Trauma Centres
ED Management of the Adult Patient with Acute Spinal Cord Injury (SCI)

- A call to the trauma line is strongly recommended AS SOON as the diagnosis is suspected to optimize ED and transfer phase of care.
    - Transfer delays to neurosurgical centres should be avoided.
    - In the setting of spinal cord injury, a pan CT is typically recommended.
    - Patient should be fully undressed with 2 IV lines and a foley catheter placed.
- Maintain spinal motion restriction and limit transfers as signs and symptoms are presumptive evidence of spinal instability.
- Document level of sensation, limb strength and the individual components of GCS in eyes, verbal, motor format.

For neurogenic shock (injuries at T6 and above) - Be mindful to EXCLUDE other hypotension causing injuries first.

- Neurogenic shock management:
    - Target a MAP of 85-90 or higher.
    - Prevent hypotension.
    - Prevent hypoxemia. Target O2 saturation $\geq$ 93%.
    - Limit crystalloid infusions.
    - Consider vasopressors early.
    - **It is also essential to provide analgesia.**
    - Tetraplegic Patient:
        - Intubation Caution – be aware of bradycardia and possible cardiac arrest. Up to 30% of tetraplegic patients become hypotensive during induction.
        - ETI with cervical motion restriction (VL/fibreoptic techniques preferred).
        - If intubated ensure OG placement.

- Review with TCP/Neurosurgeon or Intensivist:
    - Mechanism of injury.
    - Neurological status and the level of injury.
        - Consider ASIA (American Spinal Injury Association) scale use.
    - Imaging requirements and timing of spine MRI.
    - BP and MAP targets.
    - Symptomatic bradycardia treatment.
    - Vasopressor choice.
    - RASS and ETCO2 targets, if intubated.
    - Written transfer orders.
        - Note: These patients at a minimum require an RN during transfer phase of care.