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| **Referral Criteria Guidelines for**  **Primary Care Referrals to Radiology** |

**Document Control:**

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**Distribution Control**

Printed copies of this document should be considered out of date. The most up to date version is available from the Trust Intranet or policy management system.

**Consultation**

This document was developed in conjunction with individuals from James Paget University Hospitals NHS Foundation Trust (JPUH), Norfolk and Norwich University Hospitals NHS Foundation Trust (NNUH) and The Queen Elizabeth Hospital King’s Lynn NHS Foundation Trust (QEH) in the form of a Task and Finish Group.  

The following were consulted during the development of this document:

Community Diagnostic Centre (CDC) Clinical Lead, NNUH and JPUH

Radiology Clinical Lead, QEH

Ultrasound Lead Radiologist, NNUH, JPUH, QEH

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**Monitoring and Review of Procedural Document**

The document owner is responsible for monitoring and reviewing the effectiveness of this Procedural Document. This review is continuous however as a minimum will be achieved at the point this procedural document requires a review e.g. changes in legislation, findings from incidents or document expiry.

# Change Control

No individual Trust is permitted to make changes to this document without prior collaboration with the other two Trusts.

It is the responsibility of the most senior/relevant person listed in the ‘Consultation’ section above for the site that wants to make changes, to engage with their peers at the other two sites and commence discussions. These changes could be as a result of changes to practice or new legislation but joint agreement **MUST** be obtained prior to amending this document.

**Relationship of this document to other procedural documents**

This document is a clinical guideline applicable to the Acute Hospital Collaborative; please refer to local Trust’s procedural documents for further guidance, as noted in Section 4.

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# Introduction

## Rationale

This policy has been developed to standardise the referral criteria guidelines across the three Acute NHS Trusts in Norfolk and Waveney Integrated Care System (ICS); James Paget University Hospitals NHS Foundation Trust (JPUH), Norfolk and Norwich University Hospitals NHS Foundation Trust (NNUH) and The Queen Elizabeth Hospital King’s Lynn NHS Foundation Trust (QEH) and referred to in this document as “the Trust”.

This document was written to assist referrers working in primary care across Norfolk and Waveney in requesting the appropriate imaging modality to assist in patient management and diagnosis. The aim is to enable best practice and support radiology staff when accepting and vetting requests for diagnostic imaging.

## Objective

The objectives of these guidelines are to:

* provide clear guidance for primary care referrers when referring for diagnostic imaging
* provide clear guidance for radiology staff when vetting requests for diagnostic imaging to enable the best management of the patient

## Scope

These guidelines apply to registered general practitioners (GP) and advanced practitioners working in general practice, and advanced practitioners working within the community.

Non-medical referrers (NMR) employed or working within general practice or within the community e.g. physiotherapists, nurses and paramedics, will be required to comply with the referral criteria stated within these guidelines. NMRs have a limited scope of referral as defined with their individual NMR entitlement protocol and therefore will not be able to refer for the full scope of examinations as listed in this document.

These guidelines cover adult and paediatric referrals for Computed Tomography (CT), Magnetic Resonance Imaging (MRI), Ultrasound (US) and plain radiography (X-ray).

## Glossary

The following terms and abbreviations have been used within this document:

|  |  |
| --- | --- |
| **Term** | **Definition** |
| 2WW | Two week wait |
| AAA | Abdominal Aortic Aneurysm |
| ACE | Angiotensin-Converting Enzyme |
| Advanced Practitioner | Advanced practitioners are healthcare professionals, educated to master’s level or equivalent, with the skills and knowledge to allow them to expand their scope of practice to better meet the needs of the people they care for. This includes clinical professions such as nursing, physiotherapy, paramedics, pharmacy and occupational therapy. |
| ARB | Angiotensin II receptor blockers |
| BMUS | British Medical Ultrasound Society |
| BP | Blood pressure |
| Ca 125 | Blood test – cancer marker |
| CNS | Central Nervous System |
| COPD | Chronic Obstructive Pulmonary Disease |
| CRIS | Computed Radiology Information System |
| CT | Computed Tomography |
| CXR | Chest x-ray |
| DDH | Developmental dysplasia of the hip |
| DVT | Deep vein thrombosis |
| ED | Emergency department |
| eGFR | Estimated glomerular filtration rate |
| ENT | Ear, nose and throat |
| EPAU | Early pregnancy assessment unit |
| FB | Foreign Body |
| GI | Gastro-intestinal |
| GP | General Practitioner |
| HCG | Human Chorionic Gonadotropin |
| HPB | Hepatopancreatobiliary |
| ICE | Integrated Clinical Environment |
| IUCD/IUS | Intra-uterine contraceptive device |
| JPUH | James Paget University Hospitals NHS Foundation Trust |
| KUB | Kidneys, ureters, bladder |
| LFTs | Liver function tests |
| LH | Luteinizing hormone |
| MRI | Magnetic Resonance Imaging |
| MSK | Musculo-skeletal |
| N&W | Norfolk and Waveney |
| NAAASP | NHS Abdominal Aortic Aneurysm Screening Programme |
| NICE | National Institute for Health and Care Excellence |
| NIPE | Newborn and Infant Physical Examination |
| NMR | Non–medical referrer |
| NNUH | Norfolk and Norwich University Hospitals NHS Foundation Trust |
| OA | Osteoarthritis |
| OGD | Oesophageal dilatation |
| PACS | Picture and Archiving Communication System |
| PCOS | Polycystic Ovarian Syndrome |
| PSC | Primary sclerosing cholangitis |
| QEH | The Queen Elizabeth Hospital King’s Lynn NHS Foundation Trust |
| QSI | Quality Standards for Imaging |
| RDS | Rapid Diagnostic Service |
| RIS | Radiology Information System |
| SDEC | Same Day Emergency Care |
| TFTs | Thyroid Function Tests |
| US | Ultrasound |
| USS | Ultrasound scan |
| UTI | Urinary tract infection |
| VTE | Venous thromboembolism |
| WBC | White blood cell |

# Responsibilities

* Prior to making the referral the referring clinician must ensure that a similar examination has not been performed recently or elsewhere, with the same clinical information.
* The referring clinician must ensure that the referral contains sufficient clinical information from the clinical history, physical examination and relevant laboratory investigations, to enable radiology to guide appropriate imaging and provide as useful a report as possible.
* The referring clinician must state the specific clinical question to be answered on the referral. Any referral which contains insufficient information may be returned.
* Suspected diagnoses must be clearly stated and not implied by vague non-specific terms such as ‘pain query cause’ or ‘?pathology’.
* Suspicion for malignant pathology/red flags should be clearly stated.
* Where appropriate, and prior to requesting the examination, the referrer should check the pregnancy status of the patient within child bearing age (12 years – 55 years).
* The referrer should include all information deemed relevant to the examination, for example, the mobility of the patient, any additional adjustments that may be required.
* On receipt of the referral, if the examination or imaging modality requested by the referrer is not the most appropriate, based on the clinical information provided, the radiologist may change this to an alternative examination or imaging modality.
* In the case of general radiography, the radiographer will decide the correct projections based on the clinical information and mechanism of injury, and in accordance with the radiology justification criteria guidelines.
* If the referral is being made following a recommendation from a clinician and or previous imaging outside of the N&W region, it is imperative to state when and where the previous imaging was performed. This will ensure previous imaging is imported onto the Trust’s Picture and Archiving Communication System (PACS) prior to the examination taking place and enable a comparison to be made in the patient’s report.
* All referrals for MRI must include the required safety information. Failure to do so will result in the referral being rejected.
* Any referrals for CT and MRI that are likely to involve contrast administration may require an estimated glomerular filtration rate (eGFR) within the previous six months. [Overview | Acute kidney injury: prevention, detection and management | Guidance | NICE](https://www.nice.org.uk/guidance/ng148)

If an up-to-date eGFR is not available a blood test should be requested at the same time as the CT/MRI referral.

