Arolygiaeth Gofal Iechyd Cymru
Healthcare Inspectorate Wales

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

Nuclear Medicine Department and Medical Physics Department, University Hospital of Wales, Cardiff and Vale 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 Nuclear Medicine Department and Medical Physics Department non-imaging service at the University Hospital of Wales, Cardiff and Vale University Health Board on 16 and 17 October 2024. During our inspection we looked at how the department complied with the regulations and met the Health and Care Quality Standards.

Our team for the inspection comprised of two HIW senior healthcare inspectors, a Scientific Advisor (ARSAC) and a Senior Clinical Officer (Radiotherapy) from the Medical Exposures Group (MEG) of the UK Health Security Agency (UKHSA), who acted in an advisory capacity. The inspection was led by a HIW senior healthcare inspector.

During the inspection we invited patients or their carers to complete a questionnaire to tell us about their experience of using the services. We also invited staff to complete a questionnaire to tell us their views on working for the services. A total of 46 questionnaires were completed by patients or their carers and 14 were completed by staff. Feedback and some of the comments we received appear throughout the report.

Where present, quotes in this publication may have been translated from their original language.

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

2. Summary of inspection

Quality of Patient Experience

Overall summary:
We found staff treated patients with courtesy, respect and kindness. Feedback from patients also supported this. Staff provided care in a way that protected and promoted patients' rights. Patients generally provided positive feedback about their experiences of attending both departments.

Bilingual posters (in English and Welsh) were displayed that provided information to patients about having a nuclear medicine procedure and telling them to advise staff if they may be pregnant or breastfeeding.

Patients told us they had been involved as much as they had wanted to be in their care and had been provided with sufficient information about the procedures.

There were arrangements in place to meet the communication needs of patients attending the department. However, the appointment letters sent to patients, in medical physics, were in English only.

This is what we recommend the service can improve:

- Sending out bilingual letters inviting patients to the appointment.

This is what the service did well:

- Pregnancy posters throughout
- Information leaflets for patients were comprehensive and bilingual
- Staff were kind, approachable and available.

Delivery of Safe and Effective Care

Overall summary:
Effective arrangements were in place to provide patients with safe and effective care.

There were written employer's procedures relating to the nuclear medicine department and also procedures specific to non-imaging and therapies in medical physics. To avoid duplication and ensure consistency, the written employer's procedure for both should be reviewed and consolidated as appropriate.

Staff could access expert advice and could easily access the services of the medical physics expert (MPE).

A number of areas were identified where the employer's procedures needed to be amended as well as the associated documentation needed to be corrected.

This is what we recommend the service can improve:

- Ability to calibrate in drawing up in gamma camera room
- Establishing a study of risk for accidental or unintended exposures for therapeutic exposures as part of the quality assurance programme
- The content of the employer's procedures
- Review medical physics documentation to ensure consistent documentation control.

This is what the service did well:

- Working on writing two new employer's procedures as required by the IR(ME)R amendments; on clinical audit and referrals
- Gap analysis of the IR(ME)R amendments had been initiated
- A draft of the new clinical audit programme had been completed by nuclear medicine
- The incident analysis was good on the self-assessment form.

Quality of Management and Leadership

Overall summary:
Clear lines of reporting and accountability were described and demonstrated during the inspection. The management structure had clear lines of reporting with effective governance arrangements in place to support ongoing regulatory compliance. Visible and supportive leadership was evident within the department.

Feedback from staff was generally positive around the leadership and management of the organisation. Staff demonstrated they had the correct knowledge and skills to undertake their respective roles within the department.

Based on information supplied, compliance with staff appraisals and staff compliance with mandatory training was good.

The numbers of MPEs available to work the department did not meet the requirements of the Institute of Physics and Engineering in Medicine (IPEM) guidance[1]. Both departments should ensure that clinical scientists and MPEs have additional involvement with the nuclear medicine department to further their knowledge and continual professional development.

[1] mpesup-2.pdf

This is what we recommend the service can improve:

- There were insufficient MPEs to provide the support needed
- Further work was required to develop the career pathways and collaborative opportunities for Clinical Scientists and MPEs in nuclear medicine.

This is what the service did well:

- Staff we interviewed spoke well and were able to answer our questions
- Mandatory training and appraisals were good
- Staff had a good understanding of IR(ME)R.

3. What we found

Quality of Patient Experience

Patient feedback

HIW issued online and paper questionnaires to obtain patient views on services carried out by the University Hospital of Wales to complement the HIW inspection in October 2024. In total, we received 46 responses from patients at this setting. Not all respondents completed the questionnaire to the end and questions were skipped throughout.

Responses were positive across most areas, with all who answered rating the service as 'very good' or 'good'. Whilst most negative responses were regarding the environment, patients praised the care they received and the staff members within the department. Some comments we received about the service and how it could be improved are shown below:

> ***"The whole experience was perfect. In that I mean I was made to feel completely at ease and not silly in my fears. Wonderful experience, thank you."***
>
> ***"Extremely personalised care with time taken to explain procedure in full and ask questions. All aspects covered comprehensively. A truly excellent experience."***
>
> ***"Excellent service throughout."***
>
> ***"More direction signs are needed around the grounds showing where to go. Staff are really lovely and informative. Listened and answered to questions I had to ask."***
>
> ***"Map on appoinment letter was very good but once in department only saw signs relevant to other tests so wasn't sure which way to go. Then remembered that I'd read something in the information leaflet about which way to turn once in department so got leaflet out and found reception desk and a very helpful and pleasant receptionist confirming I was in the right place. Was actually called a few minutes before my appointment time which was a pleasant surprise to most other experiences in hospital waiting rooms. Department was a long way away from concourse and final corridor filled with broken down beds***

and crates. State of roadway which had to be crossed into department did not inspire any confidence in setting BUT, once in department staff very welcoming and friendly. Really appreciate the time taken to explain what the test was about and how it tied in with my symptoms and the explanation of the test itself as well as every step being explained carefully meant that I knew what to expect at every stage and felt that the whole procedure was within my control and I had full confidence in the woman doing the test."

Person-centred

Health promotion

There was comprehensive information displayed in the waiting rooms in both departments, with bilingual (English and Welsh) posters displayed that provided information to patients about having a nuclear medicine procedure. These included posters for patients to advise staff if they may be pregnant or breastfeeding. Information leaflets were provided to patients, which were comprehensive and bilingual. Posters specific to nuclear medicine therapies were also on display in the Medical Physics Department.

Health promotion material was displayed in the waiting areas within the nuclear medicine department. This included information on the benefits of adopting a healthy lifestyle, such as smoking cessation, alcohol awareness and weight management.

Dignified and respectful care

We noted that all staff treated patients with courtesy, respect, and kindness, they were also seen to be approachable and available. There were suitable arrangements in place to promote patient privacy and we noted staff made efforts to promote patents' privacy and dignity, such as closed doors.

There were changing rooms available for patients to use and there were rooms available for staff to speak to patients where they could not be overheard by others. Doors to treatment rooms were closed when in use.

All waiting areas were clean, clear of clutter with up-to-date and relevant information displayed as well as being bright and well appointed. There was water available for patients.

All patients who answered the questionnaire agreed that:

- Staff treated them with dignity and respect

- Measures were taken to protect their privacy

- They were able to speak to staff about their procedure without being overheard by other patients

- Staff listened to them.

All but one patient said they were able to speak to staff without being overheard by other patients / service users.

When asked whether patients' privacy and dignity were maintained, all the staff who answered the question in the questionnaire agreed and said that patients were informed and involved in decisions about their care.

Some comments we received on patient care are shown below:

> ***"The staff were very friendly and happy in their work. I was explained clearly everything that was going to happen with my procedure."***
>
> ***"So nice to have 4 tests explained in fluent but understandable Welsh - even the more 'complex' elements. I felt so happy when I was asked if I would prefer to speak Welsh and although I was afraid I wouldn't understand the 'technical' language I didn't need to worry at all."***
>
> ***"I have mental/anxiety issues and coming back for tests is difficult but this time I was made to feel very comfortable and actually felt I understood what was happening because the lady explained so well and took everything at my pace. Also, because getting a lift was difficult, she went out of her way to change the follow up appointment to fit in with my sister-in-laws availability."***
>
> ***"The lady who did the tests is one of the kindest staff members I have ever come across - she had such a lovely caring voice and attitude that, despite being really worried beforehand I actually ended up 'enjoying' the test. Department looked a bit tired and old but staff attitudes - from the lovely lady at reception onwards made up for that."***
>
> ***"The staff I dealt with were very friendly and kind and so helpful."***

Individualised care

All but one patient who answered said they were provided enough information to understand the risks and benefits of the procedure or treatment and said they had been given information on how to care for themselves following their procedure or

treatment. When asked whether staff had explained what they were doing, all but one patient who answered this question agreed.

Timely

Timely care

Patients attending the department were seen to receive timely care. Arrangements were described to inform patients of delays in providing their procedures. There were also signs in the waiting room to tell patients to let reception know if they had been waiting passed their appointment time.

Staff told us patients did not usually have to wait long to be seen after arriving at the hospital. When there were unexpected delays, we were told staff would inform patients of these and would endeavour to keep them up to date.

