NHS
Royal Cornwall Hospitals
NHS Trust

Referral, Justification and Reporting of Radiological Procedures Policy

V3.1

July 2024

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Data Protection Act 2018 (UK General Data Protection Regulation – GDPR) Legislation.

The Trust has a duty under the Data Protection Act 2018 and UK General Data Protection Regulations 2016/679 to ensure that there is a valid legal basis to process personal and sensitive data. The legal basis for processing must be identified and documented before the processing begins. In many cases we may need consent; this must be explicit, informed, and documented. We cannot rely on opt out, it must be opt in.

Data Protection Act 2018 and UK General Data Protection Regulations 2016/679 is applicable to all staff; this includes those working as contractors and providers of services.

For more information about your obligations under the Data Protection Act 2018 and UK General Data Protection Regulations 2016/679 please see the Information Use Framework Policy or contact the Information Governance Team.

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1. Introduction

1.1. The Clinical Imaging Service is bound by legislation regarding the safe and appropriate use of radiation, this is alongside advisory guidance and national standards which inform patient care. The underlying principles of this policy relate to IR(ME)R but have been extended to include all imaging modalities.

1.2. This version supersedes any previous versions of this document.

2. Purpose of this Policy/Procedure

This policy aims to inform all those using the Clinical Imaging Service to ensure safe practice and avoid inappropriate exposure to radiation or strong magnetic fields. The Imaging modalities encompassed by this policy are:

- Planar imaging, including dentals.
- Computerised Tomography [CT].
- Magnetic Resonance Imaging [MRI].
- Fluoroscopy and Interventional.
- Ultrasound.
- Bone Density Scan (dual-energy X-ray absorptiometry [DEXA]).
- Nuclear Medicine (Including PETCT).

3. Scope

This policy applies to all those who are Referring to and Operating within the Clinical Imaging Service. Included within the scope of this document are the three Royal Cornwall Hospitals Trust [RCHT] and eight community hospital within Cornwall Foundation Trust [CFT] imaging facilities, cardiac catheterisation laboratories at Royal Cornwall Hospital, theatres at Royal Cornwall and St. Michael's hospitals. The following medical exposures are outside the scope of this policy:

- Therapeutic administrations of radionuclides.
- Exposures of carers and comforters.
- Exposures that form part of a national health screening programme.

4. Definitions/Glossary

Referrer: Describes the Healthcare Professional who has met training and governance requirements to request clinical imaging.

Non-medical Referrer: A registered Healthcare Professional with a qualification other than medicine or dentistry who is entitled to be a referrer.

Practitioner: Justifies the requests by ensuring net benefit and appropriateness to clinical care.

Operator: Individual who acquires the imaging or who is involved in the practical aspects of its acquisition or evaluation.

Evaluation: interpretation of the outcome of an exposure.

Reporting: Reporting describes the provision of a clinical opinion through consideration of the medical history, presenting signs and symptoms declared by the referrer, the appropriateness/limitations of the imaging method, and observation and description of normal and abnormal findings to enable the referring practitioner to make an informed decision regarding patient management.

The Royal College of Radiologists gives the following definitions:

- **Critical Findings:** Where emergency action is required as soon as possible.

- **Urgent Findings:** Where medical evaluation is required within 24 hours.

- **Significant Unexpected Findings:** Where the Reporting Practitioner has concerns that the findings are significant for the patient and may be unexpected by the Referrer.

5. Ownership and Responsibilities

5.1. **Role of Individual Staff**

5.1.1. **Referrer**
After a thorough clinical assessment of the patient, the clinician uses their professional judgement to decide if an imaging procedure is required. In addition to following the procedures specified in section 6.1, referrers must ensure that:

- The correct patient is referred by ensuring the patient's identification details are accurate.

- Sufficient legible clinical information is provided to enable the request to be justified (abbreviations should not be used).

- Contraindications to the imaging procedure have been considered (e.g., some pacemakers in MRI, previous numbers

of investigations involving ionising radiation, especially in children. Non-urgent X-ray, CT scan of the abdomen of a pregnant patient, recent imaging for conditions that would not have been expected to progress in the time elapsed).

- Pre-procedural information is supplied (e.g., eGFR for examinations requiring contrast, clotting parameters for interventional procedures).

- A requirement for a general anaesthetic for their imaging procedure is clearly indicated (as applicable).

- Any additional information or particular requirements are provided.

- It is the responsibility of the Referrer/referring Team to read and act upon the result of every investigation it generates.

- Where X-rays are involved for the procedure, the benefits and risks from the X-ray examination are:
  (a) Considered and evaluated when requesting the test.
  (b) Discussed with the patient.

5.1.2. **Practitioner (usually within the Clinical Imaging department)**
This individual evaluates the Referrer's request to ensure study is justified, i.e., potential clinical information from study outweighs any risks to demonstrate an overall 'net benefit'. Risks include radiation, magnetic safety, and those associated with additional procedures such as administration [*CI.GEN.PPG.63 Training and Assessment of IR(ME)R Duty Holders outlines the assessment and entitlement process for this duty role*]. For the administration of radioactive substances, only ARSAC [Administration of Radioactive Substances Advisory Committee] licence holders are Practitioners [*CI.NM.LEG1: Nuclear Medicine Duty Holders*].

5.1.3. **Operator (Undertakes exposure and ensures that)**

- They have authorised, in line with written guidelines, any exposures where it is not practicable for the Practitioner to have done so.

- All clinical information is acquired for a clinical judgement to be made or.

- Image quality is optimised to support the safe completion of the image-guided procedure.

The role of Operators in evaluating and reporting medical exposures is covered in section 6.4. This person is responsible for ensuring the safety of the patient during the examination, for example during the use of ionising radiation or strong magnetic fields [*CI.GEN.PPG.63 Training and Assessment of IR(ME)R Duty Holders outlines the assessment and entitlement process for this duty role*].

5.1.4. Consultant In Charge of Patients Care (must ensure)

- Any individual interpreting unreported examinations are competent to do so.

- Any findings of Radiological Examinations are put into the context of the patients management and acted upon.

- Reports (verbal and written) are reviewed in a timely manner and where appropriate acknowledged on the Maxims system and acted upon in ICE.

5.1.5. Reporting Staff (Radiologists and Radiographers)
It is the responsibility of the Reporter to ensure that the reports are timely, clear, and precise; to clearly document advice on further management or action, where appropriate; and ensure the urgency for action is documented within the content of the report.

5.1.6. Non-medical Referrers' Line Manager
Is responsible for ensuring all Non-medical Referrers are acting within an approved scope of practice (which may be articulated within a protocol or as a job description).

5.1.7. Non-medical Referrer Clinical Supervisor
Is responsible for ensuring the quality of practice offered by the Non-medical Referrer, including evidence of:

- Competency in clinical assessment.

- IRMER/MRI safety training.

- Audit of referrals against this document and clinical guidance.

6. Standards and Practice

6.1. Referrals to Clinical Imaging

6.1.1. Authorisation to Refer
Only appropriately qualified Healthcare Professionals may request imaging procedures:

- Medical/Dental Practitioner. RCHT recognises any Medical or Dental Practitioner registered with the General Medical Council or General Dental Council as an authorised referrer, provided that the practitioner has met the Continuous Professional Development [CPD] requirements of that body regarding imaging procedures and examinations.

- Within the Medical profession, the scope of requesting is as follows:
  (a) F1 and F2 doctors may independently request X-ray examinations.
  (b) All more complex imaging (including US, CT, MRI, and Nuclear Medicine) should be discussed by a middle grade or above, usually this will be after discussion with a named Consultant or following an agreed protocol. In out of hours situations or in an emergency, a Consultant may not be immediately on hand in which case appropriate referrals will be discussed at a Registrar level prior to Consultant review. With a routine request, an F1 or F2 grade doctor may put the request on Maxims but must clearly state the name of the referrer who has been involved in the referral decision.

- Non-medical/Dental Professionals or Non-medical Referrers. RCHT also recognises other Healthcare Professionals who are entitled to refer patients. These Practitioners must demonstrate the clinical expertise to assess the need for imaging meet IR(ME)R and any MRI safety training requirements. Practitioners must have imaging referral in their scope of practice/job description and be operating under a Trust approval protocol. To gain requesting rights, the professional must contact the Imaging Department to:
  (a) Complete a Non-medical Referrer application [*CI.REF.FORMS.07*] which is approved at the Clinical Imaging Clinical Governance Group [CICGG] meeting.
  (b) Develop a referral protocol using a pre-set template to ensure regulatory requirements are met [*CI.REF.FORMS.01*]

which is approved by CICGG and Care Group Governance Group meeting.

(c) Complete IR(ME)R training through NHS Education England e-learning for Health IRMER17; modules 00-03 (minimum requirement), also available through CFT training portal and ESR (search *IRMER* in advanced search key words). MRI face to face training or recorded training which, if required, will be organised through RCHT Clinical Imaging. RCHT Emergency Department staff may be offered IR(ME)R training face to face.

(d) Complete Entitlement Form [*CI.REF.FORMS.02*] and Declaration Form [*CI.REF.FORMS.03-04*].

(e) Update IR(ME)R training every three years, with a maximum permitted interval of five years before entitlement is removed.

All evidence to support Non-medical Referrer applications should be sent to the clinical imaging email address rcht.nmrenquiries@nhs.net.

6.1.2. Referral Criteria

It is a key requirement for the referrer to make appropriate imaging requests and it is a legal requirement for RCHT to establish referral criteria to guide referrers. Further Royal College of Radiologists guidance can be accessed via iRefer, please contact the Imaging department for access information; further information: http://intranet-rcht.cornwall.nhs.uk/services/clinical-imaging/benefits-and-risks-of-imaging-examinations-guidance-for-referrers/

All referrals should be made in accordance with this document, where there is any doubt, the case should be discussed with a Radiologist. Please follow the following pause and check process: https://www.sor.org/sites/default/files/pause_check_irmer_referrers_a4.pdf

Diagnostic Radiology Referral

Have you "Paused & Checked"?

An IR(ME)R Referrers checklist for referring a patient for a diagnostic imaging examination

P	**Patient**	Ensure correct patient (3-point ID) Ensure it is physically possible for the patient to undergo the examination (e.g. any mobility issues) Ensure patient has been given adequate information and understands and agrees to examination
A	**Anatomy**	Ensure correct body part/laterality specified
U	**User Checks**	Confirm most appropriate investigation and consider non ionising radiation alternative (use of iRefer/local referral guidelines) Check previous investigations Confirm timing of examination (is date required clear?) Ensure pregnancy/breastfeeding status is verified Ensure any special needs/interpreter/disabilities/mobility documented (eg hoist required?) Ensure implantable cardiac defibrillator devices documented Ensure allergies documented and appropriate pathology results are available where requested
S	**System & Settings**	Confirm correct examination (code) requested Confirm correct imaging modality selection Confirm relevant clinical information is adequate to enable the Practitioner to justify the examination Confirm relevant clinical information will assist in the evaluation of the study
E	**End**	Confirm entitled Referrer against IR(ME)R procedures – eg unique identifier/correct user login Final check that this is the CORRECT patient Confirm the above and submit request
D	**Draw to a Close**	Ensure you have received an evaluation of the examination Ensure the results are discussed with the patient Confirm whether further investigation is required

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IR(ME)R requires all duty holders to comply with their local employer's procedures. This 'pause and check' poster does **not replace** these procedures but represents a shortened summary of the main **checks. You must adhere to your local procedures at all times.**

6.1.3. Factors to Be Considered Before Making a Referral

Imaging referrals must be made electronically wherever possible:

- Electronic requesting via Maxims or ICE (General Practice).

- Email referrals where there is no electronic request system available.

- Letters on headed paper.

6.1.4. Requests will only be accepted if the date on the referral is not more than one calendar month prior to the day the request is received by the Clinical Imaging department

Following an assessment of the patient's condition and health needs, the Referrer must take the following into account when considering imaging:

- Prior imaging - has it been done before? Is an appointment for similar imaging pending?

- Will it influence the patient care (Consider timescale on which examination will be conducted)?

- Are supplementary procedures required (e.g., contrast agents, anaesthetics)?

- Are there any contraindications to the procedure?

- If the imaging procedure involves ionising radiation or strong magnetic fields, can the pregnancy status be confirmed?

- MRI referrals: Is the patient safe to be in an environment which uses strong magnetic fields?

6.1.5. Referral Information

It will be necessary for the Referrer to supply the following information on the request for imaging or an interventional procedure. Sufficient patient information to enable identification of the patient; this will be a minimum of 3 identifiers including:

- Full name.

- Date of birth.

- Address.

- Postcode.

- NHS number and/or hospital number.

- Where the patient's identity is unknown, standard Trust identification procedures must be followed (RCHT Positive Patient Identification Policy and Procedures).

- Abbreviations should NOT be used unless the fully written version is included with the first use of the abbreviation (Trust Management of Information, Records and Data Quality Policy).

- Details of the X-rays view(s)/techniques requested which are in keeping with RCR referral criteria; please refer to iRefer criteria login details can be found here: Benefits and Risks of Imaging Examinations – Guidance for Referrers | Intranet - Royal Cornwall Hospitals Trust.

- Sufficient clinical information to enable the Practitioner to justify the procedure.

- This must include the background information regarding clinical state and the condition/pathology about which information is sought (e.g., query fracture).

- Information about pregnancy or breastfeeding status, where relevant.

- Sufficient information around implants and devices when referring for MRI to prevent imaging appointment delays and the risk of serious injury (from minor burns, up to and including death).

- Referrer name and contact details; it is a legal requirement that referrers are correctly identified. In addition, the imaging department may need to contact the Referrer urgently with critical or urgent unexpected findings.

