### Weight Loss Agents and Wearables: Ways to Improve Diabetes Control

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## Disclosures I have nothing to disclose concerning possible financial relationships with ineligible companies that may have a direct or indirect interest in the subject matter of this presentation.

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#### The benefits in diabetes

Highly effective: 1.5-2.0% A1c lowering • Dependent on specific agent

Effect on weight: leads to loss of up to 6.5kg or 15% of body weight

Hypoglycemia risk: minimal

Reduce risk of CV events in those with established disease and/or risk factors  $\,^\circ$  Only semalgutide, liraglutide, dulaglutide

Reduce fatty liver disease

Preserve kidney function

American Diabetes Association 9 202



#### The drawbacks and mitigation GI side effects (N/V/D) • Dose titration • Long-acting agents • Counsel to eat slowly and smaller amounts Injection site reactions Allergy – anaphylaxis and angioedema Acute kidney injury or worsening kidney function • Use caution in patients with kidney insufficiency *Lexi-Comp Operprive* 2025



















#### Why less common?

Less effective No CV benefit Patients may form antibodies Injection site nodules • Exenatide ER

### Gastric Inhibitory Peptide Glucagon-Like Peptide-1 Receptor Dual Agonist

GLP1-GIP DUAL AGONIST

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#### FAQs?

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Aren't these cheating?

Do patients still have to eat healthy and exercise?

Liraglutide (Saxenda®) Daily subcutaneous injection Doses • 0.6mg.1.2mg 1.8mg, 2.4mg, 3.0mg • Can increase weekly • 3.0mg is the therapeutic and maintenance dose Need separate pen needles Multidose pen, only one concentration • 6mg/mL Can be kept out of fridge for 30 days Device same as diabetes indication

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Semaglutide (Wegovy®) Tirzepatide (Zepbound®) Weekly SQ injection Exactly the same as diabetes indication • Same doses Doses Same device 0.25mg, 0.5mg, 1mg, 1.7mg, 2.4mg Same time out of fridge · Can increase monthly 2.4mg is the target dose – can use 1.7mg for maintenance if it is not tolerated Pen needle is inside each pen 1 dose per pen Can be kept out of fridge for 14 days Unique injection device - collapses into skin Lexi-Comp Tirzepatide 202 Lexi-Comp Ozempic 2025 39 40

FAQs?

Are these ever covered by insurance?

Is the efficacy for weight loss different than for the diabetes agents?

If I can pick a GLP-1 RA for diabetes OR weight loss which should I pick?

# GLP-1 RA and compounding

#### Shortage resolved

As of May 2025, compounding will no longer be permitted of semaglutide or tirzapetide due to them no longer being on the FDA shortage list

- Concerns with compounding
- Adverse effects
   Salt forms
- Dosing errors
- Reimbursement/coverage

US FDA 202

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## GLP-1 RA patient case questions

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#### Learning Assessment Question 1

Which of the following patients is most appropriate for GLP-1 RA therapy?

- A. A patient with newly diagnosed Type 1 DM and a history of CKD
- B. A patient with newly diagnosed Type 1 DM and a history of MI
- C. A patient with newly diagnosed Type 2 DM and a history of heart failure
- D. A patient with newly diagnosed Type 2 DM and a history of stroke

#### Learning Assessment Question 2

Which of the following side effects are most important to counsel for in a patient starting a GLP-1 RAS?

- A. Nausea, vomiting
- B. UTI, yeast infection
- C. Hypoglycemia, weight gain
- D. Edema, shortness of breath

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#### Learning Assessment Question 5

The patient has an upcoming trip and is concerned about their Ozempic being out of the fridge during the flight. Which of the following is appropriate advice?

- A. Skip your dose during vacation and resume when you get home
- B. Double the dose of Ozempic before you leave to ensure no missed doses
- C. Pack the Ozempic in a small cooler
- D. Ozempic can be safely used within 56 days of removal from the refrigerator

## CGM in diabetes

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 What are CGMs?

 Continuous glucose monitor: thin filament inserted under skin that connects to a small sensor and wirelessly transmits to a reader

 • Personal (patient monitored)

 • Can uplaad device to computer

 • Can emotely transmit data to provider practice

 • Professional (provider monitored)

 Real time or intermittent scanning

 Examples

 • Absott Freestyle Libre\*

 • Dexcom 66\*

 • Wedtronic Guardian\*

 • Everense\*







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	Dexcom Stelo®	Abbot Lingo®	Abbot Libre Rio*
Patient population	18+ T2DM or prediabetes not on insulin and not at risk for hypoglycemia Those interested in tracking their glucose	18+ not on insulin and not at risk for hypoglycemia	18+T2DM or prediabetes not on insulin
Wear time	15.5 days	14 days	15 days
Readings	Every 5 minutes	Every minute	Every minute
Cost	\$99 for 2 sensors	\$89 for 2 sensors	Not available yet





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Time in Range	Fasting AND post-prandial while avoiding hypoglycemia (70-180)	
Number of Days Worn	14+ recommended	
Percent of Time Active	>70% recommended	
Mean Glucose	based on selected date range	
Glucose Management Indicator (GMI)	Estimate of A1c	
Coefficient of Variation	• ≤ 36% recommended	
Ambulatory Glucose Profile (AGP)	Summary of glucose values with mean and percentiles as one day	











#### Learning Assessment Question 7

True or false: Compared to traditional blood glucose monitoring, continuous glucose monitoring is associated with an improvement in diabetes control?

A. True

B. False

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 Which of the following should be true to make clinical decisions based on the previously shared AGP?

- A. The patient wore their CGM at least 55% of the time
- B. The patient wore their CGM for at least 14 days
- C. The patient has Type 1 DM
- D. No additional information is needed to make a clinical decision

#### Summary

GLP-1 RAs are beneficial in patients with T2DM who need to lose or maintain weight, improve glucose control, have a history of ASCVD or are high risk, or have CKD

GLP-1 RAs are commonly associated with nausea and vomiting and can have serious side effects like pancreatitis, medullary thyroid cancer, and gastroparesis

There are several different GLP-1 RAs and each may be beneficial in different situations

CGMs are increasing in availability and features

Ambulatory glucose profiles are a universally accepted way to interpret CGM data

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