

Seizure management



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■ Introduction

Seizures are paroxysmal events associated with abnormal, excessive, or synchronous electrical discharges of neurons in the brain.^[1] (See [Classifying seizure types](#).) When a patient has a generalized motor seizure, nursing care aims to protect the patient from injury and prevent serious complications. Appropriate care also includes observation of seizure characteristics to help determine the area of the brain involved.^[2]

CLASSIFYING SEIZURE TYPES		
The International League Against Epilepsy (ILAE) has revised the classification system for seizure types to provide consistent communication among health care professionals who care for patients with seizures. The revised ILAE classification (shown below) recognizes that seizures are either focal, generalized, unknown, or unclassified. ^{[1][3][4]}		
Seizure type	Observable manifestations ^[4]	Nonobservable manifestations ^[4]
Focal —the patient remains aware or has impaired consciousness; seizure activity is limited to one hemisphere of the brain. ^[4]	• Automatisms—automatic action or behavior without consciousness (licking lips, rubbing hands, walking, repeating meaningless phrases, undressing) • Atonic—transient loss of muscle tension or tone • Clonic—sustained rhythmic jerking of one part of the body or face; alternating muscular rigidity and relaxation • Epileptic spasms—sudden flexion or bending of the trunk with flexion or extension of the limbs that lasts less than a few seconds; often occur in clusters • Hyperkinetic—agitated thrashing or leg pedaling	• Autonomic—effects on autonomic nervous system functions (heart rate, blood pressure, sweating, skin color, GI sensations, salivation) • Behavior arrest—brief cessation of movement; applies only if arrest is the main feature throughout the entire seizure • Cognitive—impaired cognition during seizure (aphasia, apraxia, neglect, déjà vu, jamais vu, hallucinations, illusions, perceptual distortion) • Emotional—appearance of anxiety, fear, joy, or another emotion without

	• Myoclonic—irregular, intermittent spasms or twitching of a muscle or muscles • Tonic—stiffening of limb or neck, causing a forced posture during the seizure	subjective emotion (laughing, crying) • Sensory—disturbance of senses (tingling, numbness, vertigo, hot-cold feelings, sounds, smells, tastes, visual symptoms)
Generalized—consciousness isn't used to classify this seizure type <i>because most patients with generalized seizures present with impaired consciousness or complete loss of consciousness; general electrical abnormality involving both sides of the brain.</i>³	• Tonic-clonic—stiffening of all limbs, followed by sustained rhythmic jerking of limbs and face; patient may cry out at onset, fall, bite tongue, or experience incontinence • Clonic—rhythmic sustained jerking of the limbs and head • Tonic—stiffening of all limbs, without clonic jerking • Myoclonic—bilateral, irregular sustained jerking of the limbs, face, eyes, and eyelids • Myoclonic-tonic-clonic—initially, a few bilateral myoclonic jerks followed by tonic-clonic seizure • Myoclonic-atonic—initially, a few myoclonic jerks followed by limp drop • Atonic—sudden loss of muscle tone and strength with subsequent fall or slump • Epileptic spasms—brief seizures with flexions at the trunk and flexion or extension of the limbs	• Typical absence—sudden onset; activity stops with a brief pause and staring, possible eye fluttering, head nodding, or other automatic behaviors; immediate recovery • Atypical absence—slower onset and more pronounced than typical absence seizure • Myoclonic absence—initially, a few myoclonic jerks, then an absence seizure • Eyelid myoclonic—jerks of the eyelids and upward deviation of the eyes, often precipitated by closing the eyes or by light

Unknown—patient's seizure is unobserved or masked by other events but with features that can still be classified.	• Tonic-clonic—stiffening of all limbs, followed by sustained rhythmic jerking of the limbs and face; patient may cry out at onset, fall, bite tongue, or experience incontinence • Epileptic spasms—brief seizures with flexions at the trunk and flexion or extension of the limbs	• Behavior arrest—brief cessation of movement; applies only if arrest is the main feature throughout the entire seizure
Unclassified—there's inadequate information or an inability to place the patient's seizure in another category.		

Adults who experience an initial seizure have a greater chance for a recurrent seizure within the first 2 years after the first seizure.^[5] Patients at risk for seizures include those with a history of seizures and those with conditions that predispose them to seizures, which include metabolic abnormalities, such as hypocalcemia, hypoglycemia, and pyridoxine deficiency; brain tumors or other space-occupying lesions; infections, such as meningitis, encephalitis, and brain abscess; traumatic injury, especially if the dura mater was penetrated; ingestion of toxins, such as mercury, lead, or carbon monoxide; genetic abnormalities, such as tuberous sclerosis and phenylketonuria; perinatal injuries; alcohol use disorder; drug abuse and withdrawal; and stroke.^{[2][6]} Patients at risk for seizures need precautionary measures to help prevent injury if a seizure occurs.

