

FP Essentials
Call for Authors – May 2025

Seizures in Adults

We are seeking an author or author group to write an edition of *FP Essentials* on the topic of seizures in adults. This edition will cover four topics:

1. Evaluation of First Seizure
2. Understanding the Types of Epilepsy and Nonepileptic Spells
3. Principles of Treatment of Epilepsy
4. Primary Care for Patients With Epilepsy

The main text of the manuscript should be approximately 10,000 words in length, divided into four sections of approximately 2,500 words each, plus an abstract of approximately 200 words for each section. In addition, there should be key practice recommendations, a maximum of 15 tables/figures total, and up to 200 references to provide support for all recommendations and factual statements in the manuscript. References must be numbered sequentially by section, with each new section starting over at “1.”

This edition should focus on what is new in each topic and should answer the key questions listed for each section. Each section should begin with an illustrative case, similar to the examples provided, with modifications to emphasize key points; each case should have a conclusion that demonstrates resolution of the clinical situation. The references provided here include information that should be considered in preparation of this edition of *FP Essentials*. However, these should be used only as a starting point in identifying the most current guidelines and references to include in the edition.

Needs Assessment

Family physicians provide care to adults who experience seizures, whether isolated events, secondary to other conditions, or due to epilepsy. Although most patients with epilepsy are managed in consultation with a neurologist, family physicians need to be aware of the implications of seizures in other aspects of the patient’s life, and the impact of other medical and lifestyle choices on their seizures. In a recent survey, family physicians noted that care coordination of chronic illnesses was a major area of educational need. This monograph will help readers assess and treat seizures in adults.

Section 1: Evaluation of First Seizure

Example Case

KZ is a 24-year-old accountant who suffered a seizure while at work last week that was characterized by collapse at her desk, stiffening of her limbs followed by jerking motions, and a postictal phase. She was evaluated at a local emergency department and treated for minor injuries to her head. The emergency department physicians recommended following up with her family physician and a neurologist. She has never had a seizure before and presents today to talk with you about her next steps.

Key Questions to Consider

Note: This monograph does not cover seizures due to hypertensive disorders of pregnancy, so the authors should include a statement to this effect.

Background, Epidemiology, and Impact

- How common are seizures in adults (age 18 and older)? Which types of seizures are most common? *Do not repeat information from Section 2.*
- What is a provoked seizure?
- What conditions can cause a seizure? Which medications or substances increase the risk? What lifestyle factors (eg, sleep, stress, diet) can trigger seizures? What environmental factors (eg, light) can trigger seizures?
- What are the risk factors for a first seizure?

Diagnostic Evaluation

- What is the recommended initial approach to an adult with a first seizure (first aid for a seizure)?
- What laboratory and radiographic tests are recommended after a first seizure?
- When are imaging tests recommended after a first seizure?
- What is the role of electroencephalography after a first seizure?

Treatment

- When is acute pharmacotherapy recommended for a first seizure?
- Should any patients start maintenance antiseizure medication following an initial seizure?
- In what cases should a patient be referred to a neurologist?
- Do all patients need to be hospitalized after an initial seizure?

Prognosis

- How often does an initial seizure in an adult signify epilepsy?
- Does an isolated first seizure increase the risk of mortality or other comorbid conditions?
- How long after an initial seizure can a patient return to work? What types of work or recreational activity are considered high-risk? How long after an initial seizure can a person resume driving? Should they take any special precautions once they have recovered? Is a physician required to report an initial seizure to the state driver licensing agency? How should physicians counsel their patients about the potential emotional and financial impacts of restricted driving?

Initial References to Consider

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Section 2: Understanding the Types of Epilepsy and Nonepileptic Spells

Example Case

EL is a 20-year-old college student who woke up on his college dorm room with no memory of falling out of bed. He injured his tongue and was incontinent of urine. His roommate was not present when this occurred. He had a febrile seizure as an infant but has no current medical problems, does not take any medications, and denies alcohol or illicit substance use. He comes in to see you today with his mother to ask about the next steps.

