

Heart Failure Toolkit for PCPs



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Introduction Letter

February 15, 2024

Dear Providers:

Banner Plans & Networks (BPN) providers continue to make strides in impacting the quality of care for our members, and as part of the ongoing work our Cardiology Clinical Strategy Committee has devised clinical best practices and a toolkit for PCPs to improve outcomes for patients with heart failure.

Within BPN's Medicare & Medicare Advantage populations, around 18% of members have a heart failure diagnosis, which is above the national average. Additionally, heart failure is often mis- or under-diagnosed, leading to members not getting appropriate care early in their disease state¹.

BPN's heart failure patients have an average annual medical spend about \$17,400 more than those without diagnosed heart failure. Hospital readmission and emergency department visits are twice as likely to happen with this patient population and they are 5 times more likely to have an inpatient hospital stay.

To help us better manage patients with heart failure, we have included these tools:

- Heart Failure Best Practices
- Heart Failure Medication Guidelines
- Heart Failure Coding and Clinical Documentation Resource
- Heart Failure Patient Resources
 - HF Action Plan
 - Care Management Referral Form

In addition to the resources provided in the toolkit, this video series from American Journal of Managed Care, featuring Banner Aetna's Dr. Robert Groves, offers helpful insights for treatment of heart failure in primary care.

https://www.ajmc.com/view/identifying-key-risk-factors-for-heart-failure

Thank you for taking the time to review these materials. We hope these resources assist you in your practice. Thank you for your ongoing work to help BPN make health care easier, so life can be better. Please consult your Care Transformation Consultant with questions.

Sincerely,

Dr. Ed Clarke, MD

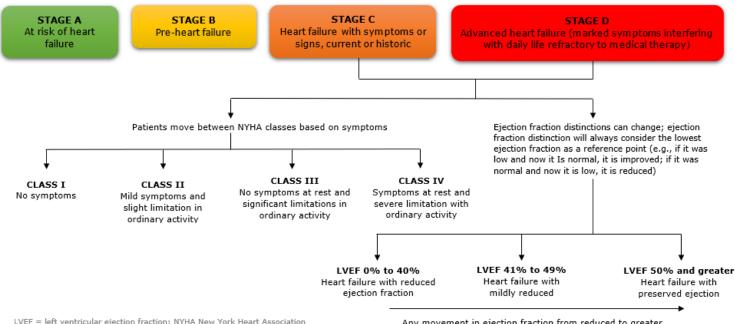
VP, CMO Banner Plans & Networks

Care Guidelines

Care Guidelines: Heart Failure (HF)

Heart failure is one of the most common causes of heart-related illness and death in the United States. In fact, it is one of the most common reasons people aged 65 and older go into the hospital. Therapy should be individualized based on comorbid conditions, overall clinical status, tolerance to, and possible contraindications to guideline-directed medical therapy (GDMT).

HF Classification (1)



Adapted from the American Academy of Family Physicians

Any movement in ejection fraction from reduced to greater than 40% is heart failure with improved ejection fraction

Non-Pharmacologic Heart Failure Management

Regular provider clinical re-evaluation and care	 Frequency is dependent on the severity of HF symptoms and comorbid conditions Early post-discharge provider follow-up (within 7 days) Annual Wellness Visit (AWV)
Lifestyle modification	 Diet Exercise Weight loss Smoking cessation Alcohol use counselling (≤2 standard drinks/day for men; ≤1 standard drink/day for women) Substance use disorder (SUD) management
Comprehensive self-care education	Include education on HF Action Plan
Psychosocial care: Address potential barriers to self-care	 Screen for depression, social isolation, frailty, low health literacy, and SUD Screen for Social Determinants of Health (SDOH) and refer to appropriate resource
Coordinated Care (Multi-disciplinary care team approach)	To include: PCP Consider Cardiology co-management. Care Management team (RN, SW, Pharmacy, RD, etc.)
Exercise training/cardiac rehabilitation	Consider in compensated NYHA class II-III
Timely palliative or hospice care discussions	Patients with advanced HF refractory to optimum GDMT
Complete Vaccination Evaluation	Influenza, Covid-19, Pneumococcal, etc.

