GIG CYMRU NHS WALES | Bwrdd Iechyd Prifysgol Caerdydd a'r Fro
Cardiff and Vale University Health Board

Spinal Column Clearance in Trauma Patients

Use the current local spinal immobilisation guidelines

- Can Assess Patient? (1)
  - Yes → Normal Spine Exam (2)
    - Yes → Remove Collar / Spine Cleared
    - No → CT Spine *
  - No → CT Head & Spine *
- CT Spine *
  - No Fracture
  - Fracture
- CT Head & Spine *
  - Fracture
  - Abnormal No Fracture
  - Normal CT (5)
- No Fracture
  - (3) → Remove Collar / Spine Cleared
  - (3) → MRI Spine (4) → Ligamentous Injury / Spinal Cord Injury?
    - No → Remove Collar / Spine Cleared
    - Yes → Spinal Consultation
- Fracture → Spinal Consultation
- Abnormal No Fracture → MRI Spine (4) → Ligamentous Injury / Spinal Cord Injury?
  - Yes → Spinal Consultation
  - No → Remove Collar Spine Cleared
- Normal CT (5) → Remove Collar Spine Cleared

All decisions should be based on the final imaging report issued by the Consultant Radiologist.

1 – This means: normal mental status, not intoxicated, no language barrier, no "distracting injury". Distracting defined as preventing participation in a thorough and reliable physical examination.

2 – Normal Spine Exam means: normal active range of movement, absence of midline pain / tenderness, focal neurological deficit, or spine deformity. Examinable, asymptomatic patients do not need imaging to discontinue immobilisation. Consider CT in asymptomatic patients with higher energy transfer mechanisms, concurrent medical conditions, or patients at the extremes of age.

* Patients < 9 years of age - Nexus and Canadian C Spine rules do not apply. Follow NICE CG176 and SWTN CG18 guidelines. Discuss imaging modality with Musculoskeletal Radiologist on call (CT vs MRI).

3 – Patients with persistent neurological deficit with normal diagnostic CT should prompt a diagnostic MRI. Patients with significant mechanism of injury or clinical suspicion of ligamentous injury – consider MRI or erect XR (consider doing erect XR in collar / brace).

4 – MRI scan – All MRI requests mandate an ST4 or above / Consultant (any specialty) discussion with the Musculoskeletal Radiologist and likely spinal surgical review.

5 – Decision to clear the spine based on normal CT alone should be made on a risk benefit basis. If in doubt, discuss with spinal team. Later review of the patient when they become clinically assessable required. See Moving and Handling guidelines. For Intubated patients – the decision to remove collar / clear the spine based on CT alone is to be made by the Spinal Team or ICU / ED / MTC Consultant.