals with protected characteristics, could access and use services on an equal basis. The health board had an equality and diversity policy. Staff we spoke to said that all patients were treated fairly and with respect regardless of any protected characteristics and that there was a zero tolerance to bullying or discrimination. It was the responsibility of all staff to highlight and challenge poor behaviour. There was also an equality and diversity team in the health board that provided advice and support. Equality and diversity training was part of the mandatory training.

A total of 86 percent of the patients said they felt they could access the right healthcare at the right time. The main issue patients identified was difficulty obtaining GP appointments.

Listening and learning from feedback

There were bi-lingual posters displayed on 'Putting Things Right' together with leaflets available at reception. The hospital patient liaison service was also promoted in leaflets and on posters.

The results of feedback obtained in October 2021 were displayed within the cath lab lounge. However, there was no information about feedback displayed in the interventional radiology lounge. Staff told us that work was in progress to improve the response rate including providing patients with a quick response (QR) code following the procedures. The responses would be compiled to generate a report that would be displayed within the waiting room.

Delivery of Safe and Effective Care

Compliance with Ionising Radiation (Medical Exposure) Regulations 2017

Before the inspection, HIW required senior staff within the department to complete and submit a self-assessment questionnaire (SAF). This was to provide HIW with information about the department and the employer's key policies and procedures in respect of IR(ME)R. The SAF was completed to a high standard and was used to inform the inspection approach. Where we required additional information or clarification in respect of the responses within the SAF, this was provided promptly.

Duties of employer

Patient identification

The employer had an up-to-date written procedure for staff to follow to correctly identify patients prior to their exposure. However, the procedure did not seem to cover the cath lab and interventional hybrid theatre. This procedure would need to be updated to reflect the process in both of these areas. Staff we spoke with were able to describe the correct procedure to identify patients including how to correctly identify individuals who may not be able to identify themselves.

All patients agreed they were asked to confirm their personal details.

Individuals of childbearing potential (pregnancy enquiries)

The employer had a written procedure in place in relation to the process for establishing if an individual was or may be pregnant, prior to undergoing any procedure. However, this employer's procedure needs to be updated to include the process of recording pregnancy enquiries for all areas to ensure consistency of approach. The procedure also did not address gender diversity and the cath lab flow chart evidenced did not have the age range written on the chart. This procedure needs to be updated accordingly. We were told that there was a piece of work underway to identify an All-Wales approach to pregnancy documentation.

Staff we spoke to were able to describe their responsibilities regarding pregnancy enquiries, which included the need to consider individuals of childbearing potential and breastfeeding.

Non-medical imaging exposures

The employer had a written procedure in place which set out the criteria for carrying out non-medical imaging exposures. However, non-medical imaging was not carried out in the areas subject to the inspection

Referral guidelines

The employer had established referral guidelines in place. Arrangements were described for making these available to those entitled to act as referrer under IR(ME)R 2017. The referral guidelines were identified in the radiology procedure for entitlement. The i-Refer guidelines used were available via the radiology page on the intranet and referrers were informed via the annual notification. There was a locally agreed set of referral guidelines to cover those examinations routinely carried out that were not included in i-Refer. Cath lab referrals were restricted to members of the cardiology service and NICE guidance was followed. This information was shared through the clinical lead and cath lab lead.

The process for prioritising referrals was described in the SAF and staff were also able to describe this process.

Duties of referrer, practitioner and operator

The employer had a system in place to identify the different types and roles of the professionals involved in referring, justifying and performing radiology examinations for patients. There was an employer's procedure to identify individuals entitled to act as referrers, practitioners, and operators (duty holders) within a specified scope of practice.

From reviewing the SAF and through speaking with senior staff we were informed about the process for the induction and training programmes in place for all newly appointed practitioners and operators under IR(ME)R.

Senior managers described the arrangements for notifying staff of any changes to policies and procedures. Staff we spoke with confirmed that they were able to access electronic versions of the policies and procedures, when required.

We reviewed a sample of five staff training records relating to their competence, entitlement, scope of practice and training. Overall, the records were well laid out and completed to a high standard.

Justification of Individual Medical Exposures

Justification is performed prior to the exposure by an IR(ME)R entitled practitioner. The practitioner will sign the referral form in the justification box and where appropriate, identify the protocol to be followed. There was currently not an electronic system for justification of referrals. Although there was a project in place to establish an electronic system.

