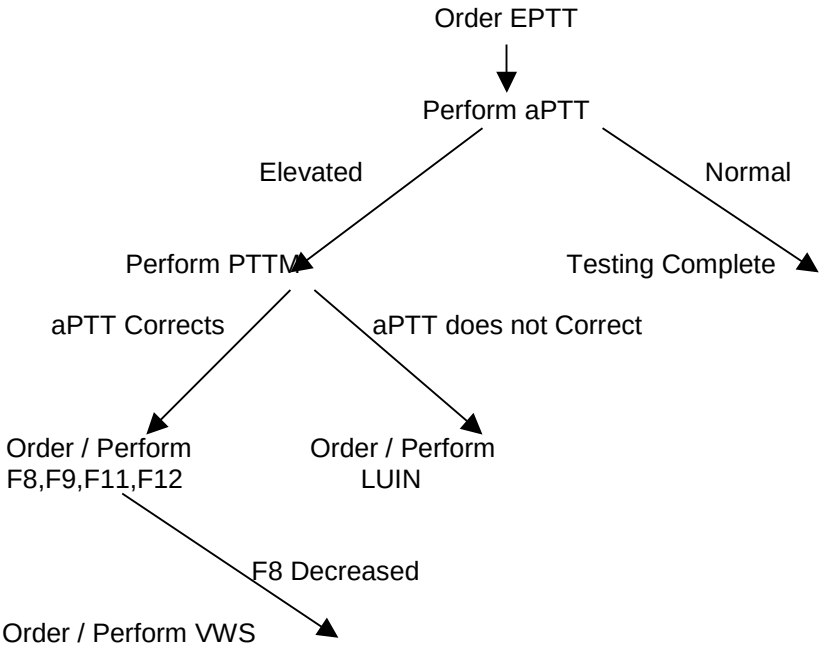
Lab Dept:	**Coagulation**
Test Name:	**PTT, ELEVATED, CASCADE**

General Information

Lab Order Codes:	EPTT
Synonyms:	Elevated PTT Cascade
CPT Codes:	85732 – Thromboplastin time, partial (PTT); substitution, plasma fractions, each The following testing may be added if appropriate based on findings: PTT Mixing Studies 85732 – Thromboplastin time, partial (PTT); substitution, plasma fractions, each Factor VIII 85240 - Clotting; factor VIII (AHG), one stage Factor IX 85250 – Clotting; factor IX (PTC or Christmas) Factor XI 85270 - Clotting factor XI (PTA) Factor XII 85280 - Clotting factor XII (Hageman) von Willebrand Screening 85240 - Clotting; factor VIII (AHG), one stage Factor VII 85245 - Factor VIII vW Factor, Ristocetin cofactor 85246 – Factor VIII vW antigen factor Lupus Inhibitor 85730 x2– Thromboplastin time, partial (PTT) **Possible reflex testing:** 85732 – Thromboplastin time partial; substitution, plasma fractions, if appropriate 85613 – Russell viper venom time (includes venom); diluted, if appropriate 85597 – Platelet neutralization, if appropriate
Test Includes:	PTT, and the following as indicated by the testing algorithm: PTTM, Factors VIII, IX, XI, XII, von Willebrand Screen, Lupus Inhibitor, or other Factor Inhibitor Assays.

Logistics

Test Indications: Useful for the investigation of an elevated PTT value using the algorithm below to identify cause.



Lab Testing Sections: Coagulation

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 4 hours

Special Instructions:
- Patient's with hematocrit levels >55% must have a special tube made to adjust for the hematocrit; contact the laboratory for special tube.
- Specimen must arrive within 30 minutes of collection.
- Indicate when specimen is drawn from a line or a heparin lock.

Specimen

Specimen Type: Whole blood

Container: Light Blue (Buffered Na Citrate 3.2%) top tube

Draw Volume: 8.1 mL (three 2.7 Blue top tubes) (Minimum: 5.4 mL) blood

Processed Volume: Minimum: 1.8 mL plasma

Collection:	● A clean venipuncture is essential, avoid foaming. ● Entire sample must be collected with single collection, pooling of sample is unacceptable. ● Capillary collection is unacceptable. ● Patient's with a hematocrit level >55% must have a special tube made to adjust for the hematocrit; contact lab for a special tube. ● Mix thoroughly by gently inversion. Deliver immediately to the laboratory at room temperature via courier or pneumatic tube. **Off campus collections:** ● Must be tested within 4 hours. ● Do not refrigerate. ● If not received in our lab within 4 hours of collection, sample must be centrifuged and *platelet-poor plasma removed from cells and transferred to an aliquot tube being careful not to disturb the cell layer. Centrifuge the plasma a second time and transfer into a clean aliquot tube being careful not to include any residual platelets on the bottom of the tube. Freeze at -20°C and deliver to the lab on dry ice within 2 weeks. ***Validation of your lab's centrifuge for platelet poor plasma is required.**
Special Processing:	Lab staff: 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 to new BCS sample cup(s) for analysis (as specifically stated in each procedure) leaving approximately 200 uL in the bottom of the original cup to discard. Frozen aliquots allow for additional testing as needed. Test within: ● Four (4) hours when stored as plasma remaining in the capped tube above the packed cells 18 to 24°C. ● Four (4) hours as plasma that has been separated from cells by centrifugation when stored 2 to 8°C or 18 to 24°C. ● Two (2) weeks when stored -20°C. ● Six (6) months when stored -70°C (rapidly frozen). ● Plasma must be frozen if testing cannot be completed within four (4) hours. ● Frozen plasmas are thawed at 37°C for three (3) minutes, test immediately. Once frozen samples have been thawed and tested they cannot be re-frozen.
Patient Preparation:	None
Sample Rejection:	Improper tube; clotted sample; underfilled tube; specimen more than 2 hours old; mislabeled or unlabeled specimens

Interpretive

Reference Range:	See individual assays
Critical Values:	See individual assays

Limitations:	Correction reactions may be difficult to interpret if the patient's PTT is only modestly prolonged. Samples drawn through a line or heparin lock will not correct giving the impression of an inhibitor.
Methodology:	See individual assays
Contraindications:	Current anticoagulant therapy
References:	Harmening DH (1997) Clinical Hematology and Fundamentals of Hemostasis
Updates:	12/15/2010: Processing information updated. 8/20/2013: Updated specimen stability information. 9/15/2014: Added Off Campus collection info.