
Station Number FIVE: Examination

Candidate instructions

This is a 7-minute examination station.

You are a consultant in an urban district Emergency Department on a Saturday afternoon. You have been asked by the nursing staff to assess a 20-year-old man who is waiting to be seen. He was brought in by ambulance after sustaining a head strike whilst playing sports. He was tackled awkwardly and landed on his head. He initially complained of neck pain and feeling weak, numb and unable to move. This was an isolated injury. He has no past medical history.

The nurse looking after the patient has asked whether the pt can be cleared clinically or if he needs some imaging.

Your tasks are to:

- Describe how you would perform a focussed clinical exam on this patient.
- Formulate an ongoing management plan for the patient based on the exam findings
- Answer any further questions from the examiner

You are NOT required to take a full history

This OSCE will assess the following domains:

- Medical expertise
 - Assessment 40%
 - Management 20%
 - Leadership and Management 40%
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Examiner Instructions

This is a 7-minute examination station. The candidate is expected to accurately describe how they would perform an examination in this clinical scenario and interpret the examination findings.

Part 1 (Minutes 0-3): *“Please describe how you would assess this patient’s c-spine, and perform a focussed neurological examination on this patient.”*

The candidate is expected to perform a focussed clinical examination for somebody with C-spine pain and complaints of neurological deficits.

The assessment should include:

- Ensuring the patient’s cervical spine is appropriately immobilised
- History to assess for mechanism of injury, intoxication, level of alertness, distracting injury
- A log roll and assessment for midline tenderness
- A focussed neurological examination as detailed below
- May mention potential to include assessment of perianal tone and sensation as part of log roll in immobilised patient

Neurological examination of upper and lower limbs

- **Upper limb power – with mention of myotomes**
 - **Sensation – with mention of dermatomes**
 - **Tone**, and Reflexes (with associated level)
 - Triceps C7-8. Biceps/ supinator C5-6
 - Knee jerk L3-4. Ankle s5-L1
 - Should assess for sensory level on torso
 - Should perform same for lower limbs
 - Should mention need for PR examination as above
 - More thorough candidates may move on to discuss finer points such as temperature, proprioception, fine touch etc but these don’t need to be performed.
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Prompt

“And how would you perform that examination/ elicit that?” if candidate mentions something without detail or looking for clinical sign without explain how

Part 2 (minutes 3-4): *“The patient’s examination findings are shown on this handout. Please summarise these findings and ongoing management plan?”*

- Paraesthesia/ hyperalgesia at C3/4/5 level, paraesthesia c6-T1, with mild weakness C5-7. Suggestive of a potential cord injury.
- Differentials
 - Radiculopathy
 - **Cord injury**
- Management should include
 - Analgesia
- **Avoid secondary injury**
 - Maintain BP > 100/ map 80 sys
 - Avoid hypoxia
- Monitor for complications
 - Spirometry/ Peak flow
 - Monitor BP for signs of neurogenic shock
- **Cannot clear this patients C spine, requires imaging**
 - **CT** usually 1st line in most centres, lacks sensitivity for ligament and cord injury
 - **MRI indicated if ongoing neurology even if CT normal.**
 - Better candidates should mention discussion with/ transfer to spinal/ neuro surg centre
 - Remain in collar and maintain precautions

