Anti-Xa for monitoring unfractionated Heparin

St. Luke's Laboratory Services

Anti-Xa for monitoring unfractionated heparin

Effective April 18, 2017 St. Luke's Laboratory will begin in-house testing of Anti Xa for monitoring unfractionated Heparin (UFH).

This change will be made in conjunction with St. Luke's Pharmacy's conversion to weight based heparin dosing.

The normal function of a molecule of factor Xa is to cleave prothrombin to generate thrombin, the enzyme responsible for the formation of the fibrin clot. In the presence of heparin, a heparin – antithrombin II complex forms which inhibits the activity of factor Xa. The Anti-Xa assay is a chromogenic method which quantitatively measures the amount of Factor Xa in a patient's plasma that is not inhibited by the heparin-antithrombin II complex. The amount of uninhibited Factor Xa in the plasma is inversely proportional to the heparin concentration.

The Anti-Xa assay is a more direct measure of unfractionated heparin activity than the aPTT test, and demonstrates less variability and interference by conditions unrelated to heparin concentration. The presence of the lupus anticoagulant, liver disease, interfering medications, DIC, warfarin therapy with (INR > 1.3), etc., are examples of conditions that may alter the PTT results and make it an inaccurate reflection of heparin anticoagulation, potentially resulting in under-anticoagulation with heparin. The Anti-Xa assay allows clinicians to achieve therapeutic heparin anticoagulation more rapidly and maintain values within the goal range for a longer period of time.

Test Name: Unfractionated Heparin AntiXa
Sample Type: Platelet poor Sodium Citrate plasma (blue top), perform testing within 2 hours at 20^0C.

THERAPEUTIC RANGE: Heparin VTE dosing: 0.3 IU/mL – 0.7 IU/mL
Heparin ACS dosing: 0.2 IU/mL– 0.6 IU/mL

If you have questions, please contact Dr. Steven Eastep, Medical Director (218) 249-3092; Terry Olsen, MT (ASCP), Coagulation Technical Specialist (218) 249-5023, or Jennifer Viergutz, Laboratory Operations Manager (218) 249-5724.