Arolygiaeth Gofal Iechyd Cymru
Healthcare Inspectorate Wales

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

## Diagnostic Imaging 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 Diagnostic Imaging Department at the University Hospital of Wales (UHW), Cardiff and Vale University Health Board on 14 and 15 November 2023. 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, one HIW Healthcare Inspector and two Senior Clinical Diagnostic Officers 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.

Before 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 25 questionnaires were completed by patients or their carers and 36 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.

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

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

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

# 2. Summary of inspection

## Quality of Patient Experience

Overall summary:
Staff were seen speaking to patients in a polite, friendly and professional manner, showing dignity and respect to the patients. Efforts were also seen to ensure that patients' privacy was protected.

Patients would be informed about the waiting times when they arrived if there was a delay, during our inspection patients were seen to be dealt with promptly with no delays. Information was displayed in reception for the benefit of the patients on their journey through the department.

The department were participating in Project SEARCH, a charity that helps young adults with a learning disability or autistic spectrum disorder (ASD) find paid employment through internships and work experience.

This is what the service did well:

- Ensuring that patients' privacy and dignity was protected
- No significant waiting times noted for those patients waiting within the department for their appointments on the day of inspection
- Displaying relevant posters relating to the patient journey.

## Delivery of Safe and Effective Care

Overall summary:
There was good compliance with the Ionising Radiation (Medical Exposure) Regulations (IR(ME)R) 2017. The employer had written procedures and protocols in place as required under IR(ME)R. There had been a significant improvement from previous inspections in the structure, content and consistency of IR(ME)R documentation.

We also found effective arrangements were in place to provide patients with safe and effective care. This included arrangements to promote effective infection prevention and control and decontamination within the department.

Staff we spoke to were aware of the health board's policies and procedures in relation to safeguarding. Staff could describe the actions they would take should they have any concern or following an incident.

There were some minor issues that needed to be addressed.

This is what we recommend the service can improve:

- Introduce a standard template for audits including who was responsible for the audit on an audit schedule
- Ensure that the estates works are completed in a timely manner
- Including the interventional radiologists from other health boards needing to be added to the entitlement matrix.

This is what the service did well:

- The employer's procedures were well written
- Clear entitlement process, showing good lines of accountability
- Staff aware of what to do in the event of an incident or concern.

## Quality of Management and Leadership

Overall summary:
The Chief Executive of the health board was the designated employer under IR(ME)R and clear lines of delegation and responsibilities were described and demonstrated.

Staff we spoke with described the knowledge, skills and training required to undertake their respective roles and scope of practice within the department. Staff training records, competencies, entitlement and scope of practice were clearly documented and linked with the appropriate equipment training records.

Whilst feedback from staff was generally positive, there were some negative responses and comments from staff.

The department's compliance with the health board's value-based appraisal system needed to be improved.

This is what we recommend the service can improve:

- Increase staff compliance with the value-based appraisal.

This is what the service did well:

- Positive management and governance
- Good competency and mandatory training compliance
- Shared learning from incidents with staff.

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 at the department to complement the HIW inspection in November 2023. In total, we received 25 responses from patients at this setting. Responses were positive across all areas, with all who answered rating the service as 'very good' (91%) or 'good' (9%). The three comments we received about the service are below:

> *"Excellent."*
>
> *"The nurse doing the procedure was particularly pleasant and empathetic, able to insert the odd amusing comment so as to put me at ease. An excellent experience."*
>
> *"I was pleased to see integration of learning disabled / autistic staff on the unit. This needs to be the normal not the occasional."*

## Person Centred

**Health Promotion**
Posters were clearly displayed, advising patients to inform staff if they were pregnant or breastfeeding. There was also a variety of posters on display advising patients on the benefits and risks of the intended exposure.

Written information was also available on the benefits of stopping smoking, as well as providing details of support organisations for patients with cancer and their carers.

**Dignified and Respectful Care**
Reception and clinical staff were observed speaking to patients in a polite, friendly and professional manner.

Lockable changing cubicles were available for patients along with an accessible, lockable room, that could be used by wheelchair users. Whilst this was used on the first day of the inspection to store a bed, this had been moved by the second day. We observed a staff member clearly explaining changing arrangements to patients.

The reception area was open and could be busy. The main reception doors were left open during the visit, with the site radio station playing in corridor, helping to provide background noise and promoting privacy.

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

All bar one member of staff, in the questionnaire, agreed that patients' privacy and dignity were maintained.

**Individualised Care**
Most patients who answered the questionnaire thought that they were provided with enough information to understand the risks and benefits of the procedure and were given written information on who to contact for advice about any aftereffects. Most agreed they had been given information on how to care for themselves following their procedure.

When asked whether staff had explained what they were doing, all patients who answered this question agreed.

## Timely

**Timely Care**
During our time at the setting, we noted patients being called through for their procedure promptly. Waiting times appeared to be short and acceptable.

Staff we spoke with said that patients would be informed about the waiting times when they arrived if there was a delay. We noted a sign in the reception area saying that if patients had to wait for longer than 15 minutes to inform reception. Staff said that if there was an issue, they would tell patients in reception about the delay.

In all, 71% of patients who answered this question agreed that they were told at reception how long they would likely have to wait. All bar one patient 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 examination.

All bar two staff said that patients were informed and involved in decisions about their care.

## Equitable

**Communication and Language**
Information was displayed in reception for the benefit of the patients on their journey through the department. This included 'Putting Things Right' notices in both Welsh and English. There was a bilingual poster displayed, asking for patient feedback about the hospital in general and a separate one about the radiology department specifically. There was also a Welsh poster promoting Welsh with 'iaith gwaith' symbols. We heard staff talking to patients and explaining the procedure and what to expect. Some staff were also seen to be wearing 'iaith gwaith' and 'dysgwr' lanyards or badges. We were told that a first language Welsh speaking member of staff was actively encouraging other members of staff to learn Welsh.

The main radiology reception room had been designed to the Royal National Institute for the Blind (RNIB) Cymru to 'Visibly Better Cymru' design standards. There was a hearing loop available which was clearly indicated. There were posters on display which included informative posters about the different modalities explaining to patients about the procedure, staff involved, how it worked and the tests involved. There were also further posters seen in the sub-waiting areas nearer the treatment areas.