## Business Continuity Plans

If the Radiology Information System (RIS) or Integrated Clinical Environment (ICE) system are offline for an extended period of time Radiology will contact the practice regarding the interim process for submitting referrals.

# Referral guidance

This document, when suggesting a 2-week-wait (2WW) referral, refers to clinical 2WW pathways rather than an imaging pathway.

**Lumbar Spine X-ray**

Imaging is rarely useful in the absence of neurological signs/red flags/adverse features. NICE guidance states:

*Requests for imaging by non-specialist clinicians, with no suspicion of serious underlying pathology, can cause unnecessary distress and lead to further referrals for findings that are not clinically relevant. Radiographs of the lumbar spine have limited value when requested by general or other practitioners for back or radicular pain (consider only if focal refractory back pain and there is concern of an osteoporotic vertebral fracture)*.

Section 3 of this document includes some of the most common requests, but is not intended to be exhaustive. If the required imaging is not covered by these guidelines, or the advice given does not help you with your query, please contact Radiology at the respective Trust.

**Open Access Chest X-rays**

**QEH:**

There is open access for chest x-rays Monday to Friday 9am – 4pm.

**JPUH:**

There is open access for chest x-rays Monday to Friday 8.30am – 4.30pm.

**NNUH:**

Patient should be referred in line with the ‘Standard Operating Procedure for Urgent Access Pathway for GP-referred Chest X Rays’ protocol (Trust Docs [23365](https://webapps.nnuh.nhs.uk/TrustDocs/Doc.aspx?id=23365))

**Urgent X-ray**

**QEH:**

For urgent x-ray for “? acute fracture” please contact the Radiology/Imaging department directly and an appointment will be arranged for the patient to attend the same day.

**NNUH:**

Patient should be referred in line with the ‘Extremity Imaging (excluding hips) for Minor Injuries within 72 hours’ protocol (Trust Docs [3375](https://webapps.nnuh.nhs.uk/TrustDocs/Doc.aspx?id=3375))

**JPUH:**

For urgent x-ray for “? acute fracture” please refer the patient to Emergency department (ED) in the first instance.

**Radiology contact details:**

**NNUH:**

Email [nnu-tr.radreferrals@nhs.net](mailto:nnu-tr.radreferrals@nhs.net) – a radiologist will aim to reply to your query with 48-72 hours.

For urgent enquiries please call the hospital switchboard <insert telephone number>; the duty radiologist can be contacted via the Alertive App.

MRI referral queries: [mrisafety@nnuh.nhs.uk](mailto:mrisafety@nnuh.nhs.uk)

**JPUH:**

[radiology.secretaries2@jpaget.nhs.uk](mailto:radiology.secretaries2@jpaget.nhs.uk)  if not of an urgent nature. Your enquiry will then be forwarded to an appropriate consultant.

For urgent enquiries (9am – 5pm) please ring the secretaries who will direct the call to the troubleshooting radiologist for the day – 01493 452404.

In case of emergency out of hours and weekends, a radiologist can be contacted via the hospital switchboard.

**QEH:**

A consultant radiologist is available as the Hot Doc for queries from 8am – 8pm Monday to Friday, and 9am – 5pm Sat/Sun – 01553 613160.

In case of emergency the on call radiologist is available outside of these hours via QEH Switchboard – 01553 613613.

## Head and Neck Imaging

### Ultrasound Head and Neck

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated**  **for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| Lymph nodes clinically suspicious for malignancy, including large size, rapid growth or a fixed mass | **✓** |  | Consider 2WW referral to Ear, Nose and Throat (ENT) team. |
| Small lymph nodes in the neck |  | **X** | Patients with clinically benign neck nodes do not benefit from ultrasound. |
| Generalised neck swelling or neck pain |  | **X** |  |
| Skin lesions |  | **X** | Refer to dermatology. |
| Swelling related to the sternoclavicular joint |  | **X** |  |
| Cervical mass, unsure of origin i.e. is this thyroid? | **✓** |  |  |
| New or rapidly growing thyroid lump | **✓** |  | Consider urgent referral to ENT. |
| Follow up of established thyroid nodules |  | **X** | These referrals should be via ENT unless specifically requested by the Radiologist at the initial scan. |
| Thyrotoxicosis |  | **X** | Consider referral to Endocrinology. |
| Suspected salivary gland mass or tumour | **✓** |  | Consider urgent referral to ENT. |
| History suggestive of sialadenitis (to exclude calculi) | **✓** |  |  |
| Soft tissue lump with classical signs of a benign lump i.e. (less than 5cms) with corresponding clinical history of no recent increase in size or change in clinical features |  | **X** |  |
| Temporal arteritis |  | **X** | Suggest same day referral to rheumatology. |

### CT Neck

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated**  **for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| CT Neck |  | **X** | Only indicated for direct referral if the study is recommended by a Radiologist. |

### CT Head

### Neuro imaging

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated**  **for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| Chronic headache with no focal neurology |  | **X** | Consider neurology referral. |
| Chronic headache that has changed significantly (e.g. increased in frequency) | **✓** |  |  |
| Headache associated with vomiting and no focal neurological signs | **✓** |  |  |
| Headaches which wake the patient from their sleep | **✓** |  |  |
| Headache with a history of cancer (especially breast and lung) |  | **X** | MRI to be requested in line with Brain and Central Nervous System (CNS) cancer referral pathway. |
| Seizures in a patient with a history of cancer |  | **X** | MRI to be requested in line with Brain and CNS cancer referral pathway. |
| Rapidly progressive focal neurological deficit |  | **X** | MRI to be requested in line with Brain and CNS cancer referral pathway. |
| Significant alteration in consciousness, memory, confusion or coordination |  | **X** | MRI to be requested in line with Brain and CNS cancer referral pathway. |
| Thunderclap headache within the last two weeks |  | **X** | Consider emergency admission. |
| Fever and meningism |  | **X** | Consider emergency admission. |
| Acute glaucoma |  | **X** | Consider emergency admission. |
| Headache and papilloedema |  | **X** | Consider emergency admission. |
| Papilloedema with focal neurological signs or reduced level of consciousness |  | **X** | Consider emergency admission. |
| Suspected brain tumour |  | **X** | Consider specialty referral  (neurology). |
| Suspected stroke |  | **X** | Consider urgent specialty referral (stroke team). |
| Signs or symptoms suggestive of multiple sclerosis |  | **X** | Consider specialty referral  (neurology). |
| Visual disturbances |  | **X** | Consider specialty referral  (ophthalmology). |
| New onset seizures or suspected seizures |  | **X** | Consider specialty referral  (first seizure clinic). |
| Pituitary symptoms |  | **X** | Consider specialty referral  (endocrinology). |
| Papilloedema without focal signs or reduced level of consciousness |  | **X** | Consider specialty referral  (ophthalmology). |
| Cognitive impairment/ dementia |  | **X** | Consider specialty referral  (neurology/psychiatry/care of the elderly services). |
| Headache with relevant systemic illness |  | **X** | Please discuss with relevant clinical team. |
| Headache aggravated by exertion or Valsalva-like manoeuvre |  | **X** | Please discuss with relevant clinical team. |
| Elderly patient with a new headache and cognitive change |  | **X** | Please discuss with relevant clinical team. |

### Extra-cranial imaging

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated**  **for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| Evaluation of lesions of the orbit, larynx, pharynx, oral cavity and soft tissue spaces of the face |  | **X** | Advise referral to ENT. |
| Acute sinusitis with no complications |  | **X** | Treat clinically. |
| Sinusitis with suspicion of malignancy/ assessment for surgery/ development of complications/ failure of maximal medical treatment |  | **X** | Advise urgent/2WW ENT referral. |

### MRI Neck

**MRI for patients with MRI conditional active implants should be referred from a hospital specialist due to the complexity of managing these patients.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated**  **for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| MRI Neck |  | **X** | Only indicated for direct referral if the study is recommended by a Radiologist or hospital specialist. |

