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Withdrawal seizure: possible risk factors and predictors for seizure relapse

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Background: Most of the patients usually achieve seizure freedom under treatment with antiseizure medications (ASMs). Drug withdrawal in seizure-free patients is still one of the most challenging issues in the management of epilepsy. The decision-making process of long-term side effects of chronic treatment and on the other hand, the risk of seizure relapse. The big question is what is possible predictors and risk factor for seizure relapse during and after discontinuation of ASMs. Expert opinion: according literature evidence and available knowledge the most important risk factors for withdrawal failure are the etiology of the epilepsy syndrome and epilepsy-related factors, worsening or persistence of epileptiform abnormalities on EEG recordings at the time of discontinuation or during drug tapering and brain abnormalities, thus the principle risk factors related to seizure relapse are etiology of epilepsy syndrome, EEG abnormalities and neuroimaging, since the large majority of patients treated with anti-seizure mediations who have achieved seizure freedom can be good candidates for drug discontinuation, novel antiseizure medications, improve techniques of epilepsy surgery and non-pharmacological therapies, provide patients selection for withdrawal.

Conclusion: One of the most impotent issues in the management of anti-seizure therapy is to choose the best time for attempting ASMs withdrawal in seizure free patients is challenging how to apply the data literature to the clinical practice because a consensus document is not available.