

EVIDENCE - BASED TREATMENT OF FIRST SEIZURE IN CHILDREN

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The first seizure is an event that may have profound emotional, social, and vocational consequences in child's life. Prospective, population-based studies indicate that we all face an 8-10% lifetime risk of one seizure and 3% chance of epilepsy. A first seizure caused by an acute disturbance of brain function (acute symptomatic or provoked) is unlikely to recur (3-10%). If a first seizure is unprovoked seizure, however, meta-analyses suggest that 30-50% will recur. After a second unprovoked seizure, 70-80% will recur, justifying the diagnosis of epilepsy.

When evaluating a child who has experienced a first seizure, the clinician needs to address an identifiable etiology, the most appropriate therapy and the prognosis. Many

disorders can mimic seizures in children and should be considered in the differential diagnosis of first seizure in child. The prognosis of seizures in children and the risk of recurrence depend mainly of their underlying epileptic syndrome. The most important predictors of recurrence include partial seizures, mo-

tor deficit, mental retardation, abnormal imaging and abnormal EEG. Cryptogenic seizures while awake and associated with a normal EEG have a favorable prognosis and risk of recurrence of 21% in 5 years, whereas symptomatic seizures may have up to a 96% chance of recurrence.

Drug treatment after a first seizure is controversial. Treatment with antiepileptic medications reduces the risk of early seizure recurrence, but has not been shown to affect the long-term prognosis for developing epilepsy in children (and in adults). AED therapy is not always benign and can be associated with rare and fatal allergic reactions and more common adverse effects that are not medically dangerous but do lower the quality of life.

Thus, treatment with AEDs should not be automatic after a first seizure. The decision of whether to treat should be made on an individual case basis that balances the risk of recurrent seizure and disability against the likely impact of medication-related physical and psychological adverse effects.