Only one patient in the questionnaire said that their preferred language was Welsh. They also said that they were actively offered the opportunity to speak Welsh throughout their patient journey.

Two staff members who answered the questionnaire said they were Welsh speakers. They stated that they used the Welsh language most of the time in everyday conversations.

We noted that corridors were kept clear for patients to move around and observed staff adapting their communication depending on patient need. There were deaf awareness champions and basic sign language information in the staff room. Language line was available for patients who could not communicate in English, as well as members of staff who were fluent in other languages. There was a multi-phrase book that staff could use and staff could also change the language setting on some of the equipment.

All bar one patient stated that they were able to find the department easily at the hospital.

**Rights and Equality**

We were told of the arrangements in place to make the service accessible to patients, such as wheelchair access, easy read appointment letters, advocacy and the health passport or 'this is me' documents. There was also a commitment not to cancel appointments for children and adults dependent on others to bring them to appointments, if they did not attend. However, we did not see any information displayed about health passports, availability of translation services or advocacy, other than the Community Health Council (now Llais) poster asking for feedback, in the form of a quick response (QR) code.

**The health board should consider expanding the selection of information available, taking into consideration the communication needs and wishes of patients using the service.**

The department were participating in Project SEARCH, a charity that helps young adults with a learning disability or autistic spectrum disorder find paid employment through internships and work experience. The department were offering 10-12 weeks placements to these young adults whilst at school. They were given a mentor and initially someone from the project would attend with the young adult.

We were told that staff were encouraged to celebrate their own festivals and share with the department. A recent example was a celebration of Diwali, a Hindu festival, to which all staff were invited.

Over three quarters of patients said that they could access the right healthcare at the right time regardless of any protected characteristics. Patients commented:

> *"The Primary Care stage of the NHS is struggling and after witnessing two critical incidents with neighbours (strokes) where an ambulance was not available for nine hours (!) I am fearful that in similar circumstances I may not be helped either. At my age (79) this has created a sense of fear and anxiety that the system is broken and can no longer be relied upon."*
>
> *"I appreciate staff and economic factors influence availability of specialist staff and equipment."*
>
> *"Difficult to get GP appointment."*

# 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 written procedures and protocols in place as required under IR(ME)R. They included good points which were highlighted during the inspection. There had been a significant improvement from previous inspections in the structure, content and consistency of IR(ME)R documentation.

Senior staff we spoke with described how procedures were made available to staff through the health board intranet and a shared area called SharePoint. Staff we spoke with knew where to find the written procedures relevant to their practice.

Standard protocols provided were clear and contained the information required. Different formats were used for each modality. The plain film concept of including pre-examination protocol and post examination was considered to be good.

*Referral Guidelines*
The employer's written procedure on how to make a referral and referral criteria was well written, clear and reflected the detail in the self-assessment provided. It was noted that the clinical referral guidelines, iRefer, were used and provided on the organisation's intranet for all healthcare professionals entitled to follow.

The department currently receive both electronic and paper referrals. Before referrers were allowed to use the electronic referral system, they have to have had training on the electronic system and supply evidence of this training. There were testing groups to de-bug the referral system before the cascade training was provided.

The non-medical referral process was good. Non-Medical Referrers (NMR) were required to carry out an annual audit of their referrals and this would be assessed by their line manager annually. In addition, a review of NMRs portfolio and practice was carried out by radiology on a two-yearly basis.

*Diagnostic Reference Levels (DRLs)*
The employer had a written procedure describing the process for the setting, auditing and reviewing of DRLs established for imaging examinations performed in

the department. Senior staff we spoke with said that local DRLs were used in the main and national DRLs were only used if local DRLs were not available.

Staff we spoke with confirmed they were aware of the employer's written procedure. They described the action they would take should they identify a DRL has been consistently exceeded and this was in accordance with the employer's procedure.

We noted the review conducted of 50 examinations of a single procedure type over a six-month period for comparison against the local and national DRLs. This review was undertaken by operators or practitioners. This was noted as an area of good practice. We were told that the results were always reviewed by the departmental Radiation Protection Supervisor (RPS) for that area and an investigation undertaken when required.

*Medical Research*

There were a number of active research trials underway throughout the department. We were told that each modality had a record of all research ongoing within their area. We were provided with a copy of the clinical trial spreadsheet, which was well documented, clear and comprehensive. Research exposures were identified on the radiology information system (RadIS) along with the protocol for each specific study and examination. There was a code used for clinical trials and there was also a book in computed tomography (CT) that listed each clinical trial and what patient was on the trial.

There was an employer's procedure that dealt with medical research exposures.

We were told that some of the research trials needed specific protocols, most trials used standard imaging from the site. The department would request protocols before agreeing to the trial to ensure they could comply with what was required. However, we were told that this information was not always forthcoming. Senior staff told us that some of the research trials use non-standard imaging sequences and for these specific imaging protocols were required to be supplied by the trial. These can be difficult to acquire prior to sign up due to trial confidentiality. However, the department never sign up to a trial without sight of these to ensure scanner software compatibility or other compliance with the trial - these would be provided with confidentiality restrictions. Senior staff said this was national issue and not specific to this health board.

We were subsequently provided with evidence of engagement with national centres of research looking to improve and support the trial process, this included imaging on the agenda which covered early access to imaging protocols.

Further, we were told that if dose constraints were breached, then the patient would be removed from the trial.

*Entitlement*
The entitlement process was clear, showing good lines of accountability. There was a written employer's procedure in place to identify individuals entitled to act as referrer, practitioner or operator within a specified scope of practice. The process was clearly explained in this employer's procedure containing all the detail around delegation, training requirements and the process for entitlement.

The lines of delegation were clear, the employer (the chief executive) delegated the task of entitling duty holders to managing professional post-holders who had relevant knowledge and experienced in the area of practice. The process by which each duty holder or group of duty holders were made aware of their entitlement and scope of practice was described, both within radiology and outside radiology, in the self-assessment form (SAF).

There was evidence provided for a number of advanced practitioner radiographers who provided clinical evaluation on imaging. These were well written documents and included standard operating procedures (SOPs) on induction, training, audit of practice and peer audit. This was considered an area of good practice.

However, we noted some entries in the various entitlement letters which would suggest the need for reviewing these documents, such as the NMR who is not trained or entitled to clinically evaluate but there was a paragraph referring to clinical evaluation in their entitlement letter.