- Any other information which the referrer deems appropriate including specific needs to be addressed e.g., disability, cultural/religious.

- The Society of Radiographers "Have you paused and Checked": Diagnostic Radiology Referral (CI.GEN.PPG.10) should be followed https://www.sor.org/learning/document-library/have-you-paused-and-checked-irmer-referrers.

6.1.6. Urgent Referrals

Must be clearly marked as such on the referral. Time critical referrals (e.g., those requiring imaging within 24-48 hours such as suspected acute cauda equina syndrome) **must** be discussed with a Radiologist. All on-call referrals **must** be discussed with a Radiologist: The Duty Radiologist can be contacted on extension 5182 9am-9pm 7 days a week. Overnight referring clinicians should contact the on-call Radiology Registrar PROC [Peninsula Radiology On Call] via the RCHT hospital switchboard.

6.1.7. Managing Referrals

On receipt of a referral the Imaging Administration and Clerical Team or Modality Co-ordinator will process the request. A paper referral will be scanned into the Computed Radiology Information System [CRIS] to create an electronic record. The referral will then be managed through the CRIS system as per Imaging procedures.

6.1.8. Referrals where the Patient Requires General Anaesthesia

For all patients requiring General Anaesthesia, with the exception of Theatre Imaging and Interventional Radiology procedures where a GA is mandatory. as part of their procedure, this must be clearly documented on the imaging request along with the rationale for imaging the patient under GA. For example:
"Patient requires scan under GA. Claustrophobic and has been unable to complete the examination awake because of this."
It is the responsibility of the referrer to make sure that this patient need is clearly documented in the imaging referral. Referrers must NOT use the Maxims Internal Referral function to request General Anaesthetics as part of the imaging request. These will not be accepted and are not checked by Imaging. The arrangements for General Anaesthetics scans will be carried out by the Imaging Pathway Navigator for outpatients, and by the Inpatient Coordinators for inpatients. Where the referrer has any concerns regarding the communication of the need for General Anaesthesia, they should contact the Imaging Bookings Team (01872 252290) for outpatients, and the individual imaging departments for inpatients.
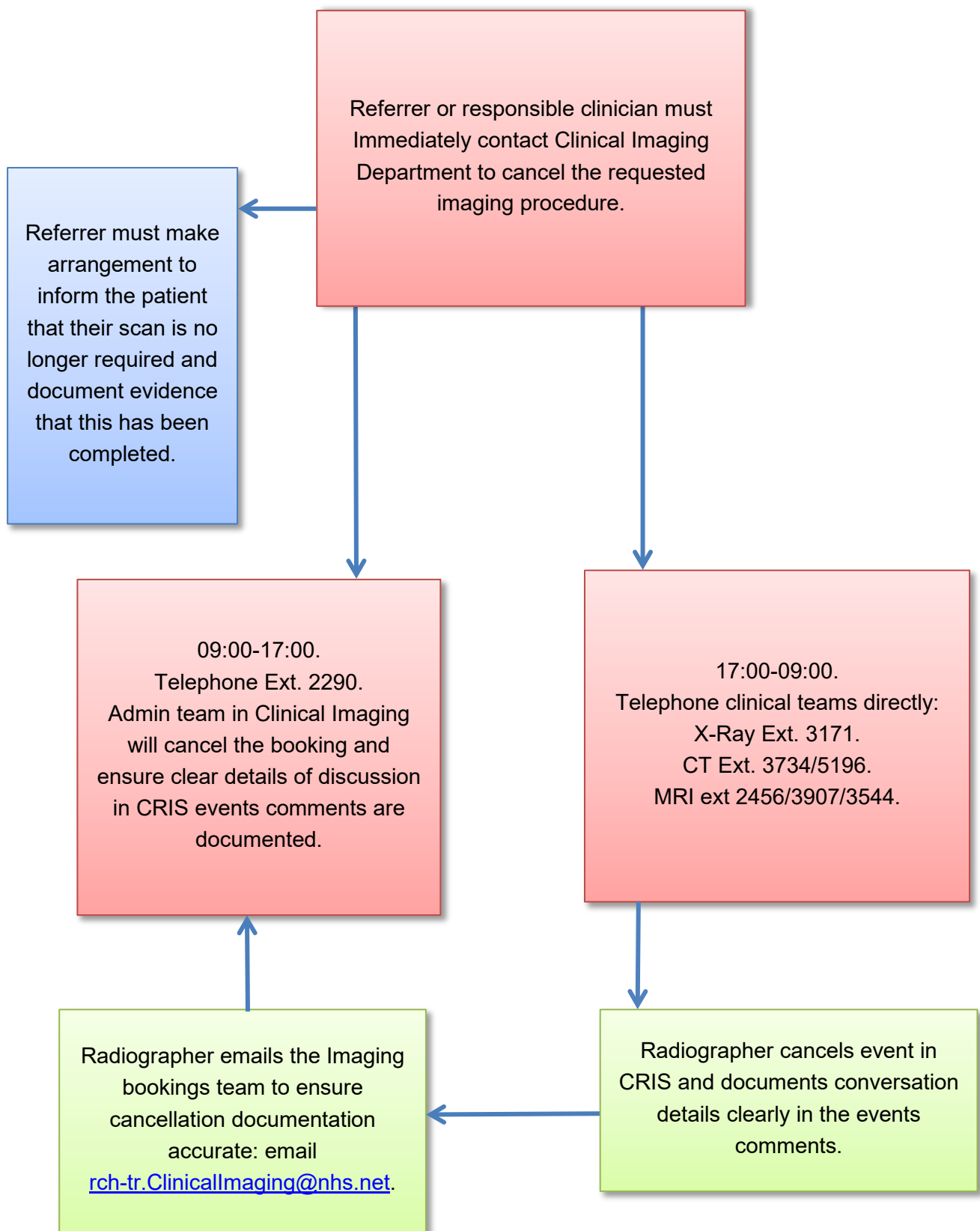
6.1.9. Duplicate Referrals

If the Imaging service receives duplicate requests (for example the same examination is requested by both a GP and Consultant) the GP referral is cancelled as a duplicate. A comment is added to the Consultant request to ensure a copy of the report is sent to the GP.

6.1.10. Cancellation of Referrals

If an examination is no longer required, it is the responsibility of the Referrer to inform the Clinical Imaging Admin and Clerical Team or the relevant modality as soon as possible. Referrals which do not meet justification criteria, or which contain inadequate/illegible information, will be declined. The Referrer will be informed of this decision either verbally or in writing. Please follow the flow chart on page 14.

Process for Cancelling Clinical Imaging Requests at RCH

Referrer or responsible clinician must Immediately contact Clinical Imaging Department to cancel the requested imaging procedure.

Referrer must make arrangement to inform the patient that their scan is no longer required and document evidence that this has been completed.

09:00-17:00.
Telephone Ext. 2290.
Admin team in Clinical Imaging will cancel the booking and ensure clear details of discussion in CRIS events comments are documented.

