Arolygiaeth Gofal Iechyd Cymru
Healthcare Inspectorate Wales

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

Nuclear Medicine Department, Nevill Hall Hospital, Aneurin Bevan 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 at Nevill Hall Hospital, Aneurin Bevan University Health Board on 4 and 5 March 2025. 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 healthcare inspectors, a Scientific Advisor (Administration of Radioactive Substances Advisory Committee (ARSAC)) and a Specialist Clinical Officer, from the Medical Exposures Group (MEG) of the UK Health Security Agency (UKHSA), who acted in an advisory capacity.

During the inspection we invited patients or their carers to complete a questionnaire to tell us about their experience of using the service. We also invited staff to complete a questionnaire to tell us their views on working for the service. A total of 11 questionnaires were completed by patients or their carers and five were completed by staff. We also spoke to staff working at the service during our inspection. 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.

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

2. Summary of inspection

Quality of Patient Experience

Overall summary:
Health promotion materials in the waiting areas highlighted the benefits of a healthy lifestyle. Patient experience codes were displayed, but feedback, we were told, was minimal due to low patient throughput. Any compliments received were shared in radiology directorate meetings.

No patients were present during the inspection. Examination room doors could be closed and screens were available to ensure patient dignity. A suitable room was provided for confidential or sensitive conversations between staff and patients.

All patients in the questionnaire agreed that staff treated them with dignity and respect, protected their privacy and listened to their concerns.

Delays in treatment could occur due to delays in receiving radiopharmaceuticals, despite the health board employing a driver to transport them directly from Swansea. Staff communicated waiting times to patients, offering options to wait or reschedule if appointments were running late.

Bilingual posters and clear signage were present, but appointment letters were only in English, with Welsh versions available upon request.

Staff described arrangements to assist people with hearing difficulties and non-English speakers, including a hearing loop, translation services and visual aids. The department was accessible, with wide doors, a lift, and an accessible toilet.

Equality and diversity were promoted, with training and policies in place.

This is what we recommend the service can improve:

- Ensure that bilingual documentation is available for patients.

This is what the service did well:

- Displaying bilingual posters, providing patients with relevant information
- Staff communicated waiting times to patients
- Health promotion materials in the waiting room for patients.

Delivery of Safe and Effective Care

Overall summary:

The self-assessment form (SAF) completed by the nuclear medicine department outlined governance arrangements for ensuring a valid employer licence is in place.

Written protocols for standard nuclear medicine practices were signed off by the practitioner licence holder and stored on Q-Pulse and SharePoint. However, some protocols needed review to ensure consistency and reduce repetition. Staff were familiar with these protocols and found them easy to follow.

Referral guidelines were established using iRefer, with additional local guidelines for specific examinations. Diagnostic reference levels (DRLs) were displayed and updated regularly, with audits conducted by Medical Physics Experts (MPEs). The SAF describes the process for reviewing DRLs and ensuring they were optimised.

Procedures for identifying individuals entitled to act as referrer, practitioner, or operator were in place, with entitlement delegated through two chains. Surgeons needed individual entitlement and training records. Posters advising patients about pregnancy and breastfeeding were displayed and staff followed procedures to make enquiries about childbearing potential.

Information about the benefits and risks of radiation exposure was provided to patients, with written instructions available.

Procedures for reporting accidental or unintended exposures were in place, with incidents logged on DATIX. Staff reflected on their actions to prevent recurrence. Measures to minimise accidental doses included positive patient identification and adherence to protocols.

Quality assurance programmes for equipment were described, including acceptance testing and performance testing. The department was accessible, clean and well-maintained, with suitable infection prevention and control measures. Staff were trained in safeguarding and aware of their responsibilities. Efforts were made to promote an efficient service and reduce waiting times.

Immediate assurances:

- The delegated authorisation guidelines (DAGs) and flowcharts were unclear and difficult to follow, contained duplication and omissions and did not accurately reflect clinical practice
- There was information included in the flowchart that should have been included in the DAG such as clinical indications and appropriate time delays
- The DAG allowed operators to authorise referrals and did not include complete information to allow the operator to safely perform the task

- The use of these DAGs had not been audited to ensure that staff had completed all authorised referrals appropriately
- There was no consistent radiation protection training evidenced
- There was no document control for the training and competency records
- We did not find evidence of the entitlement certificate, nor the training records for the non-medical referrer, who was listed on the entitlement matrix as a non-medical referrer
- The entitlement matrix entries were not consistent with the entitlement certificates or training and competency records
- There was duplication of entitlement
- No practitioner training records were supplied to be checked for the practitioners in the department.

This is what we recommend the service can improve:

- Updating local DRLs based on the audits completed by MPEs
- Review and simplify the two separate forms for entitlement
- Ensuring that training records and competency assessments of practitioners are available
- Establish and formalise an IR(ME)R audit programme for nuclear medicine
- Documentation used to support a referral is clearly completed.

This is what the service did well:

- Staff knew where to find the written procedures relevant to their practice
- Referral guidelines had been established for the range of examinations
- Optimising DRLs for imaging investigations in collaboration with other centres.

Quality of Management and Leadership

Overall summary:
The Chief Executive held overall responsibility for implementing IR(ME)R, with tasks delegated through the management structure. The Ionising Radiation Safety Policy outlined clear lines of reporting and accountability, ensuring the Chief Executive was aware of their responsibilities.

The SAF was comprehensive and timely. Management was committed to learning from inspections and making improvements. However, staff noted that senior management's engagement had decreased and there were concerns about staffing levels and increased sickness rates.

Information was shared with staff through emails, online applications and posters. Meetings were previously weekly but had become less frequent. An action plan was in place to ensure compliance with recent IR(ME)R amendments. Staff compliance with mandatory training was high.

There was no consistent annual checks of Health and Care Professions Council (HCPC) registration. Training records for IR(ME)R were also inconsistent, lacking standardisation and control. The employer must ensure up-to-date records support staff training and entitlement.

Appraisals were up-to-date and an advanced practice programme has been developed for senior clinical technologists.

Patient feedback mechanisms were in place, but the department did not display how feedback had led to improvements.

Management had an open-door policy for addressing staff concerns. Staff had access to occupational health and wellbeing services, including counselling and stress risk assessments. Senior staff were prepared to address issues and triggers with staff to support their wellbeing.

This is what we recommend the service can improve:

- Document evidence of the checks on qualified staff registrations
- Display the results of the feedback from patients and the action taken.

This is what the service did well:

- Management commitment to learning from the inspection and making improvements
- Good compliance with mandatory training
- Appraisals completed in a timely manner.

Details of the concerns for patient's safety and the immediate improvements and remedial action required are provided in Appendix B.

