

TOPIC: A-17 NEUROLOGICAL EMERGENCIES

OBJECTIVE: To be able to undertake a full neurological history and examination and interpret the clinical findings in the Emergency Department setting. To be able to undertake appropriate investigation, and manage those with life-threatening neurological emergencies.

OBJECTIVES:

- be able to perform a developmental assessment using typical milestones
- understand and use a range of communication skills with disabled children, their families and other professionals

PROBLEM	KNOWLEDGE	SKILLS/ATTITUDES	LEARNING	ASSESSMENT
1. Headache	<p>Causes of headache presenting to the Emergency Department:</p> <p>Subarachnoid haemorrhage, AV malformation, meningitis, encephalitis.</p> <p>Glaucoma</p> <p>Raised intracranial pressure.</p> <p>Temporal arteritis.</p> <p>Migraine.</p> <p>Cluster headaches.</p> <p>Sinusitis</p>	<p>Initiate investigations to explore the differential diagnosis.</p> <p>Appropriate use of CT, ESR, LP.</p> <p>To be able to identify unusual headaches and liaise with Radiology/Neurology/ Neurosurgery.</p> <p>To be able to identify after appropriate investigation those who are suffering from benign headache and therefore suitable to be discharged.</p>	<p>LP</p> <p>LT</p> <p>GT</p> <p>PS</p> <p>ODA</p>	<p>OC</p> <p>MC</p> <p>CBD</p> <p>ME</p> <p>FFAEM</p> <p>MFAEM</p>
2. Status epilepticus.	<p>Understand the appropriate use of pharmacological agents</p> <p>Follow an in status epilepticus and be aware of complications and side effects</p> <p>Indications for general anaesthetic.</p>	<p>A, B, C, D, E approach.</p> <p>Initial focus on the readily remediable causes, but ability to retain a broader differential and appropriate investigation.</p>	<p>LP</p> <p>LT</p> <p>GT</p> <p>PS</p> <p>LS</p> <p>ODA</p>	<p>OC</p> <p>CBD</p> <p>ME</p> <p>FFAEM</p> <p>MFAEM</p>

	Causes and complications.			
	Diagnosis of pseudo-seizures *			

PROBLEM	KNOWLEDGE	SKILLS/ATTITUDES	LEARNING	ASSESSMENT
3. Coma	<p>Assessment including GCS.</p> <p>Causes.</p> <p>Treatment.</p> <p>Indications for intubation and ventilation.</p> <p>Indications for imaging.</p>	<p>Stabilisation and initiation of investigations.</p> <p>Be able to undertake a detailed neurological examination of the comatose patient</p>	<p>LP</p> <p>LT</p> <p>GT</p> <p>PS</p> <p>LS</p> <p>SL</p> <p>ODA</p>	<p>OC</p> <p>MC</p> <p>DOPS</p> <p>CBD</p> <p>AUD</p> <p>ME</p> <p>FFAEM</p> <p>MFAEM</p>
4. Meningitis, encephalitis, brain abscess	<p>Clinical features, antiviral and antimicrobial therapy, complications.</p> <p>Prognosis and differential diagnosis.</p> <p>Predisposing conditions, eg HIV etc.</p>	<p>Differential diagnosis, urgent treatment and tests: CT, LP antigen testing etc.</p>	<p>LP</p> <p>LT</p> <p>GT</p> <p>PS</p> <p>ODA</p>	<p>OC</p> <p>CBD</p> <p>ME</p> <p>FFAEM</p> <p>MFAEM</p>
5. Cerebrovascular disease	<p>Knowledge of the Royal College of Physicians guidelines for the Management of Stroke and TIA (www.rcplondon.ac.uk)</p> <p>The aetiology of stroke, TIAs.</p> <p>Stroke syndromes.</p> <p>Subarachnoid haemorrhage.</p>	<p>Recognise the value of Stroke Units.</p> <p>Ensure timely referral for further investigation of those patients suffering a TIA.</p>	<p>LP</p> <p>LT</p> <p>GT</p> <p>PS</p> <p>ODA</p> <p>ODB</p>	<p>OC</p> <p>MC</p> <p>CBD</p> <p>ME</p> <p>FFAEM</p> <p>MFAEM</p>

	Carotid artery dissection.			
	Venous sinus thrombosis.			

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6. Others	<p>Knowledge of the presenting complaints of vertigo, ataxia and dystonia (causes and how to investigate and treat these patients).</p> <p>Detailed knowledge of the acute presentation of myasthenia gravis, Guillain-Barré syndrome, multiple sclerosis and tetanus.</p> <p>Knowledge of cranial nerve disorders.</p> <p>Knowledge of dementia and Parkinsonism.</p> <p>Knowledge of peripheral neuropathy and entrapment syndromes.</p> <p>Recognition of raised intracranial pressure and its initial treatment.</p> <p>Knowledge of shunts and their complications.</p> <p>Knowledge of presentation of brain tumours.</p> <p>Knowledge of the causes and management of hydrocephalus.</p>	Recognise own limitations and know how to obtain appropriate advice	<p>LP</p> <p>LT</p> <p>GT</p> <p>PS</p> <p>ODA</p>	<p>OC</p> <p>ME</p> <p>FFAEM</p> <p>MFAEM</p>

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Meningitis/ Encephalitis	understand the bacterial and viral aetiologies for all age groups and the appropriate antimicrobial/antiviral treatment	be able to recognize and institute treatment for life-threatening complications, including raised intracranial pressure		

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Seizures including status epilepticus	Know the differential diagnosis of seizures including febrile convulsions	<p>be able to recognize and treat the life-threatening complications</p> <p>be able to institute appropriate management for status epilepticus (e.g. APLS protocol)</p>		
Blocked shunt	understand the presentation, complications and management of children with blocked shunts	be able to tap a blocked shunt in a child with signs of impending herniation		
Headaches	Know the causes and differential diagnosis in children	Initiate investigation and management		