ACC/AHA/HFSA Guideline for the Management of Heart Failure

Select Recommendations for Heart Valves and Transcatheter Edge-to-Edge Repair (TEER)

Derived From:

Heidenreich PA, Bozkurt B, Aguilar D, Allen LA, Byun JJ, Colvin MM, Deswal A, Drazner MH, Dunlay SM, Evers LR, Fang JC, Fedson SE, Fonarow GC, Hayek SS, Hernandez AF, Khazanie P, Kittleson MM, Lee CS, Link MS, Milano CA, Nnacheta LC, Sandhu AT, Stevenson LW, Vardeny O, Vest AR, Yancy CW. 2022 AHA/ACC/HFSA guideline for the management of heart failure: a report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. [published online ahead of print April 1, 2022]. *J Am Coll Cardiol*. doi: 10.1016/j.jacc.2021.12.012

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American College of Cardiology
www.acc.org

The American Heart Association
professional.heart.org

Full-text guidelines available in *Circulation, JACC* and *JCF*.

Key Points

- This pocket guide contains select recommendations and statements from the 2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure.
- VHD is a significant cause of HF. In patients with HF, management of VHD should be performed by a multidisciplinary team with expertise in HF and VHD, in accordance with the VHD guidelines.
- Cardiologists with expertise in the management of HF are integral to the multidisciplinary team and to guiding the optimization of GDMT in patients with HF and coexisting valve disease.
- Severe aortic stenosis, aortic regurgitation, MR, and tricuspid regurgitation are associated with adverse outcomes and require timely assessment, optimization of medical therapies, and consideration of surgical or transcatheter interventions accordingly to prevent worsening of HF and other adverse outcomes.
- Optimization of GDMT can improve secondary MR associated with LV dysfunction and obviate the need for intervention. Therefore, optimizing GDMT and reassessing MR before MV interventions are important.
- Patients with persistent severe secondary MR despite GDMT may benefit from either surgical or transcatheter repair, depending on clinical scenario.
- Specifically, transcatheter edge-to-edge MV repair has been shown to be beneficial in patients with persistent symptoms despite GDMT, appropriate anatomy on transesophageal echocardiography and with LVEF between 20% and 50%, LVESD ≤70 mm, and pulmonary artery systolic pressure ≤70 mm Hg.

Assessment

Figure 1. ACC/AHA Stages of HF

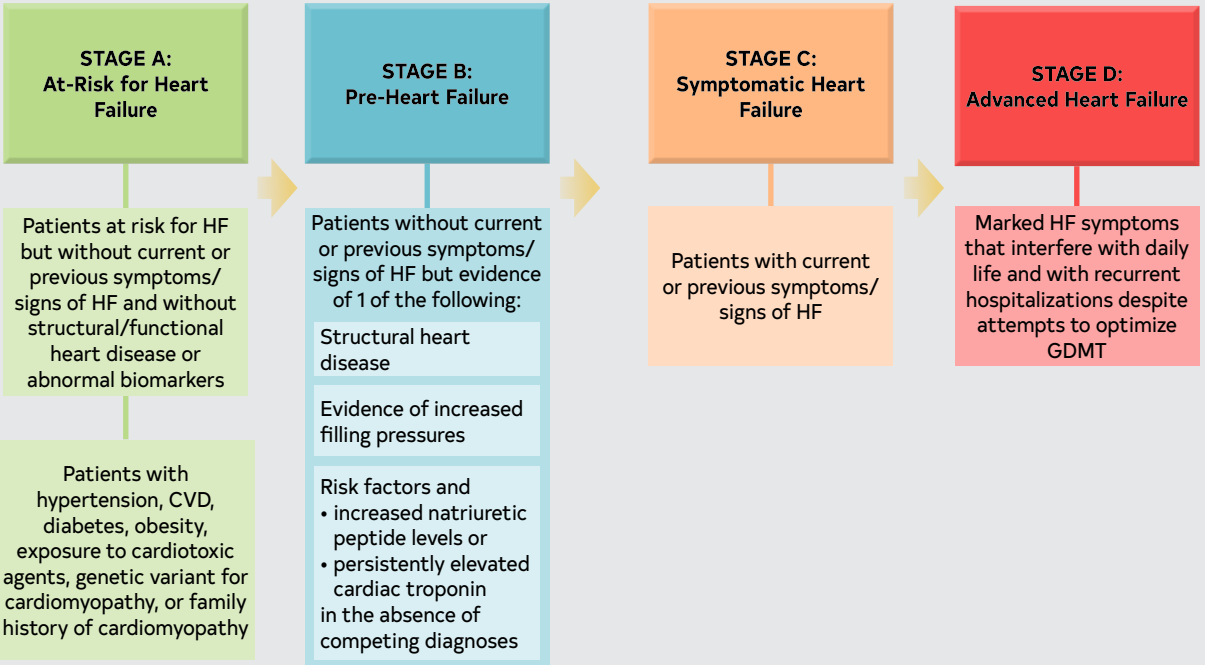
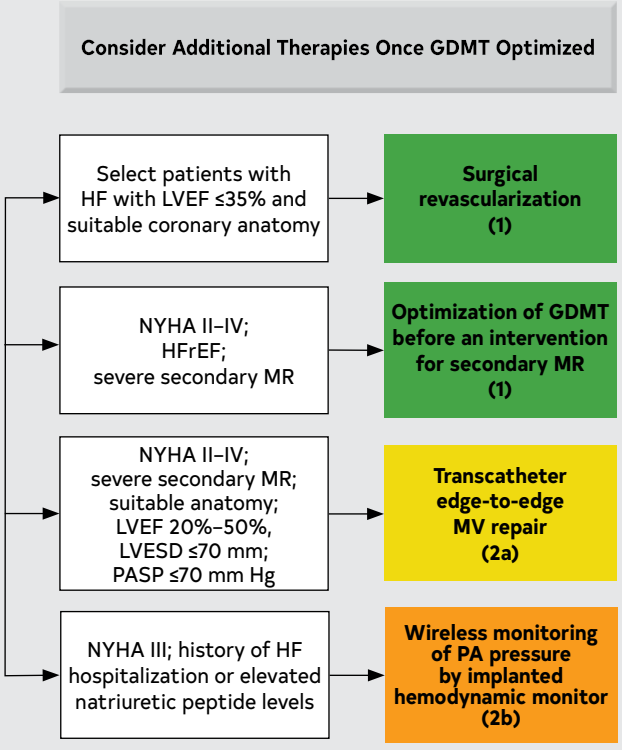


