

ARE ALL AED'S SIMILAR IN EFFICACY IN NEWLY DIAGNOSED PATIENTS WITH FOCAL EPILEPSY?- NO

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A valid comparison of AED efficacy in newly diagnosed patients suffers from low seizure probabilities in the early course of epilepsy. This poses particular problems to study designs which are infrequently met in the available literature. Frequently, studies are performed with the intent to show non-inferiority of a new drug in comparison to an established drug to obtain approval for monotherapy. Such comparative trials often have a low power to show efficacy differences due to patients numbers included and due to a short trial duration. Furthermore, study results critically depend on an adequate choice of dose ranges compared.

Whereas several studies claim similar efficacy of the compared agents in terms of seizure reduction or responder rates, the highly powered controlled prospective long-term study SANAD-A allowing for flexible dosing was able to show differences in treatment efficacy when both tolerability and effects on seizure frequency were compared over periods of several years. Here, lamotrigine and possibly oxcarbazepine outperformed other agents which were less powerful in reducing seizures (Gabapentin) or more toxic (Topiramate). Consistent with this result, a head-to head comparison of Lamotrigine and Pregabalin in the initial treatment of focal epilepsy showed superiority of Lamotrigine treatment in achieving seizure-freedom for at least six months. Efficiency of Lamotrigine and Gabapentin was superior to Carbamazepine in a prospective randomized trial in patients older than 65 years in that drop-out rates due to adverse effects were higher under Carbamazepine even if direct effects on seizure frequency did not differ significantly. Metaanalyses came to the conclusion that Oxcarbazepine outperforms phenytoin for time to treatment withdrawal, and that lamotrigine is significantly less likely to be withdrawn than carbamazepine.

Thus, even with the present state of published studies, there are indicators that available AED differ in their efficacy when long-term treatment in patient populations are analysed in sufficiently powered studies. Additional clinical studies are clearly needed which include e.g. the underlying neuropathology instead of seizure types to assess particular advantages of AED for an individualized therapy.