

RECOMMENDED LABORATORY MONITORING FOR PSYCHIATRIC MEDICATIONS

MOOD STABILIZERS Revised Oct 10, 2006

"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)		Baseline & Q6M (1) particularly Na for SIADH	Baseline, at 2wk, QM x3, then Q6M in elderly/ cardiac/ renal disease (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 function	Baseline & Q6M (1,2,3)						
Fasting Glucose	Baseline						
Lipid Profile (LDL, Chol, HDL, ratio)		Baseline and yearly (1)					
Urinalysis	Baseline, 3 & 6M, yearly(4)		Baseline & yearly				
EKG	Baseline, esp >40 (3) & cardiac hx		Baseline in patients over 40 or cardiac history (1)	Baseline over age 40 (5)			
Ophthalmic						Blurred vision, painful red eyes → ‡ med. emergency	
Weight	Monitor for weight gain					Monitor for weight loss	
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
Other	Baseline Ca & Q2Y (1) consider PTH if Ca ↑	Be alert for sx of acute pancreatitis; If menstrual irregularities prolactin, LH, TSH & test. (1)	Check calcium if seizure frequency increases when used for epilepsy (3)		Check for rash at baseline and monitor for rash during treatment		

(*)- 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, Urinalysis

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References:

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- 2) Taylor, D, Paton, C, Kerwin, R. Maudsley Prescribing Guidelines 2005-2006. 8th ed. London: Taylor and Francis; 2005.
- 3) Drug Information for the Health Care Professional. 25th ed. Taunton: Thomson Micromedex; 2005.
- 4) McEvoy, GK, editor. AHFS Drug Information 2005. Bethesda: American Society of Health-System Pharmacists; 2005
- 5) Repchinsky, C, Welbanks, L, Bisson, R, editors. Compendium of Pharmaceuticals and Specialties. Ottawa; Canadian Pharmacists Association; 2005
- 6) Semla, TP, Beizer JL, Higbee MD. Geriatric Dosage Handbook. 10th ed. Hudson: LexiComp 2005
- 7) Yathan LN, Kennedy SH, O Donovan C, et al. Canadian Network for Mood and Anxiety Treatments (CANMAT) guidelines for the management of patients with bipolar disorder: consensus and controversies. Bipolar Disord 2005; 7(Suppl 3):5-69