Low Back Pain Pathway and Referral Guidance for Adults in Lanarkshire

TARGET AUDIENCE	Main target audience General Practitioners/Primary Care clinicians.
PATIENT GROUP	People (age ≥ 14 years) in Lanarkshire with low back pain +/- leg symptoms

Clinical Guidelines Summary

The Low Back Pain (LBP) Pathway was implemented in 2010 following a development process in partnership between NHSL Trauma and Orthopaedics, Primary Care and Musculoskeletal (MSK) Physiotherapy. A revision process was undertaken in 2022/23.

The pathway is intended to facilitate the right care, from the right person, at the right time and in the right place for individuals affected by low back pain +/- leg symptoms (nerve root pain/radiculopathy/spinal stenosis).

The majority of patients who need to be referred for a specialist opinion following appropriate first-line/ Primary Care management will continue to be directed to the **MSK Physiotherapy Service** via SCI Gateway or self-referral.

The MSK Physiotherapy and Trauma and Orthopaedics services work closely together and have robust escalation mechanisms. Patients who are under care of MSK Physiotherapy can often be escalated for further investigation and clinical support, usually without further direct GP/Primary Care involvement, although Primary Care input may still be invaluable for some patients.

- Who **to** consider referring to MSK Physiotherapy - see MSK referral guidelines for full details:
    - Patients aged ≥14 with lower back pain +/- leg symptoms, who have not responded to recommended advice and first-line management, and who **do not** have significant red-flags.
- Who **not** to refer to MSK Physiotherapy - see MSK referral guidelines for full details:
    - Patients **with** significant red flags – see the pathway diagram.
    - Patients aged <14. Consider SCI referral to Orthopaedic Paediatric or consider referral form for Paediatric Physiotherapy.
    - Patients with Widespread Chronic Pain Syndrome with previous Physiotherapy input for the same condition +/- significant psychological/ psychiatric/ drug addiction component.
    - Previous attendance at pain management for the same condition.
    - Physiotherapy re-referral for patients who have completed Physiotherapy treatment for the same condition in the last 12 months.
    - Referrals requesting imaging or MRI alone.
    - Back pain with BMI >40 if weight is felt to be the primary issue.

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First-line management and support guidance

- Assess the patient, consider potential **red flags** (see below)
- Commence appropriate first-line treatments and reassurance if safe to do so
- Consider signposting to NHSL MSK Physio Back Pain advice and/or copy of NHSL back & leg pain booklet
- Keep diagnosis under review or issue clear instructions for when to seek further advice and/or when to self-refer to MSK physiotherapy
- Refer/facilitate self-referral (see below):
  - **If** patient fails to make satisfactory progress
  - **If** you are concerned about risk of chronicity without immediate referral to specialist service (Consider risk stratification)

Links to additional information and resources:
Clinical guidance
Safety-netting (inc foreign language CES information)
Additional resources inc leisure, wt-management

No red flag sign/symptoms

Please consider if MSK Physiotherapy is appropriate option

Consider referral to pain services or other service if appropriate, for example if the patient has previously engaged with MSK physiotherapy

Please refer to **MSK Physiotherapy** via SCI Gateway **or** patients can self-refer here, but may be conditional on red-flag screening responses **or** consider Working Health Services Scotland referral/self-referral (<250 employees)

Please make patients aware that the MSK service can liaise directly with orthopaedics as required, if this may help to progress their care. This can **usually** be done without re-referral through Primary Care.

MSK Physiotherapy and orthopaedics work closely together.

