1. **Question Stem**

A 39-year-old male, previously diagnosed with epilepsy, presents to your clinic for a follow-up appointment. He reports that his last seizure occurred approximately 8 months ago, and he has been compliant with his antiepileptic medication. He also mentions that he is planning to regain his driving license after having it revoked due to his seizures. His medical history includes a 5-year duration of epilepsy characterized by generalized tonic-clonic seizures and a single breakthrough seizure 8 months ago following a missed dose of medication. Neurological examination reveals no focal deficits. His serum phenytoin levels are currently within therapeutic range.

**Lead-in Question**

Regarding his eligibility to resume driving, what recommendation is most consistent with current professional guidelines?

**Answer Options**

A. Must be seizure-free for 3 months before resuming driving  
B. Must be seizure-free for 6 months (first seizure) or 12 months (established epilepsy) to drive  
C. Must have no daytime seizures for 6 months to drive  
D. Must be seizure-free for 12 months to drive  
E. Must have a driver’s assessment every 6 months irrespective of seizure status

**Explanations**

A. Must be seizure-free for 3 months before resuming driving

* This period is insufficient according to guidelines, which require longer seizure-free intervals. Standard UK guidance stipulates 12 months for those with established epilepsy.

B. Must be seizure-free for 6 months (first seizure) or 12 months (established epilepsy) to drive

* This aligns with guidelines, requiring a 6-month period after a first seizure if low risk and 12 months for established epilepsy, as in this case.

C. Must have no daytime seizures for 6 months to drive

* This focuses incorrectly on seizure timing, as overall seizure-free duration is essential, not time of day.

D. Must be seizure-free for 12 months to drive

* Correct for established cases, but it overlooks the 6-month seizure-free period that might apply to first seizures under low-risk circumstances.

E. Must have a driver’s assessment every 6 months irrespective of seizure status

* Guidelines place importance on the seizure-free interval rather than periodic assessments.

**Modules**

* Neurology
* General Medicine

**Presentations**

* Epilepsy Management
* Driving Regulations and Epilepsy

1. **Question Stem**

A 29-year-old woman with a history of generalized epilepsy visits the neurology clinic for advice as she is planning to conceive. Her seizures are well-controlled on sodium valproate. She is concerned about the implications of her antiepileptic medication during pregnancy. Her medical history is significant for long-standing epilepsy diagnosed at age 15, and she has been on sodium valproate for the past 10 years with good seizure control. Recent serum levels of sodium valproate are within therapeutic range.

**Lead-in Question**

What would be the most appropriate advice regarding her antiepileptic medication and pregnancy?

**Answer Options**

A. Continue sodium valproate at the current dose  
B. Switch to lamotrigine before conceiving  
C. Discontinue all antiepileptic medications before pregnancy  
D. Increase the dose of sodium valproate to ensure seizure control during pregnancy  
E. Consultation with a neurologist is necessary to choose appropriate medication.

**Explanations**

A. Continue sodium valproate at the current dose

* This option is incorrect due to the high risk of birth defects and developmental problems in babies if sodium valproate is taken during pregnancy. Alternative medications should be considered unless no other options are viable and the patient is enrolled in a Pregnancy Prevention Programme.

B. Switch to lamotrigine before conceiving

* While potentially safer, switching to lamotrigine should be done in consultation with a neurologist to confirm its appropriateness for the patient’s epilepsy type. Lamotrigine is considered safer during pregnancy but requires specialist oversight.

C. Discontinue all antiepileptic medications before pregnancy

* This option is not advisable as it can lead to uncontrolled seizures, posing significant risks to both mother and unborn baby. Antiepileptic medications should be continued under specialist guidance.

D. Increase the dose of sodium valproate to ensure seizure control during pregnancy

* This is not advisable due to risks associated with sodium valproate in pregnancy. Focus should be on finding safer alternatives or managing with the lowest effective dose.

E. Consultation with a neurologist is necessary to choose appropriate medication.

* This option is correct as it highlights the teratogenic risks of sodium valproate and the need for specialist consultation to choose a safer alternative, following current guidelines.

**Modules**

* Neurology
* Obstetrics and Gynaecology

**Presentations**

* Epilepsy Management in Pregnancy
* Teratogenic Risks and Medication Management

1. **Question Stem**

A 34-year-old woman with a 15-year history of epilepsy presents with a recent generalized tonic-clonic seizure. Her current medication regimen includes a sodium channel blocker, which she reports diligently adhering to. She recently observed a diffuse, erythematous rash on her trunk and arms. Physical examination confirms the rash and reveals no other significant findings. Laboratory tests, including a complete blood count and liver function tests, are within normal limits. Her neurologist is considering making adjustments to her antiepileptic therapy.

**Lead-in Question**

Which antiepileptic drug is most likely responsible for this patient's symptoms, considering her current treatment?

**Answer Options**

A. Carbamazepine  
B. Phenytoin  
C. Valproic Acid  
D. Lamotrigine  
E. Topiramate

**Explanations**

A. Carbamazepine

* Carbamazepine is known to cause hypersensitivity reactions, including skin rashes potentially leading to Stevens-Johnson syndrome. However, the described symptoms more closely match a lamotrigine-induced rash. This would be applicable if the patient had recently adjusted her carbamazepine dosage.

