**What’s New in the 2013 ACCF/ AHA Guidelines for the Management of Heart Failure? From an Author’s Perspective**

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**Article Text

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The new 2013 ACCF/AHA Guideline for the Management of Heart Failure (1) provides a fresh and comprehensive guide to evaluation and management of heart failure (HF) patients. The guideline has several new areas that are going to be quite helpful for the providers.

Regarding its format, it has some new useful and practical approaches. First, it highlights the term guideline-directed medical therapy (GDMT,) which represent the optimal medical therapy recommended with a class I indication; that includes  ACE -inhibitors (ACE -I); angiotensin receptor blockers (ARBs) when ACE -I intolerant; β-blockers; and, in select patients, aldosterone antagonists, hydralazine-nitrates, and diuretics as the mainstay of pharmacological therapy for HF reduced EF (HfrEF).1  Second, it provides practical suggestions, tables and algorithms to achieve optimal management strategies.  Third, throughout the guideline, there is an intent for harmonization with other guidelines, consensus documents, and position papers, which are cross-referenced. Fourth, in line with the Institute of Medicine’s perspective on “trustable guidelines,”2, 4 this guideline provides detailed evidence tables containing quick tabulations and summary data of landmark papers that the readers will find quite useful.

Regarding its content, the 2013 guideline provides several new concepts and recommendations; and underlines several areas of emphasis that will be addressed in the following paragraphs.

In the evaluation and assessment of HF section, along with a useful comparison of the ACCF/AHA Stages of HF with NYHA Functional Classification, the guideline authors emphasize that validated multivariable risk scores, which are listed, can be useful to estimate subsequent risk in HF patients. In addition to underlining former recommendations on  the importance and necessity of a thorough history and physical examination,  assessment of volume status, baseline assessment by echocardiography, routine clinical, laboratory and diagnostic testin3;  the authors address the role of biomarkers, especially natriuretic peptides in a practical fashion, and acknowledge that measurement of natriuretic peptides  is useful to support clinical decision making regarding the diagnosis of HF, and establish  prognosis both in chronic ambulatory or  acutely decompensated /hospitalized HF patients. The guideline takes a step further and identifies that natriuretic peptide--guided HF therapy can be useful to achieve optimal dosing of GDMT in select clinically euvolemic patients followed in a well-structured outpatient HF disease management program, while acknowledging that the usefulness of serial measurement of BNP or NT-proBNP to reduce hospitalization or mortality in patients with HF, or the usefulness of BNP- or NT-proBNP--guided therapy for acutely decompensated HF is not well-established.1

Regarding non-pharmacological interventions, emphasis is placed on education and transitions of care. The authors recommend that patients with HF should receive specific education to facilitate HF self-care and shared decision making. For example for ICD care, the authors recommend counseling of each patient that should include documentation of a discussion about the potential risk, efficacy, safety, and potential complications of an ICD and the potential for defibrillation to be inactivated if desired in the future, notably when a patient is approaching end of life.1  This is a critical step to prevent futile interventions, unintended morbidity, and unnecessary cost due to inappropriate patient selection. Regarding sodium restriction, which is one of the highly debated areas in HF management, the authors take a balanced approach and categorize sodium restriction as “reasonable for patients with symptomatic HF to reduce congestive symptoms”  (Class IIa indication with  Level of Evidence: C).1  This slightly differs from the 2010 HFSA guidelines on HF, which recommended dietary instruction regarding sodium intake in all patients with HF, and dietary sodium restriction (2-3 g daily) for patients with the clinical syndrome of HF.4 The 2012 ESC Guidelines on HF, however, provided no recommendation on salt intake due to lack of evidence for mortality or morbidity improvement with salt restriction.5  Similar to ESC and HFSA guidelines, exercise training or regular physical activity is recommended as safe and effective for patients with HF who are able to participate in exercise.1, 4, 5