**The employer is to ensure that all letters of entitlement to the various groups are reviewed to ensure they are complete, clear and accurately reflect the entitlements.**

Staff we spoke with told us how they were made aware of their duties and scope of entitlement under IR(ME)R.

We also reviewed the evidence of the IR(ME)R duty holder matrix for third party providers, we found this to be well managed.

Relevant clinical directors or the director of therapies are delegated the responsibility for entitlement of the duty holders within their directorate and sign off the appropriate entitlement documentation

*Patient Identification*

The procedure to correctly identify individuals was described, including a three-point check for outpatients and an additional check for inpatients, being the patient identity (ID) band.

Staff we spoke with also said that if there was not an ID band, then a nurse from the ward would have to go to radiology to identify the patient and provide the patient with an ID band before a procedure would be conducted. Where a referral form was used, then following the ID check, the form would be completed and initialled. The record on RadIS would also be annotated. Staff were also able to describe the conversation with the patient regarding what procedure was being carried out on the patient.

*Individuals of Childbearing Potential (Pregnancy Enquiries)*
There was an employer's written procedure in place for making enquiries of individuals of childbearing potential to establish whether the individual was or may be pregnant or breastfeeding. The employer's procedure would benefit from further detail relating to:

- Adding the age range on the flow chart for pregnancy checking

- Including detail on pregnancy tests required for each modality and who performs these and where they are recorded

- Reviewing the entry which relates to "very harmful" (for paediatric patients aged 12-16) "I need to ask you if you think you could be pregnant because X-rays are very harmful to an unborn baby").

**The employer is required to add the relevant detail to the employer's procedure relating to detail of the pregnancy testing and reviewing the comment "very harmful". In addition, the age range on the flow chart for pregnancy checking needs to be added.**

Staff we spoke with were able to describe the action they would take to make enquires of individuals, which was consistent with the employer's written procedure.

We audited a random sample of 10 referral forms. These showed operators had completed pregnancy enquires, in accordance with the employer's written procedure, where appropriate.

*Benefits and Risks*
Staff were able to describe the information provided to individuals or their representatives relating to the benefits and risks associated with the radiation

dose from exposures. This mainly related to comparing the exposure to an equivalent dose of background radiation.

*Clinical Evaluation*
There was an employer's written procedure in place for carrying out and recording an evaluation of medical exposures performed at the department.

It was positive to note that there were opportunities for advance practice reporting radiographers and fluoroscopy radiographers. Reporting radiographers undergo additional training prior to participating in the radiographer led discharge service in the emergency unit.

There was a red dot system in place for alerting clinicians of an urgent or unexpected finding which sends the evaluation to the Welsh Clinical Portal (WCP). This prioritises these evaluations to the clinicians. Within Radiology, Radiologists, Radiology Registrars and Reporting Radiographers must follow an escalation pathway for certain findings (this is defined for reporters within the documentation). This includes notifying the referrer via telephone or email depending on the urgency and the inclusion of a'Red Alert' and inserting the relevant pathcode, for example urgent, cancer within the report. The 'Red Alert' code had the additional functionality in that it highlighted urgent results within the Welsh Clinical Portal (WCP) system with a red dot indicator alongside the test result. However, not all clinicians utilise WCP for viewing all results and it was therefore essential that all components of the alert system were utilised. This alert system was subject to error as it is largely a manual system and reliant on the reporter including the relevant code at the relevant point within the report and their ability to contact the referrer/designated team.

This had been added to the health boards risk register. Staff explained that the new All Wales Picture Archiving and Communication System (PACS) has the capability for an embedded alert system in one place which should address these issues if implemented effectively. This is an optional add-on functionality and the health board should consider including. Radiology staff acknowledge the responsibility for reviewing the clinical evaluation for each examination lies with the individual referrer'

**The responsibility for confirming all clinical evaluations are reviewed and acted upon lies with the referrer and the employer should ensure this is documented into the procedure.**

The use of auto reporting text within the PACS system, for clinical evaluations performed outside of radiology, should be reviewed to ensure there is consistency

in terminology and the text clearly describes where the clinical evaluation has been recorded.

**The employer is to ensure that where auto reporting text is used there is consistency and no ambiguity as to where the clinical evaluation can be found.**

*Non-medical Imaging Exposures*
There was an employer's procedure in place for non-medical imaging (NMI). This stated the NMI procedures undertaken at the hospital were for medico legal claims and wrist for bone age to assess age of asylum seekers. We were informed that the Welsh Government had stated wrist for bone age is not to be undertaken currently therefore the employer's procedure should be amended and updated accordingly.

**The employer is to ensure that the employer's procedures for NMI is updated to reflect the process currently in use.**

**Employer's Duties - Clinical Audit**
Senior staff described the audit processes. Clinical audits have recently been registered on a new management and tracking system. Staff would input all information relating to the audit onto this system and this includes the named person listed with any participants. There were four audits listed on the Audit Management and Tracking (AMaT) system. However, not all clinical audits carried out since the introduction of AMaT were included on the system. Additionally, one particular audit should have been reaudited in a timelier fashion, the key learning point that urologist should be reviewing the CT scan for kidneys, ureters, and bladder, this is learning that should be shared with them.

**The employer is required to ensure that:**

- **All audits are recorded on the new management and tracking system**
- **Audits are re-audited in a timelier fashion**
- **The key learning points are shared with all relevant staff.**

The IR(ME)R audit process was also described, with standard templates for observations and different templates in paper form held locally in each area. The overall spreadsheet would then be updated and actions included.

We viewed the random audit for record keeping and noted that this was well evidenced.

We did note that some of the audits such as the observation of safe working practice was a tick sheet with little detail on the aim of the audit, targets and no action plan or review write up. Where the benefit and risk was noted as not having been provided in nearly 50% of cases, there was no section available on the form for formally commenting, feeding back or further actions but there was a note at the bottom to say feedback to individuals and development of risk and benefit information was shared with staff. There were also no timelines against this action and it was unclear who would carry out this action.