17:00-09:00.
Telephone clinical teams directly:
X-Ray Ext. 3171.
CT Ext. 3734/5196.
MRI ext 2456/3907/3544.

Radiographer emails the Imaging bookings team to ensure cancellation documentation accurate: email rch-tr.ClinicalImaging@nhs.net.

Radiographer cancels event in CRIS and documents conversation details clearly in the events comments.

6.2. Justification

Each referral for an imaging procedure must be justified by the Practitioner (usually working within the Imaging department). For a request to be justified, the potential benefit from the diagnostic information obtained to assist in diagnosis or management, should outweigh the associated risks. When considering whether a referral is justified, the following factors are considered:

- The referral is dated within one calendar month at the point of vetting.

- The availability and findings of previous images.

- The specific objectives of the procedure in relation to the history and examination of the patient.

- The total potential diagnostic or therapeutic benefit to the individual.

- The risks associated with the procedure (e.g., ionising radiation, magnetic field, contrast induced acute kidney injury [AKI], or specific risks of an interventional procedure).

- The efficacy, benefits and risk of available alternative techniques having the same objective but involving no, or less, risk to the patient.

- Whilst requests for theatre/fluoroscopy cases do not need to be added to the electronic referral system, requests made through the theatre booking process will act as the referral/justification i.e., the theatre list will clearly identify cases that require imaging.

Further Royal College of Radiologists guidance can be accessed via iRefer, please follow the link here:
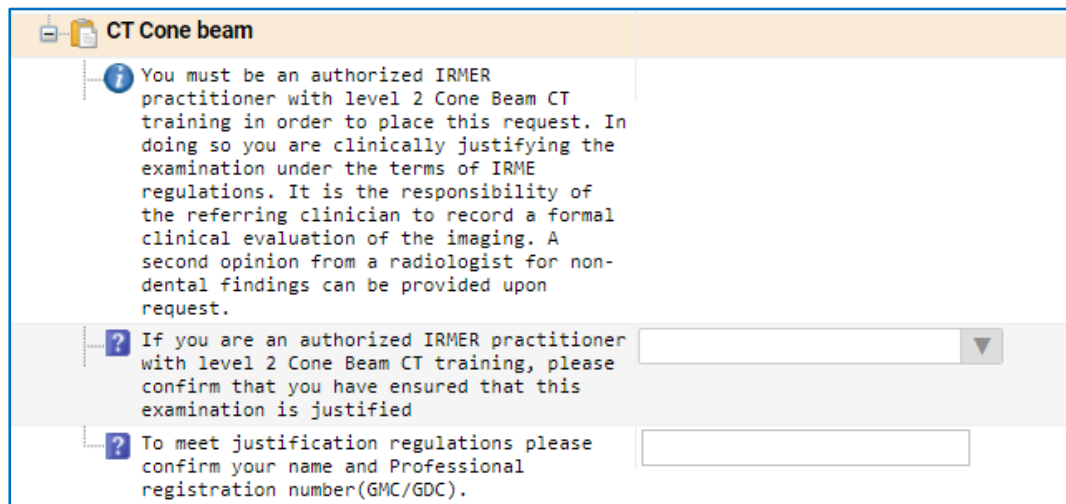http://intranet-rcht.cornwall.nhs.uk/services/clinical-imaging/benefits-and-risks-of-imaging-examinations-guidance-for-referrers/.

Justification will be performed by:

- Radiologists.

- Approved Radiographers: listed on departmental IR(ME)R register.

- RCHT Oral Surgeons have completed Level 2 training for Cone Beam CT. They are therefore trained to act as IRMER practitioners for purposes of justifying dental CBCT and will also act as the reporter for these examinations. Imaging report are stored in CRIS*.

  * Staff able to perform this must declare this when making the request by selecting the "This exposure is justified" response to the question "If you are an authorised IRMER Practitioner with Level 2 Cone Beam CT

Training, please confirm you have ensured that this examination is justified?". They must also enter their registration number in the box below. Staff without Level 1 training may act as a referrer, but not to justify, and must not select "I am NOT an IRMER Practitioner" as a response to the question above. This will require the examination to be justified and reported by a Radiologist.

To ensure that the investigation has been prioritised with the appropriate urgency code in CRIS the Practitioner will follow the guidance in document *CI.GEN.PPG.60.* **NB. Non-ED/MIU/UTC referrals for X-rays for patients known to have a mechanism of injury relating to trauma must be given**
a timely appointment e.g., urgency vs routine consideration. Each exposure must also be authorised by the Practitioner, or by an Operator in accordance with guidelines issued by the Practitioner.

6.2.1. **Non-medical Imaging**
Non-medical Imaging procedures, e.g., those purely for medico-legal purposes should, be avoided whenever possible. The request should clearly identify that the procedure is requested on Non-medical grounds and provide sufficient information to allow justification.

6.2.2. **Research Trials**
Where the imaging procedure is requested as part of a research trial, this should be clearly indicated on the request accompanied by the trial name, even if the imaging would form part of standard clinical care for the patient's condition. All trials must have approval as set out in document *CI.QMS.PPG.03 Protocol for Research involving Clinical Imaging.*

6.2.3. Risks associated with Radiation

Basic training on radiation health risks is available for referrers on the Trust's electronic training systems and is provided for some employee groups (e.g., F1/F2 doctors in a classroom session at induction). For ease of reference, the radiation risk tables from these training packages are reproduced in appendix 1. Referrers should discuss the risk versus benefits of imaging procedures with the individual being referred. Please find more information here: http://intranet-rcht.cornwall.nhs.uk/services/clinical-imaging/benefits-and-risks-of-imaging-examinations-guidance-for-referrers/.

6.2.4. Risks Associated with Strong Magnetic Fields

Strong magnetic fields can pose a serious risk to health and well-being of patients. The use of magnetism in combination with powerful radiofrequencies can damage implanted devices including pacemakers; this damage can be permanent and life threatening. Referrers must ensure patients are 'MRI Compatible' in accordance with the *MRI Screening Protocol* (available on the document library) and state the exact device, which is in situ, failure to supply this information will result in the referral being returned to the referrer causing a delay in patient care. The patient must also complete an MRI checklist (available on the Clinical Imaging website). All MRI safety questions in Maxims, must be answered accurately at the point of referral. The following MRI safety video is available here: https://youtu.be/xhMTKvZR90o.

What we need to know about guidance from the Society of Radiographers: MRI Safety: What we need to know about | SoR

MRI SAFETY:
What we need to know about

Having an MRI?