Figure 9. Additional Device Therapies

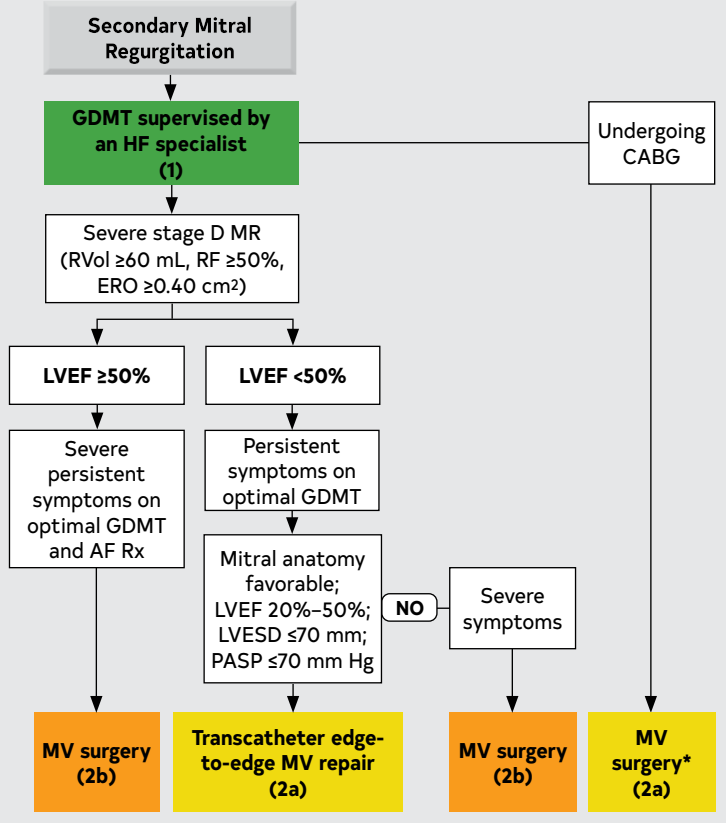


Recommendations for additional nonpharmaceutical interventions that may be considered for patients with HF are shown.

7.5. Valvular Heart Disease

COR	LOE	Recommendations
1	B-R	1. In patients with HF, VHD should be managed in a multidisciplinary manner in accordance with clinical practice guidelines for VHD to prevent worsening of HF and adverse clinical outcomes.
1	C-LD	2. In patients with chronic severe secondary MR and HFrEF, optimization of GDMT is recommended before any intervention for secondary MR related to LV dysfunction.

Figure 10. Treatment Approach in Secondary Mitral Regurgitation



* Chordal-sparing MV replacement may be reasonable to choose over downsized annuloplasty repair.