Where the practitioner was not available in the department, the radiographer acting as the IR(ME)R operator would authorise the exposure using the authorisation guidelines issued by the practitioner.

In the cath lab, the IR(ME)R practitioner was the consultant performing the procedure who took the consent. The signing of the consent form was also taken as the recording of the justification process.

The written procedure also detailed the process for justification of exposures for carers and comforters. However, there was not an entry in the procedure stating that carers and comforters were not used in the cath lab or interventional hybrid theatre.

Optimisation

The SAF provided stated that for the interventional suite and the hybrid theatre, an imaging optimisation team (IOT) was in place. We were told that the first meeting of the hybrid theatre IOT was approximately six months ago. Ideally meetings would be quarterly. The same terms of reference was used as for other IOTs in the department.

The cath lab was in the process of developing an IOT. In the interim, staff attended various meetings and raised any issues and discussed how things could be made better. A terms of reference had been developed and the first meeting was planned for the end of May.

We were also told that Medical Physics Experts (MPEs) routinely provided advice and contributed to the optimisation of exposures including acceptance testing and scheduled equipment quality assurance.

Diagnostic reference levels (DRLs)

There was an employer's procedure relating to DRLs that was primarily aimed at clinical radiology staff and Medical Physics Experts (MPEs). Again, the procedure needs to be updated to included reference to the cath lab.

We were told that the task of reviewing DRLs was included in the terms of reference for the relevant radiology IOT, normally in the first quarter IOT. There would be a review of the preceding years median doses and how the data was trending together with how individual devices were functioning relative to the DRLs.

The process with how DRLs were established, used and reviewed in the cath lab was described by staff. These will be reviewed in future years by the IOT for cardiology.

Paediatrics

Paediatric patients were not imaged in the cath lab or the interventional hybrid theatre.

Clinical evaluation

The clinical evaluation of images was described and there were no issues found with this process. The clinical evaluations were performed by the cardiologists / radiologists and included in the patient records.

Equipment: general duties of the employer

The equipment inventory was in line with regulatory requirement. We were told that all newly purchased equipment underwent acceptance testing and critical examination before first clinical use, as part of the commissioning. The medical physics database included a frequency of testing in line with the Institute of Physics and Engineering in Medicine guidance.

The radiology and cath lab quality assurance (QA) programmes had been developed with the support of the MPE.

Safe Care

Managing risk and promoting health and safety

The department was easy to find from the main entrance, there was a map of the site and the department was well signposted. There were no obvious hazards identified within the public areas and the corridors were clear of obstructions. There was level access and there were facilities for people with mobility difficulties.

We saw evidence of the restrictions in place due to COVID-19 which included reduced seating capacity, which did not appear to have a negative impact on

patients. The patient lounge has reduced seating capacity to allow for social distancing. The pre-assessment of patients was conducted mainly by telephone unless there was a need for further investigation and the patient would then be required to attend. There was restricted access throughout the department to prevent unauthorised access to clinical areas.

Staff we spoke to were able to describe the process used to explain the information provided to individuals or their representatives relating to the benefits and risks associated with the radiation dose from exposures.

Infection prevention and control (IPC) and Decontamination

All areas of the department and the equipment appeared visibly clean. The environment appeared well maintained and in a good state of repair. Hand washing and drying facilities were available and there were hand sanitising stations located throughout the department. Staff were observed cleaning trolleys. Disposable dignity curtains were used in the day unit. We were told that the dignity curtains were changed when soiled, or annually. However, from the check of the curtains, four had been in place for over a year, including one from May 2019, and one was not dated.

The changes in place in the department since the start of the pandemic included, posters displayed advising patients not to enter department if feeling unwell and describing other COVID-19 precautions. These precautions included the need to wear a face mask, washing and sanitising hands, and social distancing. Tape was used to prevent chairs being used in the main waiting room. The chairs within the cath lab waiting room were not taped. The manager confirmed numbers of patients using this area were restricted and staff enforced this. A side room was available for the isolation of patients due to infection or other reasons. PPE was readily available and staff were observed to be wearing this PPE appropriately.

