

## **POLYTHERAPY RARELY PROVIDES BENEFIT IN PATIENTS WHO HAVE NOT RESPONDED TO MONOTHERAPY: NO**

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The point of my discussion will be that most patients who fail monotherapy do have a bright future and most can still hope to become seizure free or significantly better. Most agree that about 70% of patients with new onset epilepsy will eventually become seizure free with either one or two or more AEDs taken simultaneously. Several studies have shown that patients who had a normal neurological exam, normal MRI and EEG had a better chance of achieving seizure freedom than the other patient groups. Nevertheless, patients with refractory epilepsy can achieve seizure freedom. In one study where patients were followed prospectively with drug trials up to the 7<sup>th</sup> AED, found a falling probability of seizure freedom as well as responder rate. Still, in newer clinical trials where the majority of patients had been previously treated with more than 7 drugs and were on 2 to 3 AEDs going into the trial, some could achieve seizure freedom and the 50% responder rate in the newer studies varied from 35-50%. The same numbers even apply to patients on polytherapy using vagal nerve stimulation, thalamus stimulation and responsive neurostimulation (RNS)

The definition of benefit is controversial. In this context I would interpret benefit as a reduction in seizure frequency and severity so that a patient experiences an improvement in the quality of life. For maximum benefit seizure freedom is preferable. but in patients who cannot achieve seizure freedom, a decrease in seizure frequency and seizure severity by adding one or several AEDs to a monotherapy regimen can provide worthwhile benefits. Therefore, in many cases polytherapy can help and benefit patients who have not previously responded to monotherapy.