PENNINE MSK REFERRAL PATHWAY FOR SUSPECTED CAUDA EQUINA SYNDROME (CES)

BACKGROUND

GIRFT (Getting it right first time) guidelines have been published for Cauda equina syndrome. They have been co-created by British Association of Spine Surgeons; British Association of Urological Surgeons; British Orthopaedic Association; British Society of Skeletal Radiologists; Cauda Equina Champions Charity; Chartered Society of Physiotherapy; National Spine Network; The Royal College of Radiologists; The Society of Radiographers; Society of British Neurological Surgeons; Spinal Injuries Association. These guidelines are now being followed nationally and Salford Spinal team at NCA are following these.

Definition of Cauda Equina Syndrome Radicular pain (sciatica) and/or back pain are common patient presentations to healthcare professionals. CES is a very rare (1 to 3 in 100,000 population) but serious spinal presentation of radicular and/or back pain that requires immediate assessment, investigation, and treatment. If it is unrecognised or surgical treatment is delayed, this may result in permanent loss of bladder and bowel function, loss of sexual function, and lower limb paralysis. Patients may continue to experience ongoing severe disability despite prompt treatment but, if it is treated before symptoms become severe, this can reduce the risk of permanent disability. CES is due to acute or rapidly progressive compression of the nerves in the lumbar or sacral spinal canal.

This pathway focuses on the commonest cause – a large lumbar disc prolapse – but CES can be due to rarer causes, such as haematoma, trauma, infection, tumour, or spinal/epidural anaesthetic. CES is a collection of patient symptoms and clinical signs, and a magnetic resonance imaging (MRI) scan on its own cannot diagnose CES. No single symptom or sign is pathognomonic.

The following pathway has been developed to assist all those involved in the care of these patients, from presentation to treatment. It sets out best practice timeframes and aims to streamline and improve the outcomes of patients with suspected and proven CES due to a proven large disc protrusion.

Clinical presentation

In this pathway, it is acknowledged that patients may present in a primary, community or acute setting. If the patient presents in an acute setting, it is not assumed that there is spinal provision or access to MRI at the time of presentation; in this case we have detailed the need for onward referral or transfer. Triage of the patient is the first step in this pathway. It is important to note that CES does not have a set clinical pattern; no single symptom or combination of symptoms has good diagnostic accuracy. Additionally, negative physical tests do not rule out CES if positive subjective symptoms are present.

Symptoms

An emergency referral to the nearest facility with Emergency MRI provision is warranted for a patient presenting with leg pain and/or back pain with a suggestion of recent onset (within 14 days) or deterioration of any of the following symptoms:

• difficulty initiating micturition or impaired sensation of urinary flow;

• altered perianal, perineal or genital sensation S2-S5 dermatomes – the area may be small or as big as a horse's saddle (subjectively reported or objectively tested);

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

• loss of sensation of rectal fullness;

• sexual dysfunction – inability to achieve erection or to ejaculate, or loss of genital sensation.

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 (two-week wait) to an MSK triage service. See Making an urgent referral.

Safety netting

Safety netting for patients experiencing back pain with other symptoms is crucial to ensuring patients know how and when to seek help at the appropriate time. A video and warning card from the Musculoskeletal Association of Chartered Physiotherapists (MACP) has been developed for a patient audience. It is accessible in 32 languages, and explains clearly when to access an urgent clinical opinion:

Cauda Equina Syndrome symptoms with pain radiating down one or both legs and/or severe lower back pain (any combination, seek help immediately);

• loss of feeling pins and needles between your inner thighs or genitals;

• numbness in or around your back passage or buttocks;

• altered feeling when using toilet paper to wipe yourself;

• increasing difficulty when you try to urinate;

• increasing difficulty when you try to stop or control your flow of urine;

• loss of sensation when you pass urine;

• leaking urine or recent need to use pads;

• not knowing when your bladder is either full or empty;

• inability to stop a bowel movement or leaking;

• loss of sensation when you pass a bowel motion;

• change in ability to achieve an erection or ejaculate;

• loss of sensation in genitals during sexual intercourse.

Making an emergency referral

The patient should be referred to the nearest hospital with emergency MRI facility (patient should attend hospital now) if they present with ongoing CES symptoms or signs which started within the last two weeks. An emergency referral after a telephone assessment identifying CES symptoms is acceptable if immediate face to face review is not possible or will delay referral.

