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 (ST4 or above)**._

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 ≥7/10 even if no neck pain/tenderness)
- c) **Neurological Deficit, Paralysis, Numbness** or **Tingling** in an **extremity**
- d) **Severe neck pain** (≥ 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 (≥7/10)?

ABLE

Cervical Spine imaging
not required

YES

NO

UNABLE

Cervical Spine imaging REQUIRED

CT Scan if
- ≥65 or vertebral disease
- Presence of neurology
CT scan of other areas ing undertaken
**Discuss all possible CTs with ST4 or above

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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
>48hrs 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 judgment in individual patients. You can make exception to the rule if based on justifiable clinical grounds.

*Dangerous Mechanism
- Fall > 1m / 5 stairs
- Axial load to head e.g. diving
- MVA high speed >60mph, 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 >60mph

Modified Canadian Cervical Spine Rule (RCEM 2010). V2016.4
Adopted and Modified from Dr S Taylor (GRI EM Consultant)