Management of Congestive Heart Failure

OBJECTIVE
The objective of this Clinical Practice Guideline (CPG) is to provide evidence-based practice recommendations for the treatment of Congestive Heart Failure (CHF). The CPG discusses care management issues such as goals to support the Member in attaining treatment goals and lifestyle modifications. Behavioral health implications and Measureable Health Outcomes are discussed; the CPG also outlines the organizations that WellCare aligns with regarding CHF.

OVERVIEW
Congestive heart failure is a condition in which the heart cannot pump blood efficiently enough to meet body requirements. It can affect one or both sides of the heart. In some cases, the heart cannot fill with enough blood. In other cases, the heart cannot pump blood to the rest of the body with enough force. Common symptoms and complications of heart failure are:
- Blood and fluid back up into the lungs
- Buildup of fluid in the feet, ankles, legs (edema) and abdomen (ascites)
- Tiredness and shortness of breath
- Coughing that gets worse at night and when lying down

Risk factors include:
- Medical history of coronary artery disease, high blood pressure, high cholesterol and diabetes
- Age (65 and older are at higher risk)
- Men have a higher rate of heart failure than women
- Race (African-Americans are more likely to have heart failure than people of other races)
- Smoking, alcohol abuse or cocaine and other illegal drug use
- Being overweight or obese
- Sedentary lifestyle
- Diet high in fat, cholesterol and or salt
- Congenital defects (may cause heart failure during infancy or childhood)

For screening information related to CHF, visit the United States Preventive Services Task Force (USPSTF) website at https://www.uspreventiveservicestaskforce.org. In addition, refer to the following preventive CPGs: Adult Preventive Health: HS-1019, Pediatric Preventive Health: HS-1019, Adolescent Preventive Health: HS-1051, and Preventive Health for Older Adults: HS-1063.
CPGs are updated annually or as necessary due to updates made to guidelines or recommendations by the American College of Cardiology (ACC), the American Heart Association (AHA), the American College of Cardiology Foundation (ACCF), and the Institute for Clinical Systems Improvement (ICSI) guidelines. When there are differing opinions noted by national organizations, WellCare will default to the member's benefit structure as deemed by state contracts and Medicaid / Medicare regulations. If there is no specific language pertaining to CHF, WellCare will default (in order) to the following:

- National Committee for Quality Assurance (NCQA);
- United States Preventive Services Task Force (USPSTF), National Quality Strategy (NQS), Agency for Healthcare Research and Quality (AHRQ);
- Specialty associations, colleges, societies, etc. (e.g., American Academy of Family Physicians, American Congress of Obstetricians and Gynecologists, American Cancer Society, etc.).

Links to websites within the CPGs are provided for the convenience of Providers. Listings do not imply endorsement by WellCare of the information contained on these websites. NOTE: All links are current and accessible at the time of MPC approval.

WellCare aligns with the ACC, AHA, ACCF, and the ICSI on the topic of CHF. Highlights from their respective publications are noted below.

### CARDIOLOGY BASED ORGANIZATIONS

In addition, WellCare adopts the following guidelines from cardiology based organizations:

- **American College of Cardiology (ACC) and the American Heart Association (AHA)**
  Available at http://circ.ahajournals.org/content/129/25_suppl_2/S49.short?rss=1&ssource=mfr

- **AHA and ACC Task Force on Practice Guidelines**
  AHA/ACC **Guideline for the Management of Patients With Valvular Heart Disease: Executive Summary** (2014)
  Available at http://circ.ahajournals.org/content/129/23/2440.full

  *AHA/ACC Guidelines For the Management of Patients With Valvular Heart Disease: Focused Update. (2017)*
  Available at http://www.onlinejacc.org/content/70/2/252.full.pdf

- **AHA and the American College of Cardiology Foundation (ACCF)**
  Secondary Prevention and Risk Reduction Therapy for Patients With Coronary and Other Atherosclerotic Vascular Disease (AVD) (2011)
  Available at http://content.onlinejacc.org/article.aspx?articleid=1147807

### Evidence Based Practice

WellCare is committed to adhering to the measures and standards published by the Centers for Medicare and Medicaid Services (CMS) and the National Committee for Quality Assurance (NCQA). Please reference WellCare’s Clinical Policy Guiding Document titled *Quality Improvement*.

**NOTE:** To access Clinical Policy Guiding Documents visit [www.wellcare.com](http://www.wellcare.com) – select the Provider tab, then “Tools” and “Clinical Guidelines”.

