Title of Document:	IR(ME)R PROCEDURE (C): For making enquiries of individuals of childbearing potential to establish whether the individual is or may be pregnant or breast feeding.
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Individuals involved in developing / reviewing / amending this document: (titles only)	
Clinical Services Manager	
Radiation Protection Advisor	
Quality Governance Lead Radiographer	
Radiation Protection Supervisors	
Key staff responsibilities	Post:
Ensure the procedure is followed countywide	Radiology Clinical Services Manager
Responsible for the day to day implementation of the procedure	Lead Superintendent Radiographers
To comply with this Procedure, the **operator** who is about to carry out the examination/procedure must carry out the following enquiries in regards to pregnancy/breastfeeding except under special circumstances documented below	The operator as deemed in Procedure A
Indicate on the request whether there is a chance that the patient is pregnant or breastfeeding and whether the examination is desired even if the patient might be pregnant	Referrer

In line with regulation 6 schedule 2 (c) requirements within IR(ME)R 2017, the purpose of this procedure is to establish the pregnancy and breastfeeding status of individuals of childbearing age. Ensuring enquires for all individuals being exposed to ionising radiation are made in an appropriate and consistent manner prior to their examination.

This procedure applies to all medical exposures in Diagnostic X-Ray, Computed Tomography (CT), Fluoroscopy, Cardiology, Interventional Radiology (IR), DEXA and Nuclear Medicine.

Practice

To enquire about the pregnancy status for all individuals of childbearing potential who are to undergo an examination requiring the use of ionising radiation. The agreed age range is 12-55 years (inclusive). If the individual has indicated that they have started their periods early, i.e. pre 12 years, proceed as per the '**standard procedure**'.

To enquire about the breastfeeding status of all individuals in Nuclear Medicine prior to Radionuclide administration.

Pregnancy Enquires

Applies to examinations using ionising radiation above the knee and below the diaphragm, as well as nuclear medicine procedures involving radionuclides.

Pregnancy enquiries will be performed in the Radiology department by the operator undertaking the exposure prior to the examination taking place. This will be done using Inclusive Pregnancy Status (IPS) Form A (*Appendix B*). If there are ever multiple operators involved during the examination, the operator responsible for initiating the radiation exposure is ultimately responsible for checking the patient's pregnancy status.

For high dose examinations apply the 10 day rule, i.e CT and fluoroscopic procedures of the defined area. High dose examinations are identified as those procedures that produce a fetal dose of 10+ mGy.

For low dose procedures apply the 28 day rule, i.e all other procedures that produce a dose of <10 mGy.

(For guidance see Appendix A)

Information for Operators regarding Pregnancy Testing

- Most pregnancy tests are **NOT** reliable until the first day following a missed menses for a **negative** result.
- Operators should not rely on a **negative** status to continue with a radiation exposure unless it has been established that the patient is overdue in their menstrual cycle.

The usual IR(ME)R process of questioning should be observed and if there is any doubt, the patient should be referred back to the referring clinician.

Radiographers actions should be documented in the 'comments box' on CRIS.

Breastfeeding Enquiries

Applies to all Radionuclide administration.

Where prior notice of an appointment is given, the appointment letter asks the patient to contact the department before that date. This is to enable advice to be given in advance to prepare for any period of suspension of breastfeeding.

Recording Enquiry Results

For pregnancy enquiries:

- If pregnancy can be excluded after completion of Inclusive Pregnancy Status (IPS) Form A (*Appendix B*), scan into CRIS and proceed with the examination.
- If pregnancy cannot be ruled out, the exam must be deferred unless clinically urgent. Please see **special circumstances** and Inclusive Pregnancy Status (IPS) Form B (*Appendix C*).

For all examinations that proceed to exposure, document pregnancy check within processing on CRIS.

For breastfeeding enquiries:

- For all patients, complete the 'Nuclear Medicine Checklist Prior to Administration of Radiopharmaceutical' (*See Appendix D*) and scan the document into CRIS.
- If it is established the patient is breastfeeding, complete the 'Nuclear Medicine Breastfeeding Information Form' *(See Appendix E*), scan the document into CRIS and note at this point the patient has an option to rebook their appointment.

