A new guideline from the American College of Physicians (ACP) offers clinical recommendations for the use of newer pharmacological
treatments of adults with type 2 diabetes. This is an update of ACP's 2017 guideline and is based on the best available evidence for effectiveness, comparative benefits and harms, consideration of patients' values and preferences, and costs. Newer Pharmacological Treatments in Adults with Type 2 Diabetes: A Clinical Guideline from the American College of Physicians is published in Annals of Internal Medicine.

In the updated clinical guideline, ACP recommends adding a sodium-glucose cotransporter-2 (SGLT-2) inhibitor or glucagon-like peptide-1 (GLP-1) agonist to metformin and lifestyle interventions in patients with type 2 diabetes and inadequate glycemic control.

Use SGLT-2 inhibitor to reduce the risk of all-cause mortality, major adverse cardiovascular events, progression of chronic kidney disease, and hospitalization due to congestive heart failure or use GLP-1 agonist to reduce the risk of all-cause mortality, major adverse cardiovascular events, and stroke.

ACP, however, recommends against adding a dipeptidyl peptidase-4 (DPP-4) inhibitor to metformin and lifestyle modifications in adults with type 2 diabetes and inadequate glycemic control because high-certainty evidence showed that adding a DPP-4 inhibitor does not reduce morbidity or all-cause mortality.

This clinical guideline is based on systematic reviews of the benefits, harms, and cost-effectiveness of newer pharmacological treatments for type 2 diabetes. ACP prioritized the following outcomes, which were evaluated using the GRADE (Grading of Recommendations, Assessment, Development and Evaluation) approach: all-cause mortality, major adverse cardiovascular events, myocardial infarction, stroke, hospitalization for congestive heart failure, progression of chronic
kidney disease, serious adverse events, and severe hypoglycemia.

Weight loss, as measured by percentage of participants who achieved at least 10% total body weight loss, was a prioritized outcome, but data were insufficient for network meta-analysis and not rated with GRADE.

The updated ACP guideline did not look at the effects of treatment for glycemic control, though this is a common treatment goal. It is known that all included treatments can improve glycemic control in adults with type 2 diabetes. Instead, the guideline focuses on clinical benefit outcomes, such as whether the treatments improve cardiovascular outcomes.

ACP guidelines emphasize shared decision-making, recognizing that each patient's needs and circumstances are unique. ACP encourages physicians to consider individual patient characteristics like age, comorbidities, and personal preferences when discussing a treatment plan for type 2 diabetes. SGLT-2s and GLP-1s are costly, but lower cost options (like sulfonylureas) were inferior in reducing all-cause mortality and morbidity. There are currently no generic formulations for GLP-1s and SGLT-2.

The author of an accompanying editorial from Duke University Division of General Internal Medicine suggests that cost presents a significant barrier to GLP1 agonists and SGLT2 inhibitors.

Patients with obesity and diabetes need easier access to these medications, especially given their unmatched effectiveness for glucose control and weight reduction. According to the author, the cost-effectiveness of GLP1 agonists and SGLT2 inhibitors as initial diabetes therapy in the setting of various comorbid conditions warrants careful exploration.
Along with the supporting review articles, the ACP clinical guideline is published with an accompanying visual clinical guideline aimed to efficiently interact with and visualize the data supporting these recommendations.

**More information:** Newer Pharmacologic Treatments in Adults With Type 2 Diabetes: A Clinical Guideline From the American College of Physicians, *Annals of Internal Medicine* (2024). [DOI: 10.7326/M23-2788](https://doi.org/10.7326/M23-2788)

**Editorial:** [https://www.acpjournals.org/doi/10.7326/M24-0861](https://www.acpjournals.org/doi/10.7326/M24-0861)


**Review:** [https://www.acpjournals.org/doi/10.7326/M23-1492](https://www.acpjournals.org/doi/10.7326/M23-1492)

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