

No Added Benefit from Concomitant Use of GLP-1 Agonists and DPP-4 Inhibitors

Louisiana Department of Health Louisiana Medicaid Managed Care Program Best Practice Reminder

- Glucagon-like peptide-1 (GLP-1) receptor agonists and dipeptidyl peptidase-4 (DPP-4) inhibitors are drug classes that increase the action of the endogenous hormone GLP-1 and are used in the treatment of type 2 diabetes mellitus (T2DM).
- Although management of T2DM often requires combination therapy, the U.S. Food & Drug Administration (FDA), the American Diabetes Association (ADA), and the American Association of Clinical Endocrinology (AACE) **do not recommend the concomitant use of GLP-1 agonists and DPP-4 inhibitors, as no additional benefit is provided when these agents are used together.**¹⁻³
- Concurrent therapy may increase risks of side effects and other negative outcomes associated with polypharmacy.

What to do if your patient is taking both a DPP-4 and a GLP-1:

- For patients currently taking both a DPP-4 inhibitor and a GLP-1 agonist, the ADA and AACE recommend discontinuing the DPP-4 inhibitor and continuing the GLP-1 agonist, when possible.^{1,3}
- DPP-4 inhibitors have not been shown to reduce the occurrence of major cardiovascular events and are neutral in terms of weight loss.
- Discontinuation of either drug does not require tapering.
- While pharmacists can play an important role in ensuring prescribers are aware of concomitant use, decisions regarding changes in therapy should be made by a member's physician in consultation with the patient.

Table 1. GLP-1 Agonists and DPP-4 Inhibitors*

GLP-1 Agonists	DPP-4 Inhibitors	DPP-4 Inhibitor Combination Drugs
<ul style="list-style-type: none"> Dulaglutide (Trulicity®) Exenatide (Byetta®, Bydureon®) Liraglutide (Victoza®, Saxenda®) Lixisenatide (Adlyxin®) Semaglutide (Ozempic®, Wegovy®, Rybelsus®) Liraglutide and Insulin Degludec (Xultophy®) Lixisenatide and Insulin Glargine (Soliqua®) 	<ul style="list-style-type: none"> Alogliptin (Nesina®) Linagliptin (Tradjenta®) Saxagliptin (Onglyza®) Sitagliptin (Januvia®) 	<ul style="list-style-type: none"> Alogliptin/Metformin HCl (Kazano®) Aloglitpin/Pioglitazone (Osemi®) Linagliptin/Empagliflozin (Glyxambi®) Linagliptin/Empagliflozin/Metformin HCl Linagliptin/Metformin HCl (Jentadueto®, Jentadueto XR®) Saxagliptin and Dapagliflozin (Qtern®) Saxagliptin/Metformin HCl ER (Kombiglyze XR®) Saxagliptin, Metformin, and Dapagliflozin (Qtermet XR®) Sitagliptin/Metformin HCl (Janumet®, Janumet XR®)

*For up-to-date information on covered products, check the [LDH Preferred Drug List](#).

References

1. El Sayed NA, Aleppo G, Aroda VR, et al. 9. Pharmacologic Approaches to Glycemic Treatment: Standards of Care in Diabetes—2023. *Diabetes Care*. 2023;46(Suppl 1):S140-S157. Available at: <https://doi.org/10.2337/dc23-S009>.
2. Lajthia E, Bucheit JD, Nadpara PA, et al. Combination therapy with once-weekly glucagon like peptide-1 receptor agonists and dipeptidyl peptidase-4 inhibitors in type 2 diabetes: a case series. *Pharm Pract (Granada)*. 2019 Oct-Dec;17(4):1588. Available at: <https://doi.org/10.18549/PharmPract.2019.4.1588>.
3. Samson SL, Vellanki P, Blonde L, et al. American Association of Clinical Endocrinology Consensus Statement: Comprehensive Type 2 Diabetes Management Algorithm – 2023 Update. *Endocr Pract*. 2023;29(5):305-340. Available at: <https://doi.org/10.1016/j.eprac.2023.02.001>.