

Announced Inspection Report

Ionising Radiation (Medical Exposure) Regulations 2017

Royal Aberdeen Children's
Hospital, Aberdeen

NHS Grampian

23-24 June 2026

Background

Healthcare Improvement Scotland 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 Aberdeen Children's Hospital (RACH), NHS Grampian (NHS G) on Tuesday 23 and Wednesday 24 June 2026. We spoke with a number of staff, including consultant radiologists, radiology IR(ME)R clinical lead, medical physics experts (MPE), superintendent radiographers, practice educator and radiographers. This was our first inspection to this service.

Based in Aberdeen, RACH provides children's imaging services including dental, mobile and general radiography, computed tomography (CT), fluoroscopy and limited interventional suite procedures. Some of the children's imaging services are provided through equipment that is based in the main Aberdeen Royal Infirmary (ARI) site. The equipment in ARI is used in adult and children's imaging services. Our inspection was focused on the children's imaging service only.

The inspection team was made up of two inspectors.

What action we expect NHS Grampian to take after our inspection

The actions that Healthcare Improvement Scotland expects NHS Grampian, Royal Aberdeen Children's Hospital 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 in two requirements and four 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	
1	NHS Grampian must ensure that the procedure or similar for the entitlement of senior staff removes the need for self-assessment of competency so far as is reasonably practicable. Regulation 6 (1), Schedule 2, 1(b) (see page 9).
2	The Royal Aberdeen Children's Hospital must develop and implement a documented procedure for the cancellation of imaging referrals. (Regulation 6.1 (a) schedule (2)(P)) (see page 11).
Recommendations	
a	Royal Aberdeen Children's Hospital should assess the opportunities to improve access to protected learning time and uptake of continual professional development (CPD) for radiographers (see page 8).
b	It is recommended that NHS Grampian undertakes a review of the defaults setting in the plain film imaging fixed room equipment to ensure so far as is reasonably practicable the exposures defaults are as low as is reasonably practicable based on the patient (see page 13).
c	It is recommended that NHS Grampian evaluate the use of a laser light or similar enhancement to support staff undertaking fluoroscopy procedures to further optimise procedures and reduce the dose area product (see page 13).

d	It is recommended that NHS Grampian have an anthropomorphic phantom representing a 5-year-old to support further optimisation of children's imaging (see page 14).
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Risk and Communication

Requirements	
	None.
Recommendations	
	None.

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

NHS Grampian must address the requirements and make the necessary improvements as a matter of priority.

We would like to thank all staff at Royal Aberdeen Children's Hospital for their assistance during the inspection.

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 well-established ionising radiation safety culture was evident, supported by effective governance and staff awareness of IR(ME)R responsibilities.

Safety culture

A strong safety culture was seen in the department with all staff reporting that they are comfortable to raise issues and concerns. The reporting structure and escalation lines for incidents was known by all staff.

Staff we spoke to were aware of their roles and responsibilities under IRMER. They were happy to challenge referrers and referrals if there was insufficient or incorrect information.

Staff reported that non ionising imaging methods would be preferred and chosen in the first instance, especially in children's imaging. This culture was embedded within the department.

The governance structure contains various groups and committees with clear communication lines to pass on information and collaborate as required.

Robust quality assurance (QA) systems, optimisation awareness and practices, audit programme, training and appropriate entitlement practices all contribute to a strong safety culture within the department.

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

The service demonstrated robust governance arrangements for radiological safety, supported by clear processes for staff entitlement, training, Employer's Procedures (EPs) development, and scope of practice. The EPs require to be updated to capture the practice of cancelling referrals. The access and opportunity of protected learning time for Continuous Professional Development (CPD) for radiographers should be assessed.

Employer's procedures

RACH is clearly aligned to the NHS Grampian governance structure. A detailed library of EPs is in place, and a sample of documents were available to the inspection team prior to the inspection. The documents were divided on a level basis. Level one documents are EPs that are applicable to all departments using ionising radiation, level two are EPs that apply just to radiology and level three are procedures, protocols, forms and records that relate to subdepartments withing radiology.

All sites across NHS Grampian use the same paediatric protocols. Other sites include Dr. Gray's Hospital in Elgin, and community sites such as Chalmers Hospital Banff, Turriff Hospital, Peterhead Hospital, Jubilee Hospital, Huntly and Fraserburgh Hospital. These sites do not have a specific paediatric imaging services, but some can provide paediatric imaging for follow-up clinics and trauma incidents if required.

