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CLINICAL PRACTICE GUIDELINE: FOCUSED UPDATE

# 2017 ACC/AHA/HFSA Focused Update of the 2013 ACCF/AHA Guideline for the Management of Heart Failure



A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines and the Heart Failure Society of America

*Developed in Collaboration with the American Academy of Family Physicians, American College of Chest Physicians, and International Society for Heart and Lung Transplantation*

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## 6. INITIAL AND SERIAL EVALUATION OF THE HF PATIENT

### 6.3. Biomarkers

Assays for BNP (B-type natriuretic peptide) and **NT-proBNP (N-terminal pro-B-type natriuretic peptide), which are both natriuretic peptide biomarkers, have been used increasingly to establish the presence and severity of HF.** In general, both natriuretic peptide biomarker values track similarly, and either can be used in patient care settings as long as their respective absolute values and cutpoints are not used interchangeably. Notably, BNP, but not NT-proBNP, is a substrate for neprilysin. Therefore, ARNI increases BNP levels (12) but not NT-proBNP levels (13). Note that the type of natriuretic peptide assay that has been performed must be considered

during interpretation of natriuretic peptide biomarker levels in patients on ARNI. In 2 studies with ARNI, NT-proBNP levels were reduced (12,14), with the reduction in 1 study being associated with improved clinical outcomes (12).

A substantial evidence base exists that supports the use of natriuretic peptide biomarkers to assist in the diagnosis or exclusion of HF as a cause of symptoms (e.g., dyspnea, weight gain) in the setting of chronic ambulatory HF (15-21) or in the setting of acute care with decompensated HF (22-30), especially when the cause of dyspnea is unclear. The role of natriuretic peptide biomarkers in population screening to detect incident HF is emerging (31-37). Elevated plasma levels of natriuretic peptide biomarkers are associated with a wide variety of cardiac and noncardiac causes (Table 2) (38-42). Obesity may be