ARE SOME ANTIEPILEPTIC DRUGS PREFERRED DURING PREGNANCY? YES Vasilios K. Kimiskidis

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In the past, neurologists prescribed Antiepileptic Drugs (AEDs) for women with Epilepsy (WWE), primarily on the basis of efficacy. Over the last 20 years, however, accumulating evidence suggested that AEDs are associated with differential teratogenic effects, cognitive deficits as well as other adverse outcomes (i.e the risk for being born small for gestational age) in the offspring of WWE. These findings have complicated considerably therapeutic decisions during pregnancy. Despite the existence of knowledge gaps, particularly regarding the teratogenicity of newer AEDs, it is fairly well established that traditional AEDs like valproate and phenobarbital are associated with a high incidence of major congenital malformations whereas newer AEDs, like lamotrigine and levetiracetam, have a more favorable teratogenicity profile. With regard to neurodevelopmental problems after AED exposure, valproate and, to a lesser extent, phenytoin are associated with an increased risk compared to other AEDs such as carbamazepine or lamotrigine. Finally, valproate and carbamazepine are associated with an increased risk of being born small for age whereas valproate and phenytoin are associated with transiently reduced Apgar scores. Decision making is further complicated by the fact that safer AEDs for fetal development appear to confer less satisfactory seizure control during pregnancy. It is concluded that although AEDs are associated with differential effects on a number of neonatal outcomes, choosing the optimal AED during pregnancy is a complex, multifactorial process incorporating both safety and efficacy issues.