

An Introductory Framework for Multimodal Management of Obesity

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Disclosures



Bariatric Surgeon



Agenda

Part 1: An Introductory Framework

- Obesity as a Chronic Disease Epidemic
- Evolution of Bariatric Surgery: Safety and Efficacy
- Multimodal Approach to Weight Management

Part 2: GLP1-RAs in Practice (Dr. Jackie Lee).

Appreciating Obesity as a Chronic Disease Epidemic



Defining Obesity as a Chronic Disease

Definition (BMI-based)

Abnormal or excessive fat that harms health, classified using BMI thresholds ($>30\text{kg}/\text{m}^2$).

Biologic underpinnings

Altered metabolism, hormone regulation, and genetic predisposition underpin disease risk.

Chronic disease criteria

Progressive, multifactorial, and requires sustained, long-term management.

Clinical implications

Requires comprehensive care models and broader insurance coverage.

Practitioner vs Patient Models of Obesity

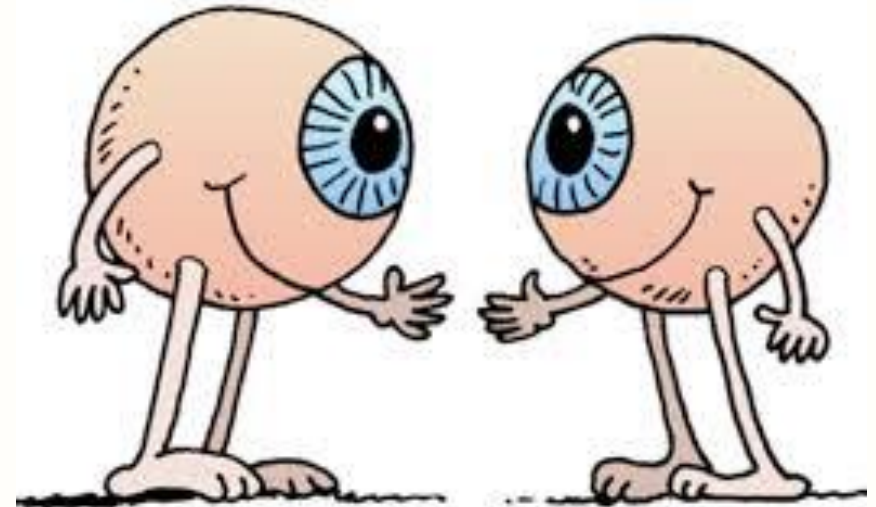
Ogden J, Bandara I, Cohen H, Farmer D, Hardie J, Minas H, Moore J, Qureshi S, Walter F, Whitehead MA. General practitioners' and patients' models of obesity: whose problem is it? *Patient Educ Couns*. 2001 Sep;44(3):227-33.

