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Understanding seronegative Spondyloarthropathy

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Plan

- Spondyloarthritis terminology and background info
- Non-msk therapists – what's important
- Screening tools
- Features of inflammatory disease – what to look out for
- Objective assessment – what to look at
- Referral
- Resources/CPD

Old and new terminology

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Spondyloarthritis (SpA)

Non radiographic axial spondyloarthritis (nr-axSpA)

Radiographic axial spondyloarthritis (r-axSpA)

Ankylosing Spondylitis (AS)

Peripheral Spondyloarthritis

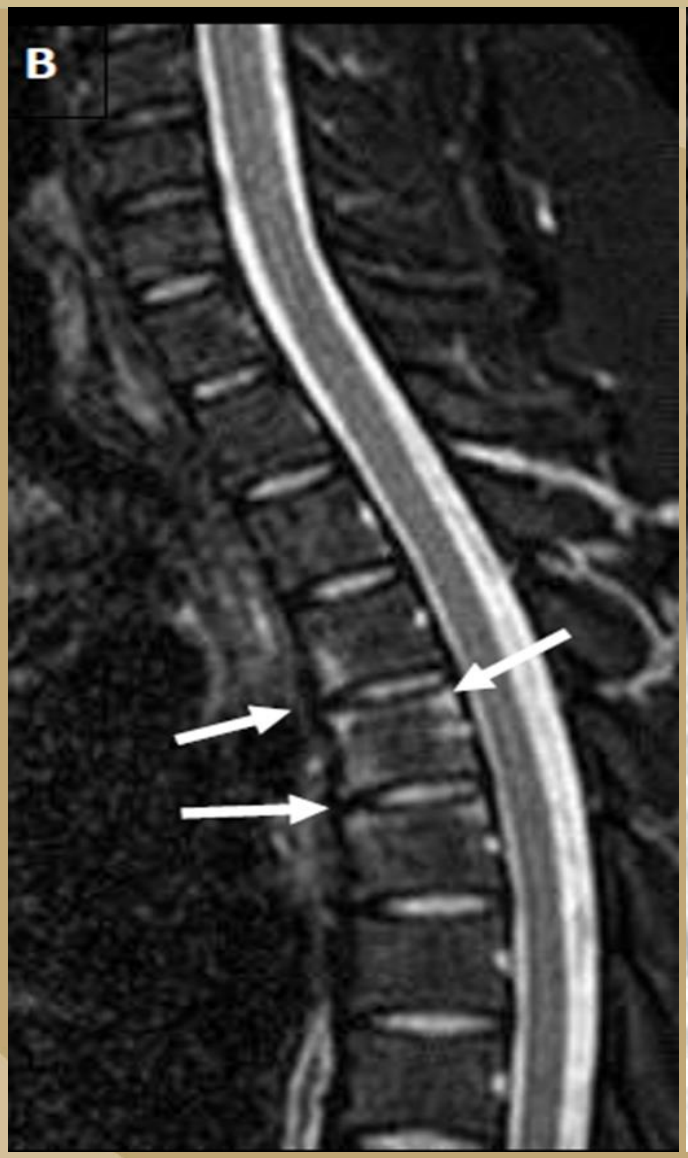
Axial Spondyloarthritis

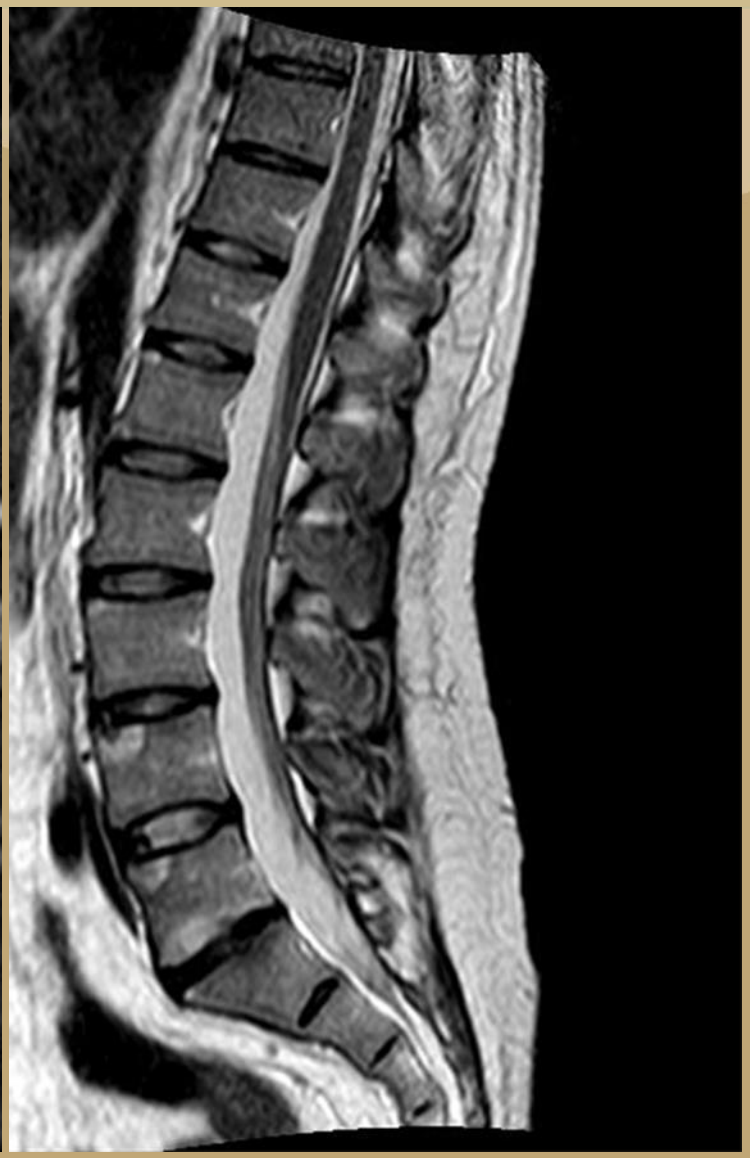
Psoriatic Arthritis

Reactive Arthritis

And more!!

