

**2022 Ambulatory Care Pharmacy Specialty Recertification Literature Study:
Module 1A: Updates in Heart Failure**

Learning Objectives and Articles

Module 1A: Updates in Heart Failure

Universal Activity Number: 0204-9999-22-956-H01-P

Contact Hours: 4.00

Activity Type: Application-Based

This module focuses on updates in heart failure, including the management of diuretic resistance, as well as new heart failure guidelines.

Agarwal R, Sinha AD, Cramer AE et al. Chlorthalidone for hypertension in advanced chronic kidney disease. *N Engl J Med.* 2021; 385:2507-19.

Learning Objectives:

- Describe the Chlorthalidone in Chronic Kidney Disease (CLICK) study by Agarwal and colleagues of patients with advanced chronic kidney disease (CKD) and poorly controlled hypertension.
- Develop recommendations for the use of the thiazide-like diuretic chlorthalidone in patients with advanced chronic kidney disease (CKD) and poorly controlled hypertension despite antihypertensive drug therapy.

Felker GM, Ellison DH, Mullens W et al. Diuretic therapy for patient with heart failure—JACC state-of-the-art review. *J Am Coll Cardiol.* 2020; 75:1178-95.

Learning Objectives:

- Describe renal physiology and response to diuretics, the pharmacology and pharmacodynamics of diuretics, mechanisms and strategies for overcoming diuretic resistance, and loop diuretic use in patients with acute or chronic heart failure.
- Develop recommendations for the use of diuretic therapy in patients with heart failure.

Anker SD, Butler J, Filippatos G et al. Empagliflozin in heart failure with a preserved ejection fraction. *N Engl J Med.* 2021; 385:1451-61.

Learning Objectives:

- Describe the Empagliflozin Outcome Trial in Patients with Chronic Heart Failure with Preserved Ejection Fraction (EMPEROR-Preserved).
- Develop recommendations for the use of empagliflozin in patients with chronic heart failure with preserved ejection fraction (HFpEF).

Heidenreich PA, Bozkurt B, Aguilar D, et al. 2022 AHA/ACC/HFSA guideline for the management of heartfailure: a report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *J Am Coll Cardiol.* 2022;79:e263–e421. *IMPORTANT: For this Literature Study, the following sections are assessed: 4.1, 4.2, 7.3, 11.1, 12, 13*

Learning Objectives:

- Describe the 2022 American Heart Association (AHA)/American College of Cardiology (ACC)/Heart Failure Society of America (HFSA) guideline for the management of heart failure (HF).
- Develop recommendations for the management of patients with heart failure with reduced ejection fraction (HFrEF).