In all, 87% of patients who answered this question agreed that they were told at reception how long they would likely have to wait. All bar two patients agreed that the waiting time between referral and appointment was reasonable. All patients said they were involved as much as they wanted to be in decisions about their treatment.

Equitable

Communication and language

We saw clear signage in place to direct visitors to the department. The Welsh language was well promoted within the department. We saw bilingual posters in both Welsh and English with information for patients clearly displayed within the department. Signage was also clearly displayed to alert patients and visitors not to enter controlled areas where ionising radiation was being used.

There was a hearing loop in the main reception. Any patients arriving there would be directed to the relevant nuclear medicine, or medical physics, department. Staff confirmed they had access to translation services to assist, should a patient attend the department and be unable to communicate in English, and they were able to book a translator for the patient's appointment.

We were told that written information was provided to the patient before the scan. We also saw examples of scan specific information that was sent along with the appointment letter. However, in the medical physics department, the system used could not be updated to send out bilingual letters and letters were only sent out in English.

The employer must ensure that appointment letters are sent out bilingually.

Only one patient in the questionnaire said that their preferred language was Welsh. When asked whether that made a difference to them, they said:

"Yes - much happier and a better experience as a result."

We were told that there were staff working in the wider radiology department who were able to speak Welsh, as well as consultants in the nuclear medicine department. There were three staff members who answered the questionnaire who said they were Welsh speakers.

Regarding whether they were able to find the department easily at the hospital, a total of 79% of patients said yes.

Rights and equality

There were arrangements in place to make the service accessible to patients, such as wheelchair access. Staff working in the departments were working in a way that protected and promoted patient rights.

We were told that equality and diversity training for all staff was mandatory. All staff we spoke with confirmed they had completed this course online. Staff we spoke with had a good awareness of their responsibilities in protecting and promoting patients' rights when attending the department. They were able to confirm the arrangements in place to promote equality and diversity in the organisation.

For staff there was a monthly equality and diversity calendar of events, celebrating different religious festivals. There were also several inclusion groups. Senior staff we spoke with told us there was an equality and diversity lead in the main department and there were a series of champions at the department such as a wellness and wellbeing champion and an equality champion.

The service ensured that transgender patients were appropriately placed upholding their equality rights. Patients were addressed by their known name, using inclusive language. There were also gender-neutral toilets in the main radiology department reception.

There were 87% of patients who agreed that they could access the right healthcare at the right time regardless of any protected characteristics.

Delivery of Safe and Effective Care

Compliance with The Ionising Radiation (Medical Exposure) Regulations 2017

Employer's Duties: establishment of general procedures, protocols and quality assurance programmes

Procedures and protocols
The employer had established written procedures and protocols as required under IR(ME)R 2017 for both departments. Staff we spoke with were aware of where to find the written employer's procedures relevant to their practice. Senior staff we spoke with described how procedures were made available to staff, through the health board intranet and a shared area in medical physics and QPulse in nuclear medicine.

There were two sets of employer's procedures noted during the inspection, for nuclear medicine and medical physics. The departments would benefit from learning and sharing information within these procedures. Consideration should also be given to combining the procedures where possible.

The employer should consider having one set of employer's procedures for both departments.

The written protocols in place for standard nuclear medicine practice (including non-medical imaging procedures) were not consistent between nuclear medicine and medical physics due to different staff involved in delivering exposures. The medical physics protocols were on the shared drive. There were plans to move all medical physics procedures and protocols to QPulse, but there was no timescale for this. The department were awaiting clinical board approval to purchase QPulse for the ionising radiation section, which would facilitate better quality management. The nuclear medicine procedures were saved on QPulse.

The written protocols for procedures in medical physics were very detailed but the document control was not consistent. On three written protocols there was not a date of issue, on one the date included a date printed and date issued. We were told that one person had the sole responsibility for these procedures previously and the department were moving to a team approach in future to improve resilience.

There were quality assurance programmes in place for written employer's procedures and protocols and these included any document control measures used.

We were told that the frequency of review for nuclear medicine was every two years or sooner with document control held on Qpulse, with an automatic prompt when a review was required. Within medical physics we were told that work had started to agree a new format and naming conventions, currently there is only a date of issue. Medical physics documentation needs to be reviewed and needs to have consistent documentation control to include, date reviewed, date due review, author and version number.

The employer should review and update the quality assurance programmes for procedures and protocols used by medical physics.

Referral guidelines

HIW reviewed documentation and procedures in relation to referrals and referral guidelines. There was also an employer's written procedure in nuclear medicine on referring and referral criteria. The referral guidelines were described in the self-assessment form (SAF) completed before the inspection.

Referral criteria for medical physics were only available on request as a standalone document. However, any new referrer was sent a copy of the guidelines for information. If the referral guidelines were only available on request, the employer was not meeting the duty required in IR(ME)R 2017 to ensure these are available to referrers. The department should find an appropriate way to make them available to referrers.

The employer must ensure that referral guidelines for medical physics are available to all referrers, without needing to be supplied on request.

The referral guidelines were established for the range of examinations undertaken within the department. In nuclear medicine the current guidelines were based on iRefer and national guidelines and any deviations from the guidelines had to be discussed with the radiologist. In medical physics referral guidelines were established by the practitioner. Regarding nuclear medicine procedures that were not included in iRefer, the nuclear medicine department need to develop referral guidelines for sentinel lymph node biopsies and make them available to referrers.

The employer must ensure that referral guidelines for sentinel lymph node biopsies are developed and made available to referrers.

In medical physics, referrals were accepted in a range of formats including medical physics referral forms, by letter, or radiology request forms. As these referrals were authorised under delegated authorisation guidelines (DAG), if the authorisation criteria set out in the DAG was not met, the referral would be returned to the referrer. It was also noted that all referrals were on paper at some stage, with the

electronic requests being printed and the paper copy was used in the department and then scanned back onto the RADIS or CARIS systems.

Diagnostic reference levels

There were employer's written procedures in place for the use and review of diagnostic reference levels (DRLs) for nuclear medicine examinations performed at both departments. We were told that the DRLs for imaging investigations had been optimised in collaboration with other centres in South East Wales. This was an example of particularly good practice.

Staff we spoke with were aware of where to find information on the DRLs available, how to apply these and what to do should the DRLs be consistently exceeded.

The local DRLs for the CT part of single-photon emission computed tomography (SPECT) / CT examinations were currently being reviewed as part of this audit cycle with a request for data received in August 2024. The results were being reviewed on a three-yearly cycle that was appropriate in view of the numbers of SPECT/CT studies carried out.

Within the department we saw that both national and local DRLs were displayed. Better practice would be to display the local DRL in use for each procedure with the accepted tolerance range rather than both the local and national DRLs, to reduce the risk of potential error.

The employer must ensure that:

- **The CT DRLs for SPECT/CT procedures are reviewed, updated and made known to staff**

- **Only local DRLs are displayed with the accepted tolerance range.**

The process for reviewing DRLs, including frequency, method and which duty holders are involved was described, this varied with an annual check against national DRLs, two yearly audits by operators and three yearly audit by the medical physics experts (MPE). We were told that all results fed into each other and that the audit frequency was sufficient. However, the different frequencies used were an establish practice and not for any clinical reason, the departments were moving to a more consistent audit frequency.

Medical research

We were told that there were two active trials underway within the nuclear medicine department only. There was an employer's procedure in place for research involving ionising radiation.

The governance arrangements in place for research trials involving ionising radiation exposures were described in the self-assessment form (SAF), this included any processes for ensuring appropriate employer and practitioner licences were in place

Where research involved the administration of sealed or unsealed radioactive substances, approval was required from the Administration of Radioactive Substances Advisory Committee (ARSAC). Approval was required from ARSAC on both the site and practitioner licence for research. The dose constraints were established and there were measures in place to ensure these were adhered to. It was also part of MPE process to approve the trial locally before starting.

Entitlement

There was an employer's written procedure in place to identify duty holders and individuals entitled to act as a referrer, practitioner or operator. Documentation confirmed that the Chief Executive was designated as the employer with overall responsibility for compliance with duties required by IR(ME)R 2017. They had delegated the task of entitlement to appropriate persons and details were confirmed during the inspection process.

We were told that in nuclear medicine the entitlement was monitored via the entitlement matrix and that this was reviewed quarterly to ensure it remained accurate. We were not able to view the nuclear medicine entitlement matrix during the inspection. Additionally, the link between the training records, competency assessment and entitlement matrix and individual entitlement letters was not clear.

The employer must:

- **Forward a copy of the entitlement matrix for nuclear medicine staff to HIW**

- **Ensure that the entitlement matrix is up to date**

- **Provide assurance of the link between the entitlement matrix and the entitlement letter.**

MPEs were directly entitled through Cardiff and Vale University Health Board (CAVUHB) and employed as part of the agreed service level agreement (SLA)

contract with Radiation Protection Service Cardiff for the diagnostic radiography components (CT) within Nuclear Medicine.

The methods used by the employer to delegate the task of carrying out IR(ME)R duties to others, including entitlement was listed in the SAF. For non-medical referrers, letters of entitlement were signed and provided from the Clinical Director of Radiology, Medical Physics and Clinical Engineering and sent to all non-medical referrers.

