

Local Coverage Determination (LCD): B-type Natriuretic Peptide (BNP) Testing (L34410)

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Contractor Information

Contractor Name	Contract Type	Contract Number	Jurisdiction	State(s)
Palmetto GBA	A and B and HHH	MAC 11201 - MAC A	J - M	South Carolina
Palmetto GBA	A and B and HHH	MAC 11301 - MAC A	J - M	Virginia
Palmetto GBA	A and B and HHH	MAC 11401 - MAC A	J - M	West Virginia
Palmetto GBA	A and B and HHH	MAC 11501 - MAC A	J - M	North Carolina

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LCD Information

Document Information

LCD ID L34410	Original Effective Date For services performed on or after 10/01/2015
Original ICD-9 LCD ID L31546	Revision Effective Date For services performed on or after 11/03/2016
LCD Title B-type Natriuretic Peptide (BNP) Testing	Revision Ending Date N/A
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CMS National Coverage Policy Title XVIII of the Social Security Act, §1862 (a)(1)(A) allows coverage and payment for only those services that are considered to be reasonable and necessary for the diagnosis or treatment of illness or injury or to improve the functioning of a malformed body member.

Title XVIII of the Social Security Act, §1862(a)(1)(D) Investigational or Experimental.

Title XVIII of the Social Security Act, §1833(e) prohibits Medicare payment for any claim which lacks the necessary information to process the claim.

42 CFR §410.32 indicates that diagnostic tests may only be ordered by the treating physician (or other treating practitioner acting within the scope of his or her license and Medicare requirements).

CMS Internet-Only Manual, Pub 100-02, Medicare Benefit Policy Manual, Chapter 6, §20.4.1 Diagnostic Services Defined

CMS Internet-Only Manual, Pub 100-04, Medicare Claims Processing Manual, Chapter 9, §100 General Billing Requirements

CMS Manual System, Pub 100-20, One-Time Notification, Transmittal 477, dated April 24, 2009, Change Request 6338

Coverage Guidance

Coverage Indications, Limitations, and/or Medical Necessity

Abstract:

B-type natriuretic peptide (BNP) is a cardiac neurohormone produced mainly in the left ventricle. It is secreted in response to ventricular volume expansion and pressure overload, factors often found in 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 patients with acute dyspnea so that appropriate and timely treatment can be initiated. This test is also used to predict the long-term risk of cardiac events or death across the spectrum of acute coronary syndromes when measured in the first few days after an acute coronary event. For the purposes of this policy, either total or N-terminal assays are acceptable.

Indications:

The measurement of brain natriuretic peptide as part of cardiovascular risk assessment panels, consisting of various combinations of biochemical, immunologic, hematologic, and molecular tests, is considered screening when performed on an asymptomatic patient, and, as such, are not a Medicare benefit. Refer to the MoIDX: Biomarkers in Cardiovascular Risk Assessment Local Coverage Determination L36129.

BNP measurements may be considered reasonable and necessary when used in combination with other medical data such as medical history, physical examination, laboratory studies, chest x-ray, and electrocardiography:

- To distinguish cardiac cause of acute dyspnea from pulmonary or other non-cardiac causes. Plasma BNP levels are significantly increased in patients with CHF presenting with acute dyspnea compared with patients presenting with acute dyspnea due to other causes.
- To distinguish decompensated CHF from exacerbated chronic obstructive pulmonary disease (COPD) in a symptomatic patient with combined chronic CHF and COPD. Plasma BNP levels are significantly increased in patients with CHF with or without concurrent lung disease compared with patients who have primary lung disease.

- As a risk stratification tool (to assess risk of death, myocardial infarction or congestive heart failure) among patients with acute coronary syndrome (myocardial infarction with or without T-wave elevation and unstable angina). Obtained in the first few days after the onset of ischemic symptoms, results of BNP measurement can provide useful information.

Limitations:

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 a covered service.

Although a correlation between serum BNP levels and the clinical severity of HF has been shown in broad populations, "it cannot be assumed that BNP levels can be used effectively as targets for adjustment of therapy in individual patients. [T]he BNP measurement has not been clearly shown to supplement careful clinical assessment." (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, page 15 from pages 1-82).

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Coding Information

Bill Type Codes:

Contractors may specify Bill Types to help providers identify those Bill Types typically used to report this service. Absence of a Bill Type does not guarantee that the policy does not apply to that Bill Type. Complete absence of all Bill Types indicates that coverage is not influenced by Bill Type and the policy should be assumed to apply equally to all claims.

