

LifeBridge Physician Network Care Path **Heart Failure**

December 11, 2015

LBPN Care Path Aim: *To develop and implement standard protocols, based on the best evidence, that provide a consistent clinical experience for LifeBridge Health patients and allow us to quantitatively demonstrate to payers the high-value care we provide.*

Key Points:

- ✓ **Heart failure is a condition in which the heart cannot pump enough blood to meet the body's needs.**
- ✓ **Early diagnosis and treatment can help people who have heart failure live longer, more active lives.** Treatment for heart failure will depend on the type and stage of heart failure i.e., the severity of the condition (*use New York Heart Association Classification System*).
- ✓ **The goals of treatment for all stages of heart failure include,** treating the condition's underlying causes, reducing symptoms, stopping heart failure from getting worse, increasing lifespan and improving quality of life.
- ✓ **As heart failure worsens,** lifestyle changes and medicines may no longer control symptoms and a medical procedure or surgery may be required.
- ✓ **Heart Failure patients should be considered ideal candidates for Transitional Care Management (TCM) and Chronic Care Management (CCM) outreach.** Providers can receive additional reimbursements for both TCM and CCM services.

WHY? Rationale for Heart Failure Focusⁱ

- Approximately 5 million persons in the United States have heart failure, and according to the National Heart Lung and Blood Institute, the number is increasing
- Heart failure is the most frequent cause of hospitalization in U.S. patients older than 65 years, the primary cause of readmission within 60 days, and leads to about 300,000 deaths per year
- Despite recent advances in management of heart failure, the 30-day, 1-year, and 5-year mortality rates after hospitalization for heart failure are 10%, 22%, and 42%, respectively
- Heart failure costs the nation an estimated \$32 billion each year. This total includes the cost of health care services, medications to treat heart failure, and missed days of work.ⁱⁱ

WHAT? Evidence-Based Recommendations

I. **Risk Factors and Preventionⁱⁱⁱ:**

- Over the past decade, treatment of heart failure has shifted from focusing on acute exacerbations when the patient is “in” heart failure to treating heart failure as a chronic and potentially preventable syndrome.
- In the current model, there are risk factors that lead to heart failure, and modifying these risk factors can prevent symptoms and delay death. Risk Factors include:
 - Hypertension
 - Diabetes
 - Cardiotoxic Substance Abuse
 - Hyperlipidemia
 - Thyroid Disorders
 - Tachycardia
 - Coronary Artery Disease
- African Americans face an increased risk for heart failure and men have a higher rate of heart failure than women, although this difference narrows as women get older.
- Several classes of medications have been shown to prevent heart failure in at-risk populations. These include hydroxymethylglutaryl coenzyme A reductase inhibitors in patients with hyperlipidemia, ACE inhibitors in patients with diabetes, and nearly all antihypertensive medications when used to lower blood pressure to goal levels.
- Nondrug interventions include maintaining a healthy weight, regular exercise, and smoking cessation.

II. *Diagnosis*^{iv}:

- Dyspnea and fatigue are the primary symptoms of heart failure. In addition to history and physical examination, use 2-dimensional Doppler echocardiography to assess left ventricular function along with ECG and additional studies to determine the cause of the heart failure and to identify exacerbating factors.
- Patients with underlying risk factors, including CAD, valvular heart disease, and long-standing hypertension may be asymptomatic. Do not wait for symptoms to develop before evaluating and treating these patients for early left ventricular dysfunction.
- Heart failure has many causes, and it is sometimes useful to divide them into dilated, hypertrophic, and restrictive types.
- Determine New York Heart Association (NYHA) Classification:
 - NYHA class I (mild): Patient has asymptomatic left ventricular dysfunction. Normal physical activity does not cause undue fatigue, palpitation, or shortness of breath.
 - NYHA class II (mild): Patient has fatigue, palpitation, or shortness of breath with normal physical activity.
 - NYHA class III (moderate): Patient has shortness of breath with minimal activity, including usual activities of daily living.

- NYHA class IV (severe): Patient has shortness of breath at rest and is unable to perform any physical activity without discomfort. Physical activity of any kind increases discomfort.

III. **Treatment Strategy^v:**

- Determine NYHA functional class to guide treatment in patients with heart failure. Limit salt and fluid intake in patients with symptomatic heart failure, and recommend regular exercise as tolerated.
- Regardless of symptoms, begin firstline drug therapy with ACE Inhibitors or ARBs (or, if these are not tolerated, hydralazine and nitrates) as well as beta-blockers in patients who are not volume overloaded. When given a choice, ACEI/ARB should get priority over beta-blockers as trials have shown mortality benefits for beta-blockers with a background of ACEI/ARB therapy.
- Add loop diuretics and digoxin in patients with NYHA classes II, III, and IV heart failure and aldosterone antagonists in those with class III and IV heart failure.
- Consult a cardiologist in patients with severe heart failure who may require hospitalization for inotropic agents; placement of ICD devices, pacemakers, or left ventricular assist devices; or cardiac transplantation.
- Document which particular ACEI/ARB/beta-blocker the patient was taking at home prior to inpatient admission. In the event that the patient's medication was changed while in the hospital, ensure they are discharged with their existing medication so as to not disrupt optimal therapy.
- Teach patients to participate in their own care by encouraging them to exercise and to monitor their diet, medical regimen, and weight.
- LifeBridge Health Cardiovascular Institute's Heart Failure Center provides resources for patients and providers regarding education, FAQs, and referrals. Additional information can be found at:

<http://www.lifebridgehealth.org/Cardiovascular/HeartFailureCenter.aspx>

Measures of Performance (aligned with CMS' ACO/PQRS/Meaningful Use CQM measures)

1. **Controlling High Blood Pressure** (ACO #28; NQF #18; PQRS #236)

Percentage of patients 18-85 years of age who had a diagnosis of hypertension and whose blood pressure was adequately controlled (<140/90mmHg) during the measurement period. Reported once per year.

