

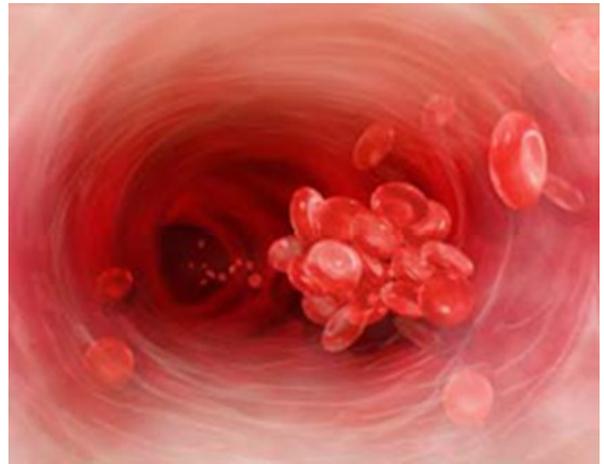
## Physicians' Newsletter

### March 2015

#### D-Dimer

D-Dimer (DD) is the final degradation product of fibrin by plasmin. Its presence indicates that thrombosis has occurred *i.e.* activation of clotting, fibrin formation, fibrin stabilization by factor-XIIIa and finally fibrin degradation by plasmin (fibrinolytic system). Increased DD can occur in non-pathologic situations such as age >50y, cigarette smoking, pregnancy, puerperium, immobility and recent surgery. Race and ethnicity also affect the results. Pathologic conditions include:

- Congestive cardiac failure
- Stroke
- Acute coronary syndromes
- Infection
- Liver or renal disease
- Pregnancy, pre-eclampsia
- Peripheral arteriopathy
- DIC
- Hemorrhage
- Arterial and venous thromboembolism
- Thrombolytic agents
- Malignancy
- Trauma
- Burns



In outpatient settings, an elevated DD cannot be used to diagnose the presence of significant thrombosis because it is not specific for this disorder. However, a negative DD test can be used to exclude venous thromboembolic disease in a patient with low pre-test probability following clinical assessment. Patients with a high pre-test probability should not await the result of DD but should receive immediate medical attention.

Please be reminded that abnormal DD results are not on the critical phone-list. While an attempt will be made to promptly phone abnormal results to the ordering physician, the results will not be phoned or faxed until the next business day if a physician's office is closed. Note that results are also sent to Excelleris.

It is the ordering physician's responsibility to follow up on abnormal results: this has been confirmed with The Canadian Medical Protective Association.

#### 17-Hydroxyprogesterone

We are pleased to announce that serum 17-hydroxyprogesterone is following androstenedione to a new liquid chromatography tandem mass spectrometry (LC-MS/MS) assay. Results will be more accurate and precise, but about 70% lower relative to the former radioimmunoassay. In addition, we expect a significant improvement in turnaround times. Reference intervals will be adjusted to reflect the new method. No change is required in ordering practices.

## Ordering the right semen test

Purpose	Appointment needed?	Test to order
Fertility investigation <u>or</u> vasectomy reversal	Yes; give patient <i>Semen Analysis Patient Instructions</i>	Semen Analysis <u>or</u> Vasectomy Reversal Semen Analysis
Post-vasectomy	Yes; give patient <i>Semen Analysis Patient Instructions</i>	Post-vasectomy analysis
?presence of white blood cells	No	Semen for WBC
?presence of red blood cells		Semen for RBC
Culture & Sensitivity		Semen C&S

## Stool for *C. difficile*

*C. difficile* testing for an asymptomatic patient or with a formed stool will only be performed if requisition includes a suitable reason. Most PCR assays are not approved for testing of formed stools and have been validated only in symptomatic patients (>3-6 diarrhea/d): consequently, sensitivity, specificity and positive predictive value will be low in other situations.

Formed stools will be routinely rejected except in cases of ileus, megacolon or, occasionally, the screening of a patient's household contacts (e.g. children) expected to be at high risk of infection due to pre-existing GI conditions (e.g. IBD) or treatment with antibiotics, chemotherapy or radiation.

## Use of the CKD EPI formula for eGFR

On December 15<sup>th</sup>, BC laboratories started using the more accurate CKD EPI formula for calculating eGFR. CKD EPI eGFR results are calculated based on assumptions similar to those used for the MDRD calculation:

- adult (>18 yrs)
- average muscle bulk for a person of given age and gender
- stable body fluid balance and creatinine concentration over time
- non-black ethnicity
- not pregnant
- not taking a medication affecting renal creatinine excretion
- average dietary protein intake / kg for a person of given age and gender.

Inaccuracies due to incorrect assumptions may be reduced if additional patient information (e.g. ethnicity) is entered into calculators available online.

For more information on the use of eGFR in the identification, evaluation and management of patients with chronic kidney disease, please see the updated GPAC guideline at [www.bcguidelines.ca/pdf/ckd.pdf](http://www.bcguidelines.ca/pdf/ckd.pdf).

 <p>1-800-431-7206 www.lifelabs.com</p>  <p>ISO 15189:2007</p> 	 <p>1-800-565-1441 www.bcbio.com</p>  
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