Unit 72: Assist during Nerve Conduction Studies and Electromyography

Level:	**4**
Unit type:	**Optional (Neurophysiology)**
Credit value:	**6**
Guided learning hours:	**52**

Unit summary

In this unit, you will develop the knowledge, understanding and skills needed to assist and support the healthcare science practitioner/clinical scientist or consultant neurophysiologist nerve conduction studies and electromyography (EMG). You will be expected to build your patient-centred professional practice and practise safely in the workplace.

Unit assessment requirements

There are no specific assessment requirements for this unit. Please refer to the assessment strategy in *Annexe B*.

Additional information

All procedures must be undertaken in accordance with the Standard Operating Procedures (SOPs) in own work practice.

AC1.1 includes:

- motor, mixed and sensory nerves of commonly tested upper and lower limb peripheral nerves
- commonly sampled muscles of upper and lower limbs.

AC1.2 includes:

- electrodes (surface and needle), impedance, amplifier settings, filters, sensory and motor stimulators.

AC1.3 – indications for nerve conduction studies and EMG:

- peripheral neuropathies
- entrapment neuropathies, e.g., carpal tunnel syndrome
- radiculopathies
- muscle disorders

contraindications to EMG and nerve conduction studies include:

- significant coagulopathies

- blood dyscrasia
- implanted cardiac defibrillator.

AC2.1 includes:

- minimising risks and hazards in compliance with health and safety policies
- controlling infection risks
- washing hands
- chaperoning.

AC2.2 includes:

- ensuring privacy, dignity and comfort of the individual
- special needs of the individual
- light, heat, ventilation.

AC2.3 includes:

- checking individual's details and accurately entering on NCS/EMG system
- internal checks on NCS/EMG system – error messages, identifying common faults and remedial action
- selection of relevant NCS/EMG program, recording and stimulating electrodes and amplifier set up.

AC2.4 includes:

- greeting individual using patient centred approach
- communicate effectively with the individual and carer/s, confirming individual's identification.
- explaining personal role, and ensuring individual has opportunity to explain any problems or difficulties
- taking limb temperature and warming/cooling as necessary according to SOP
- preparing the individual in appropriate clothing depending on the clinical condition
- positioning individual in preparation for the investigation.

AC2.6 includes:

- annotation and documentation of data in accordance with SOP.

AC3.1 includes:

- ensure all electrodes are removed and sites are clean
- ensure all needle sites are clean and not bleeding
- assist individual to dress – maintaining compassion respect and dignity
- take in to account any manual handling assistance which the individual may need
- answer transportation queries.

Learning outcomes and assessment criteria

To pass this unit, learners need to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria outline the requirements that the learner is expected to meet **in own area of work and in accordance with Standard Operating Procedures (SOPs)** to achieve the learning outcomes and the unit.

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Understand the principles and application of nerve conduction studies and electromyography (EMG) and the importance of patient-centred practice	1.1	Explain the anatomy and physiology of the peripheral nervous system relevant to nerve conductions studies and EMG			
		1.2	Discuss the recording principles of nerve conduction studies and electromyography (EMG)			
		1.3	Describe the routine clinical indications and contraindications for nerve conductions studies and EMG			
		1.4	Evaluate ways to ensure and promote patient-centred care in own area of practice			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Be able to assist with the planning, preparation and delivery for recording nerve conduction studies and electromyography (EMG)	2.1	Evaluate the Standard Operating Procedure underpinning the recording of nerve conduction studies and EMG			
		2.2	Prepare the environment for the measurement of nerve conduction studies and EMG			
		2.3	Assist with preparation of equipment for recording nerve conduction and EMG			
		2.4	Prepare the patient for the investigation			
		2.5	Treat every person with compassion, dignity and respect to meet standards of patient-centred care			
		2.6	Assist in the annotation of the recording			
3	Be able to assist following completion of the recording	3.1	Support the patient on completion of the NCS/EMG			
		3.2	Provide information to the patient with respect to how they will be informed of results of the investigation			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
4	Be able to decontaminate equipment, and leave in a suitable condition for reuse	4.1	Evaluate the protocols for cleaning and decontaminating equipment			
		4.2	Decontaminate equipment and environment following standard operating procedures			
		4.3	Ensure the equipment is left in a suitable condition for reuse			
		4.4	Dispose of sharps and electrodes safely in accordance with health and safety procedures			

Learner name: _____ Date: _____

Learner signature: _____ Date: _____

Assessor signature: _____ Date: _____

Internal verifier signature: _____ Date: _____
(*if sampled*)