The paediatric protocols are NHS Grampian wide and are created with a multidisciplinary team (MDT) approach. Input is gathered from paediatric radiologists, orthopaedics, radiographers, accident and emergency consultants and other relevant specialities.

All staff we spoke to were aware of the library of documents and where to locate the documents if required.

Requirement

- No requirements.

Recommendation

- No recommendations.

Training

The training documents and records in place at RACH are in depth and cover both procedures and the various imaging equipment. All examples of records we seen were signed and dated and clearly showed the competency of each individual and any additional training or certificates they had. There is an “individual competency record” spreadsheet which is controlled by the senior staff which shows each staff members competency, equipment competency, and Health and Care Professions Council (HCPC) registration. A report of each individual is emailed to them for their own records.

Staff also confirmed if they were not signed off as competent for a piece of equipment, they would not work on it. This was also clear for the reporting of bone age examinations, only those with additional training in this area would carry out this work.

It was confirmed that there are 3 bank staff, all with previous experience of working in Aberdeen children’s hospital and 6 NHS Grampian radiographers that provide cross support in paediatric imaging. These staff undertake the same training, operate within their scope of practice and maintain their skills in imaging paediatrics.

Team leaders now have access to practice educators who oversee the training documentation, however the practical aspects of training for radiographers is supported by the team leaders and superintendent radiographers. The practice educator will review the themes for learning across radiographers and can support training in these areas, such as learning sessions or support for new practices.

The radiologists who work in paediatric imaging specialise in this area, 70-80% of their time is spent on paediatric imaging. Radiologists will cover general radiology throughout their training but will then do additional training and focused work to specialise in paediatric imaging. Registrars who are in training will not work independently in paediatric imaging or in out of hours services. Only after being deemed competent can the work under indirect supervision in the paediatric speciality.

The radiologists who operate the imaging equipment, they receive the same training for the equipment and must complete the same training record as the radiographers, or the initial training from the manufacturer.

NHS Grampian has introduced a dedicated 1-hour session as a dedicated learning time for healthcare professionals each week. This consist of post graduate lectures that all radiologists are invited to and radiographers can also attend. These education sessions are in addition to radiologists “supporting professional activities” (SPA) time.

What needs to improve

Learning and development is essential to support the building of complementary skills, such as those used in paediatric imaging. While learning time is formally provided, the radiographers reported that competing service demands on the small team often prevent them from accessing this in practice. The radiographers reported they could not meet the CPD requirements during their working hours and were undertaking additional CDP in their own time. In addition, it was identified that annual appraisal, which can be used as an opportunity to request further training and development opportunities, were not always undertaken annually (recommendation a).

Requirement

- No requirements.

Recommendation a

- Royal Aberdeen Children's Hospital should assess the opportunities to improve access to protected learning time and uptake of continual professional development (CPD) for radiographers.

Entitlement

NHS Grampian has a robust process for the entitlement of staff to undertake the role of a referrer, practitioner and operator. Level two document "RA1 Entitlement of duty holders" outlines the process for entitling staff within radiology. There are clear lines of accountability of who can entitle staff to act as a referrer, practitioner or operator as outlined in the EPs. The entitlement and scope of practice is linked to the competencies of the staff member as demonstrated by their qualifications and role, training and experience. An individual's scope of practice can change over time, for example following additional training or moving to a new role.

Non-medical referrers (NMR) such as neo natal nurses can refer for imaging if they have been entitled. The process of entitlement is clearly detailed in the document RA22 - Applying to become a Non-medical Referrer for X-ray and Nuclear Medicine Examinations in the Acute Sector. The application process includes a competency assessment by an assessor. As part of the application process an NMR is required to undertake appropriate training in IR(ME)R. After a successful application, a clear scope of practice is defined and the NMR will be added to the NMR referrers list. An NMR has to reapply for their entitlement every three years. If an individual does not reapply to be an NMR they are removed from the RIS system.

NHS Grampian maintains a spreadsheet detailing the competencies of all radiographers. This includes details of the completing a dedicated IR(ME)R online module, training on specific equipment, competencies to justify, forensic examinations and training for additional roles.

Entitlement records were reviewed for several staff of various levels and examples of entitlement letters were available on inspection and signed by the appropriate persons. The letter of entitlement shows the criteria required and the scope of practice for the individual named. It was positive to see all entitlement documents compiled together for easy access. All staff are issued with an individual copy of their entitlement to keep in their training folder.

