

Ulnar Neuropathy at the elbow

The following standards are only appropriate for cases selected for the verification of suspected ulnar neuropathy at the elbow (UNE), not for investigation of a differential diagnosis.

Standard 1

Before starting testing the patient is identified and the clinical information from the referral verified.

Standard 2

Hand temperature is measured, recorded and maintained above 30 degrees C.

Standard 3

Sensory nerve conduction is performed on an ulnar digital sensory nerve in the most affected hand using surface electrodes and measuring response amplitude and latency/velocity. A comparative test of conduction in a digital nerve not innervated by the ulnar nerve is performed in the same hand.

Standard 4

A test of ulnar motor nerve conduction in the affected hand is performed using surface electrodes and measuring response amplitude and latency/velocity. Stimulation points must include just proximal to the wrist and proximal and distal to the elbow.

Standard 5

The report of the investigation contains the numerical data. It makes a statement about any abnormality detected. The qualification of the practitioner performing the investigation and report is identified.

Standard 6

The report is signed by the practitioner taking medico-legal responsibility for it.

Guideline 1

Referrals are screened before allocation of patients by a suitably qualified practitioner to assess appropriateness of clinical question posed.

Guideline 2

A focussed patient history and examination are recorded, including the presence of co-existing disease.

Guideline 3

Digital sensory nerve conduction as per standard 3 is performed in the contra-lateral hand.

Guideline 4

Ulnar motor nerve conduction in the affected limb is tested over a short segment around the elbow using surface electrodes and measuring response amplitude and latency/conduction velocity.

Guideline 5

Motor nerve conduction in the median nerve is performed in the affected limb using surface electrodes and measuring response amplitude and latency/conduction velocity.

Guideline 6

Ulnar motor nerve conduction is performed in the contra-lateral limb as in standard 4.

Guideline 7

Short segment ulnar motor nerve conduction is recorded in the contra-lateral limb, as in guideline 4.

Guideline 8

Ulnar mixed nerve conduction is measured in the affected arm using surface electrodes and recording response amplitude and latency/velocity around an elbow segment of nerve. This may be compared with the same test in the contra-lateral arm.

Guideline 9

Needle EMG recording of ulnar innervated hand/arm muscles is performed by a medically qualified practitioner.

Guideline 10

The patient is seen by a suitably qualified practitioner at the end of the test to verify the clinical presentation, make a clinico-electrophysiological correlation, to include this in the final report, and to answer any clinical questions the patient may have.

Guideline 11

The report details any technical factor that could influence the results.

Option 1

Ulnar motor conduction velocity is measured to a second hand muscle.

Option 2

A comparative test of ulnar and median sensory nerve conduction in the arm is performed.

Option 3

Tests of ulnar motor nerve conduction to a forearm muscle may be performed.

Option 4

F wave latencies are recorded.

Option 5

The report contains illustrations of recorded waveforms.