Standards of Care for Established and Suspected Cauda Equina Syndrome

Background

Delays in the recognition, investigation, and referral for specialist care and surgery for patients with cauda equina syndrome (CES) are a major cause of serious and potentially avoidable neurological morbidity. The clinical assessment of patients with suspected CES is difficult. The definitions below seem clear but there is a need for sound clinical judgment. The majority of patients with suspected cauda equina syndrome will not have critical neural compression and in practice, it is only possible to exclude treatable CES by appropriate imaging.

Definitions:

1. Cauda Equina Syndrome with retention (CESR). Back pain with unilateral or bilateral sciatica, motor weakness of the legs, sensory disturbance in the saddle region, loss of anal tone and established loss of urinary control i.e. painless retention and overflow.

2. Incomplete Cauda Equina Syndrome (CESI). As above but with altered urinary sensation e.g. loss of desire to void, diminished sensation, poor stream, and need to strain. Painful retention may precede painless retention in some cases.

3. Suspected Cauda Equina Syndrome (CESS) Cases of severe back and leg pains with variable neurological symptoms and signs, and a suggestion of sphincter disturbance.

Imaging

MRI scanning is the preferred imaging modality and should be performed without delay to establish the cause of the symptoms. As with CT scanning for head injury, clinical criteria alone will not accurately identify all cases of CES - 70% of cases with suspected CES do not show central disc prolapse (local audit).

Standard of care

- All cases of suspected CES should be referred to and assessed at the local Emergency Department or orthopaedic/neurosurgical service depending on local facilities and arrangements.
- All Emergency Departments receiving patients with suspected CES should have an agreed protocol with their spinal service for the assessment, imaging and referral of CES cases.
- The need for MRI scanning should be established and performed locally if at all possible. Access to a 24 hour MRI scanning service must be available for patients with suspected cauda equina syndrome.
- If cauda equina compression is confirmed by MRI scan, the local neurosurgical or orthopaedic spine unit must be informed immediately and the images made available.
- The patient should be transferred directly to this unit with appropriate documentation and images
- Decompressive surgery should be undertaken immediately whenever the clinical and radiological assessment indicates that long-term neurological morbidity might be reduced. Nothing is to be gained by delaying surgery and potentially much to be lost.

Counseling

All patients undergoing surgery for CES should be counseled that the aim of surgery is to preserve that function present at the time of surgery. There is scope for improvement but there is a small risk of making matters worse including paralysis of the legs, complete loss of bladder and bowel control and impotence/sexual dysfunction.