American Academy of Neurology™

Management of Functional Seizures Practice Guideline

Clinician Summary

This is a summary of the American Academy of Neurology (AAN) guideline, "Management of Functional Seizures Practice Guideline," which was published in *Neurology*® online on December 10, 2025.

Please refer to the full guideline at *AAN.com/guidelines* for more information, including the full systematic review of the evidence as well as descriptions of the processes for classifying evidence, deriving conclusions, and making recommendations.

Diagnosis of functional seizures

Recommendation 1

Rationale

Historically, there have been significant delays in the diagnosis of functional seizures, with the diagnosis being delayed for an average of 7–8 years after symptom onset.[1,2] Prompt and accurate diagnosis of functional seizures is essential for effective treatment and avoidance of iatrogenesis based on misdiagnoses. A detailed clinical history and careful analysis of the seizure semiology, including characteristics positively associated with functional seizures, contribute to the accurate diagnosis of functional seizures.[3–8] Historical and semiological information obtained from both patients and witnesses can improve the accuracy of the diagnosis.[9] When feasible, a brief physical examination during the ictal event can contribute to the accurate diagnosis of functional seizures and epileptic seizures.[3,10–13] Serum prolactin, lactate, and creatine kinase may be more elevated after a bilateral tonic–clonic epileptic seizure than following other episodes involving transient loss of consciousness, but each of these laboratory tests has been associated with significant rates of false positive and false negative results when used to differentiate between functional seizures, epileptic seizures, and syncope.[14–18]

In combination with clinical history and semiology, video–electroencephalogram (VEEG) assessment of all typical types of episodes is the gold standard for diagnosing definite or "documented" functional seizures and differentiating them from epileptic seizures or other physiologic events.[19] VEEG can be obtained in an epilepsy monitoring unit, in 30–60 minute electroencephalograms (EEGs) in the inpatient or outpatient setting, through continuous inpatient EEG monitoring, or using home–video EEG.[20] When functional seizures present with a semiology resembling syncope, additional long–term electrocardiogram (ECG) monitoring and tilt–table testing may help to differentiate functional seizures from syncope.[21] VEEG is not available in all practice settings and may not be feasible for patients with infrequent seizure–like events.[22] When VEEG is not feasible, a diagnosis of probable functional seizures may be based on review of history, semiology, and interictal EEG.[19] Similarly, when VEEG capture of a typical event is not feasible, a diagnosis of clinically established functional seizures can be based on history, semiology, ambulatory EEG capture of a typical event (without video), and separate video recording of a typical event.[19] Videos of seizure–like episodes captured on smartphones and reviewed by a neurologist can facilitate the evaluation of seizure semiology and allow accurate diagnosis in most of the cases.[23] Individuals with functional seizures frequently

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experience multiple functional neurologic symptoms.[24, 25] Clinicians with greater experience in the diagnosis of seizure disorders can more accurately diagnose functional seizures.[26–29]

Level	Recommendation
Level B	1A. Clinicians should include functional seizures in the differential diagnosis and in the initial workup of patients presenting with seizure-like or syncope-like episodes to make a prompt and accurate diagnosis.
Level B	1B. When evaluating patients with seizure-like or syncope-like episodes, clinicians should seek historical and semiological information from both patients and witnesses when available to support a prompt and accurate diagnosis.
Level B	1C. When acutely evaluating patients with prolonged seizure-like episodes in emergency settings, clinicians should perform a brief ictal physical examination to support a prompt and accurate diagnosis.
Level C	1D. When diagnostic ambiguity exists between epileptic and functional seizures after review of historical and semiological features including available video and EEG data, clinicians may obtain VEEG of typical seizure-like episodes where feasible to confirm the diagnosis with the greatest possible level of clinical certainty.
Level B	1E. When diagnostic ambiguity exists between syncope and functional seizures after review of historical and semiological features, clinicians should evaluate blood pressure and cardiac rhythm during episodes using ECG monitoring and/or tilt-table testing where available to confirm the diagnosis with the greatest possible level of clinical certainty.
Level B	1F. Where VEEG, ECG, and/or tilt-table capture of typical seizure-like or syncope-like episodes are not feasible, clinicians should use ambulatory EEG, interictal EEG, interictal ECG if available, smartphone video of typical seizure-like episodes, and historical and semiological features to make a diagnosis with the greatest possible level of clinical certainty.
Level B	1G. When diagnosing a patient with functional seizures, clinicians should screen and evaluate for other functional neurologic symptoms, to support prompt treatment.
Level B	1H. When diagnosis or management of functional or epileptic seizures is beyond the clinician's scope of practice or expertise, they should refer patients with seizures to an appropriate specialist to support a prompt and accurate diagnosis.