### Care Management
The goals for Care Management is to support the member’s ability to self-manage their disease, minimize symptoms and complications of congestive heart failure, and remove barriers preventing the member from achieving those goals. Primary symptoms to educate member on include:

Call physician right away to report urgent symptoms:
- More short of breath during activities
- Increased swelling (edema) (legs, ankles and feet)
- Sudden weight gain (2-3 lbs since yesterday)
- Need for more pillows when sleeping to aid in better breathing
- Increasing discomfort or swelling in abdomen
- Dry, hacking cough

Seek emergency care for:
- Feeling weaker, dizzy, more tired
- Changes in heartbeat, rapid or irregular heartbeat
- Elevated blood pressure
- Short of breath when resting
- Persistent cough or wheezing with white or pink blood-tinged phlegm

Integrated care management of CHF involves:
- Supporting the member’s tobacco cessation efforts, alcohol moderation, and diet changes;
- Ensuring efficacy of and adherence to maintenance medications;
- Vaccinating against influenza and pneumonia; and
- Assess for risk of depression and poor coping skills and share with appropriate provider(s) if risks identified.

MEASURABLE HEALTH OUTCOMES

1. Targeted Health Outcomes (Extended Program Goals) result from successful member self-management (see Case Management Objectives). The member does not have weight gain of more than 2 pounds in any 24 hour period or 3 pounds in a week, over a specific period of time after the start of Case Management engagement. Compare average weight gains pre- and post-engagement. Case Management may use provider and/or member narrative for weights.

2. The member is able to maintain or improve activity level over a specific period of time after the start of Case Management engagement. Member-specific goals should identify the activities targeted for improvement. Compare member’s responses to daily activity assessment questions on initial and subsequent assessments.

3. The member reports fewer or lessening symptoms over a specific period of time after the start of Case Management engagement. Member-specific goals should reference member’s individual symptoms. Compare member’s responses to CHF symptom assessment questions on initial and subsequent assessments.

CASE MANAGEMENT GOALS

Case Goals should target specific care gaps and/or adherence issues, and measure the member’s progress towards self-management and adherence which will lead to the targeted health outcomes above. Examples:
- Member’s prescription refills demonstrate at least an 80% adherence rate (verified by claims or member/provider narrative) for [beta-blocker, ACE inhibitor, ARB, digoxin, other] over last 30 days.
- Member describes a low-salt, low-fat, low-cholesterol diet and an exercise regime over the last 30 days that demonstrates improved adherence to guidelines and/or physician recommendations.
- Member describes a routine that includes checking and logging blood pressure per physician recommendation over the last 30 days and shares log with physician.
- Specific for Members requiring hospitalization: The Member participates in provider follow-up visit within 7 days of hospital discharge.

Other measurable health outcomes may apply based on the underlying condition causing heart failure in the individual. Refer to those other CPGs for additional options for health outcomes, frequently coronary artery disease, hypertension or diabetes.

CASE MANAGEMENT OBJECTIVES
Case Management Objectives should focus on improving the member’s self-management skills including:

- Increasing physical activity as able and as prescribed by physician
- Balance physical activity with getting enough rest
- Following low-sodium, low-fat, low-cholesterol diet
- Limiting daily total fluid intake to what the physician recommends
- Aiming for a healthy weight (overweight and obesity increase strain on the heart)
- Taking medications as prescribed
- Check weight daily for early detection of fluid retention
- Adhering to provider visit(s) as scheduled
- Contacting the physician for urgent symptoms or seeking immediate care for emergent symptoms (see above)
- Keeping a log of daily weight, pulse and blood pressure readings to share with providers
- Tobacco cessation
- Avoiding second-hand smoke
- Early identification of oncoming symptoms to report timely to physician

The care team should also conduct risk screening and treat co-morbid anxiety and depression, if applicable.

OTHER CONSIDERATIONS

Overview of Integrated Physical and Behavioral Health

Providers should be mindful of the following behavioral health considerations when treating members with CHF:

- Continue to focus on screening for depression, anxiety, and substance use (including tobacco).
- While progression of heart disease worsens the prognosis for recovery from depression and anxiety, improvements can be seen at all stages.
- Help assess and manage for despondency and suicidal thoughts.
- Paradoxically members with HF frequently are too optimistic about their future: 90% with advanced HF will die within a year.
- Hospice may be an appropriate discussion.