Imaging

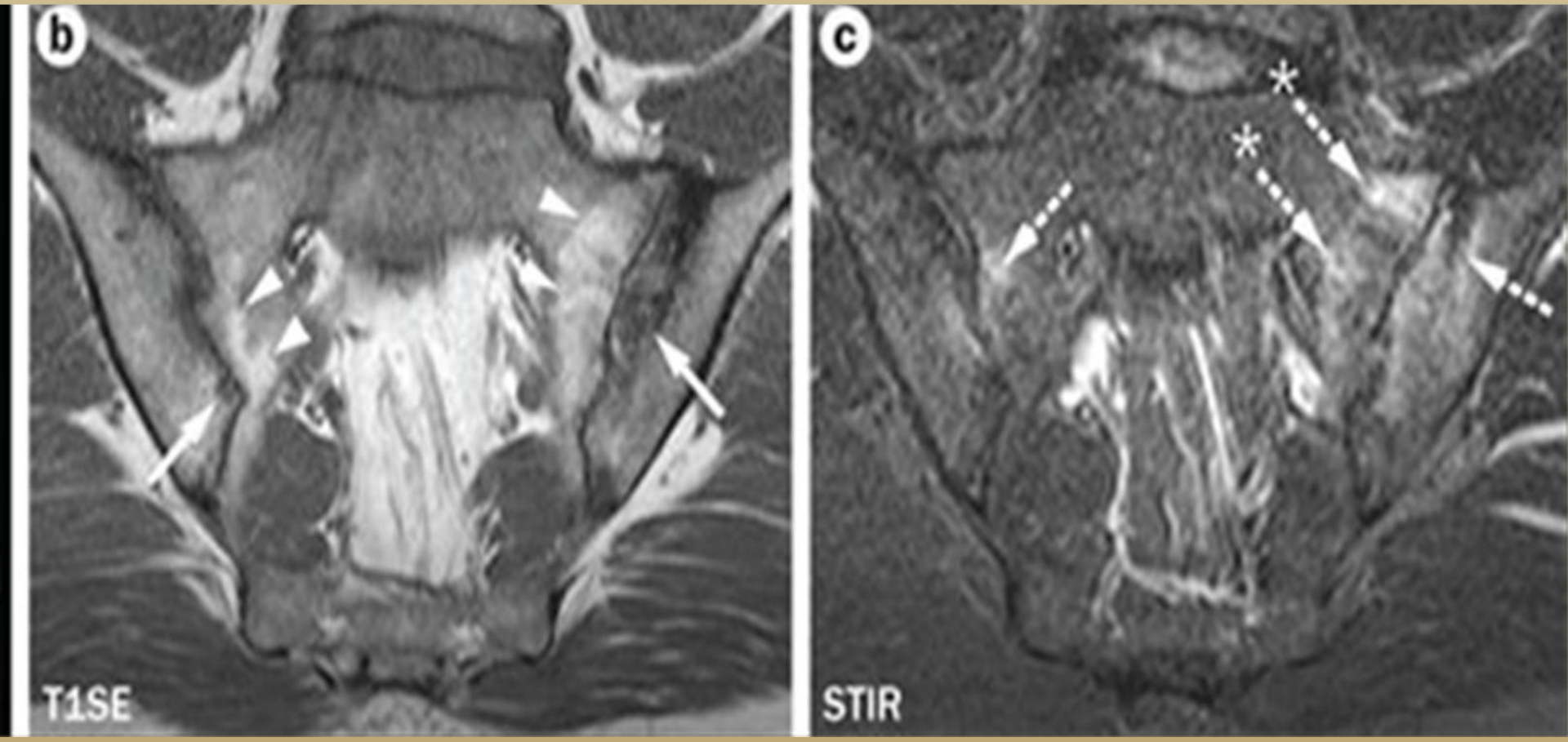




- MRI spine

Lee 1. MRI Features of Axial Spondyloarthritis and Differential Diagnosis: Focusing on the Spine and Sacroiliac Joint. J Rheum Dis. 2014 Jun;21(3):110- https://doi.org/10.4078/jrd.2014.21.3.110

Imaging



MRI Features of Axial Spondyloarthritis and Differential Diagnosis: Focusing on the Spine and Sacroiliac Joint. J Rheum Dis. 2014 Jun;21(3):110-121. https://doi.org/10.4078/jrd.2014.21.3.110

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I don’t work in msk…

- IBP may be raised by the patient to any clinician
- Inflammatory disease and cardiovascular risk
- Smoking
- Mental health

Consultation

- Thorough history taking
- Inflammatory screening as standard
- Use of clinical reasoning alongside clinical tests
- Prove or disprove your hypotheses

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History taking

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Screening tools

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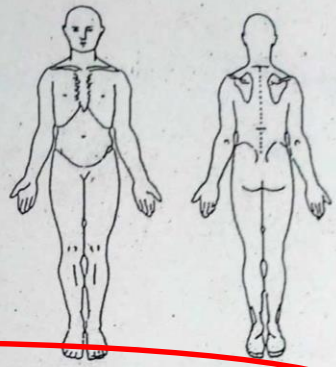
History of condition:



Response to NSAIDs **Skin** **Uveitis/Iritis** **Inflam bowel** **EMS** **Night pain** **Fatigue** **Unwell**

Investigations:

Allergies:
Pregnant/Trying to conceive
Medication:

PMH:

Previous treatment:

SH:
Occupation:
Smoker/Non-Smoker

FH:

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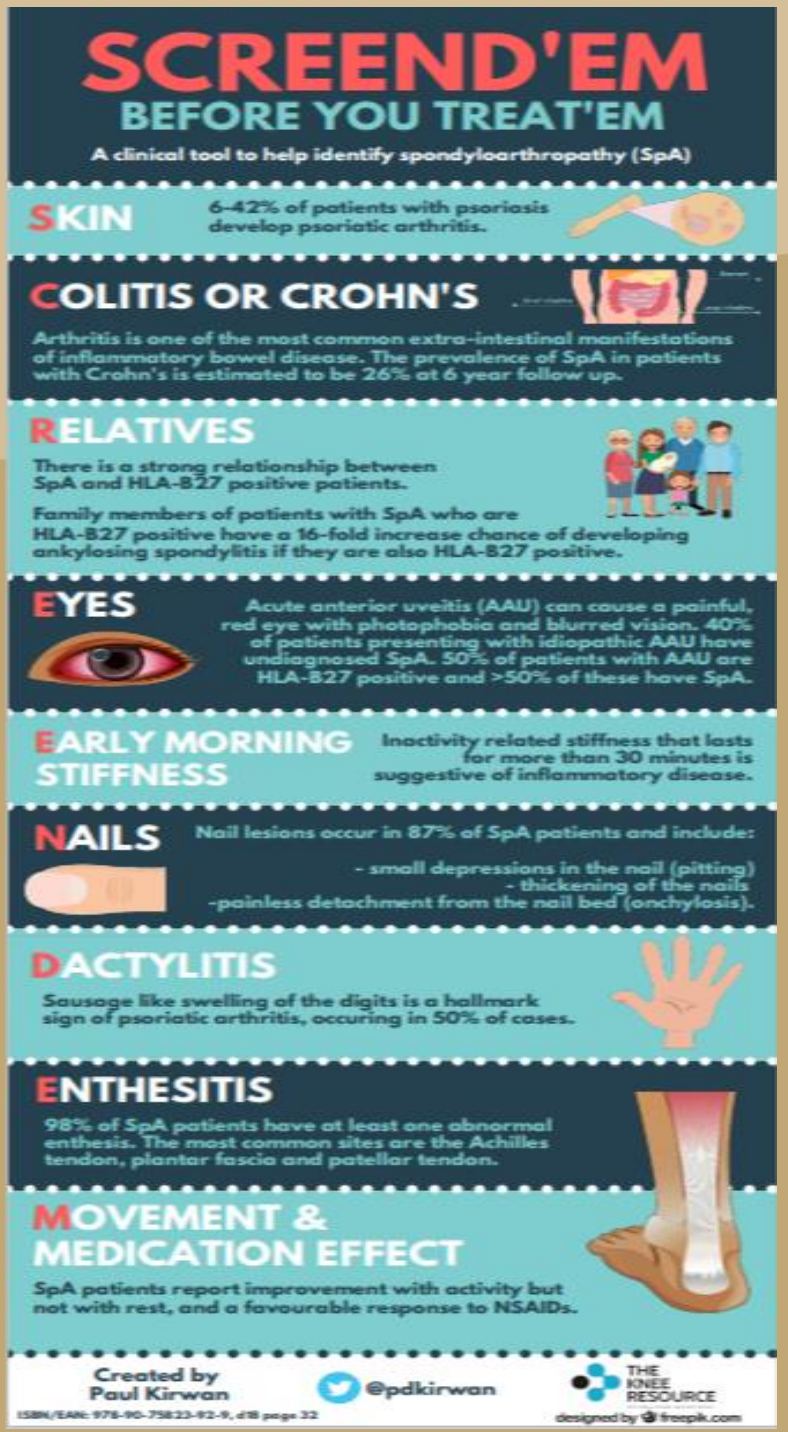
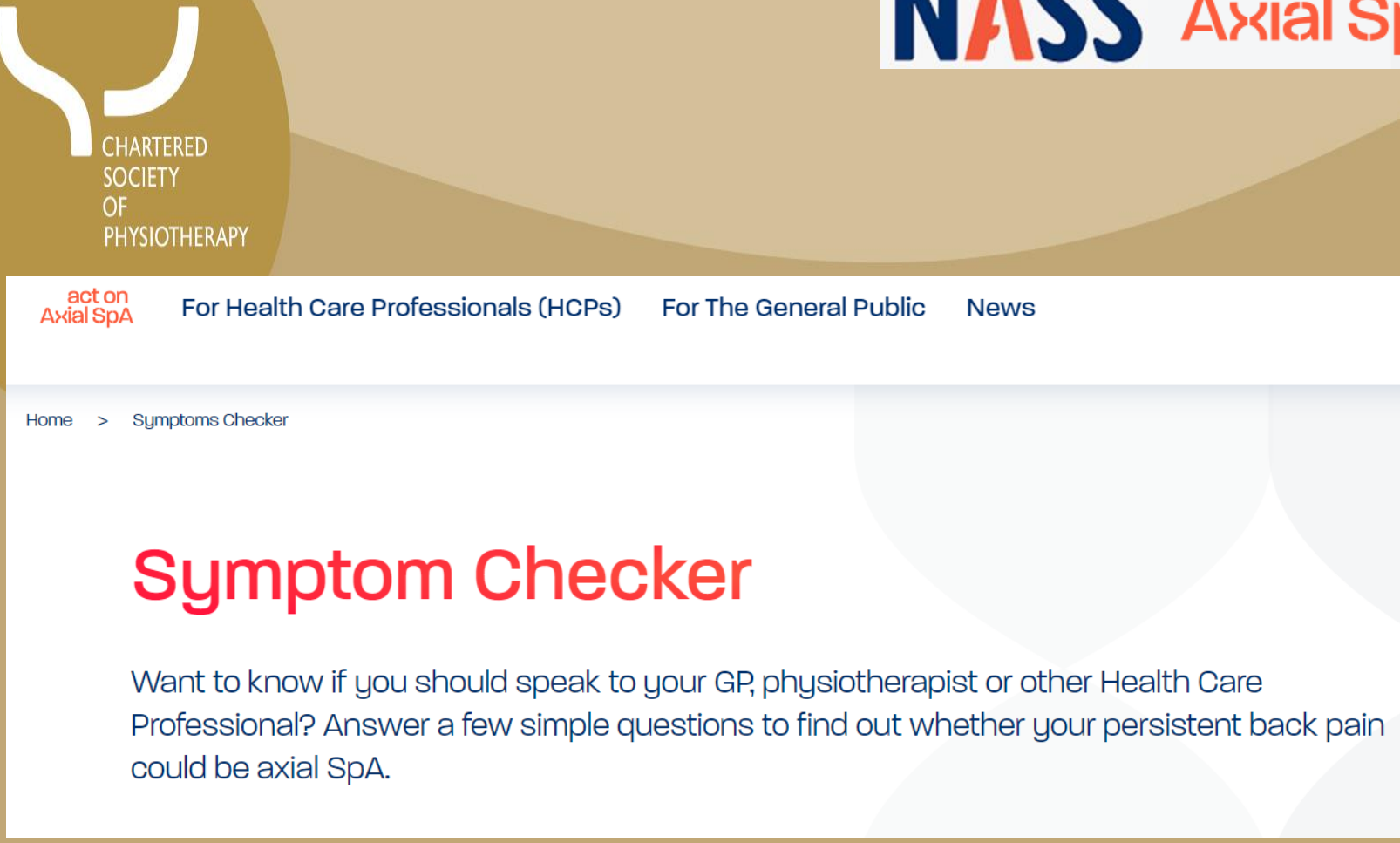
https://thekneeresource.com/wp-content/uploads/2018/12/Screendem-P-KIrwan-Spondyloarthropathy.pdf