### MRI Head

**MRI for patients with MRI conditional active implants should be referred from a hospital specialist due to the complexity of managing these patients.**

### Neuro imaging

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated**  **for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| Chronic headache with no focal neurology |  | **X** | Consider neurology referral. |
| Chronic headache that has changed significantly (e.g. increased in frequency) | **✓** |  |  |
| Headache associated with vomiting and no focal neurological signs | **✓** |  |  |
| Headache with unexplained focal signs | **✓** |  |  |
| Headaches which wake the patient from their sleep | **✓** |  |  |
| Atypical headaches (not consistent with migraine or tension-type), unusual headache precipitants or unusual aura symptoms | **✓** |  |  |
| Headache with a history of cancer (especially breast and lung) | **✓** |  | Refer to Brain and CNS cancer referral pathway. |
| Seizures in a patient with a history of cancer | **✓** |  | Refer to Brain and CNS cancer referral pathway. |
| Rapidly progressive focal neurological deficit | **✓** |  | Refer to Brain and CNS cancer referral pathway. |
| Significant alteration in consciousness, memory, confusion or coordination | **✓** |  | Refer to Brain and CNS cancer referral pathway. |
| Thunderclap headache within the last two weeks |  | **X** | Consider emergency admission. |
| Fever and meningism |  | **X** | Consider emergency admission. |
| Acute glaucoma |  | **X** | Consider emergency admission. |
| Headache and papilloedema |  | **X** | Consider emergency admission. |
| Papilloedema with focal neurological signs or reduced level of consciousness |  | **X** | Consider emergency admission. |
| Suspected brain tumour |  | **X** | Consider specialty referral  (neurology). |
| Suspected stroke |  | **X** | Consider urgent specialty referral (stroke team). |
| Signs or symptoms suggestive of multiple sclerosis |  | **X** | Consider specialty referral  (neurology). |
| Visual disturbances |  | **X** | Consider specialty referral  (ophthalmology). |
| New onset seizures or suspected seizures |  | **X** | Consider specialty referral  (first seizure clinic). |
| Pituitary symptoms |  | **X** | Consider specialty referral  (endocrinology). |
| Papilloedema without focal signs or reduced level of consciousness |  | **X** | Consider specialty referral  (ophthalmology). |
| Cognitive impairment/ dementia |  | **X** | Consider specialty referral  (neurology/psychiatry/care of the elderly services). |
| Headache with relevant systemic illness |  | **X** | Please discuss with relevant clinical team. |
| Headache aggravated by exertion or Valsalva-like manoeuvre |  | **X** | Please discuss with relevant clinical team. |
| Elderly patient with a new headache and cognitive change |  | **X** | Please discuss with relevant clinical team. |

### Extra cranial imaging

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated**  **for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| Evaluation of lesions of the orbit, larynx, pharynx, oral cavity and soft tissue spaces of the face |  | **X** | Advise referral to ENT. |
| Acute sinusitis with no complications |  | **X** | Treat clinically. |
| Sinusitis with suspicion of malignancy/ assessment for surgery/ development of complications/ failure of maximal medical treatment |  | **X** | Advise urgent/2WW ENT referral. |

### X-ray Neck

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated**  **for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| Ingested foreign body (FB) (e.g., some fish bones) | **✓** |  |  |

## Chest Imaging

### CT Chest

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated**  **for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| Lung nodule follow up | **✓** |  | As recommended by radiologist or chest physician. |
| If a specific CT chest study is recommended by a Radiologist or chest physician | **✓** |  |  |
| CT Lung Health screening |  | **X** | Lung health screening team referral only. |
| CT Chest staging |  | **X** | Specialist referral only. |
| CT Chest high resolution |  | **X** | Specialist referral only. |
| CT Aorta |  | **X** | Specialist referral only. |
| CT Pulmonary Angiogram |  | **X** | Specialist referral only. |
| CT Coronary Angiogram (heart) |  | **X** | Specialist referral only. |

### MRI Chest

**MRI for patients with MRI conditional active implants should be referred from a hospital specialist due to the complexity of managing these patients.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated**  **for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| MRI Chest |  | **X** | Only if the study is recommended by a radiologist or hospital specialist. |

### X-ray Chest

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated**  **for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| Cough – persistent for more than 3 weeks | **✓** |  | Consider referral to chest physician. |
| Breathing difficulty | **✓** |  |  |
| Chest infection / pneumonia | **✓** |  |  |
| Spontaneous pneumothorax | **✓** |  |  |
| Suspected primary / secondary tumour | **✓** |  | Consider referral to chest physician. |
| Chronic Obstructive Pulmonary Disease (COPD) | **✓** |  | Consider referral to chest physician. |
| Haemoptysis | **✓** |  | Consider referral to chest physician. |
| Cardiomegaly / tachycardia / bradycardia | **✓** |  | Consider referral to chest physician. |

## Abdominal Imaging

MRI is not an appropriate test for screening for disease in the abdomen or pelvis. MRI imaging of specific organs or pathology should only be referred following advice by a radiologist or hospital specialist.

### Ultrasound Aorta

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated**  **for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| For diagnosis of abdominal aortic aneurysms in patients who do not meet the NHS Abdominal Aortic Aneurysm Screening Programme (NAAASP)   * Early Screening for AAA in patients with a 1st degree relative with AAA   (outside the NAAASP) | **✓** |  | * Having a first degree relative with an AAA increases the personal risk of AAA significantly by approximately factor 18, over someone with no family history. * For patients with a 1st degree relative with a known AAA (diagnosed at or after age 60) a screening ultrasound is recommended at age 55. * For male patients, if that is normal, rescreen via automatic invitation to   through the National AAA screening programme at 65.   * For female patients a second ultrasound is recommended at age 65, as women are not automatically called to the NAAASP. * For someone who's relative developed a large AAA before 60, request a screening ultrasound 5 years earlier than their relative's diagnosis. * The NAAASP discontinues screening following a 'normal' ultrasound at 65 (<3cm, inner to inner) and there is no evidence to support a different approach. * Therefore, do not screen FH patients indefinitely, stop screening after 65, if no AAA. * GPs should include on requests whether the patient has a 1st degree relative with AAA and at what age they were diagnosed. |
| Screening for abdominal aortic aneurysm |  | **X** |  |
| Known abdominal aortic aneurysm ≥ 3cm (inner to inner) |  | **X** | Refer to vascular surgery. |

### Ultrasound Abdomen

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated**  **for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| Altered liver function tests (LFTs) |  | **X** | Single episode of mild to moderate enzyme elevation. |
| Altered LFTs | **✓** |  | Abnormal LFTs on two or more occasions in otherwise asymptomatic patients. |
| New onset painless/painful jaundice | **✓** |  | Consider urgent specialty referral. |
| Abdominal pain suggestive of gallbladder pathology | **✓** |  |  |
| Weight loss and chronic reflux | **✓** |  | Consider Oesophageal dilatation (OGD) as well as ultrasound.  Consider 2WW upper GI referral. |
| Gallbladder polyp follow-up **(QEH and NNUH)** | **✓** |  | **JPUH:** Consider referral to the upper Gastro-intestinal (GI) team.  **NNUH and QEH referrals :** Follow algorithm below (Fig.1). |
| Suspected pancreatic cancer |  | **X** | CT more appropriate. Consider urgent speciality referral. |
| Altered bowel habit/diverticular disease |  | **X** | Consider speciality referral. |
| Constipation |  | **X** |  |
| Weight loss and anaemia |  | **X** | Consider urgent speciality referral (Lower GI team). |
| Rectal bleeding and change of bowel habit |  | **X** | Refer to endoscopy. |
| Abdominal pain excluding suspected gallstones or gallbladder disease |  | **X** | Consider CT. |
| Upper abdominal mass |  | **X** | Consider CT. |
| Diabetes |  | **X** |  |
| Difficulty swallowing or dyspepsia |  | **X** | Consider referral to endoscopy. |

**Fig.1**

Gallbladder polyp detected on transabdominal ultrasound

≥ 10mm

Refer to general surgery

< 10mm

Does the patient have any risk factors for malignancy?

