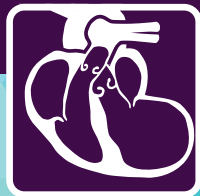




AMERICAN  
COLLEGE of  
CARDIOLOGY®

# USE OF SGLT2 INHIBITORS IN THE MANAGEMENT OF PATIENTS WITH HEART FAILURE POCKET GUIDE

*Transformation of Heart Failure Care:  
SGLT2is as the New Pillar in Heart Failure*



<b>POCKET GUIDE OVERVIEW</b> .....	<b>1</b>
FIGURE 1: <b>Guideline-Directed Medical Therapy Across Heart Failure Stages</b> .....	<b>2</b>
FIGURE 2: <b>Treatment Algorithm For Guideline-Directed Medical Therapy in HFrEF</b> .....	<b>3</b>
FIGURE 3: <b>Treatment Algorithm For Guideline-Directed Medical Therapy in HFpEF</b> .....	<b>4</b>
TABLE 1: <b>Key Considerations For Use Of SGLT2i in Patients With Heart Failure</b> .....	<b>5</b>
TABLE 2: <b>Ten Considerations to Improve Adherence</b> .....	<b>6-7</b>
<b>Expert Consensus Decision Pathways</b> .....	<b>8</b>
<b>Additional Heart Failure Resources</b> .....	<b>9</b>
<b>Heart Failure and SGLT2is: The New Pillar in Care</b> .....	<b>9</b>

This pocket guide is a practical, streamlined resource for clinicians regarding the use of sodium-glucose cotransporter-2 inhibitors (SGLT2i) when managing patients with heart failure. It includes key information from the following clinical policies:

- 2024 ACC Expert Consensus Decision Pathway for Treatment of Heart Failure with Reduced Ejection Fraction
- 2023 ACC Expert Consensus Decision Pathway on Management of Heart Failure with Preserved Ejection Fraction
- 2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure



**FIGURE 1. Guideline-Directed Medical Therapy Across Heart Failure Stages**

Use this tool to reference guideline-directed medical therapy (GDMT) across the four ACC/AHA stages of Heart Failure (HF) as outlined in the 2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure. See the guideline for specific patient population criteria.

GDMT of major medication classes	Stage A	Stage B	Stage C: Symptomatic Heart Failure Stage D: Advanced Heart Failure		
	At-Risk for Heart Failure	Pre-Heart Failure	HFrEF LVEF ≤40%	HFmrEF LVEF 41-49%	HFpEF LVEF ≥50%
	SGLT2i in pts with DM (1)	SGLT2i in pts with DM (1)	ARNi in NYHA II-III; ACEi or ARB in NYHA II-IV (1)	Diuretics, as needed (1)	Diuretics, as needed (1)
		ACEi (1)	Beta blocker (1)	SGLT2i (2a)	SGLT2i (2a)
		ARB if ACEi intolerant (1)	MRA (1)	ACEi, ARB, ARNi (2b)	ARNi (2b)
		Beta blocker (1)	SGLT2i (1)	MRA (2b)	MRA (2b)
			Diuretics, as needed (1)	Beta blocker (2b)	ARB (2b)
			Hydral-nitrates for NYHA III-IV, in African American pts (1)		
Additional Medical Therapies once GDMT optimized	Optimal control of BP (1)	Optimal control of BP (1)	Ivabradine (2a)		
	Optimal management of CVD (1)	Optimal management of CVD (1)	Vericiguat (2b)		
			Digoxin (2b)		
			PUFA (2b)		
			Potassium binders (2b)		

