Healthcare Improvement Scotland | Inspections and reviews
To drive improvement

Announced Inspection Report: Ionising Radiation (Medical Exposure) Regulations 2017

Service: Royal Alexandra Hospital, Paisley

Service Provider: NHS Greater Glasgow and Clyde

27-28 May 2026

NHS SCOTLAND

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First published August 2026

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1 A summary of our inspection

Background

Healthcare Improvement Scotland (HIS) has a statutory responsibility to provide public assurance about the quality and safety of healthcare through its inspection activity.

Our focus

The focus of our inspections is to ensure each service is implementing IR(ME)R 2017. Therefore, we only evaluate the service against quality indicators that align to the regulations. We want to find out how the service complies with its legal obligations under IR(ME)R 2017 and how the services are led, managed and delivered.

About our inspection

We carried out an announced inspection to Royal Alexandra Hospital (RAH), NHS Greater Glasgow and Clyde (NHS GGC) on Wednesday 27 and Thursday 28 May 2026. We spoke with the clinical director for diagnostics, general manager, clinical lead radiologist, sector superintendent radiographer, site lead radiographer, quality manager and medical physics staff.

This was our first inspection to this service.

Based in Paisley, RAH has two CT scanners, four plain film rooms, one fluoroscopy suite and five mobile fluoroscopy units, one DEXA, one OPT and six mobile units. The service approximately takes 67 thousand images and undertakes 1000 fluoroscopy examinations per year.

The inspection team was made up of three inspectors.

What action we expect NHS Greater Glasgow and Clyde to take after our inspection

The actions that Healthcare Improvement Scotland expects NHS Greater Glasgow and Clyde to take are called requirements and recommendations.

Requirement: A requirement is a statement which sets out what is required of a provider to comply with the Regulations. Requirements are enforceable at the discretion of Healthcare Improvement Scotland.

Recommendation: A recommendation is a statement that sets out actions the provider should take to improve or develop the quality of the service but where failure to do so will not directly result in enforcement.

This inspection resulted one requirement and two recommendations. Requirements are linked to compliance with IR(ME)R.

Safety culture and leadership	
Requirements	
	None.
Recommendations	
	None.

Implementation of IR(ME)R requirements	
Requirements	
	None.
Recommendations	
a	It is recommended that NHS Greater Glasgow and Clyde promote the learning and development opportunities available to staff to undertake continuing professional development (see page 11).
b	It is recommended that NHS Greater Glasgow and Clyde consider adopting the recommendation from the Society of Radiographers charter for protected study time to allow staff to undertake learning and development (see page 11)

Risk and communication	
Requirements	
1	NHS Greater Glasgow and Clyde must ensure that, before an exposure to pregnant patients, confirmation is provided that adequate information relating to the benefits and risk associated with the radiation dose from exposure has been provided to this patient group. (Regulation 6(1)(a) Schedule 2 (i)) (see page 23).
Recommendations	
	None.

An improvement action plan has been developed by the NHS board and is available on the Healthcare Improvement Scotland website.

NHS Greater Glasgow and Clyde, the provider, must address the requirement and make the necessary improvements as a matter of priority.

We would like to thank all staff at Royal Alexandra Hospital for their assistance during the inspection.

2 What we found during our inspection

Safety culture and leadership

This is where we report on how clear the service's safety culture and how supportive its leadership and culture is.

Key questions we ask:
How clear is the service's vision and purpose?
How supportive is the culture and leadership of the service?

Our findings

A positive safety culture was demonstrated on both days of the inspection.

Safety culture

A positive safety culture was demonstrated on both days of the inspection. There was strong communication across multiple governance committees structure covering radiological safety issue ensuring issues are resolved, escalated and appropriately and reviewed.

Staff told us they felt comfortable to raise any issues and felt supported to raise concerns at all levels. From discussion with all staff good awareness of the mechanism for recording incidents following well established procedures in the radiology department.

The safety culture extended to the use of imaging technology. As part of the justification process, practitioners confirmed they seek non-ionising radiation imaging options if appropriate. Where ionising radiation was appropriate, NHS GGC had sought to optimise exposures through the development of imaging protocols and quality control.

