Departmental Protocols Including Referral Criteria for Plain Film Radiography for Primary Care Referrals

<table>
<thead>
<tr>
<th>CATEGORY:</th>
<th>Protocol</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLASSIFICATION:</td>
<td>Clinical</td>
</tr>
<tr>
<td>PURPOSE</td>
<td>Referral criteria for plain film imaging as required under IR(ME)R 2017</td>
</tr>
<tr>
<td>Controlled Document Number:</td>
<td>984</td>
</tr>
<tr>
<td>Version Number:</td>
<td>2.0</td>
</tr>
<tr>
<td>Controlled Document Sponsor:</td>
<td>Consultant Radiologist/Director of Radiology and Diagnostics</td>
</tr>
</tbody>
</table>
| Controlled Document Lead: | Operations Manager – Medical Physics  
IRMER Lead |
| Approved By:    | Clinical Director Division 1  |
| On:             | February 2020                  |
| Review Date:    | February 2023                  |
| Distribution:   |                               |
| • Essential Reading for: | All imaging staff  
GP Practices |
| • Information for: | All Staff                      |
Introduction

The Ionising Radiation (Medical Exposure) Regulations 2000 (2006/11) have a significant impact on the requesting, reporting and management of referrals to Radiology. Under the legislation the referrer must supply sufficient medical information to enable the practitioner to justify the exposure. It is intended that the following protocols will assist the referrer and operator to ensure that the patient receives an exposure to radiation only when the result will affect the management of that patient.

A. The referrer must:
   • Ensure the patient they are referring is the correct patient
     o This means double checking that the clinical details and examination required are correct for the name
   • Provide sufficient information so that the patient can be uniquely identified
     o i.e. name, date of birth, address and hospital number
   • Supply sufficient medical data and a clear clinical question to enable an x-ray or scan to be justified
   • Supply their own details, including a reliable contact number and a signature

B. Should a referral need to be cancelled, the department must be contacted directly and a member of staff spoken to immediately. Electronic requests cannot be cancelled using the electronic referral system.

C. Referrers must ensure that duplicate requests are not entered into the system.

D. Any urgent requests out of hours require the referrer to telephone to discuss with staff as well as providing the referral (paper or electronic).

If the request card is incomplete or illegible, legally the examination cannot be performed.

For all x-ray examination the Operator (Radiographer) must ensure:
   • An Imaging Department request form has been completed.
   • Correct identification of the patient (Procedures for Medical Imaging, procedure 2).
   • LMP check where appropriate (Procedures for Medical Imaging, procedure 4).
   • Where appropriate, the patient is changed into a radiolucent gown with all radiopaque objects removed from the area of interest.
   • A full explanation of the procedure is given to the patient.
   • Any previous radiographs are available prior to the examination.
   • The correct radiographic views are undertaken – refer to departmental protocols and referral criteria.
   • The appropriate exposure is selected – refer to exposure charts.
   • The radiation dose is as low as reasonably practicable.
   • Dose Area Product or exposure details are record on the RIS
   • The operator name and number of exposures are recorded on the RIS.

If there are any concerns about a radiological request, please seek the advice of a radiologist.
<table>
<thead>
<tr>
<th>Request</th>
<th>Referral Criteria</th>
<th>View</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chest</td>
<td>Chest pain, short of breath, cardiac disease, hypertension, haemoptysis, follow-up pneumonia, malignancy, cough for longer than 3 weeks, Pleural effusion, mediastinal or lung base pathology</td>
<td>PA/AP*</td>
<td>In the context of major trauma, AE referral and CT scan of the chest will be indicated. A CXR is useful to exclude pneumothorax if clinically suspected. CXR should not be requested to look for rib fractures.</td>
</tr>
<tr>
<td>Trauma.</td>
<td></td>
<td>PA/AP*</td>
<td></td>
</tr>
<tr>
<td>Foreign bodies</td>
<td></td>
<td>PA</td>
<td>Inspiration</td>
</tr>
<tr>
<td>Pneumothorax</td>
<td></td>
<td>PA</td>
<td>Inspiration only</td>
</tr>
</tbody>
</table>

NOTES

* AP chest only if PA chest is impossible
### Ribs

**Request**: Trauma  
**View**: PA (CXR)  
**Comments**: In general CXR should not be requested to specifically look for rib fractures. CXR is useful to exclude pneumothorax if clinically suspected. However multiple rib fractures may indicate significant injury in the appropriate context. Most of these patients will usually require hospital referral.

### Thoracic inlet

**Request**: Suspected cervical rib  
**View**: PA  
**Comments**: Specialist referral for MRI or CT in the first instance.

- Goitre, dyspnoea, trachea/bronchial, carcinoma, orthopnoea  
- Cone to include the trachea bifurcation. Employ valsalva manoeuvre. Lateral to show to the level of the bifurcation of the trachea, please include a soft tissue lateral neck if area not demonstrated.

### Sternum

**Request**: Trauma - including mechanism  
**View**: Lateral  
**Comments**: Limited CT on advice from radiologist

- Sternal swelling
- PA/AP chest

### Sterno-clavicular joints

**Request**: Trauma or non traumatic swelling of a medial clavicle  
**View**: AP view/cranial angulated view of both clavicles.  
**Comments**: Limited CT on advice from radiologist

