The Regulation and Quality Improvement Authority

Inspection Report

12 November 2025

Ulster Independent Clinic
Radiology Department

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Information on legislation and standards underpinning inspections can be found on our website https://www.rqia.org.uk/ and The Ionising Radiation (Medical Exposure) Regulations (Northern Ireland) 2018 known as IR(ME)R

1.0 Service information

Organisation/Registered Provider: Ulster Independent Clinic (UIC)	**Department Inspected:** Diagnostic and interventional radiology department
Name of Employer: Miss Diane Graham Matron/Chief Executive UIC	**Radiology Lead (RL):** Ms Joanne Craig **Deputy Radiology Lead (Deputy RL):** Ms Lisa Boyce

Brief description of how the service operates:

The UIC radiology department provides general radiology, computed tomography (CT), Dual Energy X-ray Absorptiometry (DXA), fluoroscopy and theatre radiology services (urology and orthopaedics). The radiology services includes paediatric general radiology, fluoroscopy and CT services. The out of hours service provision includes emergency general radiology, CT and very occasionally theatre and mobile X-ray imaging.

Before the inspection Ms Boyce Deputy RL, and her team were asked to complete a self-assessment form (SAF). The submitted SAF confirmed that the UIC radiology department has carried out 6963 general radiography images, 2294 general fluoroscopy procedures, 670 fluoroscopy procedures in theatre, 3450 CT scans, 296 CT cardiac, 31 CT guided injections and 276 DXA images in the last year.

The department is staffed by 14 substantive radiographers and eight bank radiographers. There are approximately 47 consultant radiologists involved in the service, reflecting various different specialities such as cardiac, paediatrics and musculoskeletal (MSK). During working hours there is at least one consultant radiologist on site on a rotational basis.

The team is supported by a Medical Physics Expert (MPE) contracted from Regional Medical Physics Service (RMPS) based in the Belfast Health and Social Care Trust (BHSCT).

2.0 Inspection summary

On 12 November 2025, warranted Ionising Radiation (Medical Exposure) Regulations (IR(ME)R) inspectors from the Regulation and Quality Improvement Authority (RQIA), with advice being provided by the United Kingdom Health Security Agency (UKHSA) staff, carried out an IR(ME)R inspection of UIC radiology department, as part of RQIA's IR(ME)R inspection programme.

For the 2025/26 inspection year the inspections will focus on the following key themes:

- IR(ME)R governance, including arrangements for compliance with IR(ME)R, services provided outside of the main department, communication with other departments and commissioning of new services
- Justification and authorisation process including use of authorisation guidelines where appropriate
- Management of equipment performance
- Patient identification including pause and check
- Nuclear medicine therapies and radiotherapy - the study of risk
- Radiotherapy – focus on the breast pathway
- Any other areas identified through the review of the submitted SAF and supporting documentation

The purpose of our focus is to minimise risk to service users and staff, whilst being assured that ionising radiation services are being provided in keeping with IR(ME)R (Northern Ireland) 2018 regulations.

Previous areas for improvement (if applicable) will also be reviewed.

The service was notified of the inspection date and time; and requested to complete and submit a SAF and include supporting documentation to be reviewed in advance of the inspection. The site inspection process included:

- Discussion with management and staff
- Examination of relevant radiology documentation
- Review of the department and facilities
- Review of patient records to ensure compliance with IR(ME)R
- Discussion with patients/representatives (where appropriate)

IR(ME)R is intended to protect individuals undergoing exposure to ionising radiation as follows:

- Patients as part of their own medical diagnosis or treatment
- Individuals as part of health screening programmes
- Patients or other persons voluntarily participating in medical or biomedical, diagnostic or therapeutic, research programmes
- Carers and comforters
- Asymptomatic individuals
- Individuals undergoing non-medical imaging using medical radiological equipment

3.0 How we inspect

RQIA is responsible for monitoring, inspecting and enforcement of IR(ME)R. The inspection process includes the gathering and review of information we hold about the service, examination of a variety of relevant written procedures, protocols and records, and discussion with relevant staff. RQIA inspection reports reflect on how a service was performing at the time of inspection, highlighting both good practice and any areas for improvement.

The information obtained is then considered before a decision is made on whether the service is operating in accordance with the relevant legislation and professional standards.

Examples of good practice are acknowledged and any areas for improvement are discussed with the relevant staff in charge and detailed in the quality improvement plan (QIP).

As already stated, prior to the inspection, the service was requested to complete a SAF and provide RQIA with all relevant supporting information including written policies and procedures. This information was shared with UKHSA prior to the inspection and was used to direct discussions with key members of staff working within the radiology department and provide guidance for the inspection process.

It is the responsibility of the Employer to ensure compliance with legislation, standards and best practice, and to address any deficits identified during our inspections.

4.0 What people told us about the service

As this was a busy radiology department, patients were awaiting or immediately recovering from radiology diagnostic procedures, it was deemed inappropriate to seek to speak to these patients on the day of the inspection.

5.0 The inspection

5.1 What has this service done to meet any areas for improvement identified at or since the last inspection?

There has been no IR(ME)R inspections carried out under the current IR(ME)R legislation.

5.2 Inspection findings

5.2.1 Are there appropriate IR(ME)R governance arrangements in place to ensure compliance with the legislation?

Organisational Structures and Governance Committees.

