GLP-"101": USING GLP-1 AGONISTS IN PSYCHIATRIC PRACTICE

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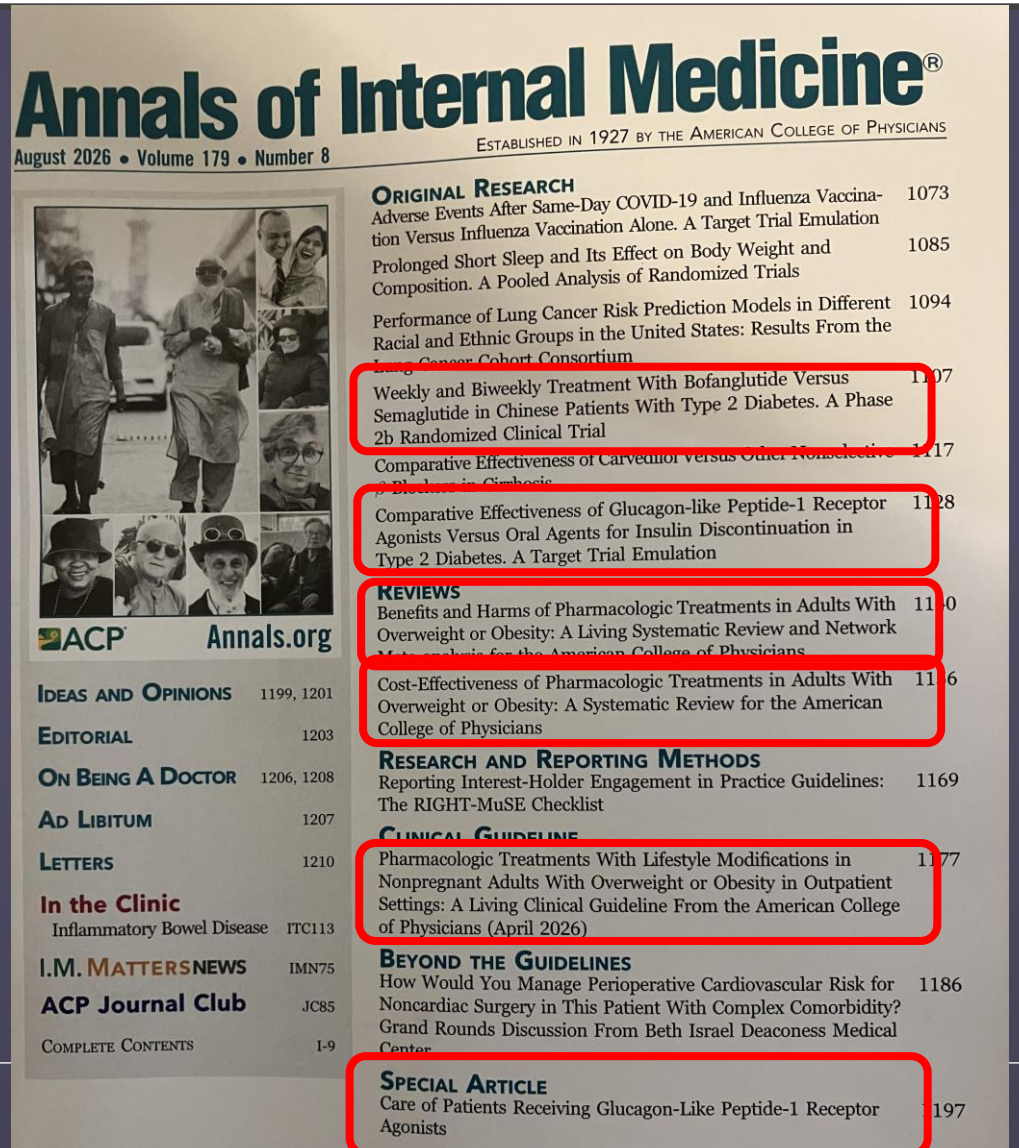
DISCLOSURES

I have no relevant financial relationships to disclose.

NON-FINANCIAL DISCLOSURE



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LEARNING OBJECTIVES

1) Describe the pharmacology and mechanism of action of GLP-1 receptor agonists, including their effects on appetite regulation, glucose metabolism, weight loss, and potential neuropsychiatric pathways.

2) Identify evidence-based indications, contraindications, and prescribing considerations for GLP-1 receptor agonists, including patient selection, dosing strategies, titration schedules, and monitoring requirements.

3) Recognize common and serious adverse effects associated with GLP-1 receptor agonists and develop strategies for assessing, counseling, and managing side effects in psychiatric practice.

4) Evaluate emerging research on GLP-1 receptor agonists in psychiatry and behavioral health, including their potential role in addressing antipsychotic-associated weight gain, substance use disorders, cognitive health, and other neuropsychiatric conditions.

WHY PSYCHIATRISTS SHOULD CARE

People ENTERTAINMENT CRIME HUMAN INTEREST LIFESTYLE ROYALS HEALTH SHOPPING SU

Stars Who've Spoken About GLP-1s — and What They've Said

See which celebrities have opened up about the drugs semaglutide and tirzepatide, from those using it for weight management to those who won'

By Kate Hogan, Zoey Lyttle, Alexandra Schonfeld, and Stephanie Sengwe | Published on August 11, 2026 10:58AM EDT

10 COMMENTS

Gabriel Iglesias; Chrissy Metz; Valerie Bertinelli.
Credit : Chris Haston/WBTV via Getty; Jason Kempin/Getty; Olivia Wong/Getty

FDA STATEMENT

FDA Intends to Take Action Against Non-FDA-Approved GLP-1 Drugs

For Immediate Release: February 06, 2026

Statement From: Martin A Makary, M.D., M.P.H.
Commissioner of Food and Drugs - Food and Drug Administration (April 2025 - May 2026)

BUSINESS INSIDER

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HEALTH

Rosie O'Donnell says Mounjaro is part of why she's 'never felt better' at 64

By Amanda Goh + Follow

Rosie O'Donnell said she's "never felt better" than at 64. Dia Dipasupil/Wireimage

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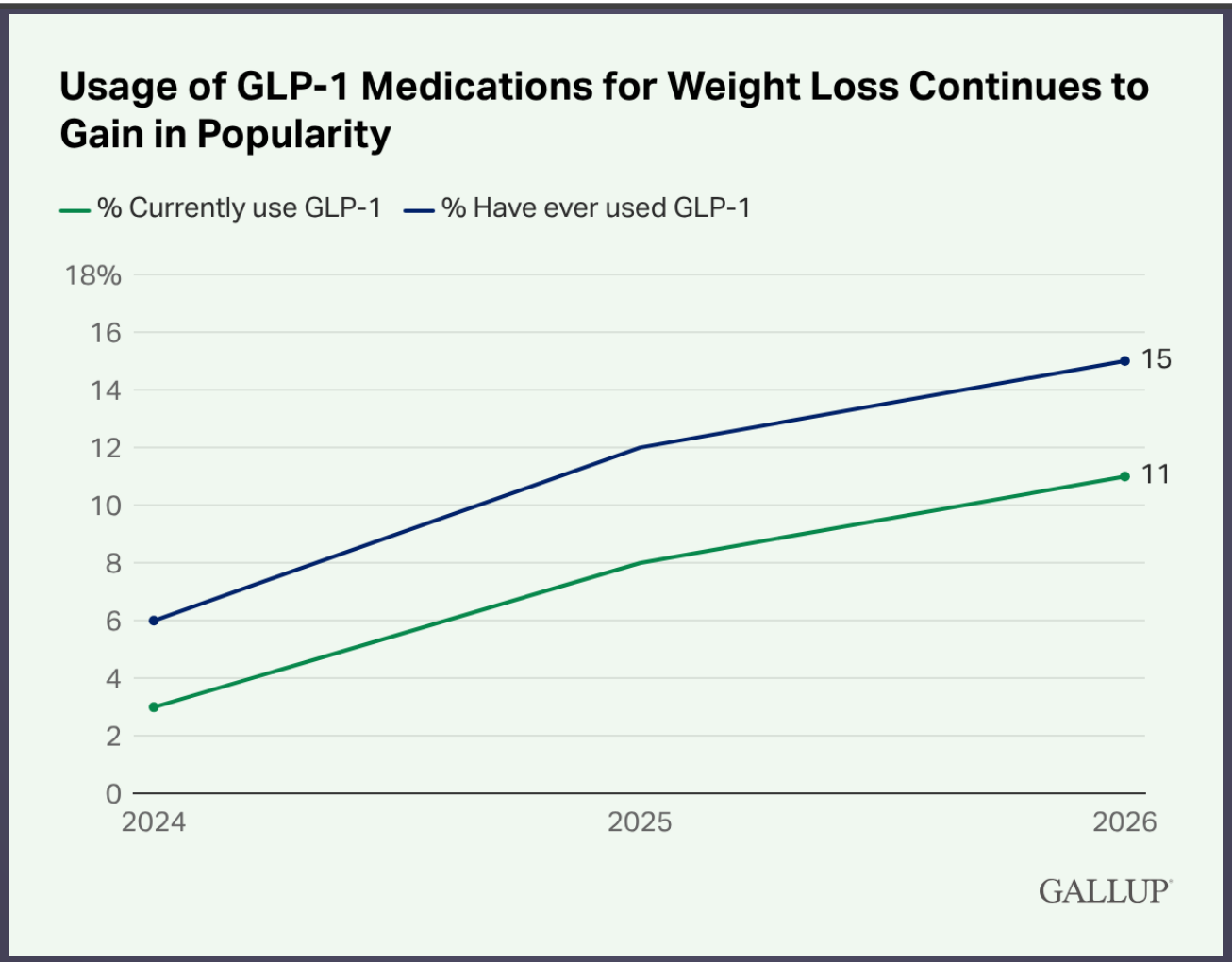
life but better