■ Equipment

- Clock or watch
- Emergency equipment (code cart with emergency medications, defibrillator, handheld resuscitation bag with mask, intubation equipment)
- Padding for side rails
- Pulse oximeter and probe
- Vital signs monitoring equipment
- Optional: blanket, IV catheter insertion equipment, oxygen administration equipment, perineal care supplies, personal protective equipment, pillow, prescribed medications, prescribed thiamine, seizure activity record, suction equipment

■ Preparation of Equipment

Inspect all equipment and supplies. If a product is expired, is defective, or has compromised integrity, remove it from patient use, label it as expired or defective, and report the expiration or defect as directed by your facility. If the patient is at risk for seizures, pad the patient's side rails and have IV equipment, suction equipment, and oxygen administration equipment available at the patient's bedside. Make sure that emergency equipment is functioning properly and readily available.^[7]

■ Implementation

- Verify the practitioner's orders.
- Gather and prepare the necessary equipment and supplies.
- Perform hand hygiene.^{[8][9][10][11][12][13]}
- Confirm the patient's identity using at least two patient identifiers.^[14]
- Provide privacy, if possible.^{[15][16][17][18]}
- Perform hand hygiene.^{[8][9][10][11][12][13]}
- Put on personal protective equipment, as needed, *to comply with standard precautions*.^{[19][20][21]}

For a focal seizure with impaired consciousness

- If you're present when the patient experiences a focal seizure with impaired consciousness, guide the patient from danger.^[7]
- Time the seizure.^[7] If you find the patient during a seizure, begin timing as soon as you discover the event.
- Remain with the patient until the patient's baseline level of consciousness returns.^[7]
- If the patient is agitated, stay a distance away but close enough to provide protection from injury until full consciousness returns.^[7]
- Monitor the patient's vital signs *to promptly detect changes in the patient's condition*.^[7]
- Administer medications, as needed and prescribed, following safe medication administration practices.^{[22][23][24][25]}

For a generalized seizure

- If you're present when a generalized seizure occurs, ease the patient into bed and put up the side rails *to prevent a fall*. If you're away from the bed, ease the patient to the floor and place something soft, such as a pillow or blanket, under the head *to protect it from injury*.^{[2][26]}

♦ **Hospital-acquired condition alert:** Keep in mind that the Centers for Medicare and Medicaid Services considers an injury from a fall a hospital-acquired condition *because it can be reasonably prevented using a variety of best practices*. Make sure to follow evidence-based fall prevention practices, such as performing a fall risk assessment and instituting fall precautions, to reduce the risk of injury from a fall.^{[27][28][29]} ♦

- Time the seizure. If you find the patient during a seizure, begin timing as soon as you observe it. If the seizure continues for longer than 5 minutes, the patient has trouble breathing, or the patient has a significant injury, call for help to activate an emergency response.^{[7][26]}
- Position the patient on the side as soon as possible *to maintain airway patency*.^{[7][26]}

♦ **Clinical alert:** During a seizure, don't put anything into the patient's mouth *to prevent patient or caregiver injury*.^[7] ♦

- Protect the patient from injury, but don't restrain the patient *because the force of the patient's movements against restraints could cause muscle strain or even joint dislocation*.^[7]
- Remove the patient's eyeglasses, if present.^{[7][26]}
- Loosen anything from around the patient's neck that might restrict breathing.^{[7][26]}
- Clear the area around the patient of anything hard or sharp *to prevent injury*.^[26]

- Assess the patient during the seizure. Monitor for changes in consciousness, mental status, and behaviors. *Your description may help determine the seizure's type and cause.*^[7]
- Remain with the patient until the patient's level of consciousness returns to baseline.^[7]
- If this seizure is the patient's first one, immediately notify the practitioner. If the patient has had seizures before, notify the practitioner only if the seizure activity is prolonged or if the patient fails to regain consciousness. (See [Understanding status epilepticus](#).)