Assessment of psychiatric comorbidities and epilepsy

Recommendation 2

Rationale

A lifetime history of psychiatric disorders, including mood disorders, anxiety disorders, and posttraumatic stress disorder (PTSD), co-occurs at a high frequency with functional seizures.[30, 31] Substance use disorders can also co-occur at elevated rates among people with functional seizures.[32, 33, 34] Abuse, neglect, and other adverse life experiences are 3–5 times more common among individuals with functional neurological disorders than in the general population and twice as common as among individuals with other psychiatric disorders.[35, 36] Co-occurring psychiatric disorders can make it more difficult for some individuals to engage in psychotherapeutic treatment, with a greater number and severity of psychiatric symptoms associated with higher rates of treatment non-adherence.[37, 38] Adherence to psychotherapeutic treatment is associated with better outcomes for functional seizure frequency and quality of life.[30, 38] Accordingly, treatment of co-occurring psychiatric disorders may also facilitate psychotherapeutic treatment of functional seizures.

Lifestyle modifications such as diet, exercise, and meditation can improve quality of life in individuals with common co-occurring psychiatric disorders such as mood disorders, anxiety disorders, and PTSD.[39–41] Appropriate psychotherapeutic treatments can improve quality of life and psychosocial functioning among individuals with co-occurring psychiatric disorders, including mood, anxiety, and personality disorders.[42–44] Psychopharmaceuticals such as selective serotonin reuptake inhibitors (SSRIs) and serotonin and norepinephrine reuptake inhibitors (SNRIs) are also effective in treating psychiatric disorders, including mood disorders, anxiety disorders, and PTSD.[45, 46] Therapeutic neuromodulation is also effective in treating common co-occurring psychiatric disorders, including major depression.[47–50]

Level	Recommendation
Level B	2A. Clinicians should evaluate patients diagnosed with functional seizures for co-occurring psychiatric disorders (including affective, trauma-related, personality, and substance use disorders) to facilitate treatment of both co-occurring disorders and functional seizures.

Level B	2B. Clinicians should offer patients diagnosed with functional seizures and active co-occurring psychiatric disorders, who do not already receive mental health care, a referral to a mental health specialist for appropriate evidence-based treatment of their co-occurring psychiatric disorders.

Recommendation 3

Rationale

Functional seizures may co-occur in up to 12% of people with epilepsy, and epilepsy may co-occur in up to 20% of adults with functional seizures, 30%–40% of children with functional seizures, and up to 50% of individuals with intellectual disabilities and functional seizures.[51, 52] Antiseizure medications improve epileptic seizure control, mortality rates, and quality of life among individuals with epilepsy.[53–55] Treating co-occurring epileptic and functional seizures requires clinicians and patients to accurately identify and differentiate the different seizure types so that appropriate treatments can be titrated accordingly. VEEG assessment of all typical types of episodes in combination with clinical history and seizure semiology is the gold standard for diagnosing functional seizures and differentiating them from epileptic seizures or other physiologic events.[19]

Level	Recommendation
Level B	3A. Clinicians should evaluate patients diagnosed with functional seizures for co-occurring epilepsy to deliver appropriate treatment.
Level B	3B. Clinicians should use history, semiology, and—where feasible—VEEG to help patients with co-occurring functional and epileptic seizures to accurately identify and distinguish different seizure types to deliver appropriate treatment.
Level B	3C. Clinicians should counsel patients with functional seizures and co-occurring epilepsy about the risks and benefits of antiseizure medications for the treatment of epileptic seizures, as well as their lack of efficacy in the treatment of functional seizures.
Level B	3D. Clinicians should prescribe appropriate antiseizure treatments for epileptic seizures for patients with functional seizures and co-occurring epilepsy.