What parents on GLP-1s need to know about nutrition and body image

GALLUP: IN U.S., GLP-1 USAGE REACHES NEW HIGH



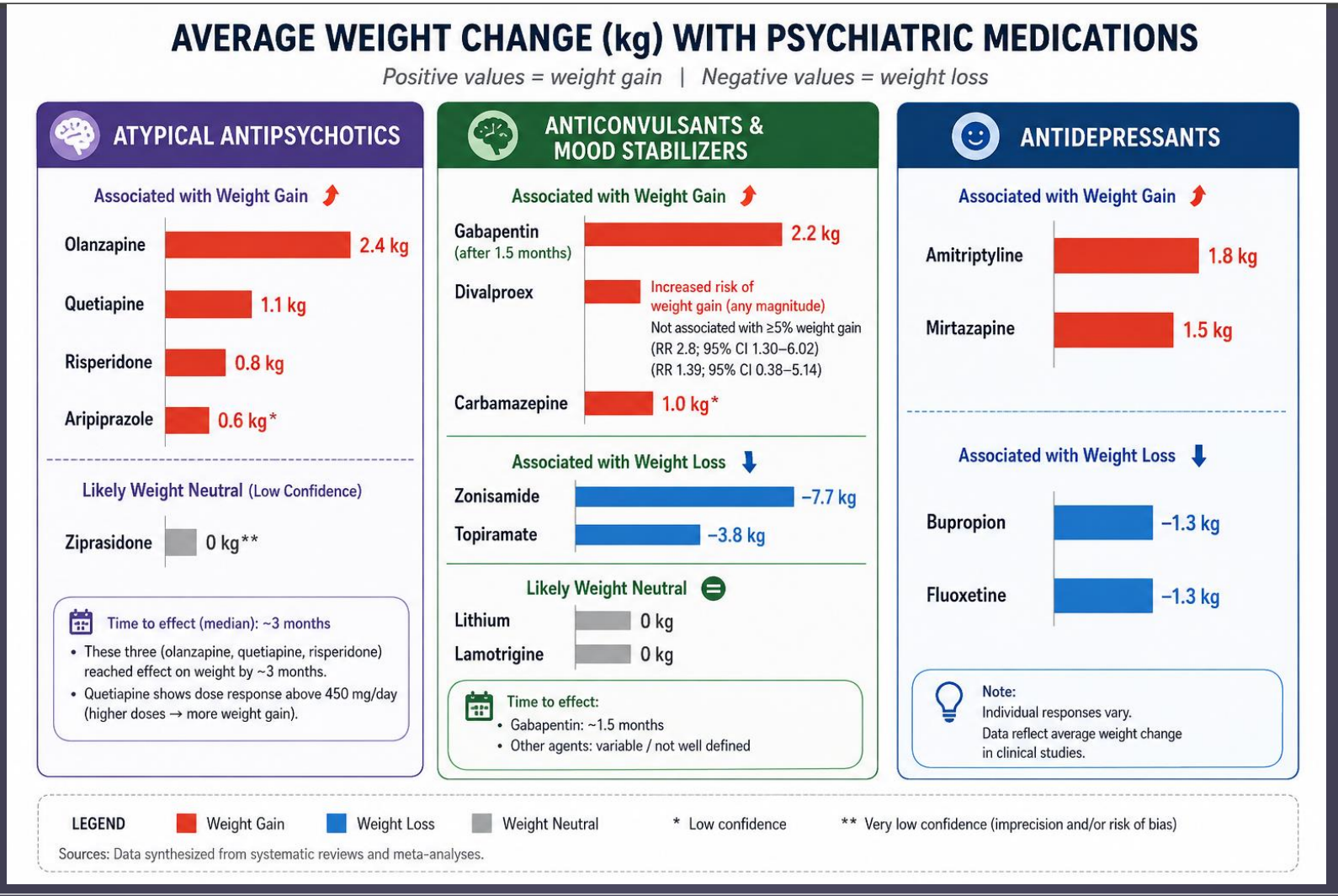
ONLINE PRESCRIBING OF GLP-1 AGONISTS

Table 2. Characteristics of GLP-1 RAs Prescribed by Online GLP-1 RA Sellers

Characteristics	GLP-1 RAs, No. (%) [N = 45]
Compounded semaglutide/tirzepatide	39 (86.7)
Branded semaglutide/tirzepatide	6 (13.3)
Formulation[a]	
Subcutaneous	39 (86.7)
Sublingual	5 (11.1)
Oral	1 (2.2)
Supplements[b]	
Added any supplement	27 (60.0)
Vitamin B_{12}	15 (33.3)
Vitamin B_6	5 (11.1)
Vitamin B_3 or NAD^+	4 (8.9)
Glycine	7 (15.6)
Carnitine	2 (4.4)
GLP-1 RA prescribed with upper-body photo despite requiring full-body photo or photo on a scale[c]	9 (20.0)
Automatically charged and shipped medication after prescription approval[d]	34 (75.6)
Clinician video visit or call duration, median (IQR), min[e]	9 (6.3-9.8)

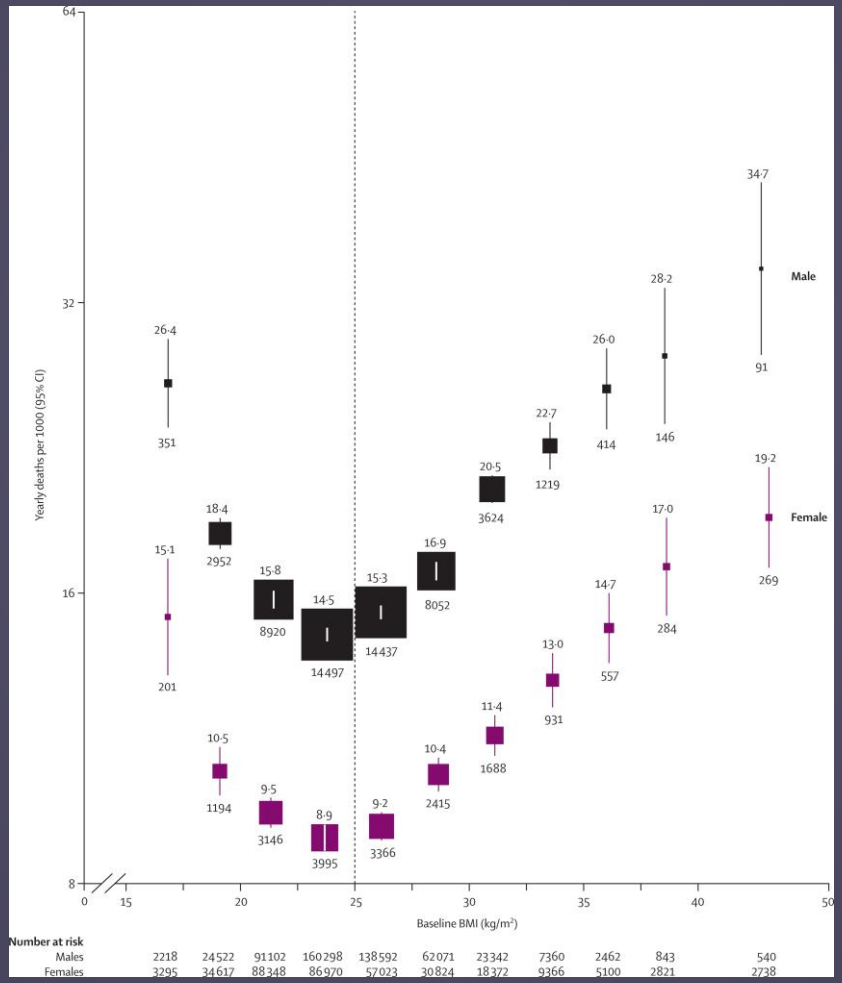
Chetty AK, Chen AS, Ross JS, Ramachandran R. Online Prescribing of GLP-1 Receptor Agonists. JAMA. 2026;336(5):428–431. doi:10.1001/jama.2026.9131