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 Nevill Hall Hospital to complement the HIW inspection in March 2025. In total, we received 11 responses from patients at this setting. Responses were mostly positive across all areas, with all respondents rating the service as 'very good' (10/11) or 'good'. The comments we received about the service and how could improve are shown below:

> ***"Very lovely staff, really friendly and calmed my nerves by explaining what was going to happen."***
>
> ***"…The clinic staff, operating in less than ideal surroundings, were welcoming and reassuring. The hospital had a very pleasant user-friendly atmosphere with plenty of seating elsewhere and inexpensive refreshments easily available for the six hours or so the procedure took. Toilet facilities were widely available and maintained to a high standard. My 89-year-old wife who was apprehensive enjoyed her visit."***
>
> ***"The whole building needs money spent on it."***
>
> ***"Nice waiting area. The staff came and checked regularly. They were all very kind and courteous, caring, respectful. Helpful as they were close to hand, it is a "compact" unit. It was very clean; the decoration was in good order. Signage is very clear. There were magazines and literature to read."***
>
> ***"Staff are very friendly and explained the procedure clearly, explained the wait and the reasons why there is a delay in administering the injection and scan. They are knowledgeable and take the time to explain and answer questions. Very patient with all. Couldn't as for more."***

Person-centred

Health promotion

There were bilingual (English and Welsh) posters displayed that provided information to patients about having an X-ray and a nuclear medicine procedure, also to advise staff if they may be pregnant or breastfeeding. Relevant information was made available to patients about the associated risks and benefits of the intended exposure.

We saw health promotion material displayed in the waiting areas within the nuclear medicine department. This included information on the benefits of adopting a healthy lifestyle.

Dignified and respectful care
There were no patients at the department during the inspection. We noted that the doors to examination rooms could be closed and there were screens available in the department. There were no issues with the environment which would affect patient dignity and there was a suitable room for staff to have confidential or sensitive conversations with patients if required.

Patient experience questionnaires were on display at the department. We were informed that very little feedback was received about the department due to the relatively low throughput in the department. Any compliments received would be relayed to the radiology directorate meetings.

When asked whether staff treated them with dignity, respect and whether measures were taken to protect their privacy, all patients in the questionnaire agreed. All patients stated they were able to speak to staff about their procedure without being overheard by other patients and that staff listened to them.

Individualised care
All respondents to the patient questionnaire agreed that:

- They were provided with enough information to understand the risks and benefits of the procedure or treatment
- They had been given information on how to care for themselves following their procedure or treatment
- They were involved as much as they wanted to be in decisions about their examination or scan
- Staff explained what they were doing, had listened to them and answered their questions.

All but one patient said they were given written information on who to contact for advice about any aftereffects from their examination.

Timely

Timely care

We were told that there could be delays in patients receiving their treatment due to delays in the relevant radionuclide being received at the department. This was even though the health board employed a driver to transport the radionuclide directly from the dispensing pharmacy in Swansea to the health board.

Staff we spoke with explained the arrangements for communicating waiting times to patients within the department. This included explaining to staff if the appointments were running late and if there were significant delays to give the patients the option to wait or re-schedule.

Just over half the respondents agreed that the wait between referral and appointment was reasonable. All patients agreed they were told at the department how long they would likely have to wait.

Equitable

Communication and language

There were bilingual posters in both Welsh and English in the department with information for patients clearly displayed. We saw clear signage in place to direct visitors to the department. All patients also said that they were able to find the department easily.

Whilst the appointment letters used were sent out in English only, we were told that appointment letters were available in Welsh on request. However, these should be provided to patients without them having to ask for a Welsh version.

The health board is to ensure that bilingual documentation is available for patients, without them having to ask for it.

Staff we spoke with described some of the arrangements in place to help people with hearing difficulties and those whose first language was not English. There was a hearing loop available in the main reception. All staff that we spoke with were aware of how to access translation services. The department also had access to a tablet computer with a translation application installed. We were told that support had been provided by the speech and language therapy team providing picture boards and whiteboards as well as aiming to provide suitable posters and visual cues for patients.

There was one Welsh speaker working in the department who wore a lanyard to identify them as a Welsh speaker. None of the patients who completed the questionnaire said they were Welsh speakers. We saw evidence of positive promotion of the Welsh language including signage and the 'Active Offer' on display.

Rights and equality
Arrangements were in place to make the service accessible to patients such as wide doors, a lift, accessible toilet and the doors to the scanning room being wide enough to allow a bed to be wheeled in.

Staff we spoke with explained how equality and diversity was promoted within the organisation. Staff also had access to equality and diversity training and health board policies. The superintendent had also given a presentation to the wider health board on equality and diversity regarding pregnancy and end of life care in Judaism. There was also a new learning module on anti-racism that staff were required to complete as mandatory training.

The service ensured that transgender patients were appropriately placed upholding their equality rights. Patients were addressed by their known name, using inclusive language.

When asked whether they could access the right healthcare at the right time (regardless of age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex and sexual orientation) all bar one patient who answered this question said they had.

Delivery of Safe and Effective Care

Compliance with The Ionising Radiation (Medical Exposure) Regulations 2017 (as amended)[1]

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

Procedures and protocols
The SAF completed by the department described the governance arrangements for ensuring a valid employer licence was in place and appropriate for the scope of service. It was positive to note that the RPC oversaw the governance procedures surrounding the management of employer and practitioner licences, as laid out in the standard operating procedure (SOP) for the management of these licences.

Where a change to scope of practice was planned, or the licence was due for renewal, an ARSAC Project Group would be formed to manage the employer licence application in a timely manner. It was also positive to note that the same process was used for renewing practitioner licences.

The department described the written protocols in place for standard nuclear medicine practice. All imaging protocols were signed off by the practitioner licence holder. The majority of nuclear medicine documents were stored on Q-Pulse, a quality management software, with general documents stored on SharePoint, a knowledge management tool. The nuclear medicine protocols had been split into a document with three different appendices.

The department told us they were in the process of reviewing the protocols. We noted a separate protocol folder with hand-written notes along with images and screenshots which were not included in the document control system. We also noted inconsistent paediatric scaling information and the repetition of pregnancy checking procedure in some but not all protocols with duplication of information along with local and national diagnostic reference levels (DRLs). There was a need to review protocols to ensure they were in document control system, to reduce repetition and only include local DRLs.

Staff we spoke with knew about and where to find the written procedures relevant to their practice. In addition, to the procedures being held on Q-Pulse, the

[1] As amended by the Ionising Radiation (Medical Exposure) (Amendment) Regulations 2018 and the Ionising Radiation (Medical Exposure) (Amendment) Regulations 2024

document management system used, there was also a file with the hard copies of the procedures and protocols. Staff stated there was enough detail on the procedures and they were easy to follow. Any changes to the procedures would be shared by email, face to face and through an online portal.

Referral guidelines
There was an employer's written procedure on referring and referral guidelines. Suitable arrangements were described for making these available to individuals entitled to act as referrers. Referral guidelines had been established for the range of examinations undertaken within the department. For examinations which were not included on iRefer local examination guidelines were available. The Clinical Referral Guidelines (for Sentinel Nodes) were shared with the relevant referrers for breast surgery. IRefer was used as guidance for referring patients to radiology and there were sufficient licences available. Medical staff were informed of iRefer at induction and within entitlement letters.

We were told a letter was sent to the general practice (GP) practice managers in the health board area from the medical director to entitle GPs and locums working within the practice. GP's could also access iRefer.

Diagnostic reference levels
There was a suitable employer's written procedure in place for the use and review of diagnostic reference levels (DRLs) for nuclear medicine examinations performed at the department.

