Add on Lamotrigine to Valproate Algorithm for Treating Patients With Epilepsy

Patient presents with Seizures has Partial or Primary Generalized Epilepsy (simple or complex partial seizures, primary or secondarily generalized tonic clonic, absence, myoclonic) Has been treated with valproate to a level which caused adverse effects with some or no control of seizures Lamotrigine metabolism is inhibited by valproate and serum concentrations will be higher and increase more rapidly at a given dose or change in dose than when added to other AEDs

Initiate dose at 25mg/every other day if on concomitant valproate (monitor CBC and for rash) for the first week [This schedule is a little more rapid than recommended in the PI, which recommends 25 mg QOD for first 2 weeks and then 25 mg QD for 2 weeks] Maintain valproate dose until adverse effects develop or seizure control improves.

Increase dose by 25mg/day/week thereafter (target concentration 3-14mcg/ml-this is not an absolute number) Lamotrigine clearance inhibited by Valproate (VPA)/during concomitant therapy can reduce valproate dose to reduce Lamictal plasma concentrations Lamictal clearance may be increased by other drugs metabolized by the cytochrome P450 system including oxcarbazepine, carbamazepine, phenytoin and ritonavir

Patient returns to clinic in 2-4 weeks to monitor for efficacy, side effects (see drug information for common adverse effects) Return based on frequency of seizures. Drug level monitoring required if adverse events or efficacy/compliance in question If valproate is to be discontinued: reduce by 250-500mg/day/week as tolerated. May require increase in lamotrigine dose by up to 50% once valproate is discontinued*

Patient doing well on drug/few or no seizures Continue to titrate to chosen maintenance dose Reduce VPA as tolerated

Patient not doing well on drug Adverse events/no seizures Reduce VPA by 25% Slow titration of Lamictal Change dosage schedule (HS or BID) Rash/CBC abnormal change drug

Patient no adverse events/seizures not controlled Continue to titrate to chosen maintenance dose

Adverse events/seizures Reduce VPA by 25-500mg Slow titration of Lamictal Change dosage schedule (HS or BID) Rash/CBC abnormal change drug

Patient returns to clinic 4-8 weeks depending frequency

Patient not doing well

Patient returns to clinic 4-8 weeks depending frequency

Patient doing well

No Adverse Events/Seizures Increase lamotrigine dose

Adverse Events/Seizures DC VPA Modify lamotrigine schedule (HS or BID) Change drug

Adverse Events/No seizures Modify schedule (HS or BID) D/C VPA if not already

Indications for Lamotrigine (Lamictal) http://www.epilepsy.com/medications/lamotrigine

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