B. Phenytoin

* While phenytoin can induce hypersensitivity reactions, such as skin rashes or Stevens-Johnson syndrome, the typical rash observed aligns more with lamotrigine. Phenytoin could be considered if the dose was altered recently and accompanied by signs like fever.

C. Valproic Acid

* Valproic acid is less frequently linked to skin rashes compared to lamotrigine or carbamazepine. The presentation is less indicative of a valproic acid reaction which tends to have symptoms like hepatotoxicity.

D. Lamotrigine

* Lamotrigine is notorious for causing skin rashes, occurring in about 10% of patients, mainly when treatment begins or dosage changes. The patient's rash and recent medication adjustment strongly suggest lamotrigine as the cause.

E. Topiramate

* Not typically associated with skin rashes, topiramate would be more likely if there were symptoms such as cognitive dysfunction rather than a rash. The scenario better fits lamotrigine-induced side effects.

**Modules**

* Neurology
* Pharmacology

**Presentations**

* Epilepsy Management
* Adverse Drug Reactions

1. **Question Stem**

A 3-year-old boy presents to your pediatric neurology clinic with a history of atypical absence seizures, atonic seizures (sudden falls), and myoclonic jerks. His parents report these episodes started at approximately 18 months of age, and despite multiple medication trials, his seizures remain poorly controlled. A developmental assessment reveals moderate intellectual disability. Electroencephalogram (EEG) shows slow spike-wave discharges. His medical history includes initial infantile spasms that were treated with adrenocorticotropic hormone (ACTH) with some improvement, but they transitioned into his current seizure pattern.

**Lead-in Question**

Considering the patient's age and seizure characteristics, what is the most likely diagnosis?

**Answer Options**

A. Childhood Absence Epilepsy  
B. Benign Rolandic Epilepsy  
C. Dravet Syndrome  
D. Lennox-Gastaut Syndrome  
E. West Syndrome

**Explanations**

A. Childhood Absence Epilepsy

* Childhood Absence Epilepsy (CAE) involves frequent absence seizures without convulsive movements. The atypical absence seizures, atonic seizures, myoclonic jerks, intellectual disability, and slow spike-wave discharges are inconsistent with CAE, which presents with classic absence seizures and normal development.

B. Benign Rolandic Epilepsy

* Characterized by focal seizures with facial involvement, typically during sleep, Benign Rolandic Epilepsy does not involve intellectual disability or the multiple seizure types observed in the patient. It resolves by adolescence without such complications.

C. Dravet Syndrome

* Usually begins with febrile seizures in infancy, leading to multiple seizure types and developmental delays. The patient's age of onset and lack of febrile seizures exclude Dravet's as the diagnosis.

D. Lennox-Gastaut Syndrome

* Lennox-Gastaut Syndrome (LGS) includes atypical absence, atonic, and myoclonic seizures, intellectual disability, and EEG slow spike-wave discharges. The patient's symptoms and history align with LGS, identifying this option as correct.

E. West Syndrome

* West Syndrome features infantile spasms, developmental delays, and hypsarrhythmia on EEG. While the patient initially had infantile spasms, these have evolved into different seizure patterns, inconsistent with current West Syndrome.

**Modules**

* Neurology
* Pediatrics

**Presentations**

* Seizure Disorders
* Developmental Disorders

1. **Question Stem**

A 22-year-old male is brought to the Emergency Department after experiencing his first-ever generalized tonic-clonic seizure earlier this morning. He regained consciousness shortly after and appears confused. His medical history is unremarkable, and he has no known history of seizures. Family members report that he has been in generally good health, with no recent illnesses or trauma. On examination, vital signs are stable, and there are no focal neurological deficits. Laboratory tests, including a basic metabolic panel, are within normal limits.

**Lead-in Question**

What is the most appropriate next step in the management of this patient following the first seizure?

**Answer Options**

A. Initiate antiepileptic medication immediately  
B. Schedule a follow-up appointment in 6 months  
C. Perform EEG and neuroimaging (MRI)  
D. Advise complete bed rest for one week  
E. Prescribe prophylactic antibiotics

**Explanations**

A. Initiate antiepileptic medication immediately

* Generally not recommended after a first seizure unless specific risk factors are present, such as neurological deficits or abnormal EEG. The lack of risk factors makes this option inappropriate in this case.

B. Schedule a follow-up appointment in 6 months

* Inappropriate due to delaying essential evaluations. Urgent referral to a specialist is recommended within 2 weeks to determine the need for investigation and management.

C. Perform EEG and neuroimaging (MRI)

* This is the most appropriate next step after a first unprovoked seizure to identify potential underlying causes or recurrence risk factors. Aligns with guidelines for first seizure assessment.

D. Advise complete bed rest for one week

* Not appropriate as it overlooks diagnostic evaluation needs. Patients should resume normal activities with safety precautions and avoid potentially dangerous activities.

E. Prescribe prophylactic antibiotics

* Incorrect as there is no indication of an underlying infection. Antibiotics are not standard seizure management unless there is an infection to address, which is not suggested here.

**Modules**

* Neurology
* Emergency Medicine

**Presentations**

* Seizure Disorders
* First Seizure Evaluation