N/A

Revenue Codes:

Contractors may specify Revenue Codes to help providers identify those Revenue Codes typically used to report this service. In most instances Revenue Codes are purely advisory. Unless specified in the policy, services reported under other Revenue Codes are equally subject to this coverage determination. Complete absence of all Revenue Codes indicates that coverage is not influenced by Revenue Code and the policy should be assumed to apply equally to all Revenue Codes.

N/A

CPT/HCPCS Codes

Group 1 Paragraph: N/A

Group 1 Codes:

83880 NATRIURETIC PEPTIDE

ICD-10 Codes that Support Medical Necessity

Group 1 Paragraph: The correct use of an ICD-10 code listed below does not assure coverage of a service. The service must be reasonable and necessary in the specific case and must meet the criteria specified in this determination.

Group 1 Codes:

ICD-10 Codes	Description
I11.0	Hypertensive heart disease with heart failure
I13.0	Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease
I13.2	Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease
I16.0	Hypertensive urgency
I16.1	Hypertensive emergency
I16.9	Hypertensive crisis, unspecified
I20.0	Unstable angina
I21.01	ST elevation (STEMI) myocardial infarction involving left main coronary artery
I21.02	ST elevation (STEMI) myocardial infarction involving left anterior descending coronary artery
I21.09	ST elevation (STEMI) myocardial infarction involving other coronary artery of anterior wall
I21.11	ST elevation (STEMI) myocardial infarction involving right coronary artery
I21.19	ST elevation (STEMI) myocardial infarction involving other coronary artery of inferior wall
I21.21	ST elevation (STEMI) myocardial infarction involving left circumflex coronary artery
I21.29	ST elevation (STEMI) myocardial infarction involving other sites
I21.3	ST elevation (STEMI) myocardial infarction of unspecified site
I21.4	Non-ST elevation (NSTEMI) myocardial infarction
I22.0	Subsequent ST elevation (STEMI) myocardial infarction of anterior wall
I22.1	Subsequent ST elevation (STEMI) myocardial infarction of inferior wall
I22.2	Subsequent non-ST elevation (NSTEMI) myocardial infarction
I22.8	Subsequent ST elevation (STEMI) myocardial infarction of other sites
I22.9	Subsequent ST elevation (STEMI) myocardial infarction of unspecified site
I25.110	Atherosclerotic heart disease of native coronary artery with unstable angina pectoris
I25.700	Atherosclerosis of coronary artery bypass graft(s), unspecified, with unstable angina pectoris
I25.710	Atherosclerosis of autologous vein coronary artery bypass graft(s) with unstable angina pectoris
I25.720	Atherosclerosis of autologous artery coronary artery bypass graft(s) with unstable angina pectoris
I25.730	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unstable angina pectoris
I25.750	Atherosclerosis of native coronary artery of transplanted heart with unstable angina
I25.760	Atherosclerosis of bypass graft of coronary artery of transplanted heart with unstable angina
I25.790	Atherosclerosis of other coronary artery bypass graft(s) with unstable angina pectoris
I31.1	Chronic constrictive pericarditis
I42.0	Dilated cardiomyopathy
I42.1	Obstructive hypertrophic cardiomyopathy
I42.2	Other hypertrophic cardiomyopathy
I42.5	Other restrictive cardiomyopathy
I42.8	Other cardiomyopathies
I42.9	Cardiomyopathy, unspecified
I50.1	Left ventricular failure
I50.20	Unspecified systolic (congestive) heart failure
I50.21	Acute systolic (congestive) heart failure
I50.22	Chronic systolic (congestive) heart failure
I50.23	Acute on chronic systolic (congestive) heart failure
I50.30	Unspecified diastolic (congestive) heart failure
I50.31	Acute diastolic (congestive) heart failure
I50.32	Chronic diastolic (congestive) heart failure
I50.33	Acute on chronic diastolic (congestive) heart failure
I50.40	Unspecified combined systolic (congestive) and diastolic (congestive) heart failure
I50.41	Acute combined systolic (congestive) and diastolic (congestive) heart failure
I50.42	Chronic combined systolic (congestive) and diastolic (congestive) heart failure
I50.43	Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure
I50.9	Heart failure, unspecified
I60.2	Nontraumatic subarachnoid hemorrhage from anterior communicating artery
I63.013	Cerebral infarction due to thrombosis of bilateral vertebral arteries
I63.033	Cerebral infarction due to thrombosis of bilateral carotid arteries
I63.113	Cerebral infarction due to embolism of bilateral vertebral arteries

