University
Health System

To: **UHS Faculty**

From: **Dr. Russell Higgins**
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Subject: **Monitoring Unfractionated Heparin Therapy**

Monitoring Unfractionated Heparin Therapy with the Heparin Assay (Anti-Xa Assay)

Beginning mid to late May, patients on therapeutic doses of unfractionated heparin will be monitored with the Heparin Assay (anti-Xa assay). There has been a trend in the industry to make aPTT reagents more and more sensitive to heparin. The result has been undesirable therapeutic intervals for heparin that often exceed 100 seconds. Historically, aPTT heparin therapeutic intervals have been based on Heparin Assays, so the laboratory will begin using the anti-Xa assay to monitor heparin. Several regional hospitals have made this transition including Baylor Hospital in Dallas and Wilford Hall Medical Center.

The Heparin Assay (anti-Xa assay) is well established and has a target therapeutic interval from 0.3 to 0.7 U/ml. The anti-Xa activity is measured and a heparin concentration can be derived from a calibration curve. Many of the routine procedures will not change. Standard weight based boluses and drip rates are initiated and patient samples will be drawn into EDTA tubes (purple tops) at specific intervals. Pharmacy has developed a new nomogram based on the heparin assay to guide dose adjustments. Heparin order sets, in the Sunrise Electronic Medical Record, similar to the existing sets will be created.

After this transition has been made, the aPTT should not be used to monitor heparin therapy. The aPTT will be available to evaluate patients for factor deficiencies, for inhibitors such as lupus anticoagulant, and to monitor direct thrombin inhibitors.

A specific date will be set for this change to occur as soon as possible. I am available to answer questions and would like to assist in making this transition as smooth as possible.

Thank you,

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