General principles of management

Recommendation 4

Rationale

Functional seizures and other forms of functional neurological disorder are diagnosed based on history, physical examination, and semiology, as well as evaluation of alternative diagnoses and comorbidities as clinically indicated.[4, 19, 56] Psychological interventions may be effective in improving seizure frequency and quality of life. Mental health specialists and other clinicians can be trained in providing these psychological interventions. Neurologists can also facilitate treatment of functional seizures through effective communication of the diagnosis and other approaches to promote engagement (e.g., use of motivational interviewing strategies).[30, 57] Patients with functional seizures often have comorbidities and other neurologic symptoms, some of which can develop following the diagnosis of functional seizures.[58]

Some common clinical practices have been shown to harm patients with functional seizures through stigmatization, humiliation, or inflicting pain.[59] Patients with functional seizures are entitled to the same rights as other patients, including dignity, clear and respectful communication, and protection from harm. Patients with functional seizures may have different illness experiences or different understandings of the diagnosis depending on cultural context.[60–62]

The provision of a clear explanation of the diagnosis and treatment plan is an essential platform for further treatment. Development of a seizure action plan can provide increased control and decreased vulnerability for patients and caregivers.[63] Many local and national driving restrictions relating to seizures and/or episodic alterations of awareness may apply to patients with functional seizures.[64] Functional seizures frequently interfere with employment, schooling, and other social functions.[65–68] Effective patient self-management has been linked to improvements in health outcomes for a number of chronic conditions.[69–72] Clinicians can support self-management and self-efficacy by directing patients to educational and support resources. For patients with chronic illnesses, continuity of care is associated with increased patient satisfaction and adherence with treatment plans.[73–75]

Level	Recommendation
Level B	4A. Neurologists and mental health clinicians should collaborate in the assessment and treatment of functional seizures to facilitate evidence-based treatment.

Level B	4B. Clinicians should adhere to universal standards of care for patients, including speaking respectfully, refraining from unnecessary harm, and avoiding stigmatizing behavior to prevent harm to patients.
Level B	4C. Clinicians should provide a specific diagnostic label and the rationale for the diagnosis to patients and caregivers in a manner that is clear, empathetic, supportive, and takes into account the patient's cultural context to facilitate patient understanding of the diagnosis and treatment.
Level B	4D. Clinicians should engage in shared decision-making regarding the treatment plan, taking into account the patient's understanding of the diagnosis, to facilitate patient engagement with treatment.
Level B	4E. Clinicians should counsel patients and caregivers on how to manage an acute functional seizure episode to enhance patients' control and decrease vulnerability.
Level B	4F. Clinicians should ask patients of driving age about driving and provide advice appropriate to the regulations of the region of practice to facilitate adherence to relevant regulations.
Level B	4G. Clinicians should ask about the impact of functional seizures on occupational and social functioning to assess patients' psychosocial needs.
Level B	4H. Clinicians should provide or direct the patient and caregivers to resources for learning and support, such as patient and professional advocacy organizations, to promote self-management and self-efficacy.
Level B	4I. Clinicians should provide continuity of care to individuals diagnosed with functional seizures to facilitate treatment and increase patient satisfaction.

Psychological interventions

Recommendation 5

Rationale

Psychological interventions in general can be helpful in possibly achieving seizure freedom, reducing functional seizure frequency, reducing anxiety, and improving health-related quality of life and psychosocial functioning in individuals with functional seizures. Neuro-behavioral therapy (NBT), paradoxical therapy, behavioral therapy, psychoeducation, Retraining and Control Therapy (ReACT), and motivational interviewing in combination with psychotherapy have been studied in the treatment of functional seizures, and several studies have examined functional seizure-specific cognitive behavioral therapy (CBT). Studies of NBT, paradoxical therapy, CBT, and motivational interviewing in combination with psychotherapy suggest that these psychological interventions possibly increase the probability of achieving freedom from functional seizures. Studies of ReACT and CBT suggest that these psychological interventions possibly decrease functional seizure frequency. Studies of ReACT, CBT, and motivational interviewing in combination with psychotherapy suggest that these psychological interventions possibly decrease anxiety and increase health-related quality of life. Studies of group psychoeducation and CBT suggest that these psychological interventions possibly improve psychosocial functioning. Studies of CBT suggest that it possibly increases the probability of achieving freedom from functional seizures and possibly improves psychosocial functioning.

