



# Laboratory Medicine Bulletin

## N-TERMINAL PRO-BRAIN NATRIURETIC PEPTIDE (NT-PROBNP) TO REPLACE BNP

January 21, 2016

As of January 26, 2016, the Providence Health Care laboratories will be switching from Siemens Centaur BNP to Roche e601 NT-proBNP. Although the NT-proBNP test is a prognostic biomarker, its primary purpose is in the diagnosis of congestive heart failure, when uncertainty remains after clinical assessment.<sup>1,2</sup> As this test is not intended for use as a therapeutic target, repeat testing for a single heart failure episode will not be permitted.

For use as a diagnostic aid for acute heart failure, the new test will be reported out with age-dependent reference intervals and interpretive comments as shown below:

Patient Age (Years)	NT-proBNP Decision Threshold (ng/L) <sup>1,2</sup>	Reference Interval (ng/L)
15 to <50	<450	<125 <sup>3,4</sup>
50 to 75	<900	<300 <sup>1,2,5</sup>
>75	<1800	<300 <sup>1,2,5</sup>

NT-proBNP Result	Interpretive Comment
<300 ng/L	Acute heart failure unlikely (<300 ng/L).
>300 ng/L, but below the age-dependent decision threshold (see table above)	Heart failure possible. Consider other causes for NT- proBNP elevation including reduced eGFR.
Above the age-dependent decision threshold (see table above)	Heart failure probable. The decision threshold rises as the eGFR falls.

Please do not hesitate to contact me at 604 806 8190 if you have any questions.



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### REFERENCES

- [1] Moe GW, Ezekowitz JA, O'Meara E, et al. The 2014 Canadian Cardiovascular Society heart failure management guidelines focus update: anemia, biomarkers, and recent therapeutic trial implications. *Canadian Journal of Cardiology*. 2015;31:3-16
- [2] [BC Guidelines - Chronic Heart Failure: Diagnosis and Management](#)
- [3] Fradley MG, Larson MG, Cheng S, et al. Reference limits for N-terminal-pro-B-type natriuretic peptide in healthy individuals (from the Framingham Heart Study). *Am J Cardiol* 2011;108:1341-5.
- [4] Roche NT-proBNP Package Insert (Reference Number: 04842464 119)
- [5] Hess G, Runkel S, Zdunek D, et al. Reference interval determination for N-terminal-B-type natriuretic peptide (NT-proBNP): a study in blood donors. *Clin Chim Acta* 2005;360:187-93.