

IMAGING OF A POTENTIAL NECK INJURY

Who should receive imaging of the cervical spine?

Use this guideline to help you decide whether or not to CT/x-ray a **stable and alert** (GCS 15/15) patient **with potential neck injury** following **blunt trauma**. *If in doubt consult a **Senior**.*

Any **High-risk factors** which mandates imaging?

- a) **Neck pain and Age ≥ 65 years**
- b) **Dangerous mechanism*** and visible injury above clavicle (or thoracic injury with severe pain $\geq 7/10$ even if no neck pain/tenderness)
- c) **Neurological Deficit, Paralysis, Numbness or Tingling in an extremity**
- d) **Severe neck pain ($\geq 7/10$ severity)**

None

Any **Low-risk factor** which allows safe assessment of the neck range of motion?

- a) **Simple rear-end MVC****
- or
- b) **Sitting position in department**
- or
- c) **Ambulatory at any time**
- or
- d) **Delayed onset of neck pain**
- or
- e) **Absence of midline c-spine**

YES

Patient **voluntarily** able to laterally rotate their neck to 45° bilaterally **without** severe pain ($\geq 7/10$)?

ABLE

Cervical Spine imaging
not required

Rule not applicable if

- Non-trauma case
- GCS < 15
- Chronically impaired cognition
- Abnormal vital signs
- Age < 16
- Acute paralysis
- Known vertebral disease
- Previous c-spine surgery
- Penetrating Injury
- > 48 hrs from injury
- Re-attends with neck pain

As with any clinical tool this should be applied with care and is not a substitute for clinical judgement in individual patients. You can make exception to the rule if based on justifiable clinical grounds.

YES

Cervical Spine imaging **REQUIRED**

CT Scan if

- ≥ 65 or vertebral disease
- Presence of neurology
- CT scan of other areas being undertaken

NO

UNABLE

* **Dangerous Mechanism**

- Fall $> 1\text{m}$ / 5 stairs
- Axial load to head e.g. diving
- MVA high speed $> 60\text{mph}$, rollover, ejection
- Bicycle collision
- Motorised recreational vehicle e.g. Quad Bike

** **Simple rear-end MVC excludes**

- Pushed into oncoming traffic
- Hit by bus/large truck
- Rollover
- Hit by high speed vehicle $> 60\text{mph}$