Patient Information

Patient's receive information regarding pregnancy throughout their imaging pathway in the following formats:

- Appointment letters include a pregnancy section which states 'Could you be pregnant'.
- Posters in imaging departments state 'please inform your radiographer before your x-ray, scan or treatment' in different languages.
- Inclusive Pregnancy Status (IPS) Form A and B include information for all individuals of child- bearing age undergoing an imaging examination using ionising radiation.
- Patients in Nuclear Medicine receive the following information leaflet 'Nuclear Medicine Lung Scans and Pregnancy' (*Appendix F).*

SPECIAL CIRCUMSTANCES

1. **Multiple Examinations**

Responsibility for pregnancy enquiries; when patients are required to undergo multiple examinations i.e Fluoroscopy followed by CT.

Each operator for each modality is responsible for ascertaining the patients' pregnancy status before undertaking any exam.

2. **Unconscious Patients**

Every attempt must be made to ascertain individual pregnancy status, this may include reliance upon HCG tests in the Emergency Department. If this is the appropriate action, please document the decision and result in the comments box on CRIS.

If the exam in not deemed clinically urgent, the exam must be deferred until the pregnancy status is confirmed. However, in clinical emergencies the LMP rule can be waived by the referring clinician. It must be documented on the CRIS that the referrer has waived restrictions. IPS Form B must be completed and scanned onto CRIS.

3. Anaesthetised Patients

Before anaesthetising of any patient, it is the responsibility of the operator (Radiographer) to confirm the patients' pregnancy status if they are present, however if the operator is not present it is the responsibility of the operating consultant.

In the rare occasion that this is not confirmed prior to anaesthetising the patient, the operator will initiate a discussion with the responsible consultant to explain the IR(ME)R requirements. If pregnancy cannot be ruled out (via the pre-op checklist or other means) and a patient is anaesthetised, the examination should only continue if the responsible consultant 'waives' the LMP check based on clinical urgency. The operator must ensure that the requesting consultant/doctor signs IPS Form B prior to the exam being undertaken, stating that they are to waive the pregnancy status. The radiographer **MUST** complete a Datix Incident Form in line with Trust Policy and also documented on CRIS.

4. Patients with Language Difficulties

It is the responsibility of the operator to ensure that correct identification of all patients is confirmed prior to undertaking any exam. Should there be any difficulties identified during this process in regards to language barrier, i.e understanding of questions being asked or communication difficulties, the operator must seek alternative methods for confirming the patients understanding of the questions posed and explanation of exam requirements.

The Trust do not support the use of family members, friends or staff members for interpreting purposes and where required a trust recognized interpreter should be arranged. This may include the use of telephone services as opposed to a physical service.

5. Patients who lack Mental Capacity

Patients identified as lacking mental capacity, due care and consideration needs to be taken when ascertaining pregnancy status.

If the patient lacks mental capacity to comprehend the enquiries, the probability of pregnancy may be discussed with their carer or guardian and this information should be provided to the practitioner who can review the justification.

If there is any doubt, proceed as in 'definitely or possibly pregnant'. Note that if a patient lacks the mental capacity to comprehend these enquiries, they may not have the mental capacity to consent.

In clinical emergencies the patients pregnancy status can be waived by the referring clinician. It must be documented on the CRIS that the referrer has waived restrictions. IPS Form B must be completed and scanned onto CRIS.

6. Pregnancy Enquiries in Young Patients

Individuals who have indicated that they have started their periods early or are 12-15 years inclusive of age.

The operator will need to use professional judgment as to whether the young individual is competent to answer questions without a parent or guardian present. If the patient is deemed competent use IPS Form A.

If the patient is not competent to sign the form or it is impractical for them to consider it in confidence, refer the examination back to the referrer to evaluate clinical need at this time.