SPADE tool

- Inflammatory type of back pain
- Heel pain (enthesitis)
- Peripheral arthritis
- Dactylitis
- Iritis or anterior uveitis
- Psoriasis
- IBD (Crohn's disease or ulcerative colitis)
- Positive family history of axial SpA, reactive arthritis, psoriasis, IBD or anterior uveitis
- Good response to NSAIDs
- Raised acute-phase reactants (CRP/ESR)
- HLAB27
- Sacroiliitis shown by MRI

www.spadetool.co.uk



https://www.actonaxialspa.com/symptoms-checker/

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Inflammatory features

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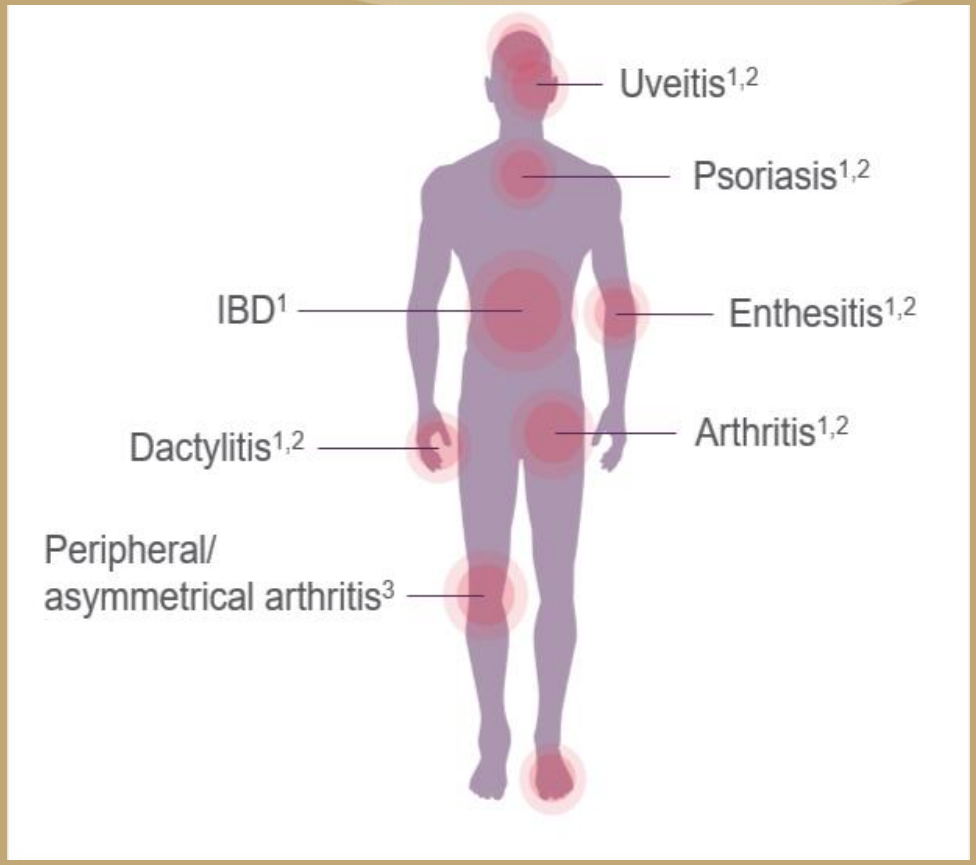
Features of inflammatory disease



1. van Tubergen A. *Nat Rev Rheumatol* 2015.11:110–118. **2.** van den Berg R, van der Heijde D. *Pol Arch Med Wewn* 2010.120:452–7. **3.** Rudwaleit M et al. *Ann Rheum Dis* 2011;70:25–31. **4.** NASS. Differentiating Inflammatory and Mechanical Back Pain. August 2015. Available at: https://nass.co.uk/wp-content/uploads/2018/11/Physiotherapy-modules-1.pdf (Accessed October 2020).

