

Cauda Equina Syndrome

Red Flags & Referrals

Shah HB, Gusbi E, Khan A, Macmull S

Introduction and Aims

Cauda Equina Syndrome (CES) is an Orthopaedic emergency with a prevalence of 1 to 1.9 per 100,000¹. It results from the dysfunction of multiple sacral and lumbar nerve roots in the lumbar vertebral canal². National guidance sets a gold standard for assessing these patients³. Given the time sensitive nature of CES, assessment and documentation of red flags is of paramount importance, allowing appropriate prioritisation of patients during a busy emergency take. Anecdotally, Emergency Department (ED) documentation is poor. Therefore, we aimed to formally assess the standard of CES referrals from ED at a local District General Hospital.

Methods

Retrospective 3-cycle cross-sectional study of 104 patients presenting to ED. Referrals were assessed for documentation of 9 red flag criteria and gold standard clinical examination, according to the National Institute for Health and Care Excellence (NICE). Intervention after cycle 1: Education and Poster implementation. Intervention after cycle 2: ED protocol for CES documentation implemented.

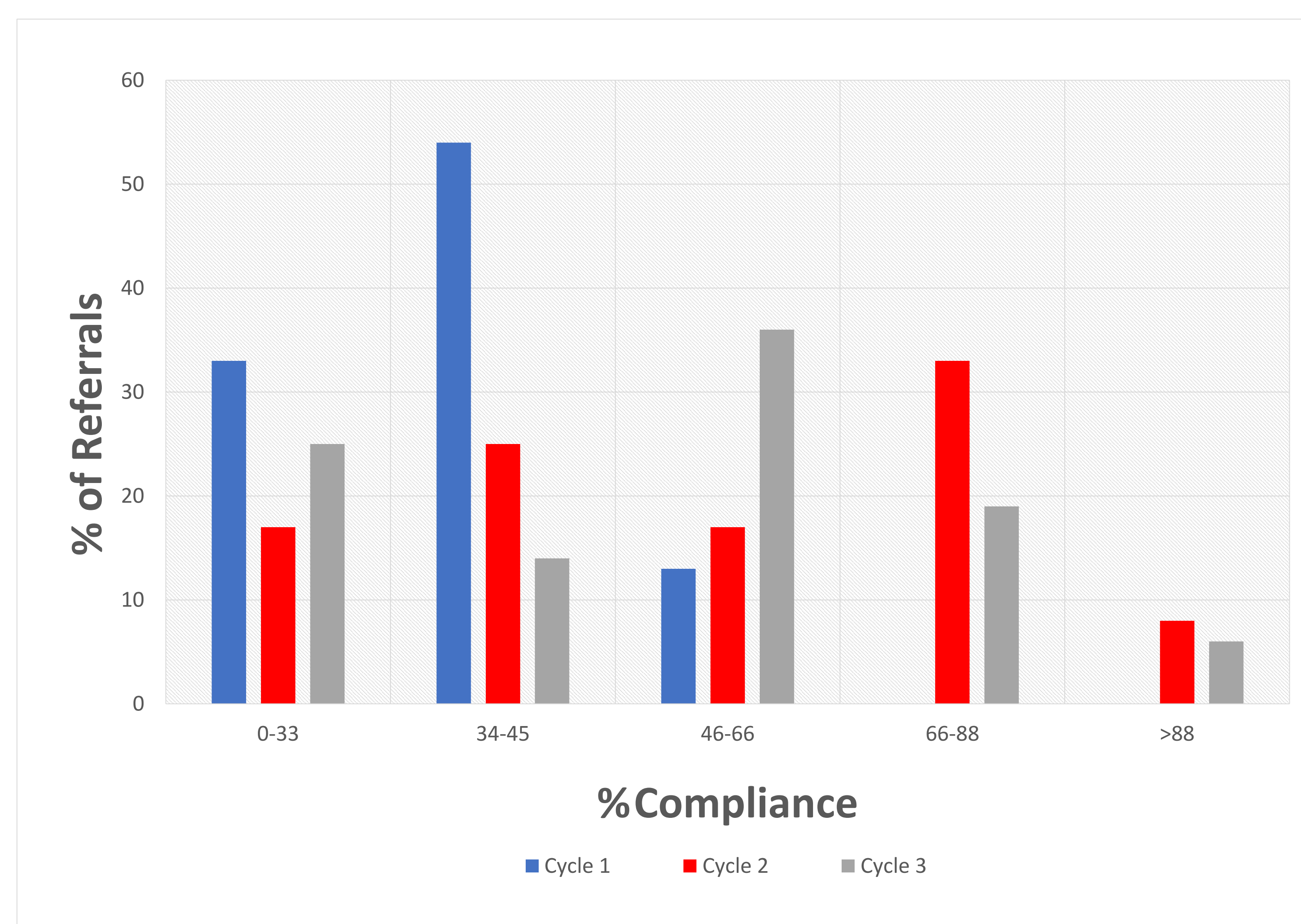


Figure 1. % compliance of red flag documentation in ED referrals.

Results

Cycle 1, 0% of referrals achieved greater than 66% compliance. Cycle 2, 33% were 66-88% compliant and 8% were >88% compliant. Cycle 3, 6% of referrals were >88% compliant (Figure 1). % Compliance peaked at 2-3 weeks post-education, then sharply declined (Figure 2).