Patient has Red Flag[1] signs/symptoms

[1]note-this list is not exhaustive

Suspected Cauda Equina Syndrome **Suspected Spinal Column Infection** **Suspected Malignant Cord Compression (MSCC)** (consider that early diagnosis is vital, but can be challenging)	*GP Practice clinicians refer via Flow Navigation Centre (FNC) Tel: 0800 111 4003 *Non-GP practice clinicians may advise **local** ED attendance with accompanying letter or refer via FNC or depending on local arrangements
Inflammatory spinal pain	Follow local rheumatology guidance
Fragility fracture without neurological signs symptoms	Follow local osteoporosis guidance
Suspected spinal column malignancy without MSCC +/- suspicious fragility fracture	*Consider referral to appropriate acute specialty if known/relevant history of cancer or high suspicion of localisable malignancy e.g. breast team *Consider referral Rapid Cancer Diagnostic Service *Consider urgent orthopaedic outpatient referral via SCI Gateway
Worsening and/or multi-level lower limb neurological deficit/weakness, or acute foot drop	*Consider differential diagnoses and appropriate acute specialty to investigate. *Consider urgent orthopaedic or neurology outpatient referral via SCI Gateway.

References/Evidence

Finucane, L et al. (2020) International Framework for Red Flags for Potential Serious Spinal Pathologies, *Journal of Orthopaedic and Sports Physical Therapy*, 50(7), pp.350-372.

Healthcare Improvement Scotland (HIS). Scottish Intercollegiate Guidelines Network (SIGN). Management of osteoporosis and the prevention of fragility fractures**.** January 2021.

Kirwan, P. SCREEND'EM. Screend'em (thekneeresource.com). ISBN/EAN: 978-90-75823-92-9, d18 page 32

NHS Scotland. Scottish Referral Guidelines for Suspected Cancer**.** February 2019. https://www.cancerreferral.scot.nhs.uk/Home

Nice Institute for Health and Clinical Excellence (NICE). Clinical Knowledge Summary. Back Pain (low) – without radiculopathy. November 2022.

NICE. Clinical Knowledge Summary. Ankylosing Spondylitis. April 2024.

NICE. Clinical Knowledge Summary. Sciatica (lumbar radiculopathy). February 2022.

Royal Osteoporosis Society. Guidance for the management of symptomatic vertebral fragility fractures. May 2022.

Appendices

1. Governance information for Guidance document

Lead Author(s):	Nick Kinniburgh, Acting Consultant Physiotherapist MSK
Endorsing Body:	NHSL Orthopaedics and Trauma Service, NHSL MSK Physiotherapy Service, NHSL Primary Care services
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Responsible Person (if different from lead author)	

CONSULTATION AND DISTRIBUTION RECORD	
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Consultation Process / Stakeholders:	SLWG with representatives from the orthopaedic Advanced Practitioner service and MSK Physiotherapy service (Nick Kinniburgh, Tracey Findlay, Cailin McBride, Donald Sinclair, Jim Logan, Brian Slattery, Tony Martin) Consultation with: Dr Mark Russell, Medical Director, South Lanarkshire HSCP/ Primary Care Dr Kirk Russell, General Practitioner NHS Lanarkshire GP Sub group Mr James Fraser-Moodie, Consultant Orthopaedic Surgeon Mr Martin Davison, Consultant Orthopaedic Surgeon Mr Stephen Grant, Consultant Orthopaedic Surgeon Mr Kumar Periasamy, Consultant Orthopaedic Surgeon and Clinical Director Mr Martin Downey, Consultant Colorectal and General Surgeon, Associate Medical Director for Access Dr Jennifer Gibson, GP & Specialty Doctor in Palliative Medicine, Cancer Lead GP and Macmillan GP Facilitator for Palliative Care, Primary Care Education Lead GP NHSL Rheumatology Service Distributed for comment to NHSL Neurology service
Distribution	Lanarkshire wide

CHANGE RECORD			
Date	**Lead Author**	**Change**	**Version No.**
			1
9/9/24	Nick Kinniburgh	Amend hyperlinks to CKS Spondyloarthritis guidance, Working Health Services Scotland, ROS fragility fracture guideline, MSK Physiotherapy guidance. Remove hyperlink to Acute Back Pain booklet while it undergoes revision.	2
			3
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2. Red flags - supplemental information and guidance

