AMERICAN BOARD OF PSYCHIATRY AND NEUROLOGY, INC.

SUBSPECIALTY CERTIFICATION EXAMINATION IN EPILEPSY MEDICINE

2014 Content Blueprint

(November 26, 2012)

Number of questions: 200		
I.	Classification	7–9%
II.	Routine EEG	16–20%
III.	Evaluation	22–26%
IV.	Management	38–42%
V.	Systems-based practice issues	1–3%
VI.	Mechanisms of the epilepsies	7–9%
TOTAL		**100%**

Note: A more detailed content outline is shown below.

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2014 Content Outline

Content areas
I. Classification
A. Classification of the seizures
1. Generalized
a. Tonic clonic (in any combination)
b. Absence
i. Typical
ii. Atypical
iii. Absence with special features
a) Myoclonic absence
b) Eyelid myoclonia
c. Myoclonic
i. Myloclonic
ii. Myoclonic atonic
iii. Myoclonic tonic
d. Clonic
e. Tonic
f. Atonic
2. Focal
a. Without impairment of consciousness/ responsiveness
i. With observable motor or autonomic components (roughly corresponds to the concept of "simple partial seizure")
ii. Involving subjective sensory or psychic phenomena only (corresponds to the concept of "complex partial seizure")
b. With impairment of consciousness/ responsiveness (roughly corresponds to the concept of "complex partial seizure")
c. Evolving to a bilateral, convulsive seizure (involving tonic, clonic or tonic and clonic components: replace the term "secondarily generalized seizure")

3.	May be focal, generalized, or unclear
a.	Epileptic spasms
B.	Electro-clinical syndromes and other epilepsies
1.	By age of onset
a.	Neonatal period
i.	Benign familial neonatal seizures (BFNS)
ii.	Early myoclonic encephalopathy (EME)
iii.	Ohtahara syndrome
b.	Infancy
i.	Migrating partial seizures of infancy
ii.	West syndrome
iii.	Myoclonic epilepsy in infancy (MEI)
iv.	Benign infantile seizures
v.	Benign familial infantile seizures
vi.	Dravet syndrome
vii.	Myoclonic encephalopathy in nonprogressive disorders
c.	Childhood
i.	Febrile seizures (FS+) (can start in infancy)
ii.	Early onset benign childhood occipital epilepsy (Panayiotopoulos type)
iii.	Epilepsy with myoclonic atonic (previously astatic seizures)
iv.	Benign epilepsy with centrotemporal spikes (BECTS)
v.	Autosomal-dominant nocturnal frontal lobe epilepsy (ADNFLE)
vi.	Late-onset childhood occipital epilepsy (Gastaut type)
vii.	Epilepsy with myoclonic absences
viii.	Lennox-Gastaut syndrome
ix.	Epileptic encephalopathy with continuous spike-and-wave during sleep (CSWS), including Landau-Kleffner syndrome (LKS)
x.	Childhood absence epilepsy (CAE)
d.	Adolescence–Adult
i.	Juvenile absence epilepsy (JAE)

		ii.	Juvenile myoclonic epilepsy (JME)
		iii.	Epilepsy with generalized tonic-clonic seizures alone
		iv.	Progressive myoclonus epilepsies (PME)
		v.	Autosomal dominant partial epilepsy with auditory features (ADPEAF)
		vi.	Other familial temporal lobe epilepsies
C.	Less specific age relationship		
	1.	Familial focal epilepsy with variable foci (childhood to adult)	
	2.	Reflex epilepsies	
D.	Distinctive constellations		
	1.	Mesial temporal lobe epilepsy with hippocampal sclerosis (MTLE with HS)	
	2.	Rasmussen syndrome	
	3.	Gelastic seizures with hypothalamic hamartoma	
E.	Epilepsies attributed to and organized by structural-metabolic causes		
	1.	Structural (including tumors, vascular malformations)	
	2.	Infection	
	3.	Trauma	
	4.	Perinatal insults	
	5.	Stroke	
	6.	Malformations of cortical development	
		a.	Neurocutaneous disorders
	7.	Mitochondrial and metabolic disorders	
F.	Epilepsies of unknown cause		
G.	Conditions with epileptic seizures traditionally not diagnosed as a form of epilepsy		
	1.	Benign neonatal seizures (BNS)	
	2.	Febrile seizures (FS)	
H.	Nonepiletic paroxysmal disorders:		
	1.	Breath holding spells	
	2.	Cardiac etiologies: e.g. prolonged QT intervals	
	3.	Convulsive	
	4.	Reflux and Sandifer syndrome	
	5.	Syncopal events	
	6.	Gratification phenomena and masturbation	
	7.	Shuddering/shivering	