### Skull and Facial Bones
<table>
<thead>
<tr>
<th>Request</th>
<th>Referral Criteria</th>
<th>View</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skull</td>
<td>Lump</td>
<td>Tangential view</td>
<td>Skull not indicated for pituitary lesion, dementia, CVA, SOB, headache, epilepsy.</td>
</tr>
<tr>
<td>Orbits</td>
<td>See Foreign Bodies section below.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facial bones</td>
<td>Orbital blunt trauma, mid facial trauma</td>
<td>OM OM30° Modified SMV – 'jug handle’ -for Zygoma</td>
<td></td>
</tr>
<tr>
<td>Nasal bones*</td>
<td>Not indicated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sinuses</td>
<td>Not indicated</td>
<td>OM (open mouth) PA 15°</td>
<td>Specialist referral only. Special referral only. Mucosal thickening is a non specific finding and may occur in asymptomatic patients.</td>
</tr>
<tr>
<td>Mandible</td>
<td>Mandibular Trauma, Non-traumatic TMJ problems. Cyst/abscess, Suspected tumour Dental abscess and loose dentition assessment. Orthodontic assessment</td>
<td>PA Mandible and OPG OPG OPG OPG and lateral cephalostat</td>
<td>RT and LT Lateral oblique if OPG not possible</td>
</tr>
<tr>
<td>TMJ</td>
<td>TMJ Dysfunction</td>
<td>OPG, TMJ's open and closed</td>
<td>Referrer should consider MRI to demonstrate articular disc dysfunction.</td>
</tr>
<tr>
<td>Parotid Gland</td>
<td>Not indicated</td>
<td>Tangential AP Lateral oblique Mandible</td>
<td>If there is a clinical suspicion of calculus or occluded salivary duct should be US in first instance</td>
</tr>
<tr>
<td>Sub-mandibular</td>
<td>Not indicated</td>
<td>Tongue depressed</td>
<td>If there is a clinical suspicion of calculus or occluded salivary duct</td>
</tr>
<tr>
<td>Request</td>
<td>Referral Criteria</td>
<td>View</td>
<td>Comments</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------------------</td>
<td>------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Abdomen/ KUB</td>
<td>?renal calculi</td>
<td></td>
<td>If there is a high clinical suspicion for renal calculus consider CTKUB in the first instance.</td>
</tr>
<tr>
<td></td>
<td>?foreign body</td>
<td></td>
<td>Only used for follow up of known calculi.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supine</td>
<td>AXR is not indicated for suspected appendicitis or gastro-intestinal haemorrhage. CTKUB for constipation not routinely indicated but may assist management in certain limited circumstances (e.g. elderly care in refractory cases).</td>
</tr>
</tbody>
</table>
## Pelvis

<table>
<thead>
<tr>
<th>Request</th>
<th>Referral Criteria</th>
<th>View</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pelvis</td>
<td>Trauma with inability to weight bear or pain</td>
<td>AP pelvis</td>
<td>All prosthesis should be included. Horizontal beam lateral for history of trauma. Whole of cement +/- ball bearing if in situ.</td>
</tr>
<tr>
<td></td>
<td>Suspected fractured neck of femur</td>
<td>Lat hip</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Suspected dislocation of hip</td>
<td>AP pelvis</td>
<td>Generalised pain with NO history of trauma- turned lateral hip.</td>
</tr>
<tr>
<td></td>
<td>Painful prosthesis</td>
<td>Lat hip</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bone pain, arthropathy, hip pain</td>
<td>AP pelvis</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>AP pelvis</td>
<td></td>
</tr>
<tr>
<td>Sacroiliac joints</td>
<td>Pain, suspected SIJ lesion</td>
<td>PA 10°↓</td>
<td>May help in the investigation of seronegative arthropathy. MRI is more sensitive at detecting SIJ pathology but should be discussed with a radiologist first.</td>
</tr>
<tr>
<td>Paediatric Hips</td>
<td>Non weight bearing / limping</td>
<td></td>
<td>See Paediatric protocol</td>
</tr>
<tr>
<td>NOTES</td>
<td>Hip pain characteristic of osteoarthritis is not an indication for radiography unless symptoms are such that a referral to an orthopaedic surgeon is being considered</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Cervical Spine

<table>
<thead>
<tr>
<th>Request</th>
<th>Referral Criteria</th>
<th>View</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cervical Spine</td>
<td>Degenerative / spondylotic changes</td>
<td>AP and Lateral</td>
<td>Not indicated routinely for neck pain, brachalgia, and degenerative change. Normal plain x-rays may be falsely reassuring. Please refer to site specific QEH and HGS Direct Access imaging Pathway for Neck Pain.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cervical Spine</td>
<td>Trauma - Neck injury with pain.</td>
<td>Peg projection Lat, AP +/− swimmers</td>
<td>If there is a clinical suspicion of worsening radiculopathy, osteomyelitis, primary bone tumour, discitis inflammatory spondylitis ankylosing spondylitis MRI/specialist referral is advised.</td>
</tr>
<tr>
<td>Cervical Spine</td>
<td>Rheumatoid with suspected atlanto-axial instability</td>
<td>Peg projection, Lat Flexion &amp; Extension</td>
<td>If there is clinical concern re a cervical fracture then this should be referred to A/E as plain radiographs need to be interpreted with clinical findings and may require further investigation with CT or MRI. Lateral Flexion and Extension – specialist referral</td>
</tr>
</tbody>
</table>

### NOTES

X-rays not routinely indicated: -
- Neck pain (non trauma),
- Degenerative disease with no radicular symptoms
- Pain alone typical of spondylosis is not an indication for x-rays and are only indicated if pain is associated with neurological signs/symptoms e.g. pain, weakness, paraesthesia in the distribution of a nerve root (e.g. pain radiating down the arm).
## Thoracic Spine

<table>
<thead>
<tr>
<th>Request</th>
<th>Referral Criteria</th>
<th>View</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thoracic Spine</td>
<td></td>
<td>AP, Lateral</td>
<td>If thoracic pain with any focal neurology – consider MRI</td>
</tr>
<tr>
<td>Trauma</td>
<td>Elderly or known osteoporosis patient with thoracic pain and with focal bony tenderness</td>
<td></td>
<td>If acute trauma with focal bone tenderness consider A/E referral</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>If there is any predisposing cause suspected (cancer/inflammation/night pain/long term steroid use) – consider MRI</td>
</tr>
<tr>
<td>Thoracic Spine</td>
<td></td>
<td></td>
<td>Please refer to site specific QEH and HGS Direct Access imaging Pathway for Back Pain</td>
</tr>
<tr>
<td>Non trauma</td>
<td>Suspected osteoporotic compression (crush) fracture</td>
<td>AP, Lateral</td>
<td>If an inflammatory condition is suspected then rheumatology referral should be considered.</td>
</tr>
<tr>
<td></td>
<td>Suspected scoliosis</td>
<td></td>
<td>Other clinical problems should follow the agreed Back Pain pathway.</td>
</tr>
<tr>
<td></td>
<td>Other clinical problems should follow the agreed Back Pain pathway.</td>
<td></td>
<td>Plain x-rays should not be used to diagnose degenerative disease. Degenerative changes are common and often unrelated to symptoms.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Plain films rarely contributes usefully to the management of patients with suspected disc disease or radicular signs. Pain with radicular features should follow the back pain pathway.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Disc evaluation or evaluation for possible osteomyelitis/discitis requires MRI.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>In the presence of a known previous cancer a bone scan should be considered but if there is a focal area of pain MRI may be a better investigation.</td>
</tr>
</tbody>
</table>
# Lumbar Spine