If you can, please try and remove or don't wear:

- **Hair** clips & grips
- **Wigs,** hairpieces, weaves or extensions
- **Piercings,** including dermal
- **Clothing that includes metal,** e.g. bras, pants with magnets, zips or buckles
- **Watches & activity trackers / rings**
- **Dentures** containing metal
- **Jewellery & glasses**
- **Facemasks** containing metal
- **Fake eyelashes**
- **Sport clothing** that contains silver fibres

If you have or wear any of these, just let us know beforehand:

- **Internal medical device** (e.g. pacemakers or orthopedic pins)
- **Hearing aids**
- **Artificial limbs**
- **Diabetic monitoring device**
- **RF ankle bracelets**
- **Silver backed wound dressings**
- **Medicine patches** (e.g. HRT or Fentanyl)
- **In-patient ID bracelets**
- **Micro-bladed eyebrows**
- **Dental braces**

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(i) **For more information** please see www.sor.org

6.2.5. Risks Associated with Contrast

Patients with pre-existing renal disease are more likely to develop complications such as AKI and nephrogenic systemic fibrosis [NSF] as a result of contrast agents administration during some imaging techniques. All Referrers must comply with RCHT document: [AvoidingContrastNephropathyClinicalGuideline.pdf(cornwall.nhs.uk)](AvoidingContrastNephropathyClinicalGuideline.pdf) There is also a risk of reaction to the contrast agent which is more likely in patients who have had a previous reaction. Any factors which may place a patient at risk of reaction must be communicated to the Imaging team as part of the referral.

6.2.6. Procedure change at Justification

Occasionally the type of imaging procedure to be performed is modified or changed. When this occurs, the IR(ME)R Practitioner will amend the procedure coding in CRIS. The Referrer will not be informed of these amendments prior to the examination. The results sent to the Referrer will indicate the request and the actual procedure performed.

6.2.7. Procedure for Unjustified Referrals

Where a request does not justify a clinical imaging examination:

- For outpatient requests, the request should be designated as 'request unjustified' [RU] in CRIS, and a reason for declining the imaging should be entered in the appropriate box. The Administrative Team will generate a standard letter using the information given by the Radiologist in the 'request unjustified' box to inform the referrer that the imaging has been declined. Requests should not be cancelled without informing the Referrer. If a request is a 2WW (7) or an Urgent (5) request the Referrer should be informed on the day of cancellation by email or telephone contact, in addition to the letter being sent. This task may be delegated to an Administrative Team member. This process can be audited through CRIS data statistics.

- For inpatient requests, the Clinical Team should be informed that the request has been declined with the reason for refusal, and the member of staff notified should be recorded in the CRIS comments box. This task may be delegated to an appropriate member of staff, e.g., Radiographer. Only when the team have been notified and the notification recorded in the CRIS comments box may the examination be cancelled on CRIS.

6.3. Procedure

The clinical procedure/examination is performed by a Radiologist, Radiographer, Sonographer, or Assistant Practitioner, named dental nurse working in oral surgery or other authorised Healthcare Practitioner [HCP] at RCH as per Imaging examination procedure (*CI.GEN.PPG.10*), the Society of Radiographers [SoR] 'Pause and Check Operator Checklist' and the specific procedure to be undertaken. All Operators must be acting with a scope of practice which is reflected within training matrixes. Within the cardiac catheterisation laboratories and operating theatres, the Radiographer is responsible for the medical exposure that supports the Cardiologist or Surgeon in undertaking the interventional/surgical procedures.

6.3.1. Pre-Procedural Checks

Where there are avoidable risks to the patient, pre-procedural practices apply. These will include but are not exclusive to:

- Correct patient identification.

- Pregnancy/lactation status.

- Contrast Allergy.

- MRI safety.

- WHO Checklists.

6.3.2. Procedure Deviation

As part of good clinical governance, most Clinical Imaging procedures have a protocol in place for the team to follow. In some cases, it may be necessary for operator to deviate from the standard protocol, for example:

- Technique to be modified to meet the patient's needs.

- Change in procedure to reflect the patient's condition.

- Cancellation due to patient condition or compliance.

Any deviation from the standard protocol must be recorded in the events comments in CRIS for the reporter to acknowledge within their findings. All ionising radiation, MRI, and Ultrasound procedures must follow the Society of Radiographers safety checklists which are clearly displayed at the control panel or, for ultrasound, in the room.

6.3.3. Post Processing

The Operator is responsible for checking the quality of any images produced which includes correct labelling and storage of images. Only when the Operator is satisfied the image meets the required standard should the image be released to the Picture Archive Communication System [PACS]. If the Reporter feels the image does not meet these standards, the Imaging quality assurance process should be followed (*CI.QMS.PPG.08*). **NB: Non-ED/MIU/UTC referrals where the radiographer identifies a significant abnormality that will need immediate management, e.g., Pneumothorax, fractured NOF or other significant finding, the Radiographer must seek advice from ED/MIU/UTC. They must not allow the patient to leave the department as, more than likely; they may need to be admitted. This will need to be documented under 'Event comment' on CRIS.**

6.4. Reporting

6.4.1. Reporting Practitioners

- Consultant Radiologists.

- Approved Cardiologists.

- Specialty Registrars at the South West Radiology Academy.

- Consultant GI Radiographer acting within approved scope of practice [*CI.IR.PPG.04* and *CI.IR.PPG.01*].

- Advanced Practitioner Reporting Radiographer [*CI.IR.PPG.02*].

- Consultant Breast Imaging Radiographer acting within approved scope of practice [*CI.MER.PPG.01*].

- Sonographers acting in accordance with local protocols.

- Advanced Practitioners in Clinical Imaging acting within agreed scope of practice [*CI.TAG.PPG.07*].

- Advanced Practitioners (Film Readers) in Breast Imaging acting within agreed scope of practice.

- CBCT IRMER Practitioners who have completed Level 2 Training.

- MRI practitioners to exclude intra orbital or skull foreign bodies.

- Approved CT reporting Advanced Clinical Radiographer.

- Approved MRI reporting Advanced Clinical Radiographer.

- Approved DEXA Reporting Advanced Clinical Practitioner.

- Nuclear Medicine Operators acting within agreed scope of practice [*CI.NM.LEG1*].

6.4.2. Shared Insourced Reporting Programme (PenRAD)

The Trust is part of the PenRAD Imaging Network comprising of RCHT and also University Hospitals Plymouth NHS Trust (UHPT), Royal Devon University Healthcare NHS Foundation Trust (RDUH) – North and East, and Torbay and South Devon NHS Foundation Trust (TSD). Registered Health Professionals in the PenRAD Imaging Network, meeting criteria set by the Clinical Directors of each Trust, can act as Operators to allow for providing clinical evaluations on images from other Trusts. Access to shared reporting systems is limited to those meeting criteria, ensuring scope of practice adherence. Participating PenRAD Trusts commit to sharing training records upon request, fostering collaborative and compliant reporting practices.

6.4.3. Structure and Content of Reports

A report is an assessment of the examination/procedure and may also include advice regarding patient management. According to the Royal College of Radiologists (2006) and local standards. The usual format of reports will include:

- Clinical details.

- A description of the findings and/or intervention performed.

- A conclusion or interpretation of findings in the clinical context.