- Involvement of Primary Care in an urgent referral process to Orthopaedics/other acute specialties may still be necessary or desirable to deliver safe, patient-centred care. This may apply to some patients who are under care of MSK Physiotherapy.
- **Cauda equina syndrome**
    - Sudden-onset bilateral radicular leg pain or unilateral radicular pain progressing to bilateral pain; severe or progressive neurological deficit such as major motor weakness of knee extension, ankle eversion, or foot dorsiflexion.
    - Recent-onset difficulty initiating micturition or impaired sensation of urinary flow; urinary retention and/or overflow urinary incontinence (late signs).
    - Recent-onset loss of sensation of rectal fullness; faecal incontinence (late sign).
    - Recent-onset erectile dysfunction or sexual dysfunction.
    - Perianal or perineal sensory loss (saddle anaesthesia or paraesthesia).
    - Unexpected laxity of the anal sphincter.
- **Cancer**
    - Age 50 years or over.
    - Gradual onset of symptoms.
    - Severe unremitting lumbar pain; thoracic back pain; night spinal pain preventing sleep; spinal pain aggravated by straining (for example coughing, sneezing, or defaecation).
    - Localised spinal tenderness.
    - No symptomatic improvement after 4–6 weeks of conservative treatment.
    - Unexplained weight loss.
    - Past history of cancer (breast, lung, prostate, renal, and gastric cancer are more likely to metastasize to the spine).
- **Infection (such as discitis, vertebral osteomyelitis, spinal or epidural abscess)**
    - Fever; systemically unwell.
    - Recent infection.
    - Diabetes mellitus.
    - History of intravenous drug use.
    - HIV infection, use of immunosuppressant drugs, or other cause of immunocompromise.
- **Spinal fracture**
    - Sudden onset of severe central spinal pain which is relieved by lying down.
    - A history of major trauma (such as a road traffic collision or fall from a height), minor trauma, or even just strenuous lifting in people with osteoporosis.
    - Structural deformity of the spine (such as a step from one vertebra to an adjacent vertebra).
    - Point tenderness over a vertebral body.

(Assessment | Diagnosis | Back pain - low (without radiculopathy) | CKS | NICE)

ROS - Guidance for the management of symptomatic vertebral fragility fractures

SIGN Guideline – Management of osteoporosis and the prevention of fragility fractures

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Malignant Spinal Cord Compression (MSCC)

The true incidence of malignant spinal cord compression (MSCC) and epidural disease is unknown. Approximately 5-10% of patients with cancer develop metastatic spinal cord compression. The majority of patients diagnosed with MSCC have an established diagnosis of cancer, but for some (10-20%), MSCC is the presenting feature of malignancy. Many people with cancer are at risk of MSCC but particularly those with lung, breast, prostate cancer or multiple myeloma, which account for approximately 60% of cases of MSCC.

About 90% of patients are over 50 years of age and nearly all MSCC patients have pain, usually severe spinal nerve root pain (80%) with or without local back pain. The site of pain and the site of compression do not always correlate and X-rays and bone scans may be misleading. MSCC is usually diagnosed late, by which timely treatment may well be ineffective – once paraplegia develops it is usually irreversible. MSCC should be dealt with as an oncological emergency.

All Scottish cancer networks have developed locally agreed MSCC pathways. More information is available via the Scottish Palliative Care Guidelines website.[13]

[13] Scottish Palliative Care Guidelines https://www.palliativecareguidelines.scot.nhs.uk/guidelines/palliative-emergencies/malignant-spinal-cord-compression

Urgent suspicion of cancer referral for patients with known cancer (particularly prostate, breast, lung or multiple myeloma)

People with a history of cancer and any of the following symptoms:

- significant localised back pain, especially thoracic
- severe, progressive pain or poor response to medication
- spinal pain aggravated by straining (for example, at stool, or coughing or sneezing)
- nocturnal spinal pain, especially if preventing sleep
- radicular pain (for example, around chest, down front or back of thighs)
- limb weakness or difficulty in walking
- sensory loss (including perineal or saddle paraesthesia)
- bladder or bowel dysfunction

Good practice

- A normal neurological examination does not preclude epidural disease or evolving MSCC
- The definitive method of investigation is MRI of the whole spine
- All patients with bone metastasis, or considered by their clinician to be at high risk of developing MSCC, should be given written guidance on early symptoms with advice to contact a health care professional promptly. This information should also be sent to the GP
- Written information on early symptoms should also be given to patients following treatment for MSCC