We saw the DRLs displayed in the nuclear medicine injection area and in the control room for computerised tomography (CT). We were told that when new DRLs were established, or any changes, the charts in the applicable rooms or areas would be updated and this would be cascaded to staff.

The process for reviewing DRLs, for example frequency, method and which duty holders were involved, was described in the SAF, including MPEs carrying out audits of DRL quantities and recommending local DRLs. The audit results and recommendations would be critically evaluated by the DRL group who would present its recommendations to the RPC for ratification.

DRLs for imaging investigations had been optimised in collaboration with other centres in SE Wales, which was an example of good practice.

We spoke with MPEs about the CT DRLs for single-photon emission computed tomography-CT (SPECT-CT), a nuclear medicine tomographic imaging technique using gamma rays and for stand-alone CT. These were in place but there were

some changes to come following a recent audit. This has been agreed by the local DRL group and needed to be formally ratified.

The employer must ensure that the local CT DRLs for SPECT-CT are updated based on the recent audits completed by MPEs.

Medical research
A written employer's procedure was in place for research. The SAF completed confirmed that the department did not participate in research involving medical exposures.

Entitlement
We reviewed the employer's written procedure in place for the identification of individuals entitled to act as referrer, practitioner or operator within a specified scope of practice.

The SAF showed that the employer had delegated the task of entitlement through two entitlement chains. For operators, the individuals were entitled through two lines of entitlement; by a radiology services manager for most practical aspects and by the practitioner licence holder for the administration of radiopharmaceuticals. These were outlined in the employer's procedures, within a specified scope of practice and entitlement flow chart, in the appendix.

The employer must ensure that the two separate forms for entitlement are reviewed and simplified.

Staff we spoke with were aware of their duties and entitlement through IR(ME)R documentation and entitlement letters. Staff stated that they were told of changes to written employer's procedures both verbally and by email.

We noted surgeons were group entitled as operators for clinical evaluation. There were no associated training records or competency assessment for this entitlement. The surgeons need to have training records and competency records to support individual entitlement. The individual entitlement needs to ensure that the scope of practice is clear.

The employer must ensure that relevant surgeons are:

- **Individually entitled as operators and that their scope of practice is clear**

- **Training records and competency assessments are completed and available for inspection.**

Patient identification
We noted an employer's written procedure in place relating to the identification of individuals to be exposed to ionising radiation. Staff we spoke with were able to describe the procedure to correctly identify individuals. They were also able to describe the procedure to correctly identify individuals who could not identify themselves.

The SAF described the actions to be taken when two or more IR(ME)R operators were jointly involved in conducting a procedure. The lead IR(ME)R operator had to either personally identify the patient or confirm that a member of the team had identified the patient following the correct procedure. The IR(ME)R operator initiating the exposure would be deemed as the lead.

Individuals of childbearing potential (pregnancy enquiries)
Posters were clearly displayed 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 also asked patients to contact the department if there was a chance of pregnancy or if they were breastfeeding. On appointment booking they were also asked to answer these enquiries.

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. Staff stated that the breastfeeding status was also checked prior to administration.

There was also a separate SOP on diagnostic radiopharmaceutical administrations to those who were breastfeeding for dealing with breastfeeding patients, but this only referred to the employer's procedure. These documents needed to be updated so that it is clear who was asked and what questions were asked.

The employer must ensure that the employer's procedure and SOP for confirming breastfeeding status are reviewed and updated to include details of what to check and how this is recorded.

Benefits and risks
Staff we spoke with explained how they would ensure that adequate information was provided to individuals or their representatives relating to the benefits and risks associated with the radiation dose from exposures. They were confident in being able to ensure that adequate information was provided to individuals or their

representatives relating to the benefits and risks associated with the radiation dose from exposures.

We viewed the written employer's procedure and the nuclear medicine procedure for providing written instructions and information to each patient or the patient's representative.

The information supplied by the department in advance of the inspection referred to where the patient had queries regarding the benefits and risks of the radiation dose. There was limited information on the benefits and risks of the procedures in the letter sent to patients before the appointment. It stated that the operator would answer within their level of knowledge and where required, escalate this to more senior staff to provide an explanation or reassurance, such as the MPE. It was positive to note that an All-Wales approach was being adopted to ensure a standard response was given across all radiology departments in Wales including in Welsh.

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.

The completed SAF described how clinical evaluation was undertaken and evidenced for each type of exposure. This confirmed that a medical practitioner or other qualified person authorised by the employer had to undertake and evaluate the outcome of each medical exposure.

Non-medical imaging exposures
Whilst there was a written employer's procedure in place for referral and management of non-medical exposures, the evidence provided showed that non-medical imaging had not taken place within the nuclear medicine department.

Employer's duties: clinical audit
The process for clinical audit including the structure of the programme, staff groups and IR(ME)R duty holders involved was described in the completed SAF. Clinical audits were registered with the department and presented at the Clinical Audit Meeting (held every 3 months). Actions plans were discussed with relevant teams and the management team where appropriate.

We noted that there had been limited clinical audits conducted in nuclear medicine within the past year, in part owing to the challenges and constraints within the department. It was positive to note that a sentinel node injection audit had been completed, this led to the review of the procedures under breast

surgery, along with some early actions of shared learning for teams to ensure that adequate information was recorded within the patient notes.

The employer must establish a clinical audit schedule for nuclear medicine.

However, the examples of IR(ME)R audit given in the SAF, included two audits, one of which was only an IR(ME)R audit in terms of equipment handover certificates and one was not relevant to nuclear medicine.

There was a plan to complete ten IR(ME)R audits over the next 12 months, which were to be agreed at the next RPG meeting. To further support this plan there was a need to put a more robust structure in place for these audits.

The employer should ensure that an IR(ME)R audit programme is defined, established and formalised for nuclear medicine.

Employer's duties: accidental or unintended exposures
Senior staff we spoke with described the procedure for reporting accidental or unintended exposures and other incidents. This included informing HIW and entering the details on DATIX. Any learning from incidents, as well as IR(ME)R incidents, would be shared with staff as necessary following review at the relevant compliance groups. Senior staff ensured that safety notices, alerts and other communications were shared with staff by email as well as the information being placed on the staff notice boards.

There were processes for carrying out a more detailed investigations including who was normally involved in dose assessment. The department planned to code incidents using the new taxonomy in the future. This was also being built into Datix, once for Wales systems.

A near-miss log had recently been introduced and was being trialled within modalities. Significant near misses would also be recorded on DATIX, although which near misses would be classified as significant had not been defined locally and this could be interpreted differently by different staff. We noted that a separate form was used, for near misses, instead of reporting on DATIX, we were told that this was to capture additional information. Staff felt it was easier to use a paper form rather than DATIX. Ideally the department should use DATIX but stated that this took time to complete, particularly in CT and the use of the form meant the department could quickly identify trends. When asked about how significant near misses were defined, it was not clear and hard to define and the department recognised this could be improved. They stated they were trying to capture good practice and showing that procedures were working.

If a patient had received an exposure under SAUE or CSAUE, they would be informed and given reassurance. It was positive to note that the decision for whether an exposure should be classed as CSAUE, was with the clinical director or deputy who made this decision based on the information presented to them.

