

## 2nd Cycle (2020-2022) EPIPED TRAINING COURSE

### TREATMENT STRATEGIES IN PEDIATRIC EPILEPSIES

#### GIRONA, Spain

**Organized by the San Juan de Dios Foundation in collaborations with the paediatric epilepsy teams of the University Hospitals of Lyon, France and San Juan de Dios, Barcelona Spain**

Referring to the following Domains & Competencies of the ILAE educational roadmap ( Blümcke et al 2019)		Level
<b>1.0 Diagnosis</b>		
<b>1.1</b>	<b>Demonstrate working knowledge of etiologies for focal and generalized epilepsies in children and adolescents</b>	
	1.1.1 Describe the major etiologies for epilepsy (i.e. structural, genetic, infectious, metabolic, immune, and neurodegenerative)	Level1
	1.1.2 Describe the common structural etiologies (e.g. hippocampal sclerosis, tumors, malformations, vascular lesions, traumatic brain injury, etc.)	Level 2
	1.1.3 Describe the common genetic causes of epilepsy (e.g. monogenic or polygenic inheritance, common germline or somatic mutations)	Level 2
	1.1.4 Describe the common infectious causes of epilepsy, including geographical impacts (e.g. bacterial, fungal, viral, parasites)	Level 2
	1.1.5 Describe the common metabolic causes of epilepsy (e.g. inborn errors of metabolism, glucose transport defect, pyridoxine dependent seizures, mitochondrial pathologies)	Level 2
	1.1.6 Describe the common immune causes of epilepsy (e.g. Rasmussen encephalitis, LGI1 antibodies, NMDA antibodies, etc.)	Level 2
	1.1.7 Describe the common neurodegenerative causes of epilepsy in children (Down syndrome, Progressive Myoclonic Epilepsies)	Level 2
<b>1.2</b>	<b>Demonstrate in whom, when and how genetic testing should be applied</b>	Level 2 & 3

1.3	<b>Identify and describe seizure semiology using standardized ILAE terminology and classification systems</b>	Level 1 & 2
1.5	<b>Accurately order and interpret neuroimaging as it pertains to epilepsy</b>	Level 2
1.6	<b>Decide which patients should receive lab tests and which types of tests should be ordered</b>	Level 1
1.7	<b>Accurately diagnose and classify epilepsies and epilepsy syndromes using the most recent ILAE classification</b>	Levels 1 & 2
<b>2.0 Counseling</b>		
2.3	<b>Communicate information about the causes and consequences of the specific type of epilepsy and its treatments</b>	Levels 1 & 2
2.4	<b>Counsel patients about medication taper and discontinuation</b>	Levels 1 & 2
2.5	<b>Recognize when to refer patients for higher level of care (e.g. prolonged video EEG recording, pre-surgical evaluation, uncontrolled epilepsy, lesional epilepsy, epileptic encephalopathy, psychiatric comorbidity, genetic counseling, etc.)</b>	Level 1
2.9	<b>Provide counseling specific to children with epilepsy and their parents, according to the epilepsy-types (e.g.. lifestyle, cognitive function and prognosis)</b>	Levels 1 & 2
<b>3.0 Pharmacological Treatment</b>		
3.1	<b>Demonstrate up-to-date knowledge about the range of pharmacological treatments for epilepsy</b>	
	3.1.1 Identify the spectrum of action for antiepileptic drugs	Level 1
	3.1.2 Demonstrate knowledge of pharmacokinetics and pharmacodynamics	Level 1
	3.1.3 Demonstrate knowledge regarding the adverse effects of antiepileptic drugs	Level 1
	3.1.4 Demonstrate knowledge of appropriate monitoring of AES serum levels	Level 2
	3.1.5 Demonstrate knowledge about drug interactions (e.g. enzyme induction, etc.) for AED/AED and AED/concomitant medication (e.g. oral contraceptives, treatment of TB, HIV, etc.)	Level 2
	3.1.6 Demonstrate knowledge about treatment of psychiatric and cognitive comorbidities in children and adults	Level 3
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	3.1.6 Demonstrate knowledge about treatment of psychiatric and cognitive comorbidities in children and adults	Level 3