Appendix A

TABLE Typical fetal doses and risks of childhood cancer for some common diagnostic medical exposures

Examination		Typical fetal dose range (mGy)*	Risk of childhood cancer per examination
X-ray	Skull	0.001–0.01	< 1 in 1,000,000
X-ray	Teeth		
X-ray	Chest		
X-ray	Thoracic spine		
X-ray	Breast (mammography)		
X-ray CT	Head and/or neck		
^{51}Cr	GFR measurement		
^{81m}Kr	Lung ventilation scan		
X-ray CT	Pulmonary angiogram	0.01–0.1	1 in 1,000,000 to 1 in 100,000
^{99m}Tc	Lung ventilation scan (Technegas)		
X-ray	Abdomen	0.1–1.0	1 in 100,000 to 1 in 10,000
X-ray	Barium meal		
X-ray	Pelvis		
X-ray	Hip		
X-ray CT	Pelvimetry		
X-ray CT	Chest and liver		
^{99m}Tc	Lung perfusion scan		
^{99m}Tc	Thyroid scan		
^{99m}Tc	Lung ventilation scan (DTPA)		
^{99m}Tc	Renal scan (MAG3, DMSA)		
^{99m}Tc	White cell scan		
X-ray	Barium enema	1.0–10	1 in 10,000 to 1 in 1,000
X-ray	Intravenous urography		
X-ray	Lumbar spine		
X-ray CT	Lumbar spine		
X-ray CT	Abdomen		
^{99m}Tc	Bone scan		
^{99m}Tc	Cardiac blood pool scan		
^{99m}Tc	Myocardial scan		
^{99m}Tc	Cerebral blood flow scan (Exametazine)		
^{99m}Tc	Renal scan (DTPA)		
^{201}Tl	Myocardial scan		
^{18}F PET	Tumour scan		
X-ray CT	Pelvis	10–50	1 in 1,000 to 1 in 200 *Natural childhood cancer risk ~ 1 in 500*
X-ray CT	Pelvis and abdomen		
X-ray CT	Pelvis, abdomen and chest		
^{99m}Tc	Myocardial (SPECT rest-exercise protocol)		
^{18}F PET/CT	Whole body scan		

* Fetal doses derived from doses to the uterus seen in recent UK surveys (Hart et al, 2007; Shrimpton et al, 2005) and the ARSAC Notes for Guidance (ARSAC, 2006), so only apply to early stages of pregnancy when the fetus is small.

APPENDIX B

Inclusive Pregnancy Form A

M:\Acute\Radiology\Radiology Team Share Point\CHECKLISTS, EQUIPMENT LISTS & QUESTIONNAIRES\PREGNANCY STATUS ENQUIRY FORMS\NEW PREGNANCY FORM A.pdf

APPENDIX C

Inclusive Pregnancy Form B

M:\Acute\Radiology\Radiology Team Share Point\CHECKLISTS, EQUIPMENT LISTS & QUESTIONNAIRES\PREGNANCY STATUS ENQUIRY FORMS\NEW PREGNANCY FORM B.pdf

Appendix D

Nuclear Medicine Checklist Prior to Administration of Radiopharmaceutical

M:\Acute\Radiology\Radiology Team Share Point\CHECKLISTS, EQUIPMENT LISTS & QUESTIONNAIRES\NUCLEAR MEDICINE\NM CHECKLIST ADMINISTRATION OF RADIOPHARMECEUTICALS & ADJUVANT MEDICINES.pdf

Appendix E

Nuclear Medicine Breastfeeding Information

M:\Acute\Radiology\Radiology Team Share Point\CHECKLISTS, EQUIPMENT LISTS & QUESTIONNAIRES\NUCLEAR MEDICINE\BREAST FEEDING INFO - NM.pdf

Appendix F

Nuclear Medicine Lung Scans and Pregnancy

M:\Acute\Radiology\Radiology Team Share Point\CHECKLISTS, EQUIPMENT LISTS & QUESTIONNAIRES\PREGNANCY STATUS ENQUIRY FORMS\NM Lung Scans and Pregnancy Patient Information.pdf