

Referral Support Service

Radiology

RA07

Radiology Investigations for Non-traumatic Hip Pain (based on the Royal College of Radiologist (RCR) [iRefer Guidelines](#))

Definition: Non traumatic hip pain including suspected avascular necrosis

Exclude Red Flag Symptoms

- Previous malignancy
- Systemic illness
- HIV
- Weight loss
- IV Drug use
- Steroid use
- Structural deformity
- Fever

Investigation	NHS Cost (2016/17 tariff)	Radiation Dose	Comment	RCR Recommendation (Grade)	Access to GPs
X-Ray	£25.86	AP pelvis is equivalent to 30 CXR Unilateral Hip XR is equivalent to 50 CXR	XR of the pelvis is indicated for persistent pain. It may demonstrate focal bony pathology, erosive joint changes, dysplasia and anatomical features associated with femoroacetabular impingement. XR is abnormal in established avascular necrosis but is frequently normal within first 6-9 months	Indicated (B)	YES
MRI	£150-£331	None	MRI is widely accepted as the best investigation for further evaluation of XR negative hip pain, including avascular necrosis. MR arthrography may be helpful to diagnose labral tears	Indicated (B)	Refer to MSK services for further assessment, diagnosis and management options.
NM (bone scan)	£163-£478	equivalent to 145 CXR	Bone scan is less specific than MRI for avascular necrosis and other focal lesions but is an alternative when MRI is not possible. A three-phase	Indicated only in specific circumstances [B]	Only if discussion with named radiologist is recorded on request form.

			bone scan or labelled white-cell scan may be helpful to assess suspected infected hip prostheses		Please ring: 01904 726672 and ask to speak to Duty Radiologist.
CT	£101-£153	Abdo & Pelvis equivalent to 580 CXR	CT is helpful for diagnosing osteoid osteoma or for identifying subchondral fractures	Indicated only in specific circumstances [B]	Only if discussion with named radiologist is recorded on request form. Please ring: 01904 726672 and ask to speak to Duty Radiologist.

Anyone with BMI >25kg/m² would receive even higher doses. Anyone with a BMI <19kg/m² would receive a smaller dose.

Patient information leaflets/ PDAs

[MRI](#)

[CT](#)

[X-Ray](#)

[Radionuclide Bone Scan](#)

References

Royal College of Radiologists – iRefer 7.0.2

Recommendations and Grade information as below, from the [iRefer webpage](#):

Access to iRef outside the NHS system is available here: <http://portal.e-lfh.org.uk/>

The recommendations used are:

1. *Indicated*. Investigations most likely to contribute to the clinical diagnosis and management.
2. *Specialised investigation*. Specialised investigations are frequently complex, time-consuming and/or resource-intensive, and will usually only be undertaken after discussion with the radiologist or according to locally agreed protocols.
3. *Indicated only in specific circumstances*. Non-routine investigations, usually only undertaken if a clinician provides cogent reasons or if the radiologist believes the examination represents an appropriate means of furthering the diagnosis and management of the patient. With certain clinical problems which may resolve with time, it may be correct to defer investigation.
4. *Not indicated*. Investigations for which the proposed rationale is no longer appropriate.

[A] Any of the following

- High-quality diagnostic studies in which a new test is independently and blindly compared with a reference standard in an appropriate spectrum of patients
- Systematic review and meta-analyses of such high-quality studies

[B] Any of the following

- Studies with a blind and independent comparison of the new test with the reference standard in a set of non-consecutive patients or confined to a narrow spectrum of patients

- Studies in which the reference standard was not applied to all patients
- Systematic reviews of such studies

[C] Any of the following

- Studies in which the reference standard was not objective
- Studies in which the comparison of the new test with the reference standard was not blind or independent
- Studies in which positive and negative test results were verified using different reference standards
- Expert opinion.