

## **Northern Trauma Network Protocol for Management of Spinal Cord Injuries in Children**

### **Introduction**

These are rare but devastating injuries which maybe isolated or in presence of multiple injuries. The local Spinal Cord Injury Centre (SCIC) is co-located with S Tees MTC at James Cook University Hospital (JCUH)

### **Prehospital and immediate care**

All children identified pre-hospital with multiple injuries, major trauma or suspected traumatic spinal cord injuries to be transferred directly to nearest MTC including those recovered by Air Ambulance. Isolated traumatic spinal cord injuries identified in Great North Trauma and Emergency Centre at the RVI (GNTEC) or a TU should be discussed with the Spinal Team at JCUH. They will advise on following care including possible transfer and /or assessment. All Spinal Cord injuries should be managed at an MTC.

### **Children age 11 years and younger**

Following resuscitation, children age 11 and younger with spinal cord injuries admitted to JCUH or TU should be discussed and transferred to GNTEC at RVI.

SCIC to be alerted to the admission within 12 hours of admission

### **Children age 12 years and older**

Following resuscitation, children age 12 and older with spinal cord injuries admitted to GNTEC or TU should be discussed and transferred to JCUH / SCIC.

### **Acute Care and Surgery**

Resuscitation in Paediatric ED with input from Paediatric ED specialists and On-call Paediatric team.

Network protocols for protection and assessment (including imaging) of the spine in children with major trauma or isolated spinal trauma.

Admit under care of Trauma Service with necessary coordination for critical care (PICU), further investigations and specialist surgical intervention.

### **Ongoing Care and Reconstruction**

Admit under care of Children's Neurosurgeon or Spinal surgeon if spinal cord or spinal column injury is sole or primary injury.

Consultant-to-consultant liaison with SCIC specialist within 12 hours of admission and agree early management plan.

Management plan must be documented in print in case notes.

ASIA chart to be completed and filed in case notes

Register patient on the SCI referral Database within 24 hours of admission if referring to SCIC.

Any surgery to be conducted according to the jointly agreed management plan. For a patient admitted to RVI / GNTEC a decision as to whether or not to refer patient to JCUH for surgery is part of agreed plan.

On-going care on specialist children's inpatient surgical ward following discharge from PICU.

Face to face outreach input by specialist nurse or medical specialist from SCIC within 5 days of admission.

Paediatric rehabilitation team to assess patient within 5 days of admission

### **Rehabilitation**

Children age 11 and younger will have rehabilitation under care of paediatric neurorehabilitation team at Great North Children's Hospital (GNCH).

Children age 12 and older will have rehabilitation under care of SCIC and paediatric team at JCUH

### **Audit and Report**

Annual report including outcomes from on going audits of:

- Time from diagnostic radiology to definitive report

- Time from injury to agreed joint management plan

- Time from referral to face-to-face outreach assessment

- Time from injury to admission to Regional SCIC

### **References**

Graham A, Gall A. The management of children with spinal cord injury.

Advice for Major Trauma Networks and SCI Centres on the development of joint protocols.

National Spinal Cord Injury Strategy Board. Approved by CRG in Spinal Cord Injury 2014

Greenough C. Personal communication. 2015

NW Children's Major Trauma Network...

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