

# Stages of heart failure (HF) guide the appropriate management strategy<sup>1</sup>

| STAGE   | MANAGEMENT STRATEGY   |
|---|---|
| <b>STAGE A:</b><br><b>At risk for developing HF</b>                             | <ul style="list-style-type: none"> <li>• Urge lifestyle modification (e.g., diet, weight loss, exercise).</li> <li>• Treat comorbidities (e.g., hypertension, diabetes, hyperlipidemia, atrial fibrillation).</li> </ul>  |
| <b>STAGE B:</b><br><b>Asymptomatic</b><br><i>with structural heart disease*</i> | <ul style="list-style-type: none"> <li>• Continue to treat comorbidities and recommend lifestyle modification.</li> <li>• Monitor for development of HF symptoms.</li> </ul> <hr/> <p><b>Additional treatment for reduced EF patients only:</b></p> <ul style="list-style-type: none"> <li>• Initiate beta blockers and ACE inhibitors or ARBs.<sup>†</sup></li> <li>• Use implantable cardioverter-defibrillators (ICDs) in post-MI patients.</li> </ul>   |
| <b>STAGE C:</b><br><b>Symptomatic</b><br><i>Prior or current symptoms of HF</i> | <ul style="list-style-type: none"> <li>• Continue to treat comorbidities and recommend lifestyle modification.</li> <li>• Educate patients on self-care (e.g., salt restriction and HF symptoms).</li> </ul> <hr/> <p><b>Additional treatment for reduced EF patients only:</b></p> <ul style="list-style-type: none"> <li>• Initiate beta blockers and an ACE inhibitor or ARB w/diuretics. Escalate pharmacologic treatment based on symptoms.</li> <li>• Utilize ICDs or cardiac resynchronization therapy (CRT).</li> </ul> |
| <b>STAGE D:</b><br><b>Refractory or advanced HF</b>                             | <ul style="list-style-type: none"> <li>• Refer to cardiology for advanced therapies, such as left ventricular assist device (LVAD) or heart transplant, when indicated.</li> <li>• Discuss end-of-life treatment goals, as appropriate.</li> </ul>  |

Source: American College of Cardiology Foundation and American Heart Association

\* **Structural heart disease:** left ventricular (LV) hypertrophy, LV dysfunction, prior myocardial infarction, or valvular disease

<sup>†</sup>**ACE:** Angiotensin-converting enzyme; **ARB:** Angiotensin receptor blocker

Visit [alosafoundation.org/modules/heartfailure](http://alosafoundation.org/modules/heartfailure) for links to additional resources and a longer evidence document



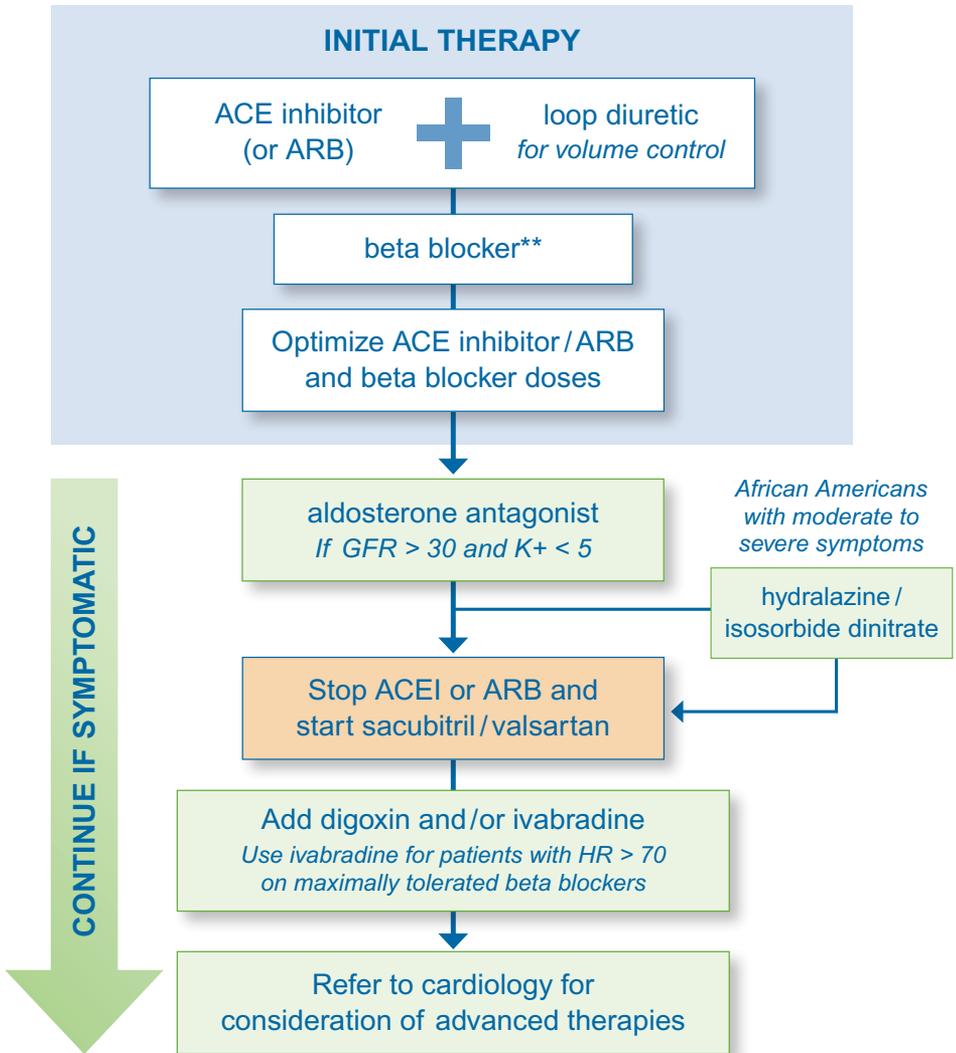
Pharmaceutical Assistance Contract for the Elderly

Balanced information for better care

These are general recommendations only; specific clinical decisions should be made by the treating physician based on an individual patient's clinical condition. These materials were made possible by the PACE Program of the Department of Aging of the Commonwealth of Pennsylvania. Links to references can be found at [alosafoundation.org](http://alosafoundation.org).

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# Algorithm for pharmacologic treatment in heart failure with reduced EF



\*\* Trials enrolled patients with symptoms, but current guidelines recommend the use of beta blockers in most HF patients.

**Titrate ACE inhibitors and beta blockers to maximally tolerated dose to achieve the greatest mortality benefit.<sup>2,3</sup>**  
**Even a low dose of these drugs is better than no dose.**

(1) Yancy CW, Jessup M, Bozkurt B, et al. 2013 ACCF/AHA guideline for the management of heart failure: a report of the American College of Cardiology Foundation/American Heart Association Task Force on practice guidelines. *Circulation*. 2013;128(16):e240-327. (2) Packer M, Poole-Wilson PA, Armstrong PW, et al. Comparative effects of low and high doses of the angiotensin-converting enzyme inhibitor, lisinopril, on morbidity and mortality in chronic heart failure. ATLAS Study Group. *Circulation*. 1999;100(23):2312-2318. (3) Bristow MR, Gilbert EM, Abraham WT, et al. Carvedilol produces dose-related improvements in left ventricular function and survival in subjects with chronic heart failure. MOCHA Investigators. *Circulation*. 1996;94(11):2807-2816.