The overall responsibility for ensuring compliance with IR(ME)R lies with the Employer. The role of IR(ME)R Employer is held by Matron/Chief Executive of UIC. The UIC Ionising Radiation Safety Policy (IRSP) approved in April 2025 sets out the organisational structures, lines of accountability and governance structures.

The task of implementing IR(ME)R has been delegated to the RL and Deputy RL with the Clinical Director for Radiology ensuring compliance in relation to the practitioners, including practitioners outside of radiology.

There is a radiation safety committee (RSC) which aims to meet biannually. The most recent meeting was in April 2025, with the next meeting scheduled for January 2026. Membership of the RSC includes the RL as chair and Deputy RL, medical physics expert (MPE), radiation protection advisor (RPA), the Clinical Director for Radiology, the estates manager, radiation protection supervisor (RPS) for theatres and the Employer (if available).

Review of the RSC meeting minutes noted that scrutiny is applied to radiology matters which included incidents, and compliance with IR(ME)R. However, it was advised to consider a robust action plan as part of the minutes, which should include timescales and identified individuals responsible for implementing actions, allowing for meaningful ongoing monitoring.

The RSC reports to the health and safety committee (HSC) which meets quarterly. The Deputy RL provides a report to this committee and adds radiology matters to the agenda. The HSC reports to the risk management committee via the chair of the HSC. In addition, matters raised at the risk management committee can then be brought to Medical Advisory Committee (MAC), which reports to the clinical governance committee. The minutes from the clinical governance committee meetings are shared with board members which includes the Employer.

It was good to note the service is establishing an image optimisation team (IOT), with the inaugural meeting scheduled for 5th December 2025. Membership for this group will include consultant radiologists reflecting the radiology specialities provided, and will have the full involvement of the MPE. The IOT will report to the RSC and will be scheduled in advance of the RSC to support this. It was advised to establish clear terms of reference for the IOT, ensure there is a focus on optimisation strategies and include an action plan. Management were receptive to this advice.

Clear escalation processes were described by management and staff should a serious radiology issue arise.

Communication

Management and staff confirmed there was good communication within the radiology department and with other radiology services provided outside of the radiology department**.** On a daily basis there is a morning huddle in the UIC radiology department. Staff meetings are held every two-three months. If anything urgent arises, ad hoc staff meetings can be held. Currently the staff do not have access to internal email. The Deputy RL has been working with colleagues on developing the use of a software program called the SAGE app. This app is currently used to contact staff regarding employment issues such as pay and pensions. The service is exploring the role of this app as a potential mechanism to disseminate radiology information to staff promptly. The service use noticeboards to inform staff and includes staff sign off sheets to confirm staff have read the information. A shared drive is in place for documentation. Where additional procedures have been added to the shared drive, or information updated, the staff are informed verbally of this. The service are eager to explore the role of the SAGE app for this purpose in particular.

Management described good communication between radiology and the heads of departments at ward level and with outpatients. There is a newsletter- 'Governance Matters' disseminated across UIC every two months and includes information about the radiology services such as audit results across the hospital. Discussions with radiographers confirmed communication was good and they felt well supported in their role.

Entitlement

Entitlement is the term used to describe the process of endorsement by an appropriate and specified individual within an organisation. They must have the knowledge and experience to authorise on behalf of the Employer, that a duty holder or group of duty holders, have been adequately trained and deemed competent in their specific IR(ME)R duty holder roles.

Evidence of induction, training, competency and continuing professional development for radiographers and consultant radiologists was reviewed and found to be in line with duty holder roles.

Systems are in place to check the professional qualifications and registration of all employees with their appropriate professional bodies. It was confirmed comprehensive systems were in place to provide annual appraisals for all radiographers with individual development needs identified as part of this process. It was confirmed that entitlement is reviewed at annual appraisals and adjusted accordingly if a staff member's scope of practice had changed.

The consultant radiologists and other consultant staff have their appraisals undertaken by an approved medical appraiser within the Health Social Care (HSC) setting. Assurances were given that this included their practice within UIC. However, it was advised to formalise the arrangements within UIC to review the entitlement of the medical consultant staff. Management were receptive to this advice.

The referral process and the entitlement of referrers including non-medical referrers (NMR) was examined. Management confirmed that referrals are received from internal consultants, external consultants, general practitioners (GPs) and doctors within NHS trusts. The majority of referrals are received from internal consultants with practising privileges at UIC. Some speciality referrals may only be received from a specialist. For example, a cardiac CT referral would typically be accepted from cardiology, but on occasions from GPs. All speciality referrals are reviewed by the relevant specialist radiologist (e.g. cardiac, paediatric, MSK).

With regards to external consultant, the service first checks the referrer has GMC registration. Following this check, the individual is then added to the local system as a referrer. A link is sent to the referrer which directs them to the relevant Employer's Procedures. These procedures outline the referrer's responsibilities and identify the referral criteria the service uses (iRefer). The referrer must return a response to confirm they have received the relevant Employer's Procedures. There is an electronic database of referrers which can be accessed by staff. Entitlement records for medical referrers was reviewed prior to the inspection.

