

**2021 Ambulatory Care Pharmacy Specialty Recertification Literature Study:
Module 1A: Updates and Innovations in Glucose-Lowering Drugs**

Learning Objectives and Articles

Module 1A: Updates and Innovations in Glucose-Lowering Drugs

Universal Activity Number: 0204-9999-21-977-H01-P

Contact Hours: 4.00

Activity Type: Application-Based

This module focuses on the comparative effectiveness of glucose lowering drugs in type 2 diabetes, as well as the use of SGLT2 inhibitors in non-diabetic patients.

Packer M, Anker SD, Butler J et al. Cardiovascular and renal outcomes with empagliflozin in heart failure. *N Engl J Med.* 2020; 383(15):1413-1424.

Learning Objectives:

- Describe the EMPEROR-Reduced study of empagliflozin in patients with heart failure with a reduced ejection fraction with or without type 2 diabetes mellitus.
- Develop recommendations for the use of sodium-glucose cotransporter 2 (SGLT2) inhibitors in patients with heart failure with a reduced ejection fraction with or without type 2 diabetes mellitus.

Kohsaka S, Lam CS, Kim DJ et al. Risk of cardiovascular events and death associated with initiation of SGLT2 inhibitors compared with DPP-4 inhibitors: an analysis from the CVD-REAL 2 multinational cohort study. *Lancet Diabetes Endocrinol.* 2020; 8(7):606-615.

Learning Objectives:

- Describe the CVD-REAL 2 study comparing sodium-glucose co-transporter-2 (SGLT2) inhibitors with dipeptidyl peptidase-4 (DPP-4) inhibitors in adults with type 2 diabetes mellitus.
- Develop recommendations for the use of sodium-glucose co-transporter-2 (SGLT2) inhibitors and dipeptidyl peptidase-4 (DPP-4) inhibitors in patients with type 2 diabetes mellitus.

Heerspink HJ, Stefánsson BV, Correa-Rotter R et al. Dapagliflozin in patients with chronic kidney disease. *N Engl J Med.* 2020; 383(15):1436-1446.

Learning Objectives:

- Describe key aspects of the Dapagliflozin and Prevention of Adverse Outcomes in Chronic Kidney Disease (DAPA-CKD) study.
- Apply the findings from the Dapagliflozin and Prevention of Adverse Outcomes in Chronic Kidney Disease (DAPA-CKD) study in providing care to patients with chronic kidney disease.

Cherney DZ, Dekkers CC, Barbour S et al. Effects of the SGLT2 inhibitor dapagliflozin on proteinuria in non-diabetic patients with chronic kidney disease (DIAMOND): a randomised, double-blind, crossover trial. *Lancet Diabetes Endocrinol.* 2020; 8(7):582-593.

Learning Objectives:

- Describe the DIAMOND study of the effects of dapagliflozin on proteinuria in patients with chronic kidney disease (CKD).
- Develop recommendations for the use of dapagliflozin in patients with chronic kidney disease (CKD) without diabetes.

Tsapas A, Avgerinos I, Karagiannis T et al. Comparative effectiveness of glucose-lowering drugs for type 2 diabetes: a systematic review and network meta-analysis. *Ann Intern Med.* 2020; 173(4):278-286.

Learning Objectives:

- Describe the systematic review and network meta-analysis of the comparative effectiveness of glucose-lowering drugs for treating type 2 diabetes mellitus.
- Develop recommendations for the use of glucose-lowering drugs in adults with type 2 diabetes mellitus.