Hypertension, Coronary Artery Disease, and Heart Failure may be seen as a continuum of illness related to:

- Unhealthy behaviors
- Behavioral conditions of depression, anxiety, and substance use (especially tobacco)
- Genetics
- Environmental factors

Medical treatments are directed to:

- Managing risk factors
- Improving healthy behaviors
- Medications to improve cardiovascular functions
- Managing medical co-morbidities such as COPD and Diabetes
- Preventing progression of disease

Behavioral health treatments are directed at:

- Motivational interviewing for changes in smoking and alcohol use
- Screening for depression, anxiety, PTSD, and substance use (especially tobacco)
- Social determinants of depression such as lack of housing, social isolation
- Encouragement of healthy behaviors such as exercise and taking prescribed medications

Sexual activity is a major quality of life issue for men and women with cardiovascular disease and their partners. People with heart failure frequently have physical problems with sex such as erectile dysfunction (impotence) Rarely some of the medications prescribed in heart failure may also cause such problems. Encourage frank discussion.
WellCare contracts with Krames/StayWell for Member educational materials utilized by Case Managers. Items are available to review with Members to address knowledge gaps. Case Managers verbally educate Members on the topics below related to CHF. (Titles may also be sent to the member).

NOTE: Links are internal for WellCare Care Management staff.

- Identifying Your Heart Risks - CHF
- Heart Failure: Tracking Your Weight
- Heart Failure: Being Active
- Coping with Your Diagnosis
- Heart Failure Warning Signs of a Flare-Up
- Cholesterol Quiz - CHF
- Taking Medication to Control Heart Failure
- Eating Healthy - CHF
- Angiotensin Receptor Blockers (ARBs)
- Tips for Using Less Salt - CHF
- Taking ACE Inhibitors
- Low-Fat Cooking Tips - CHF
- Taking a Diuretic
- Coping with Your Diagnosis
- Cholesterol Quiz - CHF
- Taking ACE Inhibitors
- Tips for Using Less Salt - CHF
- Low-Fat Cooking Tips - CHF

Providers may wish to research the titles above related to CHF that Case Managers utilize with Members.

**PHARMACOLOGY**

Hypertension is the primary cause of heart failure in many. As a result, medications may be prescribed to control blood pressure. These may include a beta-blocker, an angiotensin converting enzyme (ACE) inhibitor, or angiotensin II receptor blocker (ARB). Prescriptions to manage renal disease and use of diuretic medications may be needed with the use of spironolactone or eplerenone. Potassium and renal function must be routinely assessed to minimize the risk of life-threatening hyperkalemia (high potassium in the blood) with the use of these aldosterone antagonists. Digoxin can be used for rate control as well as low dose aspirin therapy to reduce mortality and morbidity risk.

**Related WellCare Guidelines**

In addition to the information contained in this document, please reference the following CPGs: Cholesterol Management (HS-1005); Coronary Artery Disease (HS-1002); and Hypertension (HS-1010). Information can also be found in the following age-specific Preventive Health CPGs: Adult: HS-1018 and Older Adult: HS-1063.

NOTE: Clinical Policies can be accessed by going to [www.wellcare.com](http://www.wellcare.com) – select the Provider tab, then “Tools” and “Clinical Guidelines”.

**References**


**Disclaimer**

Clinical Practice Guidelines (CPGs) made available by WellCare are informational in nature and are not a substitute for the professional medical judgment of treating physicians or other health care practitioners. CPGs are based on information available at the time and may not be updated with the most current information available at subsequent times. Individuals should consult with their physician(s) regarding the appropriateness of care or treatment options to meet their specific needs or medical condition. Disclosure of a CPG is not a guarantee of coverage and is not intended to
HISTORY AND EXAMINATION

The American College of Chest Physicians (ACCF) and the American Heart Association (AHA) issued a joint guideline on the management and treatment of individuals with heart failure. Providers should review the following items during the history portion of their assessment of the Member:

- Potential clues suggesting etiology of heart failure (HF)
- Duration of illness
- Severity and triggers of dyspnea and fatigue, presence of chest pain, exercise capacity, physical activity and sexual activity
- Anorexia and early satiety, weight loss
- Weight gain
- Palpitations, (pre)syncope, implantable cardioverter defibrillator (ICD) shocks or symptoms suggesting transient ischemic attack or thromboembolism
- Development of peripheral edema or ascites
- Disordered breathing at night, sleep problems
- Recent or frequent prior hospitalizations for HF
- History of discontinuation of medications for HF and history of medications that may exacerbate HF
- Diet
- Adherence to medical regimen

Providers should review the following items during the physical examination portion of their assessment:

- BMI and evidence of weight loss
- Pulse and blood pressure (supine and upright)
- Examination for orthostatic changes in blood pressure and heart rate
- Jugular venous pressure at rest and following abdominal compression
- Presence of extra heart sounds and murmurs
- Size and location of point of maximal impulse
- Presence of right ventricular heave
- Pulmonary status: respiratory rate, rales, pleural effusion
- Hepatomegaly and/or ascites
- Peripheral edema
- Temperature of lower extremities
In addition, Providers should request the following laboratory tests to further assess the Member:

- Complete blood count, urinalysis, serum electrolytes (including calcium and magnesium), blood urea nitrogen, serum creatinine, glucose, fasting lipid profile, liver function tests, and thyroid-stimulating hormone
- Serial monitoring, when indicated, should include serum electrolytes and renal function
- A 12-lead ECG should be performed initially on all members presenting with HF

### Stages and Treatment

#### Stages of Congestive Heart Failure

**Stage A** At risk for heart failure, but without structural heart disease or symptoms of heart failure. (e.g., members with hypertension, atherosclerotic disease, diabetes, obesity, metabolic syndrome)

**Stage B** Structural heart disease, but without signs or symptoms of heart failure. (e.g., members with previous MI, left ventricular remodeling including LVH and low ejection fraction, asymptomatic valvular disease)

**Stage C** Structural heart disease with prior or current symptoms of heart failure. (e.g., members with known structural heart disease and shortness of breath and fatigue, reduced exercise tolerance)

**Stage D** Refractory heart failure requiring specialized interventions. (e.g., members who have marked symptoms at rest despite maximal medical therapy)

#### Treatment Goals for Each Class

**Stage A** Treat all other diseases (e.g., hypertension, diabetes, lipid disorders, etc.), encourage smoking cessation, discourage alcohol use, discourage illicit drug use, encourage exercise. Drug therapy includes ACE (angiotensin converting enzyme) inhibitor or ARB (angiotensin II receptor blocker) in appropriate members for vascular disease and diabetes.

**Stage B** Take into account all of the steps for class one. Drug therapy includes ACE inhibitor or ARB’s. Also beta-blockers for appropriate members.

**Stage C** Take into account all of the steps for classes one and two. Also include dietary salt restriction. Drug therapy includes diuretics for fluid retention, ACE inhibitor, and Beta-blockers. For selected members, treatment may include Aldosterone antagonist, ARB, Digitalis, Hydralazine, or Nitrates.

**Stage D** Take into account all of the steps for the first 3 classes. Also reassess appropriate level of care.

### Annual Heart Failure Review

Providers should include the following in the member’s annual heart failure review:

- Characterization of clinical status
  - Functional ability, symptom burden, mental status, quality of life, and disease trajectory
  - Perceptions from caregiver
- Solicitation of member values, goals, and general care preferences
- Estimation of prognosis
  - Consider incorporating objective modeling data
  - Orient to wide range of uncertainty
- Review of current therapies
  - Indicated heart failure therapies in appropriate members (BB, ACEI/ARB, AA, CRT, ICD)
  - Treatment of comorbidities (AF, HTN, DM, CKD, etc.)
  - Appropriate preventive care, within the context of symptomatic heart failure
- Planning for future events/advance care planning
  - Resuscitation preferences
  - Desire for advanced therapies, major surgery, hospice
- Standardized documentation of the annual review in the medical record

### Heart Transplantation

Heart transplantation may be needed. Contraindications to cardiac transplantation are listed below:
**Absolute Contraindications**
- Systemic illness with a life expectancy of < two years despite heart transplant, including:
  - Active or recent solid organ or blood malignancy within five years (e.g., leukemia, low-grade neoplasms of prostate with persistently elevated prostate-specific antigen)
  - AIDS with frequent opportunistic infections
  - Systemic lupus erythematosus, sarcoid, or amyloidosis that has multisystem involvement and is still active
  - Irreversible renal or hepatic dysfunction in patients considered for only HT
  - Significant obstructive pulmonary disease (FEV<sub>1</sub> < 1L/min)
- Fixed pulmonary hypertension
  - Pulmonary artery systolic pressure >60 mmHg
  - Mean transpulmonary gradient >15mmHg

**Relative Contraindications**
- Age >72 years
- Any active infection (with exception of device-related infection in VAD recipients)
- Active peptic ulcer disease
- Severe diabetes mellitus with end-organ damage (neuropathy, nephropathy, or retinopathy)
- Severe peripheral vascular or cerebrovascular disease
  - Peripheral vascular disease not amenable to surgical or percutaneous therapy
  - Symptomatic carotid stenosis
  - Ankle brachial index <0.7
  - Uncorrected abdominal aortic aneurysm
- Morbid obesity (body mass index >35 kg/m<sup>2</sup>)
- Creatinine >2.5 mg/dL or creatinine clearance < 25 mL/min
- Bilirubin >2.5 mg/dL, serum transaminases >3X, INR >1.5 off warfarin
- Severe pulmonary dysfunction with FEV<sub>1</sub> < 40 percent normal
- Recent pulmonary infection within 6 to 8 weeks
- Difficult to control hypertension
- Irreversible neurological or neuromuscular disorder
- Active mental illness or psychosocial instability
- Drug, tobacco, or alcohol abuse within six months
- Heparin-induced thrombocytopenia within 100 days

