

Date: February 11, 2019
To: South Zone - Physicians and Nursing
From: AHS Laboratory Services
Re: Changes to Quantitative D-dimer Testing- Chinook Regional Hospital

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Key Message:

- Effective February 11, 2019 there will be a change to the D-Dimer testing methodology and reporting units for testing performed at the Chinook Regional Hospital (CRH) laboratory.
- D-Dimer results currently reported in ng/mL DDU will change to mg/L FEU (fibrinogen equivalent units).
- The reference interval will be: 0-0.50 mg/L FEU.
- The new D-Dimer method has superior sensitivity and specificity to the previous test method.

Indications for Ordering D-Dimer Testing:

- The only clinical indication for D-Dimer testing is to aid in excluding deep vein thrombosis (DVT) or pulmonary embolism (PE) in conjunction with a standardized D- Dimer pre-test probability assessment for DVT or PE risk score (such as the Well's Score). This clinical indication is unchanged.
- A normal D-Dimer test result (less than or equal to 0.50 mg/L FEU) **excludes** DVT and PE in patients with a low pre-test probability assessment.
- A normal D-Dimer test result (less than or equal to 0.50 mg/L FEU) **is not useful** to exclude DVT and PE in patients with a high pre-test probability assessment.
- A positive D-Dimer test result (greater than 0.50 mg/L FEU) **is not diagnostic** of DVT or PE, as D-Dimer can be elevated in a variety of clinical conditions.
- D-Dimer testing will be resultated with the following interpretive comment:

A D-Dimer BELOW the 0.50 mg/L FEU cutoff may be used with a standardized clinical assessment and/or imaging studies to help exclude venous thromboembolism (VTE). Values above the cutoff are not diagnostically useful in VTE assessment.

Why this is important:

- The established cut-off value of 0.50 mg/L FEU has been validated to rule out DVT and PE in patients with a low pre-test probability assessment risk score with a negative predictive value of 100%.
- The new D-Dimer method has superior sensitivity and specificity to the previous test method.

Action Required:

- As with previous testing, a pre-test probability assessment risk score should be determined prior to ordering D-Dimer testing.
- Patients with a high pre-test probability assessment risk score should **not** have quantitative D-Dimer testing. If DVT or PR is suspected in these patients, they should be referred directly for diagnostic imaging (DI).

Inquiries and feedback may be directed to:

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This bulletin has been reviewed and approved by:

- Tamara Trotter, Director, Urban Hospitals South Sector
- Dr. Michael Greeff, South Zone Co-Lead, Pathology and Laboratory Medicine