UNDERSTANDING STATUS EPILEPTICUS

The Commission on Classification and Terminology and the Commission on Epidemiology of the International League Against Epilepsy have proposed a new definition of status epilepticus: "Status epilepticus is a condition resulting either from the failure of the mechanisms responsible for seizure termination or from the initiation of mechanisms, which lead to abnormally prolonged seizures (after time point t1). It is a condition which can have long-term consequences (after time point t2), including neuronal death, neuronal injury, and alteration of neuronal networks, depending on the type and duration of seizures." This definition is conceptual, with two operational dimensions. The first is the length of the seizure and the time point (t1) beyond which the seizure should be regarded as "continuous seizure activity." The second time point (t2) is the time of ongoing seizure activity after which there's a risk of long-term consequences.^[30]

Always an emergency, status epilepticus is accompanied by respiratory distress. It can result from abrupt withdrawal of anticonvulsant medications, hypoxic or metabolic encephalopathy, acute head trauma, or septicemia secondary to encephalitis or meningitis.

In 2016, the American Epilepsy Society issued new guidelines for the treatment of status epilepticus using a phased treatment approach. After the initial stabilization phase, the treatment algorithm recommends a benzodiazepine as the initial therapy of choice. First-line drugs include one of the following: IM midazolam, IV LORazepam, or IV diazePAM. If the first-line drug options are unavailable, then one of the following is administered: IV PHENobarbital, rectal diazePAM, or intranasal or buccal midazolam. If the seizure continues, then one of the second therapy phase drugs should be given as a single dose. Second-line therapy drugs include IV fosphenytoin, IV valproic acid, and IV levETIRAcetam. If the seizure continues, then second-line therapy should be repeated or anesthetic doses of thiopental, midazolam, PENTobarbital, or propofol should be administered.^[31]

- If ordered, insert an IV catheter *to obtain IV access for medication administration.*^[7] (See the "[IV catheter insertion](#)" procedure.)
- ♦ **Clinical alert:** Don't attempt to insert an IV catheter during an active seizure unless absolutely necessary *because doing so can cause injuries.* ♦
- Administer medications, as needed and prescribed, following safe medication administration practices.^{[22] [23] [24] [25]}
- If the seizure is prolonged and the patient becomes hypoxemic, administer supplemental oxygen, as ordered.^[7] (See the "[Oxygen administration](#)" procedure.) Be aware that some patients require endotracheal intubation. Attach the patient to a pulse oximeter, as needed, *to monitor oxygen saturation levels.*
- For suspected hypoglycemia in a patient with known diabetes, follow your facility's guidelines for treating severe hypoglycemia.^[32]

- After the seizure, suction the patient's airway, as needed, *to clear secretions and maintain airway patency.*^[7]
- Assess the patient for postictal injury, specifically tongue and cheek lacerations, bruising, and fractures.^[7] Notify the practitioner, as needed.
- Assess the patient for urinary incontinence that may have occurred as a result of seizure activity.^[7] Provide perineal care, as needed.
- If the patient experiences postictal confusion and wandering, gently guide the patient to the bed or a chair.^[7]
- If not already in place, pad the patient's side rails and place the bed in the lowest position with the wheels locked *to prevent injury in the event that seizure activity recurs.*^[7]
- For a patient known to have alcohol use disorder who may be experiencing severe withdrawal, administer thiamine, as prescribed, following safe medication administration practices.^[33]

Completing the procedure

- Monitor the patient's vital signs; oxygen saturation level by pulse oximetry, if needed; simple cognitive ability (orientation, response to simple motor commands, naming of objects, and recall of simple phrases); level of consciousness; and responsiveness.^[7]
- Ask the patient about activities that preceded the seizure.
- Remove and discard your personal protective equipment, if worn.^[19]
- Perform hand hygiene.^{[8] [9] [10] [11] [12] [13]}
- Document the procedure.^{[34] [35] [36] [37]}

■ Special Considerations

- *Because a seizure can indicate an underlying disorder, such as meningitis, a metabolic imbalance (especially hypoglycemia), or an electrolyte imbalance (especially hyponatremia), the practitioner may order a complete diagnostic laboratory workup if the cause of the seizure isn't evident.*^[38]
- Anticipate monitoring for therapeutic levels of any antiseizure medications that the patient is taking, if applicable.^{[39] [40]}

■ Patient Teaching

Caution a patient who has seizures about ascending heights, working with fire or cooking, using power tools, taking unsupervised baths, swimming, and driving. Individual state laws restrict operation of motorized vehicles, so consult your state law. Encourage the use of helmets *to prevent head trauma while biking, skiing, riding a motorcycle, or participating in other activities, as indicated, based on individual lifestyle and the type and degree of seizure control.*^[41] Review with the patient and family first aid for seizures in the home as well as injury prevention strategies.^[42] Review the patient's medication regimen and the need for adherence to laboratory testing for therapeutic drug levels, as indicated.^{[40] [43]}

Ensure that the patient is aware that abrupt withdrawal of an antiseizure medication can trigger status epilepticus. Stress that when reduction, discontinuation, or substitution of the medication is necessary, the change should be made gradually and under a practitioner's care.