* Age > 60 years
* Primary sclerosing cholangitis (PSC)
* Asian ethnicity
* Sessile polypoid lesion (including focal gallbladder wall thickening >4 mm)

≤ 5 mm

No follow up required

6 – 9 mm – referring clinician to request USS gallbladder at 1 and 2 years

Refer to general surgery

If for follow up – high risk patients should have USS gallbladder at 6 months. 1 year and 2 years. To be requested by surgeon

Follow up should be discontinued after 2 years in the absence of growth

Growth of 2mm or more should prompt referral to general surgery

No

Yes

### Ultrasound Small Bowel

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated**  **for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| Small bowel ultrasound for inflammatory bowel disease |  | **X** |  |

### Ultrasound Soft Tissue Lumps

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated**  **for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| Soft tissue lump  Concerning features (i.e. increase in size, pain, tethered to skin etc.) | **✓** |  | If there are no concerning features ultrasound is not indicated.  Please note, skin-based lumps do not benefit from ultrasound assessment. |

### CT Abdomen and Pelvis

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated**  **for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| Non-specific symptoms:   * Unexplained weight loss * Fatigue * Abdominal pain   and/or nausea   * GP 'gut feeling' | **✓** |  | As per local guidance.  Where the GP has access to the Rapid Diagnostic Service (RDS), the patient should be referred via the RDS pathway. |
| Suspected pancreatic cancer with any of the following symptoms:   * jaundice * steatorrhea * sudden loss of diabetic control | **✓** |  | **Refer to hepatopancreatobiliary (HPB) pathway.**  For suspected pancreatic cancer please request a **2WW/urgent CT pancreas** at the same time as the 2ww referral.  This will ensure that the correct CT is undertaken.  As the CT is requested at the same time/with the same level of urgency as the referral, secondary care will be responsible for its follow up. |
| Suspected liver/gallbladder cancer | **✓** |  | **Refer to hepatopancreatobiliary (HPB) pathway.**  For suspected liver/gallbladder cancer please request a **2WW/urgent CT abdomen and pelvis** at the same time as the 2WW referral.  This will ensure that the correct CT is undertaken.  As the CT is requested at the same time/with the same level of urgency as the referral, secondary care will be responsible for its follow up. |
| Unexplained abdominal pain  Please provide detailed clinical information along with any relevant test results | **✓** |  | **Abdominal pain suggestive of gallbladder pathology** – consider ultrasound.  **Abdominal pain typical for renal colic** – consider CT urinary tract  **Persistent or frequent bloating.**  If ovarian cancer is suspected, examine the patient clinically examine the abdomen and pelvis.  In case of a palpable mass or increased abdominal girth and suspected ascites, make a 2WW gynae referral and request a CT of the abdomen and pelvis with contrast.  In case of a normal examination, measure Ca 125. If Ca 125 is raised, request ultrasound of the pelvis**.**  [Ovarian cancer | Health topics A to Z | CKS | NICE](https://cks.nice.org.uk/topics/ovarian-cancer/#:~:text=Ovarian%20cancer%20should%20be%20suspected,and%2For%20loss%20of%20appetite).  **Suspected hernia –** please refer to ultrasound hernia section.  **Unexplained nausea, vomiting and change in bowel habit –** consider specialist referral.  **Pelvic pain –** consider ultrasound pelvis.  **Pulsatile abdominal mass -**consider ultrasound aorta. |
| Palpable abdominal mass | **✓** |  | If the patient has an abdominal mass, please consider urgent/2WW specialty referral alongside imaging request. |
| Elevated Ca 125 with normal ultrasound pelvis | **✓** |  | Refer to gynaecology also. |

### MRI Liver/spleen

**MRI for patients with MRI conditional active implants should be referred from a hospital specialist due to the complexity of managing these patients.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated**  **for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| MRCP/small bowel/ liver/pancreas |  | **X** | Only indicated for direct referral if the study is recommended by a radiologist or hospital specialist. |

### X-ray Abdomen

Abdomen radiographs often have limited value, therefore CT, MRI or ultrasound should be requested dependent on the clinical indication. (Excluding IUCD, section 3.4.3).

## Genitourinary Imaging

### Ultrasound Urinary Tract

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated**  **for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| Recurrent urinary tract infections (UTI)  **ADULT** | **✓** |  | (≥ 3 episodes in 12 months) with no underlying risk factors.  If recurrent or persistent unexplained urinary tract infections in ≥60 years old, patients require non-urgent referral to urology. |
| Urinary tract infection not responding to antibiotics or history of stone or obstruction **ADULT** | **✓** |  |  |
| Renal calculi | **✓** |  |  |
| Pain with suspected renal tract origin | **✓** |  | Consider ultrasound rather than CT Kidneys, Ureters, Bladder (KUB) as the primary investigation in young individuals with childbearing capacity. |
| Deteriorating renal function | **✓** |  |  |
| Advised by a hospital specialist **ADULT** | **✓** |  |  |
| **PAEDIATRIC** patients with clinically atypical/severe UTI | **✓** |  | Consider paediatric referral alongside ultrasound of the urinary tract. |
| **Infants** < six months old with first-time UTI that responds to treatment | **✓** |  | Consider paediatric referral alongside ultrasound of the urinary tract. |
| **Children aged 6 months and above** if they have recurrent infections or have an atypical organism | **✓** |  | Consider paediatric referral alongside ultrasound of the urinary tract. |
| **Children aged 6 months and older** with first time typical UTI that responds to treatment |  | **X** |  |
| Unexplained visible haematuria without urinary tract infection if **≥45years old** |  | **X** | Consider urgent referral to urology. |
| Visible haematuria persists or recurs after successful treatment of urinary tract infection if **≥45 years old** |  | **X** | Consider urgent referral to urology. |
| Unexplained microscopic haematuria **aged ≥60 years old** with either dysuria or raised WBC count |  | **X** | Consider urgent referral to urology. |
| If it is the patient’s first episode of UTI  **ADULT** |  | **X** |  |
| Pain not typically renal origin |  | **X** | Consider CT or clinical referral. |
| Hypertension |  | **X** |  |

### CT Urinary Tract

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated**  **for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| Acute renal colic | **✓** |  | **NNUH:**  Refer to CT renal colic pathway (Fig. 2)  **JPUH and QEH:**  Refer to CT renal colic pathway (Fig. 3) |
| Macroscopic haematuria  **<** **45 years old** |  | **X** | Consider urgent/2WW referral to urology. |

**Fig. 2 NNUH CT Renal colic pathway**



**Eligibility Criteria**

**Inclusion Criteria**

* Acute (<7 days) unilateral loin pain
* 18–80 years old
* Urinalysis positive for blood

If the patient is <25 years old, particularly individuals with childbearing capacity, consideration should be given to a renal ultrasound before irradiation. If in doubt, a discussion with a Consultant Radiologist or the Urology team would be appropriate.

**Exclusion Criteria**

* Urinalysis positive for leucocytes/nitrites
* History of pre-existing abdominal aortic aneurysm
* Pyrexia >37.5
* History of trauma
* Pregnancy

**Negative Calculus**

When an obstructing calculus is not present the patient leaves the Radiology department. The scan will be reported by the Uro-Radiology team and an ICE report completed.