Class of Recommendations

CLASS (STRENGTH) OF RECOMMENDATION	
CLASS 1 (STRONG)	**Benefit >>> Risk**
Suggested phrases for writing recommendations: ■ Is recommended ■ Is indicated/useful/effective/beneficial ■ Should be performed/administered/other ■ Comparative-Effectiveness Phrases†: ○ Treatment/strategy A is recommended/indicated in preference to treatment B ○ Treatment A should be chosen over treatment B	
CLASS 2a (MODERATE)	**Benefit >> Risk**
Suggested phrases for writing recommendations: ■ Is reasonable ■ Can be useful/effective/beneficial ■ Comparative-Effectiveness Phrases†: ○ Treatment/strategy A is probably recommended/indicated in preference to treatment B ○ It is reasonable to choose treatment A over treatment B	
CLASS 2b (WEAK)	**Benefit ≥ Risk**
Suggested phrases for writing recommendations: ■ May/might be reasonable ■ May/might be considered ■ Usefulness/effectiveness is unknown/unclear/uncertain or not well-established	
CLASS 3: No Benefit (MODERATE) *(Generally, LOE A or B use only)*	**Benefit = Risk**
Suggested phrases for writing recommendations: ■ Is not recommended ■ Is not indicated/useful/effective/beneficial ■ Should not be performed/administered/other	
CLASS 3: Harm (STRONG)	**Risk > Benefit**
Suggested phrases for writing recommendations: ■ Potentially harmful ■ Causes harm ■ Associated with excess morbidity/mortality ■ Should not be performed/administered/other	

Level of Evidence

LEVEL (QUALITY) OF EVIDENCE‡	
LEVEL A	
■ High-quality evidence‡ from more than 1 RCT ■ Meta-analyses of high-quality RCTs ■ One or more RCTs corroborated by high-quality registry studies	
LEVEL B-R	**(Randomized)**
■ Moderate-quality evidence‡ from 1 or more RCTs ■ Meta-analyses of moderate-quality RCTs	
LEVEL B-NR	**(Nonrandomized)**
■ Moderate-quality evidence‡ from 1 or more well-designed, well-executed nonrandomized studies, observational studies, or registry studies ■ Meta-analyses of such studies	
LEVEL C-LD	**(Limited Data)**
■ Randomized or nonrandomized observational or registry studies with limitations of design or execution ■ Meta-analyses of such studies ■ Physiological or mechanistic studies in human subjects	
LEVEL C-EO	**(Expert Opinion)**
Consensus of expert opinion based on clinical experience	

COR and LOE are determined independently (any COR may be paired with any LOE).

A recommendation with LOE C does not imply that the recommendation is weak. Many important clinical questions addressed in guidelines do not lend themselves to clinical trials. Although RCTs are unavailable, there may be a very clear clinical consensus that a particular test or therapy is useful or effective.

* The outcome or result of the intervention should be specified (an improved clinical outcome or increased diagnostic accuracy or incremental prognostic information).

† For comparative-effectiveness recommendations (COR I and IIa; LOE A and B only), studies that support the use of comparator verbs should involve direct comparisons of the treatments or strategies being evaluated.

‡ The method of assessing quality is evolving, including the application of standardized, widely used, and preferably validated evidence grading tools; and for systematic reviews, the incorporation of an Evidence Review Committee.

COR indicates Class of Recommendation; EO, expert opinion; LD, limited data; LOE, Level of Evidence; NR, nonrandomized; R, randomized; RCT, randomized controlled trial.

Abbreviations

ACC, American College of Cardiology; **AF**, atrial fibrillation; AHA, American Heart Association; **CABG**, coronary artery bypass graft; **CVD**, cardiovascular disease; **ERO**, effective regurgitant orifice; **GDMT**, guideline-directed medical therapy; **HF**, heart failure; **HFH**, heart failure hospitalization; **HFrEF**, heart failure with reduced ejection fraction; **IV**, intravenous; **LV**, left ventricular; **LVAD**, left ventricular assist device; **LVEDV**, left ventricular end-diastolic volume; **LVEF**, left ventricular ejection fraction; **LVESD***, left ventricular end-systolic dimension (figure 9)/left ventricular end-systolic diameter (figure 10); **MR**, mitral regurgitation; **MV**, mitral valve; **NP**, natriuretic peptide; **NSR**, normal sinus rhythm; **NYHA**, New York Heart Association; **PA**, pulmonary artery; **PASP**, pulmonary artery systolic pressure; **RCT**, randomized controlled trial; **RF**, regurgitant fraction; **RV**, right ventricular; **Rx**, medication; **RVol**, regurgitant volume; **TEER**; transcatheter edge-to-edge repair **VHD**, valvular heart disease

* https://www.allacronyms.com/LVESD/medical

Source

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Disclaimer

This pocket guide attempts to define principles of practice that should produce high-quality patient care. It is applicable to specialists, primary care, and providers at all levels. This pocket guide should not be considered exclusive of other methods of care reasonably directed at obtaining the same results. The ultimate judgment concerning the propriety of any course of conduct must be made by the clinician after consideration of each individual patient situation. Neither IGC, the medical associations, nor the authors endorse any product or service associated with the distributor of this clinical reference tool.

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