All bar two patients said that the setting was ‘very clean’, the other two said it was ‘fairly clean’. All patients said COVID-19 infection control measures were being followed, where appropriate. All bar one member of staff agreed there were appropriate IPC procedures in place and almost all staff agreed that their organisation had implemented the necessary environmental changes. Every member of staff agreed that there were decontamination arrangements for equipment and relevant areas.

Staff we spoke to were able to describe how the medical devices, equipment and relevant areas of the unit were decontaminated.

Safeguarding children and safeguarding adults at risk

Staff and senior staff we spoke to stated that safeguarding training was completed up to level two. The nominated safeguarding lead was trained to level three. Staff were aware of the procedures in place and the actions that needed to be taken in the event of there being a safeguarding concern.

Effective care

Quality improvement, research and innovation

Clinical audit

As part of the SAF supplied in advance of the inspection, a clinical audit programme for the current year and three examples of completed clinical audits were provided. The range of audits provided included the areas of improvement implemented from the post audit findings. These included the reduction in the use of magnification in cardiac led to a reduction in patient dose. A large screen monitor allowed them to drop the use of magnification for images and this had a dose benefit to the patients.

The cardiac audit of percutaneous coronary intervention (PCI) was considered as another good example of an audit identifying benefits for the department.

The SAF showed that the area of clinical audits were divided into three tiers, the second tier being health board wide and service mandated audits. The department was progressing towards achieving a Quality Standard in Imaging.

Additionally, the SAF referred to an example where a single radiographer working across all three sites would look at the consistency of the fluoro-barium swallow.

Expert advice

The level of MPE support was evident throughout all areas. This included clear evidence to demonstrate that there was good interaction and engagement between MPEs and the department. Staff we spoke to confirmed they were able to contact an MPE for advice and support whenever they needed. This included the radiographers informing the MPE about any radiation incidents or equipment issues.

We were told that the MPE was a core standing member of all IOTs and they completed regular QA testing incorporating dose measurement and audits. They also carried out dose estimations for significant and unintended exposures. MPEs

and QA radiographers were in process of drafting a health board wide policy for QA, which they hoped would become an All-Wales policy.

The SAF also showed that the MPEs were members of a number of governance and safety groups relating to radiology as well as supporting the development of protocols and techniques. Both MPEs were directly employed by the health board.

Medical Research

Research was not being carried out in cath lab or interventional hybrid theatre at the time of the inspection. There was a procedure in place relating to research involving ionising and non-ionising radiation.

Record keeping

We checked a sample of five current patient referral documents and five retrospective documents. The referrals in the cath lab complied with the regulatory requirement and showed evidence of identity checks, justification and authorisation, pregnancy checking and dose recording.

In radiology, from the sample of five retrospective patients, two did not have pregnancy checks recorded either on the referral form or system. All other evidence was present.

Quality of Management and Leadership

Responses from staff to the online questionnaire were generally positive, with all but one being satisfied with the quality of care they gave to patients. The areas attracting the most positive responses were in training and development, dignified care, infection prevention and control, and incident reporting.

The main issue raised was inadequate staffing and its impact on patient safety and staff wellbeing. Other negative comments included staff perceptions of poor understanding of cardiac emergencies affecting ambulance response times and patients not being adequately prepared for imaging.

We asked staff how the setting could improve the service it provides. Staff suggested:

> *"Implement pre-op clinic so there are less chances of problems once patients are in the department, which helps to keep the patient and staff more informed and reduces potential cancellations of procedures."*
> *"Implement a dedicated daily admin team and remove interruptions from all scan areas so the radiographer can concentrate on examinations and student teaching and thus, improve safety for every patient. Currently, the radiographer is expected to complete daily admin duties … whilst performing a CT or MR examination."*
> *"Give more time for appointments and especially when training students."*
> *"WAST to understand that a patient having a STEMI or NSTeMI is priority to come to Glan Clwyd for treatment. East and West aren't a place of safety and can wait as they do not do primary PCI."*
> *"… many patients come from ED unprepared for their exam, e.g., fully clothed on ambulance trolleys, and this makes it difficult to X-ray patients in a timely manner."*
> *"More non-clinical time to support audit, training, operational demand and scoping for improvement and reflection."*
> *"Better changing facilities for staff at the start and end of shifts."*

Governance, Leadership and Accountability

A management structure with clear lines of accountability and reporting was noted. We found that governance arrangements were in place to support the effective operation of the department.

