# **Intended Learning Outcomes**

# Neurology

## Clinical Neuroanatomy

Explain basic neuroanatomy and provide examples of how lesions within the nervous system give rise to clinical signs.

Describe the structure of nervous system

Specify examples of what clinical signs might be seen with lesions at the following levels:

- Cerebral hemispheres (Frontal lobe, Parietal lobe, Temporal lobe, Occipital lobe)
- Diencephalon
- Spinal cord (Cervical, Thoracic, Lumbar)
- Cauda equina
- Nerve roots
- Nerve plexi (Brachial, Lumbosacral, Peripheral Nerves
- Upper limb (Median, Radial, Ulnar)
- Lower limb (Sciatic, Common peroneal
- Visual pathway (Optic nerve, Optic chiasm, Optic tract)

#### Seizures and epilepsy

Outline causes for loss of consciousness

Describe features within the history that help in identifying cause for loss of consciousness

Describe the definition of seizures and epilepsy

Outline briefly the different types of seizure

Discuss investigation of loss of consciousness

Outline longer-term management of epilepsy

Describe management of status epilepticus

Discuss the special considerations of epilepsy in pregnancy

### Stroke/TIA

Describe the anatomy of the blood supply to brain

Outline the pathophysiological processes that can result in stroke

Discuss the epidemiology of stroke

Describe the risk factors for cerebrovascular disease Recognise the clinical presentations of stroke/TIA Discuss a differential diagnosis for acute stroke including space occupying lesions Describe the typical onset of a vascular cause of weakness Describe typical aetiologies of vascular induced weakness Specify the investigations used to make a diagnosis of stroke/TIA Describe the role of CT, MRI and vascular imaging in assessment of stroke Describe the further investigation of a patient with stroke/TIA Describe the acute management of stroke / TIA Describe the role of physiotherapy, speech and language therapy and occupational therapy in acute stroke

Discuss briefly the investigation of stroke/TIA in a young person

### Headache/Subarachnoid Haemmorhage

Outline the difference between primary headache and secondary headaches syndromes Describe the important features of taking a history of headache Explain the significance of clinical signs when examining a patient with headache Recognise 'red flag' symptoms and signs in a patient with headache suggesting secondary causes Recognise features of high and low pressure headaches Provide a differential diagnosis for episodic and chronic headache Outline the assessment and management of episodic and chronic headache Describe the pathogenesis, clinical presentation and management of migraine Outline assessment and investigation of thunderclap headache To discuss the role of cranial imaging and lumbar puncture in the diagnosis of SAH To discuss the pathogenesis and management of SAH

#### Multiple sclerosis

Describe the typical onset of an inflammatory cause of weakness

Describe typical aetiologies of inflammation-induced weakness

Outline the diagnosis of MS

Discuss the clinical presentations of MS and diagnosis of MS

Outline the role of investigations such as MRI, lumbar puncture and VERS in the diagnosis of MS

Define the clinical subtypes of MS (relapsing remitting, secondary progressive, primary progress, and progressive relapsing

Outline the management of acute MS relapses

Describe briefly the role of disease modifying drugs in relapsing remitting disease

Define the role of the multidisciplinary team in management of MS patient: MS nurse, physiotherapist, occupational therapist, psychologist

#### Parkinson's disease

Describe the pathological changes seen in Parkinson's disease Describe the clinical features of Parkinson's disease Outline the differential diagnosis of Parkinson's disease Outline the principles of drug management of Parkinson's disease Describe the role of the multi-disciplinary team in management of Parkinson's disease

### Peripheral Neuropathy

Outline the pathogenesis of axonal and demyelinating processes in peripheral neuropathy

Outline the common causes for peripheral neuropathy

Describe common clinical patterns of neuropathy (including distal symmetrical length-dependent polyneuropathy and common mononeuropathies)

Outline the role of blood tests, nerve conduction studies and lumbar puncture in the assessment of peripheral neuropathy

### Myasthenia Gravis

Describe the basics about the presentation, diagnosis, investigation and management of Myasthenia Gravis

#### Motor neurone disease

Describe the basics about the presentation, diagnosis, investigation and management of Motor neurone disease

#### Cervical spondylosis

Describe the basics about the presentation, diagnosis, investigation and management of cervical spondylosis

#### Dementia

Describe the basics about the presentation, diagnosis, common types, investigation and management of dementia

#### Acute confusional state

Describe the basics about investigation and management of acute confusion state