WE CAUSE (SOME OF) THE WEIGHT GAIN



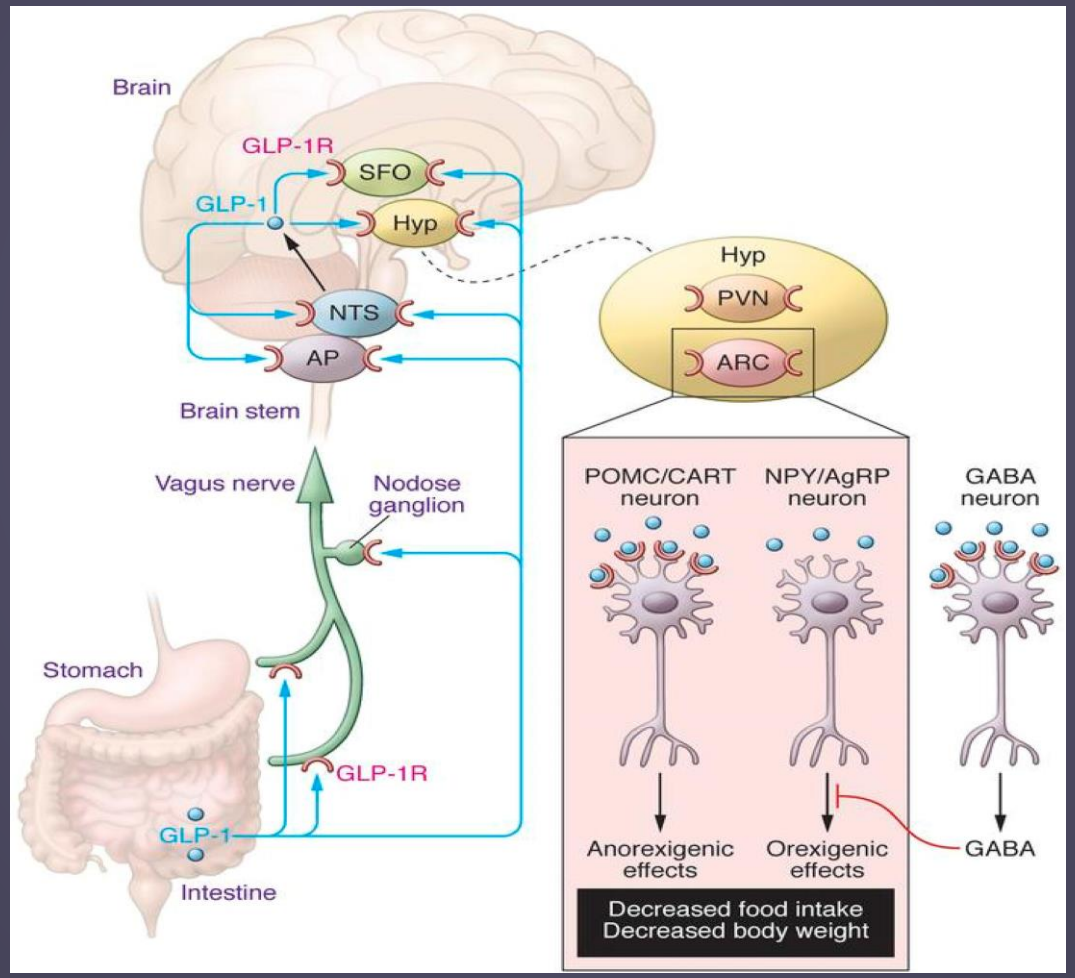
Domecq JP, et al. Clinical review: Drugs commonly associated with weight change: a systematic review and meta-analysis. J Clin Endocrinol Metab. 2015 Feb;100(2):363-70. doi: 10.1210/jc.2014-3421.

ALL-CAUSE MORTALITY VERSUS BMI



Prospective Studies Collaboration. Body-mass index and cause-specific mortality in 900 000 adults: collaborative analyses of 57 prospective studies. The Lancet, 2009; 373, 1083-1096

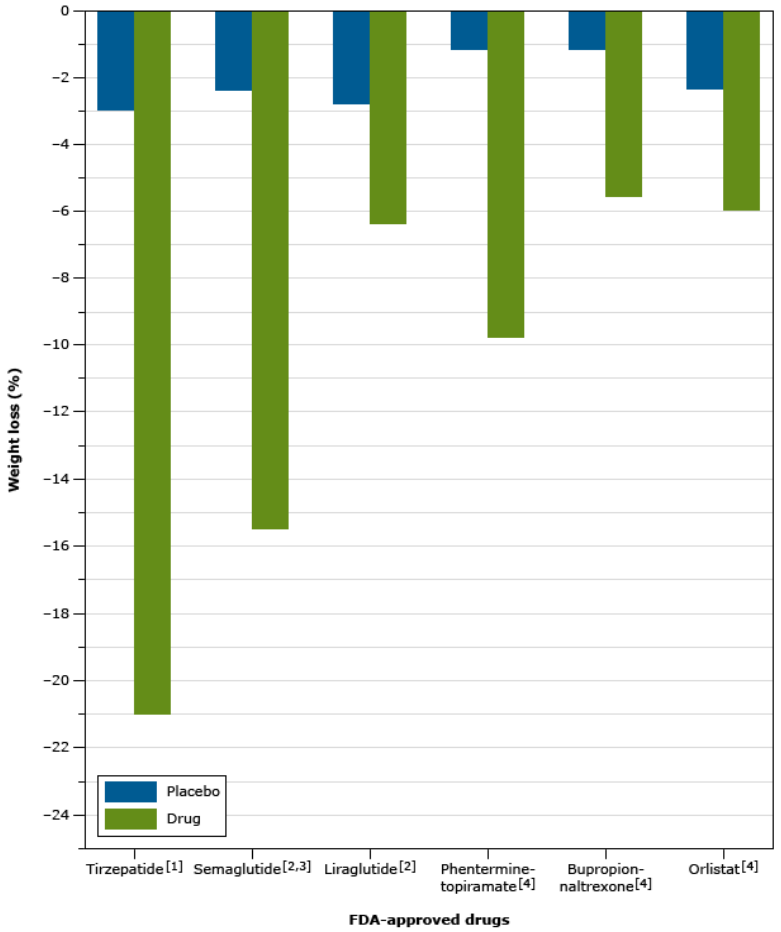
HOW DO GLP1 AGONISTS WORK?



Dubin RL, Heymsfield SB, Ravussin E, Greenway FL. Glucagon-like peptide-1 receptor agonist-based agents and weight loss composition: Filling the gaps. *Diabetes Obes Metab*. 2024; 26(12): 5503-5518. doi:10.1111/dom.15913

WHAT'S THE BIG DEAL ABOUT GLP1 AGONISTS?

Weight loss outcomes with FDA-approved medications



Weight loss reflects results at 72 weeks (tirzepatide), 68 weeks (semaglutide, liraglutide), or 52 weeks (other medications).

Data from:

1. *Jastreboff AM, Aronne LJ, Ahmad NN, et al. Tirzepatide once weekly for the treatment of obesity. N Engl J Med 2022; 387:205.*
2. *Rubino DM, Greenway FL, Khalid U, et al. Effect of weekly subcutaneous semaglutide vs daily liraglutide on body weight in adults with overweight or obesity without diabetes: The STEP 8 randomized clinical trial. JAMA 2022; 327:138.*
3. *Wilding JPH, Batterham RL, Calanna S, et al. Once-weekly semaglutide in adults with overweight or obesity. N Engl J Med 2021; 384:989.*
4. *Khera R, Murad MH, Chandar AK, et al. Association of pharmacological treatments for obesity with weight loss and adverse events: A systematic review and meta-analysis. JAMA 2016; 315:2424.*

UpToDate®

Perreault, L. & Reid, T. J. (2026). Obesity in adults: Drug therapy. In X. Pi-Sunyer (Ed.), & D. Seres (Ed.), UpToDate.

CASE 1

35 yo M with OUD on methadone, borderline personality disorder with past suicide attempts.

- Prominent symptoms: depression, insomnia, anxiety, suicidal ideation. Last treated with venlafaxine 150mg, mirtazapine 30mg, and cariprazine 1.5mg daily.
- Frequent recent ED / hospital admission for SI and suicide attempts. He has been restarted on olanzapine 20mg qhs at his last 2 hospitalizations, which is helpful for sleep and anxiety but he is worried about weight gain on olanzapine.
- Unable to switch to olanzapine-samidorphan due to methadone maintenance therapy.

Data:

- BMI 35.4
- HbA1c 5.1%
- Lipids: Total cholesterol 101, LDL 37, HDL 25, triglycerides 194
- BP 129/87, no diagnosis of HTN.
- No other relevant PMH.