Prompt : ***“what are your differentials?”***

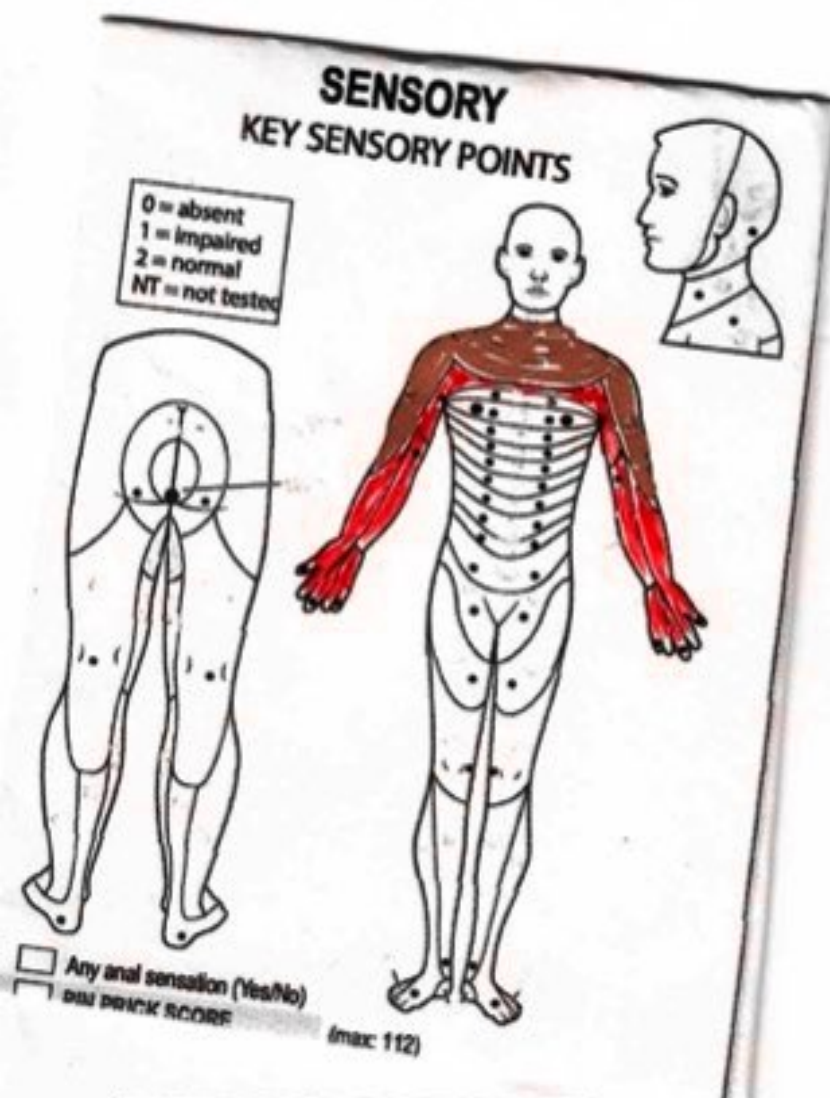
Part 3 (minutes 4-6): “Outline how you would approach writing a c spine clearance guideline for your emergency department?”

- Assess current protocol/ guideline
- Benchmarking with similar health services, literature review, discussion with stakeholders such as usual referral site for spinal injuries
- Develop protocol to include evidence-based decision tools such as nexus or Canadian C spine
- Write protocol
- Educate staff/ credentialling – SMS, JMS, nursing, support staff
- Roll out
- Audit compliance and application, adverse events

Part 4. (6-7 mins): “The director of your department has asked you to develop a Short Stay pathway for appropriate patients awaiting clearance of their C spine. Outline the key principles of such a pathway.”

- Key principle – requiring imaging to clear pt from precautions, low suspicion of significant injury, likely to be discharged between 4-24 hours
 - Inclusion criteria
 - Haemodynamically stable
 - Low suspicion of injury but requiring radiological clearance
 - No other apparent injuries that would require surgical/specialist management
 - Exclusion criteria
 - Other identified injuries requiring transfer or surgical admission
 - Uncooperative pt
 - Adequate staffing ratios to care for pt in spinal precautions
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Examination findings



Hyperalgesia
Subjectively Reduced sensation.

Motor	RIGHT	LEFT
Shoulder abd/add	3	3
shoulder flex/ext	3	3
Elbow flex/ex	4+	4+
Wrist flex/ ex	5	4+
Finger flex/ext/ab/ad	5	5
Grip	5	5
Lower limbs	5	5

Examiner Marking Sheet

Examiner name(s):

Candidate Name:

OSCE Station:

DOMAIN	ASSESSMENT CRITERIA	MET/NOT MET
Medical expertise	• Thorough neuro examination to include knowledge of upper limb myotomes/dermatomes • Differential diagnosis including cord injury • Management to include consideration of secondary prevention eg BP control • Imaging plan CT. Must be followed by MRI if ongoing neurology with normal CT	
Leadership and management	• Development of C spine protocol • Principles of SSU admission for low risk pts	

COMMENTS AND CONSTRUCTIVE FEEDBACK

GLOBAL ASSESSMENT RATING

Please rate this candidate's OVERALL performance in this OSCE:

In terms of a **safely practising junior emergency physician** please select the ONE option which best reflects this candidate's performance in this station

**Well
Below
Standard**

☐

**Below
Standard**

☐

**Just at
Standard**

☐

**Above
Standard**

☐

**Well
Above
Standard**

☐