The SAF stated that staff involved in the incidents were required to submit witness statements detailing their actions and those of their colleagues during the incident. Staff were required to reflect on their actions and implement changes in their practice which would limit the likelihood of incidents being repeated. The department stated that this added a robust indication of why the incident occurred and asked them to reflect on what they would do differently in future to give them a chance to have their say.

The department were able to describe a number of examples of how the probability and magnitude of accidental or unintended doses to the patients from radiological practices were minimised. These included that the patient was positively identified prior to exposure to ionising radiation, operators were suitably trained on the equipment to perform the examination required and adherance to the written protocols for that equipment.

Staff we spoke with described the procedure for reporting accidental or unintended exposures, which included informing line management and completing a report on DATIX. Staff also confirmed that learning from incidents was shared.

Duties of practitioner, operator and referrer
We were provided with the details of the practitioner licence numbers entitled by the service. Whilst the licences of both practitioners were up to date, the number supplied by the department had expired. The department need to check to ensure they have the most up to date details of the practitioner licences.

Staff we spoke with demonstrated a good understanding of their duty holder roles and responsibilities under IR(ME)R. The SAF explained how practitioners, operators and referrers were entitled to carry out their duties which was included in an employer's procedure.

We were provided with evidence of how the employer demonstrated they had taken steps to ensure written procedures were complied with by the referrer, practitioner and operator. There was a written employer's procedure for ensuring that quality assurance programmes in respect of written procedures, written protocols and equipment were followed. The purpose of the procedure was to ensure that regular reviews of all policies, procedures and protocols were

followed. This procedure stated that staff signed to confirm they had read and understood the employers procedures.

Justification of individual exposures

The processes of how justification was performed and where this was recorded were described in the SAF. There was a procedure document relating to the justification and authorisation of medical exposures involving exposure to ionising radiation. The purpose of this procedure was to ensure that all examinations involving ionising radiation were justified before the exposure was made.

The department used DAGs for general nuclear medicine procedures, so that an operator could authorise an exposure against guidelines set out by a practitioner. Operators working under DAG guidelines were able to authorise the exposure by signing the appropriate section on the referral form.

During the inspection we reviewed the hard copies of DAGs which documented how entitled operators authorised exposures, where it was not practicable for the practitioner to do so. We saw separate DAGs for each examination type and various flowcharts linked to these. These DAGs and flowcharts were unclear and difficult to follow, contained both duplication and omissions and did not accurately reflect clinical practice. There was information included in the flowchart that should have been included in the DAG such as clinical indications and appropriate time delays from previous imaging. The DAG allowed operators to authorise referrals and therefore should include complete information to allow the operator to safely perform the task.

The use of these DAGs had not been audited to ensure that staff had completed all authorised referrals appropriately and to ensure safety and consistency in operation. The DAGs needed to be audited to ensure a consistent approach from all operators following the guidelines. This was dealt with by our immediate assurance process as shown at Appendix B.

Staff we spoke with knew how to use authorisation guidelines. They were also able to explain the relevant guidance for the justification and authorisation in relation to carers and comforters and the relevant documentation that had to be completed.

Optimisation

Staff we spoke with were able to describe how they ensured that doses were as low as reasonably practical (ALARP). Examples used were through equipment quality assurance and measuring injections before administration of the radionuclide. Staff confirmed that they provided written instructions and

information to patients undergoing treatment, including advice about keeping their distance from children and pregnant people as well as avoiding prolonged close contact. Staff stated that this written information would be included in the appointment letter. The SAF provided gave a comprehensive answer on how practitioners and operators ensured doses for diagnostic procedures were ALARP.

No therapeutic exposures were undertaken at the department and no high dose procedures were carried out in the department. The SAF also described how exposures to individuals who were breastfeeding were optimised.

Paediatrics
Senior staff described suitable arrangements for the optimisation of exposures to children in line with ARSAC guidance. These included reducing DRLs, scaling down adult administered activity according to a child's weight based on the ARSAC notes for guidance values.

An example of where the learning had influenced change in practice related to an extravasation event (leakage of fluid) of radiopharmaceuticals in a paediatric patient. A review was conducted following discussions with the patients' parents, MPE and nuclear medicine staff of the information provided following extravasations of radiopharmaceuticals. This resulted in an amendment to the letter given to patients (or those who care for them). Paediatric patients were now cannulated first and flushed with saline before administering radiopharmaceutical. It was positive to note that positive actions had been taken following the incidents.

Paediatric CTs were not conducted in the nuclear medicine department.

Carers or comforters
There was a written employer's procedure for the establishment of appropriate dose constraints and guidance for the exposure of carers and comforters. There was also an SOP procedure for carers and comforters for nuclear medicine diagnostic imaging.

The SAF stated that the guidance for the carers and comforters was provided in both written and verbal format. Detailed discussion about the radiation exposure and practical considerations (such as personal care and contact restrictions) was undertaken before the procedure was underway and consent obtained.

Expert advice
The employer had appointed and entitled MPEs to provide advice on radiation protection matters and compliance with IR(ME)R 2017.

It was positive to note the involvement of the MPEs, who were clearly engaged with the department despite not being on site on a daily basis. Staff we spoke with

said that they could access this expert advice in a timely manner and they were aware of who the MPEs were.

We spoke with members of the medical physics team who described their involvement this included:

- Being consulted during the procurement process and ongoing project management for new equipment as well as the testing of any equipment before first use, performance testing at regular intervals and following maintenance

- A service level agreement in place to ensure QC tests were carried out regularly. A subsequent report would be issued with any remedial actions required. These actions would be addressed by the site lead and escalated as required.

- The optimisation of the radiation protection of patients and others (to include application and use of DRLs).

An MPE audit was planned to follow the inspection as part of a programme for all sites that were supported by the MPEs.

Equipment: general duties of the employer
The relevant employer's written procedure related to ensuring a quality assurance programme was in place in respect of equipment was in place. Suitable arrangements were described for the acceptance testing of new equipment, performance testing at regular intervals and performance testing following equipment maintenance.

The breakdown of the laminar airflow unit was brought to the attention of the Radiology Directorate Manager. The department stated that the replacement of the laminar airflow unit was a priority and was currently in the process of going through the purchasing procedures. We were told that an order was placed for a replacement during the inspection. In the interim the department were continuing to scan a small number of gastric emptying studies at the site.

The quality assurance programme in place for all relevant equipment was described in the SAF, including the gamma camera, radiation monitors, radionuclide calibrators and gamma probes. The department confirmed the level of quality assurance programme continued even though the service was reduced.

Safe

Risk management
The service provided by the department was currently reduced as multidose vials could not be used to drawn up following the breakdown of the laminar airflow cabinet. Up to six members of staff were involved in providing the service. Some staff were now working at the Royal Gwent Hospital as most patient referrals had been transferred there whilst the service at Nevill Hall Hospital was reduced.

The department was small but modern and well laid out considering the small footprint occupied. There was an area for stress testing and an area with beds should patients need to lie down. There was also a separate injection room with a door through to the hot lab, to prepare radionuclides and radiopharmaceuticals.