### Ultrasound Female Pelvis

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| If study is recommended by a hospital specialist | **✓** |  |  |
| Suspected pelvic mass | **✓** |  |  |
| Persistent or frequent bloating occurring over 12 times in one month, with the addition of other symptoms, such as a palpable mass, increased abdominal girth or raised Ca 125 | **✓** |  | If ovarian cancer is suspected, examine the patient clinically examine the abdomen and pelvis.  In case of a palpable mass or increased abdominal girth and suspected ascites, make a 2WW gynae referral and request a CT of the abdomen and pelvis with contrast.  In case of a normal examination, measure Ca 125. If Ca 125 is raised, request ultrasound of the pelvis**.**  [Ovarian cancer | Health topics A to Z | CKS | NICE](https://cks.nice.org.uk/topics/ovarian-cancer/#:~:text=Ovarian%20cancer%20should%20be%20suspected,and%2For%20loss%20of%20appetite) |
| Pelvic pain including suspected pelvic inflammatory disease and endometriosis | **✓** |  |  |
| Lost intra-uterine contraceptive device (IUCD) | **✓** |  | If IUCD not seen consider, if not already performed, an abdominal x- ray. |
| Polycystic ovarian syndrome | **✓** |  | In women with clinically suspected PCOS, please follow NICE guidance:  “US pelvis is only necessary to confirm the diagnosis in adult women if not already confirmed based on clinical and biochemical features. Ultrasound is not recommended in adolescent girls or young women until 8 years post menarche, as it can lead to overdiagnosis in this age group.  In women with confirmed PCOS and prolonged amenorrhea, an ultrasound of the pelvis is indicated after a 14 day course of cyclical progesterone and induction of a withdrawal bleed, to assess endometrial thickness”.  For women with prolonged amenorrhea (less than one period every three months) or abnormal vaginal bleeding, prescribe a cyclical progestogen (such as medroxyprogesterone 10 mg daily for 14 days) to induce a withdrawal bleed, then refer for a transvaginal ultrasound to assess endometrial thickness.  [Scenario: Management - adults | Management | Polycystic ovary syndrome | CKS | NICE](https://cks.nice.org.uk/topics/polycystic-ovary-syndrome/management/management-adults/#managing-clinical-features-of-pcos). |
| Prolonged unexplained amenorrhoea (>3-6 months) with a negative Human Chorionic Gonadotropin (HCG) |  | **X** | Hormonal assessment required (HCG, thyroid function tests (TFTs), follicle-stimulating hormone (FSH) / Luteinizing hormone (LH), prolactin, testosterone). |
| Abnormal vaginal bleeding/ intermenstrual bleeding/ menorrhagia leading to anaemia or suspicion of fibroids (**pre and peri-menopausal patients**) | **✓** |  | Speculum and ultrasound examination in the first instance. If symptoms persist consider gynaecology referral. |
| Ovarian cyst follow up **premenopausal** | **✓** |  | See Appendix 1. |
| Recurrent miscarriage (3 or more) | **✓** |  |  |
| Aged over 55 with unexplained symptoms of vaginal discharge plus either thrombocytosis, haematuria or first presentation of symptoms | **✓** |  | Consider 2WW referral and also referral to gynaecology. |
| Postmenopausal bleeding |  | **X** | Please refer directly to the PMB clinic. |
| Ovarian cyst follow up **postmenopausal** |  | **X** | Consider urgent specialist referral. |
| Infertility |  | **X** | Consider specialist referral. |
| Follow up for benign lesions e.g. fibroids/dermoid cysts/ovarian cysts |  | **X** | Unless on the advice of secondary care. |

### MRI Female Pelvis

**MRI for patients with MRI conditional active implants should be referred from a hospital specialist due to the complexity of managing these patients.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated**  **for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| MRI Pelvis (gynaecology/endometrium) |  | **X** | Only if the study is recommended by a radiologist hospital specialist. |

### Ultrasound Testes

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated**  **for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| Acute pain or suspected torsion |  | **X** | Consider URGENT Urology referral which should not be delayed by imaging. |
| Non-painful enlargement or change in shape or texture of the testis | **✓** |  | Consider specialist 2WW referral to urology. |
| Unexplained or persistent testicular symptoms |  | **X** | Pain alone in the absence of a palpable abnormality does not require imaging as this is unlikely to establish a cause. |
| Peri-testicular masses |  | **X** | Only require imaging if there are clinically concerning features present, such as rapid growth, or where non-urgent referral to urology is envisaged for treatment. |

### Ultrasound Groin/Hernia

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated**  **for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| Characteristic history and exam findings of a hernia including reducible palpable lump or cough impulse |  | **X** | Please refer directly to surgery if the patient is considering surgical treatment.  Irreducible and/or tender lumps suggest an incarcerated hernia and require URGENT surgical referral. |
| If unsure clinically whether there is a hernia or not |  | **X** | Consider surgical referral. |
| Groin pain and no palpable abnormality in young patients |  | **X** | Consider physiotherapy or watch and wait. |
| Groin pain and no palpable abnormality in older patients |  | **X** | Look for alternative cause e.g. hip osteoarthritis. |

### MRI Male Pelvis

**MRI for patients with MRI conditional active implants should be referred from a hospital specialist due to the complexity of managing these patients.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated**  **for direct referral** | **Not Indicated for direct referral** | **Additional comments** |
| MRI prostate/bladder/kidneys |  | **X** | Only if the study is recommended by a radiologist or hospital specialist. |

## Ultrasound Lymphadenopathy

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated**  **for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| Patients with clinically benign groin, axillary or neck lymphadenopathy |  | **X** | Small nodes are commonly palpable in the groin, neck and axilla. If new and source of sepsis is evident, ultrasound is not required. |
| Persistent lymph nodes with signs of malignancy including increasing size or fixed |  | **X** | Consider urgent speciality referral. |

## Ultrasound Deep Vein Thrombosis (DVT)

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated**  **for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| Suspected DVT  upper limb |  | **X** | **NNUH:** Refer to SDEC  **JPUH:** Refer to Ambulatory, or ED out of hours.  **QEH:** Refer to Ambulatory, or ED out of hours. |
| Suspected DVT  lower limb |  | **X** | **NNUH:** Refer to the VTE clinic  **JPUH:** Refer to Ambulatory  **QEH:** Refer to Ambulatory, or ED out of hours. |

## Ultrasound Paediatric hips for suspected DDH

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated**  **for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| Abnormal clinical examination  • difference in leg length  • knees at different levels when hips and knees are bilaterally flexed  • restricted unilateral limitation of hip abduction (with a difference of 20 degrees or more between hips)  • gross bilateral limitation of hip abduction (loss of 30 degrees abduction or more)  • palpable ‘clunk’ when undertaking the Ortolani (screen for dislocated hip) or Barlow (screen for dislocatable hip) manoeuvre  OR  National Newborn and Infant Physical Examination (NIPE) risk factors | **✓** |  | **Under 6 months of age**  ‘Clicky’ hips and asymmetrical skin creases are no longer a clinical indication for hip ultrasound.  If there are any concerns the child should be referred to a specialist paediatric orthopaedic consultant.  If not already requested/performed as part of NIPE. |
| Abnormal clinical examination |  | **X** | **Over 6 months of age**  Consider referral to the orthopaedic paediatric clinic. |