We confirmed the employer and practitioners held valid licences to undertake the intended exposures involving the administration of radioactive substances. We saw that processes were in place to ensure that these licences were checked and updated regularly.

We viewed the IR(ME)R training records and entitlements of five staff members. Some irregularities were noted with the process for competency assessment in medical physics where one member of staff had signed themself off as competent, which was not appropriate. The medical physics entitlement matrix was noted and it could be improved to include more detail, such as the date of entitlement instead of ticks. Also, some training and competency records in medical physics were not signed by individuals.

The employer must ensure that:

- **Training records of staff as being competent must be independently signed off and completed in more detail**

- **The medical physics entitlement matrix should include the date of entitlement for each operator**

- **The training and competency records in medical physics should be correctly completed**

Patient identification

Staff we spoke with were able to describe the employer's procedure to correctly identify individuals. They were also able to describe the procedure to identify correctly individuals who may not be able to identify themselves.

There was an employer's written procedure in place in nuclear medicine to correctly identify the individual to be exposed to ionising radiation. However, the procedure referred to X-ray examinations and not specifically to nuclear medicine. Medical physics had a standalone patient identification procedure across all

investigations undertaken within the section involving ionising radiation which included details of pregnancy and breast-feeding checks.

The employer must ensure that the:

- **Employer's procedure for patient identification includes reference to nuclear medicine**

- **Patient identification procedure is part of an employer's procedure in medical physics.**

Individuals of childbearing potential (pregnancy enquiries)
There were posters clearly displayed in both departments advising patients who were or might be pregnant or breastfeeding to inform staff prior to them having their examination or scan. This information was displayed in both Welsh and English and suitable pictograms were also used. The appointment letters asked patients to contact the department if they could be pregnant or if they were breastfeeding.

An employer's written procedure was in place for making enquiries of individuals of childbearing potential to establish whether the individual was or may be pregnant or breastfeeding. Staff we spoke with described the procedure for making enquiries of individuals of childbearing potential to establish pregnancy or breastfeeding.

However, the department were not completing pregnancy testing for Iodine 131 treatments. Updated ARSAC guidance stated that questioning alone is not sufficient to exclude pregnancy for therapy procedures, such as Iodine 131.

The employer must ensure that appropriate pregnancy testing is carried out for iodine 131 treatments as required by ARSAC guidance.

There was also reference in the medical physics patient identification procedure to pregnancy testing being a practitioner responsibility. This needs to be clarified in the procedure.

Benefits and risks
Staff we spoke with explained the process for providing the individual to be exposed (or their representative) with adequate information on benefits of having the exposure and the risks associated with the radiation dose from exposures. Patients would be sent a leaflet in advance of the appointment explaining the procedure. Staff would also confirm the understanding of the patient with the procedure.

There was also information available to patients or their representative in the form of posters being displayed in the waiting area.

In nuclear medicine there was an employer's procedure on benefits and risks for providing written instructions and information to each patient or the patient's representative. In medical physics the department had combined employer's procedure h on 'Written information for nuclear medicine' and i 'Communication of benefit and risk'. These needed to be separate discrete employer's procedures.

The employer must ensure that the relevant employer's procedures are in place in medical physics as required by the IR(ME)R 2017.

Clinical evaluation

A written employer's procedure was in place for carrying out and recording a clinical evaluation of each medical exposure within the department. This procedure was reviewed against a sample of records on site which confirmed that appropriate clinical evaluation had taken place in a timely manner.

The methods used on how clinical evaluation was undertaken and evidenced for various types of exposure was described. In medical physics we were told that the clinical evaluation of the numerical results was undertaken by the referring clinician. We were told that referrers were entitled as an operator for clinical evaluation but that medical physics, were not in charge of entitling the staff group who refer to the department. It was not clear if the staff carrying out clinical evaluation were appropriately entitled as operators.

The employer must ensure that staff carrying out clinical evaluation are entitled as operators for this task.

Nuclear medicine staff clarified that they ensured referrers were appropriately entitled through the director of therapies and health sciences and clinical directors.

Non-medical imaging exposures

There was a written employer's procedure in place for referrals and management of non-medical exposures. However, the procedure included a list of examinations that could not be authorised including radiological bone age for asylum seeking children which was not a justified practice.

The employer must ensure that the employer's procedure for non -medical exposures must be updated to only state those non-medical images (NMI) which are authorised.

Employer's duties: clinical audit

The SAF described the process for clinical audit completed by the department. We were told that where a patient record was accessed, all parts of the audit were checked at the same time. This was done on a monthly basis. Similarly, where staff observation was part of the audit, this would be done at least once per year for each member of staff.

The process for clinical audit including the structure of the programme, staff groups and IR(ME)R duty holders involved was described. There was an annual clinical audit plan; within nuclear medicine, these should be registered on the audit management and tracking (AMaT) system. There were about 10 audits registered, clinical audit would normally be agreed at the quality and safety meeting and then registered on AMaT. This was also raised at the meeting with clinical directors so that consultants where aware of the audits on AMaT. All IR(ME)R duty holders were involved in clinical audit with MPEs may be involved and support clinical audits where appropriate. Nuclear medicine had developed a new employer's procedure on clinical audit as required by the recent IR(ME)R amendment. This employer's procedure described the AMaT system.

In medical physics we were told that clinical audits were performed when the opportunity arose, there was no similar system to AMaT used for medical physics.

The employer must ensure that medical physics carry out clinical audit on a regular basis.

The frequency of IR(ME)R audit and how outcomes were fed back to staff where practice had changed was described. In nuclear medicine, monthly audits were undertaken. We were told that the results of these were only reported to the radiation protection group (RPG) if there was poor compliance, positive results of the inspection should also be reported. A gap analysis on the difference between the amendments had also been completed. The nuclear medicine department were also working on a draft of the new clinical audit requirements.

In medical physics, they were working on writing two new procedures as required by the new amendment to the IR(ME)R 2017 relating to clinical audit and referrals.

There were six monthly audits undertaken in the medical physics department. They considered this frequency to be appropriate.

Employer's duties: accidental or unintended exposures

All staff had a good understanding of the processes described in the employer's procedures. Staff we spoke with were able to describe the procedure for reporting

accidental or unintended exposures. This included the reporting, entering on Datix and contacting the MPE, as well as the need to employ the duty of candour and informing the patient as necessary. They were also able to describe how learning from incidents was shared with staff across all sites.

In nuclear medicine, the employer's procedure in place 'Significant and Accidental Exposures to Radiation' needed to include more information relating to nuclear medicine. Whilst there was information relating to radiopharmaceutical spills, incidents affecting nuclear medicine patients were not described.

In medical physics the department had combined employer's procedure k, called 'The reduction of the probability and magnitude of accidental or unintended doses to patients' and l 'Clinically Significant Unintended or Accidental Exposures'. Additionally, this combined procedure included outdated HIW notification criteria from 2020.

The employer must ensure that the relevant employer's procedures are in place in medical physics as required by the IR(ME)R 2017 and include up to date information.

It was positive to note the evidence documents supplied by nuclear medicine, relating to how learning from incidents and near misses were fed back to staff. The incident analysis quoted in the SAF was also good and included shared learning and included an annual incident analysis which was shared throughout the health board.

Regarding the process in place for studying the risk of accidental or unintended exposures for nuclear medicine therapies in medical physics, this was not available. Whilst separate risk assessments were used, this did not meet the specific IR(ME)R requirement.

The employer must ensure that there is a study of risk in place for accidental or unintended exposures for therapeutic exposures as part of the quality assurance programme.

We were told that safety notices, alerts and other communications were shared and acted upon. In nuclear medicine, the quality, safety and experience (QSE) lead radiographer disseminated information to the team or they were discussed in quarterly QSE meetings, with a note on any action taken kept on QPulse.

Staff responses in the questionnaire relating to this area were as follows:

- Their organisation encouraged them to report errors, near misses or incidents – 100%

- Their organisation treated staff who were involved in errors, near misses or incidents fairly – 100%

- When errors, near misses or incidents were reported, their organisation took action to ensure that they do not happen again – 93%

- They were given feedback about changes made in response to reported errors, near misses and incidents – 93%

- If they were concerned about unsafe practice, they would know how to report it – 79%

- They would feel secure raising concerns about unsafe clinical practice and they were confident their concerns would be addressed – 100%.

Duties of practitioner, operator and referrer

Staff we spoke with demonstrated a good understanding of their duty holder roles and responsibilities under IR(ME)R. They also spoke well about their duties and the relevant Health and Care Quality Standards.

The SAF explained how practitioners, operators and referrers were entitled to carry out their duties which was included in an employer's procedure. This included how referrers were made aware of their scope of practice for referral, which was normally by a letter of entitlement, which were very generic and did not describe the individual's scope of practice in detail.

There was an employer's procedure in place to identify individuals entitled to act as referrer or practitioner or operator within a specified scope of practice.

Justification of individual exposures

There were written employer's procedures for the justification and authorisation of medical exposures. The processes of how justification was performed and where this was recorded were described in the SAF.

