Worcestershire NHS
Acute Hospitals NHS Trust

Title of Document:	IR(Me)R PROCEDURE (D): Quality assurance (QA) programmes in respect of written procedures, written protocols, and equipment are followed
Directorate:	RADIOLOGY DIRECTORATE

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Review & update of procedure & inclusion	06.10.22
Individuals involved in developing / reviewing / amending this document: (titles only)	Radiology Clinical Services Manager (RCSM) Radiation Protection Supervisors (RPS)
Clinical Services manager	Mr Andrew Joyce
Radiation Protection Advisor/Medical Physics Expert	Mr Jason Fazakerley
Key staff responsibilities	Post:
Responsible for ensuring that the procedures and protocols required by IRMER are in place.	Worcestershire Acute Hospitals NHS Trust (WAHT)
Responsible for the production and maintenance of Radiology's IRMER procedures	Radiology Clinical Services Manager (RCSM)
To provide updates for the RPC and to identify and assign the role of the equipment QA radiographer	Lead Superintendent Radiographer
Responsible for ratification of the protocols and procedures	Radiation Safety Committee (RPC)
To assist in QA of the Procedure's and to bring the QA radiographers report to the local RPS meeting so exceptions can be escalated to the RPC group	Radiation Protection Supervisors (RPS) -The appointed RPSs also hold responsibilities to assist the Trust in complying with IRMER
Responsible for the production and maintenance of exam protocols and to provide a bi-annual report to the for RPC	Modality Leads/ Consultant Radiologist Modality Leads
To comply with protocols and procedure, report and non-adherence and to report any equipment issues in line with the equipment breakdown procedure.	Radiographers / Assistant Practitioners / Advanced Practitioners/ Radiologists / Sonographers /Radiology Department Assistants (RDA)
Complete routine equipment QA / including QA following fix/works. Create a biannual report for the RPC meeting, provided to the RPS of the area, on the current status of the system and make any necessary recommendations for change.	QA Radiographers
Directorate Group responsible for document control	Directorate Governance Meeting (DGM)
To complete a physics check following instillation and critical works	MPE/RPA

AIM AND SCOPE OF PROCEDURE:
In-line with regulation 6 schedule 2 (d) requirements within IRMER 2017, the purpose of this procedure is to ensure that quality assurance programmes are in place in respect of written procedures, written protocols and equipment.

This procedure applies to All procedures and protocols as defined in Regulations 6 and Schedule 2 of IR(Me)R 17

Protocols/Procedures:

All documentation must be finally ratified via the Directorate Radiology Governance meeting group where it will undergo document control. All documents must contain a version number, review date, responsible person for reviewing the document, record of amendments and associated date.

A collated table of all Radiology documents and review dates can be seen within the Department Management System (DMS) M:\Acute\Radiology\Radiology Team Share Point

Feedback of document updates will be communicated to all staff groups via the quality/governance update and staff meetings/minutes.

QA of Procedures:

- IR(ME)R procedures are to be reviewed every 3 years unless significant change to practice annually. Joint reviewed by Radiology Clinical Services Manager and MPE with support from the RPS's (who are designated duties to assist the employer in complying with IRMER). Then Ratified by the RPC and placed for note/communications on DGM.

- Local Audit – A programme of local compliance audit is carried out on an annual basis with support of the RPS's. The results of such audits will be presented by the author at the DGM.

- Annual RPA/MPE compliance Audit – At the annual audit the MPE shall;
  1. Review results of RPA/MPE audit and ask about any changes to practice or problems that may inform the need to review and amend the audit programme.
  2. The RPA/MPE will audit radiology to ensure all required IRR/IRMER processes are in place and formalise a report.
  3. The report is to be submitted to the RPC group by the MPE, and forwarded to the RPS's. The report is presented by the MPE at the RPC meeting, with appropriate follow up and actions to be monitored by the RPS's via there bi-monthly meeting group. Overall feedback in provided to the RPC group at the bi-annual meeting.

QA of protocols:

- All clinical exam protocols are reviewed as a minimum every 3 years, or after any incident which may affect radiation dose, prior to implementation of new legislation/guidance or best practice from official bodies or following review of trust policies. This is the responsibility of the Modality Leads/relevant radiologists.

- Modality Leads will co-ordinate the process of creating department level controlled documents within their area of responsibility and liaise with quality/Governance Radiographer.

- Any change to exam protocols that has a direct impact on radiation dose or procedure outcomes must be done so after consultation with the relevant Medical Physics Expert (MPE).

Equipment

WAHT will fulfil its legal and professional responsibilities regarding quality control of radiological equipment. This is achieved by carrying out routine checks on dose and image quality related parameters on its imaging equipment. These checks are informed by relevant professional guidance (such as IPEM Report 91).

Equipment QA:

- RPA/MPE – undertake annual Survey/QA and following installation or critical works. The necessary AXrEM documentation will be completed.

