MedicalXpress

Guideline advises when to treat a first seizure

April 20 2015

A new guideline released today by the American Academy of Neurology (AAN) and the American Epilepsy Society (AES) found that administering an antiepileptic medication immediately after a first seizure reduces the risk of having another seizure within two years. The guideline, authored by Allan Krumholz, MD, a professor of neurology at the University of Maryland School of Medicine and physician at the Maryland Epilepsy Center at the University of Maryland Medical Center, is the first to address treatment of a first seizure in adults. A previous guideline—also authored by Dr. Krumholz—addresses how to evaluate a first seizure in adults.

"Determining whether to treat a patient after a first seizure is a complex process, but this guideline supports the use of medication in some cases and could influence standard practice for many physicians," says Dr. Krumholz. "A single seizure could be a sign of epilepsy. Even one seizure is traumatic and can affect many aspects of an individual's life from driving a car to employment options. This guideline clarifies when a person's risk for another seizure warrants medication."

About 150,000 adults have an unprovoked (occurring when an acute brain disturbance cannot be identified as the cause) first seizure in the United States each year, and one in 26 Americans will develop epilepsy—defined as two or more unprovoked seizures—in their lifetime.

"This important guideline has important implications for epilepsy patients and healthcare providers across the country and beyond," says E.

Albert Reece, MD, PhD, MBA, vice president for Medical Affairs, University of Maryland, and the John Z. and Akiko K. Bowers Distinguished Professor and Dean of the School of Medicine. "Through their research and advanced practice of patient care, our neurology faculty continue to make meaningful contributions to improving outcomes and quality of life for patients facing the challenges of neurological disease."

The guideline states that for adults who have had a first seizure, the risk of another seizure is greatest within the first two years. The risk ranges from about a one-in-five chance, or 21 percent, to nearly a one-in-two chance, or 45 percent.

The risk of another seizure is greatest in those with a previous brain injury such as a stroke, tumor or head trauma. Risk is also high for those with a significant abnormality on imaging tests of the brain, an EEG test result that shows signs of epilepsy or a seizure that occurred during sleep.

According to the guideline, immediate treatment with an antiepileptic medication lowers the risk of another seizure by 35 percent within the first two years. "About half of patients who have a first seizure will never have another seizure, but for the other half, immediate drug therapy may help," says Dr. Krumholz, who stresses that the guideline should be used by physicians to help inform patients of their individual risk of a second seizure and involve them in the decision-making process.

While treatment was shown to provide a short-term benefit, over the longer term of more than three years, treating a first seizure immediately rather than waiting for another seizure to occur is unlikely to increase or decrease the likelihood of remaining seizure-free.

The guideline notes that seven to 31 percent of patients who take an antiepileptic drug will experience a drug side effect; however, these are usually mild and can be reversed when a patient is switched to another drug or the dose is lowered.

The guideline was presented at the AAN's 67th Annual Meeting in Washington, DC and published in the April 21, 2015, issue of *Neurology*, the medical journal of the AAN.

Provided by University of Maryland