Staff told us there was a positive culture where they were comfortable to question and clarify details with referrers when required to ensure the most appropriate imaging techniques and protocols are used. Seeking clarification and working as a team to ensure that patients receive an appropriate exposure to ionising radiation. They were also comfortable cancelling referrals when required.

Requirement

- No requirements.

Recommendation

- No recommendations.

Implementation of IR(ME)R requirements

This is where we report on how well the service implements the requirements of IR(ME)R and manages and improves performance.

Key questions we ask:
How well does the service manage and improve performance?
How does the organisation demonstrate the safe use of ionising radiation (patient exposure)?

Our findings

Clear systems and processes, aligned to IR(ME)R, were in place throughout the patient pathway. This included the development of employer's procedures (EPs), entitlement of staff and staff training, justification, imaging and clinical evaluation. All staff were clear on their roles and responsibilities related to IR(ME)R, however time to undertake CPD was limited. The EPs require updating to capture the practice of cancelling referrals.

Employer's procedures

EPs were stored on an online system, quality management software system, with staff confirming they all had access and were aware of how to access EPs and other relevant documents if required.

Training

RAH demonstrated robust training for radiographers, with detailed training records reviewed, completed and signed by the appropriate people. The training records we reviewed demonstrated that staff received training on each item of imaging equipment in the department. Training documentation was clear, comprehensive and readily available for reference. The training documents were linked to staff competency and entitlement.

We spoke with staff about supervision of trainees and students. There is consistent understanding and application of direct and indirect supervision in practice. Staff we spoke with were aware of their individual scope of practice and their responsibilities in their role. The training records we saw clearly stated and specified the various tasks the staff member was competent in or was in training for. Staff were aware of where to find their training records. Staff also told us that, during various training elements, a specific number of images or cases had to be carried out independently and were reviewed with a senior member of staff before they were deemed competent. This is a positive example of seeing the practical elements in practice and of subsequent discussion to ascertain the trainee's understanding.

Training arrangements for cardiologists and radiologists were also of a high standard and well established. Trainee radiologists carried out various stages of training and gained competencies along the way. Their responsibilities and level of autonomy increased as they progress and gained competencies in various aspects of training. These staff groups must also complete annual appraisals and medical revalidation to keep their professional registration. These measures provide ongoing assurance of competency and professional development.

There is a clear pathway for the training of radiographers to become reporters, as detailed in NHS GGC Protocol for Independent Image Interpretation by Consultant & Advanced Radiographer Practitioners – Digital Radiography Imaging. Radiographers undergo a period of structured supervision from a clinical supervisor. Included in the protocol are the number and types of examinations that require to be reported as part of the training. All these examinations are double reported by the clinical supervisor and the outcomes monitored for accuracy. On the successful completion of the training the reporting radiographers will have their scope of practice modified accordingly. Reporting radiographers have access to support from the Consultant Radiographer.

What needs to improve

Staff confirmed they had undertaken training such as training on new protocols this year. However, they told us there had been limited continuing professional development (CPD) in the past year and they described a lack of structured CPD. There was recognition by the senior staff, that the learning and development opportunities had decreased over time. Staff referred positively to previously having CPD opportunities such as talks from a variety of different speakers and staff on various topics, with these being recorded and available to review at a later date. There was also access to a dedicated online channel for education and CPD. Staff could request CPD opportunities and there were online training and education NHS modules available to staff (recommendation a).

Staff told us that they were undertaking CPD in their own time. CPD protected time was difficult to plan due to staffing numbers, increasing patient numbers and capacity overall. Yearly appraisals were in place and could be used to highlight CPD requirements (recommendation b).

Recommendation a

- It is recommended that NHS Greater Glasgow and Clyde promote the learning and development opportunities available to staff to undertake continuing professional development.

Recommendation b

- It is recommended that NHS Greater Glasgow and Clyde consider adopting the recommendation from the Society of Radiographers charter for protected study time to allow staff to undertake learning and development.

Entitlement

The entitlement processes, roles and responsibilities were well established and clearly defined within the EPs, as per IR(ME)R 2017. Staff were appropriately entitled and aware of the scope of practice in accordance with their role. We saw entitlement records for radiographers were signed by the appropriate people. The entitlement procedure was closely linked with scope of competency and practice and training, and training records were aligned to entitlement.

