PAEDIATRIC TRAUMA GUIDELINE – Cervical Spine Imaging

- Cervical spine injury in the paediatric population is rare. It has an incidence of approximately 1-2% of all paediatric trauma cases.
- Upper cervical injuries (C1-3) are proportionately more common in children than adults.
- Up to 50% of children with spinal cord injury may have no initial radiological abnormality.
- Due to the increased risks associated with irradiation, particularly to the thyroid gland, and the generally lower risk of significant spinal injury, CT of the cervical spine should NOT ROUTINELY be used

Paediatric Patient
(i.e < 16 years)
with suspected BLUNT cervical spine injury
due to CLINICAL findings or MECHANISM of injury

Obtain plain C-spine radiographs according to age

Age ≥ 10 years: 3 views required (i.e. lateral, AP and PEG)
Age < 10 years: only lateral and AP views required

Normal X-rays

GCS 15

- Perform Clinical Examination
- Potentially clear C-spine

Normal X-rays

GCS < 15 or Intubated and ventilated

- Keep triple immobilised
- Discuss with neurosurgeons
- Admit PICU if intubated

Abnormal or Suspicious X-rays

- Keep triple immobilised
- Discuss with neurosurgeons with regard to further management (e.g. MRI)