Some of the procedures on display in the injection room were out of date. DRLs on display in injection room were different to the ones that we were supplied for the inspection, they included patient weights for myocardial perfusion imaging (MPI).

The employer must ensure that the DRLs on display in the injection rooms are the updated authorised version.

The department was accessible and easy to find, with disabled access and facilities for those with mobility difficulties. The environment was clean, in a good state of repair and had recently been repainted. The department was suitable for the way it was used with normally enough wipeable chairs and facilities. However, when there were delays, the department would be busy. There were no tripping hazards or clutter noted in the department.

Infection prevention and control (IPC) and decontamination
Suitable IPC and decontamination arrangements were in place. All areas were visibly clean and free of clutter. The equipment in general was in a good state of repair, other than the laminar airflow unit which had been out of action for some months, staff described suitable cleaning and decontamination procedures. There were sufficient hand washing facilities and multiple hand gel stations in the area.

Staff we spoke with confirmed they had access to suitable personal protective equipment 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. We were told there were cleaning schedules for the department. Sharps bins used at the department were all in date and the bins were stored safely.

Signage was clearly displayed to alert patients and visitors not to enter controlled areas where ionising radiation was being used.

All the patients who completed the questionnaire said that the setting was clean and all the patients who had an opinion said that in their opinion IPC measures were being followed.

There was evidence that staff had completed IPC training. Staff we spoke with were aware of their responsibilities in relation to IPC and decontamination.

Safeguarding of children and safeguarding adults
Staff we spoke with had completed the relevant mandatory training on safeguarding at the appropriate level. They also said they were aware of the organisations' policies and procedures for safeguarding children and adults at risk. Staff were also aware of the actions to take if they had a safeguarding concern.

Senior staff we spoke with said that where a child did not attend for an appointment, this would be flagged to a consultant as well as informing the superintendent of the department.

Training records inspected showed that staff had completed safeguarding training at a suitable level.

Effective

Patient records
A total of seven referrals, both current and retrospective referrals were viewed. Of these, we noted two referrals where the patient had received an injection but were not subsequently scanned. Neither of these had a DATIX reports submitted, to show that the patient had received an injection without a scan. It was unclear who the referrer was. Following discussion with the MPE, they stated that they were not aware that these events had occurred. The MPE stated that they would consider training for staff on what should be reported as a radiation incident. We also noted that there was inconsistency in the documentation, it was not always clear who was the referrer and who had authorised the referral.

We also noted one X-ray following a bone scan, with handwriting on the top of the form showing a discussion with the practitioner licence holder, whether an X-ray was needed, the referral form for nuclear medicine was used as referral for an X-ray. There needs to be an update to the current process as currently this does not accurately reflect who the referrer is for the X-ray and this should show as a separate referral on RADIS. For X-ray referrals following bone scan, a new referral needs to be raised. For this referral for an X-ray after a bone scan, there was a DAG. This DAG was used by a member of staff, who was not registered with the health and care professional council, to refer for the X-ray after bone scan.

However, this was not permitted under IR(ME)R and we were advised during the inspection that this process had stopped. This was dealt with under our process at Appendix A.

The employer must ensure that:

- **Correct documentation is completed in full for all referrals for an X-ray following a nuclear medicine scan**

- **Where patients receive an injection but were not subsequently scanned, a DATIX report is submitted and reported to HIW if applicable**

- **There is no doubt who refers for various scans, this must be clear on all documentation.**

We noted that one of the retrospective referrals, for an MPI in cardiology had an additional worksheet to record details of the stress session prior to the administration. There was no patient sticker added to the worksheet, just a handwritten name, with no date of birth or address. The clinical report only contained a national DRL for one administration and did not include patient specific details of administered activity for both stress and rest scans.

The employer must ensure that all documentation used to support a referral is clearly completed in full and correctly referenced to the original referral.

Efficient

Efficient
We spoke with staff about the arrangements and systems in place to promote an efficient service. Staff told us they had access to the waiting list, including brain scan patients and therefore, they could call patients forward if there were cancellations on the day.

Senior staff told us that the DAGs meant staff were able to authorise the examination quicker. Staff could also extend the day by an extra hour. They were also looking at ways of changing the patient mix to maximise the most out of the vials on days and looking at bulk booking on certain days, using both sites where possible. There were also weekly performance meetings to monitor the waiting time.

Additionally, the Radiology Operations Group had a monthly meeting, where superintendents were asked to report on figures and any issues in the department to identify bottlenecks.

It was also positive to note that the nuclear medicine radiographers at the health board were the radiography team of the year, Wales regional winners, in the Society of Radiographers awards for 2024.

Quality of Management and Leadership

Staff feedback

HIW issued a questionnaire to staff to obtain their views about the department at the hospital. We received five responses from staff at this setting. Responses by staff were mainly negative relating to the job being detrimental to staff health, the current working pattern or off duty not allowing for a good work-life balance and there were not enough staff to do the job properly. However, staff responses relating to reporting errors, near misses and incidents and the action that management would take, were all positive. Due to the low numbers, it was not possible to identify any further themes.

Staff we spoke with during the inspection spoke well when interviewed and were friendly and approachable. Staff comments in the questionnaire included:

> ***"Staffing issues. Dedicated clerical staff to reduce pressures on Nuclear Medicine staff. More Nuclear Medicine trained staff."***
>
> ***"Compared to the rest of the hospital, the nuclear medicine department is in good condition. However, in the last few years there has been at least 3 floods in the department/ offices/ made its way into the department, and on one occasion, pipework from the ceiling had fallen narrowly missing a member of staff.***
>
> ***"The paint work, aesthetic and surfaces are generally in good condition, allowing for some wear and tear, and I feel this therefore, creates a calming and fresh environment for our patients.***
>
> ***"Due to changes in our practice recently, I feel a dedicated area for storage of radioactive waste would be beneficial both for security and staff radiation safety, however this addition would be difficult with the layout of the department as it is.***
>
> ***"On some days, the waiting area can get full and therefore chairs have been placed in the corridor for nuclear medicine patients. A larger waiting area would be ideal with the addition of a reception area, however we have been without a receptionist for many years, and again expanding the waiting area would encroach on either the corridor or nuclear medicine offices.***

"The drawing-up laboratory and injecting room set-up allows for safe and efficient workflow and practice, both for staff and patients as staff working in both rooms are not segregated from each other."

The employer should consider the comments of staff and survey percentages and inform HIW of the actions they will take to resolve these.

Leadership

Governance and leadership
The Chief Executive had overall responsibility for the implementation of IR(ME)R with tasks, not responsibility, delegated through the management structure. The framework for controlling the use of ionising radiation and restricting exposure to persons were provided in the Ionising Radiation Safety Policy which showed clear lines of reporting and accountability. The procedures also showed clear lines of reporting and accountability.

These lines of accountability through the various committees and groups also ensured that the Chief Executive was aware of their responsibilities under IR(ME)R. The RPC meeting minutes and reports reported through organisation were considered to be a positive.

The self-assessment was completed comprehensively and was clear, as well as being provided within the timescale required. The management team demonstrated a commitment to learn from HIW's inspection findings and make improvements where identified.

