NHS
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Critical Care RSCH Spinal Limb Observations

Spinal injury/surgery from C1 - T1:
Complete a full spinal assessment (upper & lower Limbs)

Spinal injury/surgery T2 or below:
Complete a lower limb spinal assessment only

Frequency of spinal assessment to be confirmed by Spinal Team

Joint assessment should be carried out at nursing handover

Upper Limb Spinal Observations

C4 – Shoulder Shrug

Examiner Position:
Place your hands over the patients shoulders.

Patient Instruction:
Ask patient to shrug shoulders and hold shrug as you push down against patients shoulders.

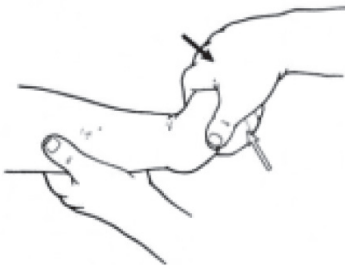
C5 – Elbow Flexion

Examiner Position:
Hold patients hand / wrist.

Patient Instruction:
Ask patient to pull hand back toward chest/nose whilst you pull against them.

C6 – Wrist Extension

Examiner Position:
Support lower arm and place your hand over back of their hand.



Patient Instruction:
Ask patient to bend hand back/upwards from wrist.
N.B. Movement should come from wrist not fingers.

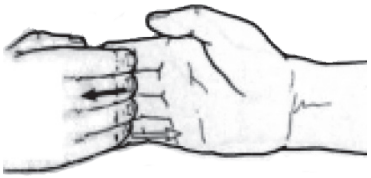
C7 – Elbow Extension

Examiner Position:
Hold patients upper arm & support wrist or hand.

Patient Instruction:
Ask patient to push lower arm out whilst you push against them. NB movement should come from elbow not upper arm.

C8 – Finger Flexion

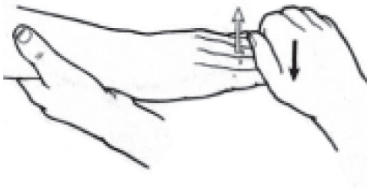
Examiner Position:
Link fingers with the patient.



Patient Instruction:
Ask patient to pull against your fingers.

C8 – Finger Extension

Examiner Position:
Support the wrist and place your hand over the patient's fingers. Press down.



Patient Instruction:
Ask the patient to resist you pressing their fingers down.
N.B. movement should come from fingers not wrist.

T1 – Finger Abduction

Examiner Position:
Exert pushing force against patient's fingers.

Patient Instruction:
Ask patient to resist force and spread their fingers.

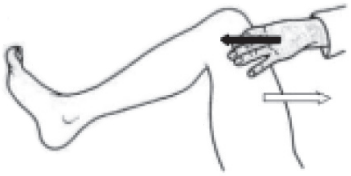
Scoring muscle movement

Grade	
0	Total paralysis
1	Palpable or visible contraction
2	Active movement, full range of motion, gravity eliminated.
3	Active movement, full range of motion, against gravity.
4	Active movement, full range of motion, against gravity and provides some resistance.
5	Active movement, full range of motion, against gravity and provides normal resistance.
NT	Not testable due to factors such as immobilization or pain on effort.

Lower Limb Spinal Observations

L2 – Hip Flexion

Examiner Position:
Patient hip is flexed. Place your hands on the patient's knee and push downwards.



Patient Instruction:
Hip is flexed - ask patient to keep hip in flexed position against examiners push.

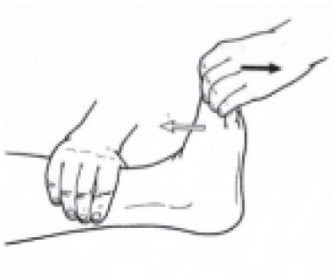
L3 – Knee Extension

Examiner Position:
Patients knee is bent. Support underside of knee with one hand. Other hand on ankle.

Patient Instruction:
Ask patient to raise foot as examiner applies force to ankle.

L4 - Dorsiflexion

Examiner Position:
Place one hand above ankle and one on top of foot at base of toes. Push foot down towards bed.



Patient Instruction:
Ask the patient to bend their foot back from the ankle (toes towards chin) and resist examiner pushing down.

L5/S1 - Plantarflexion

Examiner Position:
Place one hand above ankle and one hand on ball of foot.

Patient Instruction:
Ask patient to push foot down against examiner pushing ball of foot up / back.

Scoring muscle movement

Grade	
0	Total paralysis
1	Palpable or visible contraction
2	Active movement, full range of motion, gravity eliminated.
3	Active movement, full range of motion, against gravity.
4	Active movement, full range of motion, against gravity and provides some resistance.
5	Active movement, full range of motion, against gravity and provides normal resistance.
NT	Not testable due to factors such as immobilization or pain on effort.

Testing Sensory Dermatomes

- When recording spinal observations please record the lowest level sensitive to touch on both sides
- Use dermatome map for reference
- Ask patient to close their eyes
- Tap gently (as hard as you would tap your phone) in the centre of the dermatome area concerned - ask patient if they can feel anything
- Check left and right side as they may differ
- Record the lowest level the patient can reliably feel your tapping.