

June 2023

# Congestive Heart Failure (CHF) Clinical Pathway Resource Guide

# Congestive Heart Failure Clinical Pathway

## Introduction

Welcome to GLIN's CHF Resource Guide, an all-in-one solution to assist you in effectively managing Congestive Heart Failure. It includes medication therapy, pharmacy resources, care navigation, care management, and HCC coding tools.



AHA Class	NYHA Classification	HCC Code	Treatment
<b>A: At Risk for CHF</b> (DM2, HTN, HLD, Fam Hx)	N/A	N/A	<ul style="list-style-type: none"> <li>Control BP <math>\leq</math> 130/80</li> <li>Diabetics: SGLT-2</li> <li>Avoid cardiotoxins</li> </ul>
<b>B: Asymptomatic/Pre CHF</b> (Hx of MI, cardiomyopathy)	NYHA I: No limits to activity	Code: I50.9	LVEF $\leq$ 40: <ul style="list-style-type: none"> <li>ACE/ARB</li> <li>Beta Blocker</li> </ul>
<b>C: Symptomatic CHF</b>	NYHA II: Ordinary activity causes SOB	LVEF $\leq$ 40: Heart failure with reduced ejection fraction, NYHA II/III Code: I50.2	LVEF $\leq$ 40: <ul style="list-style-type: none"> <li>ARNi</li> <li>Mineralocorticoid Receptor Antagonist</li> <li>SGLT-2i</li> <li>Beta Blocker</li> <li>Black pt: Hydralazine and Isosorbide Mononitrate</li> </ul>
	NYHA III: Less than ordinary activity causes SOB	LVEF $\geq$ 50: Heart failure with preserved ejection fraction, NYHA II/III Code: I50.3	LVEF $\geq$ 50: <ul style="list-style-type: none"> <li>SGLT-2i</li> <li>Mineralocorticoid Receptor Antagonist</li> </ul> LVEF $\leq$ 35: <ul style="list-style-type: none"> <li>ICD</li> </ul> Diuresis: Loop diuretics
<b>D: Refractory CHF</b>	NYHA IV: Cannot do any activity without SOB	Refractory End Stage Code: I50.84	<ul style="list-style-type: none"> <li>Mechanical circulatory support (LVAD)</li> <li>Consider cardiac transplant</li> <li>Palliative Care</li> </ul>

ARNi: Entresto (do NOT check BNP on Entresto)

Beta Blockers: Carvedilol, Metoprolol SUCCINATE, Bisoprolol ONLY

MRA: Spironolactone/Eplerenone (for GRF >30, K <5)

SGLT-2: ONLY Empagliflozin (Jardiance) and Dapagliflozin (Farxiga) have been studied.



# CHF Guideline Directed Medication Therapy Target Dosing

Drug	Initial Daily Doses(s)	Target Doses(s)	Mean Doses Achieved in Clinical Trials	References
<b>ACEi</b>				
Captopril	6.25 mg 3 times daily	50 mg 3 times daily	122.7 mg total daily	19
Enalapril	2.5 mg twice daily	10–20 mg twice daily	16.6 mg total daily	3
Fosinopril	5–10 mg once daily	40 mg once daily	N/A	...
Lisinopril	2.5–5 mg once daily	20–40 mg once daily	32.5–35.0 mg total daily	17
Perindopril	2 mg once daily	8–16 mg once daily	N/A	...
Quinapril	5 mg twice daily	20 mg twice daily	N/A	...
Ramipril	1.25–2.5 mg once daily	10 mg once daily	N/A	...
Trandolapril	2.5–5 mg once daily	20–40 mg once daily	32.5–35.0 mg total daily	...
<b>ARB</b>				
Candesartan	4–8 mg once daily	32 mg once daily	24 mg total daily	20
Losartan	25–50 mg once daily	50–150 mg once daily	129 mg total daily	18
Valsartan	20–40 mg once daily	160 mg twice daily	254 mg total daily	21
<b>ARNi</b>				
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) once daily	97 mg sacubitril and 103 mg valsartan twice daily	182 mg sacubitril and 193 mg valsartan total daily	22
<b>Beta Blocker</b>				
Busoprolol	1.25 mg onces daily	10 mg once daily	8.6 mg total daily	1
Carvedilol	3.125 mg twice daily	25–50 mg twice daily	37 mg total daily	23
Carvedilol CR	10 mg once daily	80 mg once daily	N/A	...
Metoprolol succinate extended release (metoprolol CR/XL)	12.5–25 mg once daily	200 mg once daily	159 mg total daily	11
<b>Mineralocorticoid Receptor Antagonists</b>				
Spironolactone	12.5–25 mg onces daily	25–50 mg once daily	26 mg total daily	6
Eplerenone	25 mg once daily	50 mg once daily	42.6 mg total daily	13
<b>SGLT2i</b>				
Dapagliflozin	10 mg onces daily	10 mg once daily	9.8 mg total daily	8
Empagliflozin	10 mg once daily	10 mg once daily	NR	13

