

NHS WEST YORKSHIRE INTEGRATED CARE BOARD					
Policy	Treatments for Spine, Ischaemic and Neuropathic pain			WY ICB Ref	Clinical Policy Team
First Issue Date	March 2019	Current version:	5 November 2024	Last reviewed:	January 2024
Review date	January 2027 (or as NICE guidance changes)	Contact	West Yorkshire Integrated Care Board wycb-wak.clinicalpolicy@nhs.net		
Clinical Reviewer	West Yorkshire Association of Acute Trusts (WYAAT) Clinicians	Approved by	West Yorkshire Integrated Care Board (WY ICB) Transformation Committee		
Policy exclusions					
<ul style="list-style-type: none"> • Children aged 16 years or under • Red Flags • Non degenerative spinal conditions (e.g. scoliosis) 					
Policy inclusion criteria					
<u>Exercise</u>					
Status - services not routinely commission					
<p>NHS West Yorkshire ICB (WY ICB) do not routinely commission group exercise programmes (biomechanical, aerobic, mind–body or a combination of approaches) for people with a specific episode or flare-up of low back pain with or without sciatica. We do however encourage and signpost exercise programmes of this nature.</p>					
<u>Manual therapy treatment package</u>					
Status - routinely commission					
<p>WY ICB routinely commission manual therapy (manipulation, mobilisation or soft tissue techniques (for example, massage)) for managing low back pain with or without sciatica, but only as part of a treatment package including exercise, with or without psychological therapy.</p>					
<u>Psychological Therapies Package</u>					
Status - commissioned in specific circumstances					
<p>WY ICB routinely commission psychological therapies using a cognitive behavioural approach for managing low back pain with or without sciatica but only as part of a treatment package including exercise, with or without manual therapy (spinal manipulation, mobilisation or soft tissue techniques such as massage).</p>					

Combined Physical and Psychological Programmes

Status - commissioned in specific circumstances

WY ICB routinely commission combined physical and psychological programmes, incorporating a cognitive behavioural approach (preferably in a group context that takes into account a person's specific needs and capabilities), for people with persistent low back pain or sciatica:

- when they have significant psychosocial obstacles to recovery (for example, avoiding normal activities based on inappropriate beliefs about their condition); or
- when previous treatments have not been effective.

Radiofrequency denervation

Status - commissioned in specific circumstances

WY ICB routinely commission assessment for radiofrequency denervation for people with chronic low back pain when:

- non-surgical treatment has not worked for them; and
- the main source of pain is thought to come from structures supplied by the medial branch nerve; and
- they have moderate or severe levels of localised back pain (rated as 5 or more on a visual analogue scale, or equivalent) at the time of referral.

Only perform radiofrequency denervation in people with chronic low back pain after a positive response to a diagnostic medial branch block. Imaging for people with low back pain with specific facet joint pain must **not** be treated as a prerequisite for radiofrequency denervation.

Additional Specific Treatments for Sciatica

Status - commissioned in specific circumstances

Neuropathic Pain For information on pharmacological management of sciatica, see NICE recommendations on neuropathic pain.

Epidurals WY ICB routinely commission epidural injections of local anaesthetic and steroid in people with acute and severe sciatica.

WY ICB does **not** routinely commission epidural injections for neurogenic claudication in people who have central spinal canal stenosis.

Spinal Decompression Surgery WY ICB routinely commission spinal decompression for people with sciatica when non-surgical treatment has not improved pain or function and their radiological findings are consistent with sciatic symptoms.

Additional Surgical Procedures

Status - commissioned in specific circumstances

Disc Replacement - WY ICB does not routinely commission disc replacement in people with low back pain.

Spinal Fusion

Status - not routinely commissioned

Spinal fusion - WY ICB does not routinely commission spinal fusion for people with low back pain unless as part of a randomised controlled trial.

Spinal cord stimulation for chronic pain of neuropathic or ischaemic origin

The following recommendations are from NICE technology appraisal guidance on spinal cord stimulation for chronic pain of neuropathic or ischaemic origin. WY ICB routinely commission spinal cord stimulation as a treatment option for adults with chronic pain of neuropathic origin who:

- continue to experience chronic pain (measuring at least 50 mm on a 0–100 mm visual analogue scale) for at least 6 months despite appropriate conventional medical management; and
- who have had a successful trial of stimulation as part of the assessment specified below.

WY ICB does not routinely commission spinal cord stimulation as a treatment option for adults with chronic pain of ischaemic origin.

Spinal cord stimulation should be provided only after an assessment by a multidisciplinary team experienced in chronic pain assessment and management of people with spinal cord stimulation devices, including experience in the provision of ongoing monitoring and support of the person assessed.

When assessing the severity of pain and the trial of stimulation, the multidisciplinary team should be aware of the need to ensure equality of access to treatment with spinal cord stimulation. Tests to assess pain and response to spinal cord stimulation should take into account a person's disabilities (such as physical or sensory disabilities), or linguistic or other communication difficulties, and may need to be adapted.

If different spinal cord stimulation systems are considered to be equally suitable for a person, the least costly should be used. Assessment of cost should take into account acquisition costs, the anticipated longevity of the system, the stimulation requirements of the person with chronic pain and the support package offered.

