

KEY ADVANCES CLINICAL POLICY ALERT

Critical Issues in the Evaluation and Management of Adult Patients Presenting to the Emergency Department with Seizures

Reconfirmed May 2024

Huff JS, Melnick ER, Tomaszewski CA, Thiessen ME, Jagoda AS, Fesmire FM; American College of Emergency Physicians. Clinical policy: critical issues in the evaluation and management of adult patients presenting to the emergency department with seizures. Ann Emerg Med. 2014;63(4):437-447.e15. doi:10.1016/j.annemergmed.2014.01.018. PMID: 24655445

Policy Recommendations and Focus Points in bold

1. In patients with a first generalized convulsive seizure who have returned to their baseline clinical status, should antiepileptic therapy be initiated in the emergency department (ED) to prevent additional seizures?

Patient Management Recommendations:

Level A recommendations (none specified)

Level B recommendations (none specified)

Level C recommendations (see below)

Emergency physicians need not initiate antiepileptic medication in the ED for patients who have had a first provoked seizure. Precipitating medical conditions should be identified and treated.

Emergency physicians need not initiate antiepileptic medication in the ED for patients who have had a first unprovoked seizure without evidence of brain disease or injury.

Emergency physicians may initiate antiepileptic medication in the ED, or defer in coordination with other providers, for patients who experienced a first unprovoked seizure with a remote history of brain disease or injury.

2. In patients with a first unprovoked seizure who have returned to their baseline clinical status in the ED, should the patient be admitted to the hospital to prevent adverse events?

Patient Management Recommendations:

Level A recommendations (none specified)

Level B recommendations (none specified)

Level C recommendations (see below)

Emergency physicians need not admit patients with a first unprovoked seizure who have returned to their clinical baseline in the ED.

3. In patients with a known seizure disorder in which resuming their antiepileptic medication in the ED is deemed appropriate, does the route of administration impact recurrence of seizures?

Patient Management Recommendations:

Level A recommendations (none specified)

Level B recommendations (none specified)

Level C recommendations (see below)

When resuming antiepileptic medication in the ED is deemed appropriate, emergency physicians may administer intravenous (IV) or oral medication at their discretion.

4. In ED patients with generalized convulsive status epilepticus who continue to have seizures despite receiving optimal dosing of a benzodiazepine, which agent or agents should be administered next to terminate seizures?

Patient Management Recommendations:

Level A recommendations (see below)

Emergency physicians should administer an additional antiepileptic medication in ED patients with refractory status epilepticus who have failed treatment with benzodiazepines.

Level B recommendations (see below)

Emergency physicians may administer IV phenytoin, fosphenytoin, levetiracetam,* or valproate in ED patients with refractory status epilepticus who have failed treatment with benzodiazepines.

Level C recommendations (see below)

***Emergency physicians may administer IV propofol, or barbiturates in ED patients with refractory status epilepticus who have failed treatment with benzodiazepines.**

References:

1. <https://www.acep.org/patient-care/clinical-policies/seizure/>
2. *Kapur J, Elm J, Chamberlain JM, Barsan W, Cloyd J, Lowenstein D, Shinnar S, Conwit R, Meinzer C, Cock H, Fountain N, Connor JT, Silbergleit R; NETT and PECARN Investigators. Randomized Trial of Three Anticonvulsant Medications for Status Epilepticus. *N Engl J Med.* 2019;381(22):2103-2113. doi:10.1056/NEJMoa1905795. PMID: 31774955; PMCID: PMC7098487.

Disclaimer

ACEP's clinical policies are developed by the Clinical Policies Committee, guided by processes in accordance with national guideline-development standards. The policies are approved by the ACEP Board of Directors to provide guidance on the clinical management of emergency department patients. These ACEP Board-approved documents describe ACEP's policies on the clinical management of emergency department patients. These clinical policies are not intended to represent a legal standard of care for emergency physicians. ACEP recognizes the importance of the individual physician's judgment and patient preferences.

Clinical findings and strength of recommendations regarding patient management were made according to the following criteria:

Level A recommendations

Generally accepted principles for patient care that reflect a high degree of clinical certainty (e.g., based on evidence from one or more Class of Evidence I or multiple Class of Evidence II studies).

Level B recommendations

Recommendations for patient care that may identify a particular strategy or range of strategies that reflect moderate clinical certainty (e.g., based on evidence from one or more Class of Evidence II studies or strong consensus of Class of Evidence III studies).

Level C recommendations

Recommendations for patient care that are based on evidence from Class of Evidence III studies or, in the absence of adequate published literature, based on expert consensus. In instances in which consensus recommendations are made, "consensus" is placed in parentheses at the end of the recommendation.

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