Reference: 2022 AHA/ACC/HFSA guideline for the management of heart failure. professional.heart.org. (2022, April 1). Retrieved October 9, 2022, from-  
[https://professional.heart.org/en/science-news/2022-guideline-for-the-management-of-heart-failure#:~:text=Guideline%2Ddirected%20medical%20therapy%20\(GDMT\),a%20team%20specialized%20in%20HF](https://professional.heart.org/en/science-news/2022-guideline-for-the-management-of-heart-failure#:~:text=Guideline%2Ddirected%20medical%20therapy%20(GDMT),a%20team%20specialized%20in%20HF)



# Selected Prescription Medications That May Cause or Exacerbate HF

Drug or Therapeutic Class	Exacerbates Underlying Myocardial Dysfunction	Magnitudes of HF Induction or Precipitation	LOE for HF Induction or Precipitation	Possible Mechanism(s)	Onset
COX, nonselective inhibitors (NSAIDs)	X	Major	B	Prostaglandin inhibition leading to sodium and water retention, increased systemic vascular resistance, and blunted response to diuretics	Immediate
COX, selective inhibitors (COX-2 inhibitors)	X	Major	B		
Thiazolidinediones	X	Major	A	Possible calcium channel blockade	Intermediate
Saxagliptin	X	Major	A	Unknown	Intermediate to delayed
Alogliptin	X	Major	A	Unknown	Intermediate to delayed
Flecainide	X	Major	A	Negative inotrope, proarrhythmic effects	Immediate to intermediate
Disopyramide	X	Major	B	Negative inotrope, proarrhythmic effect	Immediate to intermediate
Sotalol	X	Major	A	Proarrhythmic properties, beta blockade	Immediate to intermediate
Dronedarone	X	Major	A	Negative inotrope	Immediate to intermediate
<b>Alpha-1 Blocker</b>					
Doxazosin	X	Moderate	B	Beta-1-receptor stimulation with increases in renin and aldosterone	Intermediate to delayed
Diltiazem	X	Major	B	Negative inotrope	Immediate to intermediate
Verapamil	X	Major	B	Negative inotrope	Immediate to intermediate
Nifedipine	X	Moderate	C	Negative inotrope	Immediate to intermediate
Complete table can be viewed at: <a href="https://www.ahajournals.org/doi/full/10.1161/cir.0000000000000426">https://www.ahajournals.org/doi/full/10.1161/cir.0000000000000426</a>					

COX indicated cyclo-oxygenase

HF, heart failure

LOE, Level of Evidence

NSAID, nonsteroidal anti-inflammatory drug

Adapted from Page RL 2nd et al.<sup>57</sup> Copyright 2016 American Heart Association Inc.

Reference: 2022 AHA/ACC/HFSA guideline for the management of heart failure. professional.heart.org. (2022, April 1). Retrieved October 9, 2022, from-  
[https://professional.heart.org/en/science-news/2022-guideline-for-the-management-of-heart-failure#:~:text=Guideline%2Ddirected%20medical%20therapy%20\(GDMT\),a%20team%20specialized%20in%20HF](https://professional.heart.org/en/science-news/2022-guideline-for-the-management-of-heart-failure#:~:text=Guideline%2Ddirected%20medical%20therapy%20(GDMT),a%20team%20specialized%20in%20HF)



