



UM-CDG-072 B type Natriuretic Peptide Testing

Approved By:  
Director, Health Services

Effective Date:  
10/20/2025

*This Policy applies to all SECUR affiliates, associates, and subsidiaries.*

Approved by Courtney Gonzales, Director of Health Services on behalf of the Utilization Management Committee.

## PURPOSE

This coverage determination guideline serves to address B-type natriuretic peptide (BNP) testing. BNP is a cardiac neurohormone produced mainly in the left ventricle. It is secreted in response to ventricular volume expression and pressure overload, often seen in those with congestive heart failure (CHF). Used in conjunction with other clinical information, rapid measurement of BNP is useful in establishing or excluding the diagnosis and assessing the severity of CHF in those with acute dyspnea so that appropriate and timely treatment may be initiated. This test also can predict the long-term risk of cardiac events or death across the spectrum of acute coronary syndromes when measured in the first few days following an acute coronary event.

For this coverage determination, either total or N-terminal assays are acceptable.

For SECUR Health Plan members, National Coverage Determinations (NCD) and Local Coverage Determinations (LCD) will be applied to requests when applicable. SECUR Health Plan Coverage Determination Guidelines (CDG) will be utilized in the absence of an appropriate NCD and/or LCD.

## DEFINITIONS

None

## POLICY

SECUR Health Plan will consider BNP measurements as medically necessary when used in combination with other medical data such as medical history, physical examination, lab studies, chest x-ray (CXR), and electrocardiography.

1. To distinguish cardiac cause of acute dyspnea from pulmonary or other non-cardiac causes. Plasma BNP levels are significantly increased in those with CHF presenting with acute dyspnea compared to those presenting with acute dyspnea due to other causes.
2. To distinguish decompensated CHF from exacerbated chronic obstructive pulmonary disease (COPD) in a symptomatic member with combined chronic CHF and COPD. Plasma BNP levels are significantly increased in those with CHF with or without concurrent lung disease compared to those who have primary lung disease.
3. As a risk stratification tool to assess risk of death, myocardial infarction, or CHF, among members with acute coronary syndrome (myocardial infarction with or without T-wave elevation and unstable angina). Obtained in the first few days following the onset of ischemic symptoms, results of BNP measurement can provide useful information.

BNP measurements must be analyzed in conjunction with standard diagnostic tests, medical history and clinical findings. The efficacy of BNP measurement as a stand-alone test has not yet been established. Clinicians should be aware that certain conditions such as ischemia, infarction and renal insufficiency, may cause elevation of circulating BNP concentration and require alterations of the interpretation of BNP results.

Additional investigation is required to further define the diagnostic value of plasma BNP in monitoring the efficiency of treatment for CHF and in tailoring the therapy for heart failure. Therefore, BNP measurements for monitoring and management of CHF are not considered medically necessary by SECUR Health Plan.