The radiologists' individual entitlement letters were signed by the clinical director. The scope of entitlement was also confirmed by the clinical director. In line with EP DR-GGC-PROC-002: 'The lead radiologist is authorised by the clinical director to assess the competencies of radiologists and define their scope of entitlement'.

The general manager for imaging was responsible for entitlement of radiographers as practitioners, operators and assistant practitioners, following induction. In line with DR-GGC-PROC-002: 'The sector superintendent radiographer is authorised by the general manager to assess competencies of radiographers and assistant practitioners and define their scope of entitlement'. RAH had clear matrices showing entitlement for all staff and staff groups. The matrices were easy to read and showed the various scopes and roles applicable to each person.

Non-medical referrers (NMRs) can be entitled to refer for specific image exposures. EP1 states: 'The IRMER policy lead may entitle named health care professionals who are not medical or dental staff to act as referrers for a limited range of medical exposures. The Imaging Approval Panel will advise the IRMER policy lead whether it is appropriate for such persons to be entitled. NMRs received a letter of entitlement upon approval of their application. There was a spreadsheet of NMRs available to all staff to check entitlement. A spreadsheet was also available that provided information on the list of NMRs and their scope of practice.

Requirement

- No requirements.

Recommendation

- No recommendations.

Referral

RAH demonstrated a strong referral process in line with IRMER, particularly in relation to identifying the duty holders in the referral request. The referral system was online for most requests with only a small number of referrers using a paper referral, for example dental practitioners and NHS boards out with NHS GGC, for example islands. Internal NHS GGC referrals originated from TrakCare. A separate system was in place for GP referrals. Referrals could come from medical staff, dentists and entitled NMRs. A service level agreement was also in place for accepting referrals from the NHS Western isles.

The referrer was easily identified on the computerised radiology information system (CRIS). For all referrals, the doctor responsible for the patient's care would also be included to ensure they receive the clinical evaluation and can act on the findings.

Staff confirmed they did not amend requests. If there were any questions or issues with a request meaning it could not be justified, the original request was cancelled. The referrer was informed of the additional information required or directed to another type of imaging technique. A new request was then submitted by the referrer with the appropriate information. When cancelling requests, if done by a radiographer, the reason for the cancellation must be recorded in CRIS.

Referrers who cancel a request before exposure must telephone the radiology service to inform them, as detailed in EP4, "when a referrer wants to cancel a referral, they contact the department undertaking the imaging to ensure the procedure does not go ahead". We were told that this system was well known by the referrers and staff and was part of the induction training for trainee radiologists.

For GP referrals, the information was automatically transferred from the GP requesting system to CRIS. The imaging procedures available to request were limited to a specific selection. It was confirmed all referrers had access to iRefer.

Staff showed a clear understanding of the referral process and were confident in rejecting referrals if the correct information was not included or sufficient information was not provided in the request. If the referral came from a person

that was not entitled to refer, this was also rejected. Although RAH did not audit trends of referrer errors, the referrer was emailed when cancelling to share the learning and identify the errors to them.

A very robust system was also in place for NMRs. NMRs were identified on the system when referring by using certain codes based on the examination they were requesting. A spreadsheet was available to check that the NMR requesting was entitled, and the examination was within their scope of practice. All staff had access to this spreadsheet, and we saw this during the inspection.

Requirement

- No requirements.

Recommendation

- No recommendations.

Justification

In RAH, radiologists were responsible for justifying plain film exposures for inpatients. Radiologists justify inpatients and emergency department patients. Radiographers can justify outpatient examinations under locally agreed authorisation guidelines when requests meet the specified criteria and are within their scope of practice. Radiologists would review and justify imaging requests for patients in the neonatal intensive care unit as required. It was confirmed that imaging of children would seek non ionising techniques where possible.

Appropriately trained and entitled band 6 or above radiographers may justify CT head examinations that meet the local criteria for head injuries. Some CT requests undergo ‘pre-vetting’, whereby the request is reviewed by an appropriately trained radiographer, and the appropriate imaging protocol is selected, for final justification by the radiologist. Where pre-vetting had occurred, the practitioner who carried out the pre-vetting was recorded in the patient record. The RAH don’t routinely scan under 16 year old patient in CT, as these patients are sent to the Children hospital for their scan. However, should a scan be required the appropriate protocols are in place.