# GLIN Pharmacy Team

## What can they do?

Provide comprehensive medication management services to patients

- Pharmacist-led medication titration recommendations
- Assistance with therapeutic drug monitoring
- Assess barriers to care affecting adherence to medications
  - √ Cost
  - √ Transportation issues
  - √ Side effects

Medication reconciliation post-hospital follow-up for complex patients

- Looking at all meds to ensure therapies are appropriate, not just ones adjusted during admission

**Pharmacy Phone Number**  
(716) 800-CARE (2273)  
OPT. 4

Work with the GLIN pharmacist in your office to develop an individualized referral pathway

**Pharmacy Email**  
pharmacy@glin.com



# Patient Outreach Resources

## Care Navigation/Post-Acute Care

✓ Post-Acute Care is a collaborative effort comprised of network hospitals, physicians, skilled nursing facilities (SNF), and community services focused on our patients and their experience after an acute hospital stay.

✓ If you have a patient or a family member in need of support, or your practice would like assistance coordinating post-acute services, please (716) 800-CARE (2273) OPT. 5

## Care Management

✓ The care management team ensures patients are getting comprehensive, patient-centered care for all aspects of their health. Understanding the underlying dynamics of their patient's health, including social aspects, allows the care managers to develop care coordination, help minimize hospital visits, and increase patient awareness to self-manage their symptoms.

✓ If you have a patient in need of support, or your practice would like assistance coordinating support and services, please (716) 800-CARE (2273) OPT. 3



For more information, call (716) 304-1214 or email [info@pathwaysPCP.org](mailto:info@pathwaysPCP.org). Referrals can be faxed to (716) 731-4579




 Great Lakes Integrated Network

# Nutritional Services

## GLIN: GPPC Nutrition Team

 (716) 800-CARE (2273) OPT 5

 (716) 631-8408

\* Telehealth is available.

## Kaleida Health

 (716) 859-2821 (BGMC)

 (716) 586-3664 (MFSH)


 (716) 586-3019

 [www.kaleidahealth.org](http://www.kaleidahealth.org)

 **Buffalo General Medical Center (BGMC)**  
100 High Street  
Buffalo, NY 14203

**Millard Fillmore Suburban Hospital (MFSH)**  
1540 Maple Road  
Williamsville, NY 14221

## Lifestyle Nutrition WNY, PLLC

 (716) 222-0297


 (716) 794-9466


 [www.lifestylenutritionwny.com](http://www.lifestylenutritionwny.com)

 **Amherst:**  
1306 Sweet Home  
**Clarence:**  
9097 Main Street  
**Niagara Falls:**  
10175 Niagara Falls Blvd  
**Orchard Park:**  
3065 Southwestern Blvd, Suite 102  
**Williamsville:**  
30 North Union Rd, Suite 101

\* Telehealth is available.


## Custom Dietetics, P.C.

 (716) 626-7415

 (716) 632-0389

 [www.customdietetics.com](http://www.customdietetics.com)

 [info@customdietetics.com](mailto:info@customdietetics.com)

 **Williamsville:**  
2801 Wehrle Drive, Suite 4  
Williamsville, NY 14221

\* Telehealth is available  
Does not accept: Wellcare, BCBS Medicaid, BCBS Essential Plans

## Personalized Health Nutrition, PLLC


 (716) 710-7022 \*Diabetes/Pre-Diabetes  
Nutrition Counseling Only


 (716) 710-7022

 [www.phnutritiondiabetes.com/visit-us](http://www.phnutritiondiabetes.com/visit-us)

 **Amherst:**  
6000 N. Bailey Ave, Suite 1D  
**Orchard Park**  
3675 Southwestern Blvd, Suite 100  
3671 Southwestern Blvd, Suite 101  
**West Amherst:**  
3950 East Robinson Rd, Suite 207  
**West Seneca:**  
1026 Union Road  
**Williamsville:**  
1150 Youngs Rd, Suite 104  
300 International Drive, Suite 125

## AMS Nutrition Counseling, PLLC

 (716) 266-6056

 (716) 332-6412

 [www.amsnutritioncounseling.com](http://www.amsnutritioncounseling.com)