Staff we spoke to confirmed that they felt supported by their line manager. Staff also told us that they felt that the managers were very visible and approachable should they have any issues or queries they wish to discuss.

Staff responses to the questionnaire about the organisation varied and the percentages in agreement with the various statements were as follows:

- Encourages teamwork - 88 percent

- Care of patients is their organisation's top priority – 87 percent. A member of staff told us:

  "… I have really enjoyed the patient focused culture and the staff supporting each other to get all the work done."

- Acts on concerns raised by patients – 87 percent

- The efforts to keep them and patients safe – 82 percent. A member of staff commented:

  "Lone working overnight in an isolated department. With some of the poorliest patients in the hospital coming for scans frequently with untrained members of staff. I feel very vulnerable in these situations."

- A supportive organisation - 81 percent agreed. We were told:

  "A really friendly supportive culture from my experience…"
  "I have to say this is the best place I have worked; staff and management are very supportive."

- Recommend their organisation as a place to work – 78 percent

  "The department within which I work is a fantastic place to work with cohesive teamwork, enthusiastic and dedicated leads. My colleagues are brilliant to work alongside. However, I think the organisation at large is under resourced in every way, most notably is the lack of staff and beds, which creates immense relentless pressure and stress on a daily basis."

- Supported to identify and solve problems - 76 percent

- Happy with the standard of care provided by this organisation for themselves, friends or relatives – 71 percent

- The organisation takes swift action to improve when necessary - 69 percent.

On the days of our inspection, management made themselves available and facilitated the inspection process. They were receptive to our feedback and demonstrated a willingness to make improvements as a result of the issues highlighted. We spoke with several members of staff during the inspection, and they spoke well about the operation of the service.

Regarding ensuring that equality and a rights-based approach was embedded across the service, we were told that everyone was treated fairly with the same degree of respect.

The percentages of staff who agreed with the following statements about their immediate manager were as follows:

- Can be counted on to help with a difficult task at work – 93 percent

- Gives them clear feedback on staff work – 91 percent

- Ask staff for their opinion before making decisions that affect their work – 82 percent.

The percentages of staff who agreed with the following statements about their senior management:

- They knew who the senior managers were – 98 percent

- Committed to patient care – 92 percent.

- Were visible – 86 percent. Staff commented:

  "… have the senior staff/managers more visible and proactive … in the hospital, so they are able to take on some clinical roles when required and are willing and able to help staff more effectively."
  "As ever too many managers on huge amounts of pay shut away in offices and not enough staff on the ground where we really need them."

- Communication between senior management and staff was effective – 77 percent. A member of staff commented:

  "Management could improve communication with the team, in regards to changes that directly affect the workflow."

Duties of the employer

Entitlement

All medical and dental referrers completed the relevant induction and were expected to read the appropriate employer's procedures. An annual letter of entitlement was sent by the department to GP practices and all consultants (for sharing with their team) which included a reminder of good referral practice. It was positive to note that vascular surgeons and cardiologists receive an entitlement letter that included their scope of practice.

Further, the SAF stated that all non-medical referrers (NMRs) must complete the NMR training provided by radiology prior to submitting an application for entitlement for a specific scope of practice. A register that included the scope of practice was available to practitioners and operators to facilitate checking the referral was made by an appropriately entitled individual and was in line with their scope of practice. There was no further specific training required, but the health board were in the process of identifying refresher mandatory training for all staff every two years. However, we noted that the cardiac nurse advance practitioners were not formally entitled in line with non-medical referrers, this needs to be rectified.

The employer's procedure for entitlement did not include reference to the areas of cardiology and vascular surgery and this needs to be included in the introduction or background section of the employer's procedure. Whilst section 3.4, 'Non Radiology referrers also acting as Practitioner and Operator', does refer to cardiologists and vascular surgeons they are not listed under section 5 'training records'.

Procedures and protocols

As part of the SAF, the health board provided HIW with an extensive list of procedures and protocols. However, it was noted that some of these procedures and protocols were overdue for review and in some instances lacked version control. Examples included the referral document dated 2015 and RAD 035 and 036.

The employer's procedures were generally considered to be of a good standard but needed to better reflect the requirements of the cardiology and vascular departments. These were discussed with management throughout the SAF.