Best Practices

Primary Guideline-Directed Medical Therapy (GDMT) (1)(2)

Stage	LVEF	NYHA Functional	Management Recommendations
		Classification	
Α	NA	NA	Control comorbidities
_			Consider SGLT-2i in diabetics
В	>40%	NA	Control comorbidities
	4400/	Class I	Consider SGLT-2i in diabetics Control comorbidities
	<u><</u> 40%	Class I	ACEi (preferred) or ARB
			Consider Heart failure-specific beta blockers
			Consider SGLT-2i in diabetics
C and D	≥50% (HFpEF)	Class I	Control comorbidities
			Consider SGLT-2i in diabetics
		Class II-IV	Control comorbidities
			Loop diuretics, if congested
			Consider SGLT-2i
			Consider (based on lower end LVEFs and
			comorbidity):
			ARNi (preferred) or ACEi or ARB
			 Heart failure-specific beta blockers MRA
	41%-49% (HFmrEF)	Class I	Control comorbidities
	4170-4970 (IIIIIIIIII)	Class II-IV	Control comorbidities
		Class II IV	Loop diuretics, if congested
			SGLT-2i
			Consider:
			 ARNi (preferred) or ACEi or ARB
			 Heart failure-specific beta blockers
			MRA
	<u><</u> 40% (HFrEF)	Class I	Control comorbidities
			ACEi or ARBs
		Class II-III	Heart failure-specific beta blockers
		Class II-III	Control comorbidities ARNi (preferred) or ACEi or ARB
			Heart failure-specific beta blockers
			MRA
			Loop diuretics, if congested
			SGLT-2i
		Class IV	Control comorbidities
			Heart failure-specific beta blockers
			Loop diuretics, if congested
			MRA
			SGLT-2i
	Improved from ≤40%	All classes	Continue GDMT based on lowest previous EF even
	(HFimpEF)		in asymptomatic patients to prevent relapse.

Indications For Cardiology Co-Management Referral (3)

- Persistent NYHA Functional class III-IV symptoms while on optimum GDMT
- Systolic BP <90 mmHg or symptomatic hypotension
- Creatinine >1.8 or BUN >43 MG/DL
- Presence of the following history: Atrial Fibrillation, Ventricular Arrhythmias, repetitive ICD shocks
- >2 ED visits or hospitalizations for worsening HF in prior 12 months
- Persistently reduced LVEF < 35% despite > 3 months on optimum GDMT (for consideration of device therapy if no previous use of ICD or CRT)

These guidelines serve to assist in the management, documentation, and coding of clinical diagnoses. The intent of this document is to supplement, but not replace, the provider's clinical judgement.



Medication Guidelines: Heart Failure (HF)

Primary Heart Failure Pharmacological Therapy

Drug Class	Use/Indication	Drug Options	Starting Dose	Target Dose		
Drug Class	-	ARNi, ACEi, or AR		rarget bose		
Allow a 36-hour washout period when switching from an ACEi to ARNi to minimize potential for angioedema. No washout period is necessary for patients previously on an ARB.						
Angiotensin II receptor blocker, neprilysin inhibitor (ARNi)	In HFrEF and NYHA II-III, the use of ARNi is recommended to reduce morbidity and mortality. In select HFpEF patients with persistent symptoms and uncontrolled BP despite SGLT2i and MRA optimal therapy, ARNi may be considered to reduce hospitalizations especially in those with lower end of the spectrum LVEF.	Sacubitril/ valsartan	24/26mg- 49/51mg BID	97/103mg BID		
Ace-inhibitor (ACEi)	Used as second line therapy if ARNi is not tolerated or is not affordable. The use of ACEi is beneficial in reducing morbidity and mortality.	Captopril Enalapril Fosinopril Lisinopril Perindopril Quinapril Ramipril Trandolapril	6.25mg TID 2.5mg BID 5-10mg QDay 2.5-5mg QDay 2mg QDay 5mg BID 1.25-2.5mg QDay 1mg QDay	50mg TID 10-20mg BID 40mg QDay 20-40mg QDay 8-16mg QDay 20mg BID 10mg QDay 4g QDay		
Angiotensin II receptor blocker (ARB)	In patients with previous or current symptoms of chronic HFrEF who are intolerant to ACEi because of cough or angioedema and when the use of ARNi is not feasible, the use of ARB is recommended to reduce morbidity and mortality.	Candesartan Losartan Valsartan	4-8mg QDay 25-50mg QDay 20-40mg QDay	32mg QDay 50-150mg QDay 160mg BID		
Heart Failure Beta Blocker	Indicated in HFrEF and HFmrEF. Considered in HFpEF if comorbidity warrants. Can also be considered in HFpEF at lower end of LVEF range. The use of one of the three HF beta blockers is recommended to reduce mortality and hospitalizations.	Bisoprolol Carvedilol Carvedilol CR Metoprolol (CR/XL)	1.25mg QDay 3.125mg BID 10mg QDay 12.5-25mg QDay	10mg QDay 25-50mg BID 80mg QDay 200mg QDay		