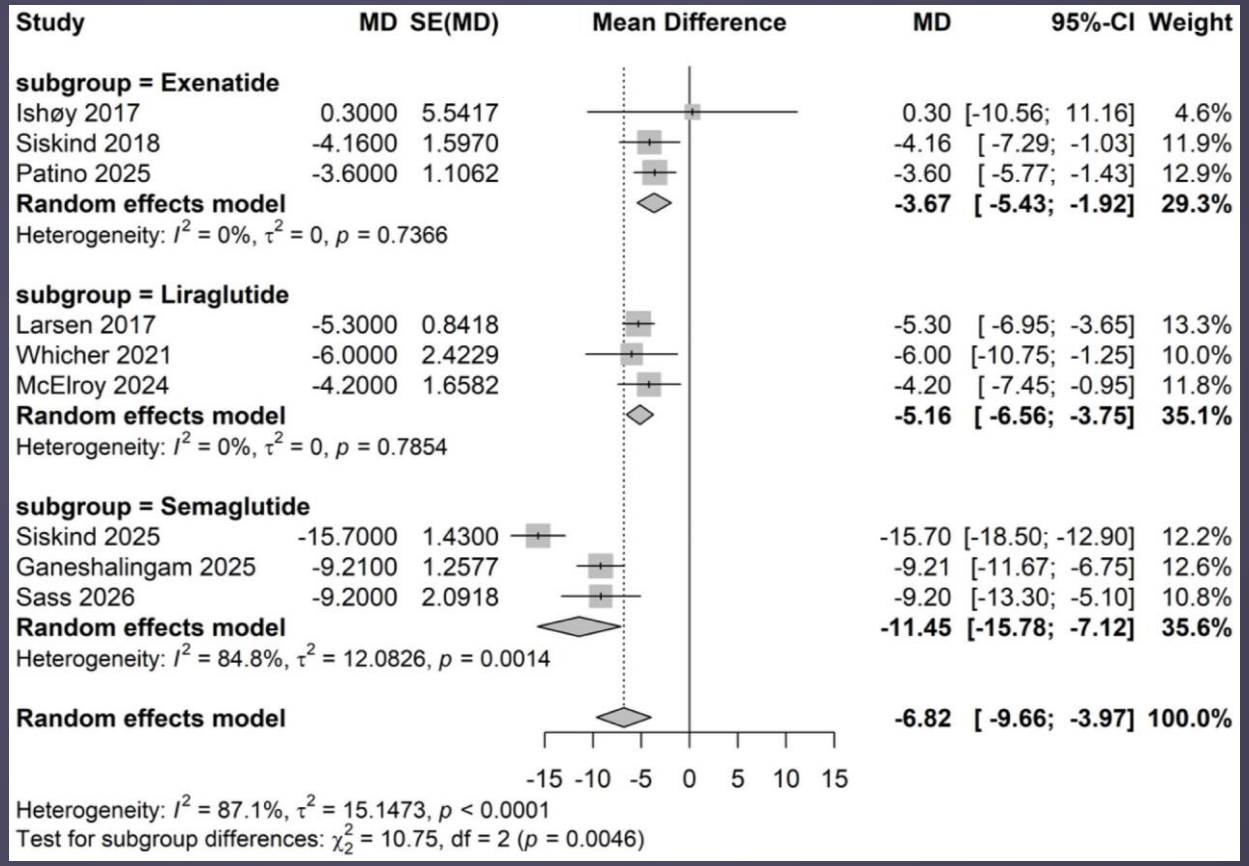
Is he eligible for a GLP1 for weight loss?

WHO IS ELIGIBLE FOR A GLP1?

- Type II Diabetes Mellitus (first in 2005)
- Weight loss
  - BMI > 30
  - BMI >27 + ≥1 weight-related comorbidity (dyslipidemia, hypertension, type 2 diabetes mellitus, CV disease)
- Obstructive sleep apnea
- Metabolic dysfunction-associated steatotic liver disease (MASLD)
- CV risk reduction (off label)
- Kidney protection in CKD (off label)
- Heart failure with preserved ejection fraction (off label)

ANTIPSYCHOTIC-ASSOCIATED WEIGHT GAIN?

- Body weight reduction by drug



Lee S, Kim MG, Trott M, Siskind D, Kim JH. Effects of glucagon-like peptide-1 receptor agonists on anthropometric and adiposity measures in patients with antipsychotic-induced weight gain: A systematic review and meta-analysis. *J Psychopharmacol*. Published online June 18, 2026:02698811261456190. doi:10.1177/02698811261456190

FDA-APPROVED INDICATIONS FOR GLP1 AGONISTS

Agent (brand)	Class	FDA-approved indications
Tirzepatide (Mounjaro)	GIP/GLP-1 dual agonist	T2D glycemic control
Tirzepatide (Zepbound)	GIP/GLP-1 dual agonist	**Chronic weight management**; moderate-to-severe obstructive sleep apnea in adults with obesity
Dulaglutide (Trulicity)	GLP-1 RA	T2D glycemic control; MACE reduction in T2D with CVD or multiple risk factors
Liraglutide (Victoza)	GLP-1 RA	T2D glycemic control; CV risk reduction in T2D with CVD
Liraglutide (Saxenda)	GLP-1 RA	**Chronic weight management**
Exenatide (Byetta / Bydureon BCise)	GLP-1 RA	T2D glycemic control
Lixisenatide (Adlyxin)	GLP-1 RA	T2D glycemic control
Semaglutide (Ozempic)	GLP-1 RA	T2D glycemic control
Semaglutide (Wegovy)	GLP-1 RA	**Chronic weight management**
Orforglipron (Foundayo)	Oral small-molecule GLP-1 RA	**Chronic weight management**

CONTRAINDICATIONS

Absolute:

- Personal/family history of medullary thyroid CA
- MEN2 syndrome
- Pregnancy/breastfeeding

Relative:

- Hx pancreatitis
- Eating disorder
- Diabetic retinopathy
- Slow GI motility
- Peri-op aspiration risk

Psychiatrist cautions:

- DM2

NUTS AND BOLTS: HOW TO START A GLP1

Counseling

- Chronic med
- Diet/exercise
- How to inject
- GI side effects:
  - Small meals
  - Bowel reg

Titration

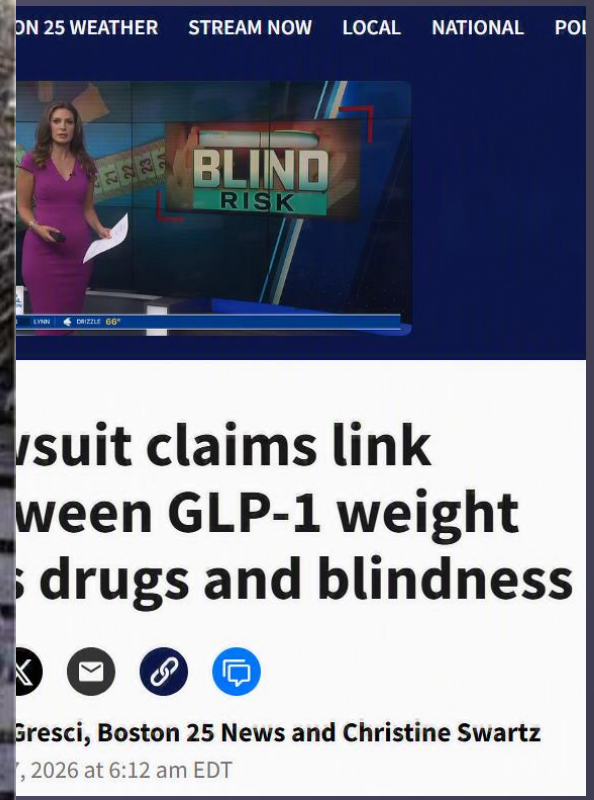
- WEEKLY
- Monthly increase

Monitoring

- Baseline CMP, HbA1c, HCG
- Goal 5% weight loss @ 3 months.
- No routine labs.

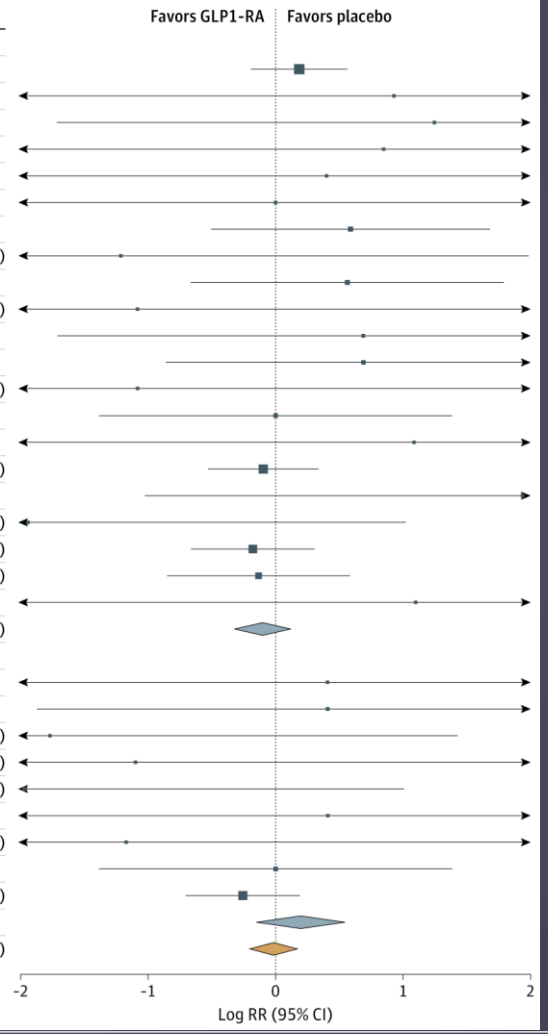
OTHER ADVERSE EFFECTS

- Acute kidney injury
- Diabetic retinopathy
- Gallbladder disease
- Hypersensivity
- Medullary thyroid car
- Pancreatitis



