

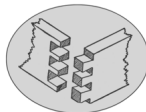
# CAUDA EQUINA SYNDROME

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THE MSK CLINICIAN'S GUIDE

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## **EIGHT THINGS YOU MIGHT LIKE TO HEAR AT THE START**

We wrote this book because we think it will be useful.

In the last decade, the musculoskeletal professions have made huge strides in the way they manage potential cases of cauda equina syndrome (CES).

But despite this progress, many MSK clinicians are struggling. They're confident about the basics but struggle with the nitty-gritty. They know the guidelines but struggle to put them into practice. Navigating CES conversations, making tricky CES decisions, referring patients to A&E and dealing with what happens next: these things are still daily problems for many MSK clinicians.

In fact, in our experience, pretty much all MSK clinicians have the same problems when it comes to CES. They have the same fears and anxieties. If you're struggling with CES, you're not alone!

Nobody's got this mastered, but as a group of professions, we're getting closer. The main thing we need now is a little help putting it all into practice. That's what this book is for.

Before we get started, here's a few things to know at the start. They should help you to make the most of this book.

## **1. Who we are**

This book is about you and your practice, but here's a quick word about us so you know where we're coming from.

Rob is currently a university lecturer, but until very recently he was an Advanced Practice Physiotherapist and clinical lead of an MSK service. A big part of his role at work was teaching physios about CES and answering phone calls on a 'CES hotline' for tricky cases.

Tom is currently a writer, but until relatively recently he was an MSK physiotherapist. He's written a book about the mechanisms of radicular pain, and has another one on the way about its assessment and treatment. He also has a bit of peer-reviewed research under his belt.

We're both from the North East of England. Rob still lives in Newcastle, but Tom has since moved to America.

## **2. Who this book is for**

We wrote this book for MSK clinicians who already know their CES 'red flags', and already have a bit of practice asking about them, but still feel like they're not navigating CES as well as they could be. To put it another way, if you're used to asking your patient about CES, but feel lost whenever the conversation gets deeper, this book is for you.

## **3. CES is rare, but you will see it**

There's a misconception that CES is so rare that a clinician can expect to see just one case in their career (1,2).

Anecdotally, this doesn't seem right. It's not hard to find clinicians in the middle of their careers who have seen five or ten cases of CES, despite seeing a typical MSK caseload.

And the limited research evidence supports this impression. It seems that between one in 1,000 and one in 2,000 cases of acute low back pain will be CES (3–6). For most MSK clinicians, this means seeing at least a handful of CES cases in a career.

CES is rare, but you will see it, and almost certainly more than once.

#### **4. Clinicians managing potential CES are in a very difficult situation.**

On the one hand, if you miss a case of CES it might be a disaster for your patient—and maybe, medicolegally, for you, too.

On the other hand, the only way you can be *sure* you don't miss a case of CES is if your patient has an emergency MRI. And, in most places in the UK, this is easier said than done because it means a trip to A&E and all that entails.

Maybe one day, getting an emergency MRI for someone with potential CES will be quick and convenient, and not involve a trip to A&E. In fact, at the time of writing, this is already the case in a few services in the UK. But, until such service changes are widespread, deciding whether to refer your patient for an emergency assessment or to wait and see what happens will often feel like choosing between two undesirable options.

All this is to say that a major reason that managing CES is difficult is systemic, and not a matter of individual fault. There's a lot you can do to make things easier (that's what this book is about), but before you read on it will probably help to recognise that you are not wholly responsible for any troubles you've been having, or will have in the future.

#### **5. Making a good CES decision is about managing uncertainty, not eliminating it.**

When you're making a CES decision, you're working with very limited information. No patient can describe their condition

perfectly, so you can't know exactly what their symptoms are, or how those symptoms have behaved up till now. You certainly can't know how their symptoms will behave in the future, or what's really going on in their spine. And because you will never have perfect information, there will always be some uncertainty. You just have to make the best judgement you can based on the information you have.

This is important because many clinicians think, however subconsciously, that if they improve their practice enough then the uncertainty will one day disappear. But because uncertainty never disappears, these clinicians are usually left feeling inadequate or frustrated. The reality of practice never lives up to their expectations.

Don't get us wrong, you can certainly *reduce* uncertainty. If you ask good questions and make your patient feel comfortable, you'll get more information. But there will always be things you don't know, so the uncertainty will always be there. It's better to accept uncertainty and recognise that it's a feature of the work, not a sign that you're failing in some way. In fact, being able to make reasonable decisions in uncertain conditions is a sign of a mature practitioner, something to be proud of.

## **6. Practice makes proficient.**

We've aimed to make this book easy to read and easy to understand, but it will often be hard to implement. Like anything worth doing, getting potential CES right is difficult!