David Class	Hee /Tradication	Drug Ontions	Starting Dogo	Tayret Dese
Drug Class SGLT2-inhibitor	Use/Indication SGLT2-inhibitors are recommended to reduce hospitalization for HF and cardiovascular mortality irrespective of the presence of type 2 diabetes. Caution initiating with impaired renal function. Avoid use in Type	Drug Options Dapagliflozin Empagliflozin	Starting Dose 10mg QDay 10mg QDay	Target Dose 10mg QDay 10mg QDay
Mineralocorticoid Receptor Antagonist (MRA)	1 diabetics and in diabetics with history of or predisposition to DKAs. MRA can be used in both HFrEF and HFpEF with evidence of weaker efficacy in HFpEF than in HFrEF. MRA can be used if eGFR >30mL/min/1.73m² and serum potassium is <5.0 mEq/L. Careful monitoring of potassium, renal function, and diuretic dosing should be performed at initiation and closely monitored according to clinical status (approximately 1 week, then 4 weeks, then every 6 months afterward) to minimize risk of hyperkalemia and renal insufficiency.	Spironolactone Eplerenone	12.5-25mg QDay 25mg QDay	25-50mg QDay 50mg QDay

Medications to Avoid with Heart Failure (not-all inclusive)

Medication Class	Rationale	Alternatives to consider
Thiazolidinediones (in	Increases risk of HF	Metformin (in stable heart
HFrEF) ⁽¹⁻³⁾	decompensation/hospitalizations	failure) or SGLT2 inhibitor if
		appropriate
Non-dihydropyridine	Higher risk of recurrent HF	Amlodipine
calcium channel blockers	symptoms	
(in HFrEF) ⁽¹⁾⁽⁴⁻⁶⁾		
NSAIDs (1)(7-8)	Increases morbidity and	Acetaminophen
	mortality	
DDP-4 (Saxagliptin and	Concern for increased risk of HF	Metformin (in stable heart
Alogliptin only) ⁽¹⁾⁽⁹⁾	hospitalizations	failure) or SGLT2 inhibitor if
		appropriate

ACEi/ARBs should not be used with a history of angioedema/other allergic reactions. Caution utilizing ARNIs with hypotension, advanced kidney disease, or hyperkalemia. (1) These situations may require ARNI temporary discontinuation, lower dosing, or switching between classes. True contraindications to goal directed medication therapy are rare, such as advanced degree atrioventricular block and the use of beta blockers in the absence of pacemakers, or cardiogenic shock that has not resolved.

These guidelines serve to assist in the management, documentation, and coding of clinical diagnoses. The intent of this document is to supplement, but not replace, the provider's clinical judgement.

Heart Failure Coding

Coding and Clinical Documentation

Providers should document the etiology, type, and acuity of congestive heart failure (CHF) whenever possible:

Type of Heart Failure

- Systolic, Diastolic or Combination Systolic and Diastolic
- Left or right sided
- End-stage

Acuity/Status of the Condition

- Acute (decompensated)
- Chronic (compensated)
- Acute on chronic
- Historical condition only

Also include any causative factors, such as alcohol, diabetes, hypertension, ischemia, kidney disease, rheumatic, etc.