<table>
<thead>
<tr>
<th>Request</th>
<th>Referral Criteria</th>
<th>View</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lumbar Spine Trauma</td>
<td>Trauma with lumbar area pain</td>
<td>AP</td>
<td>If acute trauma with focal bone tenderness consider A/E referral</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lateral</td>
<td></td>
</tr>
</tbody>
</table>
| Lumbar Spine Non trauma| Suspected scoliosis  
Suspected crush (osteoporotic) fracture  
Other clinical problems should follow the agreed Back Pain pathway. | AP     | Please refer to site specific QEH and HGS Direct Access imaging Pathway for Back Pain |
|                    |                                                                                   | Lateral|                                                                          |

**Notes:**
- If an inflammatory condition is suspected then rheumatology referral should be considered.
- Plain x-rays should not be used to diagnose degenerative disease. Degenerative changes are common and often unrelated to symptoms.
- Plain films rarely contribute usefully to the management of patients with suspected disc disease or radicular signs. Pain with radicular features should follow the back pain pathway.
- Disc evaluation or evaluation for possible osteomyelitis/discitis requires MRI
- In the presence of a known previous cancer MRI or bone scan should be considered, but if there is a focal area of pain MRI may be a better investigation
## Lumbar Spine

<table>
<thead>
<tr>
<th>Request</th>
<th>Referral criteria</th>
<th>View</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sacrum</td>
<td>Trauma</td>
<td>AP10°↑Lateral</td>
<td>Normal appearances are often misleading. Positive findings do not alter the clinical management</td>
</tr>
<tr>
<td>Coccyx</td>
<td>Direct trauma</td>
<td>Lateral</td>
<td>Indicated only in specific circumstances.</td>
</tr>
<tr>
<td></td>
<td>Pain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scoliosis</td>
<td>Alteration in gait/posture</td>
<td>AP whole spine</td>
<td>Dedicated units for whole spine scoliosis imaging can be found at GHH and SHH. Patients should be referred to these centres. All requests to be vetted by a Radiologist prior to booking the appointment.</td>
</tr>
<tr>
<td>Request</td>
<td>Referral Criteria</td>
<td>View</td>
<td>Comments</td>
</tr>
<tr>
<td>------------------</td>
<td>------------------------------------------</td>
<td>---------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Shoulder</td>
<td>Trauma</td>
<td>AP Axial</td>
<td>Please refer to site specific QEH and HGS Direct Access Imaging Pathway for shoulder pain.</td>
</tr>
<tr>
<td></td>
<td>Recurrent dislocation</td>
<td>+/- Lateral Scapula</td>
<td>Ultrasound is preferred for suspected rotator cuff tear</td>
</tr>
<tr>
<td></td>
<td>Non traumatic pain, eg arthropathy, calcific tendonsitis,</td>
<td>AP Axial</td>
<td>Gleno humeral joint -HGS sites Patient rotated 45 degrees, centre through the joint.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AP glenohumeral joint view</td>
<td></td>
</tr>
<tr>
<td>Scapula</td>
<td>Trauma</td>
<td>AP Lateral</td>
<td></td>
</tr>
<tr>
<td>Clavicle</td>
<td>Trauma</td>
<td>AP</td>
<td>If AP looks normal, an axial view should be undertaken as an additional view : patient leaning backwards 10°, 15° angle on tube (clavicle must clear apex of lung)</td>
</tr>
<tr>
<td>Acromio-clavicular joint</td>
<td>Trauma Suspected subluxation</td>
<td>Coned AP</td>
<td>Comparison view of other ACJ may be required - only if you are unsure whether affected joint is abnormal. Weight bearing views are not routinely indicated.</td>
</tr>
<tr>
<td>Humerus</td>
<td>Trauma Suspected arthropathy Unexplained pain or deformation</td>
<td>AP Lateral</td>
<td>Views must include the head of humerus and elbow on the image</td>
</tr>
</tbody>
</table>
## Upper Extremity

<table>
<thead>
<tr>
<th>Upper Extremity</th>
<th>Trauma</th>
<th>View(s)</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Elbow</strong></td>
<td>Suspected arthropathy</td>
<td>AP Lateral</td>
<td>Comparison views in children must be sanctioned by a radiologist. See paediatric protocol.</td>
</tr>
<tr>
<td><strong>Radius/Ulna</strong></td>
<td>Suspected arthropathy</td>
<td>AP Lateral</td>
<td>Must include elbow and wrist joint</td>
</tr>
<tr>
<td><strong>Wrist</strong></td>
<td>Suspected arthropathy</td>
<td>AP Lateral</td>
<td>Include metacarpals and distal 1/3 radius and ulna</td>
</tr>
<tr>
<td><strong>Scaphoid</strong></td>
<td>Trauma</td>
<td>PA (ulnar deviation),</td>
<td>Initial views to include meta carpals and distal 1/3 radius and ulna with wrist in ulna deviation. Cone as per wrist x-ray on AP and lateral views. If scaphoid fracture clinical suspected then scaphoid views need to be specifically requested.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PA oblique, PA ulna deviation with 30° angulation, AP oblique</td>
<td></td>
</tr>
<tr>
<td><strong>Hand</strong></td>
<td>Trauma</td>
<td>DP Oblique</td>
<td>Lateral view for fractured/displaced metacarpals Soft tissue exposure for FB</td>
</tr>
<tr>
<td><strong>Thumb</strong></td>
<td>Trauma</td>
<td>AP Lateral</td>
<td>Include 1st carpometacarpal joint</td>
</tr>
<tr>
<td><strong>Fingers</strong></td>
<td>Trauma</td>
<td>AP/PA Lateral</td>
<td>Obliques may also be required for follow up patients in strapping</td>
</tr>
</tbody>
</table>
### Foreign Bodies

