



THE OMNICARE

HealthLine

Focus on Heart Failure – Part 2: Treatment Considerations

- by Allen Lefkowitz

Several studies have demonstrated that a lack of using guideline-directed therapy is associated with increased risk of rehospitalizations due to heart failure (HF). Nonpharmacological and pharmacological treatments are critical to improving outcomes in addition to early recognition of worsening HF symptoms. Individuals with HF should receive the following nonpharmacological interventions:

educating the individual, whenever possible (to assist in the early detection of worsening HF symptoms)
regular physical activity (as tolerated)
smoking cessation (with or without pharmacological interventions)
limiting or avoiding alcohol intake
routine assessment of weight
sodium restriction for those with symptomatic HF
establishing clear criteria for when to contact the prescriber

Caregivers should focus upon restoring, maintaining, and/or preserving the individual's ability to perform activities of daily living based upon the individual's overall prognosis. General goals of medication therapy for HF include:

- relieving or controlling HF symptoms
- improving overall function and quality of life
- slowing the progression of the disease, and
- reducing the risk of exacerbations, complications, hospitalizations, and premature death

In addition to vigilant monitoring of changes in HF symptoms and implementing non-pharmacological interventions, utilization of evidence-based medications is critical in HF care. According to the 2015 joint American Heart Association and the Heart Failure Society of America (AHA/HFSA) Scientific Statement on "Heart Failure Management in Skilled Nursing Facilities", "Guideline-driven pharmacological therapy for HF should be continued for patients in a SNF."

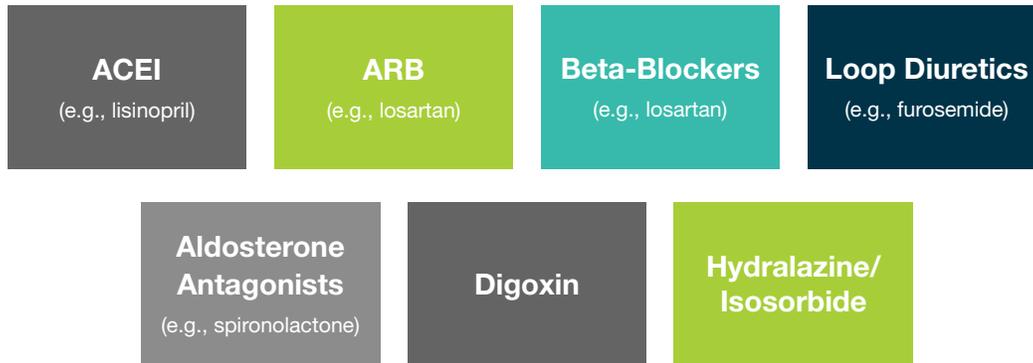
Continued on next page

Inside This Issue

- | | | |
|---|--|----------------------------------|
| 1-2 Focus on Heart Failure (Part 2) | 3 Clinical Capsule: Dosing for Beta-Blockers in Heart Failure | 4 New Generic Medications |
| 3 Risk of Heart-related Death with Newer Gout Medication | 4 New Drug Shingrix | 5 HealthLine Quiz |

Additionally, AHA/HFSA advocates that pharmacotherapy for skilled nursing facility residents “should generally be similar to that in community dwelling older [HF] patients”.

Evidence-based medications that have been used in the treatment of HF for many years include:



ACEI = angiotensin converting enzyme inhibitors; ARB = angiotensin II receptor blockers

As high blood pressure is a major risk factor for the development and progression of HF, many of the above treatments for HF can also help manage blood pressure. Additionally, the gradual up-titration to maximum tolerable doses is recommended for several pharmacological classes including ACEI, ARB, and beta-blockers. For these two reasons, the monitoring for adverse effects (e.g., hypotension, bradycardia, declining renal function) is essential. While ACEI are first-line therapy, ARB are considered a second line alternative for those who cannot tolerate an ACEI, such as those who develop a chronic nonproductive cough or angioedema.

In 2015, two newer agents for HF were approved, and in 2017, they were both newly included into the focused update of the HF guidelines.

1. Entresto (sacubitril/valsartan) is a combination angiotensin-neprilysin receptor inhibitor (ARNI). Medications that target the inhibition of the renin-angiotensin system have been the mainstay of HF treatment for many years. Within the 2017 focused update to the HF guidelines, a new recommendation is made to replace the use of an ACEI or ARB with an ARNI. However, it is important to note that when switching from an ACEI, the ACEI inhibitor should be discontinued 36 hour prior to initiating Entresto (sacubitril/valsartan) in order to further minimize the risk of angioedema.
2. Corlanor (ivabridine) is a sinoatrial node modulator. Corlanor lowers the heart rate (HR) without reducing blood pressure, changing heart conduction, or the strength of the heart’s contraction. The amount of reduction in HR is associated with the baseline HR, such that a greater reduction occurs in individuals with a higher baseline HR. Corlanor is approved for use in those with stable, symptomatic HF with a left ventricular ejection fraction $\leq 35\%$ who are in sinus rhythm with a resting HR ≥ 70 beats per minute and are either receiving a maximally tolerated dose of a beta-blocker or are unable to use a beta-blocker.

Both of these newer agents help reduce the “stress” on the heart and both agents have been associated with a reduced risk of hospitalization due to HF.

