



Experts Convene to Discuss Latest ACCF/AHA Heart Failure Guidelines

Written by Muriel Cunningham

A joint symposium of the Heart Failure Society of America (HFSA) and the American College of Cardiology (ACC) was held to discuss the 2013 update to the American College of Cardiology Foundation (ACCF)/American Heart Association (AHA) Guidelines for the management of HF [Yancy CW et al. *J Am Coll Cardiol* 2013; *Circulation* 2013]. The symposium began with an introduction by guideline writing committee chair, Clyde W. Yancy, MD, MSc, Northwestern University, Chicago, Illinois, USA. Harmonization between the 2013 ACCF/AHA Guidelines and the European Society of Cardiology (ESC) Guideline for the diagnosis and treatment of acute and chronic HF [McMurray JJ et al. *Eur Heart J* 2012] and the HFSA 2010 comprehensive HF practice guideline [Lindenfeld J et al. *J Card Fail* 2010] were also discussed in the session.

Dr. Yancy briefly discussed aspects of the 2013 ACCF/AHA Guidelines. HF with reduced ejection fraction (HFrEF) has an EF cutoff $\leq 40\%$. HF with preserved ejection fraction (HFpEF) has an EF cutoff $\geq 50\%$. HF with EF 41% to 49% is now termed HFpEF-*borderline*. A new recognition has also been made for patients with improved systolic function (EF increase to >40), termed, HFpEF-*improved*. In addition, Stage C disease management is now divided into specific medical and device management for both HFpEF and HFrEF. A number of the available risk scores to help clinicians predict outcomes in HF have been added with hyperlinks to the online resources. The role of arginine vasopressin antagonists to treat hypervolemic hyponatremia in hospitalized HF patients is discussed. In addition, emphasis on transitioning care in the hospital and ambulatory settings, coordinating care for HF patients, and optimizing processes to improve care quality have received significant attention.

Pharmacological therapy across the different HF guidelines was reviewed by Randall C. Starling, MD, MPH, Cleveland Clinic, Cleveland, Ohio, USA. Guideline-directed medical therapy (GDMT) is emphasized in the 2013 ACCF/AHA Guideline. For patients with HFrEF, Class I indicated medical therapy includes ACE-inhibitors (ACE-I), angiotensin receptor blockers (if ACE-I intolerant), and β -blockers. For select patients with HFrEF, aldosterone antagonists, hydralazine-nitrates, anticoagulation, and/or diuretics should be added to the regimen. While the recommendations are largely consistent the latest ACCF/AHA and ESC HF guidelines, Dr. Starling noted that the ESC includes use of ivabradine, a novel rate-lowering drug recommended for specific patients with HFrEF that is not available in the United States.

The 2013 ACCF/AHA Guidelines give aldosterone antagonists a Class I with Level of Evidence (LOE) A recommendation, but with more strict guidelines for appropriate patient selection than the ESC Guidelines. Both guidelines are harmonized regarding the potential for harm when aldosterone antagonists are used inappropriately. Recommendations for hydralazine-isosorbide dinitrate are now harmonized in the 2013 ACCF/AHA and HFSA Guidelines. Regarding HFpEF, a syndrome which remains poorly understood without any evidence-based targeted treatments, Dr. Starling stated “there’s definitely a gap of evidence here. This is completely harmonized: all of the guidelines say treat the underlying disease. We don’t have the evidence, and that’s the state of where things are today.”

W. H. Wilson Tang, MD, Cleveland Clinic, Cleveland, Ohio, USA, gave an overview of device recommendations across the guidelines. The guidelines are largely harmonized with minor discrepancies primarily due to the large amount of new data published since 2010. One of the major developments has occurred in implantable cardioverter-defibrillator (ICD) programming. A great deal has been learned regarding device management, particularly in delaying the needed response for shock as learned in the Multicenter Automatic Defibrillator Implantation Trial-Reduce Inappropriate Therapy [MADIT-RIT; Moss AJ et al. *N Engl J Med* 2012].

