

# Improving the management of epilepsy in children



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**S**eizures in children are a common problem facing physicians working in primary care and emergency departments. Between 3% and 5% of children under 5 years of age will have a febrile seizure, and approximately 1.5% of children under 15 years of age will have at least one afebrile seizure. It is important, therefore, for physicians to establish an approach to dealing with the child who has a first seizure. Most physicians have been taught how to classify epileptic seizures and recognize common epileptic syndromes, and they know the pharmacological properties of antiepileptic drugs. However, this information may be of limited value in answering the following questions:

- Was it an epileptic seizure?
- What is the risk of another seizure?
- What investigations should be performed?
- What is the best treatment?
- What is the long-term prognosis?

In order to provide a pragmatic approach to the management of epileptic seizures in children, the Division of Neurology at BC Children's Hospital (BCCH) has collaborated with the hospital's Division of Emergency Medicine and members of the British Columbia Medical Association's Section of Pediatrics in the development of an evidence-based

practical approach to this problem. This approach is now available on the Child Health Network of British Columbia website ([www.childhealthbc.ca/guidelines/category/53-epileptic-seizures](http://www.childhealthbc.ca/guidelines/category/53-epileptic-seizures)) and will be updated as new information becomes available and as feedback is received from users.

In this theme issue, we present three topics that are particularly relevant to the family doctor and emergency physician. In the first article, we discuss febrile seizures, the most common seizures in children, and discuss two major cohort studies that have demonstrated how clinical factors alone can be used as a guide to management. In the second article, we propose an approach to establishing whether an event was an epileptic seizure and, if it was, how it should be investigated and whether medical treatment is indicated. Finally, in the third article, we describe an approach to the management of convulsive status epilepticus in children and the drugs that can be used to control the seizure. This article includes an algorithm for easy reference that can be kept in emergency departments to facilitate a more standardized management of this acute emergency.

The prognosis for children with epilepsy is much better than is generally appreciated. More than half of the



with the British Columbia Epilepsy Society (BCES) in the development of teaching material, which is available in several languages ([www.bcepilepsy.com](http://www.bcepilepsy.com)). Counselors from the BCES (604 875-6704) also work with families in the neurology clinics at BCCH and are knowledgeable about the social aspects of epilepsy in children, making them a useful resource for primary care physicians in the management of families of children with epilepsy.

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children who have either a febrile or an afebrile seizure will not have a second seizure, and most children will outgrow their epilepsy. Furthermore, most children who have recurrent afebrile seizures have only a small number of them. Despite this generally good prognosis, epileptic seizures in the child can still have a profound effect on other family members. Studies have demonstrated that approximately one-third of mothers exhibit features of depression in the year following diagnosis. The diagnosis of epilepsy can also have an effect on

siblings, who may observe a seizure and witness the reaction of parents to the event. Siblings often feel that their time spent with parents becomes more limited—an effect that may not be appreciated by the parents.

Primary care physicians are in the best position to identify the impact of epilepsy on the family and have an important role to play, not only in the medical management of the child but also in ensuring that other family members receive appropriate counseling and support. The Division of Neurology at BCCH has worked closely