The good news is that improving your CES practice is rewarding, too. And, really, the steps you need to take are no more difficult than the steps you've already taken to get where you are now. With practice, you'll quickly become proficient.

## **7. The best way to use this book is piece by piece.**

We don't believe there's a formula you can follow to get CES right. There's no fix-all Rob and Tom CES Method! Besides, even if we did



squeeze the things we want to say into one Special Method, there's a good chance that such a strict approach wouldn't suit your style of practice.

Instead, this book is best thought of as a toolkit of useful strategies. There are strategies to help you navigate the CES conversation, to help you make your decision, and to make your referrals smoother.

It's up to you how to use this book, of course, but one method we suggest is to pick a different strategy every week and practice using it. Find out how to make that strategy work best for your practice. Connect it with all the other things you already know and do. Use it til it becomes a habit.

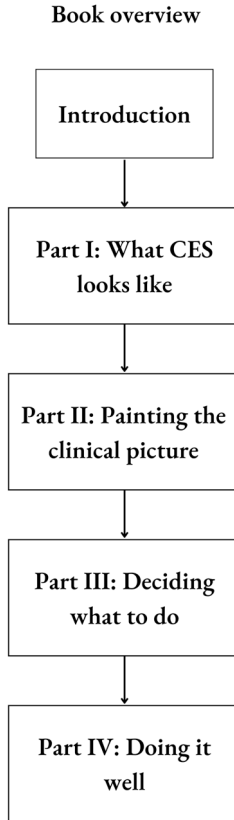
That means that although you might well manage to read this book in an afternoon (we've worked hard to make it as short as possible) we hope that it will be your companion for longer than that. It's written to be the type of book that you'll keep in your bag, on your desk or on your tablet and check on regularly, using it to improve your practice piece by piece.

## **8. Curiosity is the best fuel.**

CES is so serious and important that we rarely talk about how interesting it is—not only the condition itself, but the conversations you'll have with patients and the decisions you'll make, too. This matters because the sense of seriousness and importance that surrounds CES weighs heavy after a while. It's hard to do your job right and get better at it over time when you just feel under pressure.

The best fuel for managing suspected CES and for improving your CES practice is to enjoy how interesting it is; to be curious. Curiosity will put a spring in your step as you learn about the condition, connect with your patients and make difficult decisions. Yes, CES is serious and important, but it's okay to enjoy your practice too!

Lastly, here's a high-level overview of the four parts of this book. We'll give you a similar overview at the beginning of each Part.



## THE BASICS

Let's start with the basics, so there's no confusion.

Some people have a spinal problem in which the nerves that serve their bladder, bowel and sexual organs are damaged and stop working. These nerves are called the cauda equina, so the problem is called cauda equina syndrome (or CES, for short). The most common cause of the damage is a herniated intervertebral disc, but anything that presses or irritates the cauda equina might do it.

If you see patients with spinal problems, then you see patients who might have cauda equina syndrome. The condition is rare but it's serious.

If you're an MSK clinician, you're probably working in an outpatient department, or in a private clinic, or on the sports field. If so, then you have no specialist equipment, which means the only way you can know whether or not your patient might have cauda equina syndrome is through conversation. In this conversation, you have to ask your patient about the four symptoms of the condition (and, to be clear, all four need not be present for cauda equina syndrome; one is enough). These symptoms are:

- Bladder dysfunction
- Bowel dysfunction
- Reduced sensation in the saddle area
- Sexual dysfunction

Additionally, people with CES almost always have back pain and/or leg pain too, but those aren't 'official' symptoms themselves (7).

If, after this conversation, you think it looks like your patient has cauda equina syndrome, then you have to do something.

If it looks like your patient has cauda equina syndrome and their symptoms are new or deteriorating, then you need to send them for an emergency assessment. In most cases, this means a trip to the nearest Accident & Emergency department (your pathway may differ, but as A&E is the most common route to an emergency scan we will be referring to it throughout this book). This assessment will likely include a few different tests, but the most important is the MRI, which will say for sure whether something is pressing on your patient's cauda equina. Most of the time, maybe about four out of five times (5), there won't be (cauda equina syndrome really is very rare, and even people who really seem like they have it usually don't). But if there is something pressing on your patient's cauda equina, then they will likely be offered decompression surgery.

The longer there's been pressure on your patient's cauda equina, the greater the damage to the nerves. And the worse the damage to the nerves, the less likely it is that your patient will recover, even with surgery (8). That's why all this is an emergency. Get that patient to surgery early, and they have a greater chance of living a normal life.

We said that you need to send your patient for an emergency assessment if their CES symptoms are 'new and deteriorating'. What does that mean, exactly? Let's look at 'new' first.