#### References:

1. Bibbin-Domingo K, Ansari M, Schiller N, Massie B, Whooley M. Is B-type natriuretic peptide a useful screening test for systolic dysfunction in patients with coronary disease? Data from the Heart and Soul Study. *Am J Med.* 2004;116(8):561-563.
2. Cowie M, Jourdain P, Maisel A, et al. Clinical applications of B-type natriuretic peptide (BNP) testing. *European Heart Journal.* 2003;24:1710-1718.  
<http://www.westershopsitals.nhs.uk/WHC/archive/evidence/05%20hf/BNP%20clinical%20applicatoins-EHJ%202003.pdf>. Accessed April 5, 2005.
3. Dao Q, Krishnaswamy P, Kazanegra R, et al. Utility of B-type natriuretic peptide in the diagnosis of congestive heart failure in an urgent-care setting. *J AM Coll Cardiol.* 2001;37(2):379-385.
4. deLemos J, Morrow D, Bentley J, et al. The prognostic value of B-type natriuretic peptide in patients with acute coronary syndromes. *N Engl J Med.* 2001;345(14):1014-1021.
5. Hunt SA, Abraham WT, Chin MH, et al. ACC/AHA 2005 guideline update for the diagnosis and management of chronic heart failure in the adult: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Writing Committee to Update the 2001 Guidelines for the Evaluation and Management of Heart Failure).  
<http://www.acc.org/clinical/guidelines/failure/index.pdf>. Accessed: October 7, 2005.
6. Kuster G, Tanner H, Printzen G, Suter T, Mohacsi P, Hess O. B-type natriuretic peptide for diagnosis and treatment of congestive heart failure. *Swiss Med Wkly.* 2003;133:623-628.  
<http://www.smw.ch/pdf200x/2002/43/smw-10081.pdf>. Accessed April 5, 2005.
7. Latini R, Masson S, Wong M, et al. Incremental prognostic value of changes in B-type natriuretic peptide in heart failure. *American Journal of Medicine,* 2006;119(1):70e24-70.
8. Lubien E, DeMaria A, Krishnaswamy P, et al. Utility of B-natriuretic peptide in detecting diastolic dysfunction: comparison with Doppler velocity recordings. *Circulation.* 2002;105(5):595-601.
9. Maisel A, Clopton P, Krishnaswamy P, et al. Impact of age, race, and sex on the ability of B-type natriuretic peptide to aid in the emergency diagnosis of heart failure: results from the Breathing Not Properly (BNP) multinational study. *Am Heart J.* 2004;147(6):1078-1084.
10. Maisel A, Hollander J, Guss D, McCullough P, et al. Primary results of the Rapid Emergency Department Heart Failure Outpatient Trial (REDHOT). A multicenter study of B-type natriuretic peptide levels, emergency department decision making, and outcomes in patients presenting with shortness of breath. *J Am Coll Cardiol.* 2004;44(6):1328-1333.
11. Maisel A, Krishnaswamy P, Nowak R, et al. Rapid measurement of B-type natriuretic peptide in the emergency diagnosis of heart failure. *N Engl J Med.* 2002;347(3):161-167.
12. Mak G, DeMaria A, Clopton P, Maisel A. Utility of B-natriuretic peptide in the evaluation of left ventricular diastolic function: comparison with tissue Doppler imaging recordings. *Am Heart J.* 2004;148(5):895-902.
13. McCullough P, Nowak R, McCord J, et al. B-type natriuretic peptide and clinical judgment in emergency diagnosis of heart failure: analysis from Breathing Not Properly (BNP) Multinational Study. *Circulation.* 2002;106(4):416-422.

14. Morrison L, Harrison A, Krishnaswamy P, Kazanegra R, Clopton P, Maisel A. Utility of a rapid B-natriuretic peptide assay in differentiating congestive heart failure from lung disease in patients presenting with dyspnea. *J Am Coll Cardiol*. 2002;39(2):202-209.
15. Other Medicare contractor policy: Florida fiscal intermediary (L14340); New York carriers (L13097, L13522, L13889)
16. Wiecezorek S, Wu A, Christenson R, et al. A rapid B-type natriuretic peptide assay accurately diagnoses left ventricular dysfunction and heart failure: a multicenter evaluation. *Am Heart J*. 2002;144(5):834-839.
17. Wu A, Omland T, Duc P, et al. The effect of diabetes on B-type natriuretic peptide concentrations in patients with acute dyspnea: an analysis from the Breathing Not Properly (BNP) Multinational Study. <http://care.diabetesjournals.org/cgi/content/full/27/10/2398>. Accessed April 7, 2005.
18. Young J, Supplement Ed and Roundtable Moderator. Testing for B-type natriuretic peptide in the diagnosis and assessment of heart failure: what are the nuances? *Cleve Clin J Med*. 2004;71(Supplement 5):S1-S17. <http://www.ccjm.org/toc/BNP.htm>. Accessed April 5, 2005.
19. Local Coverage Determination (LCD) L33943, B-type Natriuretic Peptide (BNP) Testing, 12/5/2024, <https://www.cms.gov/medicare-coverage-database/view/lcd.aspx?lcdid=33943&ver=23&>