

## BRITISH ORTHOPAEDIC ASSOCIATION STANDARDS for TRAUMA

# The Management of Traumatic Spinal Cord Injury

### Background and justification

Spinal cord injury resulting in neurological deficit is a rare but potentially devastating injury. Compromise to the spinal cord may be due to trauma, vascular injury or other disease process and can result in immediate or insidious onset of neurological symptoms including loss or reduction of voluntary motor function, sensory impairment, bowel or bladder dysfunction and loss of autonomic function. The incidence in the United Kingdom is estimated at 12-16 per million population with about 75% of cases due to trauma. Appropriate management from the time of diagnosis of cord injury has been shown to have significant effect on the long-term outcome for patients and reduce short and long-term complications.

### Inclusions

All patients with traumatic spinal cord injury resulting in complete or incomplete para- or tetraplegia. The audit standards apply to those with polytrauma and those with isolated spinal cord injuries but do not apply to patients with spinal column injury without cord involvement. These audit standards apply to adults and children.

### Standards for Practice

1. All Major Trauma Centres and Trauma Units must have a named, linked Spinal Cord Injury Centre.
2. All hospitals within a major trauma network should have an agreed, common protocol for protecting the neck and spine together with an agreed, common protocol to exclude significant injury (clearance of the neck and spine eg BOAST-2).
3. Centres managing patients with spinal cord injury require 24-hour access to CT and MRI.
4. Clinical evaluation of injured patients must include appropriate and repeated examination of the peripheral nervous system which should be recorded in the medical notes on an ASIA chart in keeping with the International Standards for Neurological Classification in Spinal Cord Injury.
5. Protocols for resuscitation and acute management including skin care, gastric, bowel and bladder care and neuroprotection must be agreed with the linked Spinal Cord Injury Centre and available in all Emergency Departments that may receive patients with spinal cord injury.
6. Centres treating these injuries must have the capability of performing specialist spinal surgery within 4 hours of injury. For those requiring surgery, protocols for anaesthesia and spinal stabilisation must be agreed with the linked Spinal Cord Injury Centre.
7. Protocols for nursing, joint protection and therapy requirements must be agreed with the linked Spinal Cord Injury Centre.
8. Management of the spine must follow written, agreed protocols with the linked Spinal Cord Injury Centre, or alternatively the on call consultant at that centre should be contacted within 4 hours of injury.
9. An early, joint management plan must be formulated and recorded in the medical notes within 12 hours.
10. Once the patient is fit for transfer to a Spinal Cord Injury Centre this should take place within 24 hours, unless it is agreed that it is the patient's best interest to remain in a Major Trauma Centre or Trauma Unit.
11. Spinal Cord Injury Centres should provide an outreach visit within 5 days of referral for patients unfit for transfer, and then follow-up contact (or visit) at least weekly until the patient is transferred.
12. Appropriately trained psychological support must be available for patients, family and carers.
13. All patients with new spinal cord injuries in England must have referral data submitted to the National Spinal Cord Injuries Database. The referral website is found at [www.spinalcordinjury.nhs.uk](http://www.spinalcordinjury.nhs.uk)

### References

References are found at [www.spinalcordinjury.nhs.uk/docs.aspx](http://www.spinalcordinjury.nhs.uk/docs.aspx)  
Management of People with Spinal Cord Injury. NHS Clinical Advisory Groups Report (August 2011)  
The Initial Management of Adults with Spinal Cord Injuries (May 2012)  
ASIA Protocol  
Professional consensus