- All complex reports should have a conclusion which answers the clinical question in the request.

- If an examination is reported in conjunction with another in the same episode, the blank fields should have the following comment 'Please see report for…'

- No examination fields should be left blank, and each should be titled with the examination type.

- Reports should adhere to the current trust policy *Management of Information, Records and Data Quality Policy* and should adhere to abbreviations guidance outlined therein [page 68 under heading **Abbreviations**]. These should be kept to a minimum. Healthcare Professionals must be aware that an accepted abbreviation within their own clinical field may have a

different interpretation in the wider field of clinical care. Each report should be signed with the name of the Reporter, their title, and a unique professional identifier (e.g., General Medical Council [GMC] number, Healthcare Professions Council [HCPC] registration number) at the end of the body of the report.

6.4.4. Quality and Accuracy of Reports

Each Reporting Practitioner is responsible for the quality and accuracy of their work. Reports are generated using voice recognition [VR] or typed directly onto the Computer Radiology Information System (CRIS). It is the responsibility of the Practitioner to check accuracy and readability before verifying the report. The report is then released to CRIS, InSight PACS (including InSight Web), Maxims and the patient's GP practice. Consultant Radiologists are viewed as the experts and all Reporters must refer to them where any doubt exists, and a second opinion is needed. Any suspected discrepancy in reporting should be highlighted to the Radiology Events and Learning Meetings [REALM] lead, as part of Imaging Quality Assurance Processes. Sub-specialty expertise exists within the reporting workforce, those evaluating imaging may seek specialist opinion from those within RCHT or from other NHS organisations.

6.4.5. Initial, Provisional and Unverified Reports

Medical/Dental Practitioner **Initial Reports**. These initial reports relate to the interpretation of an image by a Non-radiology Reporter whilst the full evaluation is awaited; an example of this is the Emergency Department and Minor Injury and Urgent Trauma Units. The individual undertaking the initial evaluation has the responsibility to check the Radiology report and act on any findings, which may include modifying the patient's treatment plan. Where there is any variance of clinical opinion, this must be discussed with the Clinical Imaging department.

Provisional Reports are provided under two circumstances:

- A critically unwell patient where an urgent report is needed, without reference to previous imaging, and where key indicators are needed to manage the patient, for example in cases of complex trauma. A full report will be issued in due course and the Referrer will be informed of any discrepancies by the Reporter.

- A Radiology Registrar has drafted a report for imaging acquired overnight. A provisional report needs to be checked and confirmed by a Consultant Radiologist the following morning. The report will be clearly marked as provisional, and an addendum will be added once the report is checked. It is the Radiology Registrar and checking Consultant's responsibility to inform the Referrer of any significant changes to the report following review and the exact documentation of this discussion must be recorded on CRIS (see section 6.4.7).

Unverified Reports are created on the CRIS system, visibility is controlled by permissions on the IT system. Reports will be unverified because the Reporter has not finishing collating their findings or the report requires a second check as part of competency assessment. A Consultant Radiologist has the authority to check and verify reports of all Non-medical Reporters.

6.4.6. **Outsourced Reporting**

The Clinical Imaging Service will use 3rd party companies to provide imaging reports where there may be significant delays in reporting that may adversely impact patient care. Only UK based companies which hold an agreement with RCHT will be used and a specific reporting list will be created on CRIS. Paediatric imaging must not be outsourced from RCHT. Outsourcing companies are expected to provide assurance audits on an annual basis. Any discrepancies in reports will be raised and managed according to the *Clinical Imaging Protocol For The Assessment and Management of Discrepancies [CI.GEN.PPG.58]*.

6.4.7. **Images Which Do Not Receive Clinical Evaluation by the Imaging Department**

It is a statutory requirement of IR(ME)R that all examinations involving ionising radiation are evaluated in writing.

6.4.8. **Reporting Arrangements in Other Specialities**

By agreement with the relevant clinical specialities the following examinations will not be routinely reported by the Clinical Imaging department (these examinations are referred to as 'IRMER reported' in CRIS) and the referring clinician's evaluation of the examination will be documented in the patient's clinical record:

- Non-paediatric orthopaedic plain radiographs from Orthopaedic wards, theatres and outpatient clinics including fracture clinic. EXCEPTIONS: chest and abdominal radiographs, requests from Physiotherapist and other Non-medical Practitioners.

- Orthodontic examinations (OPG and occlusal views) and CBCT [Cone Beam CT] requested by the maxillofacial department are reported by the referrers. The reports are recorded in CRIS.

- All work undertaken in the cardiac catheterisation lab; the evaluation will be made by the Cardiologist who is the practitioner for the exposure. Reports for these examinations are recorded in the Cardiology reporting system.

- Fluoroscopically guided procedures in theatres, endoscopy, and pain clinic.

- Ultrasound Imaging undertaken in multiple areas outside of the Imaging speciality such as Emergency Department /Intensive Therapy Unit, vascular ultrasound in Rheumatology, Obstetric and gynaecological ultrasound. Clinical Imaging are only responsible for their own ultrasound activity and reporting governance.

- The referring team can specifically request a Radiologist report on any examination. If this is made at the time of request the examination should be allocated to REFHOT.

6.4.9. **Communication of Findings and Safety Net Procedures**
Each Referrer/Referring Team is responsible for reading and acting upon the result of every investigation they generate (RCR, 2012 and NPSA 2007). It is the responsibility of the Reporter to ensure that the Referring Clinician or another appropriate member of the Clinical Team is contacted if they consider that there is any likelihood of unexpected relevant information contained in the report not being acted upon (RCR, 2012). All Clinical Imaging reports are constructed and recorded in CRIS and once verified, are automatically communicated to the Referrer electronically, via the InSight Web, Clinical Care, CRIS, Maxims and ICE systems. Electronic reports are also sent to GPs via Keystone to the appropriate GP system. GP practices are encouraged to obtain access to Maxims for results viewing. Paper copies (known as white copies) are currently sent to Consultants based outside of Cornwall and Military Services; however, this practice is reducing due to electronic systems. For

reports which contain **Critical, Urgent,** or **Unexpected Significant Findings**, the following additional safety net procedures should be followed, the documentation of these is described in 6.4.8:

- **Critical Findings**

  For immediately life-threatening conditions (e.g., life-threatening intracranial haemorrhage, tension pneumothorax), where emergency action is required as soon as possible, the Referring Clinician or an appropriate member of their team should be notified directly by telephone or in person. The *Imaging Admin Action Protocol [CI.ADMIN.PPG.57]* should be followed which includes an audit trail in CRIS events comments.

- **Urgent Findings**

  For true on call/emergency cases the Referring Doctor has a responsibility to pursue and review the result, given that by definition the patient's acute management will be determined by the result of the scan e.g., head injury scan from ED [Emergency Department]. Nevertheless, for urgent conditions where medical evaluation is required within 24 hours, and, in the clinical judgement of the reporter, there is a concern that the report will not be viewed in a timely manner (e.g., incidental pulmonary embolus discovered on an inpatient CT before a weekend, or on an outpatient referral) the reporter or delegated deputy should notify the referrer/referring team of the report.