EFFECT OF GLP1 AGONISTS VS PLACEBO ON SERIOUS PSYCHIATRIC ADVERSE EVENTS

Studies reporting cases of serious psychiatric events (clinically relevant dose of GLP1-RA vs placebo)	Log RR (95% CI)
Diabetes studies (21 studies, total person-weeks = 9 512 983)	
Lincoff et al,[48] 2023 (semaglutide, 2.4 mg/wk)	0.19 (-0.19 to 0.56)
Mu et al,[47] 2024 (semaglutide, 2.4 mg/wk)	0.93 (-2.11 to 3.96)
Rosenstock et al,[39] 2014 (lixisenatide, 20 mcg/d)	1.25 (-1.72 to 4.21)
Ahrén et al,[38] 2013 (lixisenatide, 20 mcg/d)	0.85 (-2.12 to 3.81)
Bolli et al,[37] 2014 (lixisenatide, 20 mcg/d [1-step, 2-step dose increase])	0.40 (-2.80 to 3.60)
Riddle et al,[36] 2013 (lixisenatide, 20 mcg/d)	0.00 (-2.77 to 2.77)
Pfeffer et al,[35] 2015 (lixisenatide, 20 mcg/d)	0.59 (-0.51 to 1.68)
Buse et al,[34] 2011 (exenatide IR, 10 mcg, twice daily)	-1.21 (-4.41 to 1.99)
Marso et al,[33] 2016 (semaglutide, 1.0 mg/wk)	0.56 (-0.67 to 1.79)
Rodbard et al,[32] 2018 (semaglutide, 1.0 mg/wk)	-1.08 (-4.28 to 2.12)
Blackman et al,[46] 2016 (liraglutide, 3.0 mg/d)	0.69 (-1.71 to 3.09)
le Roux et al,[45] 2017 (liraglutide, 3.0 mg/d)	0.69 (-0.86 to 2.24)
Zinman et al,[31] 2019 (semaglutide, 14 mg/d, oral)	-1.08 (-4.28 to 2.12)
Husain et al,[30] 2019 (semaglutide, 14 mg/d, oral)	0.00 (-1.39 to 1.39)
Mosenzon et al,[29] 2019 (semaglutide, 14 mg/d, oral)	1.09 (-2.11 to 4.29)
Marso et al,[28] 2016 (liraglutide, 1.8 mg/d)	-0.10 (-0.53 to 0.34)
Guja et al,[27] 2018 (exenatide ER, 2.0 mg/wk)	1.94 (-1.03 to 4.90)
Mathieu et al,[26] 2016 (liraglutide, 1.8 mg/d)	-1.94 (-4.91 to 1.02)
Reed et al,[25] 2020 (exenatide ER, 2.0 mg/wk)	-0.18 (-0.66 to 0.31)
Hernandez et al,[24] 2018 (albiglutide, 50 mg/wk)	-0.13 (-0.85 to 0.58)
Garvey et al,[44] 2022 (semaglutide, 2.4 mg/wk)	1.10 (-2.10 to 4.30)
RE model for diabetes studies: $I^2 = 0\%$; $P = .37$	-0.10 (-0.32 to 0.12)
Obesity studies (9 studies, total person-weeks = 2 452 996)	
Wadden et al,[43] 2021 (semaglutide, 2.4 mg/wk)	0.41 (-2.79 to 3.61)
Wilding et al,[42] 2021 (semaglutide, 2.4 mg/wk)	0.41 (-1.85 to 2.67)
Loomba et al,[41] 2023 (semaglutide, 2.4 mg/wk)	-1.77 (-4.97 to 1.43)
Frandsen et al,[23] 2015 (liraglutide, 1.2 mg/d)	-1.10 (-4.29 to 2.10)
Wadden et al,[40] 2013 (liraglutide, 3.0 mg/d)	-1.96 (-4.92 to 1.01)
Davies et al,[22] 2015 (liraglutide, 3.0 mg/d)	0.41 (-2.79 to 3.61)
Gill et al,[21] 2010 (exenatide IR, 10 mcg, twice daily)	-1.17 (-4.37 to 2.02)
Gerstein et al,[20] 2021 (efpeglenatide, 4 mg or 6 mg/wk)	0.00 (-1.39 to 1.39)
Gerstein et al,[19] 2019 (dulaglutide, 1.5 mg/wk)	-0.26 (-0.70 to 0.19)
RE model for obesity studies: $I^2 = 0\%$; $P = .27$	0.20 (-0.15 to 0.54)
RE model for all studies: $I^2 = 0\%$; $P = .87$	-0.02 (-0.20 to 0.17)

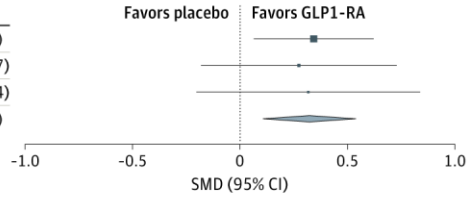


Pierret ACS, Mizuno Y, Saunders P, et al. Glucagon-Like Peptide 1 Receptor Agonists and Mental Health: A Systematic Review and Meta-Analysis. JAMA Psychiatry. 2025;82(7):643–653. doi:10.1001/jamapsychiatry.2025.0679

EFFECT OF GLP1 AGONISTS VS PLACEBO ON EATING RESTRAINT AND EMOTIONAL EATING BEHAVIOR

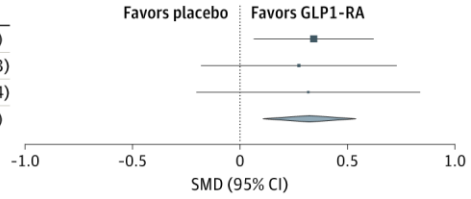
A Eating restraint

Studies reporting on eating behavior, restraint (3 studies, total No. = 341)	SMD (95% CI)
Lau et al,[49] 2021 (obesity; liraglutide, 3.0 mg/d; TFEQ-R18 cognitive restraint)	0.31 (0.03 to 0.59)
Jensen et al,[50] 2022 (obesity; liraglutide, 3.0 mg/d; TFEQ-R18 cognitive restraint)	0.41 (-0.05 to 0.87)
Miras et al,[51] 2019 (diabetes; liraglutide, 1.8 mg/d; DEBQ restrained eating subscale)	0.42 (-0.10 to 0.94)
RE model for all studies: $I^2 = 0\%$; $P = .002$	0.35 (0.13 to 0.57)



B Emotional eating

Studies reporting on eating behavior, emotional eating (3 studies, total No. = 341)	SMD (95% CI)
Lau et al,[49] 2021 (obesity; liraglutide, 3.0 mg/d; TFEQ-R18 cognitive restraint)	0.34 (0.06 to 0.62)
Jensen et al,[50] 2022 (obesity; liraglutide, 3.0 mg/d; TFEQ-R18 cognitive restraint)	0.27 (-0.18 to 0.73)
Miras et al,[51] 2019 (diabetes; liraglutide, 1.8 mg/d; DEBQ restrained eating subscale)	0.32 (-0.20 to 0.84)
RE model for all studies: $I^2 = 0\%$; $P = .003$	0.32 (0.11 to 0.54)



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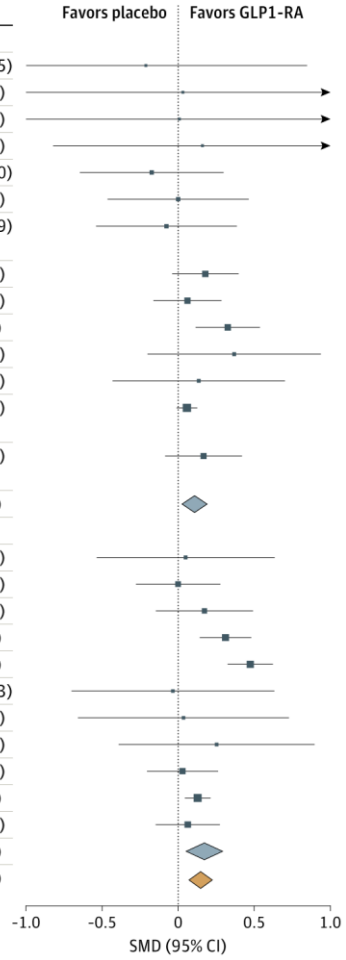
EFFECT OF GLP1 AGONISTS VS PLACEBO ON MENTAL HEALTH–RELATED QUALITY OF LIFE (QOL)