Practitioners

- Cause: Overeating
- Solution: Patient-driven

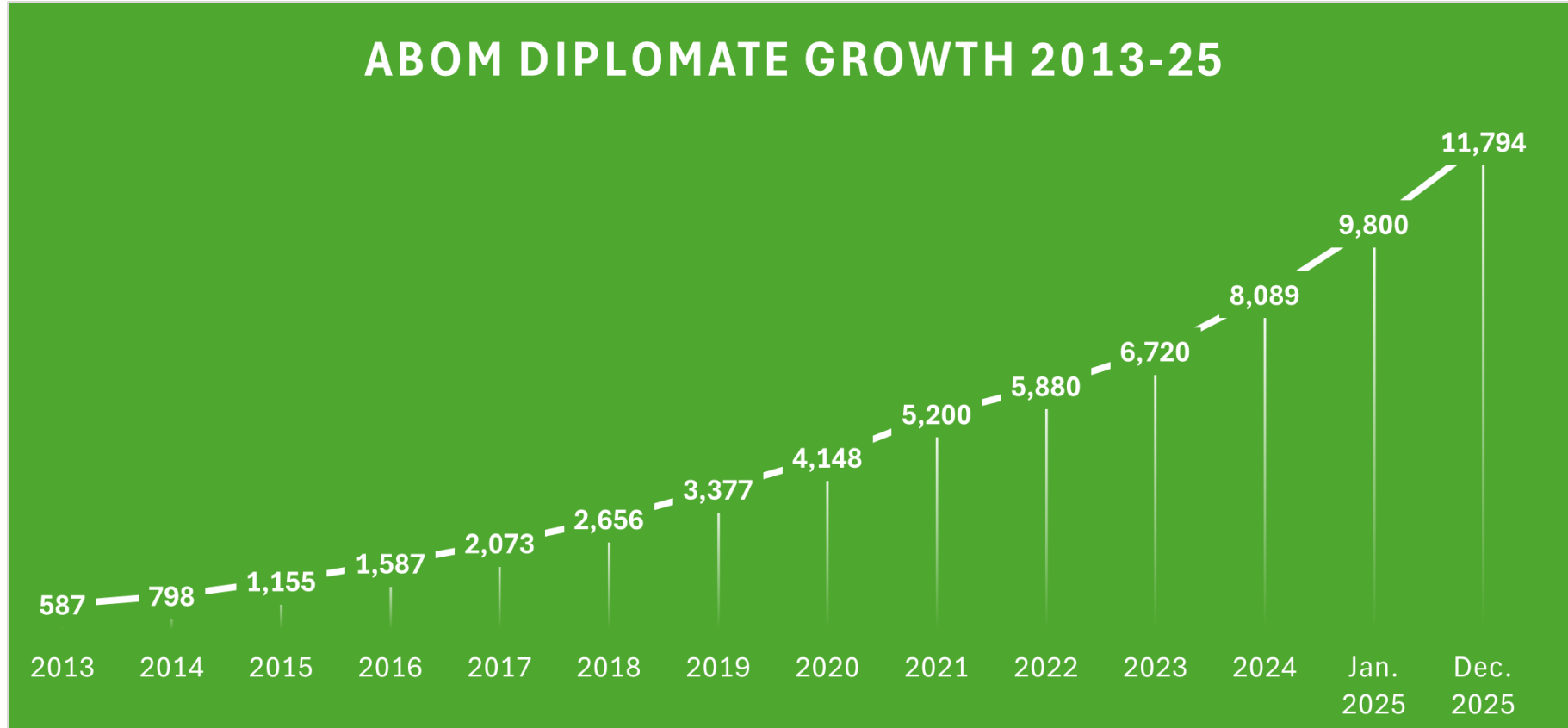
Patients

- Cause: Hormones, Metabolism, Stress
- Solution: Provider-driven



Providers Rising to the Occasion

American Board of Obesity Medicine certification since obesity was labeled a disease.



[Stats and Data - American Board of Obesity Medicine](#)

Epidemiology and Prevalence

16% | **42%** | **31.5%**
 Global | National | WA State

Table. Modeled Estimates of Prevalence of Obesity (Body Mass Index ≥30) in the US Over Time^a

