Gaps and Resemblances in Current Heart Failure Guidelines: A Clinical Perspective

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KEYWORDS

• Heart failure guidelines • Gaps • Heart failure treatment

KEY POINTS

- The newly available clinical guidelines in heart failure (HF) from Europe (2012), the United States (2010 and 2013), and Canada (2015) were compared.
- The focus was on the systems for grading the evidence and classifying the recommendations, HF definitions, pharmacologic treatment, and devices used in HF.
- No large gaps were evident in the methodology for assessing evidence or in HF definitions. Pharmacologic treatments and recommendations for cardiac resynchronization therapy and implantable cardioverter-defibrillators are similar. Guideline recommendations regarding new emergent treatments are becoming available.

INTRODUCTION

To contrast the levels of evidence and classes of recommendation for several pharmacologic and device therapies advocated by the different clinical guidelines in chronic heart failure (HF), McMurray and Swedberg[1] compared the 4 major guidelines in 2006. They also discussed potential explanations for discrepancies among the different guidelines.[1] Since then, more recent clinical studies in HF have provided data to renew the current recommendations with more evidence and the major clinical guidelines have been updated accordingly. Specifically, guidelines from the European Society of Cardiology (ESC) were updated in 2012,[2] guidelines from the American Heart Association (AHA)/American College of Cardiology (ACC) were updated in 2013,[3] those from the Heart Failure Society of America (HFSA) were updated in 2010,[3] and the guidelines from the Canadian Cardiovascular Society Heart Failure (CCS) were updated from 2010 to 2015.[4–8]

This article compares these 4 new clinical guidelines in HF from a clinician perspective in order to detect relevant differences and to discuss some explanations. It focuses on 4 main aspects of these guidelines: the systems of grading the evidence and classifying the recommendations, the definitions of HF, pharmacologic treatment, and devices used in HF.

GRADING THE EVIDENCE AND CLASSIFYING THE RECOMMENDATIONS

Although the systems for grading the evidence and classifying the recommendations among the AHA/ACC, ESC, HFSA, and CCS (until 2010) are similar, they are not exactly the same, but we ignored the small differences. In contrast, since 2011, the CCS guidelines use the grading of recommendations assessment, development and evaluation (GRADE) system, which, among other features, defines strength of recommendations in terms of patient choices. At present, for the CCS guidelines, both systems are still valid, as reflected in the CCS HF Web Compendium guidelines (**Table 1**).[2–9]

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Table 1
Grading the evidence level and class of recommendations

	AHA/ACC, ESC, HFSA, and CCS (Until 2010)			CCS (Since 2011)	
	Class	**Definition**	**Suggested Wording to Use**	**Strength**	**Definition**
Class/strength of the recommendation ~Size of treatment effect	I IIa IIb III	Benefit>>>risk Benefit>>risk Benefit $\geq$ risk No benefit/harm	Is recommended Should be considered May be considered Is not recommended	Strong Weak	Most informed patients choose the recommended management Patients' choices vary according to their values and preferences. Clinicians must ensure that patients' care is in keeping with their values and preferences

	AHA/ACC, ESC, HFSA, and CCS (Until 2010)		CCS (Since 2011)	
	Level	**Definition**	**Quality**	**Definition**
Level/quality of the evidence ~Estimate of certainty of treatment effect	A	Data derived from multiple RCTs or meta-analyses	High	Further research is unlikely to change confidence in the estimate of effect
	B	Data derived from a single RCT or nonrandomized studies	Moderate	Further research is likely to affect confidence in the estimate of effect and may change the estimate
	C	Only consensus opinion of experts, case studies, or standard of care	Low	Further research is very likely to affect confidence in the estimate of effect and is likely to change the effect
			Very low	Any estimate of effect is very uncertain

Abbreviation: RCT, randomized controlled trial.