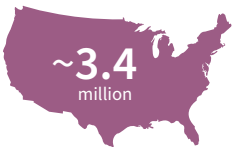
EPILEPSY

Considerations on the cost of illness in the US

Epilepsy is a common neurologic disorder characterized by recurrent seizures[1]



~3.4 million people are living with epilepsy[1]

1 in 26 people will develop epilepsy at some point in their lifetime[2]

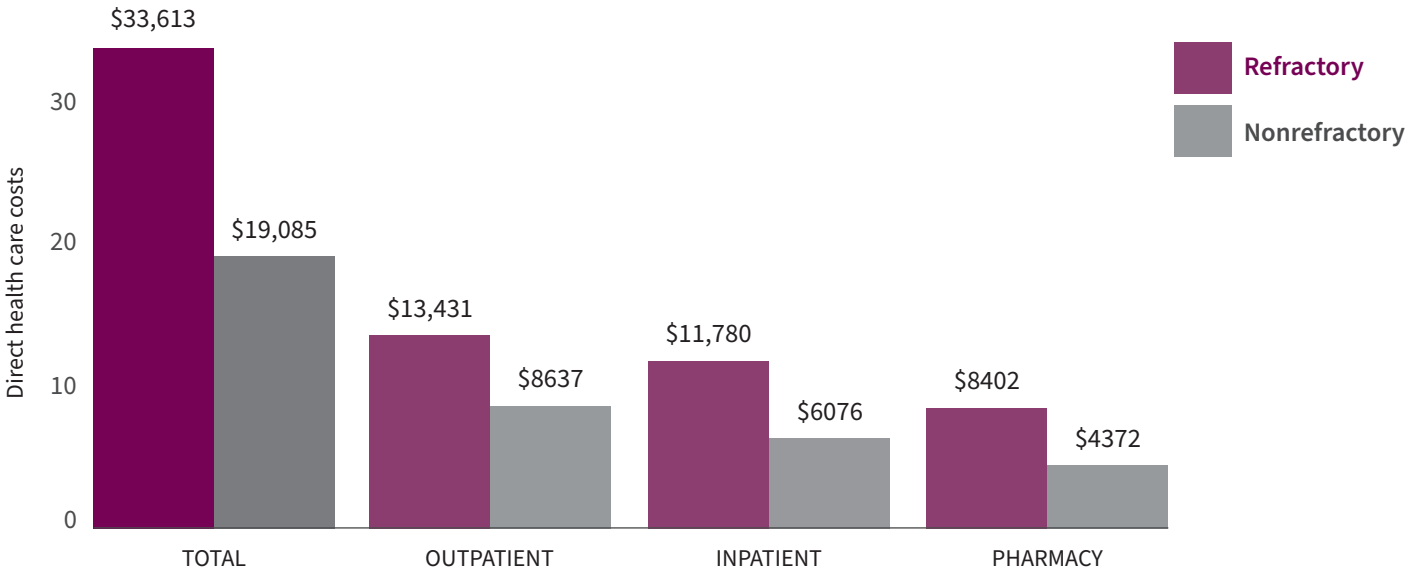
In **~50%** of people with epilepsy, the cause is unknown[3]

56% of adults with epilepsy still experience seizures despite treatment[1]

$8.6 billion in direct health care costs for epilepsy reported in 2016[1]

Uncontrolled epilepsy may lead to significant health care resource use[4]

Annual all-cause cost per person with refractory (n=5480) **vs nonrefractory** (n=36,160) **epilepsy with partial onset seizures (POS)** (*P*<0.001 for all differences between groups)[4]



In this study by Chen et al, the average annual all-cause costs for refractory patients with POS in 2008 were significantly higher than for nonrefractory patients: $33,613 vs $19,085.

Study objectives: To assess the economic burden in direct health care utilization and costs for refractory epileptic patients with POS and assess the AED treatment patterns among these patients.

Study description: Retrospective cohort study of 79,149 patients between January 1, 2004, and December 31, 2008, from a commercial claims database. Patients with POS ≤65 years old (mean age 33 years) were selected if they had any medical claim with the associated diagnosis. A patient was defined as refractory if they had three lifetime AEDs observed in the claims data. POS-related comorbid conditions were more prevalent in the refractory cohort. All-cause and POS-related health care costs were consistently higher among the refractory group in each calendar year. All cost components were higher in the refractory cohort. Both inpatient and pharmacy costs were twice as high in the refractory patients. One-third of the all-cause health care costs were POS-related in the refractory cohort; 20% were POS-related in the nonrefractory cohort.

Limitations: The onset of seizure cannot be identified, and the indication of each AED could not be confirmed from the pharmacy claims. Only direct medical costs were assessed.

Conclusions: Refractory epilepsy in patients with POS is associated with high economic burden and dynamic treatment patterns.

AED = antiepileptic drug.

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References:

1. Centers for Disease Control and Prevention. Epilepsy. Updated February 17, 2022. Accessed April 12, 2022. www.cdc.gov/chronicdisease/resources/publications/factsheets/epilepsy.htm
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4. Chen SY, Wu N, Boulanger L, Sacco P. Antiepileptic drug treatment patterns and economic burden of commercially-insured patients with refractory epilepsy with partial onset seizures in the United States. *J Med Econ*. 2013;16(2):240-248. doi:10.3111/13696998.2012.751918

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