B-type Natriuretic Peptide (BNP) Testing

CPT: 83880

CMS Policy for Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont

Local policies are determined by the performing test location. This is determined by the state in which your performing laboratory resides and where your testing is commonly performed.

Medically Supportive ICD Codes are listed on subsequent page(s) of this document.

Coverage Indications, Limitations, and/or Medical Necessity

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.

Evidence has accumulated to support use of BNP measurements for prognostic purposes in individuals with heart failure and a low ejection fraction and to improve dosing in guideline-directed medical therapy (GDMT) (Yancy et al., 2013). Berger et al. (2002) studied use of BNP levels to predict sudden death in heart failure patients and suggested BNP levels could be used to determine which patients might benefit from an implantable cardioverter-defibrillator (ICD). Other authors have shown a relationship between BNP levels and CHF morbidity and mortality (Anand et al., 2003; Taub et al., 2009; Maeda et al., 2000; and Neuhold et al., 2008). Januzzi et al, 2011; Jourdain et al., 2007; Berger et al., 2010; and Lainchbury et al., 2010 studied the use of BNP to guide therapy in CHF. Porapakkam et al, 2010 and Felker et al, 2009 performed meta-analyses showing the benefit of using BNP levels in the management of CHF patients.

Palladini et al. (2003) studied 152 consecutive patients seen at the time of amyloidosis diagnosis and obtained NT-proBNP levels. Heart involvement was estimated using clnical signs, electrocardiography, and echocardiography. NT-proBNP was the most sensitive index of myocardial dysfunction and the best predicted prognosis in patients with light-chain amyloidosis. Dispenzieri et al. (2004) retrospectively studied 242 patients with newly-diagnosed primary systemic amyloidosis in whom echocardiograms and NT-pro levels were obtained and used to divide the patients into three stages to promote cross comparisons of therapeutic outcomes, The National Comprehensive Cancer Network (NCCN) clinical practice guidelines, “Systemic Light Chain Amyloidosis,” list recommend a BNP level be obtained in the initial diagnositic work-up. Palladini et al. (2010) again evaluated the use of BNP levels to predict prognosis. Levels of NT-proBNP, high-sensitivity (hs) cTnT, and tropronin were obtained at initial diagnosis and six months later were obtained in 171 consecutive patients. The high-sensitivity and NT-proBNP ertr independent prognostic determinants. The author recommended BNP levels be used to follow response to therapy. For the purposes of this policy, either total or N-terminal assays are acceptable.
This local coverage determination (LCD) documents National Government Services indications and limitations of coverage for BNP testing.

Indications:

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.
- To establish prognosis or disease severity in chronic CHF when needed to guide therapy
- To achieve optimal dosing of guideline-directed medical therapy (GDMT) in select clinically euvolemic patients followed in a well-structured heart failure (HF) disease management program
- To guide therapeutic decision-making in individuals who have amyloidosis

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.

Utilization Guidelines: Frequency of testing should be guided by the clinical circumstances and evidence-based literature.

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Please refer to the Limitations or Utilization Guidelines section on previous page(s) for frequency information.

The ICD10 codes listed below are the top diagnosis codes currently utilized by ordering physicians for the limited coverage test highlighted above that are also listed as medically supportive under Medicare's limited coverage policy. **If you are ordering this test for diagnostic reasons that are not covered under Medicare policy, an Advance Beneficiary Notice form is required.**
Note—Bolded diagnoses below have the highest utilization

Code	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
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
I50.41	Acute combined systolic (congestive) and diastolic (congestive) heart failure
I50.42	Chronic combined systolic (congestive) and diastolic (congestive) heart failure
I50.9	**Heart failure, unspecified**
J44.1	Chronic obstructive pulmonary disease with (acute) exacerbation
R06.00	**Dyspnea, unspecified**
R06.02	**Shortness of breath**
R06.03	
R06.09	**Other forms of dyspnea**
R06.89	Other abnormalities of breathing
R06.9	Unspecified abnormalities of breathing

Visit **QuestDiagnostics.com/MLCP** to view current limited coverage tests, reference guides, and policy information.

To view the complete policy and the full list of medically supportive codes, please refer to the CMS website reference www.cms.gov ▶

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