Management of a Traumatic spinal Patient

Neurological

- Ensure 2 hourly full spinal assessment if patient is conscious)if unsure how to complete spinal assessment please see video
  - https://www.youtube.com/watch?v=kRAdWRmR9rY

Airway

- Check neck for any swelling
- When securing the airway maintain manual inline Stabilisation
  - Use of a fibrotic scope is not recommended

Breathing

- Measure Patients Vital Capacity (Vc) once every shift (if unsure how to do this please liaise with the physiotherapists) *if Vc < 15ml/kg please refer this to the anaesthetist urgently
- Check patient for signs of respiratory fatigue Some spinal patients breath better when lying flat
- Consider the use of the cough Assist and/or BiBPAP for lesions above T11
- Consider ventilation if RR > 30 b/min or VC <15ml/kg

Once Patient is ready to weane from the ventilator the given an individual weaning plan, **DO NOT** deviate from this plan unless you are directed to by neuro anaesthetic consultant

Neurogenic pulmonary odeama can be present in high cervical spinal cord injuries

Suxamethonium can be used up to 48 hours post-injury. After this time it can cause life threatening hyperkalaemia

Haemodynamic management

Spinal injury causes hypotension (neurogenic shock), bradycardia (T6 and above) and poikilothermia)

- Hypotension may be due to combination of blood loss and vasodilation
  so a central venous catheter would be helpful.
- Exclude other injuries that can cause hypotension. A combination of fluid resuscitation and vasonstrictors may be needed. The use of LiDCo is helpful and is recommended.

Aim for MAP ~ 80- 90mmHg.

- Increased vagal activity may cause bradycardia (often triggered by airway manipulation):
- Pre-oxygenation and atropine are useful preventative measures.

Gastrointestinal management

- Paralytic ileus is common.
- The incidence of aspiration may be as high as 35%
- Insert a Naso/orogastric tube within 4 hours from admission. (See Spinal Admission quick guide
    - Establish feeding slowly with the addition of pro-kinetics as needed.
    - PPI is mandatory.

Bladder and Bowel Management

- Monitor urine output hourly aim for euvolaemia unless instructed otherwise instructed
- Follow Bowel care quick guide for bowel management

DVT prophylaxis

- Prescribe DVT prophylaxis as per guidelines.
- Apply mechanical protection early if not contraindicated.

Positioning

- Ensure Patient is rolled every 4 hours and if spine has not been documented as clear ensure the patient is log rolled
- If possible lie patient on their side where possible whilst keep spine in alignment (if unsure how to do this please see log roll video)
- Ensure passive limb movement are performed when turning to prevent contracted limbs, if you limbs are becoming contracted liase with physios and OT.
    - https://youtu.be/C04my6p6Q80If
- pt has a Miami J collar full skin check and a log roll out of the collar must be done once per shift

Psychological Care

- This Client group as extremely and understandably prone to anxiety and depression this can dramatically hinder their recovery
- They need a lot of time and reassurance