Neck Injuries (https://galwayem.ie/index.php/guidelines/trauma-and-musculoskeletal/neck-injuries)

Category
Trauma and Musculoskeletal (https://galwayem.ie/index.php/guidelines/trauma-and-musculoskeletal)

The clinical assessment of a patient with a neck injury consists of:
a) History
b) Clinical examination of neck:
i) Bony tenderness
ii) Soft tissue tenderness
iii) Range of movement
c) Neurological examination of the arms.
d) Neurological examination of the lower part of the body (where appropriate),

If there is clinical suspicion of a fracture or if it is difficult to assess the patient, this clinical assessment must wait until after the patient has been x-rayed.

Patients brought into the ED wearing a stiff neck collar and/or head restraint
Ask the patient if they have any neck pain and ask about any neurological symptoms (weakness, numbness or pins and needles).

If the patient is not in severe pain, has no neurological symptoms, is fully alert and oriented, not under the influence of alcohol or drugs and has not been given any opiate analgesia, the collar can be removed and the patient's neck can be assessed clinically with radiological imaging being requested if required.(see page 46)

If the patient has severe neck pain or neurological symptoms, or if they are difficult to assess for one of the reasons noted above, spinal immobilisation must be left in situ until the patient has had imaging.

If the imaging is normal the immobilisation can be removed to allow a clinical assessment of the neck. If not normal, ask advice.

Patients should not remain on spinal boards in the ED for longer than 20 minutes.

Patients presenting without a collar
Ask the patient if they have any neurological symptoms.
If there are no neurological signs and the patient is mobile and is not under the influence of alcohol

drugs or opiate analgesia, then there is no need to apply immobilisation but the patient can be clinically assessed and imaged if indicated.

Patients presenting with neck pain with no history of trauma or with minimal trauma
Enquire about past medical problems which might be suggestive of serious neck pathology (e.g. ankylosing spondylitis, rheumatoid arthritis, malignancy, previous neck problems).
If there is a possibility of there being a pathological fracture the patient's neck should be immobilised in a Philadelphia collar.
If there is no history suggestive of a pathological fracture the patient does not need a collar.

Indications for X-raying the neck following an injury (NEXUS)
- The cervical spine must be x-rayed in all patients who have suffered a head injury or blunt trauma above the clavicles and in whom you cannot assess the neck because of diminished level of consciousness, alcohol etc.
- The cervical spine must also be x-rayed in anyone with neck pain following an injury unless they fulfil the following five criteria:
1. Are alert and orientated i.e. GCS 15
2. Are not intoxicated
3. Have no distracting injury
4. Have no posterior midline bony tenderness
5. Have no abnormal neurology.

There is no need to routinely x-ray the neck in patients with neck pain in the absence of trauma.

Management of neck injuries
When looking at the cervical spine x-ray you must be able to see the C7/T1 junction.
If you cannot see C7/T1 pull on the arms, get a swimmer's view or a CT

All fractures
- Ask advice
- Keep immobilised
- Refer orthopaedics

Neck Sprain
- Analgesia.
- Mobilisation
- Advise patient to resume normal activities as early as possible.
- Some will benefit from physiotherapy.

Trauma with severe symptoms or neurological signs but no bony injury
- Keep neck immobilised.
- Ask advice
- Patient may need CT or MRI

Hoffman JR, Mower WR, Wolfson AB, Todd KH, Zucker MI.(for the NEXUS group) Validity of a set of clinical criteria to rule out injury to the cervical spine in patients with blunt trauma. N Engl J Med 2000;343:9499.