In medical physics, we were told that delegated authorisation guidelines (DAGs) existed, which were agreed with the practitioner, to allow IR(ME)R operators to authorise the exposures. The DAG contained the referral criteria and exclusion criteria and was signed by the practitioner and operator. Any referrals outside of the DAG criteria were forwarded to the practitioner for a decision. The

information supplied showed that there was a separate DAG for each operator. This had been updated recently. Having a separate DAG for each operator is complex, this should be incorporated into a single DAG and the entitlement matrix used to record which operator are entitled to authorise exposures.

The employer should consider combining the separate DAGs into a single document and recording the operator entitlement in the entitlement matrix.

Staff we spoke with were able to describe where the authorisation of exposures was recorded.

Optimisation

Staff we spoke with were aware of the need to pay particular attention to certain patient groups such as children, individuals where pregnancy could not be excluded or breastfeeding. Suitable arrangements were described by staff as to how practitioners and staff kept doses as low as reasonably practicable (ALARP).

The SAF provided examples of how the practitioners and operators ensured doses for diagnostic procedures were ALARP. It stated that all diagnostic investigations were administered to within +/-10% of the prescribed activity. All therapy administrations were administered to within +/-5% of the prescribed activity. The procedure stated that as it is not always possible to achieve +/-5% for therapies as capsule activity cannot be adjusted so +/-10% was used in practice. The medical physics department should therefore amend the procedure to show the tolerance as +/-10% only.

Paediatrics

The SAF described how exposures to children were optimised. Both departments said that the administered activity was scaled down by weight in accordance with the ARSAC notes for guidance. The paediatric patient weight was measured at the time of attendance to ensure the optimum activity was administered.

Carers or comforters

A written employer's procedures were in place, for both departments, for the establishment of dose constraints and guidance for the exposure of carers and comforters. The process for justification of exposures to carers or comforters together with the guidance for the exposure of carers and comforters including any dose constraints established was explained in the SAF.

The nuclear medicine employer's procedure would benefit from more detail so that the information provided by operators was consistent. In medical physics, there was reference to dose constraint for members of the public, instead of carers and comforters.

The employer must ensure that the employer's procedures for carers and comforters contain sufficient detail to ensure that the information provided is consistent and that any reference to members of the public is changed to carers and comforters.

The process for justification of exposures to carers or comforters was described, in nuclear medicine there was a carer and comforter form which was required to be completed prior to the exposure and detail the exposure received. This form was different to the one used in medical physics. In medical physics, there was also reference to differing values of dose constraints. A consistent approach needed to be adopted.

The employer must ensure that:

- **There is a consistent approach between the two departments in the carers and comforters forms used**

- **Medical physics review the dose constraints for carers and comforters.**

Expert advice

Staff we spoke with knew how to access expert advice and they stated that this was received in a timely manner.

We confirmed the employer had appointed and entitled MPEs to provide advice on radiation protection matters and compliance with IR(ME)R 2017. MPEs were also involved in acceptance testing of equipment and the design, installation and technical specification of equipment.

Medical physics had identified the shortage of MPE staffing for the departments and had written to the Radiation Protection Group on this, as well as including this shortage on the risk register. The document included a description of the skills analysis and bands for the wider service with technologist support, stating that just over three staff were required. The MPE support that the medical physics department was able to provide for the nuclear medicine department was 0.2 whole time equivalent (WTE) this was less than the cover recommended by the Institute of Physics and Engineering in Medicine (IPEM). This report recommended that for a one to two gamma camera department also providing sentinel lymph node biopsies, the cover required was between 1.5 and 3 WTE. We were told that this was on the risk register. This had the potential to be a patient safety issue if the department was not adequately staffed. We were told that some progress had been made on this with individuals undergoing training, but there were no vacancies for these trainees to move into once qualified.

There was also a need for clinical scientists to gain more experience and training through involvement with the wider radiology department. There was a need to develop the pathways and opportunities for Clinical Scientist and MPEs in the wider nuclear medicine department.

The employer must ensure that the shortage of the clinical scientist and medical physics is addressed to ensure there are sufficient staff in the department to meet the requirements of IR(ME)R and IPEM.

The employer must ensure that clinical scientists and trainees are given opportunities to work in the wider radiology department including nuclear medicine to ensure their continuing professional development as well as providing staff to work in the department.

Medical physics also stated that the principal scientist who had overseen the non-imaging and therapy procedures had left the department. The relevant documentation and procedures were currently being updated to ensure continuity, although the documents provided to HIW reflected the current working practices.

The recruitment process for the principal scientist replacement was in progress, with the job currently undergoing job matching. The department were awaiting approval from the clinical board to proceed with recruitment.

Equipment: general duties of the employer

An employer's written procedure was in place to ensure a quality assurance programme in respect of equipment was followed. The SAF described the quality assurance programme in place for all relevant equipment and identified the relevant procedure and where in the procedure this was evidenced. The quality assurance programme ensured the accurate verification of the administered activity. Additionally, the processes in place for testing of any equipment before first use, performance testing at regular intervals and testing following maintenance were described. The MPEs were consulted during the procurement process and ongoing project management for new equipment.

The measures in place to improve inadequate or defective equipment and any corrective actions that may be taken were noted.

There was an All-Wales radiology equipment replacement programme. All equipment was listed on an All-Wales registry. Health boards were required to review their equipment periodically and any recommendations for replacement needed to be supported with a detailed evaluation form which included local

benefits, risks and consequences. There was no equipment from either department in the top clinical priorities for 2024/5, to be replaced.

Safe

Risk management

Senior staff we spoke with (and seen as part of tour of department) explained that since the closure of the radiopharmacy on site, nuclear medicine staff when drawing up a dose had only one attempt to draw the correct activity. This was because there was no radionuclide calibrator in the laminar air flow cabinet. When this was above +10% of the local DRLs, staff would discuss this with the practitioner and may administer the radionuclide instead of disposing of the dose or re-attempting to draw up another dose. This was an issue, particularly when there was limited activity supplied to the department by the external radiopharmacy. The department would measure the residual activity and often this meant that the actual administered activity was within local tolerance. The department should record and report locally each time the incorrect activity was drawn up to build up evidence of the issue with facilities and the associated risks.

There was also an impact on having this cabinet in the room that was also used for scanning. Staff were working in the room and the gamma camera could not be used when staff were drawing up the activity, which affected the overall waiting lists.

The employer should consider the location used to draw up the activity and whether the current set up can be improved to ensure the safe drawing up of the activity and the safety of patients.

The employer should consider having a radionuclide calibrator within the laminar air flow cabinet to allow for more accuracy when drawing the activity.

The waiting areas in the main radiology department and in the medical physics department were bright and comfortable with enough seating for patients waiting for treatment. However, the route from the main department to the medical physics area was not a positive experience for patients in our view. The route was well signposted passing the entrance to the physiotherapy department and the entrance to the same day emergency care department. Patients then had to leave the building and cross a roadway into the medical physics waiting room. This roadway was previously an access road through the hospital and also access to a number of the maintenance and goods received areas of the hospital, with temporary fencing to close the roadway.

The corridor before the roadway was wide but cluttered in four areas used to leave rubbish and equipment, these were:

- An accumulation of cardboard boxes that had been broken down into pieces for ease of disposal

- A large wheeled mobile cage filled with what appeared to be broken zimmer frames and crutches with a sign dated May 2023 requesting removal.

- What appeared to be partially opened boxes of equipment

- An unused hospital bed or trolley and another cage

The roadway was also used as an illegal smoking area and contained used cigarette butts as well as an accumulation of bird droppings.

There were two patients who commented:

> *"…….Department was a long way away from concourse and final corridor filled with broken down beds and crates. State of roadway which had to be crossed into department did not inspire any confidence in setting BUT, once in department staff very welcoming and friendly……"*

> *"Having visited two different departments for different parts of the test I couldn't help but notice some quite stark differences between the two. Whilst I managed to find Medical Physics very easily following their instructions and signage the "path" to the department really gave the impression that they had been pushed to the outskirts of the hospital - having to go down a corridor which was full of broken beds and crates of zimmer frames etc and then cross a path/road which was hardly inspiring in terms of cleanliness Similarly the department itself looked really tired and in need of a bit o a spruce up. Radiology on the other hand seemed to be far more "spruced up" and "clinical". BUT despite having to work in what has to be described as a rather depressing and grey setting, the staff in Medical Physics were anything but grey. From the initial interaction of entering the corridor and somebody asked if I was all right and pointed me in the right direction to the lovely lady at the reception desk to the staff I not only saw for the test but also those just passing the waiting area - everybody had a smile, greeted each other and created a truly caring and friendly ambiance……."*

Additionally, one member of staff commented:

> ***"Entrance to Medical Physics is very grotty, dirty and unwelcoming with pigeon carcases, cigarette ends and general rubbish and dumped equipment. Medical Physics management have raised this to hospital management but no action has been taken."***

The patient journey for patients going to medical physics was not acceptable and below standard from the health and safety point of view as well as compared to the journey to the main department in radiology. Whilst this was mainly beyond the control of the medical physics department, this area must be kept clear to prevent the risk of fire, health and safety, evacuation of the hospital and for the patient experience of their visit to the hospital.

