



Capital Health

## MEMORANDUM

April 8, 2014

**Division of Clinical Chemistry**

**Department of Pathology and Laboratory Medicine**

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**To:** Nova Scotia District Laboratories

**From:** Dr. Manal Elnenaei, Dr. Amy Lou, Dr. Bassam A Nassar, Ms. Shauna Thompson, Divisions of Clinical Chemistry

**Subject:** **NT-ProBNP Approval Process**

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NT-ProBNP (N-terminal pro B-type natriuretic peptide) is produced in response to increased myocardial wall stress due to volume or pressure overload states such as in congestive heart failure (CHF) so it may aid in the diagnosis of individuals suspected of having this condition.

However, like many laboratory tests, there are pitfalls associated with the interpretation of the results of this test and a comprehensive clinical assessment is thus warranted in every case.

These pitfalls include the following:

1. Other cardiac & pulmonary conditions besides CHF can raise NT-ProBNP, such as valvular heart disease, arrhythmias e.g. atrial fibrillation, pulmonary embolism & pulmonary hypertension.
2. Non-cardiac conditions such as advancing age and renal dysfunction can lead to higher values of NT-ProBNP without overt CHF.
3. Obesity may result in unexpectedly lower NT-ProBNP levels even in those with CHF.
4. CHF with preserved ejection fraction causes a lower increment of NT-ProBNP than that due to systolic dysfunction.
5. Although levels of NT-ProBNP <300pg/ml may generally exclude CHF, values above this cut-off and up to 1800pg/ml may represent a 'gray zone', sometimes even after an age stratified approach.

Therefore, to ensure appropriate utilization of this high cost test (approximately \$28.00 per test), requests for NT-ProBNP testing requires approval from a Cardiologist in order to be processed using the form located on our website:

<http://www.cdha.nshealth.ca/pathology-laboratory-medicine/clinical-chemistry>

Please contact Dr. M. Elnenaei at 902-473-5194 or Dr. A. Lou at 902-473-1528 if you have further questions about this matter.

- C. Ms. Shauna Thompson, Dr. J. Godfrey Heathcote, Ms. Sandy Schlau, Ms. Faye Lively