 [amy@AMSnutritioncounseling.com](mailto:amy@AMSnutritioncounseling.com)

 **Lockport:**  
6411B Dysinger Road

\* Telehealth is available  
Does not accept: BCBS Medicaid, BCBS Child Health Plus Plans and Healthier Life Plans

### Things to consider:

- NYS Medicaid and Fidelis do not cover any dietitian visits
- Only Medicare patients with diagnoses of CKD (stage 3 through stage 5) or diagnosis of diabetes are covered for dietitian services
- Referrals may or not be needed based on the specific payer, so referrals would be suggested to streamline patient scheduling with a dietitian

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# CHF HCC Coding Resources

For further questions, please reach out to [coding@glin.com](mailto:coding@glin.com)

- I50.x codes represent Heart Failure HCC codes. All the I50 codes have the same weight, meaning that differentiating I50.2 vs I50.3 (HFrEF vs HFpEF) **DOES NOT CHANGE** the Per Member Per Month reimbursement
- However, specificity can have an impact on how we treat our patients, so some degree of specificity is necessary

Diagnoses	HCC Codes	Considerations
Asymptomatic Heart Failure (AHA B)	I50.9	Generic Heart Failure code
Heart Failure with reduced Ejection Fraction	I50.2	
Heart Failure with preserved Ejection Fraction	I50.3	



# CHF HCC

## Coding Resources

### Supporting Documentation for Risk Adjustment

**MEAT** is an acronym to help aid in defining what supports a diagnosis in the medical record. Only one of these elements need to be present with a diagnosis to support it within the medical record.

#### **MONITOR**

signs, symptoms, disease progression, disease regression

#### **EVALUATE**

test results, medication effectiveness, response to treatment

#### **ASSESS/ADDRESS**

ordering tests, discussion, review records, counseling

#### **TREAT**

medications, therapies, other modalities

### CHF Examples of Supporting Documentation (MEAT)

**Where should MEAT be located in the medical record?** Assessment/Plan

#### **MONITOR**

- ✓ “Patient reports shortness of breath with activity or when lying down, Swelling in the legs, ankles, and feet, weight gain, reduced ability to exercise, irregular heartbeat, chronic cough, and progressive fatigue and weakness.”

#### **EVALUATE**

- ✓ “On physical Exam: findings of Lower extremity edema, crackles at the lung bases, JVD, gallop.”
- ✓ “The echocardiogram, BNP, ECG, Stress test, and CMP results were as follows: document findings.”
- ✓ “Patient improved symptoms after diuretic therapy.”

#### **ASSESS/ADDRESS**

- ✓ “Due to patient symptoms and physical exam findings the following was ordered: Echo, Chest X-ray BNP, ECG, Stress test, CMP”
- ✓ “Patient advised to follow a low sodium diet, and to monitor daily weights. Advised to call office if experiencing shortness of breath on exertion, weight gain of more than 2 lbs. in two days or 5 lbs. in one week, increased weakness or fatigue, worsened cough, inability to lie flat or using more pillows to sleep, and worsened leg swelling.”

#### **TREAT**

- ✓ “HFrEF: Patient most recent EF  $\leq$  40. Patient on QUAD therapy Mineralocorticoid Receptor Antagonist, Angiotensin Receptor Neprilysin inhibitor, SGLT-2, and Beta Blocker. Patient to continue on diuretic therapy”



# CHF HCC

## Coding Resources

### CHF Macro Examples

#### ✓ **.HFrEF**

New onset Symptomatic (Symptoms) Heart failure with reduced ejection fraction evidenced by EF less than 40%. Start pharmacological management with Jardiance, Entresto, Spironolactone, Metoprolol succinate. Discussed watching salt intake and monitoring daily weights. Advised to call us if weight increases by 2 lbs. in two days or 5 lbs. in a week. Diuresis with Lasix.

#### ✓ **.HFpEF**

New onset Symptomatic (Symptoms) Heart failure with preserved ejection fraction evidenced by EF greater than 50%. Start pharmacological management with Jardiance and Spironolactone. Discussed watching salt intake and monitoring daily weights. Advised to call us if weight increases by 2 lbs. in two days or 5 lbs. in a week. Diuresis with Lasix.



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