Regarding oral pharmacologic treatment, the indications for  aldosterone antagonists are broadened for symptomatic HfrEF patients, now including mild to moderate HF (NYHA class II) patients with a  history of a prior cardiovascular hospitalization or elevated plasma natriuretic peptide levels, in addition to formerly existing indications for (NYHA Class III and IV HF) patients with severe HF.1  Similar to former guidelines, safeguards of creatinine needing to be ≤ 2.5 mg/dL in men or ≤2.0 mg/dL in women, and potassium ≤5.0 mEq/L are highlighted along with the necessity for careful monitoring of potassium, renal function, and diuretic dosing at initiation follow-up.  Routine combined use of an ACE inhibitor, ARB, and aldosterone antagonist is considered potentially harmful and is not recommended. Similar to former guidelines, the combination of hydralazine and isosorbide dinitrate is recommended in African-American patients with NYHA class III–IV HFrEF, and is considered potentially useful in patients who are  ACE inhibitor- or ARB-intolerant. Digoxin similarly is acknowledged as potentially beneficial in patients with HFrEF to decrease hospitalizations for HF (remains a Class IIa recommendation).1

Regarding device therapy, the indications for an implantable cardioverter-defibrillator (ICD) have not changed in the 2013 guidelines and include Class I recommendations for primary prevention of sudden cardiac death in selected patients with LVEF ≤ 35% and NYHA Class II or III symptoms, who have reasonable expectation of meaningful survival for more than 1 year.1,3  The Class I recommendations for cardiac resynchronization therapy (CRT) underline the clear benefit in patients who have  LVEF ≤ 35%, sinus rhythm, left bundle-branch block (LBBB) with a QRS duration of ≥ 150 ms. In this guideline, which is harmonized with the 2012 ACCF/AHA/HRS focused update guidelines for device-based therapy,6 Class I indication is expanded to patients with milder symptoms (NYHA Class II HF) but with LBBB and QRS ≥150 msec. The patients with LBBB, but QRS duration only 120-149 msec and those with non-LBBB pattern and QRS ≥150 msec now receive a Class IIa recommendation. Of note, for patients with non-LBBB and QRS 120-149 msec, the indication is not expanded beyond patients with NYHA Class III/ ambulatory Class IV; and, to the contrary, CRT for patients in this group with NYHA Class II symptoms is “not recommended.” A further major expansion of the indication for CRT now includes NYHA Class I patients with a recommendation Class IIb (“may be considered”) but is limited to patients with relatively severe cardiomyopathy (LVEF ≤30%) due to ischemia, LBBB, and QRS duration ≥150 msec.  The Class III recommendations, where CRT is “not recommended,” include patients with NYHA Class I or II symptoms, non-LBBB pattern, and QRS <150 msec; or again in patients in whom cardiac or non-cardiac comorbidity and/or frailty limit survival with good functional capacity to less than 1 year.1

In this guideline, the broader utilization of mechanical circulatory support (MCS) is considered as beneficial with a class II indication in a wider variety of scenarios including select advanced HF patients in whom definitive management such as cardiac transplantation is planned, i.e., as a “bridge to transplant”; or cardiac recovery is anticipated, i.e.,  as a “bridge to recovery” or as “destination therapy.” Nondurable MCS, including the use of percutaneous and extracorporeal ventricular assist devices is considered reasonable as a “bridge to recovery” or a “bridge to decision” for carefully selected patients with acute, profound hemodynamic compromise. These considerations are in line with the current patient care spectrum, reflecting a higher and broader use of these devices in different clinical scenarios.7

In acute decompensated hospitalized HF patients, intravenous loop diuretics remain as first-line therapy. When diuresis is inadequate, the authors consider it to be reasonable to intensify the diuretic regimen using either higher doses of intravenous loop diuretics or adding a second (e.g., thiazide) diuretic. Low-dose dopamine infusion is added with a Class IIb indication in addition to loop diuretic therapy to improve diuresis and better preserve renal function and renal blood flow. In the absence of hypotension, intravenous vasodilators such as nitroglycerin, nitroprusside, or nesiritide still remain with a Class II indication as an adjunct  to diuretic therapy for relief of dyspnea in patients admitted with acutely decompensated HF.1

For overall care of a HF patient, participation in performance improvement processes based on professionally developed clinical practice guidelines; care coordination and transitions of care from primary care physicians, to cardiologists to  palliative care and hospice;  shared decision making between patients and family members;  improvement in quality of life improvement as well as survival and performance metrics; and importance of education, informed decisions for next steps and advanced directives, are emphasized . Overall, this is a comprehensive guide with useful algorithms, summary and evidence tables that will likely be very useful for all providers taking care of HF patients.

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