

Clinical Policy: Critical Issues for the Evaluation and Management of Adult Patients Presenting With Seizures

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Seizure Clinical Policy

- Frequently seen in the ED
- Symptom of potentially life threatening disease
- Associated with potential morbidity and mortality
- ACEP Seizure Clinical Policy
 - 1993 - Approach based
 - 1997 - Revision
 - 2003 – Critical questions; evidence based

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Seizure Epidemiology in Emergency Medicine


- 1% of adult ED visits
- 2% of pediatric ED visits
- Most common ED etiologies are not epilepsy related:
 - Alcoholism
 - Stroke
 - Trauma
 - CNS infection
 - Metabolic / Toxin
 - Tumor
 - Fever in children
- 50,000 – 100,000 ED cases of status epilepticus annually
 - 20% mortality

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Population Based Study of the Epidemiology of Status Epilepticus


- Most epidemiology studies focus on patients with epilepsy and not on the epidemiology of seizures *per se*
- Fewer than half the cases of status identified were managed by a neurologist
- Over 50% of status cases occurred in patients with no prior history of epilepsy

Delorenzo et al. Neurology 1996; 46:1029-1035

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Seizure Practice Guidelines

- Treatment of convulsive status epilepticus. Epilepsy Foundation of America. JAMA 1993; 270:854-859.
- The neurodiagnostic evaluation of the child with first simple febrile seizure. AAP. Pediatrics 1996; 97:769-775.
- The role of phenytoin in the management of alcohol withdrawal syndrome. Am Soc Addiction Med 1994 / 1998
- Evaluating the first nonfebrile seizure in children. AAN. Neurology 2000; 55:616-623.
- Role of antiseizure prophylaxis following head injury. BTF / AANS. J Neurotrauma 2000; 17:549-553.
- Treatment of the child with a first unprovoked seizure. AAN. Neurology 2003; 60:166-175

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- Identify questions of clinical importance to emergency department management of patients with seizures
- Analyze the quality of data available related to acute management of patients with seizures
- Differentiate anecdotal experience from practice supported by evidence

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1. What lab tests are indicated in the otherwise healthy adult patient with a new onset seizure who has returned to a baseline normal neuro status?
2. Which new onset seizure patients who have returned to a normal baseline require neuroimaging in the ED?
3. Which new onset seizure patients who have returned to normal baseline need to be admitted to the hospital and / or started on an AED?

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4. What are effective phenytoin dosing strategies for preventing sz recurrence in patients who present to the ED with a subtherapeutic serum phenytoin level?
5. What agent(s) should be administered to a patient in status who continues to seize despite a loading dose of a benzodiazepine and a phenytoin?
6. When should an EEG be performed in the ED?

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