Staff were aware of who they were entitling, and what scope was linked to their entitlement. The staff we spoke with were also aware of where to find their training records and their scope of practice. Superintendents told us entitlement is normally reviewed at staff appraisals or within the appraisal cycle.

What needs to improve

The EPs allow competency assessors to assess their own competence, however as there were two on site this was not required.

The employer has the responsibility to ensure that all practitioners and operators are adequately trained to perform the tasks defined within their scope of practice and there is proportionate oversight of the entitlement of senior staff. NHS Grampian should amend the EPs to remove the need to self-assess competency where there is cross-organisational support to assess competency of staff (requirement 1).

Requirement 1

- NHS Grampian must ensure that the procedure or similar for the entitlement of senior staff removes the need for self-assessment of competency so far as is reasonably practicable. Regulation 6 (1), Schedule 2, 1(b).

Recommendation

- No recommendations.

Referral

Referrals are received from a variety of sources from within and outwith RACH. These include accident and Emergency (A&E), GPs, fracture clinics, orthopaedic clinics, neonatal, medical doctors and NMRs for example nurses, physiotherapists and speech and language therapists. Staff can access an approved NMR spreadsheet to confirm whether an NMR is entitled to refer for the requested examination. For patients that are referred from outside NHS Grampian, the patient is initially referred from the external paediatric specialist to an internal paediatric specialist who will refer for any imaging exposures if clinically indicated.

The process for cancelling and amending referrals was reviewed. It was reported that referrals are not amended routinely. If there is insufficient information or wrong information provided the referral is cancelled, the referrer advised of the reasons and a new referral is requested with sufficient details to allow the referral to be approved. Referral information and criteria for medical doctors across NHS Grampian is shared with the GP practice managers. Referrers can also access the referral criteria via the intranet and can use iRefer to support the referrals.

The majority of referrals are received electronically using the internal TrakCare system or in the community by GPs using an online requesting system. The internal referrals are then linked to RIS with all the relevant information being transferred into the system directly with the exception of the fracture clinic that uses specialist paper referrals. External referrals from GPs are required to be printed off and scanned into the RIS online system.

It was also discussed that should there be a pattern of referral errors with certain referrers that education and shared learning is provided to improve knowledge and referral quality.

If a referrer wishes to cancel a referral after it has been approved and before the patient has been imaged it was reported that a phone call is usually made to cancel the referral. It was positive to see that the TrakCare system alerts the referrer to phone the radiology department to cancel a referral. There is a duty radiographer who can receive cancellation calls and cancel the request on RIS.

What needs to improve

Although the system of phoning to cancel is known locally, and is being implemented, this process is not formally documented in the EPs. RACH is therefore required to document the process for cancelling referrals (requirement 2).

Requirement 2

- The Royal Aberdeen Children's Hospital must develop and implement a documented procedure for the cancellation of imaging referrals. (Regulation 6.1 (a) schedule (2)(P)).

Recommendation

- No recommendations.

Justification

It was reported that where appropriate ultrasound is the first line choice for paediatric imaging as it is non-ionising. When justifying an examination staff said they would consider whether clinical questions could be answered without using ionising radiation.

Justification of imaging examinations is undertaken prior to any exposure. For GP referrals the image will be vetted, which applies the same criteria as justifying a request, to allow a patient to be booked in for their imaging and on the day of the examination it will be justified on RIS. All staff we spoke to were aware of the process for justification and how it ensures the exposure used is appropriate. As part of the justification process, the practitioner will select the appropriate imaging protocol as required. This is particularly important for paediatric imaging to ensure that the most optimised imaging is selected.

For plain film exposures, the radiographers (operators), act as the practitioner justifying the exposure. The process includes checking the referral for the correct information and clinical history and checking previous imaging history, to avoid repeat exposures. Whoever acted as practitioner to justify an examination, they record their name on the RIS system on the patient record. Radiologist would justify imaging of the kidneys and any complex cases at the request of the radiographer.

For fluoroscopy and interventional exposures, the practitioner carrying out the role of justification is the radiologist. Similarly, all CT exposures for children's imaging is justified by the specialist paediatric radiologists. No CT examinations for paediatrics are justified or "pre-vetted" by the radiographers. The duty radiologist or a resident consultant (radiology) can justify CT Head for trauma patients, in line with agreed protocols written by the specialist paediatric radiologists.

Requirement

- No requirements.

Recommendation

- No recommendations.