Referrals can be submitted in a variety of formats, most commonly via the standard hard copy UIC template, or on occasions via email in different formats, such as an NHS referral form. Some external referrers have been sent a supply of paper UIC referral forms. It was advised to explore the introduction of an electronic referral form to ensure consistency of information. Management confirmed that there were plans to introduce an electronic referral form for internal referrers in the first instance.

The Employer must ensure referrers have access to referral criteria. Management confirmed iRefer is the referral criteria for most imaging carried out in UIC and referrers are informed how to access it. DXA referral criteria is not outlined in iRefer and management outlined that DXA referral criteria is incorporated into the DXA imaging protocols which are available in the department but not accessible to referrers. An area of improvement has been identified to establish DXA referral criteria and make it available to referrers.

It was noted that a number of physiotherapists are entitled as external NMRs. The physiotherapist's scope of referral may include ultrasound, MRI and fluoroscopy guided injections. Management outlined that the individual must complete IR(ME)R training prior to entitlement. Links are provided to the individual directing them to the Employer's Procedures and how they evidence completion of the IR(ME)R training.

It was unclear what IR(ME)R course physiotherapists were completing prior to entitlement, how the scope of referral was evidenced for the NMR, and whether the NMR was aware of their scope of referral.

An area for improvement has been identified to; formalise the process for entitlement of NMRs; consider an application process for NMR entitlement; evidence the scope of referral for the NMR; establish a NMR database which should be reviewed regularly; and consider auditing NMR entitlement to ensure compliance with their scope of referral.

Individual entitlement records for consultant radiologists, consultant surgeons, radiographers, NMRs, MPEs were reviewed. It was noted that some entitlement records were well completed and outlined clear entitlement arrangements for the duty holder. However, others were not consistently completed in line with the Employer's Procedure 2. An area of improvement has been identified to; review entitlement arrangements; ensure the record of entitlement is completed accurately and in accordance to Employer's Procedure 2; and review and update Employer's Procedure 2 as necessary.

Clinical Audit

IR(ME)R tells us that clinical audit means the systematic examination or review of medical radiological procedures which seek to improve the quality and outcome of patient care through a structured review.

Medical radiological practices, procedures, and results are examined against agreed standards for good medical radiological procedures, with practices modified where indicated and the new standards applied where necessary.

It was evident the radiology service has an underpinning culture of quality improvement. Management and staff demonstrated an inclusive, enthusiastic and proactive approach to patient centred service improvement.

An audit schedule for the radiology department 2025 was provided. It was noted to be primarily the radiographers involved in clinical audit. Radiologists can be involved where required but the Clinical Director for Radiology outlined they are involved in a range of clinical audits within their own NHS clinical practice. Information gained for the NHS audits often feeds back into UIC and results in positive changes through the development of protocols. It was confirmed that clinical audit will form part of the IOT agenda. A number of completed audits were reviewed. The audits were generally conducted thoroughly and had identified findings. However the interpretation, investigation and actioning of the findings were limited. An area of improvement has been identified to further develop a robust multi-disciplinary team (MDT) clinical audit programme which should include meaningful interpretation of findings and a more robust detailed action plan.

A limited IR(ME)R audit programme was in place. The requirement for a robust IR(ME)R audit programme was emphasised to offer assurance to the Employer on compliance with IR(ME)R. The audit programme should cover the entire exposure pathway and all services involved. As the IR(ME)R audits are compliance audits in nature, the compliance rate must be set at 100% to identify where there may be a potential breach of the IR(ME)R regulations. Advice was provided on the further development of IR(ME)R compliance audits to include the development of audit report templates for consistency of approach. A blended approach to the audit process to incorporate observational audits with the aim to involve and engage staff should also be considered. An area for improvement has been identified on this matter.

Review of a recent theatre dose audit noted that there was potentially a significant finding identified. However, there was little evidence of robust scrutiny, investigation or explanation of this finding. It was advised this matter should be followed up with the involvement of the MPE. Management gave assurances to follow up on the findings. Management confirmed that urgent findings from audits are shared with the Deputy RL and escalated as required. Any issues arising from audit, which require the Employer to be aware of, are reported via the governance structures outlined previously or directly to the Employer, if deemed high risk.

Incident and near miss management

There are clear arrangements in place to report, record, investigate and learn from radiology incidents or near misses in the radiology department. The management and staff clearly outlined action to be taken if it suspected significant accidental or unintended exposure (SAUE) has occurred including the involvement of the MPE, which was fully reflected in relevant Employer's Procedures. It was advised that new reporting arrangements are in place in relation incidents involving equipment. The previous body Northern Ireland Adverse Incident Centre (NIAIC) has been replaced by Medical and Healthcare Regulatory Agency (MHRA) subgroup Medical Device and Estate Safety (MDES). An area for improvement has been made to update the relevant Employer's Procedures in relation to this change.

Learning from incidents and near miss events is shared at staff meetings. Management confirmed the potential use of the SAGE app as a method of communicating with staff learning from incidents and near misses. Review of periodic trend analysis of incidents and near misses was found to be limited in its scope. It was suggested to consider further robust analysis of the incident and near miss data to ensure meaningful learning. Management were receptive to the advice provided.

The decision making process for clinically significant accidental or unintended exposures (CSAUE) and informing relevant stakeholders was clearly outlined by management. However the process and definition of a CSAUE was not accurately reflected in the Employer's Procedure 16 - CSAUE. An area of improvement has been identified on this matter.