<table>
<thead>
<tr>
<th>Request</th>
<th>Referral Criteria</th>
<th>View</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skull</td>
<td>Foreign Body in scalp</td>
<td>Tangential view</td>
<td></td>
</tr>
<tr>
<td>Orbits</td>
<td><strong>FB – trauma only</strong></td>
<td><strong>OM Eyes up and eyes down</strong></td>
<td>If foreign body is seen, perform a lateral projection</td>
</tr>
<tr>
<td></td>
<td><strong>Pre MRI Screening - FB</strong></td>
<td><strong>PA 20-25°ONLY</strong> – Eyes up</td>
<td>One view only to identify presence of metal fragment required.</td>
</tr>
<tr>
<td>Throat</td>
<td>Swallowed Foreign Body</td>
<td>Lateral</td>
<td>Soft tissue exposure</td>
</tr>
<tr>
<td>Chest</td>
<td>Inhaled Foreign Body</td>
<td>PA</td>
<td>Inspiration and expiration</td>
</tr>
<tr>
<td>Abdomen</td>
<td>Swallowed Foreign Body (Only done for sharp objects or batteries)</td>
<td>Supine</td>
<td>To include diaphragm to rectum</td>
</tr>
<tr>
<td>Upper and Lower Extremities</td>
<td>Penetrating injury. Specify type of foreign body i.e. metallic, glass</td>
<td>2 views at 90° i.e. AP/PA and Lat centred over the wound. A tangential view may be helpful to localize a foreign body.</td>
<td>Use a marker to localize the entry wound. Remove dressings where appropriate.</td>
</tr>
</tbody>
</table>
## Lower Extremity

<table>
<thead>
<tr>
<th>Request</th>
<th>Referral Criteria</th>
<th>View</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Femur</td>
<td><strong>Trauma</strong>&lt;br&gt;Suspected arthropathy&lt;br&gt;Unexplained pain or deformation</td>
<td>AP Lateral</td>
<td>Must include hip joint and knee&lt;br&gt;If atypical femoral fracture is suspected (patients on bisphosphonates) full length femur of the symptomatic side should be performed. Contralateral femur should be imaged if symptomatic side is positive.</td>
</tr>
<tr>
<td>Knee</td>
<td><strong>Trauma with inability to weight bear or pronounced bony tenderness.</strong>&lt;br&gt;Suspected arthropathy&lt;br&gt;Unexplained pain or deformation&lt;br&gt;Locking</td>
<td><strong>AP Horizontal beam lateral</strong>&lt;br&gt;AP and lateral&lt;br&gt;Skyline Patella-HGS over 55 yrs.</td>
<td>Please refer to site specific QEH and HGS Direct Access Imaging Pathway for knee pain.&lt;br&gt;AP and lateral should be weight bearing unless there is trauma or the patient is unable to achieve.&lt;br&gt;HGS – refer patients to the orthopaedic triage for assessment or CLIKS in the case of BEN/ Solihull GP’s</td>
</tr>
<tr>
<td>Tibia and Fibula</td>
<td><strong>Trauma with inability to weight bear or pronounced bony tenderness</strong>&lt;br&gt;Suspected arthropathy&lt;br&gt;Unexplained pain or deformation</td>
<td>AP/Lateral</td>
<td>Must include both knee joint and ankle</td>
</tr>
<tr>
<td>Ankle</td>
<td><strong>Trauma with inability to weight bear or pronounced bony tenderness</strong>&lt;br&gt;Suspected arthropathy&lt;br&gt;Unexplained pain or deformation</td>
<td>AP/Lateral</td>
<td>Include the base of the 5th metatarsal on the lateral projection. If fractured, x-ray foot.&lt;br&gt;An oblique view may be requested with 45° internal rotation, 30°↑ angulation</td>
</tr>
<tr>
<td>Lower Extremity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>------------------</td>
<td>------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Calcaneum</strong></td>
<td><strong>Trauma with inability to weight bear or pronounced bony tenderness</strong>&lt;br&gt; Suspected arthropathy&lt;br&gt; Unexplained pain or deformation</td>
<td><strong>Lateral</strong>&lt;br&gt; <strong>Axial</strong></td>
<td>Not indicated for&lt;br&gt; ?plantar fasciitis&lt;br&gt; ? spur – these indications should have ultrasound as imaging, and not plain radiographs</td>
</tr>
<tr>
<td><strong>Foot</strong></td>
<td><strong>Trauma with inability to weight bear or pronounced bony tenderness</strong>&lt;br&gt; Suspected arthropathy&lt;br&gt; Unexplained pain or deformation&lt;br&gt; ? Hallux valgus deformity</td>
<td>DP&lt;br&gt; <strong>Oblique&lt;br&gt; Lateral View</strong>&lt;br&gt; Weight bearing&lt;br&gt; DP and lateral and non weight bearing oblique</td>
<td>Lateral view for dislocation or fracture of the tarsals or metatarsals</td>
</tr>
<tr>
<td><strong>Toes</strong></td>
<td><strong>Trauma with inability to weight bear or pronounced bony tenderness</strong>&lt;br&gt; Suspected arthropathy&lt;br&gt; Unexplained pain or deformation</td>
<td>DP&lt;br&gt; <strong>Lateral</strong></td>
<td>Obliques may be necessary if a lateral is unachievable</td>
</tr>
<tr>
<td><strong>Hallux</strong></td>
<td><strong>Trauma with inability to weight bear or pronounced bony tenderness</strong>&lt;br&gt; Suspected arthropathy&lt;br&gt; Unexplained pain or deformation</td>
<td>DP&lt;br&gt; <strong>Lateral</strong></td>
<td>For Hallux valgus- standing AP feet are required</td>
</tr>
<tr>
<td><strong>Leg length</strong></td>
<td>Unequal leg length, surgical planning</td>
<td>AP weight bearing both legs ASIS to ankle.</td>
<td>Dedicated units for leg lengths imaging can be found at GHH and SHH. Patients should be referred to these centres. All requests to be vetted by a radiologist prior to booking.</td>
</tr>
</tbody>
</table>
Imaging Controlled Document