Scottish Referral Guidelines for Suspected Cancer Malignant Spinal Cord Compression (scot.nhs.uk)

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Spondyloarthritis

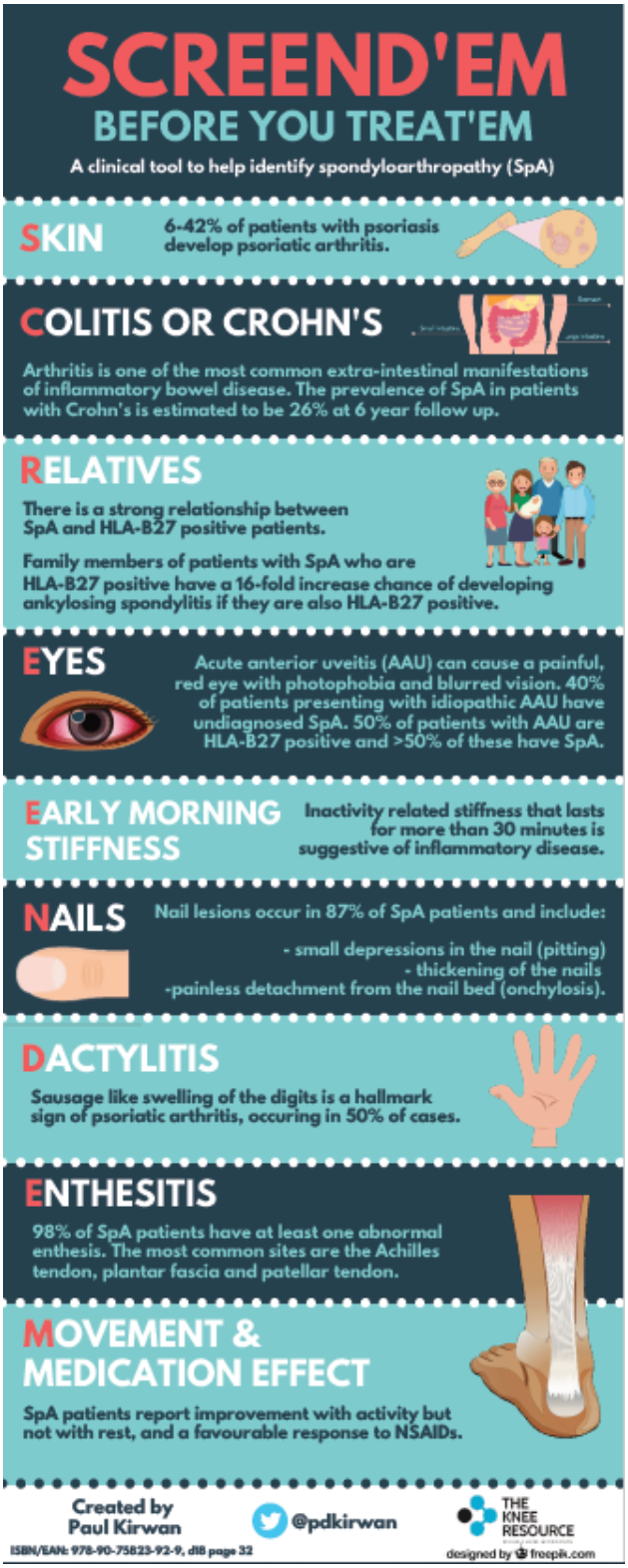
Axial spondyloarthritis can present with varied and non-specific clinical features and can be challenging to diagnose, leading to a potentially delayed or missed diagnosis. Signs and symptoms may be musculoskeletal or extra-articular in origin.