Beyond the aforementioned medications for treating HF, other interventions that are particularly encouraged for skilled nursing facility residents with HF include:





FDA to Further Evaluate Risk of Heart-Related Death with Newer Gout Medication

- by Allen Lefkowitz

On November 15, the US Food and Drug Administration (FDA) issued a safety announcement based upon preliminary findings from a safety clinical trial for the gout medication Uloric (febuxostat).

When Uloric was originally approved in 2009, the FDA required that its labeling include a warning about increased cardiovascular events (e.g., heart attacks, stroke) observed in clinical trials and they required an additional safety clinical trial, which was recently completed. In this follow-up safety trial, Uloric was associated with an increased risk of heart-related deaths and deaths from all causes compared to the older gout medication allopurinol.

Until the FDA completes their comprehensive review and provides a further update to the public, health care professionals are advised to “consider this safety information when deciding whether to prescribe or continue patients on febuxostat.”

Additional information is available at: <https://www.fda.gov/Drugs/DrugSafety/ucm584702.htm>



The Clinical Capsule

Initial and Target Doses for Beta Blockers Indicated for Heart Failure

- by Allen Lefkowitz

Brand (generic) Name	Initial Dosing	Target/Maximum Dosing
Coreg (carvedilol)	3.125 mg twice daily	25 mg twice daily (50 mg twice daily for those > 85 kg)
Toprol XL (metoprolol succinate)	12.5 to 25 mg once daily	200 mg daily
Zebeta (bisoprolol)	1.25 mg once daily	10 mg once daily



Shingrix Suspension for Intramuscular Injection

- by Dave Pregizer

Brand Name (Generic Name)	Shingrix [SHING rix] (Zoster Vaccine Recombinant, Adjuvanted) [ZOS ter vak SEEN]
How Supplied	Single-dose vial of lyophilized gE antigen and single-dose vial of adjuvant suspension
Therapeutic Class	Vaccine
Approved Indication	Prevention of herpes zoster (shingles) in adults aged 50 years and older.
Usual Dosing	Administer 2 doses (0.5 mL each) intramuscularly at 0 and 2 to 6 months. The deltoid region of the upper arm is the preferred site for injection.
Select Drug Interactions	Effectiveness may be reduced with immunosuppressive therapies.
Most Common Side Effects	Myalgia, fatigue, headache, shivering, fever, gastrointestinal symptoms, injection site pain, redness, and swelling.
Miscellaneous	Shingrix is not indicated for prevention of primary varicella infection. Administer immediately after reconstitution or refrigerate and use within 6 hours.
Website	www.shingrix.com



NEW Generic Medications

Generic Name	Brand Name	Date Generic Available
Oseltamivir 6 mg/mL Suspension	Tamiflu® Oral Suspension	11/13/17
Carvedilol ER 10 mg, 20 mg, 40 mg, and 80 mg Capsules	Coreg CR® Capsule	11/8/17
Iodoquinol 1% / Hydrocortisone 2% / Aloe Polysaccharides 1% Gel	Alcortin®-A Gel	10/30/17
Dapsone 5% Gel	Aczone® Gel	10/23/17

HealthLine Quiz

– by Steve Law

- 1. Which is a non-pharmacological intervention for heart failure (HF):**
 - a. Sodium restriction
 - b. Routine assessment of weight
 - c. Smoking cessation
 - d. Education
 - e. All of the above
- 2. Which is NOT a general goal of medication therapy for heart failure (HF):**
 - a. Relieving or controlling HF symptoms
 - b. Slowing the progression of the disease
 - c. Treating with only diuretics
 - d. Utilizing evidence-based medications
- 3. Which is NOT an evidence-based medication for the treatment of HF?**
 - a. ACE Inhibitors
 - b. Calcium Channel Blockers
 - c. ARBs
 - d. Carvedilol
- 4. When switching from Lisinopril to Entresto, Entresto should not be started until 36 hours after the Lisinopril has been discontinued:**
 - a. True
 - b. False
- 5. The initial dosing of Toprol XL for HF is 50 mg once daily:**
 - a. True
 - b. False
- 6. Which statement is TRUE about the new medication, Shingrix:**
 - a. It is a vaccine for the prevention of tetanus
 - b. After reconstitution the vaccine should be given within 24 hours
 - c. A common side effect is shivering
 - d. It is administered as a one time injection

***Please note, the HealthLine Quiz is designed to help readers retain information that is relevant to their care setting. It is not an approved source of continuing education credits for healthcare professionals.**

Editorial Board

Allen L. Lefkovitz, PharmD, BCGP, FASCP – Senior Editor
Carrie Allen, PharmD, BCGP, BCPS, BCPP, CCHP – Assistant Editor
Costadina A. Costianis, PharmD, BCGP
Steve Law, PharmD, BCGP
Terry O’Shea, PharmD, BCGP
David Pregizer, RPh
Falak Thaker, PharmD, BSc

Contributing Authors for This Issue

Allen L. Lefkovitz, PharmD, BCGP, FASCP
Senior Clinical Advisor, Clinical Geriatrics, CVS Health
David Pregizer, RPh
Consultant Pharmacist, HCR-Manorcare
Steve Law, PharmD, BCGP
Clinical Services Manager for Indiana; Omnicare Pharmacies in Indiana

Answers to the HealthLine Quiz: 1) E 2) C 3) B 4) A 5) B 6) C