Risk register

The arrangements for ensuring UIC risk register reflects risks associated with non-compliance with IR(ME)R were reviewed. The management outlined clear information to ensure that the UIC risk registers are examined and updated to ensure all identified IR(ME)R risks are appropriately captured, and that specific actions to mitigate the risks are identified and appropriate systems of assurance are in place. The RL is responsible for the regular review and update of risks associated with IR(ME)R held on the risk register. The Employer would be made aware of any additions to the risk register through the previously described governance structures.

The ratification process for Employer's Procedures (EPs) and other IR(ME)R documentation

It was confirmed that RSC review and ratify draft Employer's Procedures and protocols. The Radiology Document Management System is in place for all electronic documents which staff can access.

The RL is responsible for ensuring newly ratified documents are uploaded to the shared drive with the older versions archived.

It was confirmed there are a limited number of hard copy procedures which should be subject to a clear tracking system to ensure the most up to date version is in place.

It was noted that some the documentation reviewed did not always refer to UIC, but instead referenced other NHS trusts and NHS hospital sites. In addition, some documents reviewed referenced job titles that did not correspond to UIC's internal organisation roles.

An area of improvement has been identified to update Employer's Procedure 9 - quality assurance procedure, to ensure all documentation it is fully reflective of practice and includes management arrangements for hard copy documents.

Employer's Procedures were in place which had been revised by the Deputy RL and approved by the Employer in October 2025.

It was noted Employer's Procedure 6 - Non Medical Imaging (NMI), requires to be updated in relation to the definition of NMI. An area for improvement has been identified on this matter.

The introduction of a new radiology service

Management outlined the process to be followed when a new radiology service is introduced.

The proposal would first be discussed with the relevant specialist radiologists and consultants, the Clinical Director for Radiology and the Employer to determine the requirements of the service. The MPE would also be involved in the discussions. A 'new procedure request' would be completed and submitted to the MAC and board.

The governance arrangements for the new service will be fully reviewed including ensuring compliance with IR(ME)R. Once a new service is introduced it will be subject to audit.

Review of the submitted SAF, supporting documentation and discussion with key staff during the inspection evidenced that there are good governance arrangements with respect to the UIC radiology service. These arrangements are regularly reviewed and, if necessary, improvements are made. It is hoped the areas of improvement made will enhance governance systems. The inspection team acknowledge the commitment of staff in this regard.

5.2.2 Does the service adhere to legislation in relation to the justification and authorisation of ionising radiation procedures?

Justification is the intellectual activity of weighing up the expected benefits of an exposure against the possible detriment of the associated radiation dose and is the primary role of the practitioner. Authorisation is a process separate to justification and is the documentation confirming that the intellectual activity of justification has taken place.

It is not always possible for a practitioner to review every imaging referral, so regulations allow for an appropriately entitled operator to authorise an exposure following written authorisation guidelines issued by a named practitioner.

Authorisation guidelines must be clearly written using precise statements that are unambiguous in order to allow the operator to confirm whether the referral can be authorised.

The practitioner is responsible for the justification of any exposure that is authorised by an operator following the authorisation guidelines. The operator is responsible for the authorisation and following the authorisation guidelines accurately.

It was confirmed that within UIC, justification and authorisation can be carried out by practitioners or radiographers acting as operators authorising exposures using authorisation guidelines.

The general radiology authorisation guidelines were examined. It was noted that the use of some terminology within the guidelines was in not keeping with clear unambiguous statements necessary to allow for authorisation. The practitioner justifying exposures carried out using these authorisation guidelines was explored. It was noted that whilst the Clinical Director for Radiology is named on the document as the practitioner, certain sections had been reviewed by specialist radiologists. For example, the MSK section had reviewed by a MSK radiologist and paediatrics reviewed by a paediatric radiologist. An area of improvement has been identified to review the authorisation guidelines to ensure they are clear and unambiguous; and the practitioner for exposures carried out using the authorisation guidelines is identifiable with evidence of the appropriate practitioners responsible for the relevant exposures.

The authorisation guidelines were included the X-ray protocols in section three of the document which were noted to be well written. However, it was advised they may be more beneficial as a separate standalone protocol document to support staff.

Management confirmed theatre exposures are justified and authorised by the surgeon. Evidence of the justification and authorisation process for these exposures was examined including fluoroscopy guided joint injection procedures. Review of records noted there was no process in place for recording evidence of justification and authorisation. The theatre referral form had a section on the back of the form which could potentially be used to evidence justification and authorisation. An area of improvement has been identified to ensure there is evidence of justification and authorisation in theatres, across all modalities, particular with joint injections and to consider including this matter in the IR(ME)R audit programme for all modalities.

Exposures to carers and comforters require individual justification and authorisation. Justification of the exposure of carers and comforters who knowingly and willingly provide help and support should consider both the direct benefit to the health of the individual undergoing the medical exposure as well as the indirect benefit to the carer or comforter. The exposure of a carer or comforter should only be permitted when this net benefit can be clearly identified. In UIC radiographers have been entitled to act as operators to authorise exposures to carers and comforters as outlined in authorisation guidelines.

Review of the submitted SAF, supporting documentation and discussion with key staff during the inspection, evidenced that the justification and authorisation process is understood by staff and largely implemented in accordance to the Employer's Procedures. The areas of improvement outlined will assist on this matter. The inspection team acknowledge the commitment of staff in this regard.

