

## GLP-1RA and Dual GLP-1RA/GIP: Conversions and Therapy Gap Management Guide

Updated 8/2024

Note: This conversion guide only covers brands indicated for Type 2 Diabetes Mellitus

The purpose of this guide is to assist with the conversion of GLP-1 RA agents. Please see the [FDA Drug Shortages website](#) for up-to-date information on specific dose availability. Assessment of equivalent dose is based on head-to-head clinical trials, when available, and/or clinical experience. This guide does not replace clinical judgment. The conversion chart is based on the relative effect on A1c and does not address the potential for side effects. If the patient experienced GI side effects on GLP-1RAs in the past, consider stepping down a dose when converting agents. Due to the risk for side effects, do not switch from a submaximal dose of one agent to the maximum dose of another.

### GLP-1RA Agents Suggested Comparative Doses for Treating Type 2 Diabetes

Medication	Dosing Route and Interval	Comparative doses										
Tirzepatide¶	SC Weekly			2.5mg			5mg		7.5mg	10mg	12.5mg	15mg
Semaglutide*	SC Weekly		0.25mg	0.5mg		1mg		2mg				
Dulaglutide*	SC Weekly		0.75mg‡	1.5mg	3mg	4.5mg						
Exenatide XR	SC Weekly			2mg								
Semaglutide	PO Daily	3mg	7mg	14mg								
Liraglutide*	SC Daily	0.6mg	1.2mg	1.8mg								

Adapted from: Whitley HP. *Clinical Diabetes*. 2023;41(3):467-473.

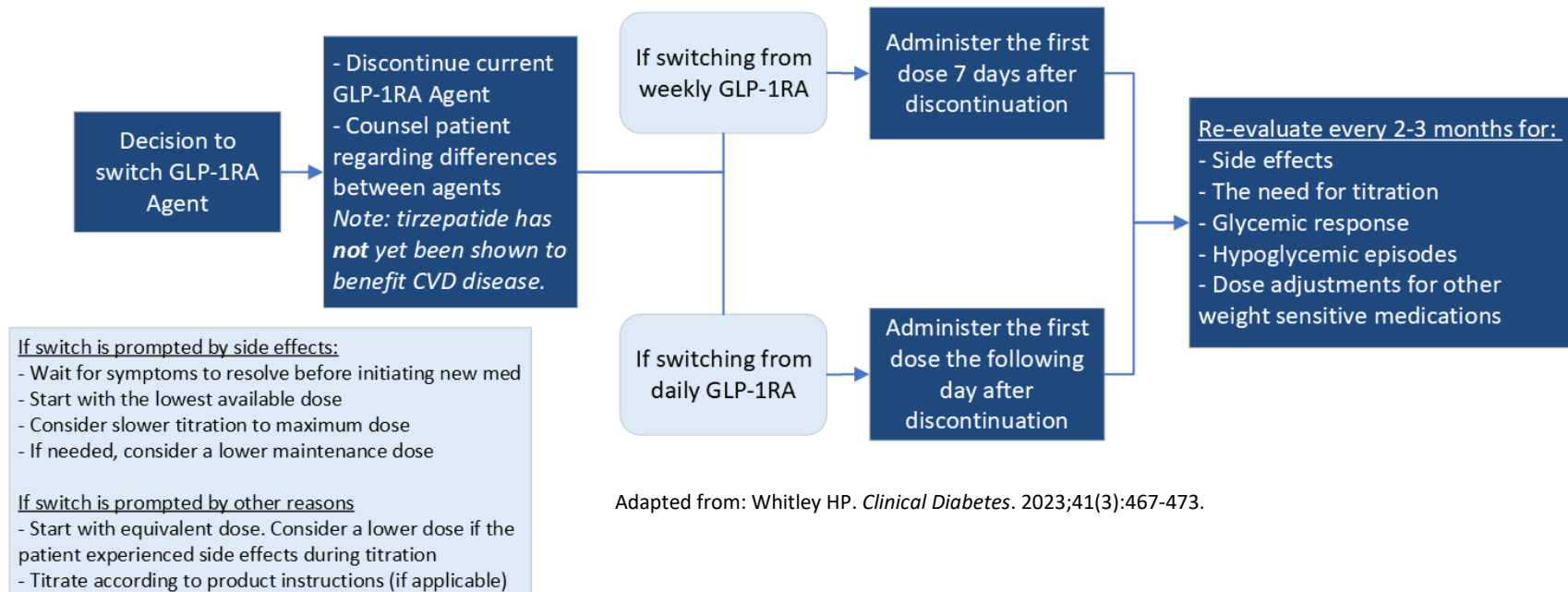
  Indicates an initiation dose **NOT** meant for glycemic control. Requires titration.

  Indicates a therapeutic dose

\* Indicates a medication with proven cardiovascular disease (CVD) benefits

¶ Tirzepatide has **NOT** yet been shown to benefit CVD. Studies are ongoing.

‡ Dulaglutide 0.75mg has **NOT** been shown to benefit CVD



Adapted from: Whitley HP. *Clinical Diabetes*. 2023;41(3):467-473.

