Anti-Xa Assay to Measure Heparin Levels

April 28, 2021

This information applies to: *All Physicians and Nurse Practitioners*

Effective May 10, 2021, the anti-Xa assay will be available at QEH for the measurement of heparin levels in patients receiving unfractionated heparin (UFH). Samples can be sent from any of the PEI hospital sites to the QEH for testing, but must be received in the applicable hospital site's laboratory within 1 hour of collection.

The therapeutic range of the anti-Xa assay for most patients receiving UFH is 0.3-0.7 U/mL.

Advantages of the anti-Xa assay over the PTT for monitoring heparin include:
1) it is not influenced by increased concentrations of FVIII or fibrinogen (as may be seen in the acute phase reaction)
2) it is not influenced by factor deficiency (except for antithrombin deficiency) or the presence of a lupus anticoagulant
3) unlike the PTT, it has a stable therapeutic target range which does not vary between hospital sites

The anti-Xa assay for patients receiving low molecular weight heparin (LWMH) will also be available; a single therapeutic reference range has not been established for these patients.

This anti-Xa assay is NOT appropriate for use in patients receiving factor Xa inhibitor anticoagulants (such as rivaroxaban, apixaban, or edoxaban). If you wish to measure drug levels in such patients, the sample must be referred out to a specialized laboratory.

When you order the anti-Xa assay, it is critical to indicate which anticoagulant – either UFH or LMWH – the patient is receiving to ensure that you receive accurate results.

For more information, contact:

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