Imaging for Suspected Scaphoid Fractures

Suspected scaphoid fracture: Scaphoid plain radiographs to include:

- PA Wrist
- Lateral Wrist,
- Coned Oblique Scaphoid, &
- Coned PA Scaphoid with ulna deviation and 30° angulation.
- Coned AP Oblique

Apply a Futura splint and reassess ~1/52.

QEH
5 coned views of the scaphoid: PA Wrist
Lateral Wrist,
Coned Oblique Scaphoid, &
Coned PA Scaphoid with ulna deviation and 30° angulation.
Coned AP Oblique

HGS
Review by experienced practitioner (consultant, Senior ENP, Ortho reg.). No bony injury identified on previous x-rays and clinical concern persists - request MRI.

(No repeat scaphoid plain radiographs, no bone scan request)

All fractures diagnosed on scaphoid MRI flagged as ‘HIGH PRIORITY’ to ensure referrer aware and in all cases patient calls for review appointment (unless one already organized or going back to ward).

Other diagnosis on MRI e.g. ligament tear or other carpal fracture flag ‘HIGH PRIORITY’ directed to specialist hand (Mr Shyam’s) clinic.
Heartlands, Good Hope and Solihull Hospitals. Knee Referral Pathway for GP Requests.

The pathway below has been agreed between Radiology and Trauma and Orthopaedics to support decision making and potential onward referral for specialist advice.

Patients aged 55 years and over-

All patients should initially have plain x-rays of the affected joint(s) to include skyline views as standard. This includes history of

- mechanical injury
- severe persistent knee pain if considering specialist assessment/surgical intervention
- symptoms of locking/giving way
- ?loose body

There is no indication for an MRI scan if the x-ray report suggests moderate to severe OA. This patient group require specialist referral with a view to either arthroscopy or consideration for joint replacement.

If the plain film shows no or minimal OA changes only, and the patient has symptoms of giving way or locking, then MRI can be considered prior to arthroscopy.

Patients with arthritic knees are unlikely to proceed to arthroscopy in the absence of mechanical symptoms (true locking and/or giving way).

Patients below the age of 55 -

These patients can proceed to an MRI scan if there is an appropriate indication

- Mechanical injury
- Severe knee pain/effusion following injury
- Symptoms of locking/giving way
- ?loose body

If there are signs of significant OA and/or patient is known to have OA, an MRI scan should be preceded by a plain radiograph. The correct pathway is to refer the patients to the Orthopaedic Triage for assessment (or CLIKS in the case of BEN/Solihull GPs).

Patients attending A&E with acute symptoms related to the knee joint

These patients should be referred directly to the acute knee pain clinic or the daily fracture clinic in order to avoid delayed treatment as frequently these patients will progress directly to arthroscopy.
X-rays of the cervical spine are not routinely indicated in the following patient groups:

Neck pain (non trauma),

Degenerative disease with no radicular symptoms

Pain alone typical of spondylosis is not an indication for x-rays and are only indicated if pain is associated with neurological signs/symptoms e.g. pain, weakness, paraesthesia in the distribution of a nerve root (e.g. pain radiating down the arm).

Symptoms of thoracic and lumbar spine degenerative disease are very common and should not normally require radiographic investigation. MRI is the investigation of choice for suspected disc prolapse - plain films may be normal and falsely reassuring.

Imaging will not routinely be considered until the patient has been managed conservatively for a period of at least six weeks with no clinical improvement unless there are significant red flag neurological signs. (See below)

VALID REASONS FOR EXAMINATION

Chronic low back pain with no associated neurological signs would not normally be an indication for radiography. Degenerative changes are invariably present from middle age onwards.

Patients under 20 years or over 50 years in whom there is unexplained back pain not responding to simple analgesia, may be investigated by plain films or specialist referral. Again the six week rule is suggested unless there are serious concerns regarding neurological or associated systemic symptoms.

Trauma with pain:

Significant fall

High impact RTA

Other spinal fracture present

Trauma with neurological deficit with or without pain

? Osteoporotic collapse

? Osteomyelitis

Spondylosis with neurological signs or symptoms e.g. sciatica

Indications for MRI of the Lumbar Spine

Any neurologic deficit, evidence of radiculopathy, cauda equina compression (e.g., sudden bowel/bladder disturbance)
OR

Suspected systemic disorder with associated symptoms/signs related to the back (i.e., to rule out metastatic or infectious disease)

OR

Localized back pain with radiculopathy, following failed 6-week course of conservative care

STANDARD PROJECTIONS

AP

Lateral

ADDITIONAL PROJECTIONS

Coned L5/S1 view if not shown on the lateral.

Oblique view – Following discussion with a Radiologist, if Spondylolisthesis is suspected on standard views. Routine oblique views not appropriate.

X-rays not routinely indicated:

Pain without associated trauma if likely to be simple musculoskeletal/degenerative disease

Chronic back pain with no pointer to infection or neoplasm.