Other notable changes in the guidelines have occurred in cardiac resynchronization therapy (CRT). The benefit of CRT across the spectrum of symptomatic HF is now well established. One of the major changes to the ACCF/AHA Guidelines for CRT is that the Class I indication is

Official
Peer-Reviewed
Highlights From



63rd Annual Scientific Session & Expo

limited to patients with EF \leq 35%, sinus rhythm, QRS duration \geq 150 ms and left bundle branch block (LBBB) and NYHA II, III, or ambulatory IV. Class IIa indications expand the use of CRT to those with non-LBBB patterns and QRS duration of 120 to 149 ms. “The evolution of the CRT indication really is a refinement of what we knew a few years. Clearly the emphasis now is longer QRS duration and LBBB morphology,” summarized Dr. Tang. A recent comprehensive expert consensus statement from the Heart Rhythm Society provides further description regarding use of this technology including maximization of pacing, synchronization optimization, rhythm management, end-of-life considerations, device diagnostics, and remote monitoring.

Biykem Bozkurt, MD, PhD, Baylor College of Medicine, Houston, Texas, USA, compared how the guidelines differ in regard to adjunct therapies, for example sodium restriction and fluid restriction. A comparison of the HFSA, ACCF/AHA, and ESC guidelines regarding adjunctive therapies is presented in Table 1. In general, recommendations across these guidelines are more consistent when based on large well-conducted studies. “There are quite a few gaps in knowledge about the benefit of adjunct therapies that need further study with randomized controlled trials or high-quality observational

studies, systematic reviews, or meta-analyses, especially in the areas of salt restriction, treatment of sleep disordered breathing, weight loss in obesity, and percutaneous and other interventional approaches,” concluded Dr. Bozkurt.

Gregg C. Fonarow, MD, University of California, Los Angeles, Los Angeles, California, USA, concluded the symposium by addressing the beneficial impact of guideline adherence and highlighting questions requiring additional research, so called “evidence gaps,” that will need to be addressed in future guidelines (Table 2). Although unanswered questions remain, treatment strategies that follow the HF guidelines translate into better patient outcomes. Using the 2005 ACCF/AHA Guidelines for the diagnosis and management of chronic HF in adults [Hunt SA et al. *J Am Coll Cardiol* 2005; Hunt SA et al. *Circulation* 2005] and the 2009 Focused Update [Hunt SA et al. *J Am Coll Cardiol* 2009; *Circulation* 2009], each 10% improvement in composite care adherence of HF outpatients lowered the odds of 2-year mortality by 13% (adjusted OR, 0.87; 95% CI, 0.84 to 0.90; $p < 0.0001$) [Fonarow GC et al. *Circulation* 2011]. “This gives us the impetus to further refine and improve our guidelines as our evidence base expands because its application in practice does indeed improve clinical outcomes,” said Dr. Fonarow.

Table 1. Comparison of Recommendations for Adjunct Therapies

Adjunct Therapy	2010 HFSA Guidelines	2012 ESC Guidelines	2013 ACCF/ AHA HF Guidelines
Dietary sodium restriction	Is recommended	No recommendation	Class IIa (Change from I)
Fluid restriction	Recommended in all with difficult to control fluid retention or hyponatremia	No recommendation	No overall recommendation except for Stage D
Nutrition/nutritional supplements	Recommended to pay attention to nutrition, but naturoceutical use is not recommended	Mentioned in text and tables	Nutritional supplements not recommended
Omega-3 polyunsaturated fatty acid supplementation	Class IIa	Class IIb, LOE B	Class IIa
Treatment of sleep apnea, hypoxemia	CPAP recommended for OSA	Sleep apnea/ hypoxia-mentioned in text	CPAP sleep apnea – Class IIa
Treatment of depression	Recommended	Mentioned in text	Mentioned in text and also plan of care to include screening for depression
Exercise training	Recommended	Class I, LOE A	Class I, LOE A
Management of stress	Nonpharmacologic techniques for stress reduction may be considered as a useful adjunct for reducing anxiety in patients with HF. Strength of Evidence = C	Not specifically mentioned	Not specifically mentioned
Smoking/alcohol use limits	Recommended	Mentioned in text	Mentioned in text
Vaccinations	Recommended	Mentioned in text (local guidelines)	Mentioned in text
Weight loss/obesity	Specific diet for obesity	Obesity should be managed as recommended in other guidelines	Mentioned in text

CPAP=continuous positive airway pressure; HF=heart failure; LOE=level of evidence; OSA=obstructive sleep apnea.