People who are currently using spinal cord stimulation for the treatment of chronic pain of ischaemic origin should have the option to continue treatment until they and their clinicians consider it appropriate to stop.

Other Interventional procedures guidance

WY ICB commissions the following procedures where providers are compliant with the arrangements and indications as set out in the NICE guidance, described in the links below:

- Percutaneous coblation of the intervertebral disc for low back pain and sciatica ([IPG543](#))
- Non-rigid stabilisation techniques for the treatment of low back pain ([IPG366](#))
- Interspinous distraction procedures for lumbar spinal stenosis causing neurogenic claudication ([IPG365](#))
- Percutaneous intradiscal laser ablation in the lumbar spine ([IPG357](#))

- Percutaneous intradiscal radiofrequency treatment of the intervertebral disc nucleus for low back pain ([IPG545](#))
- Percutaneous electrothermal treatment of the intervertebral disc annulus for low back pain and sciatica ([IPG544](#))
- Insertion of an annular disc implant at lumbar discectomy ([IPG506](#))
- Peripheral nerve-field stimulation for chronic low back pain ([IPG451](#))
- Automated percutaneous mechanical lumbar discectomy ([IPG141](#))
- Lateral interbody fusion in the lumbar spine for low back pain ([IPG574](#))
- Transaxial interbody lumbosacral fusion ([IPG620](#))
- Prosthetic intervertebral disc replacement in the lumbar spine ([IPG306](#))

NICE has published guidance that [epiduroscopic lumbar discectomy through the sacral hiatus for sciatica \(IPG570\)](#) should **only** be used in the context of research. This procedure is therefore not routinely commissioned by WY ICB.

Acupuncture and Electrotherapy

Status - not routinely commissioned

Acupuncture - WY ICB does not routinely commission acupuncture for managing low back pain with or without sciatica.

Electrotherapy - WY ICB does not routinely commission ultrasound, PENS, TENS or interferential therapy for managing low back pain with or without sciatica.

Traction, orthotics, belts and corsets

Status - not routinely commissioned

Traction – WY ICB does not routinely commission traction for managing low back pain with or without sciatica.

Belts or corsets - WY ICB does not routinely commission belts or corsets for managing low back pain with or without sciatica.

Foot Orthotics – WY ICB does not routinely commission foot orthotics for managing low back pain with or without sciatica.

Rocker sole shoes - WY ICB does not routinely commission rocker sole shoes for managing low back pain with or without sciatica.

Spinal Injections and Disc Replacement

Status - not routinely commissioned

Spinal injections – Nerve root block/epidural can be considered in the management of back and radicular pain in line with national GIRFT guidance

<https://gettingitrightfirsttime.co.uk/wp-content/uploads/2023/01/Lumbar-Nerve-Root-Block-Epidural-pathway.drawio-1.html>

Summary of evidence / Rationale

This policy is in line with [NICE guideline NG59](#) which covers assessing and managing low back pain and sciatica in people aged 16 and over.

	<p>It outlines physical, psychological, pharmacological and surgical treatments to help people manage their low back pain and sciatica in their daily life. The guideline aims to improve people’s quality of life by promoting the most effective forms of care for low back pain and sciatica.</p> <p>The policy is also compliant with the National Low Back and Radicular Pain pathway 2017 and 2023 national GIRFT pathways and guidance: https://gettingitrightfirsttime.co.uk/wp-content/uploads/2023/01/Lumbar-Nerve-Root-Block-Epidural-pathway.drawio-1.html</p>
Reference	<p>NICE Guidance:</p> <ul style="list-style-type: none"> • Low back pain and sciatica in over 16s: assessment and management: NG59 • Percutaneous coblation of the intervertebral disc for low back pain and sciatica (IPG543) • Non-rigid stabilisation techniques for the treatment of low back pain (IPG366) • Interspinous distraction procedures for lumbar spinal stenosis causing neurogenic claudication (IPG365) • Percutaneous intradiscal laser ablation in the lumbar spine (IPG357) • Percutaneous intradiscal radiofrequency treatment of the intervertebral disc nucleus for low back pain (IPG545) • Percutaneous electrothermal treatment of the intervertebral disc annulus for low back pain and sciatica (IPG544) • Insertion of an annular disc implant at lumbar discectomy (IPG506) • Peripheral nerve-field stimulation for chronic low back pain (IPG451) • Automated percutaneous mechanical lumbar discectomy (IPG141) • Lateral interbody fusion in the lumbar spine for low back pain (IPG574) • Transaxial interbody lumbosacral fusion (IPG620) • Prosthetic intervertebral disc replacement in the lumbar spine (IPG306) <p>National GIRFT pathway</p> <ul style="list-style-type: none"> • Back and Radicular Pain: Lumbar Nerve Root Block/Epidural <p>National Low Back and Radicular Pain pathway 2017</p>