**Considerations for Resuming a GLP-1RA after a Prolonged Lapse in Therapy**

Medication	Last Dose Administered	Recommendation(s) for Resuming Therapy
Dulaglutide	1.5mg once weekly	<ul style="list-style-type: none"> <li>Resume at 1.5mg once weekly unless patient requires a slower titration due to side effects.</li> <li>Expect comparable tolerability to that experienced prior to dose interruption</li> </ul>
	3 or 4.5mg once weekly	<ul style="list-style-type: none"> <li>Use best judgement if <math>\geq 3</math> doses are missed</li> <li>It is unknown whether tolerance to the GI adverse events will remain if reinitiated at the higher dose after <math>\geq 3</math> missed doses. Consider reinitiating at 1.5mg weekly if the patient had prior GI side effects</li> </ul>
Semaglutide (SubQ)	1mg once weekly	<ul style="list-style-type: none"> <li>If <math>\leq 2</math> doses are missed, reinitiate at 1mg once weekly</li> <li>If 3-4 doses are missed, reinitiate at 0.5mg weekly</li> <li>If <math>\geq 5</math> doses are missed, reinitiate at 0.25mg once weekly</li> </ul>
Tirzepatide	$\geq 5$ mg once weekly	<ul style="list-style-type: none"> <li>If <math>&lt; 2</math> doses are missed, reinitiate at the same dose (provided the dose was adequately tolerated)</li> <li>If <math>\geq 3</math> doses are missed, reinitiate at 5mg once weekly and counsel the patient on the risk of side effects. If there is a concern for GI side effects or if the patient had experienced them in the past, consider reinitiating at 2.5mg instead.</li> </ul>

Adapted from: Whitley HP. *Clinical Diabetes*. 2023;41(3):467-473.**Summary of Clinical Evidence and Comparison Chart**

Trial Name	Active Comparators	Background Regimen	Efficacy Time Points (weeks)	A1c Reduction	Weight Loss	Discontinuation Rate Due to GI Adverse Events
Award 11	Trulicity 1.5 mg vs. Trulicity 3 mg	Metformin	36	Trulicity 1.5 mg: -1.5% Trulicity 3 mg: -1.6% not statistically sig	Trulicity 3mg: - 8.4 lbs	3.1%
Award 11	Trulicity 1.5 mg vs. Trulicity 4.5 mg	Metformin	36	Trulicity 4.5 mg: -1.8% P <0.001	Trulicity 4.5mg: - 10.1 lbs	3.1%
SUSTAIN 7	Ozempic 1 mg vs. Trulicity 1.5 mg	Metformin	40	Ozempic 1 mg: -1.6% Trulicity 1.5 mg: -1.3% p=0.0004	Ozempic 1 mg: - 12.8 lbs Trulicity 1.5 mg: -6.2 lbs	Ozempic 1mg: 6% Trulicity 1.5 mg: 5%
SUSTAIN FORTE	Ozempic 1 mg vs. Ozempic 2 mg	Metformin +/- SU	40	Ozempic 1 mg: -1.9% Ozempic 2 mg: -2.1% P < 0.01	Ozempic 2 mg: -14.2 lbs Ozempic 1 mg: -12.5 lbs	Discontinuation rate not documented.
SURPASS-2	Ozempic 1 mg vs. Mounjaro 5 mg, 10 mg, 15 mg	Metformin	40	Mounjaro 5 mg: -2% Mounjaro 10 mg: -2.2% Mounjaro 15 mg: -2.3% Ozempic 1 mg: -1.9%	Mounjaro 5 mg: -17 lbs Mounjaro 10 mg: -21 lbs Mounjaro 15 mg: -25 lbs Ozempic 1 mg: -13 lbs	Mounjaro 5 mg: 2.8% Mounjaro 10 mg 4.3% Mounjaro 15 mg: 4.3% Ozempic 1 mg: 3.2%

## References:

- Whitley HP, Trujillo JM, Neumiller JJ. Special report: potential strategies for addressing glp-1 and dual glp-1/gip receptor agonist shortages. *Clinical Diabetes*. 2023;41(3):467-473.
- Almandoz J, Lingvay I, Morales J et al. Switching between Glucagon-Like Peptide-1 Receptor Agonists: Rationale and Practical Guidance. *Clin Diabetes*. 2020; 38 (4).390-402.
- Frias, Juan P., et al. Efficacy and Safety of Dulaglutide 3.0 mg and 4.5 mg Versus Dulaglutide 1.5 mg in Metformin-Treated Patients With Type 2 Diabetes in a Randomized Controlled Trial (AWARD-11). *Diabetes Care*. 2021; 44(3): 765-773.
- Pratley RE, Aroda VR, Lingvay I, et al, on behalf of the SUSTAIN 7 investigators. Semaglutide versus dulaglutide once weekly in patients with type 2 diabetes (SUSTAIN 7): a randomised, open-label, phase 3b trial. *Lancet Diabetes Endocrinol*. 2018;6(4):275-286.
- Frías JP, Auerbach P, Bajaj HS, et al. Efficacy and safety of once-weekly semaglutide 2.0 mg versus 1.0 mg in patients with type 2 diabetes (SUSTAIN FORTE): a double-blind, randomised, phase 3B trial. *Lancet Diabetes Endocrinol*. 2021;9(9):563-574.
- Frías JP, Davies MJ, Rosenstock J, et al.; for the SURPASS-2 Investigators. Tirzepatide versus semaglutide once weekly in patients with type 2 diabetes. *N Engl J Med*. 2021;385(6 suppl):503-515