- **Unexpected Significant Findings**

  For unexpected findings which do not require an urgent change in management but which are very important for the future care of the patient. (e.g., incidental lung cancer on CXR performed for an unrelated indication), it is the responsibility of the Reporter or their nominated deputy to bring the report to the Referrer/Referring Team's attention if, in their clinical judgement, there is a danger that the report will not be viewed in a timely manner. The Reporter may recommend the next actions following such a finding (i.e., in this example referral to a chest physician) but must not take responsibility for such referrals or the ordering of further examinations; the accountability lies with the team managing the patient's care. The communication of unexpected significant results may be delegated to a member of the Clinical Imaging Administration Team at the judgement of the reporter, following the *Imaging Admin Actions protocol [CI ADMIN.PPG.57].* For all MIU

referrals with unexpected significant findings, the reporting clinician should take appropriate measures in order to ensure that the patient's GP is notified.

6.4.10. **Recording Communication of Results.**
Where results are communicated verbally to the Referrer or an appropriate member of their team by the Reporter, the telephoned result should be recorded on the report as an addendum, giving the date, time, name, and role of the person who received the report. Where communication of results is delegated to the Clinical Imaging Administration Team, the report should be placed in the 'Admin Action' folder on InSight Web, along with a brief description of the action required. The Imaging Administration Team log the following details from these actions in an Excel database:

- Patient name.

- CR number.

- Procedure.

- Reporter.

- GP/Consultant's Team/Ward contact details.

- Date and time of communication.

- PA who made the telephone call.

- Any additional comments.

A note of the telephone communication is also made in the comments box on the patient's CRIS record.

6.4.11. **Communicating Findings Directly with the Patient**
The communication of results with the patient must be sensitive and honest. Results should only be discussed if the images have been fully reviewed and the individual is qualified as competent to do so, and it is appropriate to inform the patient including answering any questions regarding on-going care/management:

- **Copy of Letters to Patients**

  All patients letter are on the Maxims system which will automatically send a copy to the Patient.

6.4.12. **Reporting Images of the Deceased**
Deceased paediatric patients (17 years and under): investigations

must be reported. Deceased adult patients (aged 18 and over): the investigations will not be analysed. The following statement will be placed with the image(s):

> *'Patient deceased at the time of reporting; if you require these images to be reported please contact the Clinical Imaging dept.'*

The department will review images by request.

6.5. Location and Storage

All Clinical Imaging reports are held on the Computer Radiology Information System [CRIS] and are available to view on the InSight Web system with the exception of NHS Foetal Anomaly Screening.

6.6. Adverse Events

All near miss or adverse events will be reported through the DATIX system and managed in accordance to Trust processes. Any reports where there is a suspected breach of regulations involve the relevant expert and will be reported to the regulator as appropriate.

Regulation/Guidance	Regulator	Expert
Ionising Radiation Regulations 17 (IRR17).	Health and Safety Executive [HSE].	Radiation Protection Adviser [RPA].
Ionising Radiation (Medical Exposure) Regulations [IR(ME)R] 2017.	Care Quality Commission [CQC].	Medical Physics Expert [MPE].
Healthcare Professions Act 2002.	General Medical Council [GMC], Health and Care Professions Council [HCPC], Nursing and Midwifery Council [NMC].	Imaging Lead/Clinical Director.
Safety Guidelines for Magnetic Resonance Imaging Equipment in Clinical Use (2015).	Medicines and Healthcare Products Regulatory Authority [MHRA].	MR Safety Expert.

6.7. References

Department of Health (2017) **Ionising Radiation (Medical Exposure) Regulations (updated 2017).** London, Her Majesty's Stationery Office [HMSO], accessed: http://www.legislation.gov.uk/uksi/2017/1322/contents/made.

Health and Safety Executive (2017) **Ionising Radiation Regulations.** London, HMSO https://www.legislation.gov.uk/uksi/2017/1075/contents/made.

Medicines and Healthcare products Regulatory Agency [MHRA] (2016) **Magnetic resonance imaging equipment in clinical use: safety guidelines**. London, MHRA https://www.gov.uk/government/publications/safety-guidelines-for-magnetic-resonance-imaging-equipment-in-clinical-use.

Royal College of Radiologists (2018) **Standards for the Reporting and Interpretation of Imaging Investigations.** London: Royal College of Radiologists https://www.rcr.ac.uk/publication/standards-interpretation-and-reporting-imaging-investigations-second-edition.

Royal College of Radiologists (2016) BFCR(16)4 Standards for the communication of radiological reports and fail-safe alert notification.

Society of Radiographers (2017) **Have You Paused and Checked? IRMER** Have you paused and checked? IR(ME)R | SoR.

Society of Radiographers (2016) **Have You Paused and Checked? Ultrasound** Have you paused and checked? Ultrasound | SoR.

Society of Radiographers (2016) **MRI Safety: What we need to know about** MRI Safety: What we need to know about | SoR.

Society of Radiographers (2016) **Have You Paused and Checked? IR(ME)R Referrers** Have you paused and checked? IR(ME)R Referrers | SoR.

Positive Patient Identification Policy and Procedures DRAFT Version (cornwall.nhs.uk).

Management of Information…, Management of Information, Records and Data Quality Policy (cornwall.nhs.uk).

Benefits and Risks of Imaging…, Benefits and Risks of Imaging Examinations – Guidance for Referrers | Intranet - Royal Cornwall Hospitals Trust.

7. Dissemination and Implementation

The document will be shared via the RCHT Documents Library and the Clinical Imaging Q Pulse system.

8. Monitoring compliance and effectiveness

Information Category	Detail of process and methodology for monitoring compliance
Element to be monitored	All elements of this document are monitored through Clinical Imaging governance processes.
Lead	Imaging Lead.
Tool	DATIX, complaints, Non-medical Referrer audits, Reporting discrepancy review, Clinical Imaging Image Quality.
Frequency	Ongoing.
Reporting arrangements	Clinical Imaging Clinical Governing Group [CICGG].
Acting on recommendations and Lead(s)	Imaging Lead.
Change in practice and lessons to be shared	Imaging Lead.

9. Updating and Review

9.1. All policy documents should be reviewed no less than every three years. Where appropriate, the author may set a shorter review date.

9.2. Revisions can be made ahead of the review date when the procedural document requires updating. Where the revisions are significant and the overall policy is

changed, the author should ensure the revised document is taken through the standard consultation, approval, and dissemination processes.

9.3. Where the revisions are minor, e.g., amended job titles or changes in the organisational structure, approval can be sought from the Executive Director responsible for signatory approval, and can be re-published accordingly without having gone through the full consultation and ratification process.