Terms such as *diastolic dysfunction* or *restrictive ventricular disease* are not synonymous with heart failure and requires provider linkage to heart failure to select the appropriate code. The Coder should query for the provider for the specific condition(s).

Coding Guidelines - Congestive Heart Failure (CHF) - I50.XX

Remember to first code the following diagnoses, if applicable:

Code First

- heart failure complicating abortion or ectopic or molar pregnancy (O00-O07, O08.8)
- heart failure due to hypertension (I11.0)
- heart failure due to hypertension with chronic kidney disease (I13.-)
- heart failure following surgery (I97.13-)
- obstetric surgery and procedures (075.4)
- rheumatic heart failure (I09.81)

Excludes 2 Note: The following codes are allowed to be coded with the CHF codes, if applicable and documented by the clinician:

- cardiac arrest (I46.-)
- neonatal cardiac failure (P29.0)

Important to remember

When seeing your patient for a post hospitalization follow-up for heart failure, add the appropriate diagnosis code and documentation for the patient's health status at the time of the visit. Do not utilize the inpatient admit and discharge diagnoses.

Hypertensive Heart Disease

Essential hypertension is the most common ICD-10 diagnosis used across the country. It is also known that hypertension, especially uncontrolled hypertension, is a precursor for many other complicated health conditions, such as heart failure and chronic kidney disease (CKD). Some providers may not be aware that the AMA assumes a causal relationship between hypertension and the previously mentioned diseases. So much so, that for CKD *not to be linked* to hypertension, the

provider is required to document that the patient's declining kidney health is due to another reason, like polycystic kidney disease.

CMS 165, the Controlling High Blood Pressure (C-HBP) quality metric, looks for two things when determining who falls into the denominator for the C-HBP quality measure:

- A diagnosis of essential hypertension (I10) during the previous year or first 6 months of the current measurement year.
- A qualifying adult outpatient encounter.

If your patient has hypertension, heart failure, and/or CKD, you will want to select the diagnosis code most appropriate for them.

There are two key elements that *must be included* when using the hypertensive heart and/or chronic kidney disease diagnoses:

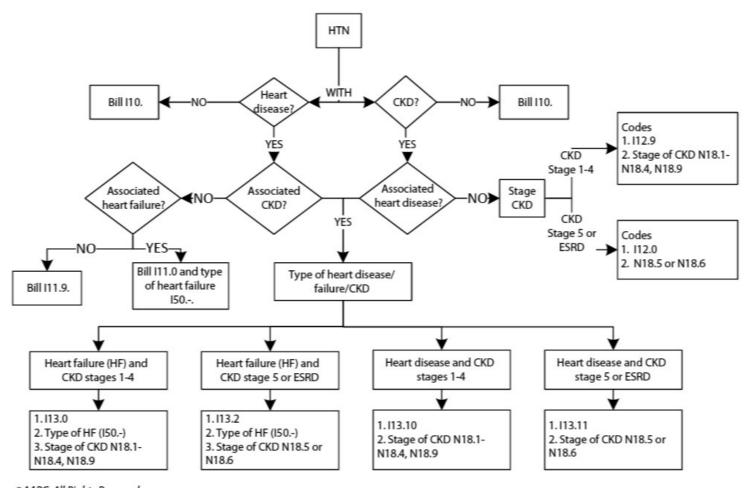
- 1. You must include the corresponding diagnoses in the same visit encounter:
 - Systolic (congestive) heart failure, unspecified I50.20
 - o Chronic combined systolic and diastolic heart failure I50.42
 - Heart failure, unspecified I50.9
 - CKD Stage 3b N18.32
 - CKD Stage 5 N18.5
- 2. You must include the appropriate documentation to support your medical decision making for this diagnosis. Remember the MEAT mnemonic may help!

Below is an Assessment and Plan example of appropriate documentation for a patient who has hypertensive heart disease.

- Mr. X is a 68-year-old male patient seeing his PCP for his annual physical.
 - Hypertensive heart disease with systolic heart failure (I11.0, I50.02)
 - BP 152/88 today. On Diovan HCT with moderate control. Review of labs show potassium 3.8. Plus 1 pitting edema in bilateral ankles/feet. Has scheduled follow-up with cardiologist next week. No changes to meds.