Staff we spoke with said that senior management did not visit the department and engage with them as often as they used to. However, senior staff we spoke with considered that they engaged with staff on a regular basis.

Staff explained how information was shared between management and staff, this included through emails, online applications, face to face and posters in staff rooms. We were told that meetings in the department used to be weekly, but not in the last few months. Staff also commented on the lower than required staffing levels and the increased sickness recently, 7.2% as of January 2025. This was partly due to the closure of the radiopharmacy in Cardiff.

Management in the department should ensure that team meetings are carried out on a regular basis.

We were also provided with the action plan in place to ensure compliance with the recent amendments to IR(ME)R regulations, which was positive to note.

Workforce

Skilled and enabled workforce
We were provided with details of the numbers and skill mix of staff working at the department. Whilst staff we spoke with felt there were insufficient staff working at the department, senior staff felt that the skill mix was appropriate. However, they did state that certain scans were not carried out on a regular basis, which could lead to skill fade.

Records reviewed indicated 100 percent (%) compliance with mandatory training requirements, prior to the addition of two new modules to the electronic staff record, those being level three safeguarding and anti-racism. This included 100% compliance with duty of candour training. However, staff had not undertaken online oxygen cylinder training as required by the Welsh Health Circular - Oxygen cylinders: regulation 28 report and patient safety notice 041 reminder. We were told at the end of the inspection that management had since sourced training

In addition to using the electronic staff record (ESR) to monitor compliance with mandatory training, management also kept a matrix of other training such as level two in safeguarding and IPC.

The employer must ensure that all relevant staff complete all their relevant training, including the online oxygen cylinder training.

There was no evidence of checks of the HCPC registration details included in four of the six entitlement certificates.

The employer must ensure that evidence of the checks of the HCPC registrations are documented annually at appraisal or when the renewals are completed.

We checked the staff IR(ME)R records for three members of staff and found issues with training and entitlement including no consistent radiation protection training evidenced. There should be a list of IR(ME)R training which staff were required to complete and evidence to support the completion of this training. There was no document control for the training and competency records from the sample checked, that is, no footer information, version number, issue date, to suggest this was an official document. There should be a standardised, official record, completed in full.

We did not find evidence of the entitlement certificate, nor the training records for the non-medical referrer, who was listed on the entitlement matrix as a non-

medical referrer. There should be entitlement certificates and training and competency records to support the training. The entitlement matrix entries were not consistent with the entitlement certificates or training and competency records. The entitlement records listed a series of duties but these did not match with the headings on the entitlement matrix. There was also duplication of entitlement with two of the three entitlement records checked for authorising nuclear medicine requests as per a DAG, authorised by separate authorised personnel.

No practitioner training records were supplied to be checked for the practitioners in the department.

As a result, we could not be assured that up-to-date records were available to support the training of staff and that this training ensured that staff were appropriately trained and entitled to carry out their duties. This was dealt with under our immediate assurance process and included at Appendix B.

We saw evidence that showed that all required appraisals had been completed up to date.

There was a clear process described on how the employer ensured practitioners and operators were adequately trained for their scope of practice. This included an induction programme with training for specific equipment as well as departmental protocols and procedures. A powerpoint presentation was also in place to support training in nuclear medicine. Radiography staff would review their training and highlight any areas of concern.

There was also a clear process described to ensure the employer could demonstrate that the IR(ME)R duty holders were appropriately qualified, trained and state registered, where appropriate. This included pre-employment checks on qualifications and registrations with the appropriate professional bodies.

It was positive to note that an advanced practice programme had been developed locally to enable a senior technologist to administer the stress agent to cardiology scintigraphy patients. The process had previously been medically led, with ongoing competency subject to audit.

Staff turnover in the last calendar year was also at 22% based on four whole time equivalent (WTE) staff leaving from a pool of 17.6 WTE radiographers.

Culture

People engagement, feedback and learning

Senior staff we spoke with said that if staff were unhappy they would come and speak to the radiology site lead or nuclear medicine superintendent. They said there was an open-door policy in place. Senior staff were also able to explain the reasons for the sickness rates.

Evidence in the patient questionnaire showed that 90% of those who answered knew how to complain about poor service if they wanted too.

We noted that information was displayed around the department about how patients and families were able to provide feedback about their care, which was clearly visible. The NHS Wales complaints process 'putting things right' was also displayed at the setting to inform patients on how to make complaints.

However, there was no information displayed on how the department had learned and improved based on feedback received.

The health board is required to ensure that the department displays the results of the feedback from patients and the action taken as a result of this feedback on a 'you said, we did' board or similar.

Senior staff explained the process available for staff to be referred to occupational health and how they were signposted to wellbeing services such as MELO, an information, advice and self-help resources to help staff look after their mental health and wellbeing and CANOPY an everyday assistance program. There were also counselling opportunities for stress risk assessments including a 3 month follow up. A member of the directorate had been identified to signpost wellbeing.

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 summarises 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
There was one X-ray following a bone scan, with handwriting on the top of the form showing a discussion with the licence holder, whether an X-ray was needed, the referral form for nuclear medicine was used as referral for an X-ray. For this referral for an X-ray after a bone scan, there was a delegated authorisation guideline for this referral. This delegated authorisation guideline was used by a member of staff who was not registered with the health and care professional council to refer for X-ray after bone scan.	There should have been a new referral, need to update process as this does not accurately reflect who the referrer is for the X-ray and this should show as a separate referral on RADIS.	Management were told of this on the first day of the inspection.	We were advised during the inspection that this process had stopped. Management confirmed that relevant staff have been removed from the non-medical referrer matrix and will no longer refer for plain film imaging following nuclear medicine imaging.

Appendix B – Immediate improvement plan

Service: Nuclear Medicine Department, Nevill Hall Hospital

Date of inspection: 4 and 5 March 2025

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

	Risk/finding/issue	Improvement needed	Standard / Regulation	Service action	Responsible officer	Timescale
1.	We checked the staff IR(ME)R records and found the following issues: 1.Training - We checked a sample of the training records for three out of six members of staff in detail and noted there was no consistent radiation protection training evidenced. There should be a list of IR(ME)R training which staff were required to complete and evidence	The employer must ensure that: • The department has a list of IR(ME)R training which staff are required to complete and evidence to support the completion of this training for every staff member	Ionising Radiation (Medical Exposure) Regulations 2017 regulation 17 (4)	Quality and Compliance Meeting held 07/03/25 to discuss training and entitlement documentation and evidence. Staff currently complete Radiation safety/IRMER training online on ESR; this	R.Wallace	1 month (due 11/04/25)

	to support the completion of this training.			outlines responsibilities of duty holders under IRMER. A comprehensive list of IRMER training requirements for Nuclear Medicine Operators and Practitioners has been drafted to complement current training and will be finalised in line with review of training and competency records, and entitlement certificates. Development of a minimum data set of training for Nuclear Medicine duty holders will be outlined in new Radiology Training document.	R.Wallace	2 months (12/05/25)