The employer must take action to address these comments and ensure the route to the medical physics department inside the building is clutter free with no obstacles in the corridor to block access in the event of an emergency.

The employer must also ensure the roadway is cleaned regularly and the no-smoking hospital legislation is enforced.

As described above there was a stark contrast between the nuclear medicine department in the main radiology department and the medical physics department.

The nuclear medicine department was easier to find in the main radiology department. The appointment letters for patients attending medical physics directed patients, where they would present to medical physics reception. There was reasonably level access to the medical physics treatment rooms, but the treatment rooms were showing signs of their age, whilst clean, they would benefit from some modernisation.

The employer should address the issues with the condition of the medical physics treatment rooms for both staff and patients.

Infection prevention and control (IPC) and decontamination

There were suitable IPC and decontamination arrangements in place. The equipment was also visibly clean and staff described suitable cleaning and decontamination procedures. The environment also appeared to be well maintained with sharps bins appropriately located and hand washing facilities available.

Staff we spoke with confirmed they had access to suitable personal protective equipment (PPE) and this was readily available. We also saw cleaning wipes to decontaminate shared equipment and staff demonstrated a good understanding of their role in this regard.

All but one patient who completed the questionnaire said that the setting was clean and most agreed that IPC measures were being followed. All staff agreed that their organisation implemented effective infection control procedures, that there was an effective cleaning schedule in place and that appropriate PPE was supplied and used. Less patients, 79%, said that the environment allowed for effective infection control.

All staff respondents thought there were appropriate infection prevention and control procedures in place.

Safeguarding of children and safeguarding adults

Staff members that we spoke with understood the importance of safeguarding and described the process for making a referral, as well as detailing the support available locally and within the health board. Staff were also aware of the safeguarding policies and procedures in place and where to access these.

There was a training module on safeguarding that staff had to complete and we were told that senior staff were trained to level three in safeguarding. There were also safeguarding posters in clinical areas to which staff could refer.

We checked a sample of five staff records and these showed that the appropriate level of safeguarding training had been completed.

Effective

Patient records

A sample of five current referrals and four retrospective referrals were checked. A number of areas of the document were completed correctly as required. However, we noted the following that needed to be addressed:

- The myocardial perfusion imaging (MPI) worksheet had not been completed correctly and some of the information did not match the required protocol

- It was unclear who the referrer was on an MPI letter, this was referred by a named doctor but entered on RADIS as nephrologist who was written to by the named doctor

- Cardiology staff entering bookings on RADIS were not completing this consistently and this had not been audited

- Clinical information for the MPI was on RADIS, but the actual evaluation was on the clinical portal, instead of RADIS

- Multiple stickers were used to record additional information that was not standardised on the referral forms, all types of referrals were accepted, including an old green MPCE referral form, radiology referral form, letter, 131I referral card, this would be improved by implementing electronic referrals

- In nuclear medicine there were a range of different referral types used, the current form did not have any area for the practitioner to authorise.

The employer must ensure that the:

- **The myocardial perfusion imaging (MPI) worksheet is correctly completed in full and the information must match the required protocol**

- **The referrer must be clear and obvious and be the same person on the paper records as on the electronic system**

- **The documentation completed by cardiology staff must be consistent and audited on a regular basis**

- **Whether the clinical evaluation for MPIs could be completed on RADIS**

- **Electronic referrals should be considered by medical physics to replace the multiple documents and stickers currently used**

- **The nuclear medicine referrals need to ensure the form used has a clear area for the practitioner to authorise the exposure and record their details.**

Efficient

Efficient

Senior staff we spoke with described the arrangements and systems in place to promote an efficient service. There were no issues with the waiting list. The service was looking at ways to optimise the services and how to best manage any issues.

Since the closure of the radiopharmacy department at the hospital, staff in the nuclear medicine department had to wait for the radiopharmaceuticals to arrive from Swansea Bay Radiopharmacy Unit before having to draw the radionuclide to be administered to the patient. As a result, the department were starting the appointments later in the morning and working later in the evening. Within medical physics the activity was received the day before as the radionuclides used have longer half-lives.

Quality of Management and Leadership

Staff feedback

HIW issued an online questionnaire to obtain staff views on services carried out by the University Hospital of Wales and their experience of working there. The questionnaire complemented the HIW inspection in October 2024. In total, we received 14 responses from staff. Not all respondents completed the questionnaire to the end, and questions were skipped throughout.

Responses from staff were mostly positive, with some negative comments left throughout the survey. All respondents were satisfied with the quality of care and support they give to patients and agreed that they would be happy with the standard of care provided by their hospital for themselves or for friends and family. All 14 recommended their organisation as a good place to work. We received several comments on the service, these are shown below:

> ***"Entrance to Medical Physics is very grotty, dirty and unwelcoming with pigeon carcases, cigarette ends and general rubbish and dumped equipment. Medical Physics management have raised this to hospital management but no action has been taken."***
>
> ***"The managers are very open and clear in communications with the bookers and patients. They are always striving to follow the NHS values when communicating with patients and staff members. Feedback from patients has always been very positive when talking to them. "Thanks… he/she has been absolutely wonderful" they are very attentive as managers; it is a lovely environment to work in."***
>
> ***"The department is old and would benefit from modernisation."***
>
> ***"The hospital building itself is in a poor state of repair."***
>
> ***"There is insufficient radioisotope supply to provide an adequate and responsive clinical nuclear medicine service. A decision was made to close the radiopharmacy at UHW in October 2023 following an MHRA inspection without any clinical consultation about the consequences. The decision to close was made by the Executive Board and not the MHRA. This has affected the quality of care that can be provided for patients, as radioisotopes now need to be sourced on a daily basis from Swansea, Bristol or Birmingham. Supply is limited and does not arrive until late***

morning. Capacity is reduced as a result with increasing waiting times and an inability to perform many urgent studies in a timely manner."

"Whilst I appreciate I have said there is no support for my work from senior managers this is due to the specific scientific skills and not an attitude of neglect. There just are not the numbers of Nuclear Medicine staff with the required skills around. A general manager cannot be expected to understand the specifics of background correction per pixel within geometric means for sampling on SPECT DMSA scans."

Leadership

Governance and leadership

The Chief Executive of the organisation was the designated employer under IR(ME)R and had overall responsibility for ensuring the regulations were complied with. Where appropriate, the employer had delegated tasks to other professionals working in the organisation to implement IR(ME)R.

Staff we spoke with during the inspection spoke well and were able to answer our questions. They 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 wished to discuss.

Senior staff we spoke with said that they engaged with staff on a regular basis, through meetings at most levels. There was clear, positive engagement with the inspection process. Senior staff were keen to ensure the processes were current and in place across the health board. Senior staff we spoke with confirmed how changes were communicated to relevant staff, which was also described in the SAF.

The governance of the departments was well documented in a flow chart provided as part of the inspections. We noted a number of groups and committees that were included in the organisation chart to show how the organisation could demonstrate that the employer was aware of their responsibilities under IR(ME)R. However, some of the terms of reference for the groupings needed to be updated:

- The Radiation Protection Group (RPG): which reported to the Executive Director of Therapies and Health Science, had terms of reference which had passed the review date

- The Image Optimisation Group (Radiology only) which reported to the RPG, had terms of reference which needed to be updated, signed and dated.

The employer needs to ensure that the terms of reference for the:

- **RPG is reviewed**
- **IOT is updated, signed and dated.**

Staff agreement, in the questionnaire, was as follows:

- They were content with the efforts of their organisation to keep them and patients safe – 100%
- Care of patients was their organisation's top priority – 100%
- Senior managers were visible – 57%
- Communication between senior management and staff was effective – 64%
- Senior managers were committed to patient care – 93%
- Their immediate manager can be counted on to help them with a difficult task at work (93%)
- Their immediate manager gave them clear feedback on their work – 100%
- Their immediate manager asked for their opinion before making decisions that affected their work – 100%
- Their organisation was supportive – 100%.

Workforce

Skilled and enabled workforce

We were provided with details of the numbers and skill mix of staff working at, or on behalf of the nuclear medicine department. Staff we spoke with believed that staffing numbers were appropriate, providing there was a full complement of staff available. Senior staff believed that the number and skill mix of staff in the department was appropriate. In nuclear medicine, senior staff we spoke with believed there was a staffing issue caused by having to draw up an activity, as the department were not resourced for this activity, this had been escalated and was on the departments risk register.

Compliance with mandatory training at the setting was good. All staff we spoke with said that they had appropriate training to undertake their role. This included

mandatory and role-specific training. Staff we spoke with felt able to report any concerns to management.

Staff were also aware of how to access any additional support they may need such as occupational health and wellbeing from the health board. There were also meetings which staff could attend about mental health as well as organised events.

We reviewed the mandatory training records of five staff members. These records contained the relevant and expected details of training. We saw clear evidence that staff had completed relevant mandatory training to the required level, this included safeguarding training, safe moving and handling and IPC training.

Whilst appraisal levels of completion was over 76% this was of all radiology staff, all six records we checked in nuclear medicine and medical physics showed that appraisals had been completed.

In the last 12 months, all staff stated in the questionnaire that they had an appraisal, annual review or development review of your work and felt they had received appropriate training to undertake their role.