Optimisation

The underlying principle for imaging children is to use non-ionising modalities, such as ultrasound, wherever possible. When ionising radiation is required, there is a strong organisational culture focused on keeping exposures as low as reasonably practicable. Optimisation is supported at Board level through an imaging optimisation group, and operationally through modality-specific user groups.

To support optimisation of images within plain film imaging, the equipment will load a default setting based on the age of the patient. The default setting will prepopulate the exposure settings which can be adjusted by the operator. The equipment has an age range for each size settings of, baby, small child, medium and large. Staff use their professional judgement to change the patient settings based on how the patient presents. For example, older children may present as being adult size.

Audits of imaging dose demonstrated that the service is working withing national and local dose reference levels (DRLs).

There are three CT scanners on the ARI site used to image children however the number of scans on children is very low. A dose survey has been undertaken on all three and has provided information on which scanner will deliver the lowest dose for the same imaging. When imaging of children is required, staff will allocate the machine that delivers the lowest dose where practical.

On discussion regarding DRLs in CT, it was noted that the CT head dose data is slightly above the national DRL (NDRL). The department is aware of this and has determined that the higher dose is currently clinically appropriate in order to achieve the image quality requested by the neuroradiologists, as fine anatomical detail must be visualised for diagnostic purposes. The neuroradiologists are aware of the higher doses. This topic is regularly discussed in the CT users group and image optimisation group, where decisions and rationale are appropriately documented. This is an ongoing piece of work with continued review to ensure doses are being optimised while maintaining diagnostic image quality.

We discussed the optimisation of the fluoroscopy equipment to reduce the dose to patients as far as reasonably practicable. Some procedures such as a palatogram require tight collimation of the X-ray beam to the oral cavity The radiologist confirmed that they will focus the beam on the area of interest and reduce the field as required, ensuring they get the clinical images required to answer the clinical question. The pulse rate of the unit is monitored to deliver the images required with as low a dose as practical. The dose surveys have demonstrated that procedures are delivering doses that are within DRLs.

What needs to improve

During the inspection we reviewed the worklist within the plain film room. The worklist had three patients at the time we were in the room. This ranged for a child under one to a child in their teens. We identified that the default setting had gone to the medium setting when two of the children should have been in the lower sized category based on their age, and therefore have a lower dose defaulted. The setting had not been manually changed at this point. It was confirmed that the radiographer would always check the settings were appropriate for the patient presented and modify them before taking an image. RACH should assure themselves that the system is operating within the expected parameters (recommendation b).

A visible laser field (or alignment guide) can help staff using the fluoroscopy equipment to preplan the area of interest before activating the fluoroscopy system, assist collimation and support staff to ensure the anatomy of interest is within the field. We were advised that the Unit Operations Manager is currently investigating options for the provision of a “laser light” (recommendation c).

Anthropomorphic phantoms are advantageous because they provide a realistic, safe, and reproducible way to test and optimise radiology equipment. They help balance image quality, radiation dose, and patient safety, as parts of radiology quality assurance and optimisation programs. During the inspection it was highlighted that NHS Grampian had access an adult and infant phantom. In our discussions it was confirmed that an anthropomorphic phantom representing a 5-year-old would support further optimisation of children’s imaging (recommendation d).

Requirement

- No requirements.

Recommendation b

- It is recommended that NHS Grampian undertakes a review of the defaults setting in the plain film imaging fixed room equipment to ensure so far as is reasonably practicable the exposures defaults are as low as is reasonably practicable based on the patient.

Recommendation c

- It is recommended that NHS Grampian evaluate the use of a laser light or similar enhancement to support staff undertaking fluoroscopy procedures to further optimise procedures and reduce the dose area product.

Recommendation d

- It is recommended that NHS Grampian have an anthropomorphic phantom representing a 5-year-old to support further optimisation of children's imaging.

Operator

RACH is predominantly staffed by band six or above radiographers, which highlights their speciality in paediatric imaging. There are no assistant practitioners working within the paediatric imaging service. Radiographers reported being able to undertake additional training to perform specific imaging examinations for example forensic imaging.

All staff we spoke to demonstrate a high level of understanding of justification process, patient pathway and accurate recording of patient information including dose details.

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 and how they would review the dose information following an exposure. Including a strong awareness of DRLs in place. Staff were familiar with the imaging protocols across the different types of imaging equipment, and we saw that the protocols provided detailed guidance.