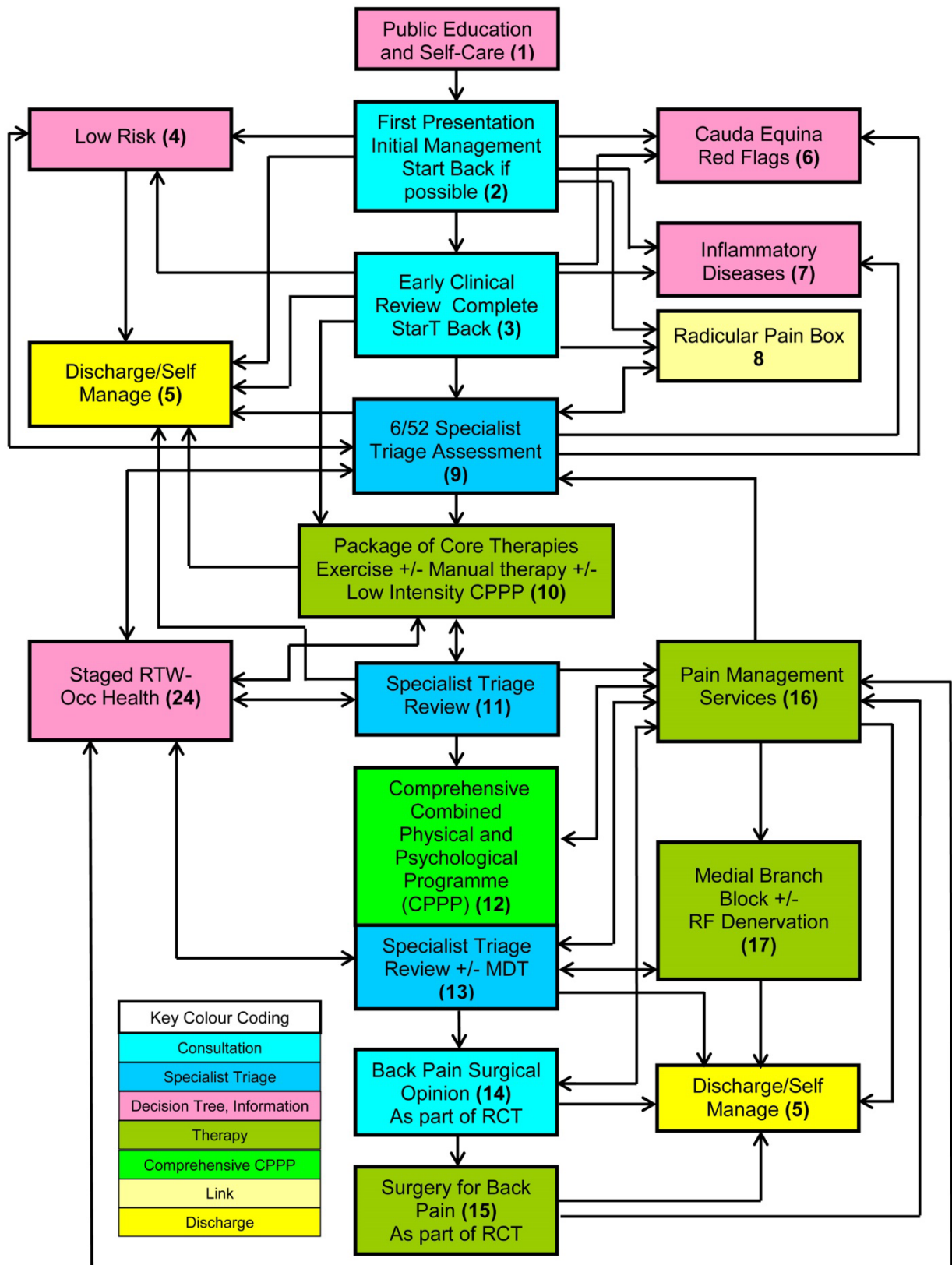
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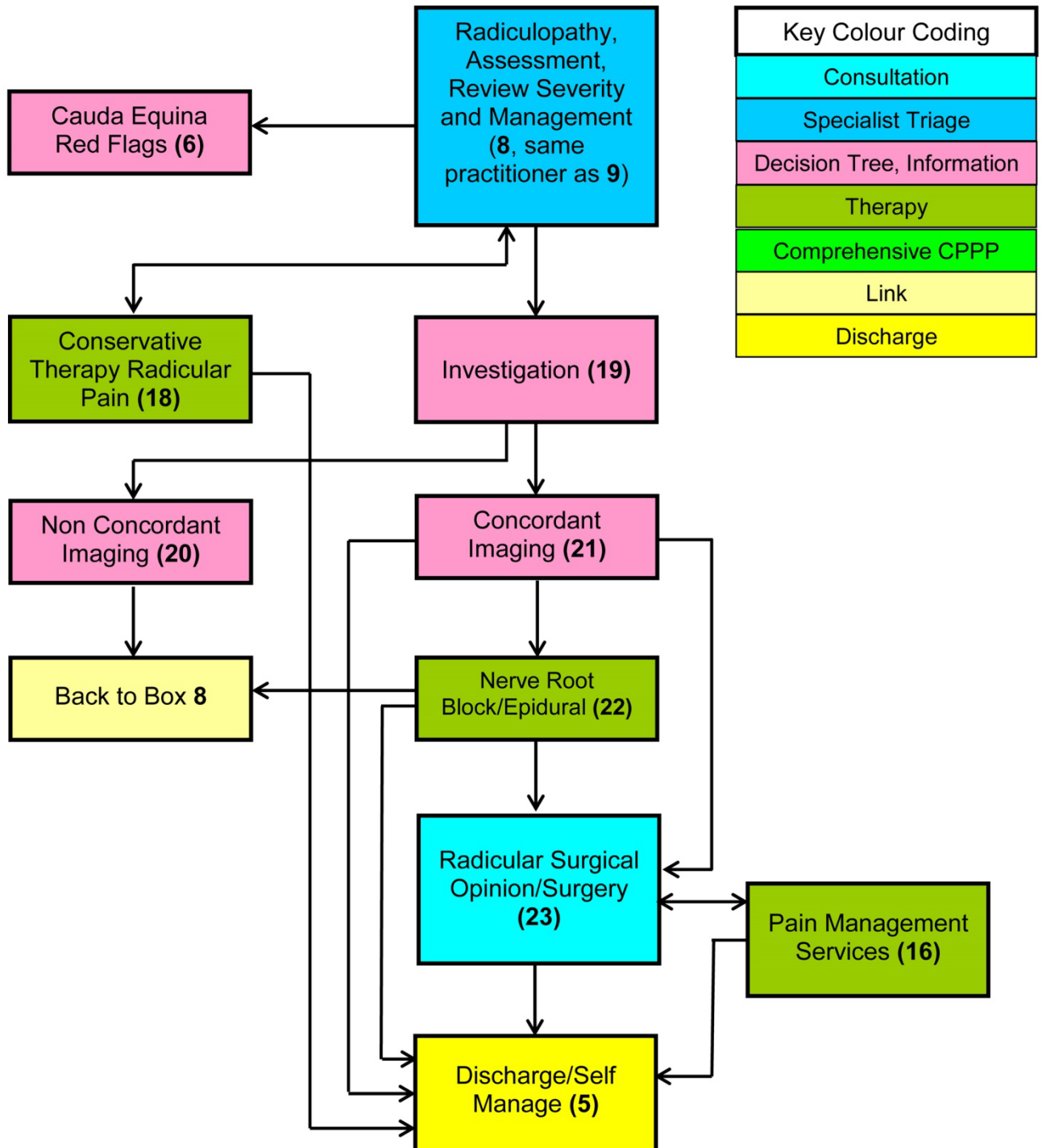
Appendix 1