The exact cutoff point between ‘new’ and ‘not new anymore’ depends on where you work. There should be a locally-agreed time frame for emergency referrals of ‘new’ potential CES, whether it’s two weeks or four weeks or something different. In the UK, the forthcoming Getting It Right First Time and Best MSK Health guidance sets this time frame at *two weeks or less* (9). If that guidance catches on, then two weeks might become the nationally-accepted standard. But, at the time of writing, it’s still in the draft stage. So the best thing for you to do is to stick to the agreed-upon time frame where you are. The main thing is that everyone in your pathway is on the same page.

What about the ‘deteriorating’ in ‘new or deteriorating’? It just means that the bladder, bowel, saddle and/or sexual dysfunction you’re seeing is getting worse. For an A&E referral, this deterioration should have started in the last two weeks, or become more rapid in the last two weeks (or, again, whatever the generally-accepted time frame is where you work). To be clear, this means you might refer a patient to A&E whose symptoms are not new but *are* deteriorating—for example, they’ve had mild bladder dysfunction for two months that has suddenly become more severe.

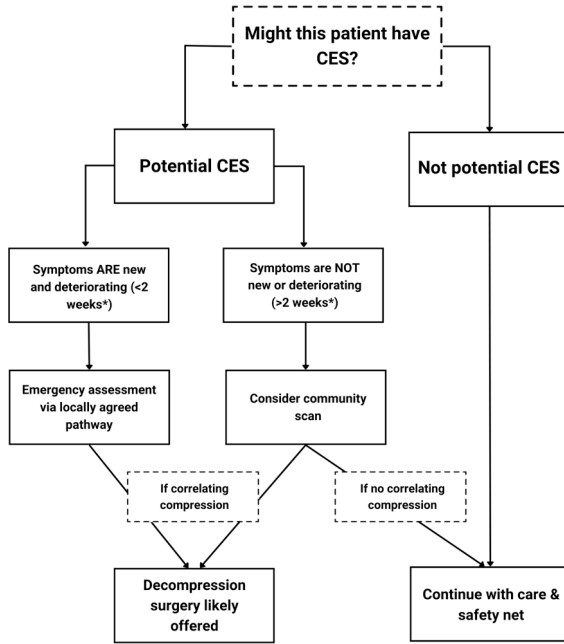
What should you do if it looks like your patient has CES but their symptoms are *not* new or deteriorating, i.e. their symptoms have been going on for more than two weeks, and are stable? This patient isn’t going to benefit as much from surgery, so their situation isn’t an emergency. Instead, you should refer them for an MRI in the community, or to someone else who can (an MRI ‘in the community’ simply means that it’s organised from an outpatient department, like an MSK department).

That MRI in the community could be urgent or routine. Which you choose depends on how long your patient has had their symptoms, and how severe those symptoms are. Whereas the two-week cutoff point between A&E and community MRI is a fairly bright line, the

choice between an urgent and a routine MRI is more of a judgement call. We'll look at how to make it later.

Finally, what if your patient has some sort of spinal problem but, after a conversation, you decide it does *not* look like cauda equina syndrome? In this situation, continue as normal, but educate them about the condition, emphasising that if they do develop any of the symptoms, they should go to A&E. This education is called 'safety netting'. (In fact, you should 'safety net' patients whom you're referring for an MRI in the community, too. They need to know what to do if their symptoms get worse while they're waiting.)

So, after talking to your patient about the symptoms of cauda equina syndrome, the flow chart on the next page shows how things can play out (and unless your local guidelines state otherwise, this is the same for all clinicians working in the community, whether you're in the NHS or private, and whatever your profession)...



*\*Or a different time frame, in accordance with your local guidelines*

... Which makes it look easy!

There are of course many, many ways this can all get very difficult. For example,

- What does it mean to say that your patient 'looks like they have CES'?
- What does CES even look like, beyond that list of four rather vague-sounding symptoms, plus back and/or leg pain?
- If you can only find out about the symptoms of CES through conversation, how are you supposed to navigate that conversation?

- When your patient *kind of* looks like they have CES, but you're not sure, how do you decide whether to send them to A&E or not?
- How do you actually send someone to A&E without it being a huge frustrating inconvenience for everyone involved? And what about when A&E just sends them back?

Solving those problems, and more, is what the rest of this book is about.



## OUR APPROACH TO CES

How do you decide whether to send someone to A&E?

Well, when we first started practising, we used red flag checklists.

This patient has four red flags for CES! Off they go to A&E:

- Bilateral leg pain
- Bladder dysfunction
- Bowel dysfunction
- Loss of saddle sensation
- Sexual dysfunction

Checklists are a good way to cut through the noise of clinical practice. They're reliable and unbiased. As novice clinicians, we were off to a good start.

However, we quickly saw that there are problems with checklists. For one, there's no way to know how many boxes you need to tick to make a decision. Are two ticks enough for A&E, or should it be