

## Glucagon-Like Peptide 1 Agonists (GLP-1s)

### Options

- Injectables: dulaglutide (Trulicity), semaglutide (Ozempic), liraglutide (Victoza)
- Oral: semaglutide (Rybelsus)

**Place in Therapy (per 2022 ADA Guidelines):** Consider in patients with ASCVD/indicators of high risk. Recommend independently of baseline A1C, individualized A1C target, or metformin use.

⇒ Indicators of high risk: ≥55 years of age with coronary, carotid, or lower-extremity artery stenosis >50% or left ventricular hypertrophy

<b>Indications</b>	Type 2 Diabetes and <b>risk reduction of major cardiovascular events (excluding Rybelsus)</b>
<b>Mechanism</b>	Increases glucose-dependent insulin secretion, delays gastric emptying, inhibits glucagon release, suppresses appetite; <b>benefit = weight loss</b>
<b>Adverse Effects/Precautions</b>	- <b>U.S. Boxed Warning:</b> personal/family history of medullary thyroid carcinoma or multiple endocrine neoplasia syndrome type 2 -Avoid in patients with pancreatitis or gastroparesis -Nausea/vomiting/diarrhea (should improve with continued use)

### Dulaglutide (Trulicity)

- Dosing: 0.75 mg weekly; can increase to 1.5 mg, 3 mg, then 4.5 mg in 4-week intervals
- Pearl: easiest device for patients to use– pen is single-use and needle is contained within device



### Semaglutide (Ozempic) - injectable

- Dosing: 0.25 mg weekly; can increase to 0.5 mg then 1 mg in 4-week intervals
- Pearls: do NOT use in patients with retinopathy (statistically significant worsening demonstrated); best weight loss

### Semaglutide (Rybelsus) - oral

- Dosing: 3 mg daily; can increase to 7 mg then 14 mg in 30-day intervals
- Pearl: administer on empty stomach with ≤4 oz water at least 30 minutes before the first food, beverage, or other oral meds

### Liraglutide (Victoza)

- Dosing: 0.6 mg daily; can increase to 1.2 mg then 1.8 mg in 1-week intervals
- Pearls: note **daily** dosing versus Trulicity and Ozempic which are dosed **weekly**

### Additional Pearls:

- Can NOT use GLP-1 agonists with DPP-4 inhibitors– no added benefit with increased risk of side effects
- Must order pen needles if prescribing Victoza– Trulicity does not require pen needles and Ozempic comes with pen needles in the box