**The employer is required to put in place a standard template for audits including who was responsible for the audit on an audit schedule, with action plans and time frames, providing a clear means for dissemination of audit results, learning and practice change where required.**

**Employer's Duties - Accidental or Unintended exposures**
The procedure for reporting accidental or unintended exposures was explained well by staff we spoke with. This included the need to tell the patient if there was moderate or severe harm. An entry would be made on Datix and also reported to the RPS. Guidance was available in the department for staff should they suspect an accidental or unintended exposure had taken place. There were also arrangements in place for the sharing of learning from incidents with departmental staff and with wider teams within the organisation.

There was an employer's written procedure in place for reporting and investigating accidental and unintended exposures. However, the clinically significant, accidental and unintended exposures (CSAUE) part of the employer's procedure required clarity on what constituted a clinically significant incident. Additionally, reference to the SAUE guidance needed to be updated to the most current version. Furthermore, we were told that if a patient was informed of an incident by letter by the referring clinician a copy would be included in the patient notes. For completeness, this needs to be added to the employer's procedure.

**The employer is to ensure that the clinically significant, accidental and unintended exposures (CSAUE) part of the employer's procedure gives clarity on what constitutes a clinically significant incident. Additionally, the SAUE guidance needs to be updated to the current version**

There was also a procedure which ensured that the probability and magnitude of accidental or unintended exposures to individuals from radiological practices were reduced as low as reasonably practicable (ALARP). The procedure outlined the most common causes of accidental or unintended doses to patients such as the breakdown of systems of work, human error and equipment malfunction. However, the procedure should consider other factors.

**The employer is to ensure that the employer's procedure on probability and magnitude of accidental or unintended exposure includes additional causes such as the quality assurance testing of equipment, pregnancy checks, trend analysis of incidents and near miss reporting.**

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 – 89%

- When errors, near misses or incidents were reported, their organisation took action to ensure that they do not happen again – 97%

- They were given feedback about changes made in response to reported errors, near misses and incidents – 83%

- If they were concerned about unsafe practice, they would know how to report it – 89%

- Many said they would feel secure raising concerns about unsafe clinical practice (75%) although fewer said they were confident their concerns would be addressed 61%).

**Duties of Practitioner, Operator and Referrer**
The entitlement of practitioners, operators and referrers to carry out their duties was included in an employer's procedure and described in the completed SAF.

Duty holders would be informed of their entitlement in writing and were included in the entitlement matrix, which also describes their scope of practice. However, the interventional radiologists involved in the cross-Health Board emergency interventional service provision had been entitled by Cardiff and Vale University Health Board, but they had not been included on the entitlement matrix.

**The employer is to ensure that the entitlement matrix includes all staff involved in the service, to include those employed by other health boards.**

Staff we spoke with demonstrated a good understanding of their duty holder roles and responsibilities under IR(ME)R.

**Justification of Individual Exposures**
The process of how and where justification was recorded was explained in the SAF provided. It was noted that generally authorisation guidelines are used by operators and were well written, with clear criteria described.

There was a standard operating procedure for the justification and authorisation of medical exposures involving ionising radiation. Both this document and the completed SAF used the word vetting in a few places, this word needs to be defined for clarification as it is ambiguous and can mean a number of different processes.

**The employer needs to ensure that the correct terminology is used in the relevant documentation.**

We reviewed the delegated authorisation guidelines for CT trauma, head and cervical spine. This was well written and there were clear processes outlined.

Staff we spoke with were able to describe the justification and authorisation process along with their duty holder roles when performing these tasks.

**Optimisation**
The SAF completed described the terms of reference of the image optimisation group including *"…to oversee the optimisation of all examinations utilising ionising radiation for radiation dose and image quality."* There were quarterly image optimisation group meetings with ongoing projects across modalities. Medical physics experts (MPEs) were members of the image optimisation group and were involved in the optimisation of radiological equipment via their participation in this group. Results of patient dose audits were shared with the group and were discussed at the radiation protection group (RPG) where appropriate. It was positive to note that optimisation was ongoing.

DRLs were reviewed for individual exams as part of the optimisation programme. Practitioners and operators ensured that doses were ALARP. Paediatric environment equipment had been optimised and pre-set for procedures based on weight.

*Paediatrics*
The SAF provided stated that the diagnostic imaging of paediatric patients was carried out in a specialised area in the Children's Hospital of Wales, which was included as part of diagnostic imaging inspection.

DRLs were based on weight where this information was available. European DRLs were displayed alongside local DRLs as there was an extensive list of weight based

DRLs. Senior staff we spoke with explained they would refer to local DRLs and only refer to national DRLs where local DRLs were not available.

We were told that the lack of a paediatric consultant on call service was on the risk register as it was not a formal rota on-call service. Whilst there has not been an issue to date, the arrangement is considered to be ad-hoc. Patients would be transferred to the hospital in Bristol if there was a need for urgent treatment and a consultant was not available.

**The employer is required to inform HIW of the efforts made to provide formal paediatric on call cover, the plans in place to ensure appropriate levels of onward/ongoing on call consultant cover, and the consequences to the patient if there is a need to transfer the patient to Bristol and any subsequent harm that could result.**

*Carers or Comforters*
The employer's procedure relating to carers and comforters was well written.

Staff we spoke with said that when assistance was required by the patient, staff would explain to the carers and comforters the procedure to be undertaken as well as providing the benefits and risk information. In addition, the relevant pregnancy checks would be carried out. However, there was no documentation for recording this information relating to the carers and comforters.

**The employer is required to develop a carers and comforters form to record the justification of exposure, that pregnancy checks are being carried out and that the benefits and risks are explained, where relevant.**

**Expert Advice**
The involvement of the MPEs in the department was described as being good and the detail of this involvement was described in detail in the SAF. This included:

- Being members of the Image Optimisation Group and being closely involved in high dose interventional and high dose CT services

- Involved in the patient dose audit process, reviewing data and making recommendations where required

- Overseeing the process of dose estimation for patient radiation incidents, and every reportable incident was reviewed by an MPE. MPEs also oversaw the process of dose estimation for other situations such as foetal exposures

- Performing regular audits of compliance against IR(ME)R including audits of quality assurance processes for written procedures and equipment.

- Being members of the RPG, which has responsibility for ensuring actions arising from these audits were completed in a timely manner

- Being available to provide advice on the review and development of radiation protection documentation such as employer's procedures

- Developing the processes for quality control testing of radiological equipment. MPEs developed quality control tests and work instructions equipment, taking into account legislative requirements and the latest guidance from professional bodies.