5.2.3 Does the service adhere to legislation with regard to equipment QA?

The Employer must keep an up-to date inventory of all medical radiological equipment, including ancillary devices that can directly control or influence the exposure.

It was noted that the equipment inventory did not fully reflect all information required under IR(ME)R. An area of improvement has been identified on this matter.

Both management and staff confirmed there is an appropriate amount of equipment available for the workload of the radiology department and for those radiology services provided outside of the radiology department.

There was a formal written equipment quality assurance (QA) programme and a Equipment QA procedure in place. However on review, it was noted that the Equipment QA procedure had exceeded its review date; did not accurately reflect the arrangements for equipment QA in UIC; included references to out of date legislation and other HSC services not relevant to UIC. The ratification process for this procedure was also unclear. An area of improvement has been identified to review the Equipment QA procedure with MPE involvement to accurately outline equipment QA arrangements; ensure it is subject to UIC's ratification process; be fully implemented and update the relevant Employer's Procedure accordingly.

It was confirmed that daily and monthly quality control (QC) checks of the radiology equipment, including equipment operated outside of the main radiology department, are carried out by appropriately trained and entitled operators. Level A testing was up to date on the QC records reviewed on the day. However, the QA procedure required updating as some tests are no longer required and some remedial and suspection thresholds, which the MPEs confirmed required review. This matter will be addressed through the previous area of improvement.

As part of the service level contract between UIC and the Regional Medical Physics service a programme for expert QC (Level B) is undertaken using recommended QC test methods and at a frequency advised by the IPEM 91 report. The MPE confirmed all Level B testing is up to date apart from the CT scanner, which is scheduled later in the month. The RL has oversight of the Level B testing.

The QA lead radiographer compiles a QC testing report which is shared with the RL and Deputy RL. The report covers the status of the testing and any actions required. Any concerns identified are communicated to the MPE. The report is also shared at the RSC meeting. Where a concern arises between RSC meetings, it will be escalated appropriately. Management confirmed the equipment QA will be included in the terms of reference for the IOT meetings.

The MPE completed an audit of the QC testing in 2024. The MPE noted the QC testing was well completed in terms of frequency; tests required and actions taken. Management confirmed they are in the process of actioning any recommendations or advice from this audit and have introduced electronic equipment QC records.

Management and staff described the action taken for dealing with defective or faulty equipment. Staff and management demonstrated understanding of their roles and responsibilities in relation to equipment QC.

Review of the submitted SAF, supporting documentation and discussion with key staff during the inspection evidenced an equipment QA programme is in place which will be strengthened by addressing the areas of improvement made. The inspection team acknowledge the commitment of staff in this regard.

5.2.4 Does the service adhere to legislation with regard to patient identification including pause and check?

IR(ME)R requires the Employer to establish a procedure to correctly identify the individual to be exposed to ionising radiation. The procedure should specify how and when an individual is to be identified. Employer's Procedure 1 - patient identification, is in place and provides a framework for staff to follow. Correct identification (ID) of the patient or individual to be exposed is an operator task and must be undertaken prior to any exposure.

Management and staff confirmed that it is the responsibility of the operator to ensure the correct patient is being examined against the referral. Whilst multiple staff may be involved with the patient, the responsibility for correct ID lies with the operator who carries out the medical exposure.

Staff confirmed that the operator must always check the patient's name, address and date of birth against the referral on RIS. The patient must be asked to state these details their name, address and date of birth rather than confirm these details. They outlined the following questions:

- What is your name?
- What is your address?
- What is your date of birth?

It was confirmed that supplementary safety checks are also carried out such as:

- Why are you here?
- Have you been x-rayed or scanned recently?

Staff confirmed that the professional guidance on Pause and Check is used and promoted in the radiology department. It was good to note that Pause and Check notices were displayed in the department.

For other scenarios, such as paediatrics, patients who lack capacity and patients in theatre, a clear patient ID process was outlined.

Review of a random sample of patient records found that patient ID had been recorded in multiple different places and not always consistently completed. Employer's Procedure 1 states that patient ID should be recorded on the request form. An area of improvement has been identified to review Employer's Procedure 1 and audit patient ID compliance.

The process for addressing patient ID discrepancies was outlined by staff members. It was very clear from staff responses that the exposure would not be undertaken if the patient ID could not be confirmed.

There is evidence to show that incidents involving referral of the wrong patient are among the largest percentage of all diagnostic errors notified to IR(ME)R regulators. The radiology department has robust systems in place to report, record, investigate and learn from incidents and near misses. Learning from patient ID incidents and near misses has strengthened processes by the implementation of Pause and Check; further staff training, raising awareness of the individual's responsibilities and liaising with other departments to promote safe practice.

Review of the submitted SAF, supporting documentation and discussion with key staff during the inspection evidenced whilst good patient identification processes are in place, the area of improvement outlined will strengthened recording arrangements for patient ID in UIC. The inspection team acknowledge the commitment of staff in this regard.

5.2.5 Additional areas reviewed - other areas identified through the review of the submitted self-assessment form and supporting documentation

Diagnostic Reference Levels (DRLS) and dose audits

Diagnostic reference levels (DRLs) are radiation dose levels, or for nuclear medicine the administered activity, for typical diagnostic examinations on standard size adults and children for broadly defined types of equipment (for example CT, fluoroscopy or general radiography).

