Audit of GP Requested Lumbar Spine Radiographs: A case for open access MRI?

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Background

Back pain affects more than 1/3 of the UK population\(^1\), leading to a large number of referrals by General Practitioners (GP) for Lumbar spine (LSP) radiographs which are of limited diagnostic value. Open access GP MRI referral for low back pain (LBP) may increase diagnostic yield, thus reducing unnecessary radiation exposure and delay in treatment, while reducing departmental radiographic workload.

Standards

According to the RCR guidelines\(^2\) MRI is the preferred investigation for most spinal diseases. European guidelines\(^3\) recommends MR as the first line in presence of red flags/radiculopathy.

Indicators

Percentage of GP requests meeting/not meeting the referral criteria for imaging. Percentage qualifying for MR as the first line.

Target

90% of GP referrals meeting the criteria. 80% of qualifying patients having MR.

Method

Retrospective RIS analysis of GP referrals to Royal Liverpool University Hospital for LSP x-ray over a period of three months (n=123). Requests and reports analysed.

Results

21% of requests did not meet the referral criteria and did not require any form of imaging. 58% of referrals had red flags and 19% had radiculopathy thus qualifying for MRI as the first line. Only 6% of patients had MRI following radiographs.

Changes

- New protocol in place. LSP x-rays performed if a diagnosis or risk factors of osteoporosis are present or if insufficiency fracture is suspected.
- GP and patient information is provided if the investigation is not performed.
- Open access for LSP MRI for tier II musculo-skeletal services in place. GP rapid access MRI being considered.
- Representatives from Liverpool PCT and the two Liverpool acute Trusts met recently and agreed that inappropriate requests for plain lumbar spine x-rays would not be carried out.

Action Plan

GP rapid access MRI being considered. Re-audit in a year.

References

1. Standards of Care for People with Back Pain. Arthritis and Musculoskeletal Alliance. 2004