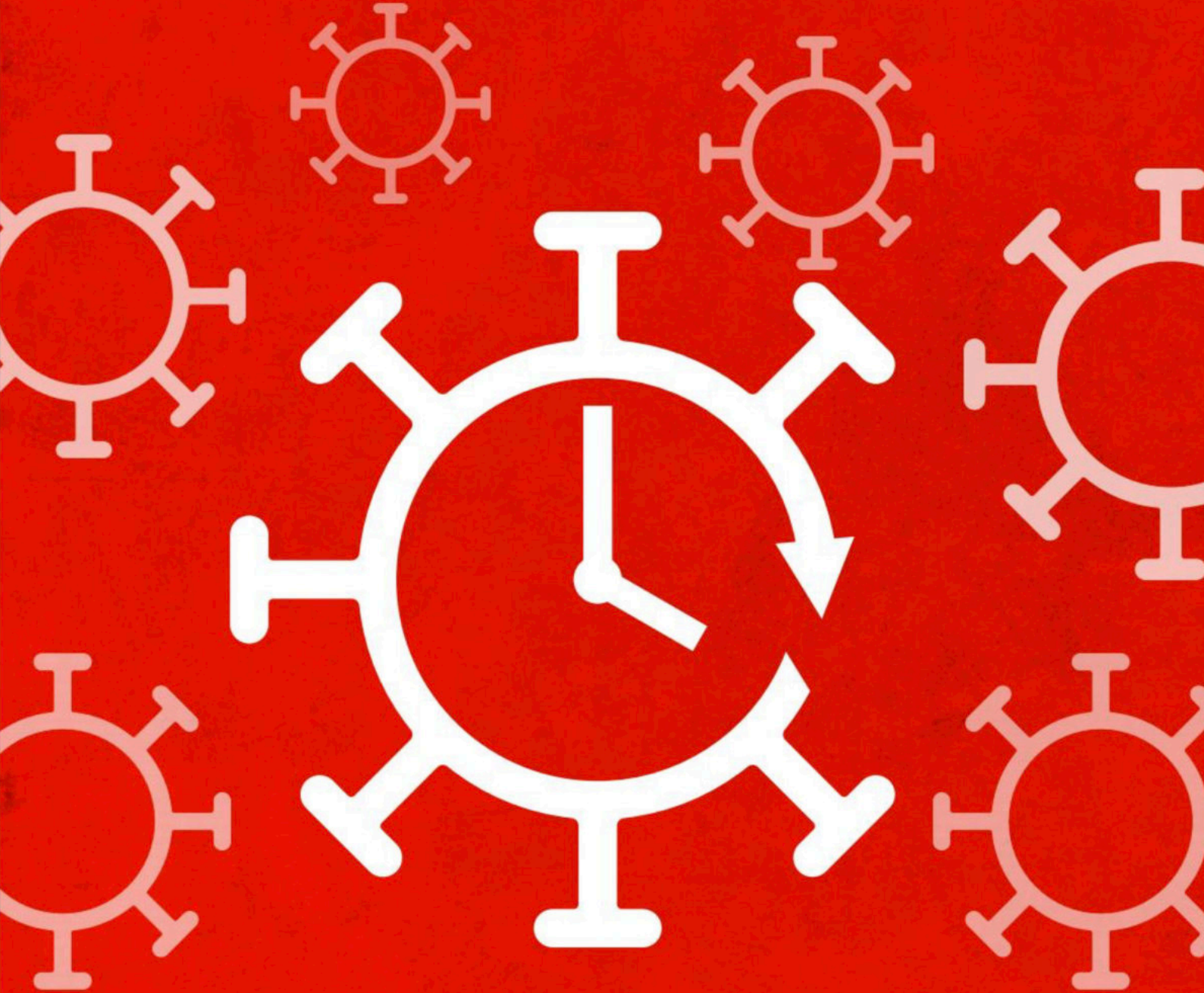


# OH TODAY

THE OFFICIAL MAGAZINE OF IOH

Volume 28 Issue 1 Spring 2021



## LONG COVID

THE NEXT OH CHALLENGE

# SPINE EMERGENCY

WRITTEN BY JANE JOHNSON

## CAUDA EQUINA SYNDROME

**T**he group of nerves at the very end of the spinal cord are termed the cauda equina. Cauda equina syndrome is a condition that affects these nerves and due to the potential for this condition to result in devastating disability, is [described](#) as a 'spine emergency' by the British Association of Spinal Surgeons. It is often described as being a 'rare' condition because it is [estimated to affect](#) fewer than 1 in 2000 patients with severe low back pain, 6-10 people per million of the population.

The cauda equina has five main functions involving the lower limbs, bowel and genitourinary system. Compression of the cauda equina affects these functions.

