

Assessment and effect of a gap between new-onset epilepsy diagnosis and treatment in the US

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Cite as: *Neurology*® 2019;92:e2197-e2208. doi:10.1212/WNL.0000000000007448

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Study objective and summary result

This study aimed to estimate the “treatment gap” between a new epilepsy diagnosis and the initiation of antiepileptic drug (AED) therapy in the US, and it found that approximately one third of patients newly diagnosed with epilepsy remain untreated up to 3 years after being diagnosed.

What is known and what this paper adds

Most investigations into epilepsy treatment gaps have been conducted in low-income countries and have reported frequent gaps. This study shows that a lengthy treatment gap can also occur in the US.

Participants and setting

This study reviewed data for individuals who met the diagnostic criteria for epilepsy and were not prescribed AEDs during a 2-year prediagnostic baseline period. The primary analysis involved 59,970 individuals whose data were sourced from Truven Health MarketScan databases covering commercial and supplemental Medicare claims from 2010 to 2015 and Medicaid claims from 2010 to 2014. The validation analysis involved 30,890 individuals whose claims data from 2009 to 2014 were sourced from the IQVIA PharMetrics Plus Database.

Design, size, and duration

This study reviewed diagnostic codes to detect epilepsy diagnoses. This study reviewed prescriptions data and considered an individual untreated if that individual had no pharmacy claims for AEDs after being diagnosed with epilepsy.

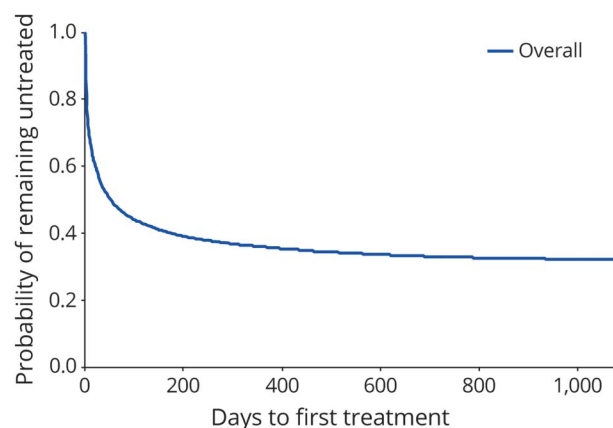
Primary outcome measures

The primary outcomes were the percentages of patients in the primary and validation analyses who remained untreated after diagnosis.

Main results and the role of chance

In the primary and validation analyses, 36.7% and 31.8%, respectively, of the patients remained untreated for up to 3 years after being diagnosed.

Figure Kaplan-Meier curve for time to the first AED-related pharmacy claim in the validation cohort



Bias, confounding, and other reasons for caution

The algorithm that this study used to identify patients with epilepsy might have produced some false positives. This study might have had incomplete treatment data for some patients, and some patients might have had AED prescriptions that they chose not to fill.

Generalizability to other populations

This study's results may not be generalizable to people without health insurance.

Study funding/potential competing interests

This study was funded by UCB Pharma. Some authors report consulting for pharmaceutical companies, including UCB Pharma, and receiving funding from the University of Alabama at Birmingham and pharmaceutical companies, including UCB Pharma. Some authors are or were employees of UCB Pharma and IQVIA, which receives compensation from UCB Pharma. Go to Neurology.org/N for full disclosures.

A draft of the short-form article was written by M. Dalefield, a writer with Editage, a division of Cactus Communications. The authors of the full-length article and the journal editors edited and approved the final version.

Neurology[®]

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Neurology 2019;92:e2197-e2208 Published Online before print April 10, 2019
DOI 10.1212/WNL.0000000000007448

This information is current as of April 10, 2019

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