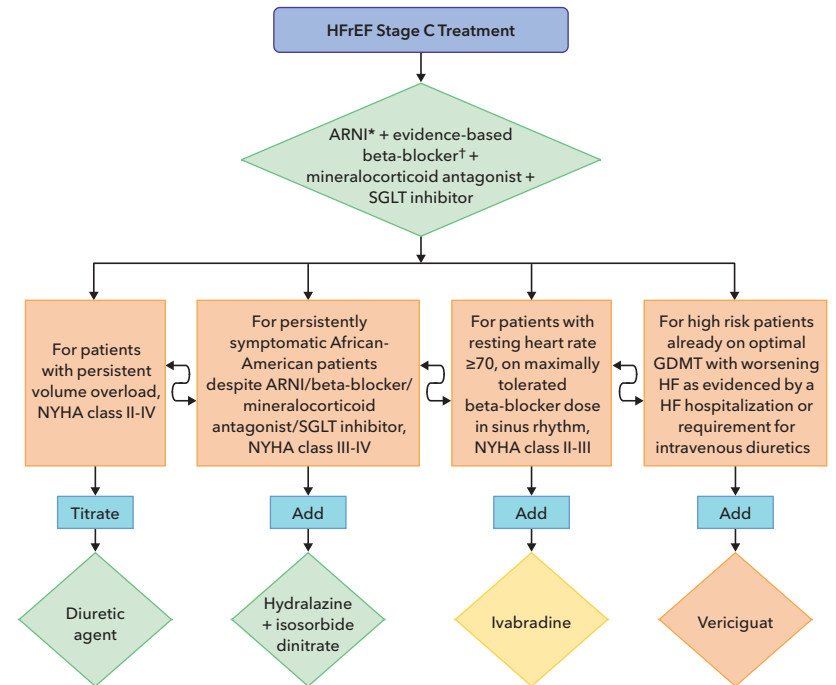
■ 1 (Strong)  
 ■ 2a (Moderate)  
 ■ 2b (Weak)



Please scan the QR code to access JACC Central Illustration: [Guideline-Directed Medical Therapy Across Heart Failure Stages.](#)

Please refer to the manuscript for footnote information.

**FIGURE 2. Treatment Algorithm For Guideline-Directed Medical Therapy in HFrEF**



For More Information See Table on Key Considerations For Use of SGLT2i In Patients With Heart Failure, Page 5

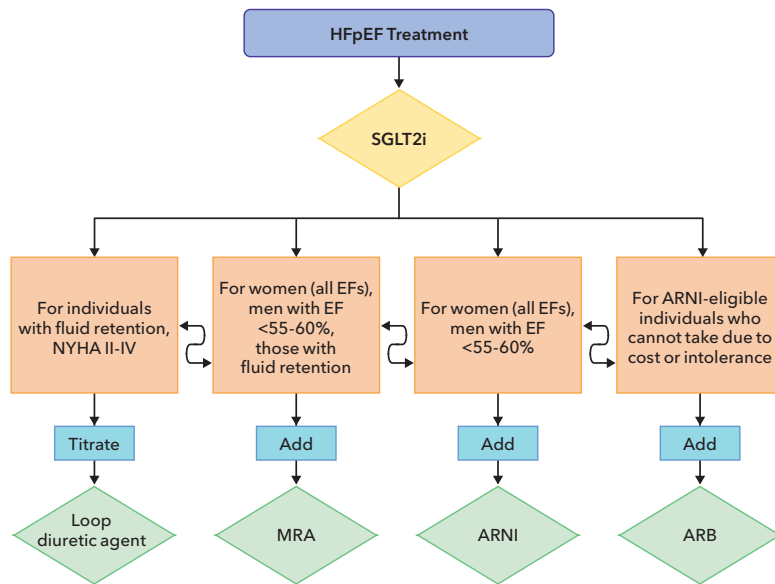
\*ACE inhibitors/ARBs should only be considered in patients with contraindications, intolerance, or inaccessibility to ARNI. In those instances, please consult the text for guidance on initiation.

†Carvedilol, metoprolol succinate, or bisoprolol.

Colors correspond to ACC/AHA class of recommendation (COR). Green = Class 1 (strong); Yellow = Class 2a (moderate); Orange = Class 2b (weak).

ARNi = angiotensin receptor/neprilysin inhibitors; ACC = American College of Cardiology; AHA = American Heart Association; HF = heart failure; HFrEF = heart failure with reduced ejection fraction; NYHA = New York Heart Association; SGLT = sodium-glucose cotransporter.

