

NWL MUSCULOSKELETAL MRI & USS IMAGING PATHWAY v1.2

Reviewed July 2025

RECOMMENDATION:

North West London Integrated Care System recommends that musculoskeletal ultrasound and musculoskeletal MRI is not routinely undertaken outside of specialist settings, including primary care, regardless of clinical practitioner role.

Advanced musculoskeletal imaging should be undertaken, as appropriate and indicated, in specialist settings where appropriate interpretation, clinical judgement and treatment is available, including community musculoskeletal services and specialist secondary care services.

Patients requiring advanced imaging likely have more specialised needs. Patients seen in primary care, where advanced imaging may be helpful, should typically be referred to community / interface musculoskeletal services for further assessment, where they can be seen in a timely manner. MSK/specialist teams are responsible for further ongoing care after imaging. In uncommon cases of non-musculoskeletal findings, these may be passed back to primary care.

For **suspected cancer**, please use [local cancer referral pathways](#). If a patient under the care of oncology presents to primary care with suspicious musculoskeletal pain, prefer refer the patient back to their oncology team for further investigation.

For **suspected cauda equina syndrome**, this should NOT be managed in primary care and should be urgently/acutely referred onwards.

(NB: Separate NW London ICS guidance exists regarding imaging of soft-tissue lumps]

RATIONALE FOR RECOMMENDATION:

Evidence from both observational studies and randomised trials shows little-to-no clinically meaningful improvement in outcomes from earlier access to musculoskeletal MRI in primary care. In fact, extensive literature demonstrates potential patient harms from imaging, particularly misinterpretation.

A 2021 open access peer-reviewed evaluation in North West London covers much of the salient literature as well as highlighting harms from misdiagnosis and mismanagement, leading to a delay in appropriate care. **Such patient harm can be identified in two-thirds of patients undergoing MRI in primary care:**

[BMJ Open Quality 2021 | Unintended consequences: quantifying the benefits, iatrogenic harms and downstream cascade costs of musculoskeletal MRI in UK primary care](#)

Numerous national and institutional recommendations, including those from NICE and NHS England's Evidence-based Interventions, highlight the need to move away from unnecessary low-value imaging, which has significant potential for patient harm due to misinterpretation of common radiological findings:

- [British Journal of Sports Medicines 2020 | What does best practice care for musculoskeletal pain look like? Eleven consistent recommendations from high-quality clinical practice guidelines: systematic review](#)

- [NICE 2016 | Low back pain and sciatica in over 16s: assessment and management](#)
- [NHSE Evidence Based Interventions / Academy of Medical Royal Colleges 2024 | Low back pain imaging](#)
- [NHSE Evidence Based Interventions / Academy of Medical Royal Colleges 2024 | Knee MRI for suspected meniscal tears](#)
- [NHSE Evidence Based Interventions / Academy of Medical Royal Colleges 2024 | MRI scan of the hip for arthritis](#)
- [NHSE Evidence Based Interventions / Academy of Medical Royal Colleges 2024 | Scans for shoulder pain and guided injections for shoulder pain](#)

Most radiology providers and boroughs in North West London have adopted this evidence-based approach over the past decade, and this pathway will now be standardised across all eight boroughs in Northwest London.

There is considerable evidence supporting improved clinical care through advanced practitioner-led, multi-disciplinary community musculoskeletal/interface services. There has been a significant increased investment in and ongoing development of these community services in NW London ICS, to enhance earlier patient assessment and both short- and long-term condition management, as well as to support both primary care and secondary care services.

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