An urgent specialist referral is advised for back pain with the following red flag signs:

- Sphincter or gait disturbance
- Saddle anaesthesia
- Severe or progressive motor loss
- Widespread neurological deficit
- Previous carcinoma
- Systemically unwell or other features of systemic illness.
## GP IMAGING REFERRAL FORM FOR KNEE

### PATIENT DETAILS

<table>
<thead>
<tr>
<th>Name:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SEX: Male/Female DOB:</td>
<td></td>
</tr>
<tr>
<td>Age:</td>
<td></td>
</tr>
<tr>
<td>Address:</td>
<td></td>
</tr>
<tr>
<td>Post Code:</td>
<td></td>
</tr>
<tr>
<td>Daytime Tel:</td>
<td>(Mandatory)</td>
</tr>
<tr>
<td>Hospital Number (if known):</td>
<td></td>
</tr>
<tr>
<td>Main Spoken Language:</td>
<td></td>
</tr>
<tr>
<td>Interpreter Required:</td>
<td></td>
</tr>
</tbody>
</table>

### GP DETAILS

| GP Name: | |
| Practice Name: | |
| Practice Stamp: | |
| Tel: | |
| Fax: | |
| Surgery/Direct Contact E-Mail: | (Optional) |
| Referring GP’s Signature: | (Mandatory) |

### PATIENT SAFETY

| Does your patient suffer from claustrophobia? | Y N |
| Does your patient have any implanted metallic foreign devices? (e.g. cardiac pacemaker, artificial heart valve, cerebral aneurysm clips, cochlear implant, cardiac stents etc) | Y N |
| Has the patient EVER had metallic fragments in their eyes? | Y N |
| Has the patient had any previous surgery? If yes, please give details. | |
| Is there any possibility of the patient being pregnant? | Y N |
| If the answer is yes to any of the above questions, please provide details below. | |

### CLINICAL DETAILS / HISTORY

(Please ensure that you include as much information as possible)

### INVESTIGATION REQUIRED & PROVISIONAL DIAGNOSIS

| Please specify which knee has been referred for imaging | R L |
| Does the patient have a suspected meniscal tear | Y N |
| Does the patient have suspected ligament damage? | Y N |
| Does the patient have locked knee pain? | Y N |
| Other reason (please specify) | |

### IMAGING REQUEST:

<table>
<thead>
<tr>
<th>X-RAY</th>
<th>ULTRASOUND</th>
<th>MRI</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Please Tick)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ADVICE & GUIDANCE:** If your patient does not fit the criteria for referral but you still feel merits imaging then consider Advice & Guidance by contacting a member of the Radiology team on the following secretaries numbers: Tel: 0121 371 2312 / 4284

**Notes:**

In patients > 50 years, an x-ray examination **must** be performed before referral because of the high probability of degenerative disease. Osteoarthritis can be identified by x-ray examination and this is often the major contributor to symptoms despite concurrent meniscal or ligamentous abnormality. If you feel that your patient should still be managed by MRI, please discuss symptoms with Radiologist on 0121 371 2312 / 4284

- Locking - may indicate loose body or meniscal tear
- Clicking - meniscal tear
- Giving way / Instability – ACL tear
- Sharp pain when twisting and turning – meniscal tear
- Catching – chondral surface injury
- Loose bodies

Please Fax Form to Imaging Fax Gateway on: 0121 460 5817 (Number must be dialled in full) 23/10/14
Knee pain unresponsive to conservative measures, in patients >40 years should have **plain xray of the knee** first.

Anterior knee pain with suspected pathology in the patellar or quadriceps tendon or a palpable soft tissue lump – **US Knee**

When to request for **MRI knee**:

In the absence of red flags, if in addition to unresponsive knee pain, there is

- ‘S’ Swelling +1
- ‘L’ Locking +1
- ‘O’ Onset which is sudden (may or may not be related to trauma) +1
- ‘G’ Giving way +1
- Catching/crepitus +1

Score 3 or more - MRI is likely to be useful  
Score <3    Physiotherapy
Following clinical assessment, is there a specific cause of the neck pain?

**YES**
1. H/o TB/HIV/inflammatory arthritis/systemic steroids/systemic illness (See Table 1)
   - Neurological Signs/Symptoms
      - Look for Neurological Red Flags
         - YES
         - Urgent secondary care, refer to local A&E, Neurology/Neurosurgery advice if required.
         - NO
         - Symptom History of More than 6 weeks
            - MRI cervical Spine* (MRI Booking QEHB, Tel: 0121 371 2365 / Fax: 0121 460 5817)

2. Known previous underlying malignancy, new onset of neck pain
   - Refer to local oncology team
   - Appropriate pharmacological pain relief, review in 4 – 6 weeks
     - Symptoms Resolve
     - Symptoms Persist

   - YES
   - Reassess for specific cause
   - Does pain radiate to a particular dermatome in upper limb?
     - NO
     - Complete an optimal package of care, including a combined physical and psychological treatment and pain management programme
     - MRI shows compressive pathology corresponding to clinical symptoms (will be flagged up by radiologist)
     - MRI Cervical Spine* (MRI Booking QEHB, Tel: 0121 371 2365 / Fax: 0121 460 5817)
   - YES
   - Refractory radicular pain/ focal neurology

**NO**

---

**Table 1: Red Flags**

**Neurological**
- Gait disturbance: Widespread neurological deficit
- Severe or progressive sensory / motor loss: Signs of spinal cord compression
- Significant vertebral body tenderness

**Other**
- Significant preceding trauma or neck surgery: Systemic Upset (weight loss, fevers)
- History of TB, HIV, cancer or inflammatory arthritis: night sweats
- Severe pain / Nocturnal pain not responding to conservative measures
- Known malignancy
- Axial cervical pain worse on sitting or standing
Queens Elizabeth Hospital. Direct Access Imaging for Shoulder Pain

Shoulder pain with clinical features of subacromial impingement

Start conservative treatment – pharmacological pain management, activity modification, physiotherapy

Symptoms present >6 weeks

Symptoms improve and episode stops

Reassess clinically for non impingement signs/symptoms – yellow flags (Table 1)

No yellow flags

Direct access imaging may help decide on further management

Impingement suspected – US, can show:
- Integrity of cuff tendons
- Subacromial bursitis, dynamic impingement
- Symptomatic AC joint arthritis
- Can combine guided injection into symptomatic focus – SA bursa or AC joint (should be requested to be done at same time if needed)

X Ray Shoulder
- Suspicition of osteoarthritis
- History of recent trauma

Yellow flags present, consider secondary care opinion

Table 1 – YELLOW FLAGS

Indicators for non impingement shoulder pain – consider secondary care opinion before organising imaging; US may not often be the best first line exam