Back pain pathway flowchart (from the [National Low Back and Radicular Pain Pathway 2017](#))



Appendix 2

Radicular pain pathway flowchart (from the [National Low Back and Radicular Pain Pathway 2017](#))



Appendix 3 – Red Flags

Spinal Pathway – Red Flag Signs / Cauda Equina and consequent investigations

1. Spinal Red Flags

Patient with moderate / severe back pain plus:

- Previous cancer, especially breast, lung, prostate, kidney, and thyroid:
 - investigations – MRI, Bloods FBC, ESR, Bone Profile, PSA etc.
- Systemic symptoms, weight loss, underlying malignancy:
 - investigations – MRI, Bloods FBC, ESR, Bone Profile, PSA etc.
- Patients who have lost height / use of long-term steroids Osteoporotic vertebral collapse, other vertebral collapse:
 - investigations – X-ray, consider MRI (+DEXA), consider Myeloma Screen
- Possible infection Discitis, Tuberculosis, IV Drug users:
 - investigations – consider MRI, Bloods FBC, ESR, CRP
- Widespread neurological signs, Myelopathy, Cauda Equina:
 - investigations – Urgent MRI
- Trauma – low velocity - fracture / osteoporotic collapse / other vertebral collapse:
 - investigations – X-ray, consider MRI
- Severe back pain under the age of 20 should raise suspicions especially if non sport or injury related. Underlying malignancy, investigate early:
 - investigations – FBC, ESR, Bone Profile, MRI
- Thoracic pain if severe – underlying malignancy, osteoporotic vertebral collapse:
 - look for pointers from the history, e.g. steroid use, night pain, severe spinal tenderness take a good history of previous medical problems
 - investigations – MRI, FBC, ESR, Bone Profile, PSA

2. Suspected Serious Pathology, including Cauda Equina

GP information

Cauda Equina is a rare condition but can cause very serious harm. Where Cauda Equina is suspected:

Refer Immediately to ED at Local DGH for same day MRI. Updated GIRFT Guidance at Appendix 4 states that the MRI must be carried out within 4 hours of the request.

Where MRI confirms Cauda Equina immediately to On-call Neurosurgery @LGI

- Incidence ~ 1:50,000
- Severe back pain (but not always)
- Pain in one leg (unilateral) or both legs (bilateral) that starts in the buttocks and travels down the back of the thighs and legs (sciatica)
- Numbness in the groin or area of contact if sitting on a saddle (perineal or saddle paraesthesia)
- Lower extremity muscle weakness and loss of sensations
- Reduced or absent lower extremity reflexes
- Inability to urinate (urinary retention)
- Difficulty initiating urination (urinary hesitancy)
- Decreased sensation when urinating (decreased urethral sensation)
- Inability to stop or control urination (urinary incontinence) Inability to stop or feel a bowel movement (faecal incontinence)
- Constipation – note on its own this is not a red flag (remember analgesia codeine opiates)
- Loss of anal tone and sensation always do a PR

History + Examination Hints and Tips Low back pain +/- sciatica

Age:

- < 20 Severe malignancy / rheumatological
- < 20 Extension related + Sport Spondylolysis
- 20-55 More mechanical disc / soft tissue
- > 55 Spinal Stenosis, Facet Joint, Hip Joint Arthritis, disc

Causes:

- Any number lifting pulling bending -> More mechanical disc / soft tissue
- Sometimes no cause
- Postural / ergonomic / obesity / lack of activity
- If associated with > 45 min am stiff > 3 months < 40 yrs at first onset possibly rheumatologic

Duration:

- How long have you had the problem? Days, Months, Years
- Is this first time?
- Several episodes of pain before -> Disc / Mechanical

Pain location:

- Below gluteal fold Nerve root compression / lower limb problem
- Buttock + Groin referred to the knee = possible hip joint
- Above the L5 spinous process Not SIJ

Pain:

- Improving / staying same? -> Wait before investigate
- Worsening? Investigate early

What makes pain better or worse?

