

KEY

Assessment
GuideManagement
Plan***CERVICAL SPINE INJURY**

Clinical Assessment

NO Red Flags

Canadian C-Spine Rule

Red Flags – URGENT Consider other diagnoses

1. Severe worsening/unrelenting pain, especially at night or when lying down
2. Significant trauma
3. Weight loss, history of cancer, fever
4. Use of intravenous drugs or steroids
5. Bilateral signs and symptoms
6. Severe neurological dysfunction

MRI CONTRAINDICATIONS**CAUTIONS - CONTACT RADIOLOGY PROVIDER**

- Pacemaker
- Metalware
- Cochlear Implants
- Claustrophobia
- Works with Metal – Orbit check

YES

NO

X-Ray

NO Fracture Confirmed

Active Rehabilitation

Persistent pain 6 weeks post injury that has shown no improvement following initial presentation

YES Fracture Confirmed

Refer acute service

A) Non Radicular Pain

Pain Management/
Active Rehabilitation

No improvement
manage as per local
pathways
If no pathways at 3/12
discuss with specialist

B) Radicular Pain
Lancinating nerve pain
radiating down the arm
within a narrow confine.
Patient uncomfortable at
night with this pain.
+ve Spurlings test

MRI

CONFIRMED
Nerve root involvement

Refer Specialist

C) Radiculopathy
Neurological abnormalities
consistent with
dermatomal or myotomal
nerve root distribution +/-
reflex abnormalities
Abnormal neurological
exam

MRI

NOT
CONFIRMED

Pain Management/
Active Rehabilitation

No improvement
manage as per local
pathways
If no pathways at 3/12
discuss with specialist

CONFIRMED
Nerve root compression

Refer Specialist

CANADIAN C-SPINE RULE**1. High Risk**

Age <16yrs and >65yrs
Dangerous mechanism
Paraesthesia in the extremities
IF YES NEED IMAGING
IF NO THEN PROCEED TO 2

2. Low Risk

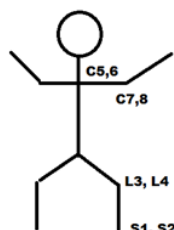
Simple rear end MVC
Sitting upright in practice field
Ambulatory at any time
Absence of midline tenderness
IF NO THEN NEEDS IMAGING
IF YES THEN PROCEED TO 3

3. Able to actively rotate neck > 45° to

the left and the right & pain free flexion
IF ABLE TO NO IMAGING NEEDED
IF NOT ABLE TO FOR IMAGING

NOTE: Canadian C-Spine Rule not applicable if

Non-trauma case
GCS<15
Unstable vital signs
Age <16 years
Acute paralysis
Known vertebral disease
Previous C-Spine surgery



Nerve	Manual Muscle Testing	Nerve	Dermatome Site	Reflexes
		C3	Supraclavicular fossa	
C4	Shoulder elevation (shrug)	C4	Tip of the acromion	
C5	Deltoid – shoulder abduction	C5	Deltoid badge area	Biceps
C6	Biceps – elbow flexion Wrist flexion/extension	C6	Radial side of the thumb	
C7	Triceps – elbow extension Wrist flexion/extension	C7	Middle finger ventral aspect	Triceps
C8	Finger grip	C8	Ulnar side of 5 th digit ventrally	
T1	Finger abduction	T1	Medial aspect of the upper arm	

Spurlings Test

Good reliability when performed in the sitting position. High specificity but low sensitivity