Significant accidental or unintended exposures

Staff responses in the questionnaire in this area included the last time they saw an unintended exposure, error, near miss or incident, 77 percent said they or a colleague reported it but 17 percent said they did not. All bar one staff respondent agreed their organisation encouraged them to report errors, near misses or incidents and when they did their organisation took action to ensure that they do not happen again. Almost all staff who expressed an opinion agreed their organisation treated staff who are involved in an error, near misses or incidents fairly. Additionally, staff percentage agreements with the following statements were:

- Given feedback about changes made in response to reported errors, near misses and incidents – 92 percent

- If they were concerned about unsafe practice, they would know how to report it – 98 percent

- They would feel secure raising concerns about unsafe clinical practice - 79 percent

- Confident that their concerns would be addressed – 62 percent, whilst 27 percent said they did not know and 11 percent said no.

Staff we spoke to said they would feel confident in raising a concern and that it would be investigated appropriately by the department. Staff also said they would challenge any example of unsafe practice that they saw in the department. They were able to describe the procedure for reporting accidental or unintended exposures and other incidents. We were told that learning from incidents, as well as other safety notices and alerts were shared with staff at regular formal and informal meetings.

Workforce

Staff we spoke to did not have any issues with the number and skill mix of staff. Senior staff described arrangements to minimise the impact of any vacancies on the delivery of the service. It was clear that there was effective and flexible use of the current workforce to meet the demands on the service. However, only 55 percent of staff agreed that there were enough staff to enable them to do their job properly. The following suggestions were made in response to how this setting could improve the service it provided:

"We need more staff and for that to happen the money has to be provided for training … so the qualified staff are there when needed."
"Support staff 24 hrs a day 7 days a week."
"Provide a better complement of suitably qualified staff across every 24-hour period. Currently, minimal staffing at weekends and overnight, working in busy and physically demanding in-patient areas."
"A few more staff and quicker employment system as some new starters can take months to start."
"Adequate staffing, correct skill mix of staff working in an area."

The majority of staff agreed they could access IT systems they needed to provide good care and support for patients. The following suggestion was made in response to how this setting could improve the service it provides:

"Better and joined up IT systems and processes that cross departments/ boundaries."

Two thirds of staff agreed they were involved in deciding on changes introduced that affected their work area. A member of staff commented:

"I am unsure if our management is aware of how much recent changes to the department are affecting the welfare of the team, but it is definitely something that needs to be looked into."

Training

The training matrix provided for the radiology department showed that overall, there was good compliance with mandatory training. One subject, moving and handling had a lower compliance of 79 percent due to a lack of face-to-face training. Evidence was provided that confirmed staff had completed level two safeguarding training.

Senior staff we spoke to said that staff were supported to undertake additional training including postgraduate studies. Reporting radiographers were supported to complete their training on site. Staff were encouraged to complete the advanced life support training as well as advanced practice.

Almost 96 percent of staff felt they have had appropriate training to undertake their role, giving the following explanations:

"Training has been on the job and is still ongoing."
"Suitable supernumerary status until feeling competent."
"Not enough protected time to complete mandatory training."

We asked if there was any other training staff would find useful. Staff comments included:

> *"Maybe having specific competencies to complete to help show individual progress. More information from a nursing perspective regarding procedural care/relevant research nursing that impacts our role and/or patient care."*
> *"More trauma specific practice would be useful …"*
> *"DVT update."*
> *"Picture Archiving Communications System (PACS) and Hospital Information System (HIS) management."*
> *"More orientation about the trust and other departments."*
> *"More training on specialised examinations and what the radiologists are looking for."*

All staff agreed that their training, learning and development helped them do their job more effectively. Also, all staff agreed that their training, learning and development helped them to stay up to date with professional requirements and deliver a better patient experience. A total of 91 percent of staff said that their manager supported them to receive training, learning or development.

Appraisals

We saw evidence that all staff were up to date with their annual appraisals. However, in the staff questionnaire 16 percent of staff indicated that they had not had an annual review or appraisal within the last 12 months. Of those staff who had an annual review or appraisal in the last 12 months, 73 percent stated that training, learning or development needs were identified.

Wellbeing

The support arrangements in place to safeguard staff wellbeing were described, these included wellbeing boards and the availability of a psychologist. This was in addition to the occupational health arrangements available to the staff. Staff also had access to a dermatology clinic and there were moisturisers available for any staff we had issues wearing the face masks required.