Radiographers described how they would check the entitlement and scope of practice when justifying a referral from an NMR before exposure. Radiographers and the radiologist described how they would review the patients imaging history, referral information and clinical history as part of the justification process.

The CRIS system recorded the practitioner responsible for justification through a dedicated 'justified by' function, ensuring traceability of the justification decision. The system also recorded rejected requests and identified the practitioner involved in rejecting the request.

Fluoroscopy examinations were justified by the radiologists.

All staff we spoke with demonstrated a clear understanding of the justification process, and were aware of the meaning of pre-vetted and its application in the patient pathway.

Staff also showed a clear understanding of their scope and confirmed that if the request did not meet the referral criteria or it was out with their scope they would not proceed with exposure.

When an image is approved the imaging code is added to the referral which links to the imaging protocol. This provides the operator with the appropriate information when imaging a patient. Good practice was seen in the removal of two referral codes for from the online system as they were no longer required.

Requirement

- No requirements.

Recommendation

- No recommendations.

Optimisation

RAH demonstrated a strong approach to optimisation in accordance with IR(ME)R requirements, including carrying out audits, quality assurance (QA) tests and calibration of equipment.

Staff were knowledgeable about selecting appropriate protocols for adult and paediatric patients, and adjusting if required. Although paediatric patients were generally not imaged at RAH, in an emergency, all staff were aware of the need to use paediatric protocols. Specialised paediatric protocols were used in RAH neonatal intensive care unit. Although these protocols were for the Clyde sector, within NHS GGC, they were based on protocols used in the paediatric hospital in NHS GGC. We were told the aim is to move to NHS board-wide children's hospital documents. It was also confirmed that where possible equipment that produces lower dose examinations are prioritised for using on paediatric patients.

Medical physics expert (MPE) staff carried out various dosimetry surveys and audits, covering a range of equipment. The audit seeks to provide assurance that the delivered doses meet the agreed diagnostic reference levels (DRLs). The MPE investigates any trends where doses are above the DRL. The dose survey information was used to inform local DRLs. The introduction of new data gathering tools has allowed the medical physics team to gather dose data and analysis the data more rapidly. We were told all DRLs in in the RAH either meet, or are below, the national DRLs. Recent audits had identified higher than expect doses for some fluoroscopy procedures. This included one fluoroscopy room in RAH and but included more across NHS GGC. Further investigatory work was being undertaken. Dose survey data results are presented to the image optimisation team for oversight.

Requirement

- No requirements.

Recommendation

- No recommendations.

Operator

Detailed conversations were undertaken with various operators working across CT, plain film, dental and mammography services. They demonstrated a strong awareness of the radiology department's procedures and processes and IR(ME)R responsibilities.

Staff demonstrated how they check the entitlement and scope of practice when justifying a request before exposure. We were shown where staff find the referrer, practitioner, justifier and operator associated with each referral along with where the pregnancy status and patient identification was recorded. Staff also described how they would check the entitlement and scope of practice of a referral from an NMR before exposure.

Staff were familiar with the imaging protocols across the different types of imaging equipment, and we saw that protocols provided detailed guidance. They described how they would confirm a patient's ID, make enquiries about pregnancy status, before carrying out checks on the imaging required. PAUSE posters were in place on all areas inspected to promote staff to take the time needed to ensure the correct checks are undertaken.

Staff discussed and demonstrated the use of both static and mobile equipment including collimation, detector selection, protocol selection, the adjustment of settings to optimise images, the positioning of patients and how they would review the dose information following an exposure.

Staff also showed a strong awareness of DRLs and QA schedules, and processes for failure of QA tests. It was positive the newly published Scotland-wide DRLs for symptomatic tomosynthesis in mammography had been adopted and were in use.

We spoke with staff about supervision for students and newly qualified members of staff. All staff had a strong understanding of direct and indirect supervision alongside recording or countersigning records.

Staff were familiar with the different imaging protocols across a variety of equipment. Staff confirmed that the protocols were available electronically for reference if required. They were clear and provided step-by-step guidance.

Requirement

- No requirements.

Recommendation

- No recommendations.

Records

Record keeping within RAH was to a high standard.