Tell the patient that various stimuli can trigger seizures. Instruct the patient to maintain a seizure diary and include potential triggers. Advise the patient to avoid exposure to known seizure triggers as much as possible.

Ensure that the patient knows to tell practitioners about the seizure disorder and the medications that the patient is taking before undergoing any medical or dental treatment or surgery. Recommend that the patient wear a medical identification bracelet or necklace to alert providers to the seizure disorder and any antiseizure medications that the patient is taking.

■ Complications

Complications associated with a seizure may include:

- injury
 - scrapes and bruises
 - traumatic injury to the tongue and cheek caused by biting
- respiratory distress
 - aspiration
 - airway obstruction
 - hypoxemia
- cognitive impairment.

■ Documentation

Documentation associated with seizure precautions includes:

- reason seizure precautions are required
- all precautions taken.

Documentation associated with a seizure event includes:

- date and time that the seizure began
- duration
- precipitating factors and activities before the seizure
- characteristics of the seizure
 - involuntary behavior that occurred at the onset, such as lip smacking, chewing movements, or hand and eye movements
 - where the movement began and the parts of the body involved
 - progression or pattern of the activity
 - whether the eyes deviated to one side
 - whether the pupils changed in size, shape, equality, or reaction to light
 - whether the teeth were clenched or open
 - whether incontinence, vomiting, and salivation occurred during the seizure
- safety precautions used during the seizure
- injuries sustained by the patient or others
- response to the seizure
- consciousness of the event and postseizure state
- medications that the patient received
- complications that the patient experienced during the seizure
 - interventions that you performed
 - response to those interventions
- postseizure assessment
 - vital signs
 - oxygen saturation level
 - neurologic status.
- teaching provided to the patient and family (if appropriate)
 - understanding of that teaching
 - follow-up teaching needed.

This procedure has been reviewed by the Academy of Medical-Surgical Nurses.



■ Related Procedures

- [Seizure management, long-term care](#)
- [Seizure management, neonatal](#)
- [Seizure management, pediatric](#)
- [Seizure management, psychiatric patient](#)

■ Related UpToDate Patient Teaching Handouts

- [Epilepsy and pregnancy](#)

■ References

([Rating System for the Hierarchy of Evidence for Intervention/Treatment Questions](#))

1. Fisher, R. S., et al. (2017). Operational classifications of seizure types by the International League Against Epilepsy: Position paper of the ILAE Commission for Classification and Terminology. *Epilepsia*, 58(4), 522–530. Retrieved October 2025 from <https://doi.org/10.1111/epi.13670> (Level VII)
[Abstract](#) | [Complete Reference](#) | [Full Text](#)
2. Hinkle, J. L., et al. (2022). *Brunner & Suddarth's textbook of medical-surgical nursing* (15th ed.). Wolters Kluwer.
3. Fisher, R. S., et al. (2016). *Epilepsy Foundation: 2017 revised classification of seizures*. Retrieved October 2025 from <https://www.epilepsy.com/stories/2017-revised-classification-seizures>
4. Wirrell, E. (2025). ILAE classification of seizures and epilepsy. In, *UpToDate*, Schachter, S. C., & Nordli, D. R. (Eds.).
[UpToDate Full Text](#)
5. Krumholz, A., et al. (2015). Evidence-based guideline: Management of an unprovoked first seizure in adults. *Neurology*, 84(16), 1705–1713. Retrieved October 2025 from <https://doi.org/10.1212/WNL.0000000000001487> (Level I)
[Abstract](#) | [Complete Reference](#) | [Full Text](#)
6. Rowland, K., & Lambert, C. E. (2022). Evaluation after a first seizure in adults. *American Family Physician*, 105(5), 507–513. Retrieved October 2025 from <https://www.aafp.org/pubs/afp/issues/2022/0500/p507.html>
7. American Association of Neuroscience Nurses (AANN). (2016). *AANN clinical practice guideline series: Care of adults and children with seizures and epilepsy*. (Level VII)
8. The Joint Commission. (2025). Standard NPSG.07.01.01. *Comprehensive accreditation manual for hospitals*. (Level VII)
9. Centers for Disease Control and Prevention. (2002). Guideline for hand hygiene in health-care settings: Recommendations of the Healthcare Infection Control Practices Advisory Committee and the HICPAC/SHEA/APIC/IDSA Hand Hygiene Task Force. *MMWR Recommendations and Reports*, 51(RR-16), 1–45. Retrieved October 2025 from <https://www.cdc.gov/mmwr/pdf/rr/rr5116.pdf> (Level VII)
10. World Health Organization (WHO). (2009). *WHO guidelines on hand hygiene in health care: First global patient safety challenge, clean care is safer care*. Retrieved October 2025