In all 62% of staff in the questionnaire agreed that there were enough staff to enable them to do their job properly. A total of 93% of staff agreed that their job was not detrimental to their health and that their current working pattern and off duty allowed for a good work-life balance.

It was positive to note that all staff said they were aware of the occupational health support available to them and that the organisation took positive action on health and wellbeing.

When asked about whether they agreed staff had fair and equal access to workplace opportunities (regardless of age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex and sexual orientation), 86% agreed. All staff agreed that their workplace was supportive of equality and diversity. It was positive to note that no staff indicated they had faced discrimination at work within the last 12 months.

Other replies to the questionnaire included:

- That staff could meet the conflicting demands on their time at work – 86%

- That they were involved in deciding on changes introduced that affected their work area – 71%

- All respondents felt they were able to access the ICT systems needed to provide good care and support for patients – 100%

- Most said they have adequate materials, supplies and equipment to do their work – 79%.

Culture

People engagement, feedback and learning

Staff we spoke with were able to describe the arrangements in place to allow patients to provide feedback or raise concerns. There was an effective complaints process in place to monitor, review and resolve complaints and feedback. We also noted evidence of shared learning through meetings and newsletters. There was also a log of concerns for the nuclear medicine department complete with actions and dates which was appropriate. The departments were not logging compliments to show the patients' positive comments about the departments.

The employer must ensure that compliments are logged in both departments.

Staff we spoke with said that they were aware of the Duty of Candour and senior staff said that the Duty of Candour was part of the investigation process.

There was information displayed throughout the department about how patients and families were able to provide feedback about their care. Information was also displayed on how patients could make a complaint if they needed to, on a 'Putting Things Right' poster, the NHS Wales complaints process. There was also information displayed on 'Llais' the independent organisation that listens to people's views and experiences on health and social care services in Wales. Information was also displayed on how the organisation had learned and improved based on feedback received on a 'you said, we did' board.

Just over 68% of patients said they would not know how to complain about poor service. Whilst 71% of staff in the feedback agreed patient experience was collected within their department, the remaining 29% did not know. Also, whilst 21% of staff agreed that they received updates on patient experience feedback in their department, 57% said they did not and the remainder did not know. Furthermore, whilst only 43% of staff agreed that feedback from patients was used to make informed decisions within their department, the remainder did not know. In all 75% of staff said they would feel secure raising concerns about unsafe clinical practice although fewer (61%) said they were confident their concerns would be addressed.

Staff we spoke with were able to describe the duty of candour and knew their role in meeting the duty. In the questionnaire, 93% of staff said that they knew and understood the duty of candour and understood their role in meeting the duty of candour standards.

All staff stated that their organisation supported staff to identify and solve problems, but fewer,64% believed that their organisation takes swift action to improve when necessary.

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: Nuclear Medicine Department and Medical Physics Department, University Hospital of Wales

Date of inspection: 16/17 October 2024

The table below includes any immediate non-compliance 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.

	Risk/finding/issue	Improvement needed	Standard / Regulation	Service action	Responsible officer	Timescale
1.	There were no immediate assurance issues					

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: Nuclear Medicine Department and Non-Medical Imaging Department (Medical Physics), University Hospital of Wales

Date of inspection: 16/17 October 2024

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.

Risk/finding/issue		Improvement needed	Standard / Regulation	Service action	Responsible officer	Timescale
1.	In the medical physics department, the system used could not send out bilingual letters and letters could not be sent out and letters were only sent out in English.	The employer must ensure that appointment letters are sent out bilingually.	Health and Care Quality Standards 2023 – Welsh Language	Medical Physics & Clinical Engineering is currently integrating processes into our existing patient management system, RADIS (RIS), which will automate the admin associated with appointments. This update will ensure that all patient correspondence is issued bilingually, in both Welsh and English. *Not applicable to Radiology Nuclear Medicine*	Director of Medical Physics and Clinical Engineering (MPCE)/ Head of Ionising Radiation Physics	6 Months

2.	There were two sets of employer's procedures noted during the inspection, for nuclear medicine and medical physics. The departments would benefit from learning and sharing information within these procedures. Consideration should also be given to combining the procedures where possible.	The employer should consider having one set of employer's procedures for both departments.	Ionisation Radiation (Medical Exposure) Regulations (IR(ME)R) 2017 Schedule 2	Radiology Employer's Procedures in place and reviewed. Ionising Radiation Physics (Medical Physics & Clinical Engineering) Employer's Procedures are currently being reviewed. During this process, we are exploring opportunities to harmonise the procedures of Radiology and Medical Physics & Clinical Engineering where commonalities exist. This joint learning will be shared at the RPG meeting. Initial discussions have highlighted the distinct functions of each department. Consideration for a unifying procedure will be an agenda at the next Radiation Protection Group meeting (Jan 2025).	Professional Head of Radiography / Quality, Safety and Experience Lead Radiographer Head of Ionising Radiation Physics	Complete Consideration of having a unified procedure across both departments – 2 months Learning and sharing information from both procedures 6 months

3.	There were quality assurance programmes in place for written employer's procedures and protocols and include any document control measures used. Within medical physics we were told that work had started to agree a new format and naming conventions, currently there was only a date of issue. Medical physics documentation needs to be reviewed and needs to have consistent documentation control to include, date reviewed, date due review, author and version number.	The employer should review and update the quality assurance programmes for procedures and protocols used by medical physics.	IR(ME)R 2017 regulation 6(5)(b) & Schedule 2(d)	Already in place in Radiology Nuclear Medicine The procurement of a new Quality Management System is in progress to enhance Medical Physics & Clinical Engineering's document management capabilities. This system will standardise all documents with a template that includes the author and version number. Additionally, the QMS will be programmed with appropriate review dates to ensure controlled documentation and procedural compliance	Professional Head of Radiography Head of Ionising Radiation Physics/Medical Physics & Clinical Engineering Quality Manager	Previously established 1 Year

4.	Referral criteria for medical physics were only available on request as a standalone document.	The employer must ensure that referral criteria are available to all, without needing to be supplied on request.	IR(ME)R 2017 regulation 6 (5) (a)	Refers will be guided to iRefer. Additional information and guidance (if required) will be placed on SharePoint which all refers have access to. *Not applicable to Radiology Nuclear Medicine*	Head of Ionising Radiation Physics / ARSAC practitioner	3 Months
5.	Regarding nuclear medicine procedures that were not included in iRefer, the nuclear medicine department need to develop and add guidelines for sentinel lymph node biopsies and make them available to referrers.	The employer must ensure that referral guidelines for sentinel lymph node biopsies are developed and make them available to referrers.	IR(ME)R 2017 regulation 6 (5) (a)	Sentinel lymph node referral guidelines have been developed and published on the Radiology SharePoint for referrers to access. *Not applicable to Ionising Radiation Physics (Medical Physics & Clinical Engineering)*	Nuclear Medicine Superintendent / ARSAC practitioner	Complete
6.	The local DRLs for the CT part of single-photon emission	The employer must ensure that:	IR(ME)R 2017 regulation 6 (5) (c) &			

	computed tomography (SPECT) / CT were currently being reviewed as part of this audit cycle with a request for data received in August 2024. The results were being reviewed on a three-yearly cycle that the department that was appropriate in view of the numbers of SPECT / CT studies carried out.	• The CT DRLs for SPECT/CT procedures are reviewed, updated and made known to staff	Schedule 2 (f)	The SPECT / CT DRLs had been received at the time of the inspection, these have now been accepted and displayed in the clinical area. Approved DRLs shared with staff.	Nuclear Medicine Superintendent	Complete
	Within the department we saw that both national and local DRLs were displayed. Better practice would be to display the local DRL in use for each procedure with the accepted tolerance range rather than both the local and national	• Only local DRLs are displayed with the accepted tolerance range.		The displayed DRLs for administered radioactivity have been reviewed and updated, this now only displays the Local DRL and includes tolerance limits – this has been shared with staff. We understand that the second part of this action is only relevant to DRLs for administered radioactivity, and not to DRLs for the CT	Nuclear Medicine Superintendent	Complete