- Worse sitting -> Disc
- Worse Standing -> Disc / Spinal Stenosis
- Worse Walking -> Disc prolapse / spinal stenosis / Hip joint
- Easier sitting -> Spinal Stenosis
- Easier walking -> Mechanical >>> Rheumatological

How far can you walk?

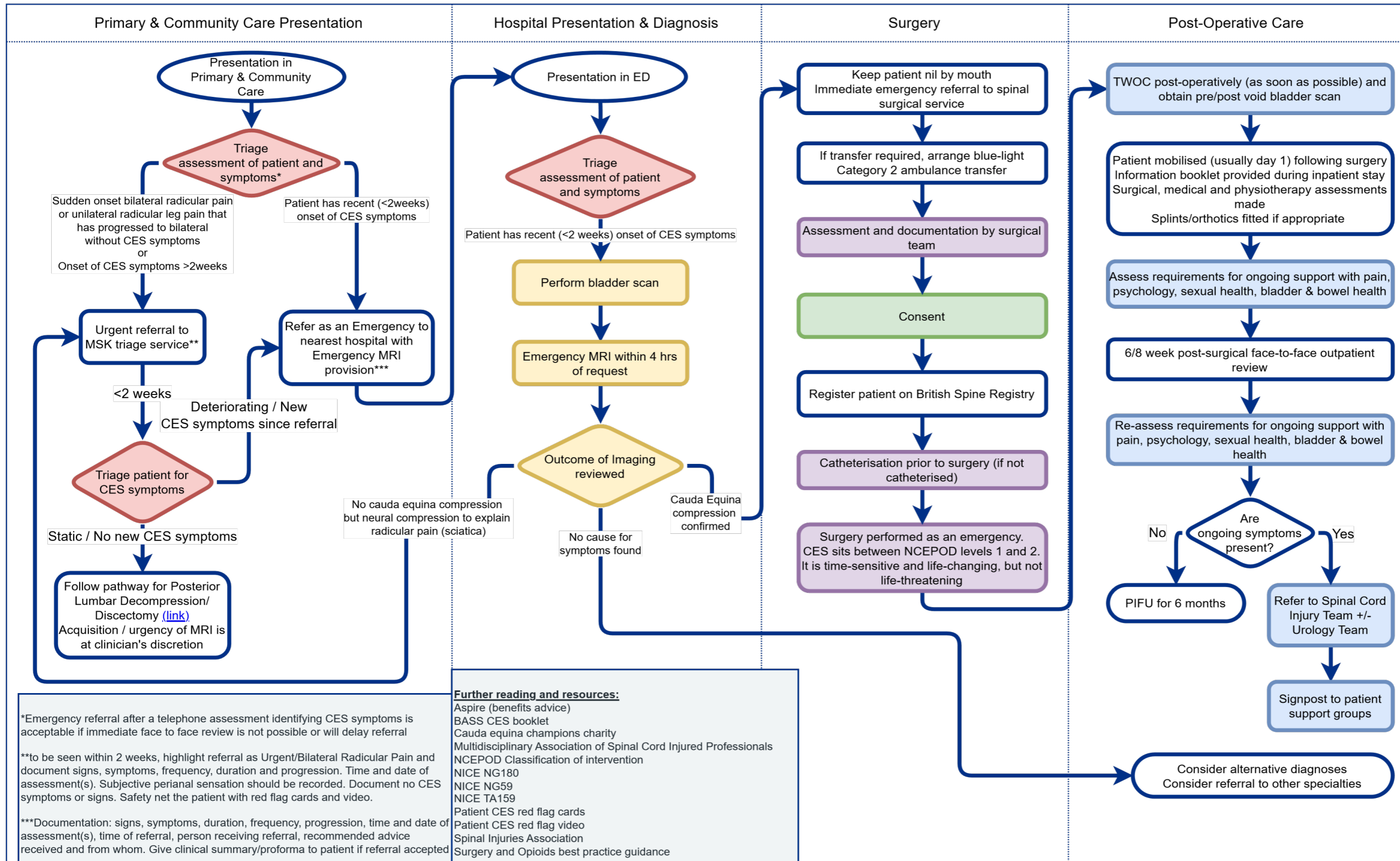
- Has walking distance deteriorated quickly -> Severe Stenosis / Large Disc -> Investigate early

Neurological symptoms:

- Mild Sciatica to knee: Wait before Investigating
- Moderate Pain Dermatomal
- Severe dermatomal pain: Investigate early
- Very Severe Sciatica and bowel / urinary sx: Investigate / Refer Immediately

Suspected Cauda Equina Syndrome Pathway

Spinal Services





Triage

CES does not have a set clinical pattern, no single red flag or combination of flags has good diagnostic accuracy. Negative physical tests do not rule out CES if positive subjective symptoms are present.