Staff were able to describe techniques used to optimise image quality whilst minimising repeat exposures specifically in paediatric imaging, including immobilisation equipment, swaddling and distraction techniques. There was a good understanding of, individual roles and scope of practice was demonstrated.

Radiographers also participate in a monthly red dot self-assessment audit. This is overseen by the practice educator. If there any concerns with the audit data, sessions with the practice educator and radiologists can be organised. Staff reported open and effective communication with the radiologists.

Requirement

- No requirements.

Recommendation

- No recommendations.

Records

All radiology documentation was stored on the radiology intranet site, including EPs and department SOPs. The documents we reviewed as part of the inspection were all within their review period. All the documents also contained the appropriate information such as author, version number, storage location and review date.

Patient records were of a high standard, within the department. RIS is used to document each stage of the patient pathway. The RIS system includes:

- clinical information
- Patient identification check
- Pregnancy check box
- Dose information
- Clinical evaluation
- IR(ME)R roles i.e. referrer, practitioner, operator/s

Training records were maintained to a high standard, with clear documentation available for all equipment and staff members. The training records easily show the competencies of staff.

Staff were all aware of where and how to record patient information, and where to find department policies and documents if required.

Requirement

- No requirements.

Recommendation

- No recommendations.

Patient identification

Patient ID is carried out using a three-point system of name, date of birth and address. For inpatients, ID wristbands are also checked prior to imaging and for neonatal patients, the neonatal identification cards are used for ID.

Older children who are able to understand and answer for themselves are asked to confirm their own details, while for younger children the parents or guardians are asked to confirm the details. Laterality is also confirmed where relevant.

The department has access to a tablet-based language line service for those who require interpreter services.

The operator who confirms the ID, records their details on RIS against the patient record.

Requirement

- No requirements.

Recommendation

- No recommendations.

Clinical Evaluation

Clinical evaluation of paediatric imaging in NHS Grampian is predominantly radiologist led. There are no reporting radiographers at RACH. There are two reporting radiographers at Dr. Gray's in Elgin who can report on plain film trauma imaging. Bone age examinations may be read by radiographers who have undertaken additional training and have a signed letter of competency from the lead paediatric radiologist. There are five radiographers who can undertake this reporting. These images must be double read. While doctors are progressing through their training to become consultants all their clinical evaluations are double read.

All final reports are available on PACS, and the responsible consultant must acknowledge on TrakCare that they have reviewed the report. The Scottish National Radiology Reporting Service (SNRRS) are not used for reporting on paediatric imaging from NHS Grampian.

Regular Grampian wide REALM meetings for radiologists occur for discussion of cases and supports the learning and reviewing of report findings and allows for a collaborative review of images. These meetings are a mixture of adult and paediatric imaging cases.

Requirement

- No requirements.

Recommendation

- No recommendations.

Expert advice

MPE provision is provided by NHS Grampian onsite. The current model of dose audit is in a transition period as the MPEs are working toward implementing a dose surveillance. This would be a continuous surveillance rather than a dose review every

two years. By moving to a surveillance model, it will allow for a quicker calculation of median values and also identify areas for optimisation in a timelier matter. The data can also help to target MPE QA more directly.

Staff told us the MPEs are contactable and available for support. However, in practice, they contact the superintendent who primarily contacts the MPE to raise any issues or queries.

It was confirmed that MPEs are involved in:

- commissioning of new equipment
- acceptance testing of new equipment
- quality assurance of equipment
- dose monitoring and dose audits
- analysis of incidents

It was confirmed that MPEs were fully involved in commissioning new equipment and discussions around replacement of equipment.

There are four MPEs covering radiology not including nuclear medicine and radiotherapy. There was no evidence to suggest that the MPE numbers were insufficient to carry out the required job tasks.

MPEs are involved in reviewing all Datixs and they provide staff with advice on whether an incident requires to be reported to Healthcare Improvement Scotland. For those that are reportable a dose calculation is carried out.

Requirement

- No requirements.

Recommendation

- No recommendations.

Contracted services

There are no third-party services used by RACH. All paediatric clinical evaluations are provided on site, by radiologists onsite. There is also no agency staff used in RACH.

Requirement

- No requirements.

Recommendation

- No recommendations.

General duties in relation to equipment

A thorough QA programme is in place for all aspects of the children's imaging service in RACH. A lot of the equipment has been recently replaced, with most staff having received training and QA training from the applications specialists at the time of installation.