Inflammatory back pain

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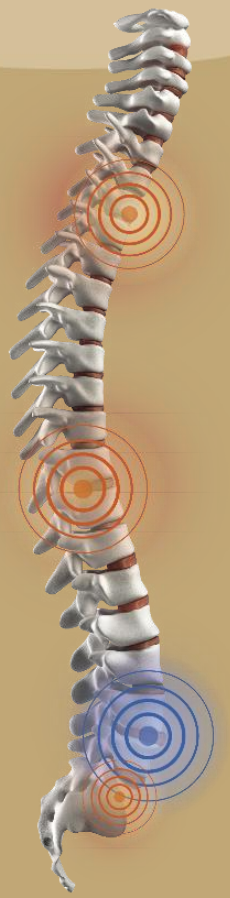
INFLAMMATORY

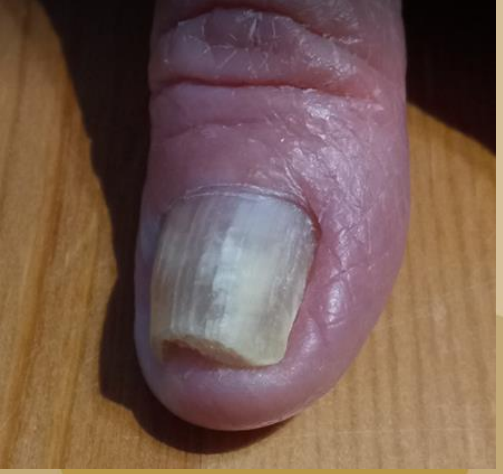
- Age at onset <40
- Insidious onset
- Improves with exercise
- No improvement with rest
- Morning stiffness >30 minutes
- Night pain, waking 2nd part of night

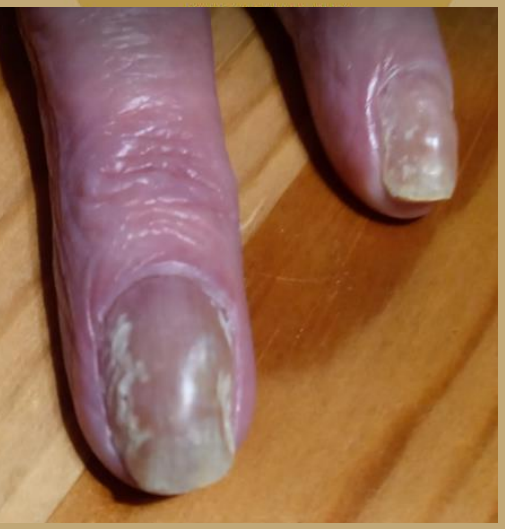


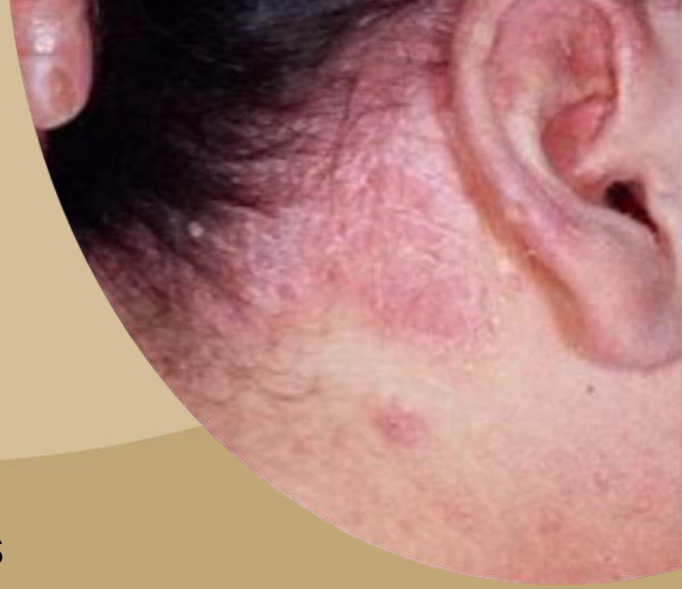
MECHANICAL

- Onset, any age
- Worse on movement
- Eases with rest

1. Rudwaleit M, et al. *Ann Rheum Dis.* 2009;68:777–83. **2.** NASS. Differentiating Inflammatory and Mechanical Back Pain. August 2015. Available at: https://nass.co.uk/wp-content/uploads/2018/11/Physiotherapy-modules-1.pdf (Accessed October 2020).







Psoriasis

- Inspect the skin and nails
- Red patches, raised white, silver scaly plaques
- Scalp common -50%
- Nail involvement
- Many people unaware of their psoriasis or
- undiagnosed
- Plaque Psoriasis – Scalp, elbows and knees
- Pustular Psoriasis – Palms and soles of feet, trunk

1. NICE Guidance on Spondyloarthritis – Recognition and referral
2. (Images-www.onhealth.com/content/1/psoriasis_skin_rash)
3. Nail image permission – Brian Chambers

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Uveitis/Iritis

- Uveitis – Inflammation of the uvea (coloured bit of the eye)
- Iritis – inflammation of the anterior part of uvea or iris

Inflammatory Bowel Disease

- Inflammatory diseases of the digestive tract
  - **Crohn's disease-** inflammation of lining of digestive tract- any part
  - **Ulcerative colitis-** inflammation and ulcers in lining of colon and rectum

- Not Irritable Bowel Syndrome

1.. Mayo Clinic. Accessed May 2019. Available on: www.mayoclinic.org/diseases-conditions/inflammatory-bowel-disease/symptoms-causes/syc-20353315