If patient presents back or leg pain and recent onset (**within 2 weeks**) of **ANY** of the following, further information should be gained:

New (within 2 weeks) difficulty initiating micturition or impaired sensation of urinary flow

New (within 2 weeks) altered perianal, perineal or genital sensation S2-S5 dermatomes - area may be small or as big as a horses' saddle (subjectively reports or objectively tested)

Severe or progressive neurological deficit of both legs, such as major motor weakness with knee extension, ankle eversion, or foot dorsiflexion

New (within 2 weeks) loss of sensation of rectal fullness

New (within 2 weeks) sexual dysfunction (achievement of erection or ability to ejaculate, loss of vaginal sensation)

Note - Low back pain with sexual dysfunction as the only other feature is unlikely to be due to CES

Warning Signs

Sudden onset Bilateral Radicular Leg Pain or unilateral radicular leg pain that has progressed to bilateral leg pain (sciatica) may be a warning symptom that CES may occur.

Sudden Onset Bilateral Radicular Leg Pain (sciatica) or unilateral radicular leg pain that has progressed to bilateral WITHOUT CES symptoms requires urgent referral (2 week wait) to MSK triage service . Please highlight referral as Urgent/Bilateral Radicular Pain and document no CES symptoms/signs. Safety net the patient with access to the video and card.

Please send clear details of assessment of patient and examination findings. Please document symptoms and a physical examination of power and sensation in the lower limbs. A digital rectal examination is not necessary but subjective perianal sensation should be recorded.

Safety Netting - [video](#) and [card](#)

Consent

Consider the following consent process:

1. British Association of Spinal Surgeons (BASS) Three-legged Stool Model for Consent
2. [Royal College of Surgeon's Consent: Supported Decision-Making checklist](#)
3. [Learning from Litigation Claims](#)

Three-Legged Stool Model for Consent

1. Information Booklets written and illustrated at a level a reasonable patient can comprehend, with a reading age of usually no more than 10 years. In addition, GIRFT recommends where possible some evidence that the patient has read and understood the information be collected by the surgeon.
2. Patient-centred dialogue including the risks of the proposed treatment, about which a reasonable patient in this patient's position, would need and want to know. This dialogue must be documented and recorded in the hospital records and ideally a copy in letter form sent to the patient and General Practitioner. GIRFT would recommend that the dialogue should also include the full list of information which should be provided by the surgeon which incorporates the recommendations of the Royal College of Surgeons.
3. Procedure specific and surgeon-guided consent form, along with the NHS or individual hospital form and to gain consent for use of surgical outcome data where appropriate. This should enable the patient to be aware of factors related to a specific procedure or specific surgical technique for a procedure.

Bass info
booklet

Consent
form

Diagnos^tics

Bladder Scan

A bladder scan is a useful adjunct in the assessment of a patient with suspected CES. Bladder scans should NOT be used in isolation or as a discriminator in deciding to request an MRI or undertake emergency surgery. 60% of patients that underwent emergency decompressive surgery for CES had a PVR of <200ml (Woodfield et al, 2023).

If a patient is **unable** to void then undertake a bladder scan and if > 600ml, catheterise the patient and document if sensate and perform a catheter tug.

If a patient is **able** to void, carefully document the following:-

Pre void volume

Post Void Residual volume (PVR)

If PVR >200ml in a patient with suspected CES then CES is 20 times more likely.

If PVR>600ml catheterise and document if sensate and catheter tug. This avoids damage to the bladder (blown bladder)

Imaging

MRI Imaging is a critical diagnostic investigation in the management of patients with suspected CES, an emergency MRI for suspected CES should be undertaken within 4 hours of referral at the hospital where the patient presented. The following should be noted:

- standard sequences should be acquired;
- discussion with the on-call spinal surgical service is not required prior to the MRI and may lead to unwarranted delay;
- keep the patient to clear fluids only if requesting an emergency scan in case emergency surgery is required;
- an emergency MRI scan must take precedent over any routine or elective MRI cases;
- request for an MRI should be discussed in ED with a senior decision maker (SD4 or above/Consultant) before referral;
- if there is an absolute contradiction to MRI scanning, a CT scan or CT Myelogram may provide satisfactory imaging;
- if an Emergency MRI scan is to be undertaken between **12:00am and 07:00am**, the regional on-call spinal surgical team should be contacted to confirm the scan should still go ahead. If MRI is delayed between these hours, the first slot on the scanner should be utilised;
- on-Call Surgical Teams are happy to review out-of-hours MRI scans before a radiologist report;
- Webpacs Links should be available to the surgical team to access imaging at different geographical sites within their network (Image Exchange Portals can cause delay).