DRLs are often considered the first step in the optimisation process. DRLs are benchmarks of patient radiation dose, based on dose indices and where certain variables, such as equipment type, examination and patient size, are standardised to minimise uncertainty. All operators should be familiar with and trained in the appropriate use of DRLs.

DRLs are generally set following national and local surveys (referred to respectively as national DRLs or local DRLs). DRLs apply to a population, and individual patients should not be compared with the DRL, nor should DRLs be used as dose limits. Instead, DRLs are an essential tool in the optimisation process. DRLs should be reviewed systematically, preferably by a multi-disciplinary team. Employer's Procedure 11- DRLs, outlines that the DRLs will be reviewed annually taking into account any new local patient dose audit data as well as new national data.

It was confirmed that UIC updated their local Picture Archiving and Communication System (PACS) system. During this process the MPE recommended consideration for a dose management system (DMS), which UIC proceeded with. The intention of the DMS was to support dose audits. To date, the DMS hasn't quite achieved the intended purpose as additional assurances were required (such as protocol and examination mapping). The UIC team involved in the DMS have received training on the DMS on a number of occasions over the last year with the most recent training the previous week. The staff involved in using the DMS include the MPEs, RL, Deputy RL, QA lead and the CT lead radiographer.

In the interim, the service has returned to manual dose audits in CT and general radiology. These dose audit results will be presented at the IOT in December 2025.

The challenges of the DMS has led to significant delays in carrying out dose audits and consequently the review of the DRLs. This does not comply with UIC's Employer's Procedure 11- DRLs, as outlined above. It was noted that the DRLs currently adopted in UIC are national DRLs 2022 and not the most current national DRLs issued in July 2025. This was reflected by the DRLs displayed in the radiology department. In addition, paediatric DRLs were not observed to be displayed in the radiology department.

Whilst acknowledging the work that is ongoing in UIC in relation to dose audits and DRLs, to ensure a clear focus and timescale for actions on this matter, RQIA requested an action plan to be submitted to RQIA by 21 November 2025. A robust action plan on DRLs was submitted to RQIA which detailed action taken or to be taken, tight timescales and identified those responsible for carrying out and monitoring implementation.

An area of improvement has been identified to ensure the UIC action plan on DRLs is fully implemented and compliance with the Employer's Procedure 11 is included in the IR(ME)R audit programme.

Paediatric Imaging

The UIC provide a paediatric radiology service as outlined previously. Management and staff confirmed that paediatric radiologists are directly involved with paediatric referrals. The clinic has specific protocols on the equipment for paediatric patients in X-ray, fluoroscopy and CT. IR(ME)R requires that the practitioner and operator must pay particular attention to the optimisation of exposures performed on children. With the establishment of the IOT it would an opportunity to focus on the provision of the paediatric radiology service. Therefore an area for improvement has been identified to devise and implement an optimisation strategy for paediatric imaging.

Benefits and risks

IR(ME)R requires an Employer's Procedure for providing adequate information relating to the benefits and risks associated with the exposure and formalise this recognised practice. Information should be given prior to the exposure, where practicable, to the individual being exposed or their representative.

This can be in the form of posters and leaflets in public areas such as waiting areas or wards may be sufficient. For higher dose procedures such as CT or interventional examinations consideration must be given to how information is given and by whom and how it is received and understood by patients. IR(ME)R also requires the duty holders to have adequate training on the benefits and risks of radiation and risk communication.

It was confirmed that medical physics had provided a training session on this area during the regional QA study day, however not all staff attended this. Management and the MPE gave assurances to explore establishing training in-house to ensure all staff have access to adequate training.

Management confirmed arrangements for the provision of benefits and risks information in the radiology department. It was good to note posters outlining this information displayed in the waiting areas and patient changing areas in the radiology department. However, it was less clear how benefit and risk information was provided to patients referred for imaging in theatre. An area of improvement has been identified to ensure all relevant staff receive training on the provision of benefits and risks information in relation to radiology, and ensure there are clear arrangements on the provision of benefits and risks information to patients receiving radiology exposures in theatre and Employer's Procedure 4 is updated accordingly.

Pregnancy Enquiries

IR(ME)R provides a framework designed to protect individuals from the harmful effects of ionising radiation. This includes the radiation protection of the foetus and those individuals who are breastfeeding. IR(ME)R includes the requirement to make enquiries of individuals of child bearing potential, and this should accurately reflect the diversity of the gender spectrum in the population.

Review of patient records noted that pregnancy enquires for general radiology and CT had been recorded as having been carried out.

However, there was no record of pregnancy enquiries for the fluoroscopy imaging records reviewed during the inspection. Staff confirmed pregnancy enquiries are carried out for fluoroscopy procedures. An area of improvement has been identified to ensure that pregnancy enquiries are recorded for fluoroscopy procedures and IR(ME)R compliance audits carried out.

6.0 Conclusion

There were 17 areas of improvement identified as a result of this inspection. These are fully outlined in the appended QIP.

The management team and staff are to be commended for their ongoing commitment and enthusiasm to ensuring that the UIC radiology department is well managed and operating within the legislative framework; and maintaining optimal standards of practice for patients.