**MEMBER EDUCATION**
The following points should be discussed with members undergoing treatment for CHF:
- Educate member on weight reduction, diet and exercise. Members should be instructed to record weight daily at home and contact the physician if there is any weight gain of more than 3-5 pounds since the last exam.
- For diabetic members, educate on how to take blood glucose levels, keep logs, and set goals for member.
- If member has hypertension, educate how to obtain blood pressure scores and set goals.
- Provide information on various side effects of medications; questions should be encouraged from the member.

<table>
<thead>
<tr>
<th>Drug Class</th>
<th>Side Effects</th>
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<tbody>
<tr>
<td>Aldosterone Antagonist</td>
<td>breast tenderness in females, deepening of voice in females, diarrhea, dizziness, drowsiness, headache, increased hair growth in females, irregular menstrual periods, nausea, vomiting, sexual difficulty, inability to have an erection, stomach pain or cramps, and indigestion</td>
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<tr>
<td>ACE inhibitors</td>
<td>cough, diarrhea, headache, increased sensitivity to the sun, nausea, tiredness, or fatigue</td>
</tr>
<tr>
<td>ARB</td>
<td>back pain, cough, fatigue, dizziness, lightheadedness, headache, sore throat, nasal congestion, runny nose</td>
</tr>
<tr>
<td>Beta-Blockers</td>
<td>diarrhea, dry itching skin, headache, nausea, sexual difficulties, impotence, or unusual tiredness</td>
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</tbody>
</table>
Digitalis  breast enlargement in men and women, and sexual problems such as impotence
Diuretics  dizziness or lightheadedness, headache, increased sensitivity to the sun, loss of appetite, stomach upset, pain, or cramps
Nitrates  dizziness or fainting, flushing of the face or neck, headache (common after a dose, but usually only lasts for a short time), irregular heartbeat, palpitations, nausea, and vomiting

In addition, providers should discuss the following self-care behaviors with members: 7

- Maintain current immunizations, especially influenza and Streptococcus pneumoniae
- Develop a system for taking all medications as prescribed
- Monitor for an unexpected decline in body weight and for signs/symptoms of shortness of breath, swelling, fatigue, and other indicators of worsening HF
- Restrict dietary sodium and alcohol intake; avoid other recreational toxins, especially cocaine
- Cease all tobacco use and avoid exposure to second-hand smoke
- Do not ignore emotional distress, especially depression and anxiety. Seek treatment early.
- Tell your provider about sleep disturbances
- Achieve and maintain physical fitness
- Visit your provider at regular intervals
- Talk to a pharmacist or other provider about herbal medicines.
- If diabetic, achieve diabetes mellitus treatment goals.

To promote self-care, skill development is vital for members. For example, helping them understand how to prepare meals, identifying low-sodium foods and reading food labels, how to read prescription drug information, and how to handle challenging situations such as maintaining self-care during vacation or dietary considerations at restaurants. Other areas to promote self-care include behavior change, enlisting family support and utilizing systems of care such as disease management and care coordination.

Another tool for Providers is Shared Decision Making (SDM) – it includes the following components: 6

1. SDM is the process through which clinicians and members share information and work toward decisions about treatment chosen from medically reasonable options aligned with the members’ values, goals, and preferences.
2. For members with advanced heart failure, SDM has become both more challenging and more crucial as duration of disease and treatment options have increased.
3. Difficult discussions now will simplify difficult decisions in the future.
4. Ideally, SDM is an iterative process that evolves over time as a member’s disease and quality of life change.
5. Attention to the clinical trajectory is required to calibrate expectations and guide timely decisions, but prognostic uncertainty is inevitable and should be included in discussions with members and caregivers.
6. An annual heart failure review with members should include discussion of current and potential therapies for both anticipated and unanticipated events.
7. Discussions should include outcomes beyond survival, including major adverse events, symptom burden, functional limitations, loss of independence, quality of life, and obligations for caregivers.
8. As the end of life is anticipated, clinicians should take responsibility for initiating the development of a comprehensive plan for end-of-life care consistent with member values, preferences, and goals.
9. Assessing and integrating emotional readiness of the member and family is vital to effective communication.
10. Changes in organizational and reimbursement structures are essential to promote high-quality decision making and delivery of member-centered health care.