Studies reporting mental health-related QOL outcomes (clinically relevant dose of GLP1-RA vs placebo)	SMD (95% CI)
Diabetes studies (8 studies, total No. = 4979)	
Miras et al,[51] 2019 (liraglutide, 1.8 mg/d; SF-36 social role functioning)	-0.21 (-1.27 to 0.85)
Miras et al,[51] 2019 (liraglutide, 1.8 mg/d; SF-36 emotional well-being)	0.03 (-1.03 to 1.09)
Miras et al,[51] 2019 (liraglutide, 1.8 mg/d; SF-36 vitality)	0.01 (-1.05 to 1.07)
Miras et al,[51] 2019 (liraglutide, 1.8 mg/d; SF-36 emotional role functioning)	0.16 (-0.82 to 1.14)
Davies et al,[52] 2017 (semaglutide, 40 mg/d, oral [2-wk escalation]; SF-36 overall mental score)	-0.17 (-0.65 to 0.30)
Davies et al,[52] 2017 (semaglutide, 40 mg/d, oral [8-wk escalation]; SF-36 overall mental score)	0.00 (-0.46 to 0.46)
Davies et al,[52] 2017 (semaglutide, 40 mg/d, oral [standard 4-wk escalation]; SF-36 overall mental score)	-0.08 (-0.54 to 0.39)
Aroda et al,[53] 2019 (semaglutide, 14 mg/d, oral; SF-36 version 2 mental component summary)	0.18 (-0.04 to 0.40)
Mosenzon et al,[29] 2019 (semaglutide, 14 mg/d, oral; SF-36 version 2 mental component summary)	0.06 (-0.16 to 0.28)
Zinman et al,[31] 2019 (PIONEER 8) (semaglutide, 14 mg/d, oral; SF-36 mental component summary)	0.33 (0.12 to 0.54)
Yamada et al,[54] 2020 (liraglutide, 0.9 mg/d; SF-36 version 2 mental component summary)	0.37 (-0.20 to 0.94)
Yamada et al,[54] 2020 (semaglutide, 14 mg/d, oral; SF-36 version 2 mental component summary)	0.14 (-0.43 to 0.70)
Jódar et al,[55] 2019 (semaglutide, 0.5 mg and 1.0 mg/wk [pooled]; SF-36 version 2 mental component summary)	0.06 (-0.01 to 0.13)
Zinman et al,[56] 2019 (SUSTAIN 9) (semaglutide, 1.0 mg/wk; SF-36 version 2 mental component summary)	0.17 (-0.09 to 0.42)
RE model for diabetes studies: $I^2 = 13\%$; $P = .01$	0.11 (0.03 to 0.19)
Obesity studies (9 studies, total No. = 5051)	
Armstrong et al,[57] 2016 (liraglutide, 1.8 mg/d; SF-36 version 2 mental component)	0.05 (-0.54 to 0.63)
Lau et al,[49] 2021 (liraglutide, 3.0 mg/d; SF-36 version 2 mental component summary)	0.00 (-0.28 to 0.28)
Newsome et al,[58] 2021 (semaglutide, 0.4 mg/d; SF-36 mental component summary)	0.17 (-0.15 to 0.49)
Wadden et al,[43] 2021 (semaglutide, 2.4 mg/wk; SF-36 version 2 mental component summary)	0.31 (0.14 to 0.48)
Rubino et al,[59] 2021 (semaglutide, 2.4 mg/wk; SF-36 version 2 mental component summary)	0.47 (0.33 to 0.62)
O'Neil et al,[60] 2018 (liraglutide, 3.0 mg/d; SF-36 mental component summary)	-0.03 (-0.70 to 0.63)
O'Neil et al,[60] 2018 (semaglutide, 0.4 mg/d [fast escalation]; SF-36 mental component summary)	0.03 (-0.66 to 0.73)
O'Neil et al,[60] 2018 (semaglutide, 0.4 mg/d; SF-36 mental component summary)	0.25 (-0.39 to 0.90)
Wadden et al,[61] 2020 (liraglutide + IBT, 3.0 mg/d; SF-36 overall mental)	0.03 (-0.20 to 0.26)
Kolotkin et al,[62] 2016 (liraglutide, 3.0 mg/d; SF-36 version 2 mental component summary)	0.13 (0.04 to 0.21)
Blackman et al,[46] 2016 (liraglutide, 3.0 mg/d; SF-36 overall mental)	0.06 (-0.15 to 0.27)
RE model for obesity studies: $I^2 = 61\%$; $P = .005$	0.17 (0.05 to 0.29)
RE model for all studies: $I^2 = 49\%$; $P < .001$	0.15 (0.07 to 0.22)



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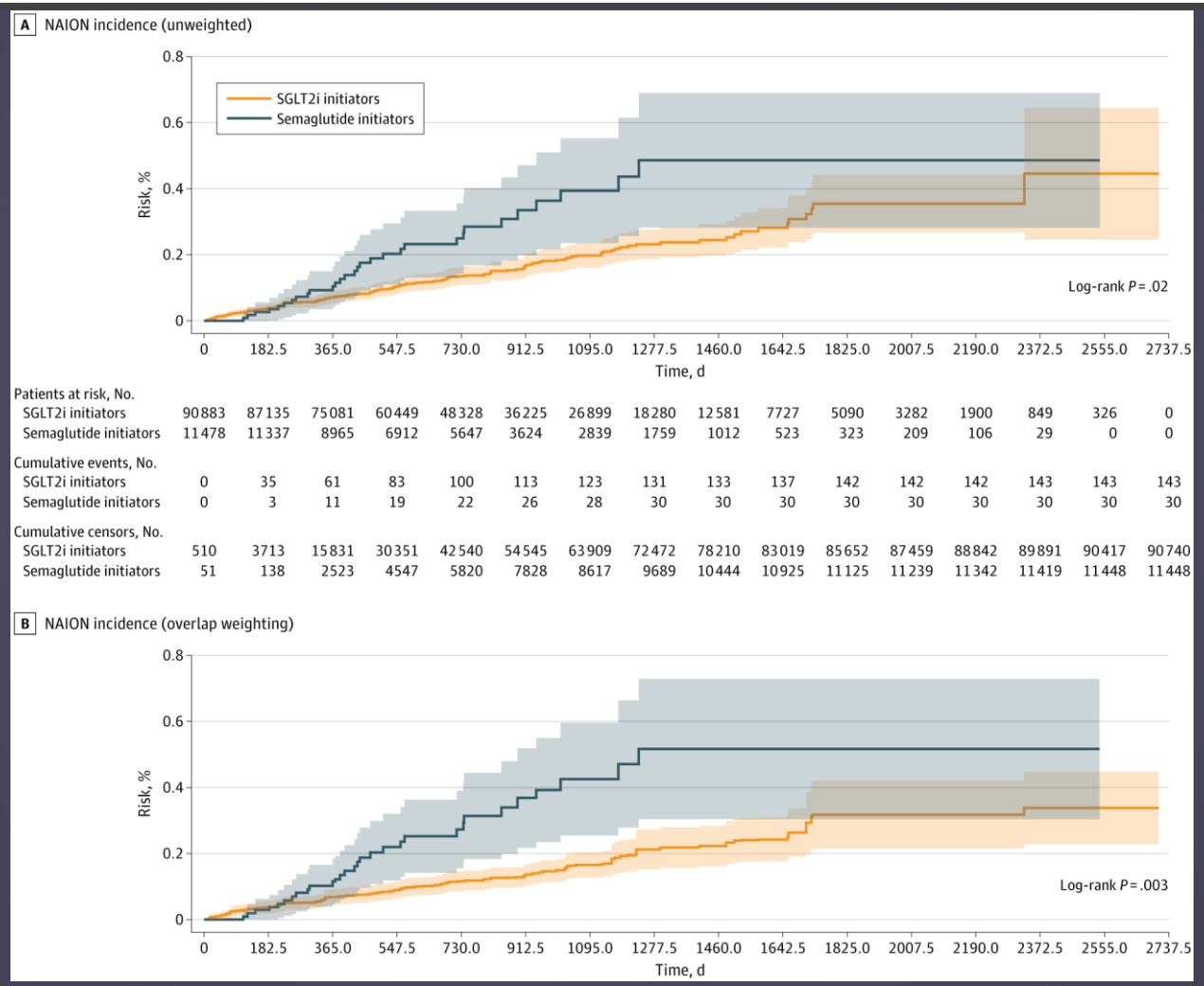
NEW-ONSET NONARTERITIC ANTERIOR ISCHEMIC OPTIC NEUROPATHY ON SEMAGLUTIDE



Heberer K, Bress AP, Cogill S, et al. New-Onset Nonarteritic Anterior Ischemic Optic Neuropathy and Initiators of Semaglutide in US Veterans With Type 2 Diabetes. JAMA Ophthalmol. 2026;144(3):259–264. doi:10.1001/jamaophthalmol.2025.6262

CASE 2

50 year old female with schizoaffective disorder. Stabilized on regimen of lithium ER 1200mg qhs and olanzapine 10mg qhs.

- Worried about weight gain on olanzapine, leading to nonadherence.
- Trialed cross taper to lurasidone and cariprazine with re-emergence of paranoia and disorganization.

Data:

- Current BMI 25.5
- HbA1c 4.4%,
- Lipids: Total cholesterol 231, LDL 140, HDL 94, triglycerides 55
- Treated with amlodipine 10mg daily for HTN
- No other relevant PMH.

Would she be eligible for a GLP1 for prevention of antipsychotic-associated weight gain?

TREATMENT AND PREVENTION OF ANTIPSYCHOTIC-RELATED WEIGHT GAIN

- BMI < 27, prevention of antipsychotic associated weight gain:
  - Metformin!
  - No trials of GLP1 for prevention.
- BMI >27 + comorbidity: GLP1 or metformin
- BMI > 30 GLP1 or metformin

ANTIPSYCHOTIC MONITORING GUIDELINES

When	Weight / BP / HR	Glucose / A1c	Lipids
Baseline (before starting)	✓	✓	✓
Weeks 1–4	✓ Every visit	—	—
Weeks 5–8	✓ Every visit	—	—
Weeks 9–12	✓ Every visit	**✓ At 12 weeks**	**✓ At 12 weeks**
Months 4–6	✓ Every visit	—	—
After 6 months	**✓ Every 3 months** if stable	—	—
Annually	Continue quarterly monitoring	✓	✓

Marder SR, Cannon TD. Schizophrenia. Ropper AH, ed. *N Engl J Med*. 2019;381(18):1753-1761. doi:10.1056/NEJMra1808803