from https://iris.who.int/bitstream/handle/10665/44102/9789241597906_eng.pdf?sequence=1 (Level VII)

11. Centers for Medicare and Medicaid Services. (2024). Condition of participation: Infection prevention and control and antibiotic stewardship programs. 42 C.F.R. § 482.42.
12. Accreditation Commission for Health Care. (2025). Standard 07.02.05. *Accreditation requirements for acute care hospitals*. (Level VII)
13. DNV GL-Healthcare USA, Inc. (2024). IC.1.SR.3f. *NIAHO® accreditation requirements, interpretive guidelines and surveyor guidance – revision 24*. (Level VII)
14. The Joint Commission. (2025). Standard NPSG.01.01.01. *Comprehensive accreditation manual for hospitals*. (Level VII)
15. Centers for Medicare and Medicaid Services. (2024). Condition of participation: Patient's rights. 42 C.F.R. § 482.13(c)(1).
16. Accreditation Commission for Health Care. (2025). Standard 15.01.07. *Accreditation requirements for acute care hospitals*. (Level VII)
17. DNV GL-Healthcare USA, Inc. (2024). PR.2.SR.5. *NIAHO® accreditation requirements, interpretive guidelines and surveyor guidance – revision 24*. (Level VII)
18. The Joint Commission. (2025). Standard RI.01.01.01. *Comprehensive accreditation manual for hospitals*. (Level VII)
19. Siegel, J. D., et al. (2007, revised 2024). *2007 guideline for isolation precautions: Preventing transmission of infectious agents in healthcare settings*. Retrieved October 2025 from <https://www.cdc.gov/infection-control/media/pdfs/Guideline-Isolation-H.pdf> (Level VII)
20. Accreditation Commission for Health Care. (2025). Standard 07.02.04. *Accreditation requirements for acute care hospitals*. (Level VII)
21. Occupational Safety and Health Administration. (2019). *Bloodborne pathogens, standard number 1910.1030*. Retrieved October 2025 from <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1030> (Level VII)
22. Centers for Medicare and Medicaid Services. (2024). Condition of participation: Nursing services. 42 C.F.R. § 482.23(c).
23. Accreditation Commission for Health Care. (2025). Standard 16.01.03. *Accreditation requirements for acute care hospitals*. (Level VII)
24. The Joint Commission. (2025). Standard MM.06.01.01. *Comprehensive accreditation manual for hospitals*. (Level VII)
25. DNV GL-Healthcare USA, Inc. (2024). MM.1.SR.3. *NIAHO® accreditation requirements, interpretive guidelines and surveyor guidance – revision 24*. (Level VII)
26. Centers for Disease Control and Prevention. (2024). *Epilepsy: First aid for seizures*. Retrieved October 2025 from <https://www.cdc.gov/epilepsy/first-aid-for-seizures/>
27. Jarrett, N., & Callahan, M. (2016). *Evidence-based guidelines for selected hospital-acquired conditions: Final report*. Retrieved October 2025 from <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HospitalAcqCond/Downloads/2016-HAC-Report.pdf>
28. Ganz, D. A., et al. (2013). *Preventing falls in hospitals: A toolkit for improving quality of care* (AHRQ Publication No. 13-0015-EF). Agency for Healthcare Research and Quality. Retrieved October 2025 from <https://www.ahrq.gov/sites/default/files/publications/files/fallpxtoolkit.pdf> (Level VII)
29. The Joint Commission. (2025). Standard PC.01.02.08. *Comprehensive accreditation manual for hospitals*. (Level VII)
30. Trinka, E., et al. (2015). A definition and classification of status epilepticus—Report of the ILAE Task Force on Classification of Status Epilepticus. *Epilepsia*, 56(10), 1515–1523. Retrieved October 2025 from <https://doi.org/10.1111/epi.13121> (Level VII)
[Abstract](#) | [Complete Reference](#) | [Full Text](#)