The inspection team would like to extend their gratitude to the management team and staff for their contribution to the inspection process.

7.0 Quality Improvement Plan/Areas for Improvement

Areas for improvement have been identified where action is required to ensure compliance with The Ionising Radiation (Medical Exposure) Regulations (Northern Ireland) 2018 known as IR(ME)R and other published standards which promote current best practice to improve the quality of service experienced by patients.

Total number of areas for improvement	17

Areas for improvement identified during this inspection are detailed in the QIP. Details of the QIP were discussed with senior management as part of the inspection process. The timescales commence from the date of inspection.

It is the responsibility of the Employer to ensure that all areas for improvement identified within the QIP are addressed within the specified timescales.

The QIP should be completed and detail the actions taken to address the areas for improvement identified. The Employer should confirm that these actions have been completed and return the completed QIP via BSU.Admin@rqia.org.uk for assessment by the inspector.

Quality Improvement Plan	
Action required to ensure compliance with The Ionising Radiation (Medical Exposure) Regulations (Northern Ireland) 2018	
Area for improvement 1 **Ref:** Regulation 6(5)(a) **Stated:** First time **To be completed by:** 12 February 2026	The Employer must establish DXA referral criteria and make it available to referrers. Ref 5.2.1
	Response by Employer detailing the actions taken: Dexa referral criteria had been established, and the Employers Procedures (Procedure 2) updated to reflect this. Steps to make the Dexa referral criteira available to all referrers is in progress with the development of an electronic referral system.
Area for improvement 2 **Ref:** Regulation 6 Schedule 2.1(b) **Stated:** First time **To be completed by:** 12 February 2026	The Employer must formalise the process for entitlement of NMRs consider an application process for NMR entitlement; evidence the scope of referral for the NMR; establish a NMR database which should be reviewed regularly and consider auditing NMR entitlement to ensure compliance with their scope of referral. Ref 5.2.1
	Response by Employer detailing the actions taken: An online Entitlement document is currently in use to enable the employer to establish if a NMR has the appropriate IR(ME)R training to refer to UIC. This process is being further refined, whereby, the document completed by the NMR will be taken as an application to refer. The RL, Deputy RL and / or Clinical Director will assess and decide upon the scope of the NMR entitlements. The NMR will be informed and must sign and agree to this scope of referral. This will be recorded in the NMR database, which is being developed with IT department.
Area for improvement 3 **Ref:** Regulation 6 Schedule 2(1)(b) **Stated:** First time **To be completed by:** 12 February 2026	The Employer must review entitlement arrangements, ensure the record of entitlement is completed accurately and in accordance to Employer's Procedure 2 - Entitlement. Review and update Employer's Procedure 2 as necessary. Ref 5.2.1
	Response by Employer detailing the actions taken: Following a meeting with MPE, on 08/01/2026, Employers Procedures have been updated.

Area for improvement 4 **Ref:** Regulation 7 **Stated:** First time **To be completed by:** 12 February 2026	The Employer must further develop a robust multi-disciplinary team (MDT) clinical audit programme which should include meaningful interpretation of findings and a more robust detailed action plan. Ref 5.2.1
	Response by Employer detailing the actions taken: The clinical audit programme was discussed at the IOT meeting held on 05/12/2025. Futher audits have been planned, with a multidisicplinary approach, the results of which will be disussed through the relevant meeting structure within the hospital.

Area for improvement 5 **Ref:** Regulation 6(2) **Stated:** First time **To be completed by:** 12 February 2026	The Employer must further develop the IR(ME)R compliance audit including the development of an audit report template for consistency of approach and consider a blended approach to the audit process such as some observational audits to involve and engage staff. Ref 5.2.1
	Response by Employer detailing the actions taken: In line with the employer duties under the Ionising Radiation (Medical Exposure) Regulations (Northern Ireland), the employer will strengthen the IR(ME)R compliance audit process. A standardised IR(ME)R audit report template will be implemented to ensure a consistent and systematic approach to monitoring compliance with employer's procedures. A blended audit methodology, including observational audits, will be introduced to provide assurance that IR(ME)R processes are implemented in practice and to support staff awareness and compliance. Audit findings and actions will be reviewed through established governance and quality assurance arrangements, and the meeting structure within the hospital. This work is currently being developed by the RL and Deputy RL in conjunction with Q&E and will be presented for discussion and approval at the RSC 28/01/26
Area for improvement 6 **Ref:** Regulation 6 Schedule 2(1) **Stated:** First time **To be completed by:** 12 February 2026	The Employer must update the relevant Employer's Procedures in relation reporting arrangements to Medical and Healthcare Regulatory Agency (MHRA) subgroup Medical Device and Estate Safety (MDES). Ref 5.2.1
	Response by Employer detailing the actions taken: Employers Procedure 15.3 has been updated to reflect the new reporting arrangements to MHRA.