Woodfield et al (2023) 'Presentation, management, and outcomes of cauda equina syndrome up to one year after surgery, using clinician and participant reporting: a multi-centre prospective cohort study', *The Lancet*, 24 (100545). DOI: <https://doi.org/10.1016/j.lanepe.2022.100545>

**MRI safety checks,
protocols, reporting and
provision**

MRI safety checks, protocols, reporting and provision

MRI Safety Checks	MRI Protocol	Reporting	Service provision and development
<p>Patient should arrive in the MRI department with all necessary information to allow a final MR safety check to take place</p> <p>The MRI department should be informed about all previous surgeries, implants and metallic foreign bodies that the patient has at the earliest opportunity so that the safety of these can be established:</p> <div data-bbox="160 747 332 844" style="border: 1px solid orange; padding: 2px; width: fit-content;"> <p>MHRA Implant safety guidance</p> </div> <p>MRI department should have a procedure in place to establish patient safety when the patient is unable to complete their own safety questionnaire</p> <p>Where a patient has a contraindication to MRI (e.g., an MR unsafe implant) the hospital should have a local policy for managing these patients without an MRI scan. CT might be a contingency imaging strategy</p> <p>A local policy should also be in place to cover scanning of pregnant patients. Further guidance on scanning pregnant patients is available in the MHRA guidelines.</p>	<p>A sagittal T2 weighted sequence is the single MRI sequence needed to screen for and demonstrate cauda equina compression. The 24/7 Cauda Equina Syndrome MRI screening protocol should prioritise this sequence. This is typically a 2D turbo spin echo sequence. There is indication in the literature that a limited emergency MRI protocol is effective for safely excluding compressive CES. Further imaging within the scan session should not be required for screening purposes.</p> <p>If CE compression identified: acquire additional images, axial T2 weighted and sagittal T1 weighted sequences If no CE compression identified: perform a single T2 sagittal sequence covering the cervical and thoracic spine</p> <p>MRI units should have: Shorter sequences CES MRI protocol for patients unable to lie still for a standard scan Low Specific Absorption Rate (SAR) protocol set up to reduce SAR levels for those patients with MR Conditional implants and a Metal Artefact reduction protocol (MAR) set up to reduce the artefact from any metal within the imaged area</p>	<p>To avoid delay On-call surgical teams are happy to review out of hours MRI scans without a radiologist report.</p> <p>Webpacs Links should be available to the surgical team to access imaging at different geographical sites within their network (Image exchange portals can cause delay).</p> <p>The reporting of these examinations needs to be clearly defined in the SOP, either using on call local radiologists or reporting radiographer of an appropriate competence to sign off the examination or where no local service is provided, clear local protocols with outsourcing reporting companies need to be established. This will allow a rapid 24/7 production of the report, which should be made available to the referring clinical within 1 hour.</p> <div data-bbox="1181 974 1665 1549" style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p style="text-align: center;">Suspected Cauda Equina Syndrome</p> <pre> graph TD A[Suspected Cauda Equina Syndrome] --> B[Sagittal T2 of Lumbar spine] A --> C[If contraindicated, consider CT or CT myelogram if available] B --> D[+ve] B --> E[-ve] D --> F[Axial images at appropriate level] E --> G[Carry out screening sagittal cervical and thoracic spine] G --> H[+ve] G --> I[-ve] H --> J[Axial images at appropriate level] I --> K[Clinical Review] </pre> </div>	<p>A gap analysis should be undertaken which includes a plan to progress from whichever level of service the department is providing currently to the provision of a 24/7 service</p> <p>In the first instance there should be protected daily slots to scan patients with suspected cauda equina syndrome, or other emergency scans.</p> <div data-bbox="1804 722 2297 1444" style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p style="text-align: center; background-color: #fff9c4; border: 1px solid black; padding: 5px;">Gold Standard - MRI 24/7 service, 365 days/year</p> <p style="text-align: center; border: 1px solid black; padding: 5px;">Service maximised via clinical hours 7 days a week 0800-2000 with increased ability to accommodate emergency patients</p> <p style="text-align: center; border: 1px solid black; padding: 5px;">Increased weekend hours shift or on-call (0800 - 2000) with increased ability to accommodate emergency patients in next slot</p> <p style="text-align: center; border: 1px solid black; padding: 5px;">Provision of and Protected Emergency slot/s during weekend lists/on-call radiographer Sat/Sun 9-5pm</p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; width: 45%;"> <p style="text-align: center;">Evening list/on-call radiographer - ability to see an emergency patient 5-8pm Monday to Friday</p> </div> <div style="border: 1px solid black; padding: 5px; width: 45%;"> <p style="text-align: center;">Early morning slot/on-call radiographer - ability to see an emergency patient <8.30am Monday to Friday</p> </div> </div> <p style="text-align: center; border: 1px solid black; padding: 5px;">9-5pm service Monday to Friday No formal emergency provision</p> </div>