ICD-10 Codes	Description
I63.133	Cerebral infarction due to embolism of bilateral carotid arteries
I63.213	Cerebral infarction due to unspecified occlusion or stenosis of bilateral vertebral arteries
I63.233	Cerebral infarction due to unspecified occlusion or stenosis of bilateral carotid arteries
I63.313	Cerebral infarction due to thrombosis of bilateral middle cerebral arteries
I63.323	Cerebral infarction due to thrombosis of bilateral anterior arteries
I63.333	Cerebral infarction to thrombosis of bilateral posterior arteries
I63.343	Cerebral infarction to thrombosis of bilateral cerebellar arteries
I63.413	Cerebral infarction due to embolism of bilateral middle cerebral arteries
I63.423	Cerebral infarction due to embolism of bilateral anterior cerebral arteries
I63.433	Cerebral infarction due to embolism of bilateral posterior cerebral arteries
I63.443	Cerebral infarction due to embolism of bilateral cerebellar arteries
I63.513	Cerebral infarction due to unspecified occlusion or stenosis of bilateral middle arteries
I63.523	Cerebral infarction due to unspecified occlusion or stenosis of bilateral anterior arteries
I63.533	Cerebral infarction due to unspecified occlusion or stenosis of bilateral posterior arteries
I63.543	Cerebral infarction due to unspecified occlusion or stenosis of bilateral cerebellar arteries
R06.00	Dyspnea, unspecified
R06.01	Orthopnea
R06.02	Shortness of breath
R06.09	Other forms of dyspnea
R06.2	Wheezing
R06.82	Tachypnea, not elsewhere classified
R06.89	Other abnormalities of breathing
R60.0	Localized edema
R60.1	Generalized edema

ICD-10 Codes that DO NOT Support Medical Necessity N/A

ICD-10 Additional Information

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General Information

Associated Information

Documentation Requirements

The patient's medical record must contain documentation that fully supports the medical necessity for services included within this LCD. (See "Coverage Indications, Limitations and/or Medical Necessity.") This documentation includes, but is not limited to, relevant medical history, physical examination, and results of pertinent diagnostic tests or procedures.

Documentation supporting the medical necessity should be legible, maintained in the patient's medical record, and must be made available to the A/B MAC upon request.

Utilization Guidelines

As a diagnostic test, BNP testing is not expected to be performed more than four times in a given year.

The use of BNP for monitoring CHF is not covered.

Sources of Information and Basis for Decision

Maisel AS, 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 Jour.* 2004;147(6):1078-1084.

Wieczorek SJ, Wu AH, Christenson R, et al. A Rapid B-Type Natriuretic Peptide Assay Accurately Diagnoses Left

Ventricular Dysfunction and Heart Failure: A Multicenter Evaluation. *Am Heart Jour.* 2002;144(5):834-839.

Silvers SM, Howell JM, Kosowsky JM, Rokos IC, Jagoda AS. Clinical Policy: Critical Issues in the Evaluation and Management of Adult Patients Presenting to the Emergency Department with Acute Heart Failure Syndromes. *Ann of Emerg Med.* 2007;49(5):627-669.

Maisel A, Hollander JE, Guss D, et al. Primary Results of the Rapid Emergency Department Heart Failure Outpatient Trial (REDHOT). A Multi-Center Study of B-Type Natriuretic Peptide Levels, Emergency Department Decision Making, and Outcomes in Patients Presenting With Shortness of Breath. *JACC.* 2004;44(6):1328-1333.

Wu AH. Serial Testing of B-type Natriuretic Peptide and NTpro-BNP for Monitoring Therapy of Heart Failure: The Role of Biologic Variation in the Interpretation of Results. *Am Heart Jour.* 2006;152(5):828-834.

Young JB, Correia NG, Francis GS, Maisel A, Michota F. Testing for B-Type Natriuretic Peptide in the Diagnosis and Assessment of Heart Failure: What are the Nuances? *Cleve Clin J Med.* 2004;71(5):S1-S17.

Doust J, Lehman R, Glasziou P. The role of BNP Testing in Heart Failure. *Am Fam Physician.* 2006;74(11):1893-1898.

Saenger AK, Jaffe AS. The Use of Biomarkers for the Evaluation and Treatment of Patients with Acute Coronary Syndromes. *Med Clin N Am.* 2007;91(4):657-681.

Shapiro BP, Chen HH, Burnett JC, Redfield MM. Use of Plasma Brain Natriuretic Peptide Concentration to Aid in the Diagnosis of Heart Failure. *Mayo Clinic Proceedings.* 2003;78(4):481-486.

Morrison LK, 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.

Mak GS, DeMaria A, Clopton P, Maisel AS. Utility of B-Natriuretic Peptide in the Evaluation of Left Ventricular Diastolic Function: Comparison with Tissue Doppler Imaging Recording. *Am Heart Jour.* 2004;148(5):895-902.