Remember to always tell the best patient story when selecting the most appropriate diagnosis and completing your documentation!

Coding Decision Tree



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Heart Failure Coding

Heart Failure Diagnosis	ICD-10-CM Diagnosis Code	HEDIS Exclusion	Frailty Diagnosis	Which Quality Metric	Coding Guidelines and Documentation Best Practice
Rheumatic heart failure	I09.81	**	Yes		There is no causal relationship to hypertension with this diagnosis.
Left ventricular failure, unspecified	I50.1	**	Yes		If a more specific diagnosis is known, do not use this code.
Unspecified systolic (congestive) heart failure	150.20	**	Yes		If the diagnosis used includes preserved ejection fraction, you will need to document the most recent HFpEF in your note.
Acute systolic (congestive) heart failure	I50.21	**	Yes		Acute conditions are expected to resolve and should not be added month after month.
Chronic systolic (congestive) heart failure	I50.22	**	Yes		
Acute on chronic systolic (congestive) heart failure	I50.23	**	Yes		Acute conditions are expected to resolve and should not be recaptured annually.
Unspecified diastolic (congestive) heart failure	150.30	**	Yes		
Acute diastolic (congestive) heart failure	I50.31	**	Yes		Acute conditions are expected to resolve and should not be recaptured annually.
Chronic diastolic (congestive) heart failure	I50.32	**	Yes		
Acute on chronic diastolic (congestive) heart failure	I50.33	**	Yes		Acute conditions are expected to resolve and should not be recaptured annually.
Unspecified combined systolic (congestive) and diastolic (congestive) heart failure	150.40	**	Yes		
Acute combined systolic (congestive) and diastolic (congestive) heart failure	I50.41	**	Yes		Acute conditions are expected to resolve and should not be recaptured annually.
Chronic combined systolic (congestive) and diastolic (congestive) heart failure	I50.42	**	Yes		
Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure	150.43	**	Yes		Acute conditions are expected to resolve and should not be recaptured annually.
Right heart failure, unspecified	I50.810	**	Yes		If a more specific diagnosis is known, do not use this code.

^{** =} The diagnosis is considered a frailty and/or advanced illness diagnosis and may aid in a quality metric exclusion.



Heart Failure Diagnosis	ICD-10-CM Diagnosis Code	HEDIS Exclusion	Frailty Diagnosis	Which Quality Metric	Coding Guidelines and Documentation Best Practice
Acute right heart failure	I50.811	**	Yes		Acute conditions are expected to resolve and should not be recaptured annually.
Chronic right heart failure	I50.812	**	Yes		
Acute on chronic right heart failure	I50.813	**	Yes		Acute conditions are expected to resolve and should not be recaptured annually.
Right heart failure due to left heart failure	I50.814	**	Yes		
Biventricular heart failure	150.82	**	Yes		
High output heart failure	150.83	**	Yes		
End stage heart failure	150.84	**	Yes		
Other heart failure	150.89	**	Yes		If this diagnosis is selected, the "other" type of heart failure must be noted in the documentation.
Heart failure, unspecified	I50.9	**	Yes		If a more specific diagnosis is known, do not use this code.
Pediatric Heart Failure	ICD-10-CM Diagnosis Code	HEDIS Exclusion?	Frailty Diagnosis?	Which Quality Metric	Coding Guidelines and Documentation Best Practice
Neonatal cardiac failure	P29.0	No	NA	NA	New diagnosis to risk adjustment model in 2024.
Hypertensive Heart Disease	ICD-10-CM Diagnosis Code	HEDIS Exclusion?	Frailty Diagnosis?	Which Quality Metric	Coding Guidelines and Documentation Best Practice
Hypertensive heart disease with heart failure	I11.0	Yes	Yes	СВР	There is an assumed causal relationship between hypertension and heart failure. Therefore, if the patient's HF is not due to hypertension, you will need to add the cause of the heart failure to your documentation.

^{** =} The diagnosis is considered a frailty and/or advanced illness diagnosis and may aid in a quality metric exclusion.

