

Fragile Hearts: Case Studies in Heart Failure

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Disclosures

- Non-Declaration Statement:

I have no relevant relationships within eligible companies to disclose within the past 24 months.

Note: Ineligible companies are defined as those whose primary business is producing, marketing, selling, re-selling, or distributing healthcare products used by or on patients.

Educational Objectives

At the conclusion of this session, participants should be able to:

- Recall recommendations for diagnosis and management of patients with heart failure
- Discuss the 2022 ACC/AHA/HFSA guidelines for management of heart failure
- Apply guideline-directed medical therapy to heart failure cases

AHA/ACC/HFSA CLINICAL PRACTICE GUIDELINE

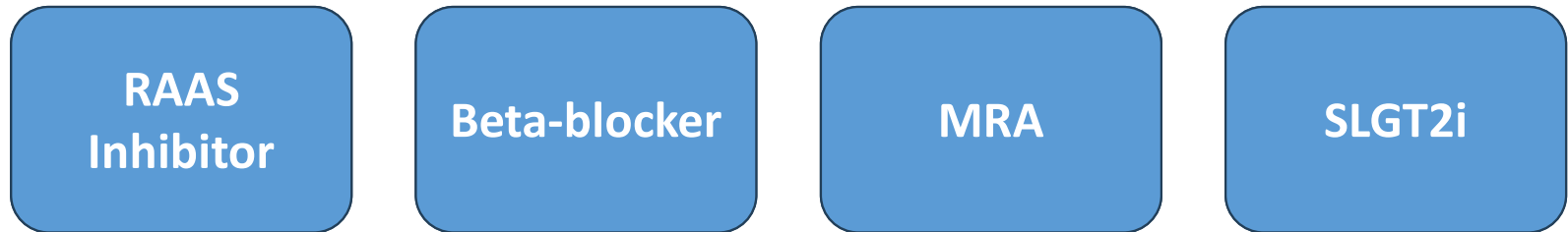
2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines

Heart Failure Types		LVEF	Previously known as
HFrEF	Heart Failure with <u>reduced</u> Ejection Fraction	≤40%	Systolic HF
HFpEF	Heart Failure with <u>preserved</u> Ejection Fraction	≥50%	Diastolic HF
HFmrEF	Heart Failure with <u>mildly-reduced</u> Ejection Fraction	41-49%	
HFimPEF	Heart Failure with <u>improved</u> Ejection Fraction	*Previous LVEF ≤40% and a follow-up measurement of LVEF >40%	

NYHA Functional Classification

Class I	No limitation of physical activity. Ordinary physical activity does not cause undue breathlessness, fatigue, or palpitations
Class II	Slight limitation of physical activity. Comfortable at rest, but ordinary physical activity results in undue breathlessness, fatigue, or palpitations.
Class III	Marked limitation of physical activity. Comfortable at rest, but less than ordinary physical activity results in undue breathlessness, fatigue, or palpitations.
Class IV	Unable to carry on any physical activity without discomfort. Symptoms at rest can be present. If any physical activity is undertaken, discomfort is increased.

Guideline-Directed Medical Therapy (GDMT)



- Goal: achieve and maintain target doses
- Target doses
 - Used to establish efficacy and safety
 - Serve as the basis of the guideline recommendations
- If target dose cannot be tolerated, then the highest tolerated dose is recommended

RAAS inhibition

- ARNi (ARB, valsartan + neprilysin inhibitor, sacubitril)
or
- ACEi, if ARNi not feasible
or
- ARB, if intolerant to ACEi

Beta-blocker

- Bisoprolol
or
- Carvedilol
or
- Sustained-release metoprolol succinate

MRA

- Spironolactone
or
 - Eplerenone
- ❖ **If eGFR >30 and serum potassium <5**

SLGT2i

- Dapagliflozin
or
 - Empagliflozin
- ❖ **Irrespective of presence of T2DM**

Class	Drug	Initial Daily Dose(s)	Target Dose(s)
ARNi	Sacubitril-valsartan	49 mg sacubitril and 51 mg valsartan twice daily (therapy may be initiated at 24 mg sacubitril and 26 mg valsartan twice daily)	97 mg sacubitril and 103 mg valsartan twice daily
ACEi	Lisinopril	2.5–5 mg once daily	20–40 mg once daily
ACEi	Enalapril	2.5 mg twice daily	10–20 mg twice daily
ARB	Losartan	25–50 mg once daily	50–150 mg once daily
ARB	Valsartan	20–40 mg once daily	160 mg twice daily
BB	Bisoprolol	1.25 mg once daily	10 mg once daily
BB	Carvedilol	3.125 mg twice daily	25–50 mg twice daily
BB	Metoprolol succinate extended release (metoprolol CR/XL)	12.5–25 mg once daily	200 mg once daily
MRA	Spironolactone	12.5–25 mg once daily	25–50 mg once daily
MRA	Eplerenone	25 mg once daily	50 mg once daily
SGLT2i	Dapagliflozin	10 mg once daily	10 mg once daily
SGLT2i	Empagliflozin	10 mg once daily	10 mg once daily

Case Scenarios

References

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2. Dixit NM, Shah S, Ziaeeian B, et al. Optimizing Guideline-directed Medical Therapies for Heart Failure with Reduced Ejection Fraction During Hospitalization, *US Cardiology Review* 2021;15:e07. <https://doi.org/10.15420/usc.2020.29>
3. Krumholz H. Heart failure self-management. In: *UpToDate*, Hunt SA (Ed), Wolters Kluwer. (Accessed on November 30, 2023.)

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