



**PROPOSED REVIEW OF SIGN GUIDELINE  
CONSULTATION FORM**

Title of guideline	SIGN 81: Diagnosis and management of epilepsies in children and young people
Date of publication	November 2005
SIGN scoping search – sources	<p>MeSH headings for the condition specified and any common variations as free text, plus terms for the interventions and care processes discussed in the guideline</p> <p>Sources: <b>Guidelines:</b> NICE; National Library for Health guidelines finder; National Guidelines Clearinghouse; GIN Web site. <b>Technology appraisals:</b> NICE; UK HTA database (Southampton); INAHTA database. <b>Cochrane reviews:</b> Cochrane Library. <b>Other good quality systematic reviews:</b> UK HTA database (Southampton); DARE.</p>
SIGN scoping search - summary	<p><b>Guidelines – 4</b>  <b>HTAs – 1</b>  <b>Cochrane reviews – 18</b>  <b>Other good quality systematic reviews – 0</b></p>
Other guidelines/HTAs	<p><b>Sowerby Centre for Health Informatics at Newcastle.</b> Epilepsy (PRODIGY Guidance). February 2006</p> <p><b>American College of Radiology Expert Panel on Pediatric Imaging.</b> Seizures - child. 2006</p> <p><b>American Academy of Neurology Subcommittee, Practice Committee of the Child Neurology Society.</b> Practice parameter: diagnostic assessment of the child with status epilepticus (an evidence-based review): report of the Quality Standards Subcommittee of the American Academy of Neurology and the Practice Committee of the Child Neurology Society. Neurology 2006 Nov 14;67(9):1542-50</p> <p><b>University of Warwick, Joint Royal Colleges Ambulance Liaison Committee.</b> Convulsions in Children. May 2007</p> <p><b>Health Technology Assessment 2006;10(7)</b> Connock M, Frew E, Evans B-W, Bryan S, Cummins C, Fry-Smith A, Li Wan Po A, Sandercock J. The clinical effectiveness and cost-effectiveness of newer drugs for children with epilepsy: a systematic review.</p>
Main conclusions from new evidence	<ul style="list-style-type: none"> <li>▪ Several Cochrane reviews have been published on the efficacy of antiepileptic drugs, reporting:             <ol style="list-style-type: none"> <li>1. Time to treatment withdrawal was significantly improved with lamotrigine compared to carbamazepine, while time to first seizure and seizure freedom at six months favoured carbamazepine although the results were not statistically significant.</li> <li>2. Oxcarbazepine is less likely to fail than phenytoin when used as monotherapy for partial onset seizures.</li> <li>3. Zonisamide in combination with another antiepileptic drug can reduce seizures, but with some adverse effects.</li> <li>4. Intravenous lorazepam is at least as effective as intravenous diazepam and associated with fewer adverse events in the treatment of acute tonic-clonic seizures. Where intravenous access is unavailable, buccal midazolam is the treatment of choice.</li> </ol> </li> </ul>

	<p><i>SIGN 81 does not specify which antiepileptic drug should be used, stating that there is a lack of studies comparing therapies and that first choice of therapy should be determined by the syndromic diagnosis and potential adverse effects (C).</i></p> <ul style="list-style-type: none"> <li>▪ Lorazepam is better than diazepam or phenytoin for immediate control of status epilepticus. In the treatment of serially occurring seizures, diazepam gel administered rectally is effective in controlling seizures. There is a need to conduct more studies on other drugs routinely used for this condition. <i>Rectal diazepam is recommended for the treatment of prolonged or serial seizures (B).</i></li> <li>▪ Corticosteroids have been used in different forms and doses for various types of epilepsy in children, but their role for children with epilepsy is still not established. Hormonal treatment resolves spasms in more infants than vigabatrin but this may not translate into a better long-term outcome. Resolution of the EEG features may be important but this has not been proven. Further research using large studies with robust methodology is still required. <i>Corticosteroids are recommended as an option for first line treatment for children with West's Syndrome. In tuberous sclerosis, vigabatrin is superior.</i></li> <li>▪ There is no evidence to support routine therapeutic monitoring of antiepileptic drugs in the treatment of epilepsy. <i>SIGN 81 states that monitoring children for adverse affects is not indicated.</i></li> <li>▪ A review of various self management practices concluded that self-management education may reduce the number of seizures, and improve quality of life. <i>SIGN 81 recommends provision of information to children and their carers (D).</i></li> <li>▪ Two reviews addressing interventions for people with intellectual disabilities broadly supported the use of antiepileptic drugs to reduce seizure frequency, but reported a lack of studies on non-pharmacological interventions. Behavioural side effects leading to discontinuation of pharmacological treatment are rare. <i>Good practice points recommend monitoring all children's behavioural progress and considering alternative drugs if necessary.</i></li> <li>▪ A Cochrane review concluded that the use of pregabalin in combination with other antiepileptic drugs can reduce the frequency of seizures, but has some adverse effects. <i>Pregabalin is not mentioned in the guideline.</i></li> <li>▪ There is no reliable evidence to support psychological treatments for people with epilepsy. <i>This is stated in the guideline.</i></li> <li>▪ There is no strong evidence to support the use of acupuncture in the treatment of patients with epilepsy. <i>Acupuncture is not discussed in SIGN 81.</i></li> <li>▪ There is no evidence that folic acid, thiamine, vitamin D or vitamin E improve seizure control or prevent side effects for people with epilepsy. <i>Not discussed in the guideline.</i></li> <li>▪ The optimum treatment for Lennox-Gastaut syndrome remains uncertain as no study has shown any one drug to be highly efficacious; rufinamide, lamotrigine, topiramate and felbamate may be helpful as add-on therapy. Until further research has been undertaken, clinicians will need to continue to consider each patient individually, taking into account the potential benefit of each therapy weighed against the risk of adverse effects. <i>SIGN 81 does not address this issue.</i></li> </ul> <p><b>NOTE:</b> Cochrane expect to publish another relevant review "Care delivery and self-management strategies for children with epilepsy" by issue 3/2008.</p>
New areas that could be added to the guideline	<ul style="list-style-type: none"> <li>▪ Choice of antiepileptic drug in acute tonic-clonic seizures</li> <li>▪ Treatment of Lennox-Gastaut syndrome</li> </ul>
Summary of the recommendations that could be updated	<ul style="list-style-type: none"> <li>▪ Choice of antiepileptic drugs and their effectiveness in various types of seizures</li> <li>▪ No evidence on non-pharmacological and complementary treatment in seizures</li> </ul>

This report has been reviewed by SIGN Senior Management who do not consider that the new evidence provides justification for updating of the guideline at this stage, and the guideline remains current. This report will be updated and reconsidered in 2011.