

NT-proBNP

N-terminal pro B-type Natriuretic Peptide Test Update

Effective January 30, 2019 Clinical Labs of Hawaii will offer in-house testing for N-terminal pro B-type Natriuretic Peptide (NT-proBNP) as a replacement for current BNP testing.

Atrial- and brain-type natriuretic peptide (ANPs and BNP) are produced in cardiac tissues in response to ventricular dysfunction and atrial distension.

NT-proBNP aids in the:

- Diagnosis and prognosis of individuals suspected of having congestive heart failure

- Risk stratification of patients with acute coronary syndrome and congestive heart failure
- Assessment of increased risk of cardiovascular events and mortality in patients at risk for heart failure who have stable coronary artery disease

NT-proBNP, in contrast to Brain Natriuretic Peptide (BNP), is:

- Unaffected by the new class of Neprilysin Inhibitors (e.g. Entresto®)
- Suitable as a Biomarker for congestive heart failure
- Stable when collected, stored and transported at Room, Refrigerated and Frozen temperature

To Diagnose Acute HF: The “Triple Cut Point”

Age Strata	Optimal Cut-Point	Sensitivity	Specificity	PPV	NPV	Accuracy
All <50 years (n=183)	450 pg/mL	97%	93%	76%	99%	95%
All 50-75 years (n=554)	900 pg/mL	90%	82%	82%	88%	85%
All >75 year (n=519)	1800 pg/mL	85%	73%	92%	55%	83%
Overall		90%	84%	88%	66%	86%

Superior to single cut-point strategy in multivariable bootstrapping models

Reference:

1. Januzzi, J., et al. Amino-Terminal Pro-B-Type Natriuretic Peptide Testing for Diagnosis or Exclusion of Heart Failure in Patients with Acute Symptoms, Am J Cardiol, 2008;101[suppl]:29A-38A

Test Name/Order Code	NT-proBNP/NTBNP (3683)
Specimen Requirements	1.0 mL (0.5 mL minimum) Plasma Lithium Heparin (Green top) or Serum SST
Stability	Room temperature: 3 days Refrigerated: 6 days Frozen: 2 years
Turnaround Time	Performed: Sun-Sat; Available STAT; Reported: Same day
Reference Range	<75 Years: 0-125 pg/mL ≥75 Years: 0-450 pg/mL