EVIDENCE-BASED GUIDELINES ARE USEFUL IN TREATING EPILEPSY

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Evidence-based medicine (EBM) is a conscientious, explicit and juditious use of current best evidence in making decisions about the care of individual patients. EBM is the result of the integration of individual clinical expertise with the best available clinical evidence from systematic research. EBM aims at reducing an inappropriate variation of everyday's practice, speeding the translation of the results of research into practice, and improving quality of care. In addition, a correct use of EBM may result in the reduction of resource consumption and ultimately and ultimately ameliorate the costs of the management of a given disease. Systematic reviews of the literature are the backbone of EBM. These are concise summaries of the best available evidence that address sharply defined clinical questions. Systematic reviews use explicit rigorous methods to identify, critically appraise, and synthesize relevant studies. As the evidence provided by the investigations under review is weighted against the quality of the design and methods, studies are classified according to a hierarchical order as follows: 1. Meta-analysis of randomized clinical trials, single randomized controlled trials, single quasi-randomized controlled trials, non-randomized controlled trials (case-control and cohort studies), uncontrolled studies, case series, and anecdotes. Scientific societies and governmental bodies use the resources of EBM to develop practice guidelines. In these guidelines, based on the levels of scientific evidence, a given intervention is established as effective, ineffective, or harmful for the given condition in the specified population

The number of organizations creating clinical practice guidelines has grown substantially since the early 1990s. There are now about 2700 guidelines in the Agency for Healthcare Research and Quality's National Guideline Clearinghouse and at least 6800 guidelines in the database of the Guidelines International Network (Kuehn, 2011).

A number of EBM guidelines have been developed for epilepsy in different countries. Examples are the guidelines for the treatment of the first seizure (Beghi et al, 2006), the treatment of newly diagnosed epilepsy (Glauser et al, 2004), and the discontinuation of drug treatment in seizure-free patients (AAN QS Subcommittee, 1996).

The decision to treat a first seizure with antiepileptic drugs (AEDs) is largely determined by the risk of relapse. The highest rates of recurrence are found in patients with an abnormal EEG and a documented brain lesion (level of evidence 1). The risk of recurrence is highest in the first 12 months and is almost reduced to zero 2 years after the seizure. Evidence level 1 and 2 studies have consistently shown that treatment of a first unprovoked seizure decreases the risk of relapse in the following two years, but it does not affect the probability of long-term remission. The indiscriminate treatment of the first unprovoked seizure with AEDs is not recommended. Treatment may be considered in patients in whom EEG and imaging data indicate an increased risk of relapse (presence of structural CNS and/or EEG abnormalities) and in those in whom the risks and the benefits of treatment are in favor of the latter, after consideration of the social, emotional and personal implications of seizure relapse and of treatment itself.

Based on an EBM analysis of AED efficacy and effectiveness as initial monotherapy for epileptic seizures and syndromes, the International League Against Epilepsy (ILAE) devised guidelines for the selection of the most appropriate drug in the newly diagnosed patient with partial onset seizures. The drug is carbamazepine or phenytoin for adults, oxcarbazepine for children, and gabapentin or lamotrigine for the elderly. These recommendations partly overlap with those issued by the British (NICE) and Scottish (SIGN) governmental agencies and by the American Academy of Neurology (French et al, 2004).

After assessing the risks and benefits to both patient and society from a recurrent seizure, the discontinuance of AEDs may be considered by the physician and informed patient or parent/guardian if the patients meets the following profile: 1. - Seizure-free 2-5 yr on antiepileptic drugs; 2. Single type of partial seizure (SP or CP or secondarily generalized TC seizure) ; 3. Normal neurologic examination/I.Q; 4. EEG normalized with treatment.

The adoption of EBM guidelines has been found to improve clinical practice (Grimshaw & Russell, 1993). 59 published evaluations of clinical guidelines that met defined criteria for scientific rigor. 24 investigated guidelines for specific clinical conditions, 27 studied preventive care, and 8 looked at guidelines for prescribing or for support services. All but 4 studies detected significant improvements in the process of care after the introduction of guidelines and all but 2 of the 11 studies assessing the outcome of care reported significant improvement. Explicit guidelines do improve clinical practice even with variables improvement in performance.

EBM guidelines have limitations. When even well-conducted RCTs provide conflicting results , a "weight-of-evidence" evaluation must follow. In some circumstances, no RCTs have been done. Some RCTs are of poor quality. Some RCTs cannot be conducted for practical or ethical reasons.

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