Surgical assessment, documentation, timing & technique

Assessment & Documentation by Surgical team	Surgical timing	Surgical technique	Post-operative management
<p>It is imperative that a time-stamped, documented review of history and examination is made by the surgical team prior to surgery.</p> <p>Consent patient for surgery (the BASS information booklet on CES and consent form are helpful).</p> <p>Register patient on British Spine Registry</p> <div data-bbox="189 1108 557 1213" style="border: 1px solid green; border-radius: 10px; padding: 5px; text-align: center; margin: 10px 0;">Consent</div> <div data-bbox="189 1289 557 1394" style="border: 1px solid green; border-radius: 10px; padding: 5px; text-align: center; margin: 10px 0;">BASS info booklet</div> <div data-bbox="189 1451 557 1556" style="border: 1px solid green; border-radius: 10px; padding: 5px; text-align: center; margin: 10px 0;">Consent form</div>	<p>Surgery for patients with MRI-proven Cauda Equina Syndrome incomplete symptoms (CESI) should be undertaken as quickly as possible as an NCEPOD E1/E2 emergency. It is time-sensitive and life-changing but not life-threatening. Any reason for delay should be documented.</p> <p>Timing of surgery for patients who present with painless urinary retention and overflow incontinence is at the discretion of the operating surgeon. Surgery should still in this instance be undertaken within 24 hours of MRI imaging.</p> <p>Whilst it is accepted that patients with painless urinary retention and overflow incontinence have a poorer prognosis around 70% of these patients will benefit from decompression.</p>	<p>Patients should be catheterised before the start of surgery avoiding distention of the bladder which can cause damage.</p> <p>Total laminectomy / Hemilaminectomy & Laminotomy techniques are all acceptable.</p> <p>Complication rates in CES decompressive surgery are 6 times higher than non-CES decompressive surgery. Therefore, surgeons in training undertaking this surgery should have appropriate levels of supervision related to their level of training and competency.</p> <p>Surgery undertaken where anaesthesia would start between the hours of midnight and 07:30 must have consultant on-call sanction.</p>	<div data-bbox="2077 604 2445 709" style="border: 1px solid blue; border-radius: 10px; padding: 10px; text-align: center; margin: 20px auto; width: 80%;"> Post-operative care </div>

Management of ongoing symptoms

All patients undergoing surgical intervention for cauda equina syndrome that have ongoing symptoms post-operatively should be referred to the regional spinal cord injury unit through the The National Spinal Cord Injury Database <https://www.nscisb.nhs.uk/>

Pain	Urinary Function	Bowel function	Psychological support	Sexual function
<p>Post-op pain management after cauda equina surgery</p> <p>Acute Phase <3months</p> <p>Chronic Phase >3months</p> <p>Exclude further disc prolapse if appropriate with an MRI</p> <p>Regular paracetamol NSAID with GI protection Consider strong or weak opioids after pain assessment with adjuvants to avoid constipation</p> <p>GP to assess drugs in 1-2 weeks</p> <p>Exclude further disc prolapse if appropriate with an MRI</p> <p>Regular paracetamol NSAID with GI protection Do not offer opioids Do not offer gabapentinoids, anti epileptics, oral steroids and benzodiazepines</p> <p>Consider root block if appropriate (link to root block)</p> <p>Refer for SCS if persistent neuropathic pain as per NICE TA159</p>	<p>All patients should be catheterised as soon as possible following decision to operate</p> <p>Trial without catheter (TWOC) as soon as possible post-operatively and pre/post void bladder scan obtained.</p> <p>If the post void bladder scan is <100ml: no catheter required at discharge</p> <p>If pre void bladder scan is >500ml (with no sensation to void) OR patient hasn't voided for 6 hours: re-catheterise with long term catheter (flip/flow) and referral to local services to learn self-catheterisation</p> <p>DO NOT TWOC AGAIN at this stage</p> <p>Flip/flow should be opened as a minimum every 4 hours including overnight (shorter time frames may be necessary drinking dependent, aiming for a bladder volume <500ml). DO NOT rely on sensation/urge to void as a trigger to open flip/flow/self-catheterise</p> <p>Best practice is to teach a patient (where possible) ISC as quickly as possible post-surgery</p> <p>Failed TWOC must have follow-up with regional SCI or locally agreed urology service</p>	<p>All patients should be advised by medical/nursing team about potential for bowel issues. Immediate use of an information booklet as an inpatient is advised.</p> <p>Prescribe bowel stimulants and a softener in the acute postoperative phase e.g., senna (stimulant) & sodium docusate (softener)</p> <p>Patients should be educated to undertake digital rectal stimulations (DRS) followed by digital rectal evacuation (DRE)</p> <p>Published Guidelines should be followed</p> <p>Patients who have bowel issues must have follow-up with SCI service</p> <p>All patients must have bowel function re-assessed as part of their surgical outpatient appointment and referral to local services or SCI service if an issue</p> <p>MACSIP Guidelines</p>	<p>All patients should be advised by medical/nursing team about how cauda equina syndrome can affect other areas of life. Immediate use of an information booklet as an inpatient is advised:</p> <p>BASS info booklet</p> <p>Patients should be signposted to support groups:</p> <p>Spinal Injuries Association (SIA)</p> <p>Aspire (Benefits Advice)</p> <p>Cauda Equina Champions Charity</p> <p>Patients with ongoing cauda equina symptoms should be contacted by SCI psychology services.</p>	<p>All patients should be advised by medical/nursing team about potential for sexual dysfunction</p> <p>Patients should be signposted to support groups</p> <p>Cauda Equina Champions Charity</p> <p>Spinal Cord Injury Association (SIA)</p> <p>Patients who have sexual dysfunction must have follow-up with SCI service</p> <p>All patients should have sexual function re-assessed as part of their surgical outpatient appointment and referral to local services or SCI service if an issue</p> <p>It is worth trialling a Phosphodiesterase-5 inhibitor such as Tadalafil/Sildenafil in both men & women</p>