One of the three MPEs currently appointed to the health board also had specific expertise in the interventional service and was present on site at the department one day per week. The MPEs had also conducted continuous professional development days for staff and were in the process of providing training on the general principles of level A testing for staff.

In discussions with MPEs, assurance was provided that all Level B testing on equipment was up to date.

**Equipment: General Duties of the Employer**
The equipment inventory was up-to-date and complied with regulatory requirements. We were told that all equipment was managed by radiology and the quality assurance is completed in house and supported by the MPEs.

Senior staff we spoke with discussed capital funding and the difficulty to secure funding for equipment that had low visibility such as general radiography equipment. Also, the availability of funding for the enabling work for new rooms. We noted that there were approximately 12 pieces of equipment that would be over 10 years old in the next couple of years. Senior staff stated that high visibility equipment such as the CT and magnetic resonance imaging (MRI) scanners would be replaced and that two new Interventional Radiology (IR) units were about to be replaced

Senior staff further stated that the biggest challenge was that the department could not plan, as there were funds allocated for capital spend but not for the enabling work. This was on the risk register and had been nationally escalated to the Welsh Government.

We were told that there would be MPE support for the two new IR units, one of the MPEs was on the project group and had a good understanding of what was needed in relation to medical physics support on the equipment specification and room design.

We were provided with a copy of the radiation induced tissue effects procedure, which had been well written. However, the procedure included the entry to contact their GP in the first instance. We were told that GPs had not been provided with any additional training on dealing with patients with concerns of skin burns post high dose procedures.

**The employer is required to review the process of the patient contacting the GP for advice on skin burns from high dose procedures.**

## Safe

**Risk Management**
The department was accessible and easy to find, with disabled access and facilities for people with mobility difficulties. The department was clearly signposted with open double doors. The environment was clean and generally reasonably well maintained. However, some areas of the department were showing their age and worn. There was some ripped seating in the main reception. There were also signs noted in the department saying 'reported to estates'. These included the controlled area lights which were not all working, some ceiling tiles were missing and there was low level damage to walls, with breaks in the plaster seen in various areas. Also, the lead strip on the door to a general X-ray room was damaged and loose.

That being said, the environment was suitable for the way it was used with sufficient seating in the main reception area. There were also sub-waiting areas near to treatment areas with seating.

**The health board needs to ensure that estates work is carried out in a timely manner to reduce the risks to staff and patients.**

The risk assessment process was described, which included escalation as required to the directorate risk register and potentially onto the clinical board risk register.

**Infection Prevention and Control (IPC) and Decontamination**
All areas seen in the department were generally clean and well maintained. There were suitable handwashing and drying facilities available and staff were seen using relevant personal protective equipment.

We were told of the arrangements for infection control, this included link practitioner staff, who would also carry out the audits. There were adequate cleaning supplies and different levels of cleaning, with different cleaning materials noted.

The specific arrangements in place for dealing with symptomatic patients or patients with confirmed infections attending the unit were described. This involved treating infectious patients at the end of the day. For certain infections, staff would go to ward to carry out the procedure. There would then be a deep clean of the equipment and examination room.

All the patients who completed the questionnaire said that the setting was clean and that IPC measures were being followed. Almost all staff agreed that their organisation implemented effective infection control procedures. Their questionnaire replies included:

- There was an effective cleaning schedule in place – 89%
- Appropriate PPE was supplied and used – 97%
- The environment allowed for effective infection control – 92%.

**Safeguarding of Children and Safeguarding Adults**
All staff we spoke with were aware of the health board's policies and procedures on safeguarding and where to access these. They were also able to describe the actions they would take should they have a safeguarding concern. There were appointed safeguarding leads within the hospital and there was a flowchart for staff to follow should they be required to report any issues.

We examined a sample of five staff training records which showed that all staff were up to date with training, completed at an appropriate level according to their role within the department.

## Effective

**Record Keeping**
We found suitable arrangements in place for the management of patient referral documentation used within the department.

A sample of five current patient referral documentation and five retrospective patient referral documentation were examined. The sample showed that the referral records had been completed fully to demonstrate appropriate patient checks had been performed. This included patient identification, sufficient clinical

details, enquiries made of pregnancy status where applicable, justification had been carried out and the referral appropriately signed by an entitled referrer.

## Efficient

**Efficient**
The arrangements and systems in place to promote an efficient service were described. Examples included seeing up to four patients at a time, bringing them into the inner reception and preparing them for the procedure.

Senior staff we spoke with said that the department were proactive in filling any vacancies as soon as they were identified. Additionally, the department was looking at the waiting times and the waiting list and bringing in initiatives to lower the waiting list.

# Quality of Management and Leadership

## Staff Feedback

HIW issued a questionnaire to obtain staff views on services carried out by the Diagnostic Imaging Department at the University Hospital of Wales and their experience of working there. In total, we received 36 responses from staff.

Responses from staff were mixed, with most being satisfied with the quality of care and support they give to patients (94%) and many agreeing that they would be happy with the standard of care provided by their hospital for themselves or for friends and family 78%. However, almost a third of respondents felt that they would not recommend their organisation as a good place to work.

Staff comments included the following:

> *"Great place to work! Good support from management."*

> *"I find the department an extremely supportive and positive place to work. Senior management are excellent at signposting to employee wellbeing services, and I find them non-judgmental and supportive. There is a culture of continuous service improvement and junior staff are encouraged to be a proactive part of this."*

> *"I feel drained and that there isn't anyone to talk to about it as it can just get brushed away. This is a UHB problem too many mangers and not enough people on the floor."*

We asked what could be done to improve the service. Comments included the following:

> *"New online systems have made the workload extremely hard and difficult to understand. The workload is also highly demanding however, they are working towards solutions to bring on more staff eg in CT"*

> *"Patients are rushed through the department. There's not enough time to clean the equipment or give good patient care because you know you probably have 5 people waiting. The department feels chaotic and staff are stressed which then reflects onto patient care."*

## Leadership

### Governance and Leadership

The chief executive was designated as the 'employer' as required under IR(ME)R. They had overall responsibility for ensuring the regulations were complied with and where appropriate the employer delegated tasks to other professionals working in the health board to implement IR(ME)R.