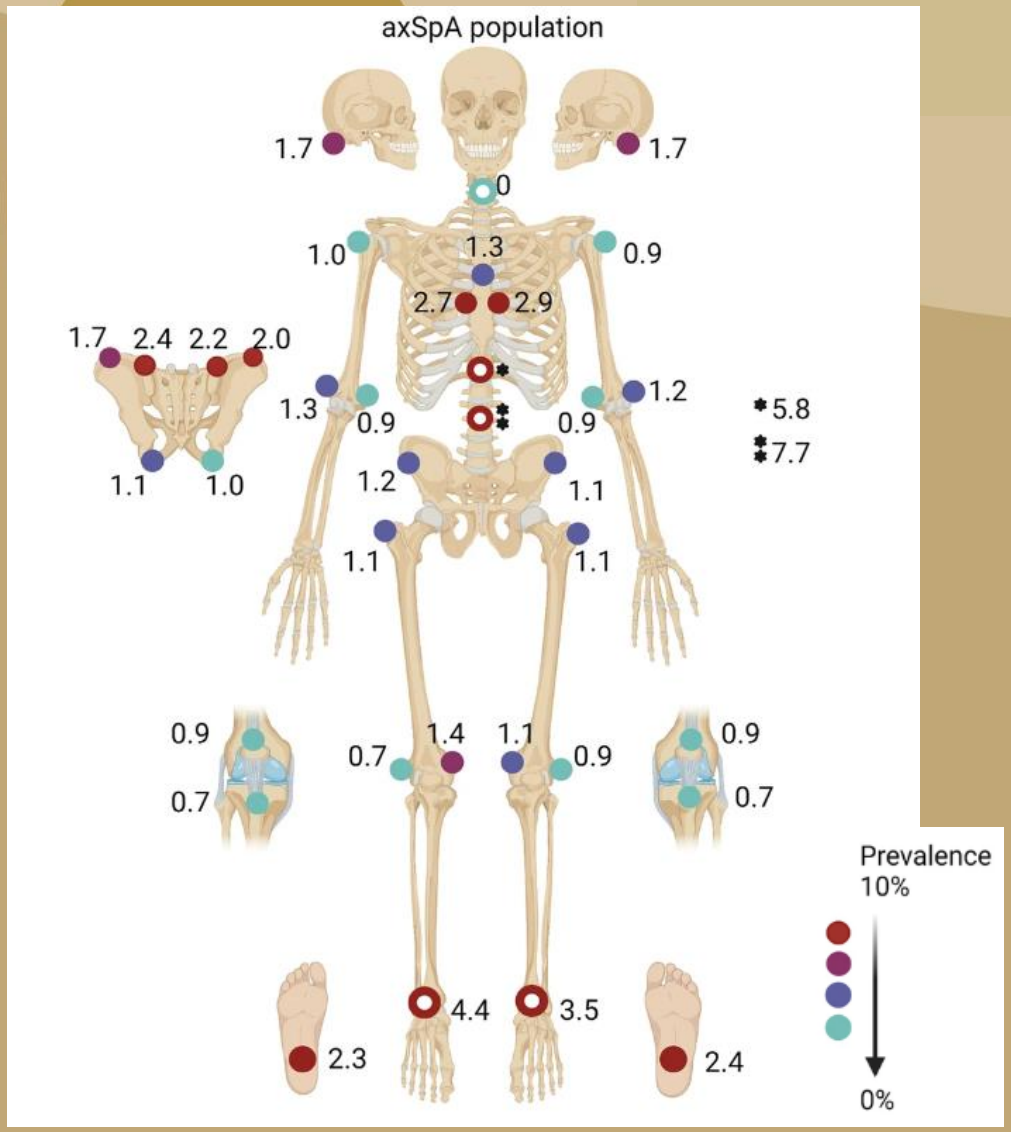
Inflammatory Bowel Disease

- Common symptoms:
  - Diarrhoea- typical= blood and mucus in stool
  - abdominal cramping/pains
  - frequency/urgency, feeling of needing to go
  - loss of appetite
  - weight loss
  - anaemia
  - tiredness and fatigue
  - fistulas and anal fissures
  - occasionally red painful skin rash

- - Can't be diagnosed with blood or stool tests but positive results raise suspicion
- - Usually confirmed by colonoscopy/endoscopy

1. Felice, C et al. 2019. Red flags for appropriate referral to the gastroenterologist and the rheumatologist of patients with inflammatory bowel disease and spondyloarthritis. *Clin Exp Immun*, *196*(1).123-138

Enthesitis



- Achilles
- Sternocostal Joints
- Plantar Fascia

1. Granados, R.E.M., Ladehesa-Pineda, M.L., Puche-Larrubia, M. et al. Enthesitis indices identify different patients with this characteristic in axial and peripheral spondyloarthritis and also in psoriatic arthritis: ASAS-PerSpA data. Arthritis Res Ther 25, 99 (2023). https://doi.org/10.1186/s13075-023-03080-0

When to suspect Axial SpA

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LBP > 3 months with onset before 45 years
plus 4 additional criteria:

- onset < 35 years (increases likelihood of axSpA)
- Waking second half of night because of symptoms
- Buttock pain
- Improves with movement
- Improves with NSAIDs (usually within 48 hrs)
- Current / past enthesitis
- Current / past psoriasis or FH of psoriasis (parent, sibling, chid)
- Current / past inflammatory arthritis
- Family history close relative with SpA
- Inflammatory bowel disease
- Uveitis

- HLAB27 known and if positive - refer

1. NICE Guidance on Spondyloarthritis – Recognition and referral

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Objective assessment

- What should be examined?
  - If you don’t suspect SpA
  - If you suspect SpA

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Case example

- 35 year old female
- Referred by GP with right achilles pain

- Ask inflammatory screening questions

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Case example

- 35 year old female
- Referred by GP with right achilles pain
- Inflammatory screening – no subjective signs of SpA

- Objective assessment
  - Focus on achilles

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Case example

- 35 year old female
- Referred by GP with right achilles pain

- On questioning – has 10 year history of LBP, waking at night. GIO of achilles pain. Takes ibuprofen regularly. No peripheral jt symptoms.
- Question further
- Inflammatory screening – subjective signs of AxSpA

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Case example

- 35 year old female
- Referred by GP with right achilles pain
- Inflammatory screening – subjective signs of AxSpA

- Objective Ax:
  - Look at nails and skin
  - Spinal ROM
  - Palpation of spine & SIJts
  - Palpation of achilles – tendon and enthesis
  - Other areas of possible enthesitis

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Referral

- If any inflammatory disease is suspected, referral to rheumatology to investigate is required
- Put key findings in your referral or your request for GP to refer
- Investigations need to be requested and interpreted by an appropriate clinician

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Inflammatory Back Pain Referral Example

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Referral letter

- Provide your key findings:

  - Patient is presenting with IBP due to: age of onset of LBP, waking 2nd part of the night, EMS 1 hour, improves with nsaids

  - On examination – reduced range of spinal movement in the lumbar spine, particularly extension and bilateral LF Pain on palpation of the thoracolumbar junction and left SIJt. Pain on palpation of the right achilles enthesis.