## Musculo-skeletal (MSK)

### Ultrasound MSK

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| Soft tissue mass  with concerning features such as increase in size, pain, tethered to skin etc. | **✓** |  | Include concerning features in the clinical history. |
| Suspected soft tissue sarcoma with any of the following symptoms:   * >5cm in maximum dimension * Fixed/deep to fascia (clinically ‘fixed’) * Painful mass * Rapid growth | **✓** |  | **Refer to sarcoma pathway.**  If the ultrasound report suggests further imaging, please request at the same time as the urgent suspected cancer referral.  **Please request the MRI (unless contra-indicated e.g., pacemaker) as urgent** (suspected cancer) and state that this is to accompany an urgent suspected sarcoma referral.  If MRI contra-indicated, please continue with sarcoma pathway referral. |
| Soft tissue mass with no concerning features |  | **X** |  |
| **Shoulder (injection)** | **✓** |  | Only indicated if patient has had a plain radiograph within the last 12 months, has completed a course of physio and has had a clinically guided injection in the community in the last 3 months with no benefit on follow up clinical review.  Please confirm the above has been completed in the clinical history. |
| **Shoulder (diagnostic)**  For assessment of rotator cuff tendons | **✓** |  | Patient must have had a plain radiograph within the last 12 months. |
| **Hip (injection)**  Indicated for trochanteric bursal injection  Not indicated for any other reason (specialist referral only) | **✓** |  | Patient must have had a clinically guided injection in the community/primary care, in the last 3 months with no benefit on follow-up clinical review. Please confirm this has been completed in the clinical history.  Hip joint injection not indicated, for specialist referral only. |
| **Foot and ankle** |  | **X** | Specialist referral only. |
| **Elbow (diagnostic)** |  | **X** | Specialist referral only. |
| **Elbow (injection)** |  | **X** | Specialist referral only. |
| **Hip (diagnostic)** |  | **X** | Specialist referral only. |
| **Knee (diagnostic & injection)** |  | **X** | Specialist referral only. |
| **Wrist / ankles (diagnostic)** |  | **X** | Specialist referral only. |

### MRI MSK

**MRI for patients with MRI conditional active implants should be referred from a hospital specialist due to the complexity of managing these patients.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| **Spine**  In the absence of neurological signs/red flags/adverse features. |  | **X** |  |
| **Cervical Spine**  Patients with radiculopathy or adverse features.  Adverse features including:   * focal neurological deficit defined to a spinal nerve root or spinal cord level * focal refractory pain * recent trauma * previous, current or suspected malignancy * known or suspected infection * known or suspected inflammation and/or symptoms of myelopathy | **✓** |  | Loss of power or features of a myelopathy.  If there is dermatomal pain state which dermatome.  If there is radicular pain state side and suspected level(s).  If there is loss of power, state side and muscle group.  Consider simultaneous patient referral to the orthopaedic spine team. |
| Acute/chronic neck pain without neurology or adverse features. |  | **X** | Please note generalised arm pain is not an indication. |
| **Thoracic Spine**  Patients with neurology or adverse features (as per cervical spine). | **✓** |  | Confirm patient has neurological signs/red flag features. |
| Acute/chronic back pain without adverse features |  | **X** |  |
| **Inflammatory Spine** (Thoracic spine and sacroiliac joints) |  | **X** | National institute for Health and care excellence (NICE) guidance: Young people and adults with low back pain with or without sciatica do not have imaging requested by a non-specialist service (such as a GP practice) unless serious underlying disease is suspected.  Specialist referral only. |
| **Lumbar Spine**  Patients with acute back pain (≤6 weeks) with potentially serious features. |  | **X** | Consider urgent specialist referral. |
| Patients with back pain over 6 weeks with neurology | **✓** |  | Confirm patient has neurological signs.  Consider patient referral to the orthopaedic spine team. |
| Acute back pain (≤6 weeks) with:   * Focal refractory back pain – concern for osteoporotic fracture * Previous, current or suspected malignancy * Immunosuppression * Steroid use * Clinical suspicion of discitis | **✓** |  | Urgent referral for MRI. |
| Acute cauda equina:   * Neurological (cauda equina syndrome/   suspected spinal cord neurology)   * Sphincter and gait disturbance * Saddle anaesthesia * Severe or progressive motor loss * Widespread neurological deficit |  | **X** | Urgently refer to orthopaedics as this is a surgical emergency. |
| Acute or chronic pain with no radicular symptoms, no red flag/ adverse features, sciatica for less than 6 weeks or chronic back pain for over 6 weeks. |  | **X** |  |
| **Soft Tissue Mass** |  | **X** | Confirm patient has had ultrasound and specialist referral. |
| Suspected Osteomyelitis |  | **X** | Specialist referral only. |
| Suspected Bone Tumour |  | **X** | Urgent plain x-ray should be performed first. If radiographic appearances are suggestive of primary bone tumour, referral to a specialist centre should not be delayed. |
| **Shoulder** |  | **X** | Ultrasound is the investigation of choice in the assessment of rotator cuff and surrounding soft tissues.  Features of shoulder instability or pre-op planning MRI should be by specialist referral only. |
| **Brachial Plexus** |  | **X** | Specialist referral only. |
| **Elbow** |  | **X** | Specialist referral only. |
| **Wrist** |  | **X** | Specialist referral only. |
| **Hip** | **✓** |  | Confirm patient has:  Plain radiograph within last 3 months.  If plain radiograph findings do not correlate with the patient’s clinical findings i.e. plain radiograph is normal, MRI is indicated. |
| **Hip**  Suspected avascular necrosis or insufficiency fracture. | **✓** |  |  |
| **Knee – under 50yrs**  Acute knee pain following significant trauma such as sporting injury, fall or road traffic accident.  Non-traumatic knee pain | **✓** |  | Consider simultaneous specialist referral. |
| **Knee - over 50yrs**  Chronic knee pain in patients aged 50 years or above i.e. over 4 weeks. |  | **X** |  |
| **Knee – over 50yrs**  Patients with suspected insufficiency fracture, a locked knee or suspected avascular necrosis. | **✓** |  | Specialist referral is recommended alongside the MRI request. |
| **Ankle and Foot**  Patients with a history of trauma (i.e. inversion injury) | **✓** |  | Indicated only if the patient has had a normal plain radiograph first and if clinical symptoms persist at 6 months after the injury, MRI ankle could be considered. |
| **Ankle and Foot**  Clinical suspicion of an insufficiency fracture | **✓** |  | If patient has had a plain radiograph within last 3 months and findings do not correlate with the patient’s clinical findings only. |
| **Ankle and Foot**  Atraumatic ankle pain with a normal radiograph, to assess for a radiographically occult/insufficiency fracture,  or if the patient has features of tibialis posterior dysfunction (e.g. pain and swelling behind or below the medial malleolus) only. | **✓** |  |  |
| **Paediatric Spine**  **0-12 years** with focal or persistent neck/back pain | **✓** |  | Consider concurrent referral to the paediatric orthopaedics. |
| **Paediatric Spine**  **Above 12 years** with focal or persistent pain | **✓** |  | Consider concurrent referral to the paediatric orthopaedics. |
| **Paediatric Hip**  Hip pain |  | **X** | Radiographs of the pelvis (AP and frog lateral) are recommended first.  If radiographs are normal and symptoms persist, consider MRI with concurrent referral to paediatric orthopaedics. |
| **Paediatric Knee**  Knee pain |  | **X** | Examine the hip – if there are any hip symptoms, radiographs of the hip and knee are recommended. |
| **Paediatric Knee**  History of trauma | **✓** |  | Consider referral if appropriate. |

### X-ray MSK

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical indication** | **Indicated**  **for direct referral** | **Not indicated for direct referral** | **Additional comments** |
| Persistent single joint symptoms  Refer to ‘Justification criteria and projection guidelines for adult radiography’ | **✓** |  |  |
| **Thoracic and Lumbar Spine**  Refer to ‘Justification criteria and projection guidelines for adult radiography’ | **✓** |  | Appropriate clinical information must be provided that is relevant to the clinical question. |
| **Knee – over 50 yrs**  Refer to ‘Justification criteria and projection guidelines for adult radiography’ | **✓** |  | Knee MRIs are of limited value for patients over 50 years of age. |
| **Knee – under 50 yrs** |  | **X** |  |
| **Knee**  Popliteal swelling (>50 years) |  | **X** | Routine ultrasound assessment for ?effusion, ?osteoarthritis (OA) or ?Baker’s cyst is not indicated.  If the swelling is pulsatile, rapidly enlarging or otherwise atypical, ultrasound to assess for popliteal aneurysm/sarcoma is indicated. |
| **Shoulder**  Refer to ‘Justification criteria and projection guidelines for adult radiography’ | **✓** |  | Ultrasound not typically required as a first line test . US only indicated if patient has had a plain radiograph within the last 12 months, has completed a course of physio and has had a clinically guided injection in the community in the last 3 months with no benefit on follow up clinical review. |
| Suspected bone sarcoma with any of the following symptoms:   * Change unexplained/persistent bone pain (including night pain and pain not responding to normal analgesia) * Bone swelling * Bone mass/lump * Limp/restricted movement | **✓** |  | **Refer to sarcoma pathway.** |