There was a clear governance and management structure demonstrated within the self-assessment, which was completed comprehensively and was clear, as well as being provided within the timescale required. The management team had clearly demonstrated a commitment to correct the issues raised by HIW's previous inspection findings and make improvements where identified.

The policies and employer's procedures were well written and it was clear that work had been carried out in this area since the last inspection.

Staff we spoke with said that whilst the head of radiology visits every day and the next line manager once a week, there was not as much contact as they would like with the clinical director. Senior staff said that they engaged with staff on a regular basis, with an open-door policy in UHW. There was also management out of hours cover to support staff working out of hours.

Information was shared between management and staff through an electronic system 'Qpulse', the shared drive, as well as in meetings and emails.

Staff we spoke with were aware of where to find general polices relevant to their practice.

The employer's procedures had a good document control process. They were signed off by the professional head of radiography. The department were in the process of ensuring that all changes would be agreed by the RPG. In addition, there would be consultations with the MPEs.

There was also clear lines of leadership and responsibility noted in the department, this was supported by staff comments in the questionnaires.

Staff agreement, in the questionnaire, was as follows:

- They were content with the efforts of their organisation to keep them and patients safe – 83%

- Care of patients was their organisation's top priority – 89%

- Senior managers were visible – 72%
- Communication between senior management and staff is effective – 96%
- Senior managers were committed to patient care – 89%
- Their immediate manager can be counted on to help them with a difficult task at work (91%) and that their immediate manager gives them clear feedback on their work – 77%
- Their immediate manager asked for their opinion before making decisions that affected their work – 72%
- Their organisation was supportive – 72%.

Some comments we received about management include:

> *"There is a culture of continuous service improvement and junior staff are encouraged to be a proactive part of this."*

## Workforce

**Skilled and Enabled Workforce**
The IR(ME)R training and competency records were reviewed for five members of staff including a radiologist, radiographer and non-medical referrer. We also viewed the training and entitlement matrix maintained by the department. The training records – entitlement, scope of practice and competency were well documented and linked to the appropriate equipment training records provided.

We were told that the training and induction period was good, for example staff were required to have completed 12 months experience in CT before going on the on-call rota. There was clear evidence that staff had completed relevant mandatory training to the required level, this included safeguarding training, safe moving and handling and IPC training. Training records were clear and there was an appropriate system to identify when training is due on the electronic staff record (ESR).

The target for mandatory training compliance was 80% and actual performance was 87% at the time of the inspection. However, the target for appraisals (value-based appraisals) was 80%, but the actual compliance was 70%. When asked for context, we were told that further appraisals were in progress and booked for the coming

weeks but staff were aware of the compliance level and that it needed to be improved.

**The health board is to inform HIW of the actions taken to ensure that the compliance with value-based appraisals is kept above the target figure.**

In the last 12 months, 97% staff stated in the questionnaire that they had an appraisal, annual review or development review of their work. Additionally, 97% felt they had received appropriate training to undertake their role.

Staff listed training requirements in the questionnaire that they would like the opportunity of undertaking including cannulation, extra hoist training for the newly installed hoist, leadership and management, and mental health support wellbeing training.

We spoke with three radiographers as part of the inspection. They all confirmed that they felt supported by their colleagues and managers. Our discussions indicated they enjoyed their work and the department was a good place to work.

Staff we spoke with said that management were approachable and supportive. They were aware of the freedom to speak up initiative and felt the culture of the department was positive. They also stated that the numbers and skill mix were sufficient to meet the needs of the service and that they had access to rotations throughout the department. Senior staff provided details of the number and skill mix of staff working in the department and confirmed this was sufficient to deliver the services that were provided.

In all 81% of staff who completed the questionnaire agreed that there were enough staff to enable them to do their job properly. A total of 75% of staff agreed that their job was not detrimental to their health and 72% of staff agreed that their current working pattern and off duty allowed for a good work-life balance.

It was positive to note that the majority of staff, 92%, said they were aware of the occupational health support available to them, with 75% agreeing 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), 78% agreed. That being said, 89% agreed that their workplace was supportive of equality and diversity. It was disappointing to note that several staff who answered the question indicated they had faced discrimination at work within the last 12 months. However, since the last

inspection we were assured that arrangements were in place for staff to report any discrimination and that the health board had set up inclusion ambassadors for each of the protected characteristics. They were also working with human resource colleagues to develop a training resource for staff to access where a set of videos referencing each of the health board values can be put into action. There was a 'freedom to speak up initiative' and staff had been informed of the one voice network and advocacy services available.

The one comment we received about equality at the workplace is shown below:

> *"A member of staff recently applied for a higher banded role and was advised that the application did not meet the criteria to be considered for interview as did not have the relevant qualification even though the application said that relevant suitable experience would be acceptable."*

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 – 72%
- Almost all of respondents felt they are able to access the ICT systems needed to provide good care and support for patients – 89%
- Most said they have adequate materials, supplies and equipment to do their work – 83%.

## Culture

**People Engagement, Feedback and Learning**
Information was shared with all staff via a variety of methods including electronic mail (email) and through core meetings. There was also a quarterly newsletter sent out by email with recommendations on how to avoid incidents. This reviewed what went well and any incidents that have happened, in addition to any learning outcomes. Senior staff we spoke with believed there was a good reporting culture and a supporting culture to address the incidents.

The NHS Wales complaints process 'putting things right' was displayed in a number of locations at the setting to inform patients on how to make a complaint. Staff we spoke with said that verbal comments and complaints were encouraged and usually resolved at the time. We were told that information from complaints was shared with staff and there was sharing of learning across the department.

Almost a quarter of the patients said they would not know how to complain about poor service. Whilst 67% of staff in the feedback agreed patient experience was collected within their department, the other third did not know. Also, whilst 11 out of 36 staff agreed that they received updates on patient experience feedback in their department, 18 said they did not and seven did not know. Furthermore, whilst only 42% of staff agreed that feedback from patients was used to make informed decisions within their department, 44% 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 92% staff said that they knew and understood the duty of candour and understood their role in meeting the duty of candour standards.

