Seizures/seizure disorders/epilepsy

Clinical overview

Definitions

- **Seizure:** A sudden alteration of behavior due to a temporary change in the electrical functioning of the brain that may briefly affect a patient's consciousness, movements or sensations.[1]
- **Convulsion**: An uncontrollable shaking that is rapid and rhythmic, with the muscles contracting and relaxing repeatedly.[2]
- **Idiopathic:** Arising spontaneously or from an obscure or unknown cause.[3]
- **Provoked seizure (aka acute symptomatic seizure)**: A seizure from a physical cause such as an acute medical illness or trauma that begins before the seizure. It could also be related to a substance or event the body is responding to or withdrawing from.[4]
- **Epilepsy (or seizure disorder)**: A condition of recurrent unprovoked seizures. Epilepsy is usually diagnosed after a person has had at least two seizures that were not caused by some known medical condition.[1]
- **Intractable epilepsy:** Epilepsy that does not respond to treatment.[1]
- **Status epilepticus**: A potentially life-threatening state in which a person experiences an abnormally prolonged seizure (any seizure lasting longer than five minutes) or does not fully regain consciousness between recurring seizures. This condition represents a medical emergency.[5]

Causes/risk factors[6]

The cause of seizures may be idiopathic. A listing of provoked causes of seizures is lengthy and could include complications of almost any disease process. Some common causes may include:

- Brain injury or stroke
- Electrolyte disturbances such as hypoglycemia, hyponatremia, etc.
- Acute toxic effects or withdrawal syndromes, such as antidepressants, ethanol, etc.

Types of seizures/signs and symptoms[4]

Seizures classify into two main types; partial or generalized:

1. **Partial seizures** – (also known as focal, local or localization-related seizures) occur in just one part of the brain. They are frequently described by the area of the brain where they originate (e.g., focal frontal lobe seizure).
   - **Simple partial seizure** – The person remains conscious but has altered emotions or sensations, such as sudden and unexplainable feelings of joy, anger, sadness, etc., or the person may hear, smell, taste, see or feel things that are not real.
   - **Complex partial seizure** – The person experiences altered or loss of consciousness, displaying strange, repetitious behaviors, such as blinks, twitches, mouth movements, etc. The person may experience auras (sensations that warn of an impending seizure).
2. **Generalized seizures** – These seizures affect both sides of the brain or groups of cells on both sides of the brain at the same time. Includes seizure types like:
   - **Absence seizures** – (previously petit mal) – brief loss of consciousness, staring, subtle body movements
   - **Myoclonic seizures** – jerks or twitches of the extremities
   - **Atonic seizures** – loss of muscle tone with sudden collapse or falling down
   - **Tonic-clonic seizures** (previously grand mal) – most intense symptoms, including loss of consciousness, stiffening and jerking of the body, loss of bladder control

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Diagnostic tools[1]
- Medical history and physical exam
- Blood tests to check for metabolic imbalances or nontherapeutic medication levels
- Electroencephalogram (EEG), computerized tomography (CT) scan, positron emission tomography (PET) scan, magnetic resonance imaging (MRI) and single-photon emission computed tomography (SPECT)

Treatment[1]
- Antiepileptic medications
- Diet therapy
- Surgical procedures, such as implantation of vagus nerve or brain stimulator

Best documentation practices for healthcare providers

Subjective
In the subjective section of the office note, document the presence or absence of current symptom(s) related to seizure, seizure disorder, epilepsy, etc.

Objective
The objective section should include any current associated physical exam findings and related diagnostic test results.

Assessment
- Document the particular type of seizure(s), seizure disorder or epilepsy to the highest level of specificity with all appropriate descriptors (e.g., generalized idiopathic, symptomatic, intractable, clonic, partial complex, etc.).
- Include the current status of seizures, seizure disorder or epilepsy (stable, controlled on medication, improved, worsening, historical with no recurrence, etc.) and complications (with or without status epilepticus)
- Contributing factors (seizures related to alcohol, drugs, sleep deprivation, etc.)

Plan
Document a clear and concise treatment plan.
- Clearly link medications to the seizure or epilepsy diagnosis and include the purpose of each medication.
- Include orders for diagnostic testing and plans for medical or surgical procedures.
- Indicate in the office note to whom or where any referral or consultation requests are made.
- Document when the patient will be seen again, even if only on an as-needed basis.

Coding tips

- The terms "seizures" and "epilepsy" are sometimes used interchangeably; however, they are not the same.

  Seizures or convulsions that are **not identified** as epilepsy or as a seizure disorder classify to category R56 which appears in the International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) manual under Chapter 18 – Symptoms, Signs and Abnormal Clinical and Laboratory Findings. Some of the terms that classify to the sign/symptom category R56 are [7]:

  Convulsion disorder
  Fit NOS
  Recurrent convulsions
  Seizure(s) (convulsive) NOS

- Coders should not assign R56.9, Unspecified convulsions, for patients experiencing *seizure disorders* or *recurrent seizures*.

