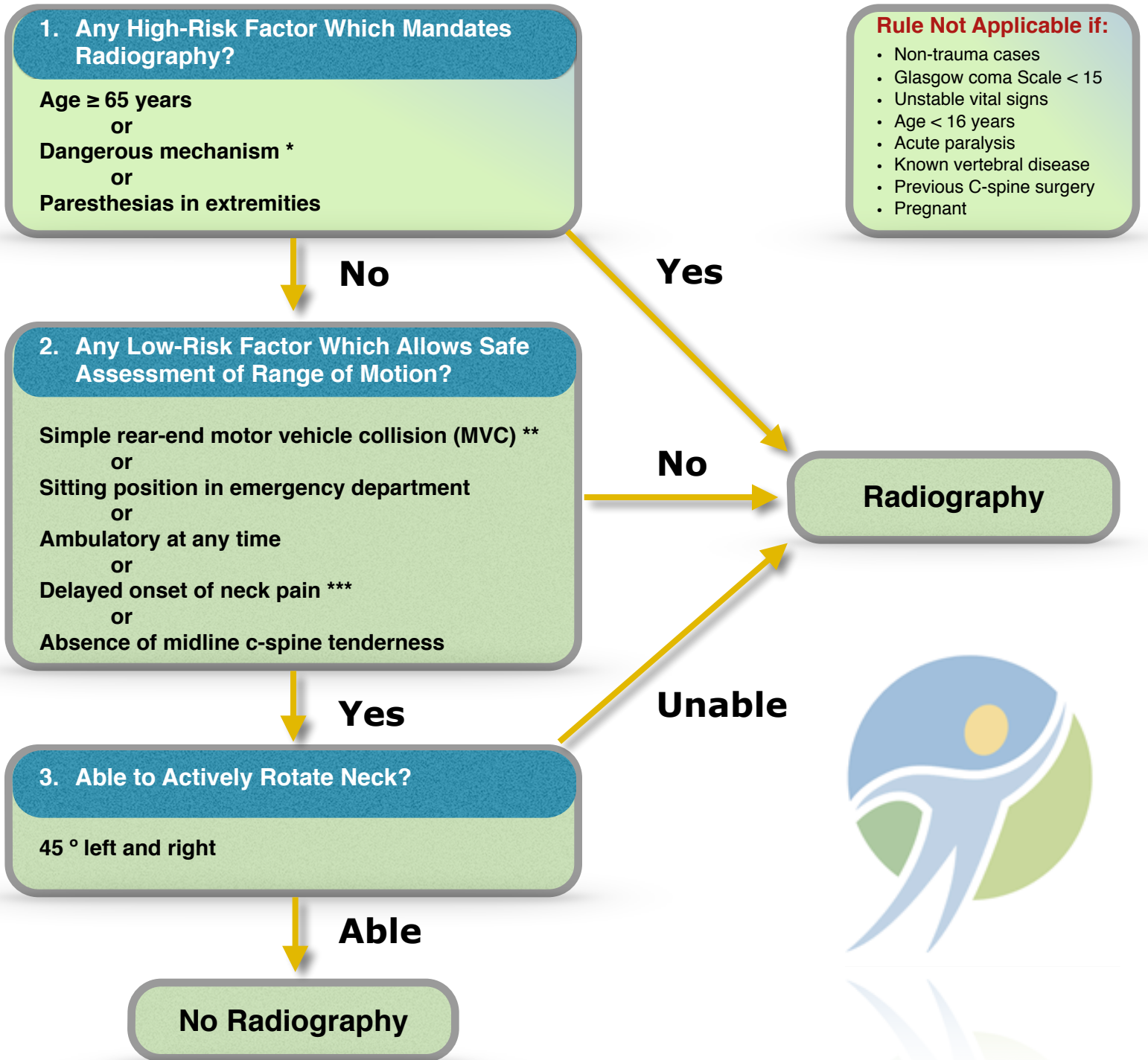


Canadian C-Spine Rule

For alert (Glasgow coma scale = 15) and stable trauma patients where cervical spine injury is a concern



Rule Not Applicable if:

- Non-trauma cases
- Glasgow coma Scale < 15
- Unstable vital signs
- Age < 16 years
- Acute paralysis
- Known vertebral disease
- Previous C-spine surgery
- Pregnant



***Dangerous Mechanism**

- Fall from elevation ≥ 3 feet or 5 stairs
- Axial load to head, e.g. diving
- MVC high speed (> 100 km/hr), rollover, ejection
- Motorized recreational vehicles
- Bicycle struck or collision

****Simple Rear-end MVC Excludes**

- Pushed into oncoming traffic
- Hit by bus or large truck
- Rollover
- Hit by high speed vehicle

*****Delayed**

- Not immediate onset of neck pain

The developer of the rule:
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Canadian C-Spine Rule: *FAQ's*

1. Why use the Canadian C-Spine Rule?

The Canadian C-spine Rule helps guide clinicians as to the indications for cervical X-rays for alert and stable adults who have sustained recent blunt trauma and are at risk for clinically important cervical spine injury*.

2. What patient population is it used for?

The Canadian C-spine Rule was validated with patients who sustained blunt neck trauma within 48 hours of presenting to emergency, however, it may be clinically relevant in patients with acute neck pain whose traumatic incident was more than two days previous.

3. When the rule is not applicable, what denotes “known vertebral disease”?

Vertebral disease examples: ankylosing spondylitis, rheumatoid arthritis, stenosis or previous cervical spine surgery

4. Isn't my clinical judgement good enough?

The Canadian C-spine Rule was developed from high quality research and found to be highly sensitive (98-100%), reliable, clinically applicable, simple to use, and superior to both clinical judgement and similar decision rules.

5. If I use this rule, will I miss a serious C-Spine injury?

Serious clinically important injuries* post-trauma are uncommon (< 2% of cervical trauma ER visits) and in 98% of ER X-rays the findings are normal (Stiell et al, 2001). Regardless, it is important as primary care practitioners to identify these injuries to ensure safe management of our patients and, once suspected, to selectively refer to the physician or emergency (ER) for imaging.

* **Clinically important cervical spine injury** is defined as any fracture, dislocation, or ligamentous instability demonstrated by diagnostic imaging which requires specialized medical follow-up and may need bracing or surgery.

Clinically unimportant injuries do not require stabilization or any specialized follow-up and include isolated avulsion of an osteophyte, isolated fracture of a transverse or spinous process, or simple compression fractures (<25% of vertebral height).



Stiell I et al. The Canadian C-Spine Rule for Radiography in Alert and Stable Trauma Patients. JAMA. 2001, 286 (15):1841-1848.