	8. Acute confusional migraine
	9. Benign infantile myoclonus
	10. Nonepileptic seizures
I.	Epidemiology
II.	**Routine EEG**
A.	Normal
	1. Activation and procedures
	2. Benign variants
	3. Artifacts and technical issues
B.	Interictal epileptiform patterns
C.	Ictal patterns (localization, status, hypsarrhythmia, ictal neonatal seizures)
D.	Encephalopathic patterns
III.	**Evaluation**
A.	History, examination, and semiology
B.	Chemical and metabolic screening
C.	Specialized EEG
	1. Other supplementary and ambulatory
	2. Video EEG
	3. Invasive EEG recordings
	a. Depth electrodes
	b. Subdural grid electrodes
	c. Corticography
	i. Functional mapping
D.	Imaging
	1. Choice of structural imaging (CT, MRI)
	a. Specific protocols
	2. Functional imaging
	a. SPECT
	b. PET
	c. MEG
	d. MRS
	e. fMRI
	f. Diffusion tensor imaging
E.	Neuropsychological testing
F.	Spinal fluid analysis (lumbar puncture)

	G.	Genetic analysis	
IV.	**Management**		
	A.	Principles of management	
		1.	History of new-onset seizure(s)
		2.	Acute seizure management
		3.	Monotherapy vs. polytherapy
		4.	Antiepileptic drug selection
		5.	Dosing and drug monitoring
		6.	Comorbidities (e.g., psychiatric issues, cognitive issues)
		7.	Special situations
			a. Neonate
			b. Developmental delay
			c. Cognitively impaired
			d. Women with epilepsy
			e. Elderly
			f. Systemic illness
			i. Hypoxia-ischemia
		8.	Discontinuation of medication
		9.	Mortality
			a. SUDEP
	B.	Antiepileptic therapies	
		1.	Specific drugs (regular and extended-release formulations)
			a. Acetazolamide
			b. ACTH
			c. Carbamazepine
			d. Clonazepam
			e. Clorazepate
			f. Diazepam (oral and rectal gel)
			g. Divalproex sodium
			h. Ethosuximide
			i. Felbamate
			j. Gabapentin
			k. Lacosamide
			l. Lamotrigine
			m. Levetiracetam
			n. Lorazepam

		o.	Oxcarbazepine
		p.	Phenobarbital
		q.	Phenytoin
		r.	Pregabalin
		s.	Primidone
		t.	Rufinamide
		u.	Tiagabine
		v.	Topiramate
		w.	Valproate
		x.	Vigabatrin
		y.	Zonisamide
		z.	Ezogabine
		aa.	Clobazam
	2.	Mechanisms of action of above drugs	
	3.	Drug interactions (pharmacokinetic/ pharmacodynamic	
	4.	Drug toxicities and teratogenicity	
	5.	Monitoring principles	
	6.	Other therapies	
		a.	Diet therapies
			i. Indications
			ii. Patient selection
			iii. Monitoring
			iv. Duration
		b.	Hormonal therapies
			i. ACTH
			ii. Other steroidal therapies
		c.	Immunoglobulin therapy
		d.	Vagus nerve stimulation
		e.	Other forms of stimulation
		f.	Alternative and complementary therapies
C.	Surgical therapies		
	1.	Indications for referral	
		a.	Definition of intractable epilepsies
		b.	Duration of epilepsy and failure of response to medication
	2.	Evaluation for possible surgery	
		a.	WADA and special neuropsychological evaluation

	3.	Types of surgical procedure		
		a.	Focal resections	
			i.	Temporal lobe
			ii.	Frontal lobe
			iii.	Parietooccipital
		b.	Hemispherectomies	
			i.	Neocortical
			ii.	Standard anterior temporal lobectomy
			iii.	Selective mesial resections
		c.	Multiple subpial transections	
		d.	Corpus callosotomies	
		e.	Repeat surgical procedures	
		f.	Other	
	4.	Complications of surgery		
		a.	Outcome	
D.	Status epilepticus			
	1.	Classification (types)		
		a.	Generalized convulsive	
		b.	Focal, including epilepsia partialis continua (EPC)	
		c.	Nonconvulsive	
		d.	Refractory	
	2.	Management		
		a.	Acute management	
		b.	Drug therapy	
			i.	First-line
			ii.	Second-line
			iii.	Third-line
		c.	Anesthetic therapies	
		d.	Continuous EEG monitoring	
	3.	Systemic complications		
	4.	Outcome		
E.	Psychosocial management			
	1.	Patient and family education		
		a.	Drug information	
		b.	Compliance	
		c.	Safety issues	

		i.	Sleep deprivation
		ii.	Sports participation
		iii.	Drug and alcohol risks
		iv.	Driving regulations
		v.	Piloting regulations
	2.	School and work situations	
		a.	IEPs
		b.	ADA
		c.	Disability
	3.	Quality of life	
		a.	Dating
		b.	Marriage
		c.	Stigma
	4.	Sleep and epilepsy	
	5.	Prognosis and counseling	
V.	**Systems-based practice issues**		
A.	Public policy issues (education, driving, research funding)		
B.	Working with educational systems		
C.	Employment issues		
D.	Clinical trials of new therapies		
E.	Forensic epilepsy		
F.	Ethics		
VI.	**Mechanisms of the epilepsies**		
A.	Pathophysiology of the epilepsies		
B.	Animal models		
C.	Physiological basis of epileptic EEG patterns		
D.	Pathology of the epilepsies		
E.	Genetic basis of the epilepsies		