Lab Dept: Coagulation

Test Name: BETHESDA FACTOR IX

General Information

Lab Order Codes:	BTHF9
Synonyms:	F9 Inhibitor; Factor 9 Inhibitor; Bethesda F9, Bethesda Factor 9; Factor 9 Hemophilia Antibody
CPT Codes:	85335 – Factor inhibitor test 85325 – Heparin neutralization (if applicable)
Test Includes:	Bethesda Assay, PTT inhibitor/inactivator assay, possibly heparin neutralization by hepzyme if necessary

Logistics

Test Indications:	The assay is designed specifically to measure the concentration of anti-Factor 9 antibodies in patients with hemophilia B. One Bethesda Unit is the amount of antibody that will inactivate 0.5 U/mL (50%) of Factor 9.
Lab Testing Section:	Coagulation - Sendouts
Referred to:	Fairview University Medical Center (Fairview/Atlas test: BETH4)
Phone Numbers:	MIN Lab: 612-813-6280 STP Lab: 651-220-6550
Test Availability:	Daily, 24 hours. Performed as needed.
Turnaround Time:	Results are reported within 2 - 4 days.
Special Instructions:	Indicate on request form when the last factor 9 concentrate or cryoprecipitate was administered. No Heparin can be present in the specimen. **Note:** Fairview University will no longer hepzyme samples to neutralize heparin in submitted samples. If the Thrombin Time is >60 seconds, the Bethesda Assay will be canceled with the comment, “Specimen canceled; interfering substances detected. Correlation with medications recommended.” If this is the case, the ordering provider will be notified.

Specimen

Specimen Type:	Whole blood

Container:	Light Blue top tube (Buffered Na Citrate 3.2%)
Draw Volume:	Three 3 mL tubes, each containing 2.7 mL blood (8.1 mL) (Minimum volume: Two-3 mL tubes, each containing 2.7 mL blood (5.4 mL))
Processed Volume:	Specimens will be processed at reference lab facility if received within 4 hours of collection. Otherwise, specimens need to be processed at referring facility and provide minimum of two 0.5 mL specimens frozen at -70. Follow directions below under Special Processing.
Collection:	Routine venipuncture. **Do Not** use the first 2 mL's of blood collected. For correct anticoagulant to blood ratio, place 2.7 mL's of blood in a 3 mL tube or 4.5 mL's of blood in 5 mL tube. If the patient's hematocrit is >55%, contact laboratory to obtain a special tube. If the patient's hematocrit is greater than 55%, contact laboratory to obtain a special tube. Mix thoroughly by gentle inversion. If the patient has a coagulation abnormality, apply direct pressure tot the puncture site for 10 minutes; apply a pressure dressing. Instruct the patient to leave the bandage on for 12 hours.
Special Processing:	Lab Staff: **Do Not** centrifuge. **Do Not** freeze. Send to reference lab in original Vacutainer® at room temperature if within 4 hours of collection. Forward promptly. **If specimen is >4 hours old prior to shipment, process specimen as follows:** Spin sample collected in blue top tube(s) for 5 minutes on the Stat Spin centrifuge, remove plasma and transfer to a 4 mL BCS sample cup(s), spin remaining plasma again for 5 minutes in the Stat Spin Centrifuge. Transfer plasma into two labeled 10x75 mL plastic tubes with a minimum of 0.5 mL in each. Freeze at -70 and send specimens on dry ice to Fairview University.
Patient Preparation:	None
Sample Rejection:	Patient on heparin or collection in a heparin containing tube; unprocessed specimens greater than 24 hours old or received frozen; clotted specimens; insufficient volume; mislabeled specimens or unlabeled specimens

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Interpretive

Reference Range:	0 Bethesda Units/mL (Beth U/mL)
Critical Values:	N/A
Limitations:	Recent Factor 9 infusion may invalidate results.

Methodology:	Measurement of residual Factor 9 on mixtures of patient plasma mixed with normal pooled plasma or factor concentrates and incubated for 2 hours at 37ºC.
References:	Fairview University Laboratory Web Page June 2014
Updates:	6/2/2004: Draw volume changed from three 5 mL tubes to three 3 mL tubes. 5/24/2010: Tubing of patient specimens is no longer prohibited. 6/4/2014: Fairview University will no longer hepzyme specimens.