

Non-Adherence to Antiepileptic Therapies

It is well known that non-adherence to drug therapies presents many problems to both patients and their healthcare systems at large. Under-treated and uncontrolled disease states lead to worsening patient outcomes, increased risk of morbidity and mortality, and increased healthcare costs. This is especially true for patients with antiepileptic drugs (AEDs) for seizure disorders. Uncontrolled seizures can lead to emergency room (ER) visits, hospitalizations, and death from a variety of outcomes, including falls, internal and external hemorrhage, neurological injuries, etc.

According to a 2014 study, patients who were non-adherent with their AEDs were 16-18% more likely to have a subsequent ER visit. And a 2008 study found that adult patients with epilepsy had over a threefold increased risk of mortality when non-adherent to AEDs. Therefore, identification and prevention of AED non-adherence is essential to improve patient outcomes and decrease healthcare costs.

Guidelines:

[AAN Seizure Disorder Treatment Guidelines](#)

Intervention Summary

The following table shows a summary of the proposed intervention topics and the number of potential patients that may be targeted by each intervention. The number of potential patients is based on the most recent ICER. The actual number of targeted patients for each intervention will be based on the ICER for the month the intervention is performed.

Outcomes assessment will be completed 180 days after the intervention is performed.

Proposed Intervention Topic	MCO	FFS – Adult	FFS – Pediatric (Age <18 years)
1. Patients of any age with a history of an AED in the last 180 days with a fill history showing ≤70 day’s supply in the last 90 days or ≤120 day’s supply in the last 180 days AND with a diagnosis of seizures or epilepsy in the last 180 days.	458	18	10

Criteria Recommendations:

Alert Message: Based on refill history, your patient may be under-utilizing [Selected Drug(s)]. Non-adherence to the prescribed dosing regimen may result in sub-therapeutic effects, which may lead to decreased patient outcomes and additional healthcare costs.

Population:

Inclusion: Patients with a history of an AED in the last 180 days with a fill history showing ≤70 day’s supply in the last 90 days or ≤120 day’s supply in the last 180 days AND with a diagnosis of seizures or epilepsy in the last 180 days.

Exclusion: None

MCO	FFS – Adult	FFS – Pediatric (Age <18 years)
458	18	10

References:

- 1.) Hodges JC, Treadwell J, Malphrus AD, et al., Identification and Prevention of Antiepileptic Drug Noncompliance: The Collaborative Use of State-Supplied Pharmaceutical Data. *ISRN Pediatr.* 2014 Feb 19;1-8.
- 2.) Viswanathan M, Golin CE, Jones DC, et al., Interventions to Improve Adherence to Self-Administered Medications for Chronic Disease in the United States: A Systematic Review. *Ann Intern Med.* 2012;157:785-792.
- 3.) Faught E, Duh MS, Weiner JR, et al. Nonadherence to Antiepileptic Drugs and Increased Mortality, Findings from the RANSOM Study. *Neurology* 2008;71(20): 1572-1578.
- 4.) Faught ER, Weiner JR, Guerin A, et al. Impact of Nonadherence to Antiepileptic Drugs on Health Care Utilization and Costs: Findings from the RANSOM Study. *Epilepsia* 2009;50(3):501-509.
- 5.) Osterberg L, Blaschke T. Adherence to Medication. *N Engl J Med* 2005; 353:487- 497.