Staff percentages who agreed with the questions in this area included:

- Their organisation takes positive action on health and wellbeing – 84 percent
- They were aware of the occupational health support available to them – 92 percent

- They were offered full support in the event of challenging situations – 88 percent

- Their job was not detrimental to their health – 80 percent. Staff commented:

  "… team just feels demoralised… The demands seem to be increasing, and with that comes more pressure on the team, whilst everyone is trying to work in a safe manner. I really love my job and what I do, but the environment at the moment just doesn't feel healthy."
  "Staff are stressed and tired and do not feel that their concerns are taken seriously."

- Their current working pattern and off-duty allows for a good work-life balance – 78 percent. Staff told us:

  "Improve the shift system. The blend of short and long shifts and a fast turnaround between night and day shifts (sometimes just a single sleep day) means inadequate rest, particularly for full-time staff."

A total of 85 percent of staff respondents agreed they could meet the conflicting demands on their time at work.

4. Next steps

Where we have identified improvements and immediate concerns during our inspection which require the service to take action, these are detailed in the following ways within the appendices of this report (where these apply):

- Appendix A: Includes a summary of any concerns regarding patient safety which were escalated and resolved during the inspection
- Appendix B: Includes any immediate concerns regarding patient safety where we require the service to complete an immediate improvement plan telling us about the urgent actions they are taking
- Appendix C: Includes any other improvements identified during the inspection where we require the service to complete an improvement plan telling us about the actions they are taking to address these areas.

The improvement plans should:

- Clearly state how the findings identified will be addressed
- Ensure actions taken in response to the issues identified are specific, measurable, achievable, realistic and timed
- Include enough detail to provide HIW and the public with assurance that the findings identified will be sufficiently addressed
- Ensure required evidence against stated actions is provided to HIW within three months of the inspection.

As a result of the findings from this inspection the service should:

- Ensure that findings are not systemic across other areas within the wider organisation
- Provide HIW with updates where actions remain outstanding and/or in progress, to confirm when these have been addressed.

The improvement plan, once agreed, will be published on HIW's website.

Appendix A - Summary of concerns resolved during the inspection

The table below summaries the concerns identified and escalated during our inspection. Due to the impact/potential impact on patient care and treatment these concerns needed to be addressed straight away, during the inspection.

Immediate concerns Identified	Impact/potential impact on patient care and treatment	How HIW escalated the concern	How the concern was resolved
No immediate concerns were identified on this inspection.			

Appendix B - Immediate improvement plan

Service: Catheterisation Laboratory and Hybrid Theatre, Glan Clwyd Hospital

Date of inspection: 4/5 May 2022

The table below includes any immediate concerns about patient safety identified during the inspection where we require the service to complete an immediate improvement plan telling us about the urgent actions they are taking.

Improvement needed	Standard/ Regulation	Service action	Responsible officer	Timescale
No immediate assurance issues identified on this inspection.				

The following section must be completed by a representative of the service who has overall responsibility and accountability for ensuring the improvement plan is actioned.

Service representative:

Name (print):

Job role:

Date:

Appendix C - Improvement plan

Service: Catheterisation Laboratory and Hybrid Theatre, Glan Clwyd Hospital

Date of inspection: 4/5 May 2022

The table below includes any other improvements identified during the inspection where we require the service to complete an improvement plan telling us about the actions they are taking to address these areas.

Improvement needed	Standard/ Regulation	Service action	Responsible officer	Timescale
The health board must ensure that arrangements are in place to provide patients with regular updates on the patient experience feedback received by the service, as well as any subsequent actions taken.	Standard 5 Citizen engagement and feedback	Pre-Covid patient feedback had been removed from Radiology due to pandemic. With the easing of restrictions, and following IPC guidelines the display for patient feedback will be restored.	Head of Quality & Governance Radiology	August 2022
The employer must ensure that a review of the employer's written procedure relating to pregnancy enquires is undertaken. This is to ensure that there is sufficient detail on the process to be followed by staff, for all types of patients they may encounter. Additionally, this review should	Regulation 6 Schedule 2 1(c) Regulation 11(1)(f)	Posters are already displayed in gender neutral toileting facilities In addition, all staff have completed mandatory Equality training. Whilst awaiting all-Wales advice, the gender diversity and pregnancy issue was raised at	Head of Quality & Governance Radiology Principal Radiographer Cath Lab	Completed June 2022 Completed June 2022 September 2022. As to receive information from multiple