1. Apprehension, Instability, previous dislocation*
2. Indicators of inflammatory arthropathy (with multiple joint involvement)
3. Sport related injury, symptoms not typical of impingement – consider sports clinic referral **
4. Cervical spondylosis/thoracic outlet syndrome - if there is associated radicular pain radiating below the elbow – C spine assessment/neurological examination.
5. Symptoms of long head biceps pathology (SLAP tear)*

* Shoulder Clinic, QEHB Contact telephone: 01213714944 Fax: 01213714947
** Sports Clinic, QEHB Contact telephone: 01213713806/13492/13493 Fax: 01213713494
DIRECT ACCESS IMAGING FOR SHOULDER PAIN REFERRAL FORM

PATIENT DETAILS

Name: .......................................................... Sex: M ☐ F ☐
DOB: ............................................. NHS No: ..........................
Address: ........................................................................
Postcode: ................. Tel No: ....................... (Mandatory)
Ethnicity: ...................................................
1st Language: ...................... Interpreter Required? Y ☐ N ☐

GP

Name: .............................................................................
Practice: ................................................................
Address/Stamp
Tel No: ......................... Fax: ............................
E-mail: ........................................................................

CLINICAL DETAILS

Reason for Referral

Duration of Shoulder Pain:

CLINICAL INFORMATION (must be completed in full)

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has there been a trial of appropriate conservative management (pharmacological pain management, activity modification, physiotherapy) for at least 6 weeks?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Is the shoulder pain typical of subacromial impingement? (If no, consider secondary care opinion when conservative measures fail*)</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Are there any Yellow Flag Signs? (please refer to table 1) (If yes, ultrasound may not be the best examination, consider secondary care opinion *)</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Has there been any previous surgery? (If yes, please attach details of the same, discharge letter)</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Has the patient had an x-ray of the shoulder? If yes, please specify where and when.</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

If the shoulder US examination reveals findings deemed appropriate for an ultrasound guided subacromial injection of steroid and anaesthetic, would you like this to be performed at the same attendance? If yes, Are there any known allergies? (If yes, please attach details)

Is the patient diabetic?

Table 1 – YELLOW FLAGS
Indicators for non impingement shoulder pain – consider secondary care opinion before organising imaging; US may not often be the best first line exam:
1. Apprehension, Instability, previous dislocation* 2. Indicators of inflammatory arthropathy (with multiple joint involvement) 3. Sport related injury, symptoms not typical of impingement – consider sports clinic referral ** 4. Cervical spondylosis/thoracic outlet syndrome - if there is associated radicular pain radiating below the elbow – neurological examination suggests intractable radicular symptoms, MRI C Spine
5. Symptoms of long head biceps pathology (SLAP tear)* 6. Shoulder Clinic, QEHB Contact telephone: 01213714944 Fax: 01213714947 **Sports Medicine Clinic, QEHB Contact telephone: 01213713806/13492/13493 Fax: 01213713494

If you wish to discuss imaging referral further, you may ring 01213712313/12312 for MSK radiology secretary, Imaging department, QEHB.

PLEASE FAX THIS FORM TO: 01214605817 (Ultrasound bookings, QEHB)
**Queen Elizabeth Hospital. Imaging in Management of Low Back Pain**

**First Episode of Low Back Pain**

Assess for a Specific Cause by Clinical

- **YES**
  - Systemic illness/ HIV/ Infection/ Inflammation
    - (See Table 1)
    - Neurological signs
      - Look for Neurological Red Flags
        - YES
          - Urgent secondary care
            - MRI Lumbar Spine
              - (MRI Booking QEHB, Tel: 0121 371 2365 / Fax: 0121 460 5817)
        - NO
          - MRI Lumbar Spine
            - (MRI Booking QEHB, Tel: 0121 371 2365 / Fax: 0121 460 5817)

- **NO**
  - Appropriate pharmacological pain relief, review in 4 – 6 weeks

2. Suspicion of osteoporotic vertebral fracture

- **YES**
  - Neurological signs
    - Look for Neurological Red Flags
      - YES
        - Urgent secondary care
          - MRI Lumbar Spine
            - (MRI Booking QEHB, Tel: 0121 371 2365 / Fax: 0121 460 5817)
      - NO
        - Urgent secondary care
          - MRI Lumbar Spine
            - (MRI Booking QEHB, Tel: 0121 371 2365 / Fax: 0121 460 5817)

- **NO**
  - MRI Lumbar Spine
    - (MRI Booking QEHB, Tel: 0121 371 2365 / Fax: 0121 460 5817)

3. Known previous underlying malignancy, new onset of back pain

- **YES**
  - Neurological signs
    - Look for Neurological Red Flags
      - YES
        - Urgent secondary care
        - MRI Lumbar Spine
          - (MRI Booking QEHB, Tel: 0121 371 2365 / Fax: 0121 460 5817)
      - NO
        - MRI Lumbar Spine
          - (MRI Booking QEHB, Tel: 0121 371 2365 / Fax: 0121 460 5817)

- **NO**
  - MRI Lumbar Spine
    - (MRI Booking QEHB, Tel: 0121 371 2365 / Fax: 0121 460 5817)

**Table 1: Red Flags**

**Neurological**
- Sphincter and gait disturbance
- Saddle anaesthesia
- Severe or progressive motor loss
- Widespread neurological deficit

**Other**
- Known malignancy
- IV drug use
- Fever
- HIV
- Steroid use
- Thoracic pain
- Weight Loss
- Structural deformity

Interview Patient
- X ray thoracic or lumbar spine
  - (specify Level of tenderness)

Symptoms Resolve
- Reassess for specific cause
  - Is there a true positive SLR test?**
  - Does pain radiate to, or below the knee?

