National Backpain Pathway – Clinical Network

Early Recognition of Cauda Equina Syndrome

A Framework for Assessment and Referral

for Primary care / MSK interface services

Cauda Equina Syndrome (CES) is a time dependent spinal surgical emergency.
If symptoms are suggestive of early CES then immediate referral should be made.
Verbal safety netting should be supported with written information.

Identify	In order to identify if immediate referral to A&E or a spinal surgical service is required, **all patients** with acute or deteriorating back (+/- radicular) pain **should be assessed for CES**, in primary care. • Perianal, perineal or genital sensory loss (S2-S5 dermatome saddle anaesthesia: the area may be fairly small or as big as a horse's saddle). If not objectively tested the reason should be documented e.g. no chaperone. • Difficulty initiating micturition or impaired sensation of urinary flow (if untreated this may lead to irreversible urinary retention with overflow urinary incontinence). • Bilateral radicular leg pain (see guidance overleaf). • Severe or progressive neurological deficit of both legs, such as major motor weakness of knee extension, ankle eversion, or foot dorsiflexion. • Loss of sensation of rectal fullness (if untreated this may lead to irreversible faecal incontinence). • Laxity of the anal sphincter (digital rectal examination does not need to be performed in primary care, it does not add to the referral indications or subsequent referral management). • Erectile dysfunction (achievement of erection or ability to ejaculate). Note: ○ 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 early CES, if positive subjective symptoms are present.
Explore	Explore the history of CES symptoms in more depth: • Onset and progression of symptoms. • Other causes for leg pain. • History of bladder/bowel disturbance/sexual dysfunction.
Consider	• Side effects from pharmacology (e.g. neuropathics, codeine). • Age: Older people may have spinal stenosis and are less likely to have **acute** CES. • Functional symptoms: psychosocial presentation and prior healthcare utilisation.
Discuss	Immediately discuss with a senior spinal clinician (if available). If in any doubt, emergency referral should be made.
Safety net	If you suspect a patient may be at risk of developing CES, communicate clearly what the person should do if symptoms develop or progress. This must be documented. • Issue a locally agreed CES awareness leaflet or a Cauda Equina Syndrome warning card.
Refer	**REMEMBER THE PROGNOSIS OF CAUDA EQUINA SYNDROME IS TIME DEPENDENT** • If symptoms are suggestive of CES: immediate emergency referral should be made (following the locally agreed pathway). • In patients with severe lumbar radicular pain (unilateral or bilateral) without other CES signs/symptoms: management should follow the radicular pathway.
Document	Immediate documentation: • Signs and symptoms of CES including duration, frequency and progression. • The time and date of every contact. • Who the case was discussed with. • Recommended action. • Action taken. • Give the patient a clinical summary/pro-forma to take to secondary care. • Inform secondary care of the emergency referral, following the local pathway.
Follow up	After emergency referral follow up patients considered not to have CES (to avoid becoming lost in the system).

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This document has been developed to support clinicians working in primary care or in MSK interface services. Secondary care services should follow BASS/SBNS Standards of care for investigation & management of CES.

Presentations that increase the probability of acute / threatened Cauda Equina:

Back pain with:

- Presence of new saddle anaesthesia, bladder or bowel disturbance.
- Age < 50.
- Radicular pain
    - Unilateral radicular leg pain progressing to bilateral.
    - Sudden onset bilateral radicular leg pain.
    - Alternating radicular leg pain.
- Presence of new motor weakness.
- Obesity.
- Previous CES.
- Known developmentally narrow spinal canal.

Presentations that are not likely to be managed with emergency spinal surgery:

- Urinary or bowel disturbance that has been present for more than 4 weeks and is not deteriorating.
- Older people with symptomatic spinal stenosis in the absence of acute bladder disturbance.

Your local pathway should:

- Have Cauda Equina Syndrome patient information approved by local Regional Spinal Network.
- Include arrangements for access to emergency MRI and spinal surgical referral.
- Reflect the quickest option for referral to imaging (including action on the findings). This may be in primary or secondary care.
- Have arrangements for case discussion with a senior spinal clinician.
- Have arrangements for debriefing clinicians who have been involved with the care of patients with confirmed Cauda Equina Syndrome.

Bilateral radicular leg pain:

The prevalence of bilateral radicular leg pain in primary care is not known. It is the opinion and experience of the NBP-CN committee that many patients present to primary care back pain services with bilateral leg pain.

In isolation, bilateral leg pain is not necessarily a red flag for suspecting Cauda Equina Syndrome. The limited evidence base is of poor quality and based on retrospective reviews of emergency or secondary care patients.

Concerning presentations are:

- Unilateral radicular leg pain progressing to bilateral radicular leg pain.
- Sudden onset bilateral radicular leg pain.

Patients with chronic bilateral radicular pain should always be issued with safety netting advice, outlining what they should do if CES symptoms develop.

Acute and/or progressive bilateral radicular leg pain with any other **CES symptoms.**	**Emergency Referral**: This patient needs immediate emergency MRI. Follow the local pathway for emergency referral.
Bilateral radicular leg pain with **myotomal weakness or dermatomal sensory loss,** and no other CES symptoms.	**Urgent Referral**: Management depends on the duration, progression and degree of neurological deficit. If acute gross motor weakness (< 3/5), or deteriorating neurology. Follow the local pathway for urgent referral and safety net patient regarding CES. If in doubt seek advice from a senior spinal clinician.
Bilateral radicular leg pain with normal neurology and no other CES symptoms.	Treat as per the radicular pathway. Safety net patient regarding CES.