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Revision History Information

Revision History Date	Revision History Number	Revision History Explanation	Reason(s) for Change
11/03/2016	R6	Under ICD-10 Codes That Support Medical Necessity Group 1: Codes added R60.0 and R60.1 to maintain consistency with the Part B B-type Natriuretic Peptide (BNP) Testing LCD L33422.	<ul style="list-style-type: none">• Provider Education/Guidance• Creation of Uniform LCDs Within a MAC Jurisdiction• Other
10/01/2016	R5	Under ICD-10 Codes That Support Medical Necessity-Group 1 added I16.0, I16.1, I16.9, I60.2, I63.013, I63.033, I63.113, I63.133, I63.213, I63.233, I63.313, I63.323, I63.333, I63.343, I63.413, I63.423, I63.433, I63.443, I63.513, I63.523, I63.533, and I63.543. This revision is due to the Annual ICD-10 Code Update	<ul style="list-style-type: none">• Provider Education/Guidance• Revisions Due To ICD-10-CM Code Changes
02/11/2016	R4		<ul style="list-style-type: none">• Provider Education/Guidance• Typographical Error

Revision History Date	Revision History Number	Revision History Explanation	Reason(s) for Change
		<p>Under Coverage Indications, Limitations and/or Medical Necessity-Limitations corrected the page numbers cited in the last sentence of the last paragraph to now read "...page 15 from pages 1-82." Under Associated Information-Documentation Requirements in the last paragraph revised J11 to now read A/B. Under Sources of Information and Basis for Decision author initials were corrected X2 for AH Wu. The complete journal title was corrected for the following: Maisel A, Hollander JE, Guss D, et al. Primary Results of the Rapid Emergency Department Heart Failure Outpatient Trial (REDHOT). A Multi-Center Study of B-Type Natriuretic Peptide Levels, Emergency Department Decision Making, and Outcomes in Patients Presenting With Shortness of Breath. <i>JACC</i>. 2004;44(6):1328-1333. The page number was corrected for the following: Doust J, Lehman R, Glasziou P. The Role of BNP Testing in Heart Failure. <i>Am Fam Physician</i>. 2006;74(11):1893-1898. Author names were added and "et al" was deleted for the following: Morrison LK, 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. <i>J Am Coll Cardiol</i>. 2002;39(2):202-209.</p>	
10/16/2015	R3	<p>Under Coverage Indications, Limitations and/or Medical Necessity-Indications added the first paragraph indicating BNP included as a component of a CV risk assessment panel is considered screening when performed on an asymptomatic patient.</p>	<ul style="list-style-type: none"> • Provider Education/Guidance • Other (Consistency of LCDs)
10/01/2015	R2	<p>Per CMS Internet-Only Manual, Pub 100-08, Medicare Program Integrity Manual, Chapter 13, §13.1.3 LCDs consist of only "reasonable and necessary" information. All bill type and revenue codes have been removed.</p>	<ul style="list-style-type: none"> • Other (Bill type and/or revenue code removal)
10/01/2015	R1	<p>Under CMS National Coverage Policy added "the" to 42 CFR §410.32 and added Change Request 6338. Under Bill Type Codes deleted bill type 073X. During a quality review of this LCD it was identified that revenue codes 0522, 0527, 0528, 096X, 0971-0979, and 0981-0989 were inadvertently included among the billing revenue codes listed under Revenue Codes. These revenue codes were deleted without substantive change to the LCD. Under Associated Information-Utilization Guidelines the second sentence in the first paragraph was deleted referring to stated frequency parameters for BNP testing found in the Coverage Indications, Limitations, and/or Medical Necessity section of the LCD. Under Sources of Information and Basis for Decision all journal titles were italicized, several journal titles were corrected, the spelling of several author names was corrected, "et al" was deleted and replaced with the appropriate author names and supplement numbers were added. The following reference was deleted as it was redundant: Silvers SM, Howell JM, Kosowsky JM, et al. Clinical Policy: Critical Issues in the Evaluation and Management of Adult Patients Presenting to the Emergency Department with Acute Heart Failure Syndromes. <i>Ann of Emerg Med</i>. 2007;49(5):627-669.</p>	<ul style="list-style-type: none"> • Provider Education/Guidance • Typographical Error • Other

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[Associated Documents](#)

Attachments N/A

Related Local Coverage Documents N/A

Related National Coverage Documents N/A

Public Version(s) Updated on 10/06/2016 with effective dates 11/03/2016 - N/A [Updated on 09/14/2016 with effective dates 10/01/2016 - 11/02/2016](#) [Updated on 02/03/2016 with effective dates 02/11/2016 - 09/30/2016](#) [Updated on 10/09/2015 with effective dates 10/16/2015 - 02/10/2016](#) Some older versions have been archived. Please visit the [MCD Archive Site](#) to retrieve them. [Back to Top](#)

Keywords

- BNP
- Brain Natriuretic Peptide

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