Race and ethnicity group	Sex	1990	2022	2035 (forecasted)	Absolute change		Annualized rate of change, % ^b	
					1990-2022	2022-2035 (forecasted)	1990-2022	2022-2035 (forecasted)
Age-standardized prevalence of obesity, % (95% UI)^c								
Hispanic, any race	Female	24.2 (21.3-27.3)	49.4 (46.3-52.4)	53.7 (48.7-57.7)	25.2 (21.2-29.6)	4.3 (1.0-5.4)	2.2 (1.8-2.7)	0.6 (0.2-0.8)
	Male	17.4 (14.7-20.4)	42.6 (39.1-46.2)	47.5 (42.5-51.9)	25.2 (20.9-29.8)	4.9 (1.9-6.1)	2.8 (2.2-3.4)	0.8 (0.3-1.0)
Non-Hispanic Black	Female	36.6 (33.0-40.3)	56.9 (54.1-59.9)	59.5 (56.0-62.9)	20.3 (16.0-24.8)	2.6 (0.8-3.4)	1.4 (1.1-1.7)	0.3 (0.1-0.4)
	Male	22.0 (19.3-24.9)	40.4 (37.4-43.3)	43.1 (39.8-46.6)	18.4 (14.7-22.2)	2.7 (1.2-3.6)	1.9 (1.5-2.4)	0.5 (0.2-0.6)
Non-Hispanic White	Female	17.4 (15.6-19.1)	41.5 (39.7-43.4)	47.3 (44.8-49.7)	24.1 (21.3-27.0)	5.9 (4.5-6.5)	2.7 (2.4-3.1)	1.0 (0.8-1.1)
	Male	18.8 (16.9-20.9)	40.1 (37.8-42.5)	44.6 (41.9-47.3)	21.3 (17.9-24.7)	4.5 (3.4-5.3)	2.4 (2.0-2.8)	0.8 (0.6-1.0)
No. of adults living with obesity, millions (95% UI)^c								
Hispanic, any race	Female	1.55 (1.36-1.75)	10.5 (9.83-11.1)	14.5 (13.1-15.5)	8.94 (8.27-9.62)	3.96 (3.03-4.40)	6.0 (5.6-6.4)	2.5 (2.0-2.6)
	Male	1.21 (1.02-1.41)	9.26 (8.51-10.0)	13.2 (11.9-14.5)	8.06 (7.30-8.86)	3.98 (3.07-4.46)	6.4 (5.8-6.9)	2.8 (2.3-3.0)
Non-Hispanic Black	Female	3.73 (3.36-4.11)	9.72 (9.23-10.2)	11.5 (10.8-12.2)	5.99 (5.40-6.62)	1.80 (1.44-2.01)	3.0 (2.7-3.4)	1.3 (1.1-1.4)
	Male	1.89 (1.66-2.14)	6.13 (5.68-6.57)	7.61 (7.02-8.23)	4.24 (3.78-4.74)	1.49 (1.19-1.68)	3.7 (3.2-4.1)	1.7 (1.4-1.8)
Non-Hispanic White	Female	12.9 (11.6-14.2)	33.4 (31.9-35.0)	36.5 (34.6-38.4)	20.5 (18.3-22.7)	3.17 (2.09-3.70)	3.0 (2.6-3.3)	0.7 (0.5-0.8)
	Male	12.7 (11.4-14.1)	32.1 (30.2-34.1)	34.4 (32.3-36.6)	19.4 (16.8-22.0)	2.32 (1.49-2.93)	2.9 (2.5-3.3)	0.5 (0.3-0.7)

^a Prevalence of obesity for 1990 and 2022 was estimated using spatiotemporal gaussian process regression. Prevalence of obesity for 2035 was forecasted using an ensemble model of 6 annualized rate of change models and six 2-stage MR-BRT (meta-regression—bayesian, regularized, trimmed) spline models. See eTable 2 in Supplement 1 for numbers and characteristics of the surveys used as input data for modeling.

^b Annualized rate of change included to compare change between periods of different lengths (1990 to 2022 and 2022 to 2035).

^c Uncertainty intervals (UIs) are the 2.5th and 97.5th percentiles of the draws from the posterior distribution of the models.

Health Consequences & Healthcare Impact

\$173B

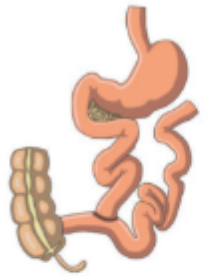
Annual U.S. medical costs attributed to obesity (2019 CDC estimate)

Raises risk of type 2 diabetes, cardiovascular disease, certain cancers, osteoarthritis, and mental health disorders—reducing life expectancy and quality of life while increasing healthcare demand and clinical complexity.

Too big to succeed?

Is Bariatric Surgery Relevant Today?

Bariatric Surgery: Not New, Just Better