## Breast

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Clinical indication** | **Indicated for direct referral** | **Not indicated for direct referral** | | **Additional comments** | |
| Suspected breast abscess |  | | **X** | | Commence antibiotic treatment in primary care.  Out of hours, patient septic, rapid deterioration: refer to ED.  In hours and managing well with antibiotics, refer to breast surgeons. |
| Suspected breast cancer |  | | **X** | | 2WW referral to one stop breast clinic. |
| New onset persistent breast lump |  | | **X** | | Consider urgent referral to the breast team. |

## Ultrasound Axilla

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical Indication** | **Indicated for direct referral** | **Not Indicated for direct referral** | **Additional comments** |
| Patients presenting with a lump in the axilla alone with no known clinical abnormality of the breast | **✓** |  | Unexplained, clinically suspicious lump that is not skin related (criteria as per “soft tissue lump”).  Patients without a discrete palpable mass do not benefit from ultrasound assessment. **Please note, asymmetrical** **axillary fat pads are common and do not require ultrasound assessment.** |
| Skin related lumps |  | **X** | Skin related lumps do not require ultrasound assessment. |
| Pain only, in the absence of a palpable lump |  | **X** |  |
| Poorly defined increasing glandular tissue in the axilla during pregnancy (=axillary tail of breast, axillary island of breast) with no concerning clinical features |  | **X** |  |

## Obstetrics

|  |  |  |  |
| --- | --- | --- | --- |
| **Clinical Indication** | **Indicated for direct referral** | **Not Indicated for direct referral** | **Additional comments** |
| Bleeding in early pregnancy |  | **X** | Refer to Early Pregnancy Assessment Unit (EPAU). |
| Left or right sided pain alongside a positive pregnancy test |  | **X** | Refer to EPAU. |
| Pregnancy related symptoms |  | **X** | Refer to the Obstetric team. |
| If concerned with an ectopic pregnancy contact EPAU.  If out-of-hours Immediately refer to ED/on-call obstetrics team. |  | **X** |  |

# Related Documents

**NNUH:**

Trust guidance for the screening of Developmental Dysplasia of the hip (DDH) in newborn children (Trust Docs [1189](https://webapps.nnuh.nhs.uk/TrustDocs/Doc.aspx?id=1189))

Standard Operating Procedure for Urgent Access Pathway for GP-referred Chest X Rays (Trust Docs [23365](https://webapps.nnuh.nhs.uk/TrustDocs/Doc.aspx?id=23365))

Extremity Imaging (excluding hips) for Minor Injuries within 72 hours (Trust Docs [3375](https://webapps.nnuh.nhs.uk/TrustDocs/Doc.aspx?id=3375))

# References

Newborn and infant physical examination (NIPE) screening programme pathway (Updated 28 April 2021).

[Newborn and infant physical examination (NIPE) newborn screening pathway - GOV.UK (www.gov.uk)](https://www.gov.uk/government/publications/newborn-and-infant-physical-examination-programme-handbook/newborn-and-infant-physical-examination-nipe-newborn-screening-pathway)

NICE (2013). Headaches in over 12s (QS42). National Institute for Health and Care Excellence.

[Overview | Headaches in over 12s | Quality standards | NICE](https://www.nice.org.uk/guidance/qs42)

NICE (2013). Ovarian cancer. National Institute for Health and Care Excellence.

[Ovarian cancer | Health topics A to Z | CKS | NICE](https://cks.nice.org.uk/topics/ovarian-cancer/#:~:text=Ovarian%20cancer%20should%20be%20suspected,and%2For%20loss%20of%20appetite)

NICE (2015). Bone and soft tissue sarcoma - recognition and referral. National Institute for Health and Care Excellence. (Last revised August 2020).

[Bone and soft tissue sarcoma - recognition and referral | Health topics A to Z | CKS | NICE](https://cks.nice.org.uk/topics/bone-soft-tissue-sarcoma-recognition-referral/)

NICE (2015). Suspected cancer: recognition and referral (NICE guideline)*.* National Institute for Health and Care Excellence.

[Overview | Suspected cancer: recognition and referral | Guidance | NICE](https://www.nice.org.uk/guidance/ng12)

NICE (2018). Pancreatic cancer in adults: diagnosis and management (NG85). National Institute for Health and Care Excellence.

[Overview | Pancreatic cancer in adults: diagnosis and management | Guidance | NICE](https://www.nice.org.uk/guidance/ng85)

NICE (2019). Acute kidney injury: prevention, detection and management [NG148]. National Institute for Health and Care Excellence. Updated 16 October 2024.

[Overview | Acute kidney injury: prevention, detection and management | Guidance | NICE](https://www.nice.org.uk/guidance/ng148)

NICE (2021). Brain tumours (primary) and brain metastases in over 16s (QS203). National Institute for Health and Care Excellence.

[Overview | Brain tumours (primary) and brain metastases in over 16s | Quality standards | NICE](https://www.nice.org.uk/guidance/qs203)

NICE guidance: Low back pain and sciatica in over 16s: assessment and management [NG59]. National Institute for Health and Care Excellence.

<https://www.nice.org.uk/guidance/ng59>

Royal College of Radiologists, iRefer guidelines

[Home | iRefer](https://www.irefer.org.uk/)

SoR and BMUS (2023) “Guidelines for Professional Ultrasound Practice” 8th ed., Society of Radiographers and British Medical Ultrasound Society. ISBN: 978-1-909802-89-6

[bmus.org/media/resources/files/\_2023\_SoR\_and\_BMUS\_guidelines\_8th\_Ed\_FINAL\_CphWPoK.pdf](https://www.bmus.org/media/resources/files/_2023_SoR_and_BMUS_guidelines_8th_Ed_FINAL_CphWPoK.pdf)

Trauma Programme of Care: NHS England, National low back pain and radicular pain pathway 2017.

<https://www.ukssb.com/improving-spinal-care-project>

# Monitoring Compliance

Compliance with the process will be monitored through the following:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Key elements** | **Process for Monitoring** | **By Whom**  **(Individual / Group / Committee)** | **Responsible Governance Committee / Department** | **Frequency of monitoring** |
| Compliance with the referral criteria guidelines | Retrospective audit of 5% of referrals from primary care to radiology. | QSI/Governance Lead | Radiology Clinical Governance | Annually |

The audit results are to be discussed at the Radiology Clinical Governance meeting to review the results and recommendations for further action. Then sent to the Divisional Governance Board who will ensure that the actions and recommendations are suitable and sufficient.