	DRLs, to reduce the risk of potential error.			component of SPECT/CT imaging.		
7.	We were not able to see the nuclear medicine entitlement matrix. Additionally, the link between the entitlement matrix and individual entitlement letters was not clear.	The employer must: • Forward a copy of the entitlement matrix for nuclear medicine staff to HIW • Ensure that the entitlement matrix is up to date • Provide assurance of the link between the entitlement matrix and the entitlement letter.	IR(ME)R 2017 Schedule 2 (b)	Scope of Entitlement documentation for Nuclear Medicine staff has been reviewed and updated to include specific duties against which staff are entitled. This aligns to and supports the Radiology Entitlement matrix, the matrix has been reviewed and confirmed as up to date. Radiology entitlement Matrix, Entitlement letter, scope of entitlement to be shared with HIW along with improvement plan. (Training logs also support this and were previously shared with SAF)	Nuclear Medicine Superintendent / Professional Head of Radiography Professional Head of Radiography	Complete 16.12.24
8.	We viewed the IR(ME)R training	The employer must ensure that:	IR(ME)R 2017 regulation 17	Radiology entitlement Matrix, Entitlement letter, scope of		16.12.24

	records and entitlements of five staff members. Some irregularities were noted with the process for competency assessment where one members of staff had signed themselves off, which was not appropriate. The medical physics entitlement matrix was noted and it could include more detail, such as the date of entitlement and dates tasks completed instead of ticks. Also some records were not signed by individuals.	• Training records of staff as being competent must be independently signed off and completed in more detail • The medical physics entitlement matrix is made available to HIW • The link between the entitlement record and entitlement letter is clarified.		entitlement to be shared with HIW along with improvement plan. (Training logs also support this and were previously shared with SAF) All Ionising Radiation Physic training records will be reviewed to ensure completeness with appropriate sign off. This process will be documented in the 'training requirements' document. IR(ME)R entitlement matrix will be updated to include the date that competence was achieved.	Professional Head of Radiography Head of Ionising Radiation Physics	1 Month
9.	There was an employer's written procedure in place in nuclear medicine to	The employer must ensure that the:	IR(ME)R 2017 Schedule 2			Complete

	correctly identify the individual to be exposed to ionising radiation. However, the procedure referred to X-ray examinations and not nuclear medicine. Medical Physics had a standalone patient identification procedure across all investigations undertaken within the section involving ionising radiation which included details of pregnancy and breast-feeding checks.	• Employer's procedure for patient identification includes reference to nuclear medicine • Patient identification procedure is part of an employer's procedure in medical physics.		Radiology Employer's Procedure A – patient identification has been updated to include reference to Nuclear Medicine The Patient identification procedure within Ionising Radiation Physics will be reviewed. Details of pregnancy and breast-feeding checks will be removed and placed into a separate employers procedure EP(c).	Professional Head of Radiography Head of Ionising Radiation Physics	1 Month
10.	The department were not completing pregnancy testing for Iodine 131 treatments. Updated ARSAC	The employer must ensure that appropriate pregnancy testing is carried out for	IR(ME)R 2017 regulation 11 (1) (f) & Schedule 2 (c)	Ionising Radiation Physics will work in collaboration with the health board to review and update the policy on pregnancy status verification according to	Head of Ionising Radiation Physics / Director of Medical Physics	3 Months

	guidance stated that questioning alone is not sufficient for therapy procedures, such as Iodine 131.	iodine 131 treatments as required by ARSAC guidance.		the updated ARSAC guidance. We will ensure our procedures address the necessary pregnancy testing requirements for Iodine-131 treatments and incorporate an appropriate testing protocol into the treatment pathway. *Not applicable to Radiology Nuclear Medicine*	and Clinical Engineering	
11.	In medical physics the department had combined employer's procedure h on 'Written information for Nuclear Medicine' and i 'Communication of benefit and risk'. These needed to be separate discrete employer's procedure.	The employer must ensure that the relevant employer's procedures are in place in medical physics as required by the IR(ME)R 2017.	IR(ME)R 2017 regulation 6 (1) (a) and Schedule 2	All employer procedures will be reviewed and separate documents created. Document control and approval will be managed via Qpulse. *Not applicable to Radiology Nuclear Medicine*	Head of Ionising Radiation Physics	6 Months
12.	We were told that referrers were	The employer must ensure that staff	IR(ME)R 2017	Upon review, it has been determined that clinical		6 Months

	entitled as an operator for clinical evaluation but the medical physics and clinical engineering, were not in charge of entitling referrers. It was not clear if the referrers were appropriately entitled.	carrying out clinical evaluation are entitled as operators for this task.	regulation 10 (3) & Schedule 2 (b)	evaluations in Ionising Radiation Physics are performed by operators from the department. We will ensure that these operators are appropriately entitled and that all relevant documents, training, and records are amended to accurately reflect this *Not applicable to Radiology Nuclear Medicine*	Head of Ionising Radiation Physics	
13.	There was a written employer's procedure in place for referral and management of non-medical exposures. However, the procedure included a list of examinations that could not be authorised including radiological bone age for asylum seeking	The employer must ensure that the employer's procedure for non - medical exposures must be updated to only state those NMI which are authorised.	IR(ME)R 2017 regulation 6 (4) & Schedule 2 (m)	Radiology's Employer's Procedure M – Non-Medical Exposures has been reviewed and updated to remove examinations which were documented as not authorised in the EP to avoid confusion. *Not applicable to Ionising Radiation Physics*	Professional Head of Radiography / Quality, Safety and Experience Lead Radiographer	Complete

	children which is not a justified practice.					
14.	In medical physics the department had combined employer's procedure k, called 'The reduction of the probability and magnitude of accidental or unintended doses to patients' and l 'Clinically Significant Unintended or Accidental Exposures'. Additionally, this combined procedure includes outdated HIW notification criteria from 2020.	The employer must ensure that the relevant employer's procedures are in place as required by the IR(ME)R 2017 and include up to date information.	IR(ME)R 2017 regulation 6 (1) (a) & Schedule 2	A quality management system is within the procurement stage. Ionising Radiation Physics will aim to use Qpulse for document control, dissemination and review. The Employer's procedure will also be controlled via Qpulse. *Not applicable to Radiology Nuclear Medicine*	Head of Ionising Radiation Physics	1 Year
15.	Regarding the process in place for studying the risk of accidental	The employer must ensure that there is a study of risk in	IR(ME)R 2017 regulation 8 (2)	A comprehensive risk assessment for therapeutic exposures within Ionising Radiation Physics has	Head of Ionising Radiation Physics	1 Month

	or unintended exposures for nuclear medicine therapies in medical physics was not available. Whilst separate risk assessments were used, this did not meet the specific IR(ME)R requirement.	place for accidental or unintended exposures for therapeutic exposures as part of the quality assurance programme.		been completed. This assessment will undergo biennial reviews or will be reviewed sooner if there are any changes to procedures. Additionally, this review process will be integrated into our Quality Management System as part of our ongoing quality assurance programme. *Not applicable to Radiology Nuclear Medicine*		
16.	The information supplied showed that there was a separate DAG for each operator. This had been updated recently. Having a separate DAG for each operator is complex, this should be incorporated into a single DAG and the entitlement matrix	The employer should consider combining the separate DAGs into a single document and recording the operator entitlement in the entitlement matrix.	IR(ME)R 2017 regulation 11 (1) (c)	Ionising Radiation Physics will evaluate the possibility of combining the separate Dose Administration Guidelines (DAGs) into a single document in collaboration with the ARSAC license holder.	Head of Ionising Radiation Physics/ARSAC Practitioner	6 Months

	used to record which operator are entitled to authorise exposures.			*Not applicable to Radiology Nuclear Medicine*		
17.	The nuclear medicine employer's procedure would benefit from more detail so that the information provided by operators was consistent. In medical physics, there was reference to dose constraint for members of the public. instead of carers and comforters.	The employer must ensure that the employer's procedures for carers or comforters contain sufficient detail to ensure that the information provided is consistent and that any reference to members of the public is changed to carers and comforters.	IR(ME)R 2017 regulation 12 (5) & Schedule 2 (n)	Radiology's Employer's Procedure N – Carers and Comforters to be reviewed and updated to include additional Nuclear Medicine specific detail where required. The Employer's Procedure is already supplemented by supporting documents which provide additional information regarding the benefits and risks to carers and comforters. The Ionising Radiation Physics, Carer and Comforter documentation will be reviewed and methodology noted. Any reference to dose constraints to members of the public will be removed.	Nuclear Medicine Superintendent / Professional Head of Radiography Clinical Scientist Lead	3 months 3 Months

18.	The process for justification of exposures to carers or comforters was described, in nuclear medicine there is a carer and comforter form which was required to be completed prior to the exposure and detail the exposure received. This form was different to the one in medical physics. A consistent approach needs to be adopted. In medical physics, there was also reference to differing values of dose constraints.	The employer must ensure that: • There is a consistent approach between the two departments in the carers and comforters forms used • Medical physics review the dose constraints for carers and comforters.	IR(ME)R 2017 regulation 12 (5) & Schedule 2 (n)	Ionising Radiation Physics will review the dose constraint to carers and comforters and associated documentation. A review of the carer and comforter forms for both Radiology and Ionising Radiation Physics will be reviewed, with a view to standardising the process where appropriate.	Head of Ionising Radiation Physics	6 Months
19	Medical physics had identified the	The employer must ensure that the		Medical Physics & Clinical Engineering recognise the	Director of MPCE/	3 months

	shortage of MPE staffing for the department and had written to the RPG on this, as well as including this shortage on the risk register.	shortage of the clinical scientist and medical physics is addressed to ensure there are sufficient staff in the department to meet the requirements of IR(ME)R and IPEM.	IR(ME)R 2017 regulation 14 (1)	importance of ensuring adequate staffing levels to meet the needs of the department. To address this, we will agree plans to increase Medical Physics Expert staffing levels in line with the IPEM policy statement Medical Physics Expert Support for Nuclear Medicine with the Clinical Board and Health Board.	General Manager Radiology Medical Physics & Clinical Engineering	
20	There was also a need for clinical scientists to gain more experience and training through involvement with the wider radiology department.	The employer must ensure that clinical scientists and trainees are given opportunities to work in the wider radiology department including nuclear medicine to ensure their continuing professional development as well as providing	IR(ME)R 2017 regulation 14 & 17	Medical Physics & Clinical Engineering will collaborate with Radiology to develop a training template for trainee clinical scientists. This template will outline the competency requirements and practical involvement within Nuclear Medicine and Radiology necessary to ensure the fulfilment of these competencies, supporting both professional development and effective departmental contributions.	Director of Medical Physics & Clinical Engineering/ Directorate Manager Radiology Medical Physics & Clinical Engineering / Head of Ionising Radiation Physics / Professional Head of	6 Months

