### Number of questions: 220

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<td>2. Routine EEG</td>
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<td>3. Evaluation</td>
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<td>4. Management</td>
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<td>5. System-based practice issues</td>
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<td>6. Mechanisms of the epilepsies</td>
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<td><strong>TOTAL</strong></td>
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**Note:** A more detailed content outline is shown below.
# Classification

## Generalized

1. **Tonic clonic (in any combination)**

2. **Absence**
   - a. **Typical**
   - b. **Atypical**
   - c. **Absence with special features**
     - a) Myoclonic absence
     - b) Eyelid myoclonia

3. **Myoclonic**
   - a. **Myoclonic**
   - b. **Myoclonic atonic**
   - c. **Myoclonic tonic**

4. **Clonic**

5. **Tonic**

6. **Atonic**

## Focal

2. **Without impairment of consciousness/ responsiveness**
   - a. With observable motor or autonomic components (roughly corresponds to the concept of “simple partial seizure”)
   - b. Involving subjective sensory or psychic phenomena only (corresponds to the concept of “complex partial seizure”)

3. **With impairment of consciousness/ responsiveness (roughly corresponds to the concept of “complex partial seizure”)**
   - a. 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**
### Neonatal period
- Benign familial neonatal seizures (BFNS)
- Early myoclonic encephalopathy (EME)
- Ohtahara syndrome

### Infancy
- Migrating partial seizures of infancy
- West syndrome
- Myoclonic epilepsy in infancy (MEI)
- Benign infantile seizures
- Benign familial infantile seizures
- Dravet syndrome
- Myoclonic encephalopathy in nonprogressive disorders

### Childhood
- Febrile seizures (FS+) (can start in infancy)
- Early onset benign childhood occipital epilepsy (Panayiotopoulos type)
- Epilepsy with myoclonic atonic (previously astatic seizures)
- Benign epilepsy with centrotemporal spikes (BECTS)
- Autosomal-dominant nocturnal frontal lobe epilepsy (ADNFLE)
- Late-onset childhood occipital epilepsy (Gastaut type)
- Epilepsy with myoclonic absences
- Lennox-Gastaut syndrome
- Epileptic encephalopathy with continuous spike-and-wave during sleep (CSWS), including Landau-Kleffner syndrome (LKS)

### Adolescence to Adult
- Juvenile absence epilepsy (JAE)
- Juvenile myoclonic epilepsy (JME)
- Epilepsy with generalized tonic-clonic seizures alone
- Progressive myoclonus epilepsies (PME)
- Autosomal dominant partial epilepsy with auditory features (ADPEAF)
- Other familial temporal lobe epilepsies

### 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
8. Autoimmune/paraneoplastic/inflammatory

### 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. Nonepileptic 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

### J. Status epilepticus
1. Generalized convulsive
2. Focal, including epilepsy partialis continua (EPC)
3. Nonconvulsive
4. Refractory

### 02. 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

### 03. 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
      d. 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

### 04. 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. Special situations
      a. Neonate
      b. Developmental delay
c. Cognitively impaired
d. Elderly
e. Systemic illness
   i. Hypoxia-ischemia
7. Gender issues in epilepsy
   a. Fertility and impotence
   b. Catamenial epilepsy
   c. Epilepsy in pregnancy
8. Discontinuation of medication
B. Antiepileptic therapies
1. Specific drugs (regular and extended-release formulations)
   a. Acetazolamide
   b. ACTH
   c. Carbamazepine
   d. Clonazepam
   e. Clonazepate
   f. Diazepam (oral and rectal gel)
   g. Divalproex sodium
   h. Ethosuximide
   i. Felbamate
   j. Gabapentin
   k. Lamotrigine
   l. Lacosamide
   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
   bb. Eslicarbazepine
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<td>cc.</td>
<td>Midazolam</td>
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<td>dd.</td>
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<tr>
<td>1.</td>
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<tr>
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<td>e.</td>
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<td>f.</td>
<td>Other</td>
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4. Complications of surgery  
   a. Outcome  

D. Status epilepticus  
   1. Acute management  
   2. Drug therapy  
      a. First-line  
      b. Second-line  
      c. Third-line  
   3. Anesthetic therapies  
   4. Continuous EEG monitoring  
   5. Systemic complications  
   6. Outcome  

E. Psychosocial management  
   1. Patient and family education  
      a. Drug information  
      b. Compliance  
      c. Safety issues  
         i. Sleep deprivation  
         ii. Bathing  
         iii. Sports participation  
         iv. Drug and alcohol risks  
         v. Driving regulations  
         vi. 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  

F. Comorbidities  
   1. Psychiatric issues  
   2. Cognitive Issues  
   3. Mortality (SUDEP)  
   4. Migraine  
   5. Medical complications
6. Sleep

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<td>C. Employment issues</td>
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<td>D. Clinical trials of new therapies</td>
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<td>F. Ethics</td>
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