The current Heparin assay is based on a hybrid curve and has the ability to recover both Unfractionated heparin and Low molecular weight heparin results in patients. Unfractionated heparin is administered through an IV (adjusted dosage) while Low molecular weight heparin (enoxaparin) is administered by intramuscular injection at a fixed dosage. Both types may be used for treatment of venous thrombosis.

There are two test codes in the LIS that are used dependent upon which type of heparin the patient is treated with.

**HPR**- unfractionated heparin (in house patients on heparin drip monitored by pharmacy for efficacy)

**LMWH**- low molecular weight heparin (subcutaneous injection used to treat venous thrombosis on out-patients or inpatients with requirements for alternate method)

It is important that the correct test code is ordered to ensure that the correct reference range is posted with the patient results. The reference ranges are:

UFH heparin therapeutic range: 0.3 – 0.7 IU/ml

LMWH heparin reference range: 0.5 – 1.1 IU/ml

There are no established critical values for heparin

If there is any question based on the patient results, contact pharmacy to verify use of anticoagulants. If a patient is on a direct thrombin inhibitor for anticoagulant therapy, the results will be extremely elevated. Examples of these include: rivaroxaban, dabigatran, apixaban, hirudin.

If results exceed the upper limit of linearity (>1.80 or 2.00 on instrument printout), dilute the sample using pooled normal plasma 1:2 (500 ul patient sample and 500 ul PNP) and repeat the Liquid Xa test using B-L number for identification. When the results print out, be sure to multiply the numerical result x2 and enter that number as the patient result.