

RECOMMENDED LABORATORY MONITORING FOR PSYCHIATRIC MEDICATIONS: MOOD STABILIZERS

"Ordering of lab monitoring is based on clinical assessment. The frequency of testing depends on the individual patient and the physician's assessment and may be greater or less than these recommendations. Geriatric patients in particular may require more frequent monitoring."

Test / Drug	Lithium	Valproic Acid/ Divalproex	Carbamazepine	Oxcarbazepine	Lamotrigine	Topiramate	Gabapentin
CBC	Baseline & Q6M (1)	Baseline, monthly x 2, then 2-3x/yr (1)	Baseline, at 1 M then 2-3 x/yr (1)				
Renal (BUN, Creatinine)	Baseline, 3 & 6M and then yearly(4)	Baseline (free level doubles in renal impairment (1)	Baseline & yearly	Baseline* (5)	Baseline *(3)	Baseline* & periodic (5)	Baseline* (3,5) – dose on degree of impairment
Electrolytes	Baseline (1), Q6M (2) Elderly at ↑ risk for ↓Na+	Ammonia in patients with sudden changes in mental status or unexplained emesis	Baseline & Q6M (1) particularly Na for SIADH	Baseline, 2wk, QMx3, then Q6M in elderly/ cardiac /renal DZ (1,3)		Baseline and periodic serum bicarbonate 1 & 3M (1,6)	
LFT (ALT, AST, GGT)		Baseline, monthly x 2, then 2-3 x/yr(1)	Baseline & Q6M	Baseline	Baseline* (5)	Baseline (5)	
Thyroid (TSH, T4)	Baseline & Q6M (1,2,3)						
Fasting Glucose	Baseline	Baseline (9)					
Lipid Profile (LDL, Chol, HDL, ratio)		Baseline and yearly (1)					
Urinalysis	Baseline, 3, 6M, yearly(4)		Baseline & yearly				
EKG	Baseline, esp >40 (3) & cardiac Dz Hx		Baseline in patients > 40 or cardiac history (1)	Baseline over age 40 (5)			
Ophthalmic	Diplopia		Caution in patients with ↑ intraocular pressure, Diplopia	Diplopia		Blurred vision, painful red eyes → ‡ med. emergency	
Weight	Monitor for weight gain					Monitor for weight loss	Weight gain reported (3)
Serum drug levels	Frequently during titration then Q2-6M if stable	Useful for toxicity, compliance	Useful for toxicity, compliance – induces own metabolism over first 3-5 weeks requiring dose adj.	None	None	None	None
Pregnancy	Avoid, especially 1 st trimester	Avoid	Avoid	Avoid	Potential for use in pregnancy (8)	Avoid	Avoid

Other	Baseline Calcium & Q2Y (1) consider PTH if Ca ↑	Risk of pancreatitis, monitor during TX. If menstrual irregularities arise check prolactin, LH, TSH & test. Risk of polycystic ovary Syndrome Bone Density screen (1,8)	Check calcium if seizure frequency ↑ in TX of epilepsy. Risk of severe rash (SJS) Monitor for menstrual changes & polycystic ovary Syndrome, Bone density screen (1,3,8)		Risk of severe rash (SJS), monitor during TX		
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(*)- Dose reduction recommended based on degree of decreased organ function, especially in elderly ‡ syndrome of acute myopia associated with secondary angle closure glaucoma reported – see monograph
 YEARLY PHYSICAL EXAM ROUTINE BLOODWORK: ECG annually for patients over 40 or as indicated; chest X-ray if clinically indicated; If not already done regularly: then electrolytes, BUN, Creatinine, TSH (if indicated) FBS, LFT, CBC, and Urinalysis

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