**FIGURE 3. Treatment Algorithm For Guideline-Directed Medical Therapy in HFrEF**



Kittleson M, Panjath G, Amancherla K, et al. 2023 ACC Expert Consensus Decision Pathway on Management of Heart Failure With Preserved Ejection Fraction. J Am Coll Cardiol. 2023 May, 81 (18) 1835-1878. <https://doi.org/10.1016/j.jacc.2023.03.393>

\*For More Information See Table on Key Considerations For Use of SGLT2i In Patients With Heart Failure, opposite page

**TABLE 1. Key Considerations For Use of SGLT2i in Patients With Heart Failure**

Indications for Use of SGLT2i	<ul style="list-style-type: none"> <li>All forms of heart failure, with or without diabetes</li> <li>NYHA class II-IV symptoms</li> <li>Administered in conjunction with a background of GDMT for HF</li> </ul>		
Stage Information	Dapagliflozin	Empagliflozin	Sotagliflozin <sup>#</sup>
<b>Stage A*</b> <i>Patients with T2D and CVD or high risk for CVD</i>	10 mg PO daily		200 mg PO daily (Starting Dose)
<b>Stage B†</b> <i>Patients with T2D and CVD or high risk for CVD</i>			400 mg PO daily (Target Dose)
<b>Stage C‡ &amp; D§</b>			
<b>Contraindications<sup>  </sup></b>	<ul style="list-style-type: none"> <li>Not approved for use in patients with Type I diabetes due to increased risk of diabetic ketoacidosis</li> <li>Known hypersensitivity to drug</li> </ul>		
<b>Cautions<sup>  </sup></b>	<ul style="list-style-type: none"> <li>For HF care, dapagliflozin and sotagliflozin<sup>#</sup>, eGFR &lt;25 mL/min/1.73m<sup>2</sup><sup>¶</sup></li> <li>Pregnancy</li> <li>Increased risk of mycotic genital infections</li> <li>May contribute to volume depletion. Consider altering diuretic dose if applicable</li> <li>Ketoacidosis in patients with diabetes:                             <ul style="list-style-type: none"> <li>Temporary discontinuation for at least 3 days before scheduled surgery is recommended to avoid potential risk for ketoacidosis</li> <li>Assess patients who present with signs and symptoms of metabolic acidosis for ketoacidosis, regardless of blood glucose level</li> </ul> </li> <li>Acute kidney injury and impairment in kidney function: Consider temporarily discontinuing in settings of reduced oral intake or fluid losses</li> <li>Urosepsis and pyelonephritis: Evaluate patients for signs and symptoms of urinary tract infections and treat promptly, if indicated</li> <li>Necrotizing fasciitis of the perineum (Fournier gangrene): Rare, serious, life-threatening cases have occurred in both female and male patients; assess patients presenting with pain or tenderness, erythema, or swelling in the genital or perineal area, along with fever or malaise</li> </ul>		

\*Stage A: At Risk for HF but without symptoms, structural heart disease, or cardiac biomarkers of stretch or injury.  
 †Stage B: Pre-HF; no symptoms or signs of HF and evidence of 1 of the following (structural heart disease, evidence for increased filling pressures, or patients with risk factors and increased levels of BNP or persistently elevated cardiac troponin (in the absence of competing diagnoses resulting in such biomarker evaluations such as acute coronary syndrome, CKD, pulmonary embolus, or myopericarditis).  
 ‡Stage C: Symptomatic HF; structural heart disease with current or previous symptoms of HF.  
 §Stage D: Advanced HF; marked HF symptoms that interfere with daily life and with recurrent hospitalizations despite attempts to optimize GDMT.  
<sup>||</sup>Cautions and Contraindications for diabetes versus heart failure are different.  
<sup>#</sup>Sotagliflozin is an SGLT 1 and 2 inhibitor.  
<sup>¶</sup>Initiate for eGFR ≥25 mL/min/1.73 m<sup>2</sup>. If eGFR drops below this value after initiation, discontinuation not mandatory.

Please refer to the manuscript for additional footnote information.



**TABLE 2. Ten Considerations to Improve Adherence**

**1. Capitalize on opportunities when patients are most predisposed to adherence**

- In-hospital/pre-discharge initiation following decompensation

**2. Consider the patient's perspective**

- Start with the goals of therapy (feeling better and living longer) and then discuss how specific actions (medication initiation, intensification, monitoring, and adherence) support those goals (eg: [ACC's My Heart Failure Action Plan](#))
- Use decision aids when available (eg: [CardioSmart Heart Failure Resources](#))
- Ask patient how they learn best and provide education accordingly
- Use culturally-sensitive patient education materials
- Focus on a patient-centered outcome (ie, treatment satisfaction, treatment burden, and mental health)