Domain: Clinical Process/Effectiveness

Numerator: Patients whose most recent blood pressure is adequately controlled (systolic blood pressure < 140 mmHg and diastolic blood pressure < 90 mmHg) during the measurement period.

Denominator: Patients 18 through 85 years of age who had a diagnosis of essential hypertension within the first six months of the measurement period or any time prior to the measurement period.

- 2. Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented (ACO #21; NQF #CMS22v3; PQRS #317)**
Percentage of patients aged 18 years and older seen during the reporting period who were screened for high blood pressure AND a recommended follow-up plan is documented based on the current blood pressure (BP) reading as indicated.
Domain: Population/Public Health
Numerator: Patients who were screened for high blood pressure AND have a recommended follow-up plan documented, as indicated, if the blood pressure is pre-hypertensive or hypertensive.
Denominator: All patients aged 18 years and older.
- 3. Heart Failure: Beta-Blocker Therapy for Left Ventricular Systolic Dysfunction (ACO #31; NQF #83; PQRS #8)**
Percentage of patients aged 18 years and older with a diagnosis of heart failure (HF) with a current or prior left ventricular ejection fraction (LVEF) < 40% who were prescribed beta-blocker therapy either within a 12 month period when seen in the outpatient setting OR at each hospital discharge.
Domain: Clinical Process/Effectiveness
Numerator 1: Patients who were prescribed beta-blocker therapy within a 12 month period when seen in the outpatient setting
Denominator 1: All patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF < 40%
Numerator 2: Patients who were prescribed beta-blocker therapy at each hospital discharge
Denominator 2: All patients aged 18 years and older with a diagnosis of heart failure with a current or prior LVEF < 40%
- 4. Coronary Artery Disease (CAD): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy – Diabetes or left Ventricular Systolic Dysfunction (LVEF < 40%) (ACO #33; NQF #66; PQRS #118)**
Percentage of patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12 month period who also have diabetes OR a current or prior Left Ventricular Ejection Fraction (LVEF) < 40% who were prescribed ACE inhibitor or ARB therapy.
Domain: Clinical Process/Effectiveness
Numerator 1: Patients who were prescribed ACE inhibitor or ARB therapy
Denominator 1: All patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12 month period who also have a current or prior LVEF < 40%
Numerator 2: Patients who were prescribed ACE inhibitor or ARB therapy
Denominator 2: All patients aged 18 years and older with a diagnosis of coronary artery disease seen within a 12 month period who also have diabetes
- 5. Tobacco Use: Screening and Cessation Intervention (ACO #17; NQF #28; PQRS #226)**
Percentage of patients aged 18 years and older who were screened for tobacco use one or more times within 24 months AND who received cessation counseling intervention if identified as a tobacco user.
Domain: Population/Public Health
Numerator: Patients who were screened for tobacco use at least once within 24 months AND who received tobacco cessation counseling intervention if identified as a tobacco user.
Denominator: All patients aged 18 years and older.

Tools and Resources

- American Heart Association – Heart Failure
http://www.heart.org/HEARTORG/Conditions/HeartFailure/Heart-Failure_UCM_002019_SubHomePage.jsp
- Centers for Disease Control – Heart Failure Fact Sheet
http://www.cdc.gov/dhdspl/data_statistics/fact_sheets/docs/fs_heart_failure.pdf
- Heart Failure Society of America – Heart Failure Guidelines
<http://www.hfsa.org/hfsa-wp/wp/heart-failure-guidelines-2/>
- American Academy of Family Physicians – Heart Failure
<http://www.aafp.org/afp/topicModules/viewTopicModule.htm?topicModuleId=26>

LBPB Contributing Experts/Team

- Dr. Rahul Chaudhary
- LBPB Quality Committee

Questions?

If you have questions about this Care Path or would like to connect with a specialist to discuss further, please contact either Dr. Charles Albrecht at 410-601-6340, or David Baker at 410-601-6666.

Key References

Goldberg, MD, MPH, Lee R. In the Clinic. Heart Failure. Ann Intern Med. 2010; ITC6.

ⁱ Goldberg, MD, MPH, Lee R. In the Clinic. Heart Failure. Ann Intern Med. 2010; ITC6.

ⁱⁱ Center for Disease Control. Heart Failure Fact Sheet:

http://www.cdc.gov/dhdspl/data_statistics/fact_sheets/docs/fs_heart_failure.pdf

ⁱⁱⁱ Goldberg, MD, MPH, Lee R. In the Clinic. Heart Failure. Ann Intern Med. 2010; ITC6.

^{iv} Ibid.

^v Ibid.