include how gender diversity is considered and managed.		both the Radiation Protection Committee and Equality and Diversity Group meetings in June, where it was agreed this is an employer issue and would be taken to the Health Board to ensure adoption of a consistent approach. The approach remains under consideration on an all-Wales basis. Catheterisation laboratory process flow chart amended to include age range		committees across the organisation in the summer may take some time. July 2022
The employer needs to ensure that the full set of employer's procedures reflect the actual processes in the departments to which they are being used. This involves including reference to the cath lab and interventional hybrid theatre and particularly when these processes differ.	Regulation 6 Schedule 2	Amend existing Radiology employers procedures to include Cath Lab and Interventional Hybrid Theatre procedures	Head of Quality & Governance Radiology	August 2022 Timeframe will allow approval through the monthly Radiology Quality and Safety Meeting

The health board must ensure that disposable dignity curtains used in the unit are replaced at least annually (unless they are soiled) and regular checks must be made to ensure their timely replacement.	2.4 Infection Prevention and Control (IPC) and Decontamination	Create a record log to evidence curtain changes to establish when disposable curtains have been changed	Principal Radiographer Cath Lab	July 2022
The employer must ensure that all staff comply with the employer's procedure relating to pregnancy status checks, including the need to consistently record that the check had been completed.	3.5 Record keeping Regulation 6 (8) Schedule 2 1(c)	Radiology improvement notice circulated immediately following the inspection and staff reminded via briefings and huddles Amend Pregnancy Check procedure (RAD001) procedure so that only record on request card and re-run audit	Head of Quality & Governance Radiology	Completed June 2022 August 2022. Timeframe will allow approval through the monthly Radiology Quality and Safety Meeting
The employer needs to ensure that the cardiac nurse advance practitioners are formally entitled as non-medical referrers.	Regulation 6 Schedule 2 1 (b)	• Cardiac nurse advanced practitioners need to complete application and radiation safety training in order to be entitled. No referrals will be accepted	Head of Quality & Governance Radiology	September 2022 Timeframe will ensure access to the once monthly training and for clinical leads to assess the

		from non-medical referrers including cardiac nurse practitioners unless, and until, they are formally entitled. • Letters of entitlement will then be issued.		applications for signing.
The employer must ensure that all procedures and protocols have a consistent version control and are reviewed in a timely manner.	Regulation 6 Schedule 2 1 (d)	All IR(ME)R procedures will be reviewed and updated for version control and made available to staff on the Radiology SharePoint site. Amendments made to Radiology procedure for the use of the Mini C-Arm (X-Ray machine that scans a specific body area, while allowing clinicians to view the results in real time)	Head of Quality & Governance Radiology	August 2022
The employer must ensure that all unintended exposures, errors, near misses or incidents are reported by staff.	Regulation 8	Staff reminded of procedure for reporting incidents Design crib sheet on how to raise an incident on Datix	Head of Quality & Governance Radiology	July 2022
The health board need to put processes in place to ensure that staff feel secure raising concerns	Standard 6.3 Listening and	BCU has rolled out the **Speak out Safely** programme and portal.	Head of Quality & Governance Radiology	August 2022

about unsafe clinical practice and that they would be confident that their concerns would be addressed.	Learning from Feedback	Awareness of this has been raised via: • Awareness sessions • Posters • Section in the radiology newsletter We will develop a system for management to feed back to staff regarding concerns raised (including a development plan)		
The health board must ensure that arrangements are put in place to reduce the perceived issues with staffing and wellbeing.	Standard 7.1 Workforce	Radiology have introduced weekly Sustainability Meetings. A 5 year sustainable plan is being developed to address all areas in Radiology. (where 'ground-floor' staff are involved) Draft submitted early July 2022. Performed second overseas recruitment drive and appointed 4 Radiographers for each site to alleviate staffing levels issues and improve staff wellbeing.	Head of Quality & Governance Radiology	October 2022 This project is due to be completed and submitted in October. Completed June 2022

The following section must be completed by a representative of the service who has overall responsibility and accountability for ensuring the improvement plan is actioned.

Service representative

Name (print): Lisa Ruffley-Fuller

Job role: Head of Quality and Governance Radiology

Date: 1 July 2022.