**3. Simplify medication regimens whenever possible, especially in other adults**

**4. Consider costs and access**

- Become familiar with and advocate for systems that help make cost-sharing automatic, immediate, and transparent
- Prescribe lower-cost medications if of similar efficacy
- Facilitate access to copay assistance upon prescription
- Address prior approvals upon prescription (Document the frequency of these issues, delays in care, and adverse events to help change public policies)
- Discuss out-of-pocket copays proactively
- Prescribe 90-day quantities for refills

**5. Communicate with other clinicians involved in care, ideally facilitated by electronic health records**

**6. Educate using practical, patient-friendly information**

- Provide a written explanation of the purpose of each medication prescribed
- Plan pharmacist visits for complex medication regimens
- Use the "teach-back" principle to reinforce education
- Educate the patient and their identified social network

**7. Recommend tools that support adherence in real time**

- Pill boxes to be filled by patient or care partner a week at a time
- Alarms for each time of the day medications are due
- Smartphone or other mobile health applications that provide an interactive platform for education, reminders, warnings, and adherence tracking
- Use of telehealth to increase access to care

**8. Consider behavioral supports**

- Motivational interviewing
- Participate in engaged benefit designs

**9. Anticipate problems**

- Communicate common adverse effects
- Provide instructions on when to call for refills or report problems
- Remind patients using pharmacy assistance programs that refills/reorders are not automatic
- Request pharmacy to synchronize refills
- Incorporate social support or caregivers in the management

**10. Monitor adherence and target patients at risk**

- Inquire patients directly (eg, "How many times in a week do you miss taking your medications?" "Have you run out of your medications recently?")
- Carry out medicine reconciliation at visits, with focus on discrepancies
- Ask the patient to bring all the pill bottles to the office visit
- Monitor pharmacy refills, using available clinical databases or automated alerts for failed fills or refills
- Review available drug levels (eg, digoxin, INR) or concentrations of BNP/NT-proBNP
- Plan home-based nursing visits for appropriate patients

ACC = American College of Cardiology; BNP = B-type natriuretic peptide; INR = international normalized ratio; NT-proBNP = N-terminal pro-B-type natriuretic peptide

## Expert Consensus Decision Pathways

ACC has modernized Expert Consensus Documents to target key points of care with concise decision pathways rather than the traditional longer documents.

These Expert Consensus Decision Pathways (ECDPs) leverage the expert insights drawn from a multidisciplinary group of experts and relevant stakeholders who are convened for Roundtables and Think Tanks often held as part of ACC quality programs. ECDPs are intended to provide guidance for clinicians in areas where evidence may be limited, new and evolving, or lack sufficient data to fully inform clinical decision making.

They include algorithms that are more actionable and can be translated into tools or apps to further accelerate the use of ACC clinical policy at point of care.

## Translated Into Clinical Apps



### TreatHF App

This app helps clinicians confirm which therapies are suggested for their patients with symptomatic heart failure with reduced ejection fraction (stage C HFrEF) and provides guidance on the use of each therapy.

- Enter patient indications
- Review individualized next steps for medical therapy
- Email or print a summary of the next steps
- Reference detailed information on
  - Initiation, titration, and monitoring of each medication
  - Guidance for optimizing your overall medication strategy



To find out more and access other relevant ACC mobile tools and apps, visit: [ACC.org/Apps](https://www.acc.org/Apps)

## Additional Heart Failure Resources

- For practice guidelines on heart failure, visit the ACC Guideline Clinical App



To access the tool, please scan this QR code or visit: [ACC.org/Apps](https://www.acc.org/Apps)

- For additional ACC resources related to the medication management of heart failure, visit:



To access the page, please scan this QR code or visit: [ACC.org/ClinicalSolutionsHFMedications](https://www.acc.org/ClinicalSolutionsHFMedications)

**The ACC's Heart Failure and SGLT2i:  
The New Pillar in Care Initiative**  
is designed to provide practical guidance  
for clinicians on the implementation of  
sodium-glucose cotransporter-2 inhibitors  
(SGLT2i) into treatment of patients  
with heart failure.





For additional resources related to the *ACC's Heart Failure and SGLT2is: The New Pillar in Care* initiative, scan this QR code or visit: **[ACC.org/SGLT2isInitiative](https://ACC.org/SGLT2isInitiative)**

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