



The Diagnosis and Treatment of ED Seizure and Status Epilepticus Patients

Learning Objectives

- Review the optimal clinical evaluation, diagnostic testing, and treatment of Emergency Department patients who present with seizures and status epilepticus (SE).
- Discuss procedures and protocols that will assist the emergency physician in providing care to these critically ill and injured patients.

Background

One of the critical requirements of the emergency physician is to be able to efficiently diagnose and effectively treat patients who present to the Emergency Department with seizures and status epilepticus (SE). This lecture will highlight two specific skills that are part of this overall treatment strategy, the physical exam and diagnostic evaluation of these patients, including the use of EEG monitoring and the use of a protocol that includes the benzodiazepines, the phenytoins, phenobarbital, valproate, and the continuous infusions of midazolam, pentobarbital, and propofol.

In this Brain Injury Course, FERNE would like to stress the use of specific procedures and protocols in managing patients with neurological illness and injury. In effect, the goal is to take a surgeon's approach to treating medical problems in the Emergency Department, including complications related to seizures and SE.

Key Clinical Questions

- What are the clinical signs and symptoms of patients who are seizing and in SE?
- How should patients with seizures and suspected SE be managed?
- What are the roles for the following therapies in the setting of seizures and suspected SE: the benzodiazepines, the phenytoins, phenobarbital, valproate, the continuous infusions of midazolam, pentobarbital, and propofol, antibiotics, antivirals, as well as other neuroprotectants therapies?

Featured Procedures or Protocols

- Diagnostic protocol using the physical exam, CT neuroimaging, EEG monitoring, and lumbar puncture in the evaluation of ED patients with seizures and suspected SE.
- Treatment protocol utilizing antibiotics, antivirals, the benzodiazepines, the phenytoins, phenobarbital, valproate, the continuous infusions of midazolam, pentobarbital, and propofol, as well as other therapies in the management of patients with seizures and suspected SE.

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