- Category G4Ø appears in the ICD-10-CM manual under Chapter 6 – Diseases of the Nervous System. Some of the terms that classify to the **epilepsy** and **recurrent seizures** category G4Ø are:

Seizure disorder	Epileptic seizure(s)
Epileptic attack	Epileptic fit
Epileptic convulsion(s)	Epilepsy

- When coding epileptic syndromes, coders should note that seizure(s)/epileptic disorders noted by the provider as treatment- or medication-resistant, refractory, or poorly controlled should be coded to intractable. The following terms are to be considered equivalent to intractable:

Pharmacoresistant (pharmacologically resistant)	Treatment resistant
Refractory (medically)	Poorly controlled

- Recurrent seizures and unspecified seizure disorders, when not reported as intractable, should be coded to G4Ø.9Ø9

Some of the terms that classify to the epilepsy and recurrent seizures category G4Ø are:

Seizure disorder	Epileptic convulsion(s)	Epileptic fit
Epileptic attack	Epileptic seizure(s)	Epilepsy

Post-traumatic seizures/post-traumatic epilepsy

A post-traumatic seizure is an initial or recurrent seizure that occurs during the acute phase following a traumatic brain injury and has no other known cause.

- "Early post-traumatic seizures" are seizures that occur within one week of the initial trauma and are considered to be provoked (i.e., they have an immediately identifiable cause that is a direct result of the injury).
- Post-traumatic seizures code to R56.1, which ***Excludes 1*** post-traumatic epilepsy (G4Ø.-).

"Post-traumatic epilepsy", by contrast, is characterized by late seizures that occur more than a week after initial trauma.

- Late seizures are considered to be unprovoked.
- For post-traumatic epilepsy, assign the appropriate epilepsy code based on the documented description followed by the appropriate code to report the traumatic condition with sequela.

Anti-seizure and anti-epileptic medications

- Many anti-seizure and anti-epileptic medications are used to treat conditions other than epilepsy or seizures. Coders cannot assume drugs classified as anti-seizure or anti-epileptic medications are being used to treat seizures or epilepsy when the linkage between the medication and diagnosis is not clearly documented in the medical record.
- As previously noted, many patients on maintenance therapy with anti-seizure and anti-epileptic medications achieve long-term seizure-free status. Documentation that a patient on maintenance drug therapy has been seizure-free for an extended period does not mean the patient no longer has epilepsy or a seizure disorder.

Coding examples

Example 1	
Past medical history	Past medical history includes "seizures"
Medication list	Includes Topamax®
Assessment	Hypertension, hyperlipidemia, migraine headaches
ICD-10-CM codes	• I1Ø Essential (primary) hypertension • E78.5 Hyperlipidemia, unspecified • G43.9Ø9 Migraine, unspecified, not intractable, without status migrainosus
Comments	No code is assigned for seizures, as this diagnosis is documented as a historical condition and is not supported as current. Topamax is an anti-seizure medication, but it is not linked to any particular diagnosis. Further, Topamax can be used to treat migraine headaches – a diagnosis documented in the assessment.

Example 2	
Chief complaint	Presents with seizure disorder. Reports no seizure activity for several years, and takes Dilantin® as prescribed.
Past medical history	Epilepsy since 1995
Review of systems	All systems reviewed and negative
Physical exam	Within normal limits
Assessment	Seizures: stable. Continue current medication.
Plan	Refill Dilantin – indication: seizures. Return in three months
ICD-10-CM code	• G4Ø.9Ø9 Epilepsy, unspecified, not intractable, without status epilepticus
Comments	Review of the record in its entirety supports the patient has a history of epilepsy (also documented as seizure disorder) that is currently controlled with medications.

Example 3	
Medical record documentation	62-year-old female presented this morning to the outpatient surgery unit for a laparoscopic cholecystectomy. In the surgery recovery area, she experienced slurred speech and confusion, followed by a generalized seizure. Slurred speech and confusion lasted about two minutes and then cleared. Patient denies and nursing staff reports no further neurological symptoms or seizure activity. Neurological exam is within normal limits. CT scan of the head with no significant abnormalities noted.
Assessment	Transient ischemic attack with associated seizure
Plan	Carotid ultrasound
ICD-10-CM codes	• G45.9 Transient cerebral ischemic attack, unspecified • R56.9 Unspecified convulsions
Comments	When the diagnosis is stated only in terms of convulsion or seizure without any further identification of the cause, code R56.9, Unspecified convulsions, should be assigned.[8]

References

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