# 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 assurances we identified on this inspection. | | | |
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# Appendix B - Immediate improvement plan

## Service: The Diagnostic Imaging Department of the University Hospital of Wales

## Date of inspection: 14/15 November 2023

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 |
|---|---|---|---|---|---|
| No immediate assurances we identified on this inspection. | | | | | |

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

**Service representative:**

**Name (print):**

**Job role:**

**Date:**

# Appendix C - Improvement plan

## Service: The Diagnostic Imaging Department of the University Hospital of Wales

## Date of inspection: 14/15 November 2023

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 |
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| We did not see any information displayed about health passports, availability of translation services or advocacy. | The health board should consider expanding the selection of information available, taking into consideration the communication needs and wishes of patients using the service. | Standard - Equitable - Rights and Equality | My Health Passport information shared with staff via email and displayed in staff areas.<br><br>Obtain and display additional resources on translation and advocacy for patients considering their differing needs. | QSE Lead Radiographer<br><br>QSE Lead Radiographer and Patient Experience Team | Complete 11.01.2024<br><br>February 2024 |
| We noted some entries in the various entitlement letters which would suggest the | The employer is to ensure that all letters of entitlement to the various | IR(ME)R regulation 10 (3) and | Entitlement letter for NMR has been reviewed, updated and is now in use. | Professional Head of Radiography | Complete 5.12.23 |

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| need for reviewing these documents, such as the NMR who is not trained or entitled to clinically evaluate but there was a paragraph mentioning clinical evaluation in their entitlement letter. | groups are reviewed to ensure they are complete, clear and accurately reflect the entitlements. | regulation 6 Schedule 2 (b) | All other Entitlement letters to be reviewed and updated where applicable | Professional Head of Radiography / Clinical Director | February 2024 |
| The employer's procedure would benefit from further detail relating to the age range on the flow chart, detail on pregnancy tests required for each modality and reviewing the entry "very harmful" when making pregnancy enquiries of children and young adults. | The employer is required to add the relevant detail to the employer's procedure relating to detail of the pregnancy testing and reviewing the comment "very harmful". In addition, the age range on the flow chart for pregnancy checking needs to be added. | IR(ME)R regulation 11 (3) (d) (i) | The Employer's Procedure has been reviewed and the wording "very harmful" has been amended, detail to state Pregnancy status check flowchart (Age range 12-55 years) (Age range 12-55 years) additional pregnancy testing has been included and the age range is now included on the flow chart. | Professional Head of Radiography / QSE Lead Radiographer | Complete 29.12.23 |
| Radiology staff suggested referrers should take responsibility for reviewing all of their patient's clinical | The responsibility for confirming all clinical evaluations are reviewed and acted upon lies with | IR(ME)R regulation 12 (9) | The responsibility of the requesting clinician to review the clinical evaluation is included in the | Professional Head of Radiography / Chair of the | 12.01.2024 |

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| evaluations in a timeframe and taking appropriate actions. | the referrer and the employer should ensure this is documented into the procedure. | | UHB procedure. This was reiterated at the January meeting of the UHB Clinical Safety Group for discussion and it was agreed that Clinical Boards would be reminded through their individual quality and safety meetings. | UHB Clinical Safety Group | |
| The use of auto reporting text within the PACS system, for clinical evaluations performed outside of radiology, should be reviewed to ensure there is consistency in terminology and the text clearly describes where the clinical evaluation has been recorded. | The employer is to ensure that where auto reporting text is used there is consistency and no ambiguity as to where the clinical evaluation can be found. | IR(ME)R regulation 11(1)(b) (c) and regulation 11 (5) | The wording of the auto-report text has been reviewed and updated pending formal agreement between Directorates prior to document finalisation. | Professional Head of Radiography / QSE Lead Radiographer / Relevant Directorate Clinical Directors | 1.03.2024 |
| There was an employer's procedure in place for non-medical imaging (NMI). This | The employer is to ensure that the employer's procedures for NMI is | IR(ME)R Regulation 6 (4) | Circular from Welsh Government received after submission of the self- | Professional Head of Radiography | Complete 27.10.23 |

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| stated the NMI procedures undertaken at the hospital were for medico legal claims and wrist for bone age to assess age of asylum seekers. We were informed that the Welsh Government had stated wrist for bone age is not to be undertaken currently therefore the employer's procedure should be amended and updated accordingly. | updated to reflect the process currently in use. | | assessment form and supporting documents. Employer's Procedure for Non-Medical Imaging has been reviewed and updated prior to inspection visit. Clarified during inspection. | | |
| However, not all of audits had been included on the 'new' management audit system. Additionally, one particular audit should have been reaudited in a timelier fashion, the key learning point that urologist should be reviewing the CT scan for kidneys, ureters, and bladder, this is learning that should be shared with them. | The employer is required to ensure that:<br>• All audits are recorded on the new management and tracking system<br>• Audits are re-audited in a timelier fashion | IR(ME)R regulation 7 and regulation 9 | Information to be re-shared with Radiology staff regarding the requirement to register Clinical Audits on the Audit Management and Tracking (AMaT) system.<br><br>AMaT team to join Radiology Safety and Quality meeting and provide demo on registering a Clinical Audit. | QSE Lead Radiographer / Radiology Clinical Governance Lead<br><br>AMaT team | February 2024<br><br>March 2024 |

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| | • The key learning points are shared with all relevant staff. | | All current and future audits to be updated within AMaT with an action plan following recommendations with associated timeframes for completion, staff to be reminded of this requirement. | All staff / QSE Lead Radiographer / Radiology Clinical Governance Lead | February 2024 |
| Clinical audit and IR(ME)R audit templates where not standard and require review. Where the audit on benefit and risk was noted, more detail was needed on the form for actions timeframes and sharing the findings. There was a note at the bottom to say feedback to individuals and development of risk and benefit information was shared with staff. There were also not timelines against this action and it was unclear who would carry out this action. | The employer is required to put in place a standard template for audits including who was responsible for the audit on an audit schedule, with action plans, time frames, providing a clear means for dissemination of audit results learning and practice change where required. | IR(ME)R regulation 7 | Standard template to be developed and utilised for all IR(ME)R audits to include the criteria specified. Where possible this will be transferred onto the AMaT system and include who is responsible for the audit and feedback to individuals. | QSE Lead Radiographer | March 2024 |