In many cases, patients will be seen in an Emergency Department (ED). Integrated Care Systems should explore alternative solutions (for example, a dedicated team to review suspected CES patients in the ED or a same-day emergency care model run outside the ED) which might allow faster diagnosis and imaging. Examples of this have been highlighted in the GIRFT Emergency Medicine National Specialty Report (September 2021)

NCA Suspected Cauda Equina Syndrome Pathway

Presenting in Primary Care / ICAT Services

Triage

Assessment of patient and symptoms

Patient reports recent (< 2 weeks, may differ with clinical autonomy) onset of CES symptoms or worsening CES symptoms within last 2 weeks

Emergency referral to A&E is required

Explain to the patient, the rationale for the reason for referral to A&E

Ring NCA hospital switch and ask them to bleep the on call SHO (0161 624 0420) to inform them that a patient with suspected CES is being advised to attend A&E. Provide them with verbal info from the completed CES proforma which includes the CES screening questions below

Follow up with contacting the relevant A&E department as per local agreement

attaching a copy of the completed local CES screening proforma (site specific)

Document in accordance with guidance in * as outlined below

Patient reports sudden onset of bilateral /unilateral radicular pain that has progressed to bilateral, without CES symptoms

or

onset of CES symptoms ≥ 2 wks

(See CES screening questions below)

Urgent referral to ICAT Service.

Followed up with call to ICAT team to notify ahead of receiving referral

Patient to be seen in ICAT within 2 weeks

to arrange urgent MRI scan

Document in accordance with guidance in * as outlined below

Provide verbal safety netting advice as well as

MACP warning card

MACP video link (by available electronic means)

(See links below.)

Advise if symptoms deteriorate whilst waiting for ICAT appointment, to present to A&E

In ICAT Service

Triage patient for CES symptoms

If a patient then experiences and reports deteriorating or new CES symptoms, ICAT team makes an emergency referral to A& E

Patient reports back pain/ unilateral leg pain without CES symptoms

MSK spinal/ sciatica pathway

CES Screening questions (included on screening proforma):

Have you any loss of feeling/ pins and needles between your inner thighs or genitals?

Do you have any numbness in or around your back passage or buttocks?

Do you have any altered feeling when using the toilet paper to wipe yourself?

Do you have any increasing difficulty when you try to urinate?

Do you have any increasing difficulty when you try to stop or control your flow of urine?

Do you have any loss of sensation when you pass urine?

Do you have any leaking of urine or a recent need to use pads?

Do you always know when your bladder is full or empty?

Do you have any inability to stop a bowel movement or leaking?

Do you have any loss of sensation when you pass a bowel motion?

Do you have any change in your ability to achieve an erection or ejaculate?

Do you have any loss of sensation in your genitals during sexual intercourse?

Emergency referral Documentation

An emergency referral for suspected CES should document the following:

patient assessment details time and date of assessment examination findings physical examination of power and sensation in the lower limbs signs and symptoms of CES present including duration, frequency, and progression who and at what time the case was referred to in secondary care recommended advice received and from whom if felt did not require emergency referral a digital rectal examination is not necessary, but subjective perianal sensation should be recorded.

Urgent referral Documentation

An urgent referral should document the following:

flag referral as urgent sudden onset bilateral radicular pain or unilateral radicular leg pain that has progressed to bilateral without CES symptoms or onset of CES symptoms >2weeks ago which are now static signs and symptoms of bilateral sciatica and including duration, frequency, and progression details of assessment of patient time and date of assessment(s) examination findings physical examination of power and sensation in the lower limbs a digital rectal examination is not necessary but subjective perianal sensation should be recorded.

Suspected Cauda Equina Syndrome Pathway, Spinal Services. *Getting It Right First Time
https://gettingitrightfirsttime.co.uk/wp-content/uploads/2023/10/National-Suspected-Cauda-Equina-Pathway-UPDATED-V2-October-2023.pdf

Video – When you should seek urgent help for your back pain (MACP) https://www.youtube.com/watch?v=FdlxfcJmn-4&t=121s

Warning Card (MACP)

https://www.eoemskservice.nhs.uk/docs/default-source/cauda-equina-translations/english---ces-card-pdf.pdf?sfvrsn=114b7059_6

Warning Cards (MACP) alternative languages to English https://www.eoemskservice.nhs.uk/advice-and-leaflets/lower-back/cauda-equina

An Interactive Tool to aid cauda equina decision making and guide referral

Spinal – Suspected Cauda Equina Syndrome 1a – GIRFT – Pathways

girft-interactivepathways.org.uk

APPENDIX A

Suspected Cauda Equina Syndrome Proforma

Questions to elicit Red Flag symptoms in back pain or sciatica assessment

	Yes	No	Duration of abnormal symptoms/comment
Have you any loss of feeling/pins and needles between your inner thighs or genitals?			
Do you have any numbness in or around your back passage or buttocks?			
Do you have any altered feeling when using toilet paper to wipe yourself?			
Do you have any increasing difficulty when you try to urinate?			
Do you have any increasing difficulty when you try to stop or control your flow of urine?			
Do you have any loss of sensation when you pass urine?			
Do you have any leaking of urine or a recent need to use pads?			
Do you always know when your bladder is either full or empty?			
Do you have any inability to stop a bowel movement or leaking?			
Do you have any loss of sensation when you pass a bowel motion?			
Do you have any change in your ability to achieve an erection or ejaculate?			
Do you have any loss of sensation in you genitals during sexual intercourse?			

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Andrew Swan

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