COMMON PRESENTATIONS AND CONDITIONS
Basic Trainees will require a sufficient depth of knowledge of these presentations and conditions.

- Bell palsy
- Central nervous system infections:
  - bacterial meningitis
  - cerebral abscess
  - tuberculous meningitis
  - viral meningoencephalitis
    - cerebellar ataxia
    - varicella zoster virus (VZV)
- Cerebral palsy
- Encephalitis
- Epilepsy
- Excessive secretions
- Headache:
  - migraine
  - secondary to central nervous system pathology
  - tension headache
- Hydrocephalus
- Meningitis
- Neurofibromatosis type 1 (NF-1)
- Papilloedema
- Raised intracranial pressure
- Seizures and seizure-like episodes:
  - absence
  - breath holding spells
  - febrile
  - generalised tonic clonic
  - neonatal
  - pseudoseizures
  - simple syncope
  - status epilepticus
- Sensory disorders:
  - eye movement disorders:
    - nystagmus
    - strabismus
  - hearing impairment
- Stroke:
  - arterial ischaemic
  - haemorrhagic
  - venous sinus thrombosis
- Traumatic brain injury:
  - accidental
  - inflicted

For all common presentations, Basic Trainees will need to know how to:

Synthesise
- incorporate epidemiology, pathophysiology and clinical science
- recognise the clinical presentation
- take a relevant clinical history
- conduct an appropriate examination
- establish a differential diagnosis
- plan and arrange appropriate investigations

Manage
- provide initial, evidence-based management
- discuss the principles of ongoing management
- apply quality use of medicines
- recognise potential complications of the disease and its management, and initiate preventative strategies
- refer appropriately

Consider other factors
- identify broader considerations and their impact on diagnosis and management

LESS COMMON OR MORE COMPLEX PRESENTATIONS AND CONDITIONS
Basic Trainees will need

- Central nervous system inflammatory and immune mediated disorders:
  - acute disseminated encephalomyelitis (ADEM)

For all less common and more complex presentations, Basic Trainees will need to know how to:

Synthesise
- incorporate epidemiology, pathophysiology and clinical
to have an awareness of, and an understanding of appropriate resources that should be used to help manage patients with these presentations and conditions.

- Guillain-Barre syndrome
- multiple sclerosis
- transverse myelitis
- Central nervous system tumours
- Cerebellar disorders
- Cerebral neoplasia
- Cerebral venous sinus thrombosis
- Congenital eye abnormalities:
  - coloboma
  - corneal opacification
  - ectopia lentis and cataract
  - septo-optic dysplasia
- Idiopathic intracranial hypertension
- Motor neuron disorders
- Muscular dystrophy
  - Duchenne muscular dystrophy
- Myopathy
- Neurocutaneous syndromes
- Neurodegenerative disorders
  - adrenoleukodystrophy
- Neurological manifestations of systemic and chronic disease
- Paraneoplastic disorders
- Peripheral neuropathy:
  - acquired
  - hereditary
- Psychogenic neurological disorder
- Seizures:
  - complex partial seizures
  - epilepsy surgery
  - infantile spasms
  - myoclonic epilepsies
- Spina bifida
- Spinal cord compression
- Stroke
  - ischaemic
- Temporal arteritis
- Tuberous sclerosis
- Undifferentiated presentations:
  - confusion
  - seizure
  - syncope
- Weakness:
  - spinal muscular atrophy type 1
  - myasthenia gravis

EPIDEMIOLOGY, PATHOPHYSIOLOGY AND CLINICAL

- Anatomy and physiology of central and peripheral nervous system including muscle
- Concept of ‘brain death’
- Electrical activity of the brain and nerve conduction

science
- recognise the clinical presentation
- take a relevant clinical history
- conduct an appropriate examination
- establish a provisional diagnosis
- plan and arrange appropriate initial investigations

Manage
- initiate therapy in consultation
- discuss broad therapeutic options
- recognise potential complications
- refer appropriately

Consider other factors
- identify broader considerations and their impact on diagnosis and management
SCIENCE
Basic Trainees will be able to describe the principles of the foundational sciences.

- Metabolism of the brain
- Neuroanatomy, including cerebral blood supply
- Pharmacology of anticonvulsant medications
- Physiology of vision and hearing
- Sleep-wake regulation
- The action of neurotransmitters and neurotransmission (including ANS)

INVESTIGATIONS AND PROCEDURES
Basic Trainees will know how to select and interpret the results of these investigations and procedures.

- Audiology (interpret audiogram and tympanogram plots)
- Electroencephalography (EEG) (report only)
- Eye examination finding interpretation in neurological disease:
  - fundoscopy
  - eye movement assessment
  - visual acuity
  - visual field testing
- Lumbar puncture:
  - interpret cell count, glucose, protein and special stains (reports)
  - perform procedure safely in more and less unwell children
- MRI brain and spine images (gross abnormalities only)

IMPORTANT SPECIFIC ISSUES
Basic Trainees will be able to identify important specialty-specific issues and their impact on diagnosis and management.

- Care needs of children with progressive neurological disorders, including palliative care
- Ethical principles involved in the care of a dying patient
- Importance and meaning of resuscitation orders
- Needs of family and carers and the importance of assessing these
- Needs of children with cerebral palsy
- Prescribing:
  - anti-epileptic agents
  - appropriate antibiotics and antiviral agents for cases of meningitis and encephalitis
- Recognise the dying phase
- Recognise mental health manifestations of systemic disease
- Recognise the role of perfusion and metabolic imaging of the brain in the assessment of epilepsy
- The importance of respecting the wishes of family and carers
- The role of end of life care in certain clinical scenarios, such as fatal degenerative disorders
- Traumatic brain injury assessment and initial management

LEARNING METHODS
Suggested opportunities, activities, and resources to assist with learning.

- Membership Royal College of Paediatrics and Child Health Mastercourse www.rcpch.ac.uk/MRCPCH-mastercourse