31. Glauser, T., et al. (2016). Evidence-based guideline: Treatment of convulsive status epilepticus in children and adults: Report of the Guideline Committee of the American Epilepsy Society. *Epilepsy Currents*, 16(1), 48–61. Retrieved October 2025 from <https://doi.org/10.5698/1535-7597-16.1.48> (Level VII)
[Abstract](#) | [Complete Reference](#) | [Full Text](#)

32. American Diabetes Association. (2025). American Diabetes Association standards of medical care in diabetes—2025. *Diabetes Care*, 48(Suppl. 1), S1–S352. Retrieved October 2025 from https://diabetesjournals.org/care/issue/48/Supplement_1

33. Hoffman, R. S., & Weinhouse, G. L. (2025). Management of moderate and severe alcohol withdrawal syndromes. In: *UpToDate*, Schwarz, E. (Ed.).
[UpToDate Full Text](#)

34. The Joint Commission. (2025). Standard RC.01.03.01. *Comprehensive accreditation manual for hospitals*. (Level VII)

35. Centers for Medicare and Medicaid Services. (2024). Condition of participation: Medical record services. 42 C.F.R. § 482.24(b).

36. Accreditation Commission for Health Care. (2025). Standard 10.00.03. *Accreditation requirements for acute care hospitals*. (Level VII)

37. DNV GL-Healthcare USA, Inc. (2024). MR.2.SR.1. *NIAHO® accreditation requirements, interpretive guidelines and surveyor guidance – revision 24-1*. (Level VII)

38. Schachter, S. C., et al. (2025). Evaluation and management of the first seizure in adults. In: *UpToDate*, Garcia, P., & Edlow, J. A. (Eds.).
[UpToDate Full Text](#)

39. Bonnett, L. J., et al. (2017). Breakthrough seizures-further analysis of the standard versus new antiepileptic drugs (SANAD) study. *Plos One*, 12(12), Article e0190035. Retrieved October 2025 from <https://doi.org/10.1371/journal.pone.0190035> (Level II)

40. Schachter, S. C., & Sirven, J. I. (2025). Overview of the management of epilepsy in adults. In: *UpToDate*, Garcia, P. A. (Ed.).
[UpToDate Full Text](#)

41. Ko, D. Y. (2022). Epilepsy and seizures. *Medscape*. Retrieved October 2025 from <https://emedicine.medscape.com/article/1184846-overview>

42. Epilepsy Foundation. (2022). *Seizure first aid training and certification*. Retrieved October 2025 from <https://www.epilepsy.com/recognition/first-aid-resources>

43. Stepanova, D., & Beran, R. G. (2015). The benefits of antiepileptic drug (AED) blood level monitoring to complement clinical management of people with epilepsy. *Epilepsy and Behavior*, 42, 7–9. Retrieved October 2025 from <https://doi.org/10.1016/j.yebeh.2014.09.069> (Level V)

■ **Additional References**

- Schachter, S. C., & Sirven, J. I. (2025). Comorbidities and complications of epilepsy in adults. In: *UpToDate*, Garcia, P. (Ed.).
[UpToDate Full Text](#)

Rating System for the Hierarchy of Evidence for Intervention/Treatment Questions

The following leveling system is adapted from *Evidence-Based practice in nursing & healthcare: A guide to best practice*, Fifth edition, by Bernadette Mazurek Melnyk and Ellen Fineout-Overholt (2023).

Level I	Evidence from a systematic review or meta-analysis of all relevant randomized controlled trials (RCTs)
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Level II	Evidence from well-designed single RCTs (experimental)
Level III	Evidence from well-designed nonrandomized controlled trials (quasi-experimental), systematic reviews of a complete body of evidence, and intervention studies using mixed methods
Level IV	Evidence from well-designed case-control and cohort studies (observational)
Level V	Evidence from systematic reviews of qualitative and descriptive studies
Level VI	Evidence from single descriptive and qualitative studies, evidence-based practice implementation, and quality improvement projects
Level VII	Evidence from expert opinion, expert committee reports, and literature reviews

Data from Gyatt, G., & Rennie D. (2002). Users' guides to the medical literature. American Medical Association; Harris, R. P., et al. (2001). Current methods of the U.S. Preventative Services Task Force: A review of the process. American Journal of Preventative Medicine, 20, 21-35.