

Unit 71: Assist in the Recording of Visual Electrophysiological Investigations

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

Unit summary

In this unit, you will develop the knowledge, understanding and skills needed to assist in the recording of visual electrophysiological investigations spanning electroretinograms (ERG), pattern reversal electroretinograms (PERG) and electro-oculograms (EOG) 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:

- retinal structure
- rods and cones dark adaptation.

AC1.2 includes:

- electrodes (surface and ocular)
- impedance measurement
- signal averaging
- sensitivity
- signal to noise ratio.

AC1.3 includes:

- cataract
- maculopathy
- optic nerve disease
- congenital colour vision defects.

AC1.4 includes:

- common retinopathies
- glaucoma.

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 entering accurately on EP system
- internal checks on EP system – identifying common faults and remedial action
- selection of relevant EP program, electrodes and head box set up.

AC2.4 includes:

- greeting individual using patient centred approach
- communicating effectively with the individual/carer confirming individual's identification, and purpose of procedure at a level appropriate to the individual/carer's understanding
- obtain verbal consent from individual/carer
- confirm individual's existing use of optical correction
- select appropriate test according to individual's age, co-operation, ability and any cultural and special needs
- positioning of individual to measure visual acuity for distance, with or without optical correction, according to local protocols, encouraging the individual to read to the smallest letters they can identify
- accurately document results in individual's record.

AC2.5 includes:

- communicating effectively with the individual/carer
- how to mark the electrode sites accurately, in accordance with a recommended placement system and the planned investigation
- how to securely apply surface electrodes and correctly position the leads
- how to ensure that the contact impedances are appropriate for the electrode type and rectify as necessary
- the importance of correctly positioning the individual and stimulators
- support and encourage individuals' co-operation throughout the assessment.

AC3.1 includes:

- different methods of application – glue, paste, tape, self-adhesive electrodes.

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 the measurement of visual electrophysiological investigations and the importance of patient-centred practice	1.1	Explain the anatomy and physiology of the eye and visual pathway in relation to visual electrophysiological investigation (ERG, PERG, and EOG)			
		1.2	Explain the recording principles of visual electrophysiological investigations			
		1.3	Explain how visual acuity and colour vision are affected by clinical conditions			
		1.4	Explain the routine clinical indications and contraindications for of visual electrophysiological investigations			
		1.5	Explain the principles, guidance and law for gaining informed consent, including the limits of consent			
		1.6	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 visual electrophysiological investigations	2.1	Evaluate the Standard Operating Procedure underpinning the recording of visual electrophysiological investigations			
		2.2	Prepare the environment for the recording of visual electrophysiological investigations			
		2.3	Assist in preparing the equipment for the recording			
		2.4	Assess the visual acuity, ensuring the patient is comfortable and positioned to optimise the recording quality			
		2.5	Assist in preparing the patient for the investigation and support senior staff during the investigation as instructed			
		2.6	Treat every person with compassion, dignity and respect to meet standards of patient-centred care			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Be able to assist following completion of the recording	3.1	Explain how to remove surface electrodes and clean the site with minimum discomfort to the patient			
		3.2	Remove surface electrodes and clean the site minimising discomfort to the patient			
		3.3	Provide information to the patient with respect to how they will be informed of results of the investigation			
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 equipment is left in a suitable condition for reuse			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)