

Which Medication Should I Add First?
Practical Suggestions for Medication Management in Heart Failure Patients
Andrew Johnson, PharmD

1. HFrEF therapy class I recommendations
 - a. NYHA class I-II
 - i. ACEi/ARBs/ARNI
 - ii. Beta blockers
 - b. NYHA Class II-IV
 - i. ACEi/ARBs/ARNI
 - ii. Beta blockers
 - iii. Aldosterone Antagonist
 - iv. Loop diuretics (volume overload)
 - c. NYHA Class III-IV
 - i. ACEi/ARBs/ARNI
 - ii. Beta blockers
 - iii. Nitrate/hydralazine (African American)
 - iv. Aldosterone Antagonist
 - v. Loop diuretics (volume overload)
2. HFrEF therapy Class II recommendations
 - a. Symptom control
 - b. Decrease hospitalizations
 - i. Ivabradine
 - ii. Digoxin
3. Use of patiromer
 - a. Beneficial in HFrEF therapy?
 - i. Hyperkalemic patients
 - ii. Adding ACEi/ARBs/ARNI/AA
 - b. Cons: cost and compliance

References

1. Yancy CW 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. *J Am Coll Cardiol.* 2013 Oct 15; 62(16): e 147-239.
2. Yancy CW, et al. 2016 ACC/AHA/HFSA Focused Update on New Pharmacological Therapy for Heart Failure: An Update of the 2013 ACCF/AHA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines and the Heart Failure Society of America. *J Am Coll Cardiol.* 2016 Sep 27; 68(13): 1476-88.
3. Packer M, et al. The effect of carvedilol on morbidity and mortality in patients with chronic heart failure. U.S. Carvedilol Heart Failure Study Group. *N Engl J Med.* 1996 May 23; 334(21): 1349-55.
4. The SOLVD Investigators. Effect of enalapril on survival in patients with reduced left ventricular ejection fractions and congestive heart failure. *N Engl J Med.* 1991 Aug 1; 325(5): 293-302.
5. McMurray JJ, et al. Angiotensin-neprilysin inhibition versus enalapril in heart failure. *N Engl J Med.* 2014 Sep 11; 371(11): 993-1004.
6. Zannad F, et al. Eplerenone in patients with systolic heart failure and mild symptoms. *N Engl J Med.* 2011 Jan 6; 364(1): 11-21.
7. Taylor AL, et al. Combination of isosorbide dinitrate and hydralazine in blacks with heart failure. *N Engl J Med.* 2004 Nov 11; 351(20): 2049-57.
8. Swedberg K, et al. Ivabradine and outcomes in chronic heart failure (SHIFT): a randomized placebo-controlled study. *Lancet.* 2010 Sep 11; 376(9744): 875-85.
9. Pitt B, et al. The effect of spironolactone on morbidity and mortality in patients with severe heart failure. *N Engl J Med.* 1999 Sep 2; 341(10): 709-17.
10. Epstein M, et al. Potentiation of furosemide by metolazone in refractory edema. *Cur Ther Res* 1977: 656-67
11. Veltassa (patiromer) [prescribing information]. Redwood City, CA: Relypsa Inc; November 2016.

Test Question

A Caucasian male comes into the clinic for a scheduled heart failure follow-up. He was recently admitted to the hospital for a heart failure exacerbation. Current HFrEF medications include carvedilol 6.25mg BID and Lisinopril 5mg daily. He had an ECHO while inpatient that shows an EF of 25%. BP at today's appointment was 99/60 with HR of 105 (EKG shows sinus tachycardia). Based on the updated guidelines, what would be a consideration to add to his medical therapy based on this information alone?

- a. valsartan
- b. Sacubitril-valsartan
- c. Nitrate +hydralazine
- d. Ivabradine**