Lab Dept: Coagulation

Test Name: D DIMER

General Information

Lab Order Codes:	DDI
Synonyms:	D-dimer
CPT Codes:	85379 – Fibrin degradation products, D-dimer; quantitative
Test Includes:	Fibrin D-Dimer reported in mg/L FEU.

Logistics

Test Indications:	Useful for the detection of deep vein thrombosis, evaluation of disseminated intravascular coagulation (DIC), acute myocardial infarction, unstable angina, and in following a leukemia patient's chemotherapy.
Lab Testing Sections:	Coagulation
Phone Numbers:	MIN Lab: 612-813-6280 STP Lab: 651-220-6550
Test Availability:	Daily, 24 hours
Turnaround Time:	2 hours
Special Instructions:	None

Specimen

Specimen Type:	Whole blood
Container:	Light Blue top tube (Buffered Na Citrate 3.2%)
Draw Volume:	1.8 mL for 3 coagulation tests or less 2.7 mL for 4 coagulation tests or if factor assay is ordered
Processed Volume:	Minimum: 0.1 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 gentle 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 mcL in the bottom of the original cup to discard.
Patient Preparation:	None
Sample Rejection:	Improper tube; clotted sample; underfilled tube; mislabeled or unlabeled specimens

Interpretive

Reference Range:	A clinical cut-off of 0.5 mg/L FEU when used along with a low clinical pretest probability assessment model has been established to exclude DVT/PE. **Interpretation:** Results of D-Dimer should always be interpreted in conjunction with the patient's medical history, clinical presentation and other findings. Clinical diagnosis should not be based on the results of D-Dimer alone.
Critical Values:	N/A
Limitations:	Elevated D-dimer levels are not specific for the presence of DIC or of deep vein thrombosis. False-positive or false-negative results may occur when attempting to confirm a diagnosis of DIC.
Methodology:	Immunoturbidometric (optical)

References:

Wayne, PA (January 2008).Clinical Laboratory Standards Institute, Collection, Transport and Processing Blood Specimens for Testing Plasma-Based Coagulation Assays: Approved Guideline, 5th Edition,CLSI Publication H21-A5, An Algorithmic Approach to Hemostasis Testing, Kottke-Marchant,CAP Press

Updates:

7/16/2012: Method update. Previously a screening test; Monoclonal Antibodies Attached to Latex Particles
CPT update, previously listed as 85378.
9/15/2014: Added Off Campus collection info.