Symptoms Persist
- Complete an optimal package of care, including a combined physical and psychological treatment programme and if still severe non specific back pain for which they would consider surgery

MRI shows disc prolapse corresponding to clinical symptoms (will be flagged up by radiologist)

MRI Secondary Care – Spinal Surgical Referral

- Referred for further investigation
- MRI Lumbar Spine
  - (MRI Booking QEHB, Tel: 0121 371 2365 / Fax: 0121 460 5817)

Appropriate pharmacological pain relief, review in 4 – 6 weeks

**Notes:**
- **NO**
- MRI shows disc prolapse corresponding to clinical symptoms (will be flagged up by radiologist)

**Controlled Document Number:** 984

**Version:** 2.0

**Issue Date:** 3.3.2020

**Page 26 of 28**

Departmental Protocols Including Referral Criteria for Plain Film Radiography for Primary Care Referral

This document may be photocopied. The original is kept by the Group Manager of Imaging & Medical Physics
Queen Elizabeth Hospital. Imaging in Management of Low Back Pain

Guidance Notes

Notes:

- Lumbar imaging for chronic low back pain without suggestion of serious underlying conditions does not improve clinical outcomes. Direct access for MRI spine is limited to the group of patients in whom a predisposing cause is suspected (cancer, infection, inflammation, fracture).
- Plain x rays lumbar spine – x rays of the lumbar spine are not indicated in management of non specific low back pain, with the exception of suspected osteoporotic compression fracture of the thoracic or lumbar spine.
- If there is a history of primary malignancy – with new onset back pain, in the absence of neurology, bone scan is appropriate. If there is a focal neurology, MRI of the lumbar spine should be requested. Plain x rays of the lumbar spine may miss metastastic disease, and are not indicated in this situation.
- Previous surgical intervention with new/worsening back pain of > 6 weeks – Refer to secondary care.

Referral Information

* when referring for MRI, request cards should state as a minimum the side and dermatomal location of symptoms/signs so that informed correlation with imaging findings can be made at the time of reporting. This is important as many disc herniations are symptomatic (e.g. ‘Right sided sciatica, L5 dermatomal distribution pain and numbness. No motor signs. ?right L5 nerve root entrapment’).

** Many patients have tight hamstring muscles and this can cause minor discomfort on straight leg raising. This can simulate a genuine straight leg raise test, which typically results in severe aggravation of sciatica pain.
Queen Elizabeth Hospital
DIRECT ACCESS IMAGING FOR LOW BACK PAIN
(refractory radicular pain or suspicion of serious underlying cause for back pain)

REFERRAL FORM

PATIENT DETAILS
Name: .........................................................  Sex: M ☐ F ☐
DOB: ...........................................................  NHS No: ....................................
Address: ............................................................
Postcode: ...........................................  Tel No: .................................
Ethnicity: ..............................................................
1st Language: ..............................  Interpreter Required? Y ☐ N ☐

GP
Name: ...............................................................
Practice: .............................................................
Address/Stamp
Tel No: .................................................  Fax: .................................
E-mail: .................................................................

(Mandatory)

Reason for Referral:

CLINICAL DETAILS

CLINICAL INFORMATION (must be completed in full)

A) Are there any symptoms of cauda equina/neurological red flags? (please refer to table 1)
If the answer to this question is yes, urgent secondary care / A&E referral is advised. Do not request MRI.
☐ Yes ☐ No

B) Is there a specific cause for back pain on assessment (please circle)
(systemic illness, HIV / suspicion of infection / inflammation / IV drug abuse / weight loss / long term steroid use)
If yes, please refer to MRI* (MRI Booking Office QEHB, Tel: 0121 371 2365 / Fax: 0121 460 5817)
☐ Yes ☐ No

Is there a history of previous malignancy, with a new onset of back pain?
☐ No: focal neurology - refer patient for Bone Scan (Nuclear Medicine, Imaging Dept, QEHB,
Tel: 0121 371 2282 / Fax: 0121 460 5826)
☐ Yes: focal neurology - refer patient for MRI Scan (MRI Booking Office QEHB,
Tel: 0121 371 2365 / Fax: 0121 460 5817)
☐ Yes ☐ No

C) If the patient has non specific back pain, please answer the following (form will be returned if this section is not completed):

Have appropriate pharmacological pain relief and conservative measures been in place for at least 6 weeks?
☐ Yes ☐ No

Is there a true positive SLR test:**
☐ Yes ☐ No

*Please Specify the side of symptoms
☐ L ☐ R

*Dermatomes involved

In the absence of clinical signs of focal neurology/radiculax, MRI of the lumbar spine is not indicated

Table 1: Red Flags

Neurological
Sphincter and gait disturbance  Saddle anaesthesia  Widespread neurological deficit
Severe or progressive motor loss  Known malignancy  IV drug use
Structural deformity

Other
HIV  Steroid use  Fever
Thoracic pain

*When referring for MRI, request cards should state as a minimum the side and dermatomal location of symptoms/signs so that informed correlation with imaging findings can be made at the time of reporting.
This is important as many disc herniations are symptomatic (e.g. ‘Right sided sciatica, L5 dermatomal distribution pain and numbness. No motor signs. ‘Right L5 nerve root entrapment’). ** Many patients have tight hamstring muscles and this can cause minor discomfort on straight leg raising. This can simulate a genuine straight leg raise test, which typically results in severe aggravation of sciatica pain.

Notes:
• Lumbar imaging for chronic low back pain without suggestion of serious underlying conditions does not improve clinical outcomes. Direct access for MRI spine is limited to the group of patients in whom a predisposing cause is suspected (cancer, infection, inflammation, fracture).
• Plain x rays lumbar spine – x rays of the lumbar spine are not indicated in management of non specific low back pain, with the exception of suspected osteoporotic compression fracture of the thoracic or lumbar spine.
• If there is a history of primary malignancy – with new onset back pain, in the absence of neurology, bone scan is appropriate. If there is a focal neurology, MRI of the lumbar spine should be requested. Plain x rays of the lumbar spine may miss metastatic disease, and are not indicated in this situation.
• Previous surgical intervention with new/worsening back pain of > 6 weeks – Refer to secondary care.

PLEASE FAX THIS FORM TO: 01214605817 (MRI bookings, QEHB)