

# CHILDLAB<sup>®</sup>

## MEMORANDUM

To: Nationwide Children's Hospital Medical Staff  
From: Samir Kahwash, M.D., Medical Director of Hematology Lab Services,  
Department of Pathology and Laboratory Medicine, Nationwide Children's Hospital  
Re: Monitoring Anticoagulant Therapy  
Date: November 6, 2013

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The Special Hematology Laboratory at ChildLab currently offers several assays to monitor anticoagulation therapy. The following chart lists these anticoagulants, their respective tests and recommended therapeutic ranges.

Anticoagulant	Laboratory Assay	LIS Order Code	Therapeutic Range	Test Availability
Warfarin (Coumadin <sup>®</sup> )	PT/INR	PT	Diagnosis dependent (See chart below)*	24 hours/7 days
Unfractionated Heparin (UFH)	APTT	APTT (See notes)	64 – 104 seconds	24 hours/7 days
Unfractionated Heparin (UFH)	Anti-Factor Xa, Unfractionated Heparin	UFXA	0.3 – 0.7 U/mL	Dayshift, Monday – Friday**
Low Molecular Weight Heparin (LMWH) (Lovenox <sup>®</sup> )	Anti-Factor Xa, LMWH	AFXA	0.5 – 1.0 U/mL	Dayshift, Monday – Friday**

### Notes:

- Low fixed doses of heparin do not necessarily require monitoring.
- Either APTT or Anti-Factor Xa (UFXA) may be used to monitor UFH. APTT is less expensive and available 24/7; the Anti-Factor Xa is preferable under some conditions (e.g. the presence of a concomitant inhibitor).

\*INR: Recommended Therapeutic Ranges

Indication	INR
Treatment of Venous Thrombosis	2.0 - 3.0
Treatment of Pulmonary Embolism	2.0 - 3.0
Prevention of Systemic Embolism (tissue heart valves; atrial fibrillation)	2.0 - 3.0
Recurrent Embolism	2.5 - 3.5
Mechanical Heart Valves	2.5 - 3.5 (variable***)

\*\*UFXA and AFXA are batch tested Monday through Friday, 8:00 a.m. – 4:00 p.m.; they are also available on a STAT basis after 4:00 p.m. Monday – Friday and on weekends. Pathologist approval is required for “after hours testing.”

\*\*\*Variability depends on type and location of valve.

If you have questions, please contact ChildLab Client Services at (800) 934-6575 and ask to be directed to the Special Hematology Laboratory or visit [Childlab.com](http://Childlab.com).