

Top-Line Current Treatment: Guideline-Directed and Advanced HF Therapies

Table 1: Current Use of Guideline-Directed Medical Therapy

	ACE/ARB/ ARNi	ARNi	ACEi/ ARB	ACEi	ARB	Beta Blocker	MRA	SGLT2i
Percentage of Patients on Treatment								
EVOLUTION-HF 2023		73%		55%	62%	75%	58%	77%
CHAMP-HF 2018	72%	13%	60%			67%	33%	
PINNACLE 2020	78%	9%		55%	28%	75%		
QUALIFY 2016				66%	22%	87%	69%	
ESC-HF 2013			92%	71%	24%	93%	67%	
BIOSTAT-CHF 2017			85%			90%		
Savarese et al. 2021		73%		45%	67%	76%	60%	
Percentage at ≥50% Target								
EVOLUTION-HF 2023		27%		18%	9%	24%	53%	
CHAMP-HF 2017		40%	44%	40%		54%	98%	
BIOSTAT-CHF 2017			53%			40%		
QUALIFY 2016				63%	40%	52%	99%	
Savarese et al. 2021		53%		28%	19%	30%	60%	
Percentage at Target								
EVOLUTION-HF 2023		28%		20%	7%	7%	5%	76%
CHAMP-HF 2017	17%	14%	18%			28%	77%	
QUALIFY 2016				28%	7%	15%	71%	
ESC-HF 2013				29%	24%	18%	31%	
BIOSTAT-CHF 2017			22%	27%	20%	12%		
Savarese et al. 2021		30%		15%	10%	12%	60%	

Table 2: Trends in Adherence to Quality Care Measures in Get With the Guidelines-Heart Failure Program in the US, 2020-2022

Quality of Care Measure	2020	2021	2022
Evidence-based specific β -blockers at discharge for patients with HFrEF	92.0	93.4	94.2
Measure LV function	99.0	99.2	99.2
Post discharge appointment for HF patients	84.9	85.6	86.2
ARNi at discharge for patients with HFrEF	34.4	49.3	57.0
SGLT-2 inhibitor at discharge for patients with HFrEF	2.0	10.8	37.5
MRA at discharge for patients with HFrEF	49.1	57.1	61.3
ACEi/ARB or ARNi at discharge for patients with HFrEF	90.2	91.8	92.6
Anticoagulation for AF or atrial flutter	90.9	91.9	92.8
CRT-D or CRT-P placed or prescribed at discharge for eligible patients	44.1	39.4	35.5
DVT prophylaxis	91.3	93.8	92.7
Follow-up visit within 7 d or less	67.6	65.4	63.9
Hydralazine nitrate at discharge in self-identified Black patients with HFrEF	27.7	28.1	25.9
ICD counseling or ICD placed or prescribed at discharge for eligible patients	64.9	70.6	68.8
Influenza vaccination during flu season	76.4	73.1	70.6
Pneumococcal vaccination	62.1	64.2	63.7
Lab monitoring follow-up within 7 d of MRA prescription or dose change	N/A	N/A	41.7
Defect-free care for quadruple therapy medication for patients with HFrEF	6.0	18.4	41.4
DOAC at discharge for HF with nonvalvular AF or atrial flutter patients	41.1	43.4	45.2

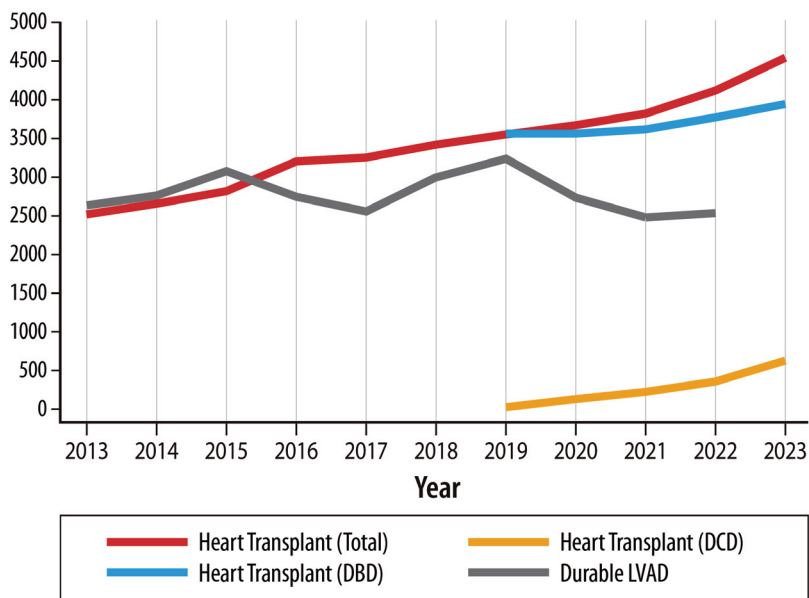
Values are percentages. Please note that SGLT2 inhibitor at discharge has been a quality of care measure since 2020, and has been specified as a Class I recommendation for patients with HFrEF in US guidelines in 2022.

