

Dr. Vinay Chopra
 MD (Pathology & Microbiology)
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| NAME | : Mrs. KANTA JAIN | PATIENT ID | : 1685580 |
| AGE/ GENDER | : 86 YRS/FEMALE | REG. NO./LAB NO. | : 012411290022 |
| COLLECTED BY | : SURJESH | REGISTRATION DATE | : 29/Nov/2024 10:24 AM |
| REFERRED BY | : | COLLECTION DATE | : 29/Nov/2024 11:24AM |
| BARCODE NO. | : 01521665 | REPORTING DATE | : 29/Nov/2024 11:54AM |
| CLIENT CODE. | : KOS DIAGNOSTIC LAB | | |
| CLIENT ADDRESS | : 6349/1, NICHOLSON ROAD, AMBALA CANTT | | |

| Test Name | Value | Unit | Biological Reference interval |
|-----------|-------|------|-------------------------------|
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SPECIAL INVESTIGATIONS

N-TERMINAL PRO B TYPE NATRIURETIC PEPTIDE (NT-PRO BNP)

N-TERMINA PRO B TYPE NATRIURETIC PEPTIDE (NT-PRO BNP) 340 pg/mL < 300

by ELFA (ENZYME LINKED FLOURESCENT ASSAY)

INTERPRETATION:

| AGE AND CONDITION RELATED CUT OFF VALUES FOR NT-PRO BNP | | |
|---|---------------|-----------------------|
| IN ACUTE HEART FAILURE | | |
| AGE (Years) | UNITS (pg/mL) | OPTIMAL CUT OFF VALUE |
| < 50 | pg/mL | 450 |
| 50 - 75 | pg/mL | 900 |
| >75 | pg/mL | 1800 |
| IN CHRONIC HEART FAILURE | | |
| < 75 | pg/mL | 125 |
| >75 | pg/mL | 450 |
| NEGATIVE PREDICTIVE VALUE CUT OFF FOR NT-PRO BNP: < 300 pg/ml (HEART FAILUE UNLIKELY) | | |

The N-terminal of the prohormone brain natriuretic peptide (NT-proBNP), is a 76 amino acid terminal inactive protein that is cleaved from proBNP to release brain natriuretic peptide.


The main physiological function of NP is homeostasis and protection of among others the cardiovascular (CV) system from the effects of volume overload. They play an important role in regulating blood pressure (BP) and body fluid volume by their natriuretic and diuretic actions, arterial dilatation, and inhibition of the renin angiotensin system.


Concentrations of NP increase in patients with congestive heart failure (CHF) and other CV diseases owing to pressure and volume overload, whereas levels below cutoff are a strong negative predictor for CHF.

Both BNP and NT-proBNP levels in the blood are used for screening, diagnosis of acute congestive heart failure (CHF) and may be useful to establish prognosis in heart failure, as both markers are typically higher in patients with worse outcome. The plasma concentrations of both BNP and NT-proBNP are also typically increased in patients with asymptomatic or symptomatic left ventricular dysfunction and is associated with coronary artery disease and myocardial ischemia

It can be used, along with other cardiac biomarkers test, to detect heart stress and damage and/or along with lung function tests to distinguish between causes of shortness of breath. Heart failure can be confused with other conditions, and it may co-exist with them. BNP and NT-proBNP




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levels can help doctors differentiate between heart failure and other problems, such as lung disease. An accurate diagnosis is important because the treatments are often different and must be started as soon as possible.

A BNP or NT-proBNP test may be ordered when a person has signs and symptoms that could be due to heart failure. These may include:

1. Difficulty breathing, shortness of breath
2. Fatigue
3. Swelling in the feet, ankles, legs, abdomen

NOTE:

1. Lack of NT-ProBNP elevation has been reported if Congestive Heart Failure (CHF) is very acute (first hour) or if there is Ventricular inflow obstruction
2. As per a number of studies, threshold for NT-ProBNP is 125 pg/mL
3. BNP and NT-proBNP levels decrease in most people who are taking drug therapies for heart failure, such as angiotensin-converting enzyme (ACE) inhibitors, beta blockers and diuretics.
4. Levels of both BNP and NT-proBNP tend to increase with age.
5. Levels of NT-proBNP and BNP may be increased in persons with kidney disease due to reduced clearance.
6. While both BNP and NT-proBNP will rise with left ventricle dysfunction and either can be measured for diagnosis or monitoring therapy, they are not interchangeable and the results cannot be directly compared.
7. Results to be clinically correlated.

CLINICAL USE:

1. As an aid in the diagnosis of suspected cases of CHF
2. Detection of mild forms of cardiac dysfunction
3. To assess severity of heart failure in already diagnosed cases of CHF
4. For risk stratification of patients with Acute Coronary Syndrome & CHF For monitoring therapy in patients with Left Ventricular dysfunction

*** End Of Report ***




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