



GENERAL PRACTITIONER CERTIFICATE IN NEUROLOGY – GPCert(Neuro)

SYLLABUS

This syllabus is intended to guide the delegate to the key areas they are expected to understand. The emphasis is very much on the clinical approach to different neurological presentation. In particular, the veterinarian will learn to develop a rational step-wise logical approach to different neurological complaints from principles of lesion localisation, establishing differential diagnostic list, choosing appropriately ancillary diagnostic test to having knowledge of treatment options available.

The veterinarian will be expected to have knowledge of common disorders and an appreciation of resource material from where further research can be undertaken into more unusual conditions. Additional reading lists and resource material will be provided by individual tutors during the course.

Neuroanatomy and clinical neurology

basic structure of the nervous system

- principles and components of neurological examination
- functional neuroanatomy and basis of anatomical diagnosis
- principles of establishing a differential diagnostic list

Neuroradiology: conventional radiology, CT, MRI

- use of conventional radiology applications, including myelography,
- Interpretation of images of clinical cases.
- Basics and clinical applications of CT.
- Basics and clinical applications of MRI.

Neuroanaesthesia, analgesia and fluid therapy

- considerations and techniques for anaesthetizing animals with neurological diseases
- selection of the most appropriate analgesic agents for animals with neurological disease
- anaesthetic and analgesic regimens that may be suitable for specific neurological patients
- specific problems that relate to animals with intracranial disease

Epilepsy, tremors and paroxysmal movement disorder

- neuroanatomical and pathophysiological basis of seizure activity
- principles of differential diagnosis for seizures
- anti-seizure medication available for dogs and cats

- Management of dogs with refractory epilepsy
- Management of dogs with status epilepticus and cluster seizures
- Recognition and management of different types of tremors seen in dogs
- Recognition and management of different types of paroxysmal movement disorder seen in dogs

Intracranial disorders

- obtaining cisternal and lumbar CSF samples
- principles and interpretation of CSF analysis
- differential diagnoses for intracranial disorders
- diagnosis and management of vascular diseases of the brain
- diagnosis and management of inflammatory and infectious diseases of the brain
- Management of head trauma
- diagnosis and management of intracranial neoplasm
- principles of managing hepatic encephalopathy

Neuro-ophthalmology and common cranial nerve disorders

- neurological causes of blindness and differential diagnoses
- causes of anisocoria and differential diagnoses
- causes of trismus and masticatory muscle atrophy and differential diagnoses
- causes of dropped jaw and differential diagnoses
- causes of facial paralysis and differential diagnoses
- causes of vestibular disorder and differential diagnoses

Neuromuscular disorders

-
- common presentations of neuromuscular disorders
- indications and techniques for muscle and nerve biopsy
- principles of electromyography (EMG), motor nerve conduction and repetitive nerve stimulation
- differential diagnoses and rational diagnostic plans for dogs with neuromuscular disorders
- diagnosis and management of common peripheral neuropathies
- diagnosis and management of common myopathies
- diagnosis and management of acquired myasthenia gravis

Non-surgical diseases of the spinal cord

- Localisation of lesions affecting the spinal cord
- differential diagnoses for spinal cord dysfunction
- Recognition and treatment of ischaemic myelopathy
- Recognition and treatment of discospondylitis and spinal epidural empyema
- Recognition and treatment of meningitis and myelitis
- syringomyelia, diagnosis and treatment
- diagnosis and management of degenerative myelopathy

Surgical diseases of the spinal cord

- pathophysiology of spinal cord injury
- localisation of lesions and differential diagnoses
- diagnostic investigations for dogs with spinal cord disease
- different types of disc disease
- Recognition and management of atlanto-axial instability
- Recognition and management of cervical spondylomyelopathy
- Recognition and management of spinal fracture/luxation
- diseases of the cauda equine, including diagnosis and treatment options

Peculiarities of feline neurology

- Performing neurological examination on a cat
- specific causes of spinal cord dysfunction in cats, diagnosis and management
- specific causes of neuromuscular dysfunction in cats, diagnosis and management
- specific causes of epileptic seizures in cats, diagnosis and management
- specific causes of vestibular dysfunction in cats, in cats, diagnosis and management
- common causes of intracranial dysfunction in cats

Rehabilitation of neurological patient

- functional assessment of the patient for specific requirements to achieve an optimal return of function
- Avoidance, recognition and management of post-operative complications of spinal surgery
- Management of neurological causes of bladder dysfunction
- Design of physiotherapy plans in patients with spinal or neuromuscular disease
- physiotherapy techniques, including hydrotherapy, therapeutic massage, passive mobilization, electrotherapy, laser therapy and others