GUIDELINE-DIRECTED THERAPY

- Publications continue to emphasize challenges in implementing the use of guideline-directed medical therapy (GDMT) in patients with HF, including suboptimal and delayed initiation of guideline-directed therapies and high rates of discontinuation (**Table 1**).^{1,2,3}
- Despite the emphasis on timely initiation and optimization of GDMT, and planning and counseling for device therapies (such as ICD and/or CRT) prior to discharge in hospitalized HF patients, a large number of patients remain untreated (**Table 2**).
- Sex and racial disparities in initiation and intensification of GDMT are persistent.²
- The first-line treatment of patients with HFpEF includes quadruple therapy with:
 - angiotensin receptor-neprilysin inhibitors (ARNi), angiotensin-converting enzyme inhibitors (ACEi), or angiotensin receptor blockers (ARB)
 - beta-blockers
 - mineralocorticoid receptor antagonists (MRA)
 - sodium-glucose cotransporter 2 inhibitors (SGLT2i)
- Recent data and expert consensus have upgraded SGLT2i to first-line therapy in patients with HFpEF.⁴ The role of quadruple therapy in HFpEF is unclear.⁵
- The use of beta-blockers in patients with HFpEF is controversial. In a cohort of patients with HF and LVEF > 40%, beta-blocker use was associated with an increased risk of HF hospitalizations as LVEF increased.⁶
- The most recent ACC/AHA HF guidelines recommended the addition of MRAs as well as ARNi or ARBs in management of patients with HFpEF as a class 2B recommendation.⁷
- ARNi may also have an incremental benefit over ARB in patients with HFpEF with possible greater benefit at the lower end of the EF spectrum.^{8,9}



Figure 1: Advanced HF Therapies Including Heart Transplant and Left Ventricular Assist Device Volumes in the US Between 2013 and 2023

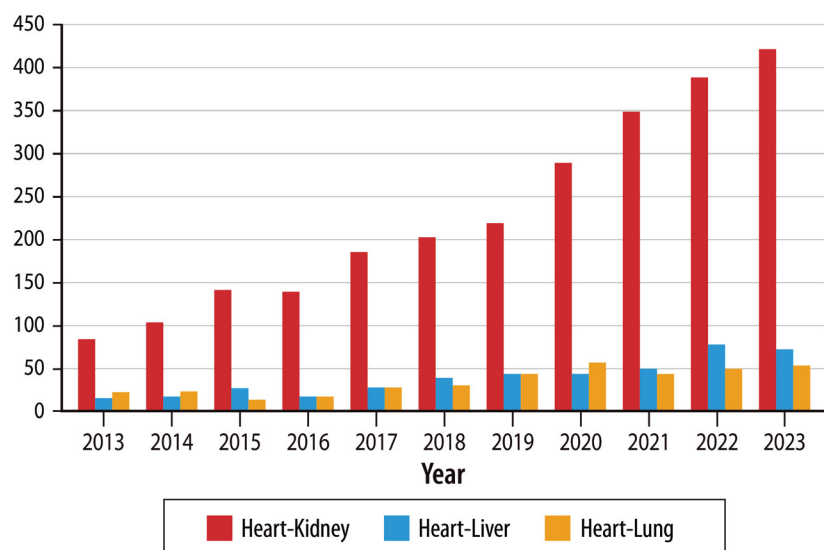


- ICD and CRT therapies are recommended in patients with HFrEF and specific indications. There are significant disparities in the use of device therapies according to sex, race/ethnicity, and comorbidities and these disparities have not shown significant improvement over time.

ADVANCED HEART FAILURE THERAPIES: HEART TRANSPLANTATION AND LVADS

- Heart transplant volumes continue to increase in the U.S. (Figure 1).¹⁰
- The incidence of multi-organ transplantation (ie, heart-kidney, heart-liver, heart-lung) has increased since the 2018 allocation policy change (Figure 2).^{10,11,12}
- Novel organ preservation techniques and the use of hearts for transplantation from donation after circulatory death (DCD) have increased the availability of donor hearts for transplantation.
- In contrast, durable left ventricular assist device (LVAD) volumes have decreased after the 2018 U.S. heart allocation policy change (Figure 1).^{13,14}

Figure 2: Heart Dual Organ Transplant Volumes in the U.S.



For more information visit
<https://hfsa.org/hf-stats>



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