Table 2. Heart Failure Guideline Evidence Gaps

Area	Gaps
Diagnosis and classification	<ul style="list-style-type: none"> The diagnosis of HFpEF remains a particular challenge, and the optimum approach incorporating symptoms, signs, imaging, biomarkers, imagining and other investigations is uncertain Evidence for new classification of patients with HF with EF 41% to 49% (HFpEF-borderline) Evidence for new classification of patients with HFrEF where the EF have improved/normalized
Treatment of comorbidities	<ul style="list-style-type: none"> Anemia: Erythropoiesis-stimulating agents, iron? Depression: SSRIs, cognitive therapy? Diabetes: Metformin, GLP-1 agonists/analogues, DPP-IV inhibitors, SGLT-2 inhibitors? Sleep-disordered breathing: CPAP or other therapies? Obesity: Is weight loss helpful?
Nonpharmacologic therapies	<ul style="list-style-type: none"> Salt restriction: Is it effective and safe? What level is necessary? Fluid restriction: Is it effective? What level is necessary? What patients? Cardiac cachexia: Is there an effective and safe treatment? Patient self management: Is there a benefit for outcomes?
Pharmacologic therapy	<ul style="list-style-type: none"> Digoxin: Efficacy and safety in modern era of pharmacological and device is uncertain. Hydralazine and isosorbide dinitrate: Efficacy and safety in non-black patients is uncertain. Renin inhibition: Is it an effective and safe alternative to/addition to angiotensin converting enzyme inhibition? New oral anticoagulants: Efficacy and safety in patients in sinus rhythm? Ivabradine: Why, when proven efficacious and safe, is it not available to patients in the USA or mentioned in the guidelines?
HFpEF treatments	<ul style="list-style-type: none"> What therapies reduce mortality and rehospitalization? What therapies improve health status?
Acute HF therapy	<ul style="list-style-type: none"> Loop diuretics: Optimal dosing is still uncertain. Intravenous nitrates and nitroprusside: Efficacy and safety are still uncertain. Omecamtiv mecarbil: Is it efficacious and safe? Serelaxin: Is it efficacious and safe? Ultrafiltration: Efficacy and safety requires further study
Device therapy	<ul style="list-style-type: none"> CRT: The efficacy and safety of CRT in certain groups of patients such as those with a QRS duration 120-149 ms but with non-LBBB pattern and atrial fibrillation remains unknown. LVADs: The long-term efficacy and safety of LVADs as an alternative to heart transplantation or medical therapy remains uncertain. Remote monitoring: The long-term efficacy and safety of the various remote monitoring strategies available remains uncertain.
End-of-life care	<ul style="list-style-type: none"> What is the optimum palliative care approach? Which patients derive benefit? When should palliative care be started?

CRT=cardiac resynchronization therapy; DPP=dipeptidyl peptidase; GLP=glucagon-like peptide; HFpEF=heart failure with preserved ejection fraction; LBBB=left bundle branch block; LVAD=left ventricular assist devices; SGLT-2= sodium-glucose cotransporter type 2.

Evidence-Based Highlights With Peer-Reviewed Integrity

MD Conference Express fills the gap between live presentation and publication in the academic literature by applying rigorous scientific review to our medical conference highlights reports.



OUR 5-STEP PEER-REVIEW PROCESS



+1-617-370-8088
www.goodwingroupintl.com
reports@goodwingroupintl.com
www.mdconferenceexpress.com

visit us, like us, and tweet

