

# The Management of Traumatic Spinal Cord Injury

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## Background and justification

Acute Spinal Cord Injury (SCI) due to traumatic or vascular damage, resulting in neurological deficit is a rare but devastating injury. Spinal cord compromise can result in immediate or insidious onset of neurological symptoms. Appropriate urgent management from the time of diagnosis has been shown to reduce complications and improve outcomes.

## Inclusions:

All patients (adults and children) with traumatic spinal cord injury resulting in complete or incomplete para- or tetraplegia.

## Standards for Practice

1. All hospitals receiving patients with SCI must have a named linked Spinal Cord Injury Centre and named linked Specialised Spinal Surgery Centre (SSSC) which offers 24 hour consultant spinal surgeon availability. SCI Centres should provide 24 hour advice and support to the Major Trauma Network (MTN).
2. All hospitals within a MTN should have an agreed, common protocol for protecting the neck and spine and exclude injury in line with BOAST-2 (Spinal Clearance in the Trauma Patient (2015)).
3. Centres receiving patients with SCI require 24-hour access to CT and MRI. Initial trauma CT scanning must be followed by whole spine MRI scanning once safe.
4. Daily generalised neurological review should be recorded as part of the routine ward round or multidisciplinary assessment.
5. Full detailed neurological examination should be recorded on an ISNCSCI chart, within 2 hours of admission, in keeping with the International Standards for Neurological Classification in Spinal Cord Injury (ISNCSCI).<sup>\*</sup> This should also occur weekly as well as before and after major interventions and/or surgical procedures.
6. ISNCSCI charts should be completed by clinicians trained in their use.
7. Protocols for skin care, gastric, bowel and bladder care, neuroprotection, joint protection and therapy requirements must be agreed with the linked SCI Centre and follow national guidance.
8. For patients requiring surgery, protocols for anaesthesia and spinal stabilisation must follow national guidance.
9. All major trauma and SSSCs should have dedicated link nurse and therapy arrangements to provide specialised care until transfer to SCI centre.
10. All patients with SCI in England must be submitted to the National Spinal Cord Injuries Database<sup>\*\*</sup> within 24 hours of diagnosis. An agreed management plan between admitting unit and SCI centre must be formulated and recorded in the medical notes within 72 hours of diagnosis.
11. Transfer to a SCI Centre should take place within 24 hours, unless it is in the patient's best interest to remain locally. Regionally agreed support / liaison arrangements need to be in place in the event of a delay.
12. Appropriate psychological support should be provided for patients, family and carers.

<sup>\*</sup> ISNCSCI chart (replaces ASIA chart) <https://asia-spinalinjury.org/international-standards-neurological-classification-sci-isncsci-worksheet/>

<sup>\*\*</sup> National Spinal Cord Injuries Database: <https://www.nscisb.nhs.uk>