- **Suspect a diagnosis of axial spondyloarthritis if a person has low back pain and spinal stiffness starting before the age of 45 years and lasting longer than 3 months**, plus four or more of the following additional criteria:
    - Low back pain starting before the age of 35 years (increased likelihood of spondyloarthritis compared with onset before the age of 45 years).
    - Symptoms that wake the person during the second half of the night.
    - Buttock pain — variable location, may alternate with hip pain.
        - Pain and stiffness usually involve the lower spine and the buttocks, but any level of the spine can be affected.
    - Improvement with movement and exercise, not relieved by rest.
    - Improvement within 48 hours of taking a nonsteroidal anti-inflammatory drug (NSAID).
    - Family history of spondyloarthritis in a first-degree relative.
    - Current or past history of peripheral arthritis — typically asymmetrical oligoarthritis of the ankle, knee, and/or hip. See the CKS topic on Spondyloarthritis and psoriatic arthropathy for more information.
    - Current or past history of peripheral enthesitis — especially if persistent and/or in multiple sites; may present with pain, stiffness, and/or swelling at the Achilles tendon and plantar fascia insertions and patellar and quadriceps tendon insertions, for example. See the CKS topics on Plantar fasciitis and Spondyloarthritis and psoriatic arthropathy for more information.
    - Current or past history of psoriasis (including nail changes). See the CKS topic on Psoriasis for more information.
- **Consider a diagnosis of spondyloarthritis if a person presents with other extra-musculoskeletal or peripheral features,** such as:
    - Acute anterior uveitis. See the CKS topic on Uveitis for more information.
    - Psoriasis. See the CKS topics on Psoriasis and Spondyloarthritis and psoriatic arthropathy for more information.
    - Inflammatory bowel disease. See the CKS topics on Crohn's disease and Ulcerative colitis for more information.
    - Recent gastrointestinal or genitourinary infection — may present with reactive arthritis.
    - Dactylitis — rare; may present with painful, diffuse swelling of a whole finger or toe due to a combination of synovitis, tenosynovitis, and enthesitis. See the CKS topic on Spondyloarthritis and psoriatic arthropathy for more information.
- **Do not rule out a diagnosis of axial spondyloarthritis on the basis of the presence or absence of an individual symptom or sign.**

(Ankylosing spondylitis | Health topics A to Z | CKS | NICE) Return to pathway

Spondyloarthritis (contd

- SCREEND-EM acronym – a clinical tool to help identify spondyloarthropathy



Screend'em (thekneeresource.com)

Created by Paul Kirwan.

ISBN/EAN: 978-90-75823-92-9, d18 page 32

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3. Guidance for offering reassurance and first-line management

- **Offer reassurance and advice on self-management strategies**.
    - Reassure that acute non-specific low back pain is unlikely to have a serious structural cause, and most people recover within weeks.
    - Encourage the person to keep active, resume normal activities, and return to work/study as soon as possible.
        - Discourage prolonged bed rest. Reassure that normal back movements may produce some pain, but this is not harmful if activities are resumed gradually. Advise there is no need to be pain-free before resuming normal activities.
    - Consider the short-term application of local heat (such as a heat pack).
    - Advise to keep as active as possible and exercise regularly to reduce the risk of recurrent episodes.

- **Advise on drug treatment options for symptom relief, if needed.**
    - Do *not* recommend the use of paracetamol alone for the management of low back pain.
    - Advise to use an over-the-counter nonsteroidal anti-inflammatory drug (NSAID) such as ibuprofen first-line, if there are no contraindications, at the lowest effective dose for the shortest possible time.
        - Consider the use of gastroprotective treatment if clinically indicated. See the CKS topic on NSAIDs - prescribing issues for more information.
    - If an NSAID is contraindicated, not tolerated, or ineffective, consider the short-term use of codeine with or without paracetamol.
        - Take into account the risk of opioid dependence, contraindications, and adverse effects. See the CKS topic on Analgesia - mild-to-moderate pain for more information.
        - Do *not* recommend the use of benzodiazepines for the management of muscle spasm associated with acute low back pain.
        - Do *not* recommend opioids for the management of chronic low back pain.
        - Do *not* recommend gabapentinoids, antiepileptic drugs, or antidepressants for the management of low back pain.

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Guidance for offering reassurance and first-line management (contd)

- **Offer advice on exercise programmes, manual therapy, and/or psychological support,** if a person has risk factors for a prolonged or complicated recovery following risk stratification.
    - Offer referral to a group exercise programme (biomechanical, aerobic, mind-body or a combination of approaches). Take the person's specific needs, preferences, and capabilities into account when choosing the type of exercise.
    - Consider offering referral or self-referral to physiotherapy for manual therapy (spinal manipulation, mobilisation, or massage) as part of a treatment package including exercise.
    - Consider offering referral or self-referral for cognitive behavioural therapy (CBT) as part of a treatment package including exercise, with or without manual therapy, if the person has significant psychosocial barriers to recovery, or other treatments are ineffective.

- **Advise requesting an occupational health assessment,** if appropriate, to consider work adjustments to facilitate a return to work.
- **Back pain alone - Advise the person to arrange review if symptoms persist or are worsening after 3–4 weeks, depending on clinical judgement.** See the section on Follow-up and referral for more information.
- **Back pain/sciatica -** Seek follow up if symptoms are worsening, persist for over 2 weeks, severe pain has not subsided within 1 week, if new symptoms develop, or if symptoms recur.
- Advise the person to seek urgent medical review if there are red flag symptoms or signs suggesting a potentially serious underlying cause.

(Scenario: Management | Management | Back pain - low (without radiculopathy) | CKS | NICE)

Scenario: Management | Management | Sciatica (lumbar radiculopathy) | CKS | NICE

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4. MSK Physiotherapy and Orthopaedic Collaboration

Weekly virtual clinics

- MS Teams case review with Orthopaedic Advanced Practitioner and MSK Physiotherapy.
- **All** welcome for CPD opportunity.
- Outputs include:
    - Imaging request (skeletal x-ray, musculoskeletal MRI/CT/US) when clinically indicated
    - Neurosurgical referral
    - Pain services referral
    - Further recommendations for MSK led rehab approach
    - Request for additional primary care input/discussion
    - Referral to other acute specialty e.g. neurology or rheumatology
    - Orthopaedic outpatient review with Advanced Practitioner or Orthopaedic Surgeon.

Collaborative vetting, Active Clinical Referral Triage (ACRT)

- MSK Physiotherapy and Orthopaedic services manage referrals collaboratively to help deliver the right care, in the right place. **The majority of orthopaedic referrals relating to back pain +/- leg pain that are submitted to orthopaedics will be onward referred to MSK physiotherapy in accordance with the pathway and accepted best practice/patient-centred care.** Patients can then be escalated as previously described.
- Adherence to, and promotion of, the low back pain pathway is appreciated, ensures that patients receive the most appropriate care, and reduces the risk of wasted clinical resource and time.

Communication and clinical responsibilities regarding urgent outpatient referral

- Involvement of Primary Care in an urgent referral process to Orthopaedics/other acute specialties may still be necessary to deliver safe, patient-centred care. This may apply to some patients who are under care of MSK Physiotherapy.

5. Self-referral limitations

Please note that some patients may **not** be able to self-refer due to the structure of the self-referral platform, which is designed to maintain patient safety, but cannot perform complex triage/decision making. In these cases **SCI gateway referral from Primary Care with adequate clinical information may be required**, and is appreciated. Incomplete referral/clinical information may adversely affect the triage process, and how a patient's care is managed.

6. Clinical Guidance

How should I assess a person with low back pain?
How should I assess a person with suspected sciatica?
What are the causes of sciatica?
Guidance for the Management of Symptomatic Vertebral Fragility Fractures
International framework for red-flags for potential serious spinal pathologies
The MSK Physiotherapy and Trauma & Orthopaedic services are keen to support clinical skills and competence in the provision of MSK condition assessment and care. Enquiries welcome.

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7. Safety-netting (CES)

English & foreign language Cauda Equina Syndrome safety cards

8. Additional Resources

NHS Lanarkshire Weight-Management Service
Consider risk stratification (1 minute survey)
North Lan Active Health Referral
NHSL Smoking Cessation
Physical activity recommendation graphic
NHS Lanarkshire Mental wellbeing
South Lan Physical Activity Prescription
Working Health Services Scotland

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