- Responsibility for the routine Quality Assurance checks lies with the QA radiographers, who complete monthly QA to defined testing parameters as agreed by the RPA/MPE and to an agreed time schedule.

- Every test performed is recorded and shall have remedial and suspension levels associated with it. This helps to aid any actions following receipt of an untoward measurement. The QA radiographer must ensure:

    1. That all local checks are carried out regularly and any discrepancy is highlighted to the site Superintendent Radiographer.
    2. Any Suspension results are double checked and reported to the Site Superintendent, MPE and area lead. Also that the equipment is removed from action following the equipment breakdown procedure (appendix A).
    3. Any Remedial fails are double checked and reported to the MPE.
    4. Any subsequent actions following the untoward results are followed through.

- Radiographers to undergo QA training with completion of competence with IRS or established existing QA radiographer.

- The QA Radiographers must regularly liaise with a member of Medical Physics to discuss any abnormal results, analyse trends and ensure actions are being followed through. QA Radiographers must provide regular updates to the RPS of the area, to be forwarded and discussed at the local RPS meeting and escalated where required to the RPC, in regards to the current status of the system and will make any necessary recommendations for change.

- QA results must be loaded onto QADRIS (http://qadris.co.uk) firstly or when this is not possible onto a specified excel document which is saved locally within Radiology

Radiation Protection folder. These reports must be submitted to the Radiation Safety Committee on a bi-annual basis.

- Equipment QA programmes following critical works are the responsibility of the MPE and will be reviewed in line with national guidance at least annually.

Non-adherence to procedures / protocols:

All staff are responsible to draw to the attention of the lead superintendent Radiographer to any failures of a procedure, or suggestions for improvement.

Any non-adherence to procedures should be reported via the incident reporting policy on DATIX.

Equipment breakdown or suspension following QA:

All staff are responsible to report any issues identified with equipment to the attention of the lead superintendent Radiographer. Any failures in equipment should follow the "Equipment Breakdown/Repair Procedure" Appendix A.

Appendix A

Equipment Breakdown/Repair Procedure

In the event of an equipment breakdown/malfunction, please escalate the fault to the most Senior Radiographer present in the department at that time. Inform the Site Superintendent via email giving details of the break down.

The Senior Radiographer will either allocate a responsible person to complete the following actions or complete themselves.

Fault reporting is the responsibility of all radiographers with the leads ensuring the process is performed correctly and followed up.

Report to Manufacturer

- Contact the relevant company. (WRH, contact MES. Alex /KCH contact company directly) Report the fault, suppling the relevant system ID allocated to each piece of equipment.
- The relevant company will provide a reference/job number which should be recorded in the fault Record log book or sheet. If required, an engineer will attend site to provide assistance and perform repair.
- If the equipment is deemed unsafe it needs to be switched off (unless directed otherwise). Please attach a DO NOT USE notice which should be signed and dated. The Fault log book/sheet should be displayed by the control panel, and a note for the safety huddle should be created and mentioned until fault resolved.

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Always ensure you email the actions to the Site Superintendent and area lead.

Handover to Engineer

When the Engineer arrives, they must 'book in' with the department/Estates/Siemens work shop before commencing work. This is included as a requirement in their contract of work. The room must be 'handed over' using the AXrEM hand over document by a customer representative of the department. WAHT deem any registered radiographer employed by Worcestershire Acute Hospital Trust as an Authorised person.

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AXrEM Part 1 - Customer

- **To be completed by a <u>Radiographer.</u>**
- An AXrEM 'Controlled Area and equipment handover document' must be filled in to record that the equipment has been 'handed over'. Please ensure you note the call reference/reason for handover from the log book and check the engineer's ID badge
- You can then sign the room over to the engineer.
- In the case of a remote site and with agreement by our RPA, in the absence of a Radiographer, a prepopulated AXrEM handover form will be left out for the engineer to complete. With instructions to contact the main site when the work is complete.

AXrEM Part 2 – Company Representative

- **To be completed by the engineer.**
- Please ensure the below sections have been ticked:
    - Could this work have implications for radiation safety or patient dose or image quality?
    - Equipment is operational/partially operational/ not operational.

AXrEM Part 3 – Customer

- **To be completed by a Radiographer**
- The receiving person must complete part three in full. Please ensure that if any critical work affecting dose is carried out that the equipment is **<u>NOT</u>** returned to use until it has received a physics check or Local QA checks as listed per engineer handover.
- If the fault has been rectified and non-critical work has been completed, switch the machine on, remove all DO NOT USE notices and complete the relevant section in the faults record/log book.

If the fault has not been rectified, please document all actions taken on the AXrEM form and ensure this is communicated to the Site Superintendent and relevant modality lead.

AXrEM forms once completed should be handed or emailed to RPS/Modality lead /Radiographer to be archived in the appropriate place. Once this has been done the paper form can then be placed in confidential waste.