# Appendices

## Appendix 1 – Premenopausal ovarian cysts

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# Equality Impact Assessment (EIA)

**JPUH**

**Policy or function being assessed:** Referral Criteria Guidelines for Primary Care Referrals to Radiology  **Department/Service:** Radiology

**Assessment completed by:** Clare Bedford – Quality Standard for Imaging Lead **Date of assessment:** 18/12/2024

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **1.** | Describe the aim, objective and purpose of this policy or function. | Referral Criteria Guidelines for Primary Care Referrals to Radiology have been written to assist referrers working in primary care across Norfolk & Waveney in requesting the appropriate imaging modality to assist in patient management and diagnosis. The aim is to enable best practice and support radiology staff when accepting and vetting requests for diagnostic imaging.  The objectives of these imaging guidelines are to:   * provide clear guidance for primary care referrers when referring for diagnostic imaging * provide clear guidance for radiology staff when vetting requests for diagnostic imaging to enable the best management of the patient | | |
| **2i.** | Who is intended to benefit from the policy or function? | **Staff Patients Public Organisation** | | |
| **2ii** | How are they likely to benefit? | Primary care referrers will be guided to request appropriate imaging for their patients. Radiology staff will be able to refer to this document when accepting and vetting requests for diagnostic imaging. Patients will benefit from being referred for appropriate imaging to support their diagnosis / management, which in turn will streamline the patient pathway and avoid unnecessary investigations. | | |
| **2iii** | What outcomes are wanted from this policy or function? | Patients referred, accepted, and vetted appropriately for imaging. | | |
| **For Questions 3-11 below, please specify whether the policy/function does or could have an impact in relation to each of the nine equality strand headings:** | | | | |
| **3.** | Are there concerns that the policy/function does or could have a detrimental impact on people due to their **race/ethnicity?** | | **y/n** | No |
| **4.** | Are there concerns that the policy/function does or could have a detrimental impact on people due to their **gender?** | | **y/n** | No |
| **5.** | Are there concerns that the policy/function does or could have a detrimental impact on people due to their **disability?** Consider Physical, Mental and Social disabilities (e.g. Learning Disability or Autism). | | **y/n** | No |
| **6.** | Are there concerns that the policy/function does or could have a detrimental impact on people due to their **sexual orientation?** | | **y/n** | No |
| **7.** | Are there concerns that the policy/function does or could have a detrimental impact on people due to their **pregnancy or maternity?** | | **y/n** | No |
| **8.** | Are there concerns that the policy/function does or could have a detrimental impact on people due to their **religion/belief?** | | **y/n** | No |
| **9.** | Are there concerns that the policy/function does or could have a detrimental impact on people due to their **transgender?** | | **y/n** | No |
| **10.** | Are there concerns that the policy/function does or could have a detrimental impact on people due to their **age?** | | **y/n** | No |
| **11.** | Are there concerns that the policy/function does or could have a detrimental impact on people due to their **marriage or civil partnership?** | | **y/n** | No |
| **12.** | Could the impact identified in Q.3-11 above, amount to there being the potential for a disadvantage and/or detrimental impact in this policy/function? | | **y/n** | No |
| **13.** | Can this detrimental impact on one or more of the above groups be justified on the grounds of promoting equality of opportunity for another group? Or for any other reason? E.g. providing specific training to a particular group. | | **y/n** | No |
| **14.** | **Specific Issues Identified** | | | |
|  | Please list the specific issues that have been identified as being discriminatory/promoting detrimental treatment | | Page/paragraph/section of policy/function that the issue relates to | |
|  | **1.** N/A | | **1.** | |
| **15.** | **Proposals** | | | |
|  | How could the identified detrimental impact be minimised or eradicated? | | **N/A** | N/A |
|  | If such changes were made, would this have repercussions/negative effects on other groups as detailed in Q. 3-11? | | **N/A** | N/A |
| **16.** | Given this Equality Impact Assessment, does the policy/function need to be reconsidered/redrafted? | | **N** | No |
| **17.** | **Policy/Function Implementation** | | | |
|  | Upon consideration of the information gathered within the equality impact assessment, the Director/Head of Service agrees that the policy/function should be adopted by the Trust.  Please print:  **Name of Director/Head of Service:** Anita Haylett **Title: Diagnostic Imaging Service Manager**  **Date: 19/12/24**  **Name of Policy/function** **Author:** N&W Radiology Referral Management Task & Finish Group  **Date:** December 2024  (A paper copy of the EIA which has been signed is available on request). | | | |
| **18.** | **Proposed Date for Policy/Function Review** | | | |
|  | Please detail the date for policy/function review (3 yearly): See document control page for implementation date | | | |
| **19.** | **Explain how you plan to publish the result of the assessment?** *(Completed E.I.A’s must be published on the Equality pages of the Trust’s website).* | | | |
|  | Standard Trust process | | | |
| **20.** | **The Trust Values** | | | |
|  | In addition to the Equality and Diversity considerations detailed above, I can confirm that our Trust Values are embedded in all policies and procedures.  **C**ollaboration  We work positively with others to achieve shared aims.  **A**ccountability  We act with professionalism and integrity, delivering what we commit to, embedding learning when things do not go to plan.  **R**espect  We are anti-discriminatory, treating people fairly and creating a sense of belonging and pride.  **E**mpowerment  We speak out when things don’t feel right; we are innovative and make changes to support continuous improvement.  **S**upport  We are compassionate, listen attentively and are kind to ourselves and each other.  I confirm that this policy/function does not conflict with these values☑. | | | |
|  |  |  |  |  |  |

**NNUH**

|  |  |
| --- | --- |
| **Type of function or policy** | New |

|  |  |  |  |
| --- | --- | --- | --- |
| **Division** | Clinical Support Services | **Department** | Radiology |
| **Name of person completing form** | Louise Reilly | **Date** | 27/06/2024 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Equality**  **Area** | **Potential Impact** | | | **Which groups are affected** | **Full Impact Assessment Required**  **YES/NO** |
| **Negative Impact** | **Positive Impact** | |
| Race | N/A | N/A | | None | No |
| Pregnancy & Maternity | N/A | N/A | | None | No |
| Disability | N/A | N/A | | None | No |
| Religion and beliefs | N/A | N/A | | None | No |
| Sex | N/A | N/A | | None | No |
| Gender reassignment | N/A | N/A | | None | No |
| Sexual  Orientation | N/A | N/A | | None | No |
| Age | N/A | N/A | | None | No |
| Marriage & Civil Partnership | N/A | N/A | | None | No |
| **EDS2 – How does this change impact the Equality and Diversity Strategic plan (contact HR or see EDS2 plan)?** | | |  | | |

|  |
| --- |
| **A full assessment will only be required if:**   * **The impact is potentially discriminatory under the general equality duty** * **Any groups of patients/staff/visitors or communities could be potentially disadvantaged by the policy or function/service.** * **The policy or function/service is assessed to be of high significance** |
| **IF IN DOUBT A FULL IMPACT ASSESSMENT FORM IS REQUIRED** |
| **The review of the existing policy re-affirms the rights of all groups and clarifies the individual, managerial and organisational responsibilities in line with statutory and best practice guidance.** |

**QEH**

|  |  |
| --- | --- |
| **Type of function or policy** | New |

|  |  |  |  |
| --- | --- | --- | --- |
| **Division** | Clinical Support Services | **Department** | Radiology |
| **Name of person completing form** | Lee Evans | **Date** | 23/07/2024 |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Equality Area** | **Potential**  **Negative Impact** | **Impact**  **Positive Impact** | **Which groups are affected** | **Full Impact Assessment Required**  **YES/NO** |
| Race | N/a | N/a | None | No |
| Pregnancy & Maternity | N/a | N/a | None | No |
| Disability | N/a | N/a | None | No |
| Religion and beliefs | N/a | N/a | None | No |
| Sex | N/a | N/a | None | No |
| Gender reassignment | N/a | N/a | None | No |
| Sexual  Orientation | N/a | N/a | None | No |
| Age | N/a | N/a | None | No |
| Marriage & Civil Partnership | N/a | N/a | None | No |
| **EDS2 – How does this change impact the Equality and Diversity Strategic plan (contact HR or see EDS2 plan)?** | |  | | |

|  |
| --- |
| * **A full assessment will only be required if: The impact is potentially discriminatory under the general equality duty** * **Any groups of patients/staff/visitors or communities could be potentially disadvantaged by the policy or function/service** * **The policy or function/service is assessed to be of high significance** |
| **IF IN DOUBT A FULL IMPACT ASSESSMENT FORM IS REQUIRED** |
| **The review of the existing policy re-affirms the rights of all groups and clarifies the individual, managerial and organisational responsibilities in line with statutory and best practice guidance.** |