	There was no document control for the training and competency records from the sample checked, that is, no footer information, version number, issue date to suggest this was an official document. There should be a standardised, official health board record, completed in full.	• The training and competency records must be on an official agreed document, with appropriate document control, completed in full and appropriately signed		Training records will be updated to specify training for each Nuclear Medicine duty holder (to clearly align with associated entitlement). All Nuclear Medicine training and competency records to be placed on Q-Pulse with appropriate document control. All NM staff to complete in full.	A.Lee	2 months (12/05/25)
				All non-medical referrers within Nuclear Medicine to have complete documentation available within the department.	A.Lee	2 weeks (26/03/25) Completed

	2. Entitlement - We did not find evidence of the entitlement certificate, nor the training records for the non-medical referrer, who was listed on the entitlement matrix as a non-medical referrer. There should be entitlement certificates and training and competency records to support the training. The entitlement matrix entries were not consistent with the entitlement certificates or training and competency records. The entitlement records listed a series of duties but these did not match with the headings on the entitlement matrix.	• The entitlement certificate and the associated training and competency records must be available on file for any non-medical referrers • The entitlement matrix entries must agree with the entitlement certificates and training records		Entitlement certificates/matrix review will take place alongside the nuclear medicine training competency review. Each element of the entitlement certificates will be supported by associated training competency, and the matrix will be reviewed to ensure agreement.	R.Wallace	2 months (12/05/25)

	There was duplication of entitlement with two of the three entitlement records checked for authorising nuclear medicine requests as per a Delegated Authorisation Guideline (DAG), authorised by separate authorised personnel.	• The entitlement records are reviewed and rationalised as appropriate		Following inspection, it has been discussed that we should move to a more streamlined entitlement chain, with staff being entitled through a single chain where possible. New entitlement certificates will be reflective of the single chain of entitlement. The amendment to structure will be updated within the Employer's procedures (and associated entitlement flowchart).	R.Wallace	2 months (12/05/25)
	No practitioner training records were supplied to be checked for the practitioners in the department.	• Up to date and accurate practitioner training records are kept on file and available for inspection.		Nuclear Medicine Practitioner training competencies to sit within the local departmental training folder. To be completed in line with	R.Wallace	2 months (12/05/25)

				training and competency action above.		
2.	During the inspection we reviewed the hard copies of delegated authorisation guidelines (DAGs) which documented how entitled operators may authorise exposures, where it was not practicable for the practitioner to do so. We saw separate documents (DAGs) for each examination type and various flowcharts linked to these. These DAGs and flowcharts were unclear and difficult to follow, contained both duplication and omissions and did not accurately reflect clinical practice. There was	The employer must ensure that: • The DAGs are reviewed and updated to include complete information to allow the operator to perform the task	Ionising Radiation (Medical Exposure) Regulations 2017 regulation 11 (5)	The DAG flowcharts were removed from folders and archived on Q-pulse with immediate effect. Early revised DAGs shared with HIW team for review and guidance. All DAGs to be reviewed and updated.	RW RW B.Huey	Completed 06/03/25 Completed 13/03/25 6 weeks (23/04/25)

	information included in the flowchart that should have been included in the DAG such as clinical indications and appropriate time delays from previous imaging. The DAG allowed operators to authorise referrals and therefore should include complete information to allow the operator to safely perform the task. The use of these DAGs had not been audited to ensure that staff had completed all authorised referrals appropriately and to ensure safety and consistency in operation. The DAGs needed to be audited to ensure a consistent approach from all operators following the guidelines.	• The use of the DAGs are audited to ensure that staff had completed all authorised referrals to ensure consistency in operation.		Retrospective audit of Nuclear Medicine DAGs has been initiated, and a programme of DAG audit will be developed to support future audits. DAG audit will be included in the Radiation Protection Group Audit programme.	A.Lee	2 weeks (26/03/25) Completed

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: Rebecca Wallace

Name (print): **Rebecca Wallace**

Job role: **Radiology Quality and Governance Manager**

Date: **01/04/25**

Appendix C - Improvement plan

Service: Nuclear Medicine Department, Nevill Hall Hospital

Date of inspection: 4 and 5 March 2025

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.	We saw the appointment letters used, these were in English only, but we were told that appointment letters were available in Welsh on request. However, these should be provided to patients without them having to ask for a Welsh version.	The health board is to ensure that bilingual documentation is available for patients.	Health and Care Quality Standards - Communication and Language	Radiology review of patient letters ongoing as part of the RIS project (due to go live in ABUHB Nov 25). Consideration will be made as to Welsh translations for all new letter templates within RIS and the impact on the printing/automated envelope-filling capacity.	Radiology Directorate Manager M. Wilkes	8 months (January 26)

2.	We spoke with MPEs about the computerised tomography (CT) DRLs for single-photon emission computed tomography (SPECT), a nuclear medicine tomographic imaging technique using gamma rays and for stand-alone CT. These were in place but there were some changes to come following a recent audit. This has been through local DRL group at the health board, where they were agreed and needed to be formally ratified.	The employer must ensure that the local CT DRLs for SPECT-CT are updated based on the audits completed by MPEs recently.	The Ionising Radiation (Medical Exposure) Regulations (IR(ME)R) 2017 regulation 12 (3) (c) and 14 (3) (a)	NM CT DRLs approved within the DRL meeting 17/02/25 (and ratified). Appropriate document management control in place, and active documents displayed in department. NM CT-SPECT DRLs require further discussion. Meeting scheduled to finalise format of DRLs to display. For notification to RPC (11/06/25).	Nuclear Medicine Superintendent A. Lee Nuclear Medicine Superintendent A. Lee	Complete 1 month (24/06/25)
3.	The SAF showed that the employer had delegated the task of entitlement through two entitlement chains.	The employer must ensure that the two separate forms for entitlement are reviewed and simplified	IR(ME)R 2017 regulation 10 (3) and Schedule 1 (b)	New single entitlement chain through Radiology Service Managers. Updated EPs to reflect entitlement chain.	Radiology Quality and Governance Manager R. Wallace	Complete (awaiting ratification by RPC and distribution)

4.	We noted surgeons were group entitled as operators for clinical evaluation. There were no associated training records or competency assessment for this entitlement. The surgeons need to be entitled separately and to have training records and competency records. The individual entitlement needs to ensure that the scope of practice is clear.	The employer must ensure that relevant surgeons are: • Individually entitled as operators and that their scope of practice is clear • Training records and competency assessments are completed and available for inspection.	IR(ME)R 2017 regulation 10 (3) and Schedule 1 (b)	Individual Entitlement certificates for surgeons, with associated training / competency to be discussed within Surgery and completion supported by Radiology	Surgery Directorate Manager / Radiology Directorate manager M. Wilkes	3 months (27/08/25)
5.	There was a separate SOP on diagnostic radiopharmaceutical administrations to those who were breastfeeding for dealing with breastfeeding patients, but this only referred to the employer's procedure. These documents needed to be	The employer must ensure that the employer's procedure and SOP for confirming breastfeeding status are reviewed and updated to include details of what to check and how this is recorded.	IR(ME)R 2017 regulation 2 (b)	Review of both documents. SOP to be amended to ensure clarity around breastfeeding questioning. EP to also be updated for clarity.	Nuclear Medicine Superintendent A. Lee	1 month (24/06/25)

	updated so that it is clear who was asked and what questions were asked.					
6.	There was a plan to complete ten IR(ME)R audits over the next 12 months, which were to be agreed at the next RPG meeting. To further support this plan there was a need to put a more robust structure in place for these audits.	The employer should ensure that an IR(ME)R audit programme is defined, established and formalised for nuclear medicine.	IR(ME)R 2017 regulation 7	RPG audit programme now in place, as agreed RPG 11/03/25. Supplementary NM audits to be formalised and input into programme at next RPG.	Radiology Quality and Governance Manager R. Wallace	1 month (24/06/25)
7.	Some of the procedures on display in injection room were out of date. DRLs on display in injection room were different to the ones that we were supplied for the inspection, they included patient weights for Myocardial Perfusion Imaging (MPI).	The employer must ensure that the DRLs on display in the injection rooms are the updated authorised version.	IR(ME)R 2017 regulation 12 (3) (c) and 14 (3) (a)	Following recent MPE audit, new DRLs created. For discussion with ARSAC licence holders prior to DRL meeting/ratification. A protocol group has been established to ensure alignment.	Nuclear Medicine Superintendent A. Lee	1 month (24/06/25)