  - Suspicion of AxSpA. I would be grateful if you could consider referral to rheumatology for further investigation.

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Secondary Care Investigations

- Blood tests
- X-ray SIJts
- MRI whole spine and SIJts with STIR views

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Take home messages

- Screening for inflammatory disease is a normal part of an msk assessment
- If in doubt refer to rheumatology
- Assessment and interpretation of results must be with an expert
- Inflammatory disease can be treated well
- We can do lots to help our patients live well with long term conditions

Msk?... Think SpA!

NICE guidance on recognition and referral of Spondyloarthritis

What is Spondyloarthritis (SpA)?

Spondyloarthritis is a group of inflammatory arthritis conditions with common features and associated with extra-articular inflammatory conditions:

- Psoriasis
- Inflammatory Bowel Disease
- Uveitis
- Infection trigger

A key feature is enthesitis (inflammation at tendon attachment to bone) and may also involve joint inflammation, pain and swelling

There are two main types, which can also co-occur:

- Axial Spondyloarthritis - involving SIJs/spine/costovertebral joint region
- Peripheral Spondyloarthritis - involving dactylitis (whole digit inflammation and swelling), enthesitis, peripheral joint inflammation and tendonitis

Why is it important to screen for Spondyloarthritis?

- Average time to be diagnosed for many people is 8-9 years
- Spondyloarthritis is often mistaken as chronic back pain, or as unrelated tendonitis and joint problems
- Symptoms can move between areas, be asymmetrical, and can flare and settle
- This guidance links with NICE Guidance on Low Back Pain and Sciatica (2016) to ensure inflammatory back symptoms are not mistaken as chronic mechanical LBP

**Important – Consider spondyloarthritis before treating as NSLBP

Spondyloarthritis conditions include:

- Axial Spondyloarthritis (axSpA) / Ankylosing Spondylitis (AS)
- Psoriatic Arthritis (PsA)
- Enteropathic arthritis (related to inflammatory bowel disease-Crohn's disease/ ulcerative colitis)
- Reactive Arthritis (triggered by gastrointestinal or genitourinary infection)
- Undifferentiated Spondyloarthritis (uSpA- no identified associations)

Spondyloarthritis Recognition and referral

NICE guidance[1] offers separate advice on suspecting axial and peripheral presentations, relating to evidence for different signs, symptoms and risk factors

Inflammatory back pain features[2]:

- Insidious onset
- Onset before 45 years
- Buttock pain especially alternating sides
- Improvement with exercise & activity
- No improvement with rest
- Woken second half of night by back pain
- Good response to NSAIDs
- Prolonged morning stiffness > 30 min

When to suspect Axial Spondyloarthritis (axSpA)

Refer to rheumatology if a person presents with:

- Back pain > 3 mths with onset before 45 years of age

And if 4 or more additional features below:

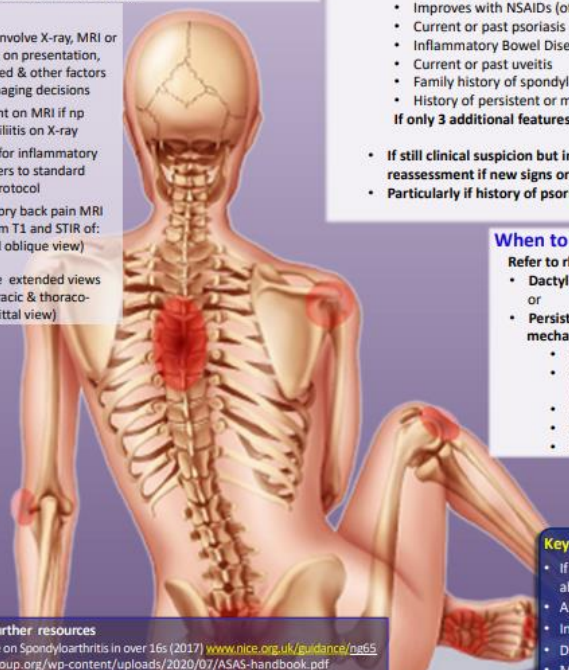
- Onset before 35 years of age (increases suspicion)
- Woken second half of night by symptoms
- Improves with movement, not improved with rest
- Buttock pain
- Improves with NSAIDs (often within 48 hours)
- Current or past psoriasis or family history of psoriasis (parent/sibling)
- Inflammatory Bowel Disease- Crohn's Disease or Ulcerative colitis
- Current or past uveitis
- Family history of spondyloarthritis (AxSpA/AS, Psoriatic Arthritis)
- History of persistent or multiple enthesitis or joint pain/swelling

If only 3 additional features and if known to be HLA B27 positive – refer

- **If still clinical suspicion but insufficient features, advise the person to seek reassessment if new signs or symptoms develop**
- **Particularly if history of psoriasis, inflammatory bowel disease or uveitis**

Imaging

- Imaging may involve X-ray, MRI or US depending on presentation, regions involved & other factors influencing imaging decisions
- may be present on MRI if np findings sacroiliitis on X-ray
- MRI protocol for inflammatory back pain differs to standard lumbar MRI protocol
- An inflammatory back pain MRI should perform T1 and STIR of:
  - SIJs (coronal oblique view)
  - &
  - Whole spine extended views cervico-thoracic & thoraco-lumbar (sagittal view)