The cauda equina provides:

- Innervation to the lower limbs
- Innervation to the anal sphincter
- Innervation to the urinary sphincter
- Innervation to the skin around the genitals and the bottom
- Sexual function

In their literature review of cauda equina syndrome, [Fraser, Roberts and Murphy](#) (2009) identified that in 45% of cases pressure to the cauda equina came from a disc. However, pressure may be from other sources such as inflammation or a tumor.

The cauda equina can be compressed in scenarios such as:

- Lumbar disc herniation
- Trauma such as spinal fracture
- Spinal mass
- Spinal stenosis
- Trauma such as surgery

[Gardner, Gardner and Morley](#) (2011) state that it is not clear to what extent the duration and severity of compression of the cauda equina affects the outcome for the person, but that the longer the compression continues, the more likely is the long-term neurological damage. Incorrect or delayed diagnosis of the condition can also result in medicolegal claims.

## Spotting the symptoms of cauda equina

The potentially serious consequences of this condition mean that anyone who assesses a person for back pain should be aware of the condition and how it presents. It is especially important because many people delay presenting to a healthcare professional because they do not recognise the significance of the symptoms. In simple terms, people with cauda equina dysfunction may have symptoms affecting the perineal/saddle region, back pain and/or sciatica in one or both legs, altered bladder, bowel and sexual function. For example, a person might notice that they have been unable to empty their bladder for a few days, or alternatively, have had one or more episodes of bladder or bowel incontinence. These symptoms could be vague, subtle, and may not follow a recognisable pattern. Additionally, [Greenhalgh et al. \(2018\)](#) note that certain medications can produce symptoms which are similar to cauda equina syndrome.

It is essential for the clinician to take a detailed case history. This involves asking what some people may consider to be embarrassing questions. A cauda equina 'credit card' is [freely available](#) in multiple languages. Use of this card is essential, for as [Greenhalgh describes in the video she and her colleagues made](#) regarding a qualitative study she led, issues regarding communication presented a barrier to early diagnosis: patients often didn't recognise the subtle symptoms, found it difficult to concentrate on the questions they were being asked due to the severity of pain they were in and did not understand the significance of the questions they were being asked.

**Common Back Pain**

Many patients have a combination of back pain, leg pain, leg numbness and weakness. These symptoms can be distressing for you but don't necessarily require emergency medical attention. **A rare but serious back condition, Cauda Equina Syndrome, can lead to permanent damage or disability and will need to be seen by an Emergency Specialist Spinal Team. See other side of card for some warning signs of Cauda Equina Syndrome.**

**Cauda Equina Syndrome Warning Signs**

- 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

**Any combination seek help immediately**

Above: The cauda equina 'credit card'

## CAUDA EQUINA SYMPTOMS

- Saddle anaesthesia
- Severe low back pain
- Unilateral or bilateral sciatica
- Bladder dysfunction
- Bowel dysfunction
- Sexual dysfunction

## DEALING WITH CAUDA EQUINA

- Take a detailed history
- Explain you are going to ask some very important questions
- Explain that some of these questions may be embarrassing but it is important for the person to be honest
- Use the cauda equina 'credit card' for question prompts
- If cauda equina is suspected, advise the person to go to A&E, or phone 111.
- Document the history you have taken and the advice you have provided

## SIMILAR SYMPTOMS FROM MEDICATION

Medication	Possible Cauda Equina Symptoms
Tramadol, codeine	Constipation, reduced gastric motility, reduced bladder sensation
Gabapentine, pregabalin	Urinary incontinence
Amitriptyline, nortriptyline	Retention, sexual dysfunction, reduced awareness of need to pass urine
Naproxen, ibuprofen	Retention twice as likely in men as in women

Greenhalgh and her colleagues can be heard [discussing this condition in a podcast](#) created by the Musculoskeletal Association of Chartered Physiotherapists (2019). As clinicians, we can help to identify the symptoms of cauda equina syndrome by asking the person the questions on this card and obtaining clarity regarding the answers. Be matter-of-fact with your questioning, don't skip any questions, and don't worry about rephrasing questions if you are unclear regarding the answers. Explaining the importance of the questions at the outset will help the patient to understand the rationale behind these. Remember to establish a time frame for the onset of symptoms: ask about the onset of loss of bladder or bowel function; loss of genital sensation and function. For example, 'how long have you been unable to feel your genital area? 1 hour? 1 day? 2 weeks? 5 years?' Some tips for actions we can all take as clinicians are provided on the left.

## Conclusion

Cauda equina syndrome can result in permanent disability and a delay in diagnosis may give rise to litigation. It is essential that we help a person to identify the symptoms of cauda equina syndrome where these are present, we provide clear advice with regards to what that person needs to do to seek treatment, and we document our process. Cauda equina syndrome is a good example of where being candid and clear with our communication should be the order of the day. In the case of this condition, acting on the day could make a significant difference to the outcome for that person, and people are at the heart of what we do.

Jane Johnson is a Clinical Lead Physiotherapist at PAM Group. ■