

# Laboratory Medicine Bulletin

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## C-Reactive Protein Method Change

August 20, 2012

St. Paul's Hospital will now be offering the Siemens high sensitivity C-reactive protein (CRP) method by immunoturbidimetry on our automated chemistry analyzer. This will replace the previous CRP method which was performed on the BNII nephelometer. The new method will be going live on the week of August 20, 2012.

The main impact of this change will be improved test turn-around time: the assay will now be available 24 hours a day, 7 days per week. This may be of particular utility to emergency physicians evaluating patients for potential infection.

In addition, the new method is more accurate than the old method, particularly in the low end of the measurement range, where CRP is used for cardiac risk assessment. A change in CRP values may be seen compared with the old method – this should be kept in mind for any research studies making use of CRP measurements. Values with the new method are approximately 30% higher in the range seen in healthy individuals (less than 3 mg/L). There is a lesser increase seen in the upper range of the assay. Reference intervals will remain unchanged, since they are guideline-based.

### Automated contextual comments will accompany reported results as follows:

- >10 mg/L      In acute inflammation, bacterial infections, tissue necrosis and trauma, CRP rises above 10 and may exceed 100 mg/L.  
If CRP ordered for CAD risk assessment, test should be repeated in 2 weeks and the patient examined for sources of infection or inflammation.
- 2.1 to 10 mg/L      *For men over age 50 and women over age 60:*  
According to Canadian Cardiovascular Society guidelines, pharmacological therapy may be indicated in adults with moderate risk for CAD if hsCRP>2mg/L<sup>1</sup>.

Also, a reminder that if both ESR and CRP are ordered on a sample, only CRP will be processed unless there is a specific indication to perform both.

Please do not hesitate to contact me or Dr. Dan Holmes at 604 682 2344 if you have any questions:



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1. Can J Cardiol 25(10) 2009 pp 567 to 579.