APLS: Spinal

Suspicion of spinal injury
(mechanism, reported symptoms or signs)
Maintain spinal movement restriction until clinically cleared by an experienced senior

Patient alert and co-operative?

YES →

Any dangerous mechanism?
Fall from height greater than
1 metre or 5 stairs
Axial load to head
High speed motor vehicle collision
Rollover motor accident
Ejection from a motor vehicle
Accident involving a motorised recreational vehicle
Bicycle collision or horse riding accident

NO TO ALL

NO →

Any high risk feature:
GCS less than 13
Intubated (and cervical spine not cleared before intubation)
Focal peripheral neurological signs
Paraesthesia in upper or lower limbs

YES

YES →

Cervical spine imaging indicated

NO

Safe to test range of movement?
Simple rear end motor vehicle collision
Comfortable sitting while in ED
Walking at any time since injury
No midline cervical spinal tenderness
Delayed onset of neck pain

YES TO ANY

NO

Focal peripheral symptoms or signs?

YES → **MR / CT indicated Discuss with radiologist**

NO

CT cervical spine indicated

Test range of movement:
Able to actively rotate head
45 degrees
to left AND right?

NO

YES

3 view cervical spine X-rays indicated

Cervical spine clinically cleared Remove cervical spinal restriction

Assess for thoracolumbar spinal injury
Dangerous mechanism
Signs of injury on log roll – new deformity or midline tenderness
Neurological level/deficit

If any concern request CT/MR of relevant area – discuss with radiologist

Any abnormality on imaging
or
continuing concern for spinal cord injury despite normal imaging:
Continue spinal movement restriction and
refer to spinal injury specialist