When to suspect Peripheral Spondyloarthritis

Refer to rheumatology if a person presents with:

- **Dactylitis** (whole swollen digit- 'sausage' finger or toe)
  or
- **Persistent or multiple-site enthesitis without apparent mechanical cause and with other features, including:**
  - Features of inflammatory back pain
  - Current/past psoriasis, inflammatory bowel disease (Crohn's disease/ ulcerative colitis) or uveitis
  - Family history of SpA (parent, sibling)
  - Family history of psoriasis (parent, sibling)
  - Recent infection -GIT or genitourinary infection

Morning stiffness- prolonged morning stiffness (> 30 min) is suspicious of inflammatory disease

Key points about Spondyloarthritis:

- If persisting back, tendon or joint pain – always ask about psoriasis, inflammatory bowel disease, uveitis
- AxSpA affects women and men equally
- Inflammatory markers (ESR & CRP) can be normal
- Do not exclude possibility of SpA if HLA B27 –ve
- MRI for AxSpA differs from lumbar MRI protocol

Refereces and further resources

- 1. NICE guideline on Spondyloarthritis in over 16s (2017) www.nice.org.uk/guidance/ng65
- 2. www.asas-group.org/wp-content/uploads/2020/07/ASAS-handbook.pdf
- CSP website: www.csp.org.uk/frontline/article/spondyloarthritis-part-1
- National Axial Spondyloarthritis Society: https://nass.co.uk/
- AStretch: www.astretch.co.uk
- Spade Tool: www.spadetool.co.uk
- RCGP -free eLearning module: http://elearning.rcgp.org.uk/course/info.php?id=229
- McCrum C 2019 When to suspect Spondyloathritiss Musculoskeletal Scence & Practtice
- McMillan et al. 2021 Masterclass: Axial Spondyloarthritiss. Int J of Osteopathic Medicine

This leaflet supports implementation of recommendations in the NICE guideline on Spondyloarthritis in over 16 (National Institute for Health and Care Excellence 2017)
Prepared by Dr Carol McCrum DPT, NICE Fellow, to raise awareness of NICE Guidelines on Spondyloarthritis [NG65] [resource v4_last revised 15/08/2023]

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- MSK?...Think SpA. NICE guidance on recognition and referral of Spondyloarthritis. Dr. Carol McCrum
- https://www.actonaxialspa.com/hcp-toolkit/

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Resources

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- https://nass.co.uk/
- https://www.astretch.co.uk/
- https://versusarthritis.org/about-arthritis/
- https://www.rheumatology.org.uk/
- @RheumPhysioUK

AStretch

NASS

VERSUS ARTHRITIS

British Society for Rheumatology

MACP Rheumatology
CLINICAL INTEREST GROUP

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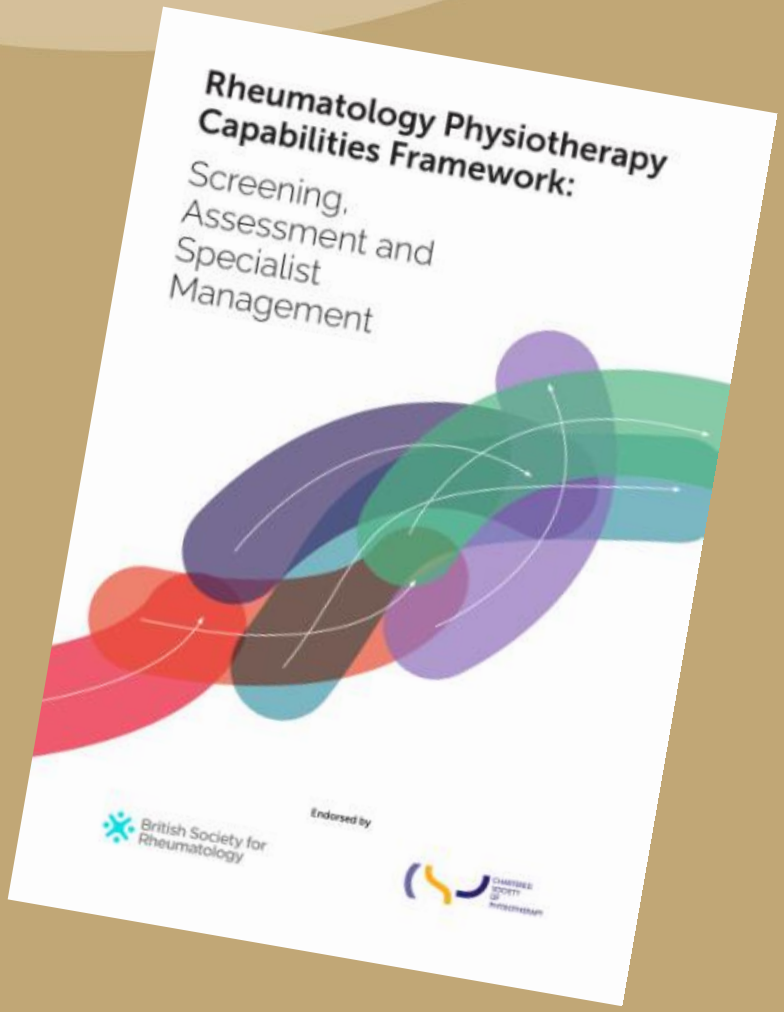
Need to upskill?

- Rheumatology Physiotherapy Capabilities Framework

- https://www.rheumatology.org.uk/improving-care/frameworks



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CPD

- AStretch
  - Axial Spondyloarthritis/Ankylosing Spondylitis. Physiotherapy assessment & management
- British Society for Rheumatology
  - AHP Course
  - Core Skills in Rheumatology
- MACP
  - Msk?...Think SpA! Recognition and referral of Axial and Peripheral Spondyloarthritis
  - Dr. Carol McCrum
- Rheumatology Clinical Interest Group
  - Bimonthly webinar
  - And more…

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Questions and discussion