Key	
Controlling High Blood Pressure	СВР
Kidney Health Evaluation for Patients with Diabetes	KED

Hypertensive Heart Disease	ICD-10-CM Diagnosis Code	HEDIS Exclusion?	Frailty Diagnosis?	Which Quality Metric	Coding Guidelines and Documentation Best Practice
Hypertensive heart disease without heart failure	I11.9	Yes	No	СВР	There is an assumed causal relationship between hypertension and heart failure. Therefore, if the patient's HF is not due to hypertension, you will need to add the cause of the heart failure to your documentation.
Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease	I13.0	Yes	Yes	СВР	There is an assumed causal relationship between hypertension and heart failure. Therefore, if the patient's HF is not due to hypertension, you will need to add the cause of the heart failure to your documentation.
Hypertensive heart and chronic kidney disease without heart failure, with stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease	I13.10	Yes	No	СВР	There is an assumed causal relationship between hypertension and heart failure. Therefore, if the patient's HF is not due to hypertension, you will need to add the cause of the heart failure to your documentation.
Hypertensive heart and chronic kidney disease without heart failure, with stage 5 chronic kidney disease, or end stage renal disease	I13.11	Yes	Yes	CBP, KED	There is an assumed causal relationship between hypertension and heart failure. Therefore, if the patient's HF is not due to hypertension, you will need to add the cause of the heart failure to your documentation.
Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease	I13.2	Yes	Yes	CBP, KED	There is an assumed causal relationship between hypertension and heart failure. Therefore, if the patient's HF is not due to hypertension, you will need to add the cause of the heart failure to your documentation.

Key	
Controlling High Blood Pressure	СВР
Kidney Health Evaluation for Patients with Diabetes	KED

Palliative Care - ICD-10-CM: Z51.5

Quality Metric Exclusions:

- Palliative Care, Pregnancy, Death during the measurement year, ESRD, Dialysis
- Kidney transplant, Nephrectomy, Age 66 0 w/ dx of frailty AND advanced illness, or age ≥ 81 two indications of frailty during two different encounters



Care Management and Support Resources

HF Action Plan

Heart Failure Action Plan

≫ Banner Health.

Heart Failure Action Plan

tobacco, you must quit



Breathing: No shortness of breath or trouble breathing at rest or with minimal activity Weight: No weight gain Swelling: No swelling in your feet, ankles, or legs Action Plan Plan time every day for walking or other activities, unless your health care provider has given you other instructions Take all medications as directed Continue to weigh yourself every day Eat low-sodium diet If you smoke or chew



Yellow Light: Caution	Action Plan
Breathing: Shortness of breath at rest, with minimal activity, or while lying flat, and having to sleep with multiple pillows or sitting upright	Call your health care provider if you have any of these symptoms
 Weight: Weight gain of 2-3 pounds in one day, or 5 pounds within a week (whichever amount you were told to report) 	
 Swelling: Any signs of swelling in feet, ankles, legs or abdomen 	
• Fatigue: Constant feeling of tiredness	
Decrease in how much you urinate	



Action Plan
Call 911 now You need to see a health care provider immediately if you have any of these symptoms

Reference:

Banner Health Cardiology Clinical Consensus Group (2020)

This information is not intended as a substitute for professional medical care. Always follow your health care provider's instructions.



Care Management

Care Management Referral Form

Connect high risk AARP UHC MA, Banner Aetna, Banner MA HMO/PPO/Dual, BUFC ACC/ALTCS, Humana MA and MSSP members to Complex Care Management.

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CARE MANAGEMENT REFERRAL FORM

Completed Medical Forms can be sent to: Fax: 480-655-2537 or Email: BHNPopHealthManagement@BannerHealth.com Please send Maternal Health or Behavioral Health referrals to:

Appropriate stabilization of EMERGENT medical or behavioral health concerns shall be initiated through proper emergency or crisis services channels, BEFORE submitting Care Management Referrals. Care Management will outreach to the member within 24 business hours.