9.4. Any revision activity is to be recorded in the Version Control Table as part of the document control process.

10. Equality and Diversity

10.1. This document complies with the Royal Cornwall Hospitals NHS Trust service Equality and Diversity statement which can be found in the 'Equality, Inclusion and Human Rights Policy' or the Equality and Diversity website.

10.2. Equality Impact Assessment
The Initial Equality Impact Assessment Screening Form is at Appendix 2.

Appendix 1. Governance Information

Information Category	Detailed Information
Document Title:	Referral, Justification and Reporting of Radiological Procedures Policy V3.1.
This document replaces (exact title of previous version):	Referral, Justification and Reporting of Radiological Procedures Policy V3.0.
Date Issued/Approved:	September 2022.
Date Valid From:	July 2024
Date Valid To:	September 2027
Directorate/Department responsible (~~author~~/owner):	Clinical Support Care Group/Clinical Imaging/Glenda Shaw and Tom Richardson, Quality and Service Improvement Leads.
Contact details:	01872 255086.
Brief summary of contents:	A protocol to enable Non-medical Practitioners to request imaging procedures within their scope of practice.
Suggested Keywords:	Imaging, X-ray, Radiology, MRI, CT, Ultrasound, Interventional Radiography, Maxims, ICE, risk, benefits, CI.GEN.PPG.41.
Target Audience:	**RCHT:** Yes **CFT:** No **CIOS ICB:** No

Information Category	Detailed Information
Executive Director responsible for Policy:	Chief Medical Officer.
Approval route for consultation and ratification:	Clinical Imaging Governance Group. Clinical Support Care Group Governance Meeting.
General Manager confirming approval processes:	Richard Andrzejuk, Care Group General Manager Clinical Support.
Name of Governance Lead confirming approval by specialty and care group management meetings:	Kevin Wright
Links to key external standards:	Ionising radiation (Medical Exposure) Regulations.
Related Documents:	• RCHT Positive Patient Identification Policy and Procedures. • RCHT Policy for Consent to Examination or Treatment. • RCHT Policy to Manage Information and Records. • RCHT Ionising Radiation Safety Policy.
Training Need Identified?	No.
Publication Location (refer to Policy on Policies – Approvals and Ratification):	Internet and Intranet.

Information Category	Detailed Information
Document Library Folder/Sub Folder:	Clinical/Clinical Imaging.

Version Control Table

Date	Version Number	Summary of Changes	Changes Made by (Name and Job Title)
October 2016	1.0	Initial Issue.	Naomi Burden, Governance and Quality Radiographer.
March 2019	2.0	Amendments to document. Updated IR(ME)R and IRR information.	Glenda Shaw, Imaging QSI Lead.
June 2020	2.1	Amendments to document. Updated IR(ME)R and IRR information. Updated Policy template.	Glenda Shaw, Imaging QSI Lead.
September 2022	3.0	3-year mandatory review. Trust template updated. All content updated.	Glenda Shaw, Imaging QSI Lead. Lorna Sweetman, Head of Clinical and radiation Physics. Madeline Strugnell, Consultant Radiologist. Tom Sulkin, Consultant Radiologist. Emma Spouse, Clinical Imaging Lead.

Date	Version Number	Summary of Changes	Changes Made by (Name and Job Title)
May 2024	3.1	Amendments to document, PenRAD SIRP inclusion, Dental duty holder clarification and inclusion of standards for requesting General Anaesthesia Scans.	Tom Richardson and Glenda Shaw Imaging QSI Leads.

All or part of this document can be released under the Freedom of Information Act 2000
All Policies, Strategies and Operating Procedures, including Business Plans, are to be kept for the lifetime of the organisation plus 6 years. This document is only valid on the day of printing.

Controlled Document

This document has been created following the Royal Cornwall Hospitals NHS Trust The Policy on Policies (Development and Management of Knowledge Procedural and Web Documents Policy). It should not be altered in any way without the express permission of the author or their Line Manager.

Appendix 2. Initial Equality Impact Assessment

Section 1: Equality Impact Assessment [EIA] Form
The EIA process allows the Trust to identify where a policy or service may have a negative impact on an individual or particular group of people.
For guidance please refer to the Equality Impact Assessment Policy (available from the document library) or contact the Equality, Diversity and Inclusion Team rcht.inclusion@nhs.net

Information Category	Detailed Information
Name of the strategy/policy/proposal/ service function to be assessed:	Referral, Justification and Reporting of Radiological Procedures Policy V3.1.
Directorate and service area:	Clinical Imaging.
Is this a new or existing Policy	Existing.
Name of individual completing EIA (should be completed by an individual with a good understanding of the service/policy):	Glenda Shaw and Tom Richardson Imaging QSI Leads.
Contact details:	01872 255086.

Information Category	Detailed Information
1. Policy Aim - Who is the Policy aimed at (The Policy is the Strategy, Policy, Proposal or Service Change to be assessed)	To provide a clear framework to ensure Clinical Imaging processes to comply with IR(ME)R 2017 regulations.
2. Policy Objectives	As per policy aim.

Information Category	Detailed Information
3. Policy Intended Outcomes	Ensure radiation and other imaging techniques are used to the greatest benefit and the least harm possible through good governance processes.
4. How will you measure each outcome	Compliance is measured through Imaging governance and audit processes.
5. Who is intended to benefit from the policy	Staff and patients.
6a. Who did you consult with (Please select *Yes* or *No* for each category)	- Workforce: Yes - Patients/visitors: No - Local groups/system partners: No - External organisations: No - Other: No
6b. Please list the individuals/groups who have been consulted about this policy.	Clinical Imaging Clinical Governing Group.
6c. What was the outcome of the consultation	Approved.
6d. Have you used any of the following to assist your assessment?	National or local statistics, audits, activity reports, process maps, complaints, staff, or patient surveys: no.

7. The Impact

Following consultation with key groups, has a negative impact been identified for any protected characteristic? Please note that a rationale is required for each one.

Where a negative impact is identified without rationale, the key groups will need to be consulted again.

Protected Characteristic	(Yes or No)	Rationale
Age	No	Adjustments for children included throughout.
Sex (male or female)	No	
Gender reassignment (Transgender, non-binary, gender fluid etc.)	No	
Race	No	
Disability (e.g. physical or cognitive impairment, mental health, long term conditions etc.)	No	
Religion or belief	No	
Marriage and civil partnership	No	
Pregnancy and maternity	No	

Protected Characteristic	(Yes or No)	Rationale
Sexual orientation (e.g. gay, straight, bisexual, lesbian etc.)	No	

A robust rationale must be in place for all protected characteristics. If a negative impact has been identified, please complete section 2. If no negative impact has been identified and if this is not a major service change, you can end the assessment here.

I am confident that section 2 of this EIA does not need completing as there are no highlighted risks of negative impact occurring because of this policy.

Name of person confirming result of initial impact assessment:
Glenda Shaw, Imaging QSI Lead.

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If a negative impact has been identified above OR this is a major service change, you will need to complete section 2 of the EIA form available here:
Section 2. Full Equality Analysis