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STAT VIDAS D-Dimer Test Available

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The Laboratory is pleased to announce the availability of a rapid, quantitative, D-dimer assay for the exclusion of deep venous thrombosis (DVT) and pulmonary embolism (PE). This new ultrasensitive, automated, D-dimer (VIDAS D-Dimer) is an enzyme–linked fluorescent immunoassay (ELFA) for the determination of fibrin degradation products in plasma. The test will be available, stat, 24/7, with a maximum TAT of 75 minutes. Testing will be performed in the Immunology section of the laboratory and questions regarding the VIDAS D-dimer test may be called to that section at 797-7390.

The D-dimer is a specific fragment of the fibrin clot, requiring three hemostatic stages to be activated for its formation: clot formation (coagulation), cross-linking by Factor XIII, and clot breakdown (fibrinolysis) or fibrin. It is the first test to be included in the future development of an expanded coagulation test menu to be offered by the laboratory.

The D-Dimer assay is used in several diagnostic venues. As a semi-quantitative assay, D-dimer is used to confirm thrombosis and can be used to diagnose disseminated intravascular coagulation (DIC), since DIC usually produces very elevated levels of D-dimer. As a quantitative assay, the VIDAS D-Dimer displays increased sensitivity and can be used to exclude thrombosis while allowing for the differentiation of the presence or absence of venous thromboembolism (VTE). The VIDAS D-Dimer, in conjunction with clinical judgment, will decrease the use of expensive, time-consuming, and potentially invasive procedures to diagnose VTE.

The quantitative VIDAS D-Dimer assay can be used to rule out DVT or PE; in other words, it can be used as a negative predictor. The negative predictive value published in some studies is 100%. If the level of D-dimer in plasma is not elevated, then no thrombotic process is ongoing and VTE is not present. However, if the D-dimer level is elevated, a clotting process is occurring, which may be due to VTE, but also may be due to other clinical conditions.

The D-dimer test should be used with caution in hospitalized patients, since numerous disease processes and invasive procedures can elevate D-dimer levels without the presence of VTE. In these patients, reliance on clinical evaluation and imaging studies is more valuable.

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The D-dimer assay should not be used in patients on anticoagulant therapy (heparin or warfarin). Studies have demonstrated that anticoagulants decrease circulating D-dimers and could possibly generate a false value below the cutoff, and VTE would be missed.

References:

Diagnostic value of the D-dimer test in deep vein thrombosis: improved results by a new assay method and by using discriminate levels, Shitrit D, Heyd J, Raveh D, Rudensky B., Thromb Res 2001 Apr 15; 102 (2): 125-31.

Use of a simplified clinical scoring system and D-dimer testing can reduce the requirement for radiology in the exclusion of deep vein thrombosis by over 20%, Janes S, Ashford N., Br J Haematol. 2001, Mar; 112 (4):1079-82.

EBV Testing:

A complete EBV panel can be ordered with or without interpretation. A Clinical Pathologist, as a consultation, will perform the EBV panel with interpretation. For ordering information, refer to the laboratory requisition form.

Barrel and needle disposal

In accordance with a recent mandate from OSHA, Danbury Hospital laboratory personnel will dispose of needles and barrels in the following manner: needles used to perform venipunctures will not be detached from the barrel used during the process. The barrel and attached needle will be disposed of as one unit or piece in a puncture proof container suitable for the disposal of sharps. The OSHA rule, which requires the disposal of needles and barrels as stated, applies to all facilities and organizations where staff collects blood specimens using venipuncture procedures.

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