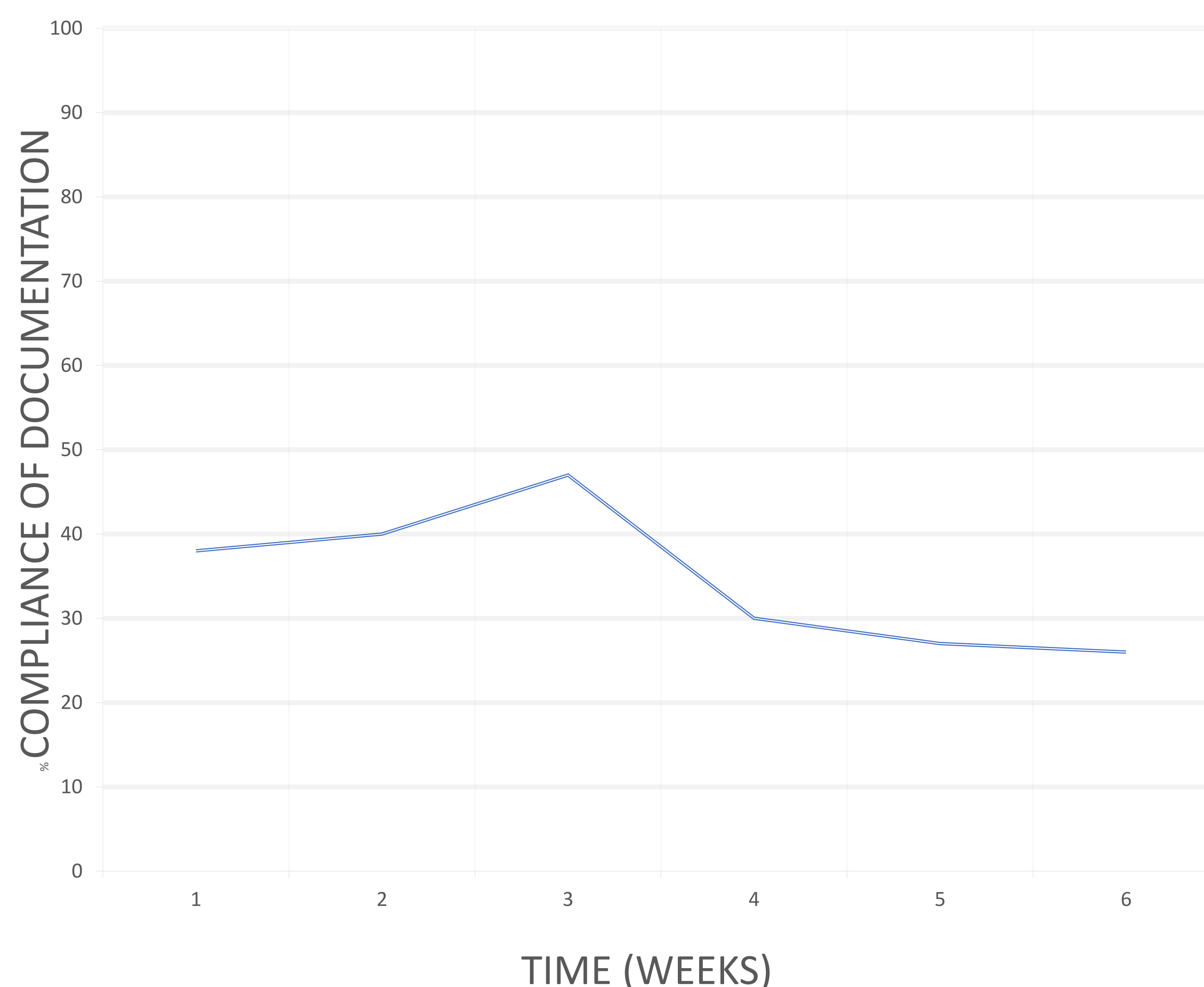


Figure 2. % compliance with time from education.

RED FLAGS FOR CAUDA EQUINA

Before completing your referral you must document the following in the referral notes box:

1. History of bilateral sciatica
2. History of URINARY RETENTION or INCONTINENCE
3. History of FAECAL INCONTINENCE
4. History of Perianal AND/OR perineal sensory loss
5. FULL neurological assessment
6. PR FINDINGS—Sensation AND Anal tone
7. Pre AND Post Void bladder scan

Figure 3. ED protocol for CES documentation.

Conclusion

Referral documentation is substandard. Despite education the average memory of a junior doctor peaks between the 2nd and 3rd week. Protocols have been implemented, yet there is a clear need for an online CES referral proforma stipulating all mandatory data to be inputted prior to successful submission of a referral. This will improve clinical care, patient safety and efficiency of patient flow from ED to specialty assessment and admission.

References

1. The Royal College of Emergency Medicine. *Position statement: Cauda Equina Syndrome*. RCEM. 2020.
2. Lavy C, James A, Wilson-MacDonald J, Fairbank J. Cauda equina syndrome. *BMJ*. 2019; 338: b936
3. National Institute for Health and Care Excellence. *CKS: Back pain – low (without radiculopathy): Red flag symptoms and signs*. NICE. 2022.