Area for improvement 7 **Ref:** Regulation 8(1) Schedule 2(1)(l) **Stated:** First time **To be completed by:** 12 February 2026	The Employer must update the definition of a Clinically Significant Accidental or Unintended Exposure (CSAUE) in the Employer's Procedure 16 - CSAUE. Ref 5.2.1
	Response by Employer detailing the actions taken: The Employers Procedures have been updated, following a meeting with MPE, on 08/01/2026. These changes will be ratified at RSC 28th January 2026.
Area for improvement 8 **Ref:** Regulation 6 Schedule 2(1)(d) **Stated:** First time **To be completed by:** 12 February 2026	The Employer must update Employer's Procedure 9 - quality assurance procedure, to ensure all documentation it is fully reflective of practice and includes management arrangements for hard copy documents. Ref 5.2.1
	Response by Employer detailing the actions taken: The Employers Procedures have been updated, following a meeting with MPE, on 08/01/2026. These changes will be ratified at RSC 28th January 2026.
Area for improvement 9 **Ref:** Regulation 6 Schedule 2(1)(m) **Stated:** First time **To be completed by:** 12 Febrary 2026	The Employer must update Employer's Procedure 6 - Non Medical Imaging (NMI), in relation to the definition of NMI. Ref 5.2.1
	Response by Employer detailing the actions taken: The Employers Procedures have been updated following a meeting with MPE, on 08/01/2026. These changes will be ratified at RSC 28th January 2026.
Area for improvement 10 **Ref:** Regulation 11(5) **Stated:** First time **To be completed by:** 12 February 2026	The Employer must review the authorisation guidelines to ensure they are clear and unambiguous; and the practitioner for exposures carried out using the authorisation guidelines is identifiable with evidence of the appropriate practitioners responsible for the relevant exposures. Ref 5.2.2
	Response by Employer detailing the actions taken: A review is underway by the RL and Deputy RL to ensure that the appropriate Practitioner is identifiable for the relevant procedures justified by corresponding authorisation guidelines. The authorisation guidelines are being strengthened to be more succinct as to whether an exposure is justified or not without offering an alternative.

Area for improvement 11 **Ref:** Regulation 15(2) **Stated:** First time **To be completed by:** 12 February 2026	The Employer must ensure the equipment inventory fully reflects all information required under IR(ME)R. Ref 5.2.3
	Response by Employer detailing the actions taken: An update of equipment inventory to include manufacture date is in progress by the RL and Deputy RL. This information has been requested from the equipment vendors.
Area for improvement 12 **Ref:** Regulation 15(1) Schedule 2.1(d) **Stated:** First time **To be completed by:** 12 February 2026	The Employer must review the Equipment QA procedure with MPE involvement to accurately outline equipment QA arrangements; ensure it is subject to UIC's complete policy and procedure ratification process; be fully implemented and update the relevant Employer's Procedure accordingly. Ref 5.2.3
	Response by Employer detailing the actions taken: Meeting with QA Lead and MPE to be arranged to update QA programme. Employers Procedures will then be updated accordingly
Area for improvement 13 **Ref:** Regulation 6 Schedule 2(1)(a) **Stated:** First time **To be completed by:** 12 February 2026	The Employer must review Employer's Procedure 1 and audit patient ID compliance. Ref 5.2.4
	Response by Employer detailing the actions taken: Audit currently being undertaken of a sample of request forms, from 2025, to identify compliance levels. A review of Employers Procedure 1 to follow, along with staff training if required
Area for improvement 14 **Ref:** Regulation 6 (5) (c) &(7) Schedule 2(1)(f) **Stated:** First time **To be completed by:** 12 February 2026	The Employer must ensure the UIC action plan on DRLs is fully implemented and compliance with the Employer's Procedure 11 is included in the IR(ME)R audit programme. Ref 5.2.5
	Response by Employer detailing the actions taken: IOT meeting was held on 5th December 2025. DRL's to be ratified at RSC on 28th January 2026, in line with the Action Plan submitted to RQIA on 21/11/2025.
Area for improvement 15 **Ref:** Regulation 12 (8) (a) **Stated:** First time	The Employer must devise and implement an optimisation strategy for paediatric imaging. Ref 5.2.5

To be completed by: 12 February 2026	**Response by Employer detailing the actions taken**: Optimisation strategy for paediatric imaging was discussed at IOT meeting in December 2025, Paediatric Radiologist is a member of the IOT, and will be involved in development of the strategy. Audits are planned specifically in relation to paediatric imaging. Deputy Radiology Lead has joined a Paediatric Imaging Focus Group led by Radiographers in Great Ormond Street Clinical Director organising paediatric imaging training for radiographers in Dublin.
Area for improvement 16 **Ref:** Regulation 6 schedule 2(1)(i) **Stated:** First time **To be completed by:** 12 February 2026	The Employer must ensure all relevant staff receive training on the provision of benefits and risks information in relation to radiology; and ensure there are clear arrangements on the provision of benefits and risks information to patients receiving radiology exposures in theatre and Employer's Procedure 4 is updated accordingly. Ref 5.2.5
	Response by Employer detailing the actions taken: MPE, will provide training for staff on the provision of benefits and risks information in relation to radiology, date of training to be confirmed.
Area for improvement 17 **Ref:** Regulation 6 Schedule 2(1)(c) **Stated:** First time **To be completed by:** 12 January 2026	The Employer must ensure that pregnancy enquiries are recorded for fluoroscopy procedures and IR(ME)R compliance audits carried out. Ref 5.2.5
	Response by Employer detailing the actions taken: Staff have been reminded at departmental staff meeting on 20/11/25, that all pregnancy questionnaires must be completed and scanned onto RIS to ensure IR(ME)R. Audit of compliance is being undertaken.

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