Key Questions to Consider

- How is epilepsy defined?
- How often does epilepsy present in adulthood?
- What characteristics are used to classify seizures in adults? Briefly describe the classification scheme used, including the ILAE (International League Against Epilepsy) classification.
- For the major types of epileptic seizures (focal onset [motor/non-motor], generalized onset [motor/non-motor], and unknown onset [motor/non-motor]) according to the ILAE classification scheme, address the following questions:
 - How common are they in adults?
 - Are there any risk factors for these forms of epilepsy?
 - What triggers are common in these seizures?
 - How do the presentations of the various types of seizures differ? How are they the same?
 - Are any comorbid conditions more commonly seen with specific types of epilepsy?
 - In addition to electroencephalography, can wearable devices be used to aid in the diagnosis? How accurate are they?
 - What is the long-term prognosis for these different types of epilepsy, including mortality?
- What medical and behavioral conditions are often mistaken by patients/family members or misdiagnosed by physicians as seizures (such as psychogenic nonepileptic seizures [PNES])?
 - What clues in the history or physical examination can be used to identify PNES?
 - Is testing required to exclude epilepsy?
 - What is the prognosis for these PNES?
 - What is the preferred treatment for PNES?

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Section 3: Principles of Treatment of Epilepsy

Example Case

TT is a 27-year-old paralegal who was diagnosed with generalized tonic-clonic epilepsy a year ago. His neurologist initially started him on levetiracetam, but he continues to have breakthrough seizures despite an adequate dose and good medication adherence. He wants to know if he will need a different medication or an additional one to control his seizures.

Key Questions to Consider

- What are the major classes of medications used to treat epileptic seizures?
- For each class, what are the significant benefits, adverse effects, contraindications, and drug-drug interactions of which family physicians should be aware? Consider a table to display this information.
- What are the indications to start treatment? For each subtype of epilepsy, what considerations are used to determine which drug is preferred? How are antiseizure medications titrated?
- Do any of these medications require routine laboratory monitoring of drug levels or other serum chemistries?
- What are the indications to change from one antiseizure medication to another? How should a patient be transitioned from one antiseizure medication to another?
- When is treatment with more than one antiseizure medication recommended?
- Can antiseizure medication treatment ever be stopped? If so, how is this accomplished?
- What is the general approach to medication management after a breakthrough seizure occurs?
- What is the role of neuromodulation devices in the treatment of epilepsy?
- What is the role of surgery in the treatment of epilepsy?
- What is the role of dietary changes (eg, ketogenic diet) in the treatment of epilepsy? What is the role of supplements, herbs, or cannabinoids?
- What drugs are recommended for the acute treatment of status epilepticus, both in the inpatient and community settings?
- Which antiseizure medications are preferred for patients who are pregnant or planning to become pregnant?

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Section 4: Primary Care for Patients With Epilepsy

Example Case

PE is a thirty-one-year-old with well-controlled epilepsy for several years. Her last seizure was 2 years ago. She works as a registered nurse in an infusion center. She is thinking about applying for a nurse practitioner program with longer hours, more stress, and a disrupted sleep schedule. She wants your advice on how to minimize the impact these changes will have on her epilepsy.

Key Questions to Consider

- Does epilepsy increase the risk of any other medical conditions? How can family physicians identify these conditions and mitigate their impact on an individual's life and health?
- What is sudden unexpected death in epilepsy (SUDEP) and how common is it? What strategies can patients and physicians employ to decrease the risk of SUDEP?
- Does epilepsy increase the risk of mental health conditions? How can family physicians identify these conditions and mitigate their impact on an individual's life and health?
- What are the effects of seizure disorders on behavioral and cognitive health? What is the family physician's role in addressing these impacts?
- What strategies can family physicians employ to improve medication adherence for patients with epilepsy?
- What national organizations or patient advocacy groups are available to assist patients with epilepsy?
- How can family physicians help patients with workplace accommodations? Are these work accommodations included in the Americans with Disabilities Act?
- How can family physicians help patients to identify and address potential triggers for their epilepsy? Specifically discuss sleep, stress, alcohol, and diet.
- What patient and family education are helpful for adjustment to a diagnosis of epilepsy and patient safety?
- Are there any wearable devices that can help detect seizures? What is their utility?
- What is the general approach to fitness for driving or participation in high-risk professions in patients with epilepsy? When should work or driving limitations or restrictions be placed? How are driving restrictions implemented through state agencies that license drivers?
- What are the considerations for couples who are considering pregnancy, including teratogenic risks of antiseizure medications, need to change or titrate off antiseizure medications, appropriate dosing of folate, and effects on breastfeeding? If pregnancy is not desired, how do antiseizure medications affect estrogen-containing contraceptives?

Initial References to Consider

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