METFORMIN INDICATIONS FOR PATIENTS WITHOUT DIABETES

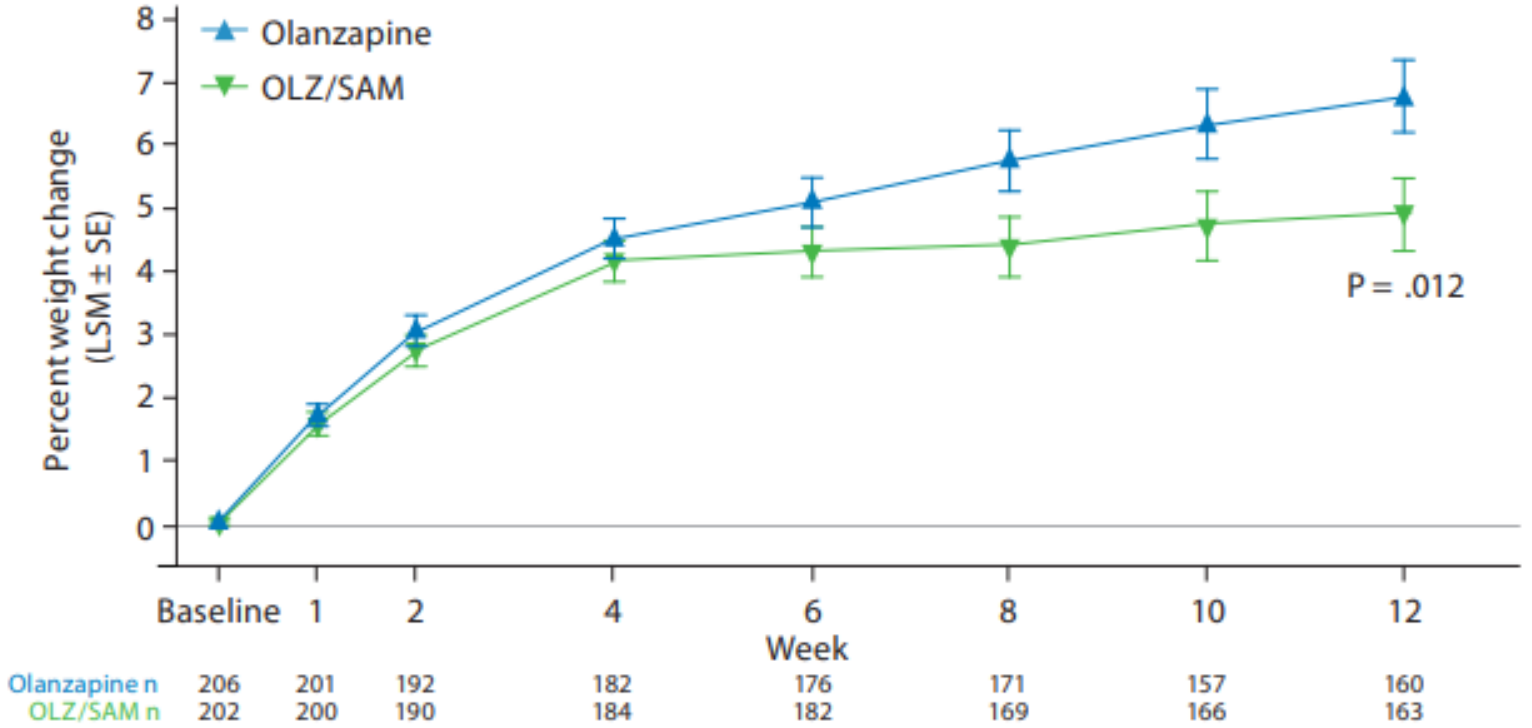
- **Diabetes prevention (pre-diabetes, especially if BMI>35) *Off label**
- **Antipsychotic-induced weight gain, treatment *Off-label**
- **Antipsychotic-induced weight gain, prevention *Under investigation**
  - >20 RCTs have shown that adjunctive metformin can be used safely and effectively for the prevention and intervention reducing of antipsychotic-induced weight gain and metabolic abnormalities. Cochrane review "low certainty evidence".
  - Not associated with discontinuation of antipsychotics or worsening of psychiatric symptoms compared with placebo.
  - Starting dose 500mg BID, may titrate up to 2000mg daily.

Considerations:

-Do not start if eGFR<45.

-Most common SE nausea/diarrhea.

OLANZAPINE/SAMIDORPHAN



Kahn RS, Kane JM, Correll CU, Arevalo C, Simmons A, Graham C, Yagoda S, Hu B, McDonnell D. Olanzapine/Samidorphan in Young Adults With Schizophrenia, Schizophreniform Disorder, or Bipolar I Disorder Who Are Early in Their Illness: Results of the Randomized, Controlled ENLIGHTEN-Early Study. J Clin Psychiatry. 2023 Mar 22;84(3):22m14674. doi: 10.4088/JCP.22m14674.

BACK TO CASE 2

50 year old female with schizoaffective disorder. Stabilized on regimen of lithium ER 1200mg qhs and olanzapine 10mg qhs.

Worried about weight gain on olanzapine.

Trialed cross taper to lurasidone and cariprazine with re-emergence of paranoia and disorganization.

Unable to obtain olanzapine-samidorphan due to insurance issues.

Current BMI 25.5

HbA1c 4.4%,

Lipids Tchol 231, LDL 140, HDL 94, trig 55

Treated with amlodipine 10mg daily for HTN

No other relevant PMH.

1. Would she be eligible for a GLP1 for prevention of antipsychotic-associated weight gain? **NO.**
   - Unable to obtain olanzapine-samidorphan due to insurance issues.
   - Started on metformin and titrated to 2000mg daily
2. She also has a history of alcohol use disorder, in early remission. Is she eligible for a GLP1 for alcohol relapse prevention?

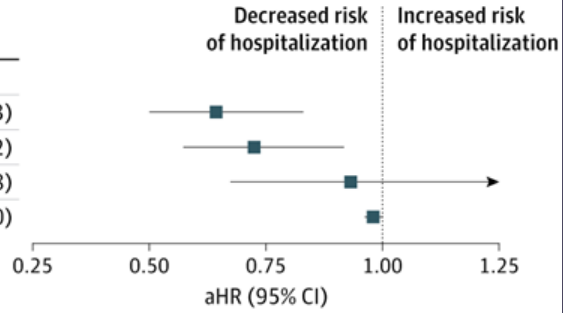
NEUROPSYCHIATRIC GLP1 INDICATIONS?

- Alcohol use
- Opioid use
- Tobacco use
- Cannabis use
- Parkinson's
- Alzheimer's/Dementia

GLP1 FOR AUD

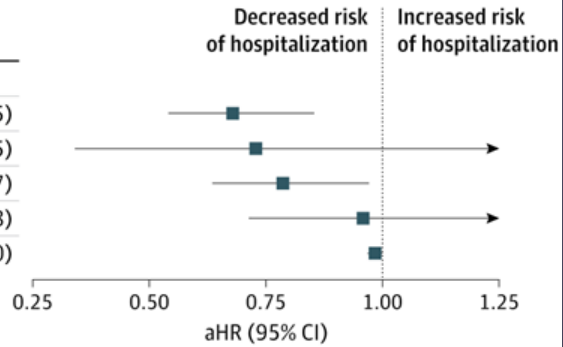
A Risk of hospitalization due to AUD associated with use of GLP-1 agonists and AUD medications in within-individual model of persons with AUD

Drug	No. Users	Events	PYs	aHR (95% CI)
GLP-1 agonists				
Semaglutide	4321	222	4677	0.64 (0.50-0.83)
Liraglutide	2509	212	3076	0.72 (0.57-0.92)
Dulaglutide	1118	139	1443	0.93 (0.68-1.28)
AUD medications	75454	30198	73222	0.98 (0.96-1.00)



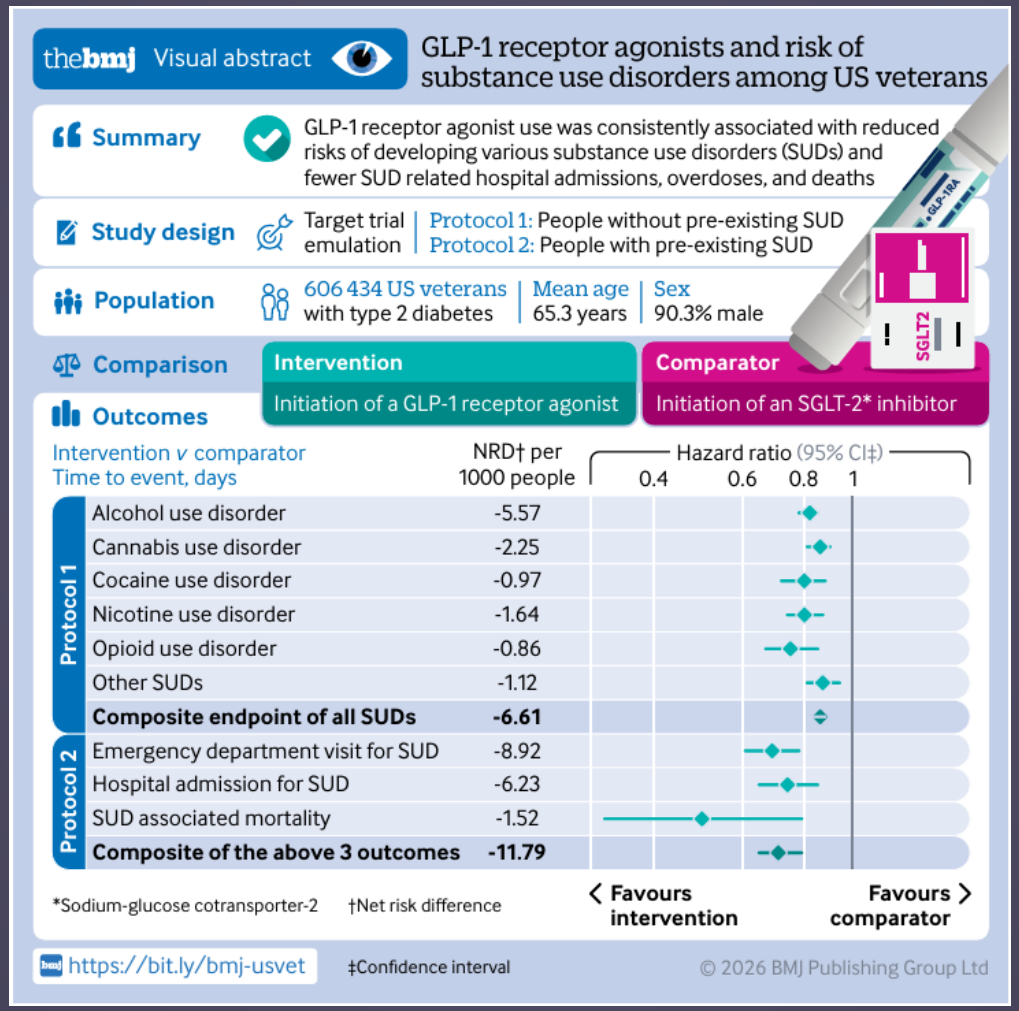
B Risk of hospitalization due to substance use disorder associated with use of GLP-1 agonists and medications for AUD in within-individual model of persons with AUD

