CLINICAL SKILLS: NEUROLOGICAL EXAMINATION OF THE UPPER LIMBS

- **Wash hands**
- **Introduce and explain the examination**
- **Permission**
- **Expose - from the waist upwards**
- **Reposition - sitting position**
- **Use the 'I ToP CaRS' structure to the examination**

Inspect:

- Patient well or unwell? Abnormal posture?
- Surrounding environment for clues
- Inspect the arms for: 'DWARFS'
    - Deformities, e.g.: hypertrophy
    - Wasting
    - Asymmetry
    - Redness or rashes
    - Fasciculations
    - Swellings/scars

Tone:

- Ask patient if they have any pain in their arms or shoulders
- Passively move the shoulders, elbows and wrists
- Tone increased, normal or decreased?
- Rigidity can be:
- Clasp knife - increased tension in the extensors of a joint when it is passively flexed, giving way suddenly on exertion of further pressure - assesses for pyramidal lesion (spasticity)
- Lead pipe - posture adopted when the rigidity of the limb is maintained equally throughout the passive flexion - assesses for extrapyramidal lesion
- Cog wheeling - lead pipe and a tremor. Evident in Parkinson\'s disease and extrapyramidal lesions. Tension in a muscle which gives way in little jerks when the muscle is passively stretched.

Power:

- Ask patient to abduct arms with flexed elbows and ask them to push up and down against your force
- Assess elbow flexion and extension
- Wrist extension and flexion
- Finger abduction
- Thumb abduction
- Record as MRC grade 0-5:
    - 0 no movement
    - 1 - flicker of movement
    - 2 - movement with gravity eliminated
    - 3 - movement against gravity
    - 4 - movement against resistance but incomplete
    - 5 - normal power for age and sex

Co-ordination:

- Pronator drift test - assesses joint position sense (dorsal columns)
    - Ask patient to stretch out arms and close eyes. Look for any drifting of arms, especially unequal drift
- Finger-nose test:
    - Place your finger 30 cm away from patient\'s nose. Ask patient to touch your finger with their finger then touch their own nose. Move your finger and ask the patient to repeat the movement
- Look for past pointing (cerebellar lesion sign) and intention tremor (cerebellar lesion or rubral tremor, seen in Multiple Sclerosis)
- Rapid alternating movements:
    - Ask patient to rapidly pronate and supinate hand on the dorsum of the other hand

Reflexes:

- Biceps: C5/C6
    - Elbow at 90 degrees and hand resting on abdomen. Locate biceps tendon and rest finger on it. Strike your finger with the tendon hammer and watch for contraction
- Triceps: C7
    - Elbow at 90 degrees and hand resting on abdomen. Strike the tendon directly above the olecranon process and watch for contraction
- Brachioradialis: C5/C6
    - Elbow at 90 degrees and hand resting on abdomen. Rest finger on lower radius on extensor side and strike with tendon hammer. Observe arm movement
- Reflex grading:
    - 0 absent
    - +/- present with reinforcement
    - + just present
    - ++ brisk normal
    - +++ exaggerated response

Sensation:

- Same as the lower limb examination but in the arm dermatomes
- Test for pain, light touch, temperature, proprioception and vibration

To conclude the examination:

- Thank patient and offer to help them get dressed
- Offer to carry out a full neurological examination of the lower limb and the cranial nerves