Patients' documentation was comprehensive and clear. RAH used CRIS to record the patient pathway from referral to exposure. The CRIS system had been adapted to support NHS GGC working practices. The IRMER duty holder roles were also clearly identifiable on the patient records showing accountability throughout.

Requirement

- No requirements.

Recommendation

- No recommendations.

Patient identification

Robust ID checks were in place using the 3 point check. Staff also asked patients if they were aware of the examination they were expecting and clarifying laterality with the patient (part and side of the body to be exposed). The operator who identified the patient recorded their name/initials onto the CRIS system. It was confirmed that patient identification happened before any exposure. If a student identified the patient, this was also reconfirmed by an entitled operator.

Staff were also able to describe the use of interpreters, who were booked in advance if it was indicated as part of the referral. An online system could be used when an in-person interpreter was not available.

Requirement

- No requirements.

Recommendation

- No recommendations.

Clinical evaluation

Clear systems were in place for the recording of clinical evaluations and identification of images where no clinical evaluation was required. Where no clinical evaluation was required for an image, this was recorded by an NMR within CRIS. The reporting of the image may be recorded in an anther type of clinical note such as surgical notes for some orthopaedic procedures.

All images were read from Picture Archiving and Communication System (PACs) and reported on the CRIS system. All images were reported onsite at RAH except for those through the reporting contracted service. Reporting was done for other sites within NHS GGC at RAH.

Image reporting was undertaken by radiologists and reporting radiographers who were specifically trained and entitled to undertake clinical evaluations. Reporting radiographers received support, training and oversight through peer review by the consultant reporting radiographer. This consultant radiographer provided support throughout NHS GGC and was not based at RAH. The consultant radiographer also audited 5% of the reporting radiographer's images, quality assuring clinical evaluations.

Radiologists attended peer learning forums called radiology events and learning meetings (REALM) which were held four times each year. Although there was no specific peer review system, we were assured that peer review was carried out through REALM meetings, multidisciplinary meetings and informal peer discussions.

While reporting radiographers did not attend the radiologist REALM meetings, reporting radiographers across NHS GGC could submit cases to be discussed.

Expert advice

MPE support in RAH was provided by NHS GGC as an NHS-board wide service. We were told that MPE support was readily available. A dedicated email address was used regularly to contact them, and staff told us they received a quick

response. Contact with the medical physics team was primarily through the site superintendents or the senior member of staff on any given day, as it was generally seniors raising issues or questions to the MPEs. However, the radiographers we spoke with used the email when required and knew who to reach out to when necessary. For example, MPEs were contacted in the event of equipment failure and concerns about performance of the equipment.

MPEs were involved in:

- quality assurance of equipment
- dose monitoring and dose audits
- training, and
- analysis of incidents.

MPE and physics staff carried out various surveys and audits, covering a range of safety, dosimetry and image quality measurements. Results were reported to the relevant committees and groups as necessary. The target is to undertake a dose audit for every piece of equipment every three years.

What needs to improve

During a diagnostic services inspection to NHS GGC in October 2022, the NHS board had completed a calculation of the medical physics expertise resource required. It had identified the need for a further seven full time equivalent staff in the diagnostic imaging department and additional staff in nuclear medicine. A recommendation was made at the time to 'ensure its workforce plans outline the medical physics expert resource required to meet the predicted service need'. During the inspection to RAH, the MPE provision for NHS GGC diagnostics services was reviewed. The current staffing stands at 10 medical physics staff against a current calculation of 14.9 staff. However, NHS GGC also provide medical physics support for a number of NHS boards in the west of Scotland. When taking into consideration the additional coverage of the medical physics team, the calculation of resources rises to 24 medical physics staff required. Although we did not identify any shortfalls in the obligations within RAH for medical physics support, NHS GGC must ensure it can adequately fulfil the statutory duties for the provisions of expert advice as described in Regulation 14 of IR(ME)R. HIS will continue to monitor the roles and activities of medical physics experts in NHS GGC.

Requirement

- No requirements.

Recommendation

- No recommendations.

Contracted services

A contracted service was in place to support out-of-hours working, primarily for providing clinical evaluations. The out-of-hours service did not provide justification of examinations. The contracted services operated using RAH protocols and procedures. There was a feedback mechanism involved where RAH could raise any issues with the out-of-hours service if necessary. Any incidents could also be discussed at the REALM meetings.