Drug	No. Users	Events	PYs	aHR (95% CI)
GLP-1 agonists				
Semaglutide	4321	281	4667	0.68 (0.54-0.85)
Exenatide	98	13	167	0.73 (0.34-1.55)
Liraglutide	2509	262	3076	0.78 (0.64-0.97)
Dulaglutide	1118	172	1443	0.96 (0.71-1.28)
AUD medications	75454	32543	73222	0.98 (0.97-1.00)



Lähteenvuo M, Tiihonen J, Solismaa A, Tanskanen A, Mittendorfer-Rutz E, Taipale H. Repurposing Semaglutide and Liraglutide for Alcohol Use Disorder. JAMA Psychiatry. 2025;82(1):94–98. doi:10.1001/jamapsychiatry.2024.3599

GLP1 FOR SUBSTANCE USE



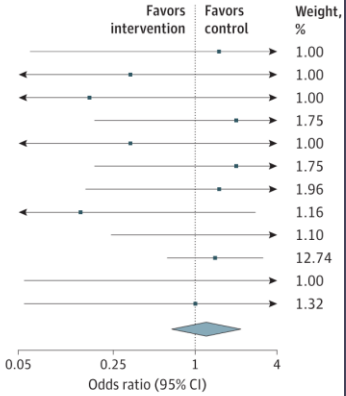
Cai M, Choi T, Xie Y, Al-Aly Z. Glucagon-like peptide-1 receptor agonists and risk of substance use disorders among US veterans with type 2 diabetes: cohort study. BMJ. 2026 Mar 4;392:e086886. doi: 10.1136/bmj-2025-086886.

GLP1 FOR DEMENTIA

Development of cognitive impairment / dementia while on glucose-lowering therapy

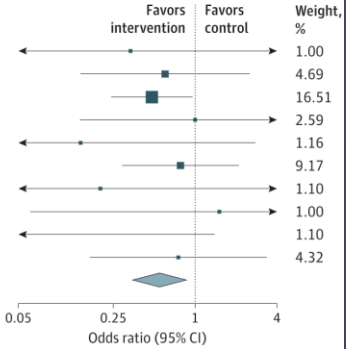
A SGLT2i

Study	Intervention event	Total	Control event	Total	ARR (95% CI)	Odds ratio (95% CI)
Zinman et al,[28] 2015	1	4687	0	2333	-0.01 (-0.09 to 0.07)	1.49 (0.06 to 36.68)
Neal et al,[29] 2017	0	2907	1	2905	0.03 (-0.06 to 0.13)	0.33 (0.01 to 8.18)
Neal et al,[29] 2017	0	2888	1	1442	0.09 (-0.09 to 0.26)	0.17 (0.01 to 4.09)
Wiviott et al,[32] 2019	2	8582	1	8578	-0.01 (-0.05 to 0.03)	2.00 (0.18 to 22.05)
McMurray et al,[31] 2019	0	2373	1	2371	0.04 (-0.07 to 0.16)	0.33 (0.01 to 8.18)
Perkovic et al,[30] 2019	2	2202	1	2199	-0.05 (-0.20 to 0.11)	2.00 (0.18 to 22.05)
Cannon et al,[35] 2020	3	5499	1	2747	-0.02 (-0.11 to 0.08)	1.50 (0.16 to 14.42)
Packer et al,[34] 2020	0	1863	3	1867	0.16 (-0.05 to 0.37)	0.14 (0.01 to 2.77)
Heerspink,[33] 2020	2	2152	0	2152	-0.09 (-0.25 to 0.06)	5.00 (0.24 to 104.30)
Anker et al,[36] 2021	14	2997	10	2991	-0.13 (-0.45 to 0.19)	1.40 (0.62 to 3.15)
Peikert et al,[37] 2022	1	3131	0	3132	-0.03 (-0.12 to 0.06)	3.00 (0.12 to 73.72)
Herrington et al,[38] 2023	1	3304	1	3305	0.00 (-0.08 to 0.08)	1.00 (0.06 to 16.00)
RE model for subgroup: Q = 6.40; *df* = 11; *P* = .85; I^2 = 0%					-0.01 (-0.04 to 0.02)	1.20 (0.67 to 2.17)



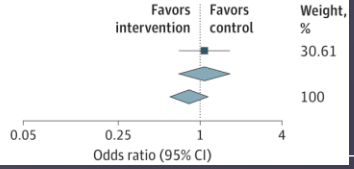
B GLP-1RA

Study	Intervention event	Total	Control event	Total	ARR (95% CI)	Odds ratio (95% CI)
Pfeffer et al,[39] 2015	0	3034	1	3034	0.03 (-0.06 to 0.12)	0.33 (0.01 to 8.18)
Marso et al,[51] 2016	3	1648	5	1649	0.12 (-0.21 to 0.46)	0.60 (0.14 to 2.51)
Marso et al,[40] 2016	12	4668	25	4672	0.28 (0.02 to 0.53)	0.48 (0.24 to 0.95)
Holman et al,[41] 2017	2	7356	2	7396	0.00 (-0.05 to 0.05)	1.01 (0.14 to 7.14)
Hernandez et al,[47] 2018	0	4731	3	4732	0.06 (-0.02 to 0.15)	0.14 (0.01 to 2.77)
Gerstein et al,[42] 2019	7	4949	9	4952	0.04 (-0.12 to 0.20)	0.78 (0.29 to 2.09)
Husain et al,[43] 2019	0	1591	2	1592	0.13 (-0.09 to 0.34)	0.20 (0.01 to 4.17)
Gerstein et al,[44] 2021	1	2717	0	1359	-0.02 (-0.15 to 0.12)	1.50 (0.06 to 36.88)
Frias et al,[45] 2022	0	304	2	102	2.26 (-0.74 to 5.27)	0.07 (0.00 to 1.39)
Lincoff et al,[48] 2023	3	8803	4	8801	0.01 (-0.05 to 0.07)	0.75 (0.17 to 3.35)
RE model for subgroup: Q = 4.72; *df* = 9; *P* = .86; I^2 = 0%					0.07 (0.02 to 0.1)	0.55 (0.35 to 0.86)



C Pioglitazone

Study	Intervention event	Total	Control event	Total	ARR (95% CI)	Odds ratio (95% CI)
TOMORROW, 2021	39	1545	46	1949	-0.16 (-1.20 to 0.87)	1.07 (0.70 to 1.65)
RE model for subgroup: Q = 0; *df* = 0; *P* = 1.00; I^2 = 0%					-0.2 (-1.0 to 0.9)	1.07 (0.70 to 1.65)
Heterogeneity: τ^2 = 0.04; χ^2 = 17.23; *P* = .75; I^2 = 6.6%					0.02 (-1.0 to 0.06)	0.83 (0.60 to 1.14)
Test for overall effect: *z* = -1.17; *P* = .24						



Seminer A, Mulihano A, O'Brien C, et al. Cardioprotective Glucose-Lowering Agents and Dementia Risk: A Systematic Review and Meta-Analysis. JAMA Neurol. 2025;82(5):450–460. doi:10.1001/jamaneurol.2025.0360

CASE 3

55 yo male with morbid obesity, OSA and obesity hypoventilation, recurrent cellulitis due to lymphedema, impaired mobility, major depressive disorder.

- Treated with sertraline 200mg daily, bupropion XL 300mg daily, trazodone 150mg qhs.

Data:

- Current BMI 70.6
- HbA1c 6.3%
- Lipids: Total cholesterol 159, LDL 82, HDL 19, triglycerides 234
- BP 132/62, no history of HTN.

1. His primary care doctor has not discussed obesity with him at their last several visits. Would you prescribe him a GLP1?
2. He initially loses 30 lbs in the first 5 months on semaglutide and then plateaus. What do you do next?
3. You switch him to tirzepatide for dual indication for obesity and OSA. He titrates to maximum dose of tirzepatide, but he has gained net 5 lbs in the past 9 months despite medication. What do you do next?

CONCLUSIONS

- GLP1s help patients with pre-existing obesity or medical co-morbidities lose weight, even while taking antipsychotic medications.
- GLP1s are generally well tolerated and safe.
  - Important to screen for contraindications and comorbidities.
  - Counseling on meal size and constipation can mitigate GI side effects.
- Cost and insurance coverage is still a major barrier to general accessibility.
- You can do it!

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QUESTIONS?