8.	We noted that two referrals had received an injection but were not subsequently scanned. Neither of these had DATIX reports submitted, to show that the patient had received an injection without a scan. We also noted that there was inconsistency in the documentation and it was not clear who the referrer was and who had authorised the referral.	The employer must ensure that: • Correct documentation is completed in full for all referrals for an X-ray following a nuclear medicine scan • Where patients receive an injection but were not subsequently scanned, a DATIX report is submitted and reported to HIW if applicable • There is no doubt who refers for various scans, this must be clear on all documentation.	IR(ME)R 2017 regulation 6 (5) (a) and 8 (4) (b) (ii)	New SOP developed to outline actions in the case where patient attends NM and does not complete requested imaging (with or without administration of radionucleotide). Training relating to new SOP and completion of Datix shared in Team meeting. Where x-rays are requested following NM scan, a new request form is completed in full. Education shared with team through e-mail/team meeting. Repeat request card audit due May 2025,	Radiology Quality and Governance Manager R. Wallace Nuclear Medicine Superintendent A. Lee / R. Wallace Nuclear Medicine Superintendent A. Lee Radiology Quality and	For Clinical Governance Meeting 05/06/25. 24/06/25 Complete 1 month (24/06/25)

				to include referrer is clearly stated.	Governance Manager R. Wallace	
9.	We noted that one of the retrospective referrals was for Myocardial Perfusion Imaging (MPI) in cardiology had an additional worksheet to record details of stress session prior to administration. There was no patient sticker added to the worksheet, just a handwritten name, with no date of birth or address. The clinical report only contained a national DRL for one administration and did not include patient specific details of administered activity for both stress and rest scans.	The employer must ensure that all documentation used to support a referral is clearly completed in full and correctly referenced to the original referral.	IR(ME)R 2017 regulation 6 (5) (a)	Education shared with team regarding the correct documentation of Cardiac NM imaging. Meeting scheduled with Cardiology to determine standard reporting of dose within clinical report. Repeat audit due May 2025.	Nuclear Medicine Superintendent A. Lee Nuclear Medicine Superintendent A. Lee Nuclear Medicine RPS C. Harries	Complete 1 month (24/06/25) 2 months (following agreed change to report), 24/08/25.

10.	Responses by staff were mainly negative including relating to the job being detrimental to staff health, the current working pattern or off duty not allowing for a good work-life balance and there were not enough staff to do the job properly.	The employer should consider the comments of staff and survey percentages and inform HIW of the actions they will take to resolve these.	Health and Care Quality Standards - Culture	A NM Task & Finish Group has been established to provide support and stability to the NM service (ToR available). The group considers Operational delivery of the service, including staffing resource to safely and effectively run the service.	Radiology Directorate Manager M. Wilkes	Complete
				Staff meetings have resumed on a regular basis, with opportunities for staff to raise concerns and share ideas for improvement.	Nuclear Medicine Superintendent A. Lee	Established meetings complete. Meetings remain ongoing.
				Staff have been supported to consider flexible working arrangements where work-life balance was a concern. Support	Nuclear Medicine Superintendent A. Lee	Ongoing.

				remains ongoing with stress risk assessments and regular team meetings.		
11.	Staff had not undertaken online oxygen cylinder training.	The employer must ensure that all relevant staff complete all their relevant training, including the online oxygen cylinder training.	IR(ME)R 2017 regulation 17 and Welsh Government Patient Safety Notice PSN041	Oxygen cylinder training has been recognised by the HB following the circular. We are awaiting an ESR module to be made live. In the interim, we have shared the BOC video for safe use of Oxygen Cylinders, and training compliance is monitored through the Quality and Compliance Group. NM staff compliance with training: 100%	Nuclear Medicine Superintendent A. Lee	Complete

12.	There was no evidence of checks of the health and care professions council (HCPC) registration details included in four of the six entitlement certificates.	The employer must ensure that evidence of the checks of the HCPC registrations are documented annually at appraisal or when the renewals are completed.	IR(ME)R 2017 regulation 2 and 17	Professional registration checks (including HCPC) are documented twice per year (Feb/Aug) for all staff across all sites. These are held centrally on Sharepoint. Education shared regarding the full completion of entitlement certificates, to include the registration number.	Radiology Quality and Governance Manager R. Wallace	Complete
13.	However, there was no information displayed on how the department had learned and improved based on feedback received.	The health board is required to ensure that the department displays the results of the feedback from patients and the action taken as a result of this feedback on	Health and Care Quality Standards - Culture	'You said, we did' information is displayed within nuclear medicine, as a result of CIVICA feedback.	Radiology Quality and Governance Manager R. Wallace	Complete

		a ‘you said, we did’ board or similar.		This will be updated regularly.		
14.	Staff explained how information was shared between management and staff, this included through emails, online applications, face to face and posters in staff rooms. We were told that meetings in the department used to be weekly, but not in the last few months. Staff also commented on the lower than required staffing levels and the increased sickness recently, 7.2% as of January 2025. This was partly due to the closure of the radiopharmacy in Cardiff.	Management in the department should ensure that team meetings are carried out on a regular basis.	Health and Care Quality Standards - Governance	Regular team meeting has been re-established. Staffing resource is being addressed through T&F Group.	Nuclear Medicine Superintendent A. Lee Radiology Quality and Governance Manager	Complete March 2025. First meeting held 07/05/25 and ToR agreed. Meetings ongoing.
15.	We noted that there had been limited clinical audits	The employer must establish a clinical audit	IR(ME)R 2017 regulation 7	Nuclear medicine audits to be shared at	Radiology Quality and	Complete

	conducted in nuclear medicine within the past year, in part owing to the challenges and constraints within the department.	schedule for nuclear medicine		Radiology Audit meetings, as well as local NM meetings as appropriate. This will be led by the ARSAC licence holders, to provide a minimum of 3 clinical audits per year across the staff groups (anticipated audits from both ARSAC licence holders, MPEs and nuclear medicine department staff).	Governance Manager R. Wallace	

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): **Rebecca Wallace**

Job role: **Radiology Quality and Governance Manager**

Date: **27th May 2025**