Cauda Equina Syndrome: reduced Orthopaedic admissions and improved compliance with 4 hour target to treat

EF-10
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Introduction

In 2015 it was highlighted that 12% of patients with back pain were admitted to Crosshouse Hospital. Excluding trauma, the large majority of admissions were for an MRI scan to exclude cauda equina syndrome; a neurosurgical emergency whereby patients have symptoms including acute back pain and/or leg pain with a suggestion of a disturbance of their bladder or bowel function and/or saddle sensory disturbance (Germon et al, 2015).

Cauda equina syndrome is rare (accounts for 2% of all lumbar disc herniations), however the number of suspected cases that present to the Emergency Department is relatively high. On average, 2 patients per week with clinical suspicion attend Crosshouse Hospital. It is widely acknowledged that clinical diagnosis is challenging, with up to a 43% false positive rate even in those more experienced (Lavy et al, 2009). Furthermore, failure to recognise this condition and act promptly can result in long term gynecological and urinary deficits, and even paralysis, with considerable litigation consequences.

Unfortunately this patient group experience lengthy waits in the Emergency Department for Orthopaedic assessment and are often subject to repeated examinations to decide on clinical urgency. In cases where an immediate MRI scan is arranged, patients are admitted pending the MRI report. On average, 2 patients per week with clinical suspicion attend Crosshouse Hospital. It is widely acknowledged that clinical diagnosis is challenging, with up to a 43% false positive rate even in those more experienced (Lavy et al, 2009). Furthermore, failure to recognise this condition and act promptly can result in long term gynecological and urinary deficits, and even paralysis, with considerable litigation consequences.

In 2016 an advanced physiotherapy practitioner was appointed to establish consistent, improved management of cauda equina syndrome in Crosshouse Hospital Emergency Department.

Aim

The 2020 vision recognises the rising demands on the NHS and supports new innovative changes in practice whilst maintaining safe and effective patient care.

The key aims were:

- Reduce Low back pain admissions to Orthopaedic ward 2a < 10%
- Achieve 95% compliance with the 4 hour target to treat
- Provide high quality patient centred care

Methodology

- January 2016: Advanced physiotherapist commenced
- May 2016: Advanced Physiotherapist acts as direct link to MSK physiotherapy colleagues with clinical concern of cauda equina syndrome
- July 2016: Independent assessment by advanced physiotherapist
  - Direct admissions rights granted
  - Improved Radiology relations
  - Single point of contact for ongoing management
- January 2017: Baseline data collected
- October 2017: Following MRI the advanced physiotherapy contacts Neurosurgery if cauda equina syndrome is suspected.

Results

- In hours Orthopaedic back pain/cauda equina syndrome admissions reduced from 11% in 2015 to 5% in 2017
- Improved overall compliance rate from 87% in 2015 to 95% in 2017
- Average wait for same day MRI is 2 hours.
- Average wait for out-patient MRI is 2 days.
- 2 confirmed cases with successful neurosurgery.
- 0% cauda equina syndrome missed.

Patient feedback

"I was referred to Orthopaedics/physiotherapy check for possible cauda equina syndrome. The care and attention received throughout the period of my visit was exceptional as well as thorough. Accordingly, I was very content that every area of concern which required to be checked and dealt with was done so, timely, informatively and consistently."

"This experience was so positive compared to what happened at A&E in the past. To have someone with specialist knowledge who can facilitate scans timeously and carry out informed assessment made such a difference to me. The worry was taken away and I was reassured quickly that a serious issue was not present and that if it was I was in the hands of someone who could arrange the appropriate assessment and care there and then."

What’s Next?

At present the service is reliant on one advanced physiotherapist and therefore additional funding is required for sustainability and ongoing service development.

References: