**FOI Ref: 6609**

**Category(ies): Clinical - Service Activity**

**Subject: Use of MRI in the Diagnosis of Axial Spondylarthritis**

**Date Received: 15/09/2022**

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| **Your request:** | **Our response:** |
| UK Radiologist MRI axial SpA FOI  FOI to assess access to; use of MRI and protocols in the diagnosis of axial Spondylarthritis | |
| 1. Which hospital Trust do you work within? | The Rotherham NHS Foundation Trust |
| ***Part 1 – Access to MRI*** | |
| 1. How many MRI scanners suitable for scanning the spine and SIJ do you have access to? | None  1  2  3  4 or more |
| 1. What type of scanner do you have access to? | 1.5T  3T  Other (please state) |
| 1. Roughly how long would an outpatient wait for an MRI in your Trust? | Less than 2 weeks  2-4 weeks  1-2 months  2-3 months  Greater than 3 months |
| 1. Do you have regular meetings or discussions with your rheumatology colleagues? | Weekly  Fortnightly  Monthly  Quarterly  As required  Never |
| 1. How is axial SpA MRI imaging reported in your Trust? | Internally by a specialist MSK radiologists  Internally by a non-specialist radiologist  Outsourced to a specialist MSK radiologist service  Outsourced to a non-specialist radiologist service  Other (please state) |
| ***Part 2 – Use of MRI in diagnosis of axial SpA*** | |
| 1. Are you familiar with the rheumatological term axial Spondyloarthritis (axial SpA)? | Yes  No |
| 1. Are you familiar with the BRITSpA consensus guidance on MRI for the diagnosis of axial Spondyloarthritis? [(BRITSpA guidance)](https://nassteam.sharepoint.com/Shared%20Documents/Gold%20Standard%20Programme%20Management/Knowledge%20Hub/kez173.pdf) | Yes  No |
| 1. In what circumstances would you use MRI in the assessment/diagnosis of spondyloarthritis? | We do not, or only rarely, use MRI for assessment/diagnosis of spondyloarthritis  We only use MRI if the x-rays of the SIJ and spine are normal/not diagnostic  We use MRI as a diagnostic test, irrespective of whether there is an abnormality on plain x-rays  Other reasons…………………………………… |
| ***Part 3 – MRI protocols*** | |
| 1. Please write in text what your standard MRI protocol for the assessment of spondyloarthritis is (specifying (i) field strength, (ii) sequences, (iii) anatomical coverage and (iii) acquisition planes for each element of the protocol): | Field strength 1.5T  Coverage whole spine  Sagittal T2,T1 and TIRM  2 step Whole spine  C7/T1 t2 medic transverse  T2 Transverse 3 block lower L spine |
| 1. What is the approximate scan time for this protocol?   If multiple scanners are used, please give an average or range. | 45 minutes |
| 1. When assessing patients for possible early spondyloarthritis with MRI would you routinely scan? | Sacroiliac joints only  Sacroiliac joints and lumbar spine  Sacroiliac joints and thoracic spine  Sacroiliac joints and thoracolumbar spine  Sacroiliac joints and whole spine  Sacroiliac joints and any other spinal segment, including whole spine, as requested by the rheumatologist  Other……………………………………………….. |
| 1. If you do not scan any of the spine in the assessment of spondyloarthritis, why not? | Spinal features are not necessary in the diagnosis of axial-SpA  There are no specific lesions for spondyloarthritis in the spine  The scan time is too long  It costs too much money to scan  Other………………………………………………..  N/A |
| 1. If you do not MRI scan the whole spine in the assessment of spondyloarthritis, why not? | Imaging the lumbar / thoracolumbar spine is sufficient to assess spinal features of axial-SpA  Spinal features are not necessary in the diagnosis of axial-SpA  It takes too long to scan the spine  It costs too much money to scan the whole spine  Other………………………………………………..  N/A |
| 1. If you are MRI scanning part of, or the whole spine in the assessment of spondyloarthritis would you perform? | Sagittal, axial and coronal plane acquisitions  Sagittal and axial plane acquisitions only  Sagittal plane acquisitions only  Other………………………………………………. |
| 1. If you are MRI scanning the sacroiliac joints, would you perform? | Semi-coronal plane acquisitions only  Semi-coronal and semi-axial acquisitions |
| 1. When MRI scanning for the assessment of spondyloarthritis which sequences do you use in your protocol? Please tick all that apply. | Fat-suppressed, water sensitive sequence (e.g. STIR, T2w imaging with fat suppression or T2w Dixon imaging)  Fat-sensitive sequence (T1w imaging)  Gadolinium-enhanced imaging  Conventional T2w imaging (without fat suppression)  Gradient echo imaging (including VIBE or Dixon)  Other……………………………… |
| 1. When MRI scanning for the assessment of spondyloarthritis do you perform gadolinium-enhanced imaging of the sacroiliac joints? | Yes  No |
| 1. When MRI scanning for the assessment of spondyloarthritis do you perform gadolinium-enhanced imaging of the spine? | Yes  No |
| ***Part 4 – MRI lesions and definitions*** | |
| 1. Are you aware of formal recommendations regarding which imaging features should contribute to the identification of a positive MRI of the sacroiliac joints in spondyloarthritis? | Yes, please detail below:  No |
| 1. What MRI SIJ spondyloarthritis features do you use to make a diagnosis of Spondyloarthritis? | Subchondral Bone marrow oedema / osteitis only  Erosions  Fat infiltration  Sclerosis  Joint space widening / effusion  Enthesitis  Capsulitis  Fat deposition in the joint space (“backfill”)  Synovitis  New bone formation (areas of ankylosis)  All of the above  Combination of the pathologies ticked above  Other……………………………. |
| 1. Are you aware of formal recommendations regarding which imaging features should contribute to the identification of positive MRI of the spine in spondyloarthritis? | Yes, please detail below:  No |
| 1. What MRI spinal spondyloarthritis features do you use to make a diagnosis of Spondyloarthritis? | Vertebral corner bone marrow oedema  Endplate oedema  Diffuse vertebral body oedema  Posterior element bone marrow oedema  Spinous process bone marrow oedema  Vertebral corner fat infiltration  Syndesmophyte formation  All of the above  Combination of the pathologies ticked above  Other……………………………. |