Psychological interventions are generally safe and well tolerated.[76,77] Offering available effective and safe treatments is critical to the process of shared decision-making between clinicians and patients. The success of psychological interventions depends, in part, on the support and participation of family, particularly in the treatment of children.[78,79] The involvement of caregivers or other members of the social support system may also contribute to psychological treatment success for adults.[80,81] Therefore, psychological interventions may differently involve family, caregivers, or others in the patient's social support network, depending on the patient's circumstances.

Level	Recommendation
Level B	5A. When psychological interventions for the treatment of functional seizures are indicated and accessible, clinicians should counsel patients regarding the potential benefits and risks of such interventions to facilitate shared decision-making.
Level B	5B. When caring for patients with functional seizures, clinicians whose scope of practice does not include counseling patients regarding the possible benefits and demands of psychological interventions should refer patients to a clinician knowledgeable about modalities of psychological treatment to facilitate evidence-based treatment.
Level B	5C. Clinicians should refer interested and appropriate patients diagnosed with functional seizures to psychological interventions for the treatment of functional seizures to improve frequency of functional seizures, health-related quality of life, and psychosocial functioning.

Level B	5D. Clinicians should, with patient permission, involve family, caregivers, or others in the social support network in the psychological treatment of adults with functional seizures to improve treatment outcomes.
Level B	5E. Clinicians should involve family in the psychological treatment of children with functional seizures to improve treatment outcomes.

Pharmacologic interventions

Recommendation 6

Rationale

Many patients with functional seizures are initially misdiagnosed with epilepsy and treated with antiseizure medications before the correct diagnosis is made.[1] Even after the diagnosis of functional seizures, many patients are prescribed antiseizure medications and/or psychopharmacologic interventions, including benzodiazepines,[82] despite insufficient evidence of benefit. Although antiseizure medications can be effective in treating co-occurring epilepsy and psychopharmacologic medications can be effective in treating co-occurring psychiatric disorders, there is a lack of evidence of efficacy of either type of medication in the direct treatment of functional seizures.

While benzodiazepines can provide anxiolysis[83] and can sometimes abort prolonged functional seizures in the short term, they are habit forming,[84] can cause cognitive impairment,[85] and increase risk of motor vehicle accidents in the long term.[86] In the acute setting, administration of benzodiazepines for treatment of prolonged functional seizures can result in intubation and iatrogenic harm.[87,88] While antiseizure medications may provide reassurance to clinicians, patients, or caregivers who are uncertain of the diagnosis of functional seizures, these medications cause adverse effects ranging from more common but mild effects like fatigue and dizziness, to severe and even life-threatening effects such as Stevens-Johnson syndrome, aplastic anemia, and hepatic failure.[89] In patients with functional seizures without co-occurring epilepsy who were previously treated with antiseizure medications, immediate tapering of antiseizure medications leads to improved outcomes compared with delayed withdrawal.[90] Besides epilepsy, other indications for antiseizure medications, including potentially benzodiazepines, may include but are not limited to mood disorders, anxiety disorders, migraine, or neuropathic pain.

Level	Recommendation
Level B	6A. Clinicians should counsel patients with functional seizures without co-occurring epilepsy or another indication for benzodiazepines regarding the potential risks and lack of evidence of benefit for functional seizures associated with benzodiazepines.
Level B	6B. Clinicians should not prescribe benzodiazepines for acute abortive treatment in patients with functional seizures without co-occurring epilepsy, anxiety disorders, or another indication, to reduce the risk of adverse effects.
Level B	6C. Clinicians should counsel patients with functional seizures and without co-occurring epilepsy or another indication for an antiseizure medication about the lack of benefit and the potential risks of taking antiseizure medications for the treatment of functional seizures.
Level B	6D. Clinicians should not prescribe antiseizure medications to patients with functional seizures without co-occurring epilepsy or another indication for antiseizure medications, to reduce the risk of adverse effects.
Level B	6E. Clinicians should taper off antiseizure medications for patients with functional seizures and without another indication for antiseizure medications to reduce the risk of adverse effects.

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