		staff to work in the department.			Radiography / Nuclear Medicine Superintendent	
21	There was also an impact on having this cabinet in the room that was also used for scanning. Staff were working in the room and the gamma camera could not be used when staff were drawing up the activity, which affected the overall waiting lists.	The employer should consider the location used to draw up the activity and whether the current set up can be improved to ensure the safe drawing up of the activity and the safety of patients.	IR(ME)R 2017 regulation 11 & 12	The impact of the closure of the Radiopharmacy and use of the scanning room as a drawing up facility has previously been reviewed and added to the risk register with mitigating actions where possible. Proposals for a drawing up facility have been agreed with RPA and RWA, quotes have been received for the required Estates works. Enabling works require finance to be secured and scheduled within the Estates programme.	Clinical Board Director of Operations / Directorate General Manager / Nuclear Medicine Superintendent / Professional Head of Radiography	Partially complete (impact assessment and risk raised) 1 year for completion of enabling works
22	The department would measure the residual activity and often this meant that the actual administered activity	The employer should consider having a radionuclide calibrator within	IR(ME)R 2017 regulation 10	A robust system including audit of activity is in place to ensure compliance and action where required.	Nuclear Medicine Superintendent	In place

	was within local tolerance. The department should record and report locally each time the incorrect activity was drawn up to build up evidence of the issue with facilities and the associated risks.	the laminar air flow cabinet to allow for more accuracy when drawing the activity.		Staff instructed to report all incidents where drawn up activity is outside of tolerance levels. This will facilitate investigation and action where required. Radionuclide calibrator feasibility and alternatives under review with the redesign of the drawing up facility	Nuclear Medicine Superintendent Nuclear Medicine Superintendent / RPA / Directorate Manager	Complete 1 year
23	The patient journey for patients going to medical physics was not acceptable and below standard from the health and safety point of view as well as compared to the journey to the main department in radiology.	The employer must take action to address these comments and ensure the route to the medical physics department inside the building is clutter free with no obstacles in the corridor to block	Health and Care Quality Standards 2023 –Safe	The Medical Physics & Clinical Engineering Quality, Safety, and Environment (QSE) group will include an ongoing assessment of the environment and access routes to the Medical Physics corridor as a standing agenda item in its monthly meetings. Any identified obstacles or safety hazards will be documented and reported to the Clinical Board	Medical Physics & Clinical Engineering QSE Lead/Director of MPCE	3 Months

		access in the event of an emergency.		QSE committee. Additionally, an annual audit of this arrangement will be conducted. *Not applicable to Radiology Nuclear Medicine*		
24	Whilst this is mainly beyond the control of the medical physics department, this area must be kept clear to prevent the risk of fire, health and safety, evacuation of the hospital and for the patient experience of their visit to the hospital.	The employer must also ensure the roadway is cleaned regularly and the no-smoking hospital legislation is enforced.	Health and Care Quality Standards 2023 –Safe	An assessment of the roadway will also be reported to the Medical Physics & Clinical Engineering QSE group as above. The QSE group will also raise smoking occurrences to security when this is identified. This will also be incorporated into the Medical Physics & Clinical Engineering QSE terms of reference *Not applicable to Radiology Nuclear Medicine.*	Medical Physics & Clinical Engineering QSE Lead/Director of Medical Physics & Clinical Engineering	3 Months
25	There was reasonably level access to the medical physics	The employer should address the issues with the	Health and Care Quality	An assessment of the rooms will be made by the Medical Physics & Clinical Engineering	Medical Physics and Clinical Engineering QSE	3 Months

	treatment rooms, but the treatment rooms were showing signs of their age, whilst clean, they would benefit from some modernisation.	condition of the medical physics treatment rooms for both staff and patients.	Standards 2023 - Safe	management team, and recommendations for remedial action reported to the Clinical Board QSE group for escalation in the UHB. *Not applicable to Radiology Nuclear Medicine*	Lead/Director of Medical Physics & Clinical Engineering	
26	A sample of five current referrals and four retrospective referrals were checked. A number of areas of the document were completed correctly. However, we noted the following that needed to be addressed: • The myocardial perfusion imaging (MPI) worksheet had not been completed correctly and some of	The employer must ensure that the: • The myocardial perfusion imaging (MPI) worksheet must be correctly completed in full,	IR(ME)R 2017 regulation 6 (5) (a) & 10 & 12 (3) (b)	Radiology to enforce referrals via approved referral methods only i.e. Radiology paper request form or electronic platform as stated within Employer's	Radiology Clinical Director / Professional Head of Radiography	3 months

	the information did not match the required protocol • It was unclear who the referrer was on the MPI letter, this was referred by a named doctor but entered on RADIS as nephrologist who was written to by the named doctor • Cardiology staff entering bookings on RADIS were not completing this consistently and this had not been audited • Clinical information for MPI on RADIS but actual eval on clinical portal, should be on RADIS	and the information must match the required protocol • The referrer must be clear and obvious and be the same person on the paper records as on the electronic system • The documentation completed by cardiology staff must be consistent and audited on a regular basis • Whether the clinical evaluation for MPIs could be completed on RADIS		Procedures as this ensures the required mandatory information is included. The Radiology Clinical Director has commenced discussions to ensure future compliance. Use of Radiology request forms will improve compliance with provided demographics, referrer details, exam requested and clinical information. Audit of quality of referrals received to be undertaken after 1 month and again at 3-4 months with actions implemented where required. Solution to enable Cardiology Consultant to upload MPI clinical evaluation on RIS to be identified and implemented.	Nuclear Medicine Superintendent Nuclear Medicine Superintendent / Cardiology Consultant	June 2025 3 months

	• Multiple stickers used to record additional information that is not standardised in referral forms – all types of referrals accepted – old green MPCE referral form, radiology referral form, letter, 131I referral card. Consider implementing electronic referrals	• Electronic referrals should be considered by medical physics to replace the multiple documents and stickers currently used		Ionising Radiation Physics referral form to be reviewed and updated. Once approved referral will only be accepted on the approved form. Ionising Radiation Physics to explore the use of electronic justification / vetting module within RADIS (once implemented).	Head of Ionising Radiation Physics Lead/ARSAC Practitioner/Director of Medical Physics and Clinical Engineering	3 Months
	• In nuclear medicine there were a range of different referral types used, the current form doesn't have any area for practitioner to authorise.	• The nuclear medicine referrals need to ensure the form used has a clear area for the practitioner to authorise the exposure and record their details.		Nuclear Medicine to explore the use of electronic justification / vetting module within RIS to replace handwritten process – this would improve quality of data and efficiency. Radiology paper request form already includes a designated section for Radiology staff use – this was enlarged during the last revision to accommodate comments / protocols during	Nuclear Medicine Lead Radiologist / Clinical Director	6 months

				justification process. However, some first versions remain in circulation and continue to be accepted.		
27	Some of the terms of reference for the groupings needed to be updated: • The Radiation Protection Group (RPG): which reported to the Executive Director of Therapies and Health Science, had terms of reference which had passed its review date • Image Optimisation Group (Radiology only) which reported to the RPG, had terms of reference which	The employer needs to ensure that the terms of reference for the: • RPG is reviewed • IOT is updated, signed and dated.	IR(ME)R 2017 regulation 12	The terms of reference had been circulated for comment, comments received and approved 10.12.24 The terms of reference for the Radiology Image Optimisation Group have been reviewed, updated and agreed in IOT meeting in November 2024.	Chair of Radiation Protection Group Professional Head of Radiography	Complete Complete

	needed to be updated, signed and dated.					
28	The departments were not logging compliments to show the patients' positive comments about the departments.	The employer must ensure that compliments are logged in both departments.	Health and Care Quality Standards 2023 –Culture	Radiology have introduced a central record of compliments received, this is maintained by the QSE Lead Radiographer, and a monthly compliment report is shared via the Radiology Quality and Safety meeting. For Ionising Radiation Physics, compliments will be logged as an event under our Quality Management system.	Quality and Safety Lead Radiographer Quality Assurance Manager/ Medical Physics & Clinical Engineering QSE Lead	Complete 12 Months
29	In medical physics we were told that clinical audits were performed when the opportunity arose, there was no similar system to	The employer must ensure that medical physics carry out clinical audit on a regular basis.	IR(ME)R 2017 regulation 7	Ionising Radiation Physics will gain access to the AMaT system and log clinical audits on a regular basis	Head of Ionising Radiation Physics	12 Months

	AMaT used for medical physics.			*Not applicable to Radiology Nuclear Medicine*		

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): **Alicia Christopher**

Job role: **General Manager**

Date: **13/12/24**