We viewed records of QA including schedules, rotas and spreadsheets for recording QA test results. The spreadsheets used will highlight to the staff when a result is out with the defined parameters and has failed the test. All staff described how a failure of a test would prompt repeating tests in case of operator error, to escalating to senior staff, MPEs or engineers.

A positive observation was how QA is undertaken on the plain film units after all engineer visits, regardless of if dose related elements were affected or not in engineer testing/repairs.

There are clear procedures for identifying and communicating that equipment is out of clinical use.

QA schedules as described in document RA14 Equipment Quality assurance, are benchmarked against IPEM guidance and manufacturer guidance.

Requirement

- No requirements.

Recommendation

- No recommendations.

Clinical audit

As per document RACH 6, *"Clinical audit supports quality improvement, patient safety, radiation protection, and compliance with clinical governance and regulatory requirements."* This document also includes the clinical audit programme for RACH.

It is positive to see that staff at all levels are encouraged to be part of the audit process within the department, as per their document RACH 6 *"All staff should participate in audit and receive education regarding audit methodology and quality improvement."* Radiologists are required to participate in regular clinical audit as part of their appraisal and revalidation process.

Audits undertaken within RACH are overseen by the Radiology Audit committee which covers all Grampian radiology services, including adults and paediatrics. In the most recent annual report, 33 audits were completed, showing active engagement in audit processes and commitment to improving clinical services. Audits undertaken within RACH included CT head data and non-accidental injury (NAI) data.

A review of practice was undertaken for the imaging of the clavicle which had a default of two views requiring two exposures. An evaluation was undertaken of the clinical information required and the corresponding views taken. As a result of the review, NHS Grampian has changed the imaging protocol to a default of one view of a clavicle and only taking a second view where it is indicated by the evaluation of the first view. This has reduced the number of images taken for paediatric patients.

Requirement

- No requirements.

Recommendation

- No recommendations.

Accidental or unintended exposure

A clear system and process for incident reporting and escalation was in place within the department, and all staff demonstrated awareness of the pathway including who to report to and what signage to use if relevant. It was positive to see that reflection and learning from incidents form part of the incident reporting pathway. Staff reported feeling comfortable raising Datixs and incidents with senior staff when required.

Incidents are discussed at various forums including radiographer staff meetings, superintendent meetings and clinical governance meetings. It is also noteworthy that there have been no recent notifications raise to HIS.

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?
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Our findings

An inclusive and strong process is in place to ensure that patients who are, or may be, pregnant are not exposed to unnecessary ionising radiation. Eligible individuals are provided with appropriate information on the risks and benefits of imaging exposures, in line with IR(ME)R requirements, supported by effective communication systems.

Risk benefit conversations

Risk and benefit information is available to patients in the form of posters and leaflets in the department. It is common practice for the parents to discuss risks and benefits of radiation exposure for paediatric imaging. With plain film imaging, these conversations are had by the radiographers. Senior staff and radiologists are available to provide support or answer further questions if required. If carers and comforters are being involved in imaging, they will also have a conversation surrounding the risks and benefits of radiation.

For fluoroscopy procedures, the risk and benefit conversation are undertaken by the radiologist performing the procedure.

Requirement

- No requirements.

Recommendation

- No recommendations.

Making enquiries of individuals who could be pregnant

Within NHS Grampian, all patients aged between 12 – 55 years old are routinely asked about their possibility of being pregnant, using an inclusive questioning approach. The questions are asked of all patients within the age range undergoing a radiological examination of the lower abdomen or pelvis. Depending on the response, staff may ask further questions. There is a form that is filled out for enquiring about pregnancy, and this form is scanned into the RIS system against the patients record. The operator who

asks the questions regarding pregnancy also ticks the relevant box on RIS to show that the enquiry has been made. All staff we spoke to could describe the process in the department.

Requirement

- No requirements.

Recommendation

- No recommendations.

Carers and comforters procedures

Carers and comforters are often used in children's imaging to help reassure the patients or minimise movement, in order to reduce the need for repeat exposures. It is usually a parent or guardian who undertakes this role. If a carer or comforter is present, this is recorded on the RIS system, and the dose details are also recorded on a carers and comforters dedicated spreadsheet in the department. With older children, being present in the room is often sufficient rather than having to physically hold the patient.

Level one document EP7 and level two document RA16 Carers and Comforters, outline the procedure for the use of carers and comforters. The documents also note that *"The operator must ensure, where practicable, that no part of the body of the person holding the patient is exposed to the primary beam."*

Requirement

- No requirements.

Recommendation

- No recommendations.

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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