Algorithm for Treating Epilepsy Patients with Carbamazepine (Tegretol, Carbatrol)*

Patient presents with Seizures or unacceptable side effects
Diagnose Partial epilepsy
(simple partial, complex partial seizures, secondarily generalized tonic clonic seizures)

Carbamazepine (Tegretol, Tegretol XR*, Carbatrol**)

Before starting, check if patient is positive for HLA-B*1502, especially those patients whose ancestors are from Asia, including South Asian Indians. If positive, the patient is at increased risk for serious and potentially fatal rash and the risk-benefit ratio should be re-evaluated. See http://www.fda.gov/medwatch/safety/2007/safety07.htm#carbamazepine.

Initiate dose at 100-200mg to BID depending on age

Increase by 200-400 mg/day per week to an initial maintenance dose of ~ 800-1200mg/day (target plasma concentration 8-12mcg/ml)

Patient returns to clinic in 2-4 weeks to monitor for efficacy, side effects (refer to drug information for common adverse events). Return based on frequency of seizures

Drug level monitoring required if adverse events or efficacy in question. Carbamazepine induces its own metabolism as well as other drugs and dose adjustments may be required regularly when initiating therapy based on increases in clearance

Patient doing well on drug/few or no seizures

Titrate to maintenance dose (level that controls seizures)

Patient returns to clinic 4-8 weeks depending on problems

Patient doing well

Patient not doing well on drug

Adverse Events/No Seizures

Reduce dose and slow titration*
Change schedule

Patient not doing well

Adverse Events/Seizures

Reduce dose and slow titration*
Change dosage schedule
Consider other drug therapy

Patient no adverse events/seizures not controlled

Continue to titrate to maintenance dose (level that controls seizures)

Patient returns to clinic 4-8 weeks depending on problems

Patient doing well

Seizures/No Adverse Events
Increase Dose

Patient not doing well

Adverse Events/Seizures

Modify dosage form*
Modify schedule
Change drug

Adverse Events/No seizures

Modify dosage form*
Modify schedule
Reduce dose
Change drug

Indications for Carbamazepine (Tegretol, Carbatrol) http://professionals.epilepsy.com/medications/p_carbamazepine_indications.html
Developed for Epilepsy.com by Ruth Nemire, Pharm D, Nova Southeastern University College of Pharmacy

* Tegretol XR should be used as a twice daily therapy. Some patients have required an increase in dose when switching to the XR. (Novartis PPI).
** Carbatrol capsules provide immediate release/extended release molecules.

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