## **Cervical spine clearance**

Clearing the cervical spine is the process by which medical professionals determine whether cervical spine injury exist. This process can take place in the emergency department or take place in the field by appropriately trained EMS personnel.

The following is based on the NEXUS Criteria for C-Spine Imaging.

There are other clinical criteria in common use, such as the Canadian Cervical Spine Rule.

Excluding a cervical spinal injury requires clinical judgement and training.

Under the NEXUS guidelines, when an acute blunt force injury is present, a cervical spine is deemed to not need radiological imaging if all the following criteria are met:

There is no posterior midline cervical tenderness.

There is no evidence of intoxication.

The patient is alert and oriented to person, place, time, and event.

There is no focal neurological deficit (see focal neurological signs).

There are no painful distracting injuries (e.g., long bone fracture)

If the patient does not meet all the above criteria then they require a three view Cervical Spine X Ray series, adding a swimmer's view if the lateral doesn't include the C7/T1 interface. In those with degenerative disease of the cervical spine, a plain film series is often inadequate to assess for injury. Plain radiographs, even when technically optimal, my fail to reveal significant injury. If there is clinical suspicion, a Computerized Tomography (CT Scan) may be needed to rule out a fracture, and flexion-extension radiographs or Magnetic Resonance Imaging to exclude a ligament injury.

If the patient is obtunded, i.e. has a head injury with altered sensorium, is intoxicated, or has been given potent analgesics, the cervical spine must remain immobilized until a clinical examination becomes possible.

If the patient is not expected to be clinically evaluable within 48–72 hours because of severe head or multiple injuries, they should remain immobilized until a time when such an examination is possible. A 64-slice CT with reconstructions does not entirely rule out ligamentous injury leading to instability, but is a practical means of identifying the majority of C-spine injuries in obtunded patients. MR C-spine suffers from frequent false-positives, limiting its usefulness. In these cases, a consultation with a Spine Surgery specialist is prudent.

The indication for MR spine is a focal neurological deficit. Another indication for MR of the cervical spine is persistent mid-line neck pain or tenderness despite a normal CT in the awake patient.

## see Pediatric Cervical Spine Clearance

\_

1/2

## References

From: https://neurosurgerywiki.com/wiki/ - Neurosurgery Wiki

Permanent link: https://neurosurgerywiki.com/wiki/doku.php?id=cervical\_spine\_clearance



Last update: 2024/06/07 02:54