Depression and Epilepsy

**Avoid:** Bupropion and TCAs. Bupropion may increase seizures, the effect is probably dose related (total daily dose >450mg or single dose >150mg) and the effect can be synergistic with other drugs that lower threshold. TCA's are riskier with overdose since they can block GABA(a) receptors and decrease inhibitory neuronal signals. TCA may be considered at low/medium doses - use Nortriptyline as side effects are fewer and you can monitor the serum levels ("therapeutic range" 50-150ng/ml, drawn just prior to next dose).

**Use:** SSRIs. The seizure risk with SSRI's is generally quoted as 0.2% (which comes from a Zoloft study and applied to all SSRIs). The risk is low in general at normal doses and SSRI-induced seizures have generally been seen with very high doses (e.g., 50mg/kg of citalopram in one study).

**Recommended first agents for depression in those with epilepsy:** mirtazapine, sertraline or citalopram. Mirtazpine is nice in that it may not be as activating or anxiety producing for some people, but could contribute to fatigue.

Remember that 1/ depression is a risk factor for seizures, and 2/ low levels of pre/post-serotonergic transmission may be a risk factor for lowering seizure threshold and so treatment with antidepressants may not actually be increasing the risk (Jobe PC, Browning RA. The serotonergic and noradrenergic effects of antidepressant drugs are anticonvulsant, not proconvulsant. Epilepsy Behav 2005 Dec;7(4):602--19.)

**Reading:**