

CHF RISK FACTORS & RECOMMENDED INTERVENTIONS

The following are some of the common risk factors for heart failure-related complications. These risk factors are addressed with the member through a comprehensive telephonic assessment and reinforced in our written educational materials. Also included are recommended interventions based on national standards. The care management nurse reviews and emphasizes the provider's recommendations for heart failure treatment, and utilizes the member's assessment responses to suggest additional topics of discussion with the provider, if clarification may be needed.

The following are the common risk factors associated with Heart Failure-related complications:

- ACC/AHA Stages C and D in conjunction with NYHA Class IV
- Unstable angina/ acute myocardial ischemia
- Uncontrolled hypertension
- Multiple uncontrolled symptoms (increasing orthopnea, fatigue, PND, edema)
- Cardiovascular event within the past 12 months (e.g. myocardial infarction, CABG, PTCA, angioplasty, stent placement, unstable angina, stroke)
- Uncontrolled arrhythmia (i.e., atrial fibrillation)
- Recent addition of negative inotropic drugs (verapamil, nifedipine, beta blockers, etc)
- Current smoker
- Excessive alcohol use (> 1 ounce per day 100 proof distilled spirits for men, > 0.5 ounces per day for women)
- Hypercholesterolemia; hyperlipidemia
- Diabetes (controlled or uncontrolled)
- Cognitive issues (confusion, dementia)
- Self-reported non-adherence or poor adherence to medications
- Self-reported non-adherence or poor adherence with low sodium diet
- Self-reported non-adherence or poor adherence with daily weights
- Self-reported symptoms of depression.

RECOMMENDED INTERVENTIONS*

- **The recommended intervention is:** ACE-inhibitor medication: consider this medication for all patients with current or prior symptoms of heart failure and LVEF $\leq 40\%$; diabetes with proteinuria; a history of MI or CAD. Angiotension II receptor blocker (ARB) should be considered if ACE-inhibitor intolerance.

- **The recommended intervention is:** Beta-blocker medication, using one of the three proven to reduce mortality (bisoprolol, carvedilol or sustained release metoprolol succinate) for all stable patients with current or prior symptoms of heart failure and reduced LVEF. When initiating a beta-blocker, the patient should have no or minimal fluid overload.
- **The recommended intervention is:** Serial laboratory assessments of electrolytes and renal function. Serial serum potassium is strongly recommended due to the potential for arrhythmias or the effects of worsening renal function. Consider periodic BNP levels.
- **The recommended intervention is:** Monitoring of daily weights and diuretic therapy for all members with symptomatic heart failure. Member should be instructed on how to monitor their dry weight on a daily basis and have a written 'action plan' that provides weight gain limits on a daily and/or weekly basis.
- **The recommended intervention is:** ASA therapy for patients with CVD, patients with diabetes and CVD, or patients with CVD risk factors.
- **The recommended intervention is:** Educate about lifestyle changes: Smoking cessation - medication and/or behavior modification program should be strongly considered if the member is a current smoker; exercise training to improve clinical status in ambulatory patients with current or prior symptoms of heart failure and reduced LVEF.
- **The recommended intervention is:** Measuring an ejection fraction if it was not obtained on initial evaluation; the guidelines strongly recommend obtaining EF to determine diastolic versus systolic dysfunction.
- **The recommended intervention is:** Digoxin therapy for patients with arrhythmias with a rapid ventricular response (such as atrial fibrillation or flutter) refractory to treatment with other medications such as diuretics or ACE-Inhibitors.
- **The recommended intervention is:** A low sodium diet; education and counseling on low sodium diet is provided as part of the heart failure program.
- **The recommended intervention is:** Implantable cardioverter-defibrillator therapy: Consider implantable cardioverter-defibrillator (ICD) therapy as primary prevention to reduce mortality due to sudden cardiac death in patients with a diagnosis of nonischemic dilated cardiomyopathy; or ischemic heart disease at least 40 days post-MI, a LVEF less than or equal to 35% and NYHA functional class II or III symptoms while undergoing chronic optimal medical therapy; and for patients who have a reasonable expectation of survival with good functional status for more than one year.
- **Other recommended interventions:** Other interventions to consider (as applicable) are antihypertensive drug therapy, thyroid therapy, aldosterone antagonist therapy;

digitalis, vasodilators such as hydralazine and nitrate therapy depending on the individual patient's functional status and co-morbidities.

**The above recommendations were adapted from the 2009 Focused Update: ACCF/AHA Guidelines for the Diagnosis and Management of Heart Failure in Adults, and the Heart Failure Society of America 2006 Comprehensive Heart Failure Practice Guidelines*

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