



## Common Medication Laboratory Monitoring

Federal nursing home regulations at F 757 define an unnecessary medication, in part, as one that is not adequately monitored. Below is a summary of recommended laboratory monitoring parameters for common medications in the geriatric population. Keep in mind this is only a general guide to monitoring; each care plan will vary depending on the condition and the needs of each individual resident. Clinically complex residents may require more frequent or additional monitoring, while a stable resident may require less.

<i>Medications</i>	<i>Labs</i>	<i>Monitoring Interval</i>	<i>Comments</i>
<b>ACE-Inhibitors and ARBs</b>	Serum potassium	Baseline, within in first month, and every 6 months	Also, monitor serum creatinine and BUN at initiation and regularly
<b>Acetaminophen</b>	LFTs	Every 3 months	Only for doses >4 grams/day
<b>Amiodarone</b>	LFTs, CBC, TSH	Every 6 months	Also requires annual eye exam, EKG, and PFTs
<b>Anticonvulsants:</b> Carbamazepine Phenytoin Phenobarbital Primidone Divalproex sodium Valproic acid	Serum medication levels	Every 6 months	If medication meets the definition of a psychotropic drug, refer to requirements at F 758
<b>Antidiabetics</b> Insulin Oral hypoglycemics	Serum glucose (point of care), Hemoglobin A1c	Every 6 months (A1c); more frequently for glucose monitoring	Metformin – monitor serum creatinine
<b>Antifungals</b> Imidazoles (systemic)	Increased monitoring with concomitant drug use: <ul style="list-style-type: none"> <li>• Warfarin (PT/INR)</li> <li>• Phenytoin (serum levels)</li> <li>• Theophylline (serum levels)</li> <li>• Sulfonylureas (FBG)</li> </ul>	Based on interacting medications and clinical conditions	
<b>Antipsychotics</b>	Fasting Lipid Panel, Hemoglobin A1c	Every 6 months	Refer to requirements at F 758
<b>Digoxin</b>	Serum digoxin level, BMP	Every 6 months	



<i>Medications</i>	<i>Labs</i>	<i>Monitoring Interval</i>	<i>Comments</i>
<b>Diuretics</b>	BMP	Within the first month and every 6 months	
<b>Fibrates</b>	CBC, LFTs	Every 6 months	
<b>Lithium</b>	Serum lithium level	Every 3 months	Narrow therapeutic window; increased monitoring with drug interactions
<b>Nitrofurantoin</b>	Serum creatinine	Prior to initiation	Do not use for CrCL <60ml/min (SOM) or <40ml/min
<b>Niacin</b>	LFTs, serum glucose	Every 6 months	
<b>Non-Steroidal Anti-Inflammatory Drugs</b>	CBC, serum creatinine	Every 6 months	Exception: aspirin 81mg daily
<b>Selective Serotonin Reuptake Inhibitors</b>	Serum sodium	Baseline, dose increases, and annually	Monitor mood ; refer to F 758
<b>Statins</b>	LFTs	Baseline, 12 weeks post-initiation, and every 6 months	Monitor FLP for efficacy at least annually
<b>Thyroid Medications</b> <b>Levothyroxine</b> <b>Liothyronine</b>	TSH, T4	Baseline, at least 6-8 weeks after initiation or dose changes and annually thereafter	T3 (instead of T4) should be monitored for liothyronine
<b>Urinary Anti-Infective</b>	UA and C&S	Case-by-case basis	Prophylaxis medication is discouraged
<b>Warfarin</b>	PT/INR	Based on clinical circumstance; at least every 4 weeks	Checked more frequently with changes- i.e. new or d/c medication

Key:

**BMP:** Basic metabolic panel  
**CBC:** Complete blood count  
**C&S:** Culture and sensitivity  
**FLP:** Fasting lipid panel

**LFTs:** Liver function tests  
**PT/INR:** Prothrombin time/International normalized ratio  
**TSH:** Thyroid stimulating hormone  
**UA:** Urinalysis

References:

1. *Clinical Pharmacology, Elsevier Gold Standard; 2018.*
2. *Laboratory Monitoring Interval (in Months) Recommended for Chronic Medications, Table 2: Consult Pharm. 2008 May; 23(5): 387–395.*