Referral Date:		
Member Information	Referral Information	
Primary Health Plan: Please Select	Requested By:	
Additional Insurances (If Any):	Requester Name:	
Name	Phone:	
Address:		
ID #:DOB:	Diagnosis:	
Phone: Language:	PCP:	
Reason(s) for Care Management Request		
MEDICAL		
General Medical Issues (ex: Member needs help understanding their diseases, coordinating care with their doctors, etc.)		
High or Inappropriate medical utilization (ex: frequent ER visits, frequent PCP changes, medication management issues)		
Post Discharge Assistance for continued care management support		
Medication Assistance (ex: education, cost barriers, adherence, and polypharmacy)		
Chronic condition / Newly diagnosed condition(s) (specify below)		
Non-adherence to PCP treatment plan, missed appointments and/or annual screening		
High Priority Transplant, HIV, Hemophilia member requesting assistance		
☐ Interdepartmental Medical Management request for immediate assistance		
Maternal Child Health – Pregnant, Postpartum (up to 1 year after delivery), Pediatric (under age 21), and CRS		
Dial Into Diabetes Program – Diabetic Care Management		
Home Safety Concerns		
Advance Directive / End of Life Planning		
Community Resources (ex: financial needs, transportation, caregiver support, support groups)		
ALTCS ONLY – Refer to assigned CM / RN		
Other (specify below)		
BEHAVIORAL STATE OF THE STATE O		
Routine BH referrals (ex: member requests advocacy for Behavioral Health or indicates need for BH assistance in some		
way that is not urgent or related to inpatient and/or medication) Member / Family member has questions about BH services, how to access covered services, complaints, etc.		
Suicidal / Homicidal caller. (Please refer <u>AFTER</u> you follow SI/HI protocol)		
Member requests referral for BH services (ex: therapy, groups, etc.)		
Mental Health needs (ex: Dementia, Alzheimer's, depression, substance abuse)		
Urgent need for psychotropic medication		
■ ALTCS ONLY – Refer to assigned CM/RN		
Other (specify below)		
	nal Comments (What happened? What do you want done?)	
Setano Relating to Reason for Referrar and Addition	ar comments (What happenear What do you want done.)	

Rev: 1/8/2024 (ECT)

Tool Kit Survey

To help us continuously improve our tool kits, education and communication with providers, please take this short survey regarding the Heart Failure Toolkit by scanning the QR code with your mobile device or visiting:

https://forms.office.com/r/VyUVNCnXgS



Thanks so much for your feedback!

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Banner Plans & Networks

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Resources for Coding

- CMS 2024 ICD-10-CM Coding Manual
- Optum 2024 ICD-10-CM Expert for Physicians
- 3M Coding reference- Integrated Codebook

Acronyms

ACEi: Angiotensin converting enzyme inhibitor

ARB: Angiotensin receptor blocker

ARNi: Angiotensin receptor-neprilysin inhibitor

AWV: Annual Wellness Visit
BHC: Banner Home Care
BHN: Banner Health Network

BID: Twice a day
BP: Blood pressure
BUN: Blood urea nitrogen
CHF: Congestive heart failure

CR: Controlled-release

CRT: Cardiac resynchronization therapy DDP-4: Dipeptidyl peptidase 4 inhibitor

ED: Emergency Department

EF: Ejection fraction

GDMT: Guideline-directed medical therapy

GLP-1 RA: Glucagon-like peptide 1 receptor agonists

HF: Heart Failure

HFimpEF: Heart failure with improved ejection fraction HFmrEF: Heart failure with midrange ejection fraction HFpEF: Heart failure with preserved ejection fraction HFrEF: Heart failure with reduced ejection fraction

ICD: Implantable cardioverter defibrillator LVEF: Left ventricular ejection fraction

mg/dL: Milligrams per deciliter mmHq: Millimeters of mercury

MRA: Mineralocorticoid receptor antagonist NSAIDs: Non-steroidal anti-inflammatory drugs

NYHA: New York Heart Association PCP: Primary Care Physician

PHS: Population Health Services Organization

Qday: Once a day

RD: Registered Dietician RN: Registered Nurse

SDOH: Social Determinants of Health

SGLT-2i: Sodium-glucose cotransporter-2 inhibitors

SUD: Substance Use Disorder

SW: Social Worker
TID: Three times a day
XL: Extended-release