<b>3.2</b>	<b>Recommend appropriate therapy based on epilepsy presentation</b>	
	3.2.1 Recommend appropriate therapy according to seizure type	Level 1
	3.2.2 Recommend appropriate therapy according to epilepsy syndrome	Level 2
	3.2.3 Recommend individualized titrations of optimal dosing for patients including starting and discontinuing medication	Level 1
	3.2.4 Communicate information regarding the antiepileptic drug regimen	Level 1
	3.2.5 Recommend second- and third-line treatments as necessary	Level 2
<b>3.3</b>	<b>Demonstrate up-to-date knowledge about special aspects of pharmacological treatment</b>	
	3.3.2 Define treatment strategies considering issues specific to neonates and very young children	Level 3
	3.3.4 Define treatment strategies considering issues specific to sexual function and dysfunction (including contraception & pregnancy)	Level 2
	3.3.5 Define treatment strategies considering genetic markers	Level 3
	3.3.6 Define treatment strategies for infectious causes of epilepsy and seizures	Level 1
	3.3.7 Define treatment strategies for immune mediated causes of epilepsy and seizures	Level 2
<b>3.4</b>	<b>Demonstrate knowledge about the risks and opportunities associated with drug discontinuation and methodologies for individualized implementation</b>	Level 2
<b>3.5</b>	<b>Identify patients who are drug resistant according to the current ILAE definition</b>	Level 1
<b>3.6</b>	<b>Demonstrate knowledge of indications, limitations and risks for ketogenic diets</b>	Level 3
<b>3.7</b>	<b>Demonstrate knowledge of indications, limitations and risks for vagal nerve stimulation and other neuromodulation techniques</b>	Level 3
<b>4.0 Epilepsy Surgery</b>		
<b>4.1</b>	<b>Demonstrate working knowledge of indications for pre-surgical evaluation</b>	Level 1
<b>4.2</b>	<b>Describe the importance of early surgical intervention regarding neuro-developmental, cognitive, behavioral and social integration aspects</b>	Level 2
<b>4.3</b>	<b>Demonstrate working knowledge of advanced techniques for pre-surgical evaluation</b>	
	4.3.1 Recommend and interpret video-EEG monitoring as appropriate (including when it is indicated to repeat the monitoring)	Level 3
	4.3.2 Recommend functional neuroimaging as appropriate	Level 3
<b>4.4</b>	<b>Demonstrate working knowledge of etiologies amenable to surgical treatment and their prognoses in all age groups</b>	Level 2
<b>4.5</b>	<b>Demonstrate ability to integrate information from multi-modal work-up and estimate risks and benefits of surgical therapy</b>	Level 3
<b>4.6</b>	<b>Demonstrate working knowledge of post-surgical follow-up</b>	

	4.6.1 Demonstrate knowledge about the risks and benefits associated with drug management after epilepsy surgery	Level 3
<b>4.7</b>	<b>Demonstrate the value and need for multidisciplinary teamwork</b>	Level 3
<b>5.0 Emergencies</b>		
<b>5.1</b>	<b>Demonstrate the ability to implement emergency treatment plans for children and adults in and outside the hospital setting</b>	
	5.1.1 Articulate the conditions or elements that constitute an emergency	Level 1
	5.1.2 Appropriately manage or advise regarding prolonged or sequential seizures	Level 1
	5.1.4 Appropriately manage or advise regarding drug intoxication or adverse reactions	Level 1
<b>5.2</b>	<b>Demonstrate the ability to diagnose status epilepticus in children</b>	
	5.2.1 Appropriately diagnose all types of convulsive status epilepticus (including differential diagnosis)	Level 1
	5.2.2 Appropriately diagnose all types of nonconvulsive status epilepticus including EEG interpretations (including differential diagnosis)	Level 2
<b>5.3</b>	<b>Demonstrate the ability to manage status epilepticus in children and adults</b>	
	5.3.1 Appropriately manage all types of convulsive status epilepticus including EEG monitoring of treatment effect	Level 2
	5.3.2 Appropriately manage all types of nonconvulsive status epilepticus including EEG monitoring of treatment effect	Level 2
<b>6.0 Comorbidities</b>		
<b>6.1</b>	<b>Demonstrate the ability to diagnose and manage cognitive and psychiatric comorbidities</b>	
	6.1.2 Appropriately manage or advise regarding psychiatric comorbidities	Level 2
	6.1.3 Adjust anti-seizure treatment as required by psychiatric comorbidities	Level 2
	6.1.4 Demonstrate the ability to recognize and manage the special needs of persons with epilepsy and intellectual disability	Level 3
	6.1.5 Manage cognitive changes in epilepsy and the cognitive effects of AEDs	Level 2