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| When a patient is informed of an incident by letter a record would be placed in the patient's notes. For completeness this needs to be added to the employer's procedure. | The employer is to ensure that the clinically significant, accidental and unintended exposures (CSAUE) part of the employer's procedure gives clarity on what constitutes a clinically significant incident.<br><br>Additionally, the reference to SAUE guidance needs to be updated to the current version. | IR(ME)R regulation 8(1) and regulation 6 Schedule 2 (l) | Employer's Procedure L - clinically significant, accidental and unintended exposures updated to include additional detail regarding what constitutes a clinically significant incident and an explanation of the terminology used.<br><br>The SAUE reference has been updated to the correct version, the web link remains the same as this was correct.<br><br>Inclusion of letter informing patient of an incident being added to patient's records. | Professional Head of Radiography / QSE Lead Radiographer | Complete 29.12.2023 |
| There is an employer's procedure to ensure the probability and magnitude of accidental or unintended exposures to individuals from | The employer is to ensure that the employer's procedure on probability and magnitude of accidental or unintended | IR(ME)R regulation 6, Schedule 2 (k) | Employer's Procedure K has been reviewed and updated to expand on additional causes. | Professional Head of Radiography / QSE Lead Radiographer | Complete 29.12.23 |

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| radiological practices were reduced as far as reasonably practicable. The procedure outlined the most common causes. However, the procedure should consider other factors. | exposure includes additional causes such as the quality assurance testing of equipment, pregnancy checks, trend analysis of incidents and near miss reporting. | | | | |
| The interventional radiologists involved in the cross-Health Board emergency interventional service provision had been entitlement by Cardiff and Vale University Health Board, but they had not been included on the entitlement matrix. | The employer is to ensure that the entitlement matrix includes all staff involved in the service, to include those employed by other health boards. | IR(ME)R regulation 10 (3) | Entitlement matrix has been reviewed and updated to include Interventional Radiologists from other Health Board's with honorary contracts for the provision of the Vascular centralisation service. | Clinical Director / Professional Head of Radiography | Complete 29.11.23 |
| There was a standard operating procedure for the justification and authorisation of medical exposures involving ionising radiation. Both this | The employer needs to ensure that the correct terminology is used in the relevant documentation. | IR(ME)R regulation 10 and 11 | Standard operating procedure for the justification and authorisation of medical exposures involving ionising radiation has been reviewed | QSE Lead Radiographer | Complete 30.11.2023 |

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| document and the completed SAF used the word vetting in a few places, this word needs to be defined for clarification as it is ambiguous and can mean a number of different processes. | | | and updated to define the use of the terminology 'vet' and 'vetting' within Radiology documentation. This process is defined as the justification and protocolling of imaging requests by an entitled IR(ME)R practitioner. | | |
| We were told that the paediatric consultant on call service was on the risk register as it is not a formal rota on-call service. Whilst there has not been an issue to date, the arrangement is considered to be ad-hoc. The patient would be transferred to the hospital in Bristol if there was a need for urgent treatment and a consultant was not available. | The health board is required to inform HIW of the efforts made to provide formal paediatric on call cover, the plans in place to ensure appropriate levels of onward/ongoing on call consultant cover, and the consequences to the patient if there is a need to transfer the patient to Bristol and any subsequent harm that could result. | Standard – Workforce – Skilled Workforce | The establishment of a formal 24/7 on call rota is reliant on recruitment of additional Consultant Paediatric Radiologists in sufficient number to ensure robust service provision. WHSSC funding for this purpose was secured effective November 2021. To date recruitment processes have taken place but have been unsuccessful.<br>A revised Job Description received approval from the Royal College of Radiologists | Directorate Management / Clinical Director | Timeframe for recruitment – April 2024 |

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| | | | in December 2023. This post is anticipated to be advertised in early 2024. Actions are ongoing to formalise the on call model and is dependent on successful recruitment in sufficient number. Patients may also be transferred to other tertiary centres, not solely Bristol. CAVUHB will also accept transfers from other centres when demand exceeds capacity. | | |
| There was no documentation for capturing information relating to the carers and comforters involved in an exposure. | The employer is required to develop a carers and comforters form to record the justification of exposure and that pregnancy checks are being carried out and benefit and risk information is shared, where relevant. | IR(ME)R regulation 6 Schedule 2 (n) & (i) | Develop and implement a Carers and Comforters form to replace the current record held locally in each examination room, appropriate storage of the form to be established and agreed. Consultation for single process on an All Wales level. | Professional Head of Radiography / QSE Lead Radiographer | April 2024 |

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| We were provided with a copy of the radiation induced tissue effects procedure. However, the procedure included the entry to contact their GP in the first instance. We were told that GPs had not been provided with any additional training on dealing with patients with concerns of skin burns post high dose procedures. | The employer is required to review the process of the patient contacting the GP for advice on skin burns from high dose procedures. | IR(ME)R regulation 12 (8) (c) | Ensure there is an appropriate pathway for patients who experience tissue effects following radiation exposure.<br><br>Review and update the procedure for Radiation Induced Tissue Effect and disseminate where applicable. | Vascular superintendent / Professional Head of Radiography / Clinical Director<br><br>Vascular superintendent / Professional Head of Radiography | March 2024<br><br>March 2024 |
| There were three chairs in the reception waiting area that had ripped covers or were damaged which made it difficult to keep clean.<br><br>The lead strip on the door to the general X-ray room was damaged and loose, and the controlled area light was | The health board needs to ensure that estates work is carried out in a timely manner to reduce the risks to staff and patients. | Standard – Safe - Risk Management | Quote obtained for repairs for damaged chairs in December 2023. Chairs currently out of circulation pending repair works.<br><br>Lead strip on general x-ray room and controlled area lighting repaired. | Site Superintendent / QSE Lead Radiographer<br><br>Site superintendent / Estates | February 2024<br><br>Complete December 2023 |

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| noted as flickering in one room. | | | | | |
| The target for appraisals (value-based appraisals) was 80%, but the actual compliance was 70%. | The health board is to inform HIW of the actions taken to ensure that the compliance with value-based appraisals is kept about the target figure. | Standard Workforce – Skilled Workforce | Improvement in appraisal compliance to minimum 80% - currently achieving 75% compliance due to service demands.<br><br>Radiology managers required to provide update regarding outstanding appraisals with timeframes for completion. Managers to be provided time to undertake appraisals. | Radiology managers<br><br>Professional Head of Radiography / Departmental Managers / Directorate Management | February 2024<br><br>February 2024 |

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, RMPCE**

**Date:** **12.1.24**