



SNS COLLEGE OF ALLIED HEALTH SCIENCES

SNS Kalvi Nagar, Coimbatore - 35

Affiliated to Dr MGR Medical University, Chennai



DEPARTMENT OF PHYSICIAN ASSISTANT

COURSE NAME: PAEDISTRICS

II YEAR

UNIT II: PAEDIATRIC EMERGENCIES

TOPIC 1:STATUS EPILEPTICUS



Definition



- Status epilepticus is defined as a seizure with 5 minutes or more of continuous clinical and/or electrographic seizure activity or recurrent seizure activity without recovery between seizures.



CAUSES



- **Provoked seizures:** These happen because of other conditions or circumstances, such as high fevers, alcohol or drug withdrawal, low blood sugar, strokes, tumors and encephalitis. Provoked seizures make up about 25% to 30% of all seizures. When a brain injury provokes a seizure, it's an acute symptomatic seizure and has a higher risk of turning into status epilepticus.
- **Unprovoked seizures:** These seizures aren't symptoms of a current medical condition or circumstance. They occur when a person's brain can more easily produce spontaneous seizures. This type also includes seizures that happen more than seven days after a specific cause (like a head injury or stroke).



Specific causes of seizures



- Fevers, especially very high ones. Known as febrile seizures, these are the main cause of seizures in children under 1 year old.
- Strokes, aneurysms and brain hemorrhages. Any circulatory condition that can damage the brain or disrupt how it works can cause a seizure. Strokes and other related problems, such as aneurysms and brain bleeds, are the most common causes of seizures in people over 60.



SYMPTOMS



- The symptoms of SE depend on the area of the brain affected. Depending on where they happen in your brain, you can have different types of seizures. And because there are different seizure types, there are also different subtypes of SE. They are:

Convulsive SE: This form involves uncontrolled shaking or convulsing on both sides of your body. Generalized tonic-clonic seizures are a key type of seizure that can turn into SE.

Nonconvulsive SE: This form involves seizure activity without convulsions or uncontrolled shaking and muscle movements throughout your body. Some minor muscle movements may still happen, but they're usually small twitches or slow, repetitive motions with a hand or part of your face. Absence seizures and other kinds of focal seizures — which affect only a limited part of the brain — can cause nonconvulsive SE.



DIAGNOSIS



An electroencephalogram (EEG) is the gold standard for any seizure diagnosis, including SE. This diagnostic test involves sensors coated in a sticky, electrically conductive gel and placed on your head. The gel helps the sensors pick up the electrical activity of your brain.

By examining the patterns in your brain activity, providers can definitively diagnose a seizure. If the person has an ongoing seizure or has multiple seizures in a row, a provider can diagnose SE. EEG is especially important when a person has nonconvulsive SE.

However, it's also important for a provider to determine if the person's seizures are provoked or unprovoked. Doing that can involve several different tests and exams, including:



DIAGNOSIS



- Blood tests (these look for metabolic and blood chemistry imbalances, immune system problems, toxins and poisons and more).
- Computerized tomography (CT) scan.
- Magnetic resonance imaging (MRI).
- Spinal tap (lumbar puncture).



MANAGEMENT



Treating SE involves a combination of techniques. That's because SE affects your entire body, with the potential to cause serious or life-threatening complications. These methods include:

- Medications.
- Intubation.
- Treating underlying causes (if any).
- Supportive treatments.



- Benzodiazepines (Benzos)
- Antiseizure medications
- General anesthesia
- OTHER MANAGERMENTS
- Dietary changes (especially low-carb or no-carb ketogenic diets).
- Nervous system stimulation (such as deep brain stimulation or vagus nerve stimulation).