Requirement

- No requirements.

Recommendation

- No recommendations.

General duties in relation to equipment

NHS GGC demonstrate that equipment has been commissioned safely and is maintained in line with best practice. Quality assurance is based on IPEM91 and if there is any divergence from the guidance it has been documented in the electronic records system. We were assured that any divergence was managed through a clear governance process and achieves the appropriate patient outcomes.

Quality assurance checks on equipment are completed by radiographers, who are trained to do so. A training programme has been implemented to ensure all radiographers are trained to carry out quality assurance.

Records of the quality assurance check were in place and competed appropriately in the RAH. The spreadsheet has clear parameters for equipment which were developed by the medical physics team. If on inputting data into the online spreadsheet it exceeds the expected parameter to results are highlighted in red.

Radiographers told us if an equipment fault is suspected during clinical use, additional quality assurance checks are carried out. If the quality assurance check confirms an issue, the engineer is informed via the superintendent. If doses delivered are consistently at, or above, the dose reference levels, it is also reported to superintendent and medical physics for further investigation.

All equipment at RAH is part of the NHS GGC equipment register. This details the location, equipment, name of the manufacture and serial number for all radiological equipment. There is an equipment replacement programme that incorporate a risk prioritising aspect. To identify the which equipment to replace within the resources available.

Requirement

- No requirements.

Recommendation

- No recommendations.

Clinical audit

Clinical audit and IRMER compliance audits were carried out in RAH as set out in the GGC EP DR-GGC-PROC-04 Clinical Audit in Diagnostic Radiology. Auditing now includes a check on the auto-reporting process. This is where clinical evaluations are not required to be uploaded to CRIS but would instead be included in patient notes, such as surgical notes for orthopaedic procedures. Lead clinicians must report to the IRMER lead, where relevant clinical audits that have been carried for inclusion in an annual report.

The health physics team with the image optimisation team reviews DRL's. The outcome of the reviews is submitted to the Radiation Safety committee for ratification.

Reject image analysis was also carried out regularly, with findings used to identify refresher training where necessary, themes and shared learning.

Trainee radiologists were encouraged to undertake clinical audits and present their finding at their monthly radiologist learning event to support shared learning.

The plain film and CT optimisation groups also conducted regular audits to support service optimisation and improvements.

All audits carried out during the year were included in the report to the IRMER lead. We were also told that outcomes from clinical audits have been presented directly to the radiation safety committee.

Recent audits included:

- high resolution CT (NHS board-wide audit)
- Computed Tomography Pulmonary Angiogram (CTPA)
- Kidneys Ureters and Bladder (KUB) coverage, and
- C spine in CT head.

Accidental or unintended exposure

EP15 ‘Reporting of incidents involving unintended exposure or overexposure of patients’ describes the procedures and responsibilities for when there is an accidental or unintended exposure. Staff could describe how they would report a radiation incident and confirmed that the culture within RAH was open to reporting incidents.
The individual involved in an incident will raise it on the electronic incident reporting system. This is supported by completing an incident management descriptive account (EP-GUID-020). Internal investigations are undertaken by the relevant modality leads, while MPEs carry out any dose calculations required.

Incidents were reviewed and discussed at the RAH departmental staff meeting and the Clyde sector radiation safety meeting. Where trends in incidents were identified, these themes were discussed at staff meetings for awareness. MPEs were also available for advice and support for all incidents, including local incidents that were not reportable.

The number of reportable incidents in comparison to the number of images taken was extremely low. The incidents reported to Healthcare Improvement Scotland mainly related to a referrer referring the incorrect patients.

Requirement

- No requirements.

Recommendation

- No recommendations.

Risk and communication

This is where we report on what difference the service has made and what it has learned.

Key questions we ask:
How well does the organisation communicate with service users?

Our findings

NHS GGC had a variety of routes to provide information to patients. These included information posters and leaflets, and discussions during consent for some procedures. Radiographers could also provide verbal information to patients who had questions at the time of their examination. Further improvements are required to document discussions between the referrer and pregnant patients.

Risk benefit conversations

Posters detailing risks and benefits of ionising radiation were seen throughout the radiology department. These included posters relating to mammography, general X-ray, CT and fluoroscopy. Staff told us that they could discuss with patients about the risks and benefits should they have any questions about their imaging procedure. We were told that information leaflets were also sent to patients with their appointments where appropriate. All GP electronic referrals include a mandatory field to confirm that that the risk benefit conversation has or has not been undertaken.

What needs to improve

We found that confirmation that a risk and benefit conversation by the referrer had taken place, who is often responsible for the patient's care, was inconsistent. The inhouse referral system TrakCare, has an option to confirm that a risk benefit conversion has been undertaken but this is not a mandatory field. We were informed that a request has been raised to make the risk benefit tick box mandatory.

Referrals received for individuals who were pregnant often did not include confirmation within the referral documentation or CRIS that the risks and benefits of ionising radiation had taken place between the patient and the referrer. Staff we spoke with told us that they would ask the patient if the conversation had been undertaken and record this in the CRIS. It is the responsibility of the referrer to have these conversations and therefore document it has taken place.

We were told that NHS GGC was currently reviewing options to amend the online referral system to support the recording of this information. However, there was not yet any confirmed timeline for its implementation.

Requirement 1

- NHS Greater Glasgow and Clyde must ensure that, before an exposure to pregnant patients, confirmation is provided that adequate information relating to the benefits and risk associated with the radiation dose from exposure has been provided to this patient group. (Regulation 6(1)(a) Schedule 2 (i)).

Recommendation

- No recommendations.

Making enquiries of individuals who could be pregnant

All staff were aware of the protocols in place to question individuals of child-bearing potential. Staff demonstrated an awareness of the procedures and the requirement to document any pregnancy in CRIS on the patient's record before exposure. EP8 'Exposure of Individuals of Child-Bearing Potential' documents the policy in place. Staff confirmed that they would ask patients their pregnancy status as appropriate for patents aged 12-55 and that they would record that this had been undertaken. If a patient believed that they could be pregnant, they would not undertake the exposure. In cases where an image was required urgently, the radiologist would be required to justify the exposure. In emergency circumstances, exposure may be undertaken balancing the risk and benefit.

It was noted that work was currently under way to strengthen and standardise inclusive questioning for all individuals within the child-bearing age range to ensure consistent practice.

Requirement

- No requirements.

Recommendation

- No recommendations.

Carers and comforters procedures

A carer and comforter is a person who knowingly and willingly incurs an exposure to ionising radiation, other than as part of their occupation, by helping in the support and comfort of an individual undergoing or having undergone an exposure. We were told that the exposure of a carer and comforter was rare in RAH, and that staff tried not to expose any carer and comforters where possible. Where it was necessary, clear procedures were in place.

Level 1 document EP 21 outlines the procedure for the use of a carer and comforter. Level 2 document DR-GGC-PROC-065 details how this procedure is implemented in the radiology department in RAH. It was confirmed that carers and comforters must be over 18 years old and must not be pregnant.

The standard procedure across NHS GGC is to record the following information for anyone acting in the role of carer and comforter:

- name and relationship of carer and comforter to patient
- consent given by the carer and comforter
- that benefits and risk of the exposure were explained
- confirmation that pregnancy status of the carer and comforter has been checked (as appropriate)
- who justified and authorised exposure of the carer and comforter, and
- whether any special circumstances were considered during the authorisation process and that a dose assessment was performed.

The information is recorded in the patient's CRIS record.

Requirement

- No requirements.

Recommendation

- No recommendations.

Appendix 1 – About our inspections

Our approach

Healthcare Improvement Scotland has a statutory responsibility to provide public assurance about the quality and safety of healthcare through its inspection activity.

How we inspect services that use ionising radiation for medical exposure

The focus of our inspections is to ensure each service is implementing IR(ME)R 2017. Therefore, we only evaluate the service against quality indicators that align to the regulations.

What we look at

We want to find out:

how the service complies with its legal obligations under IR(ME)R 2017 and addresses the radiation protection of persons undergoing medical exposures, and

how well services are led, managed and delivered.

Complaints

If you would like to raise a concern or complaint about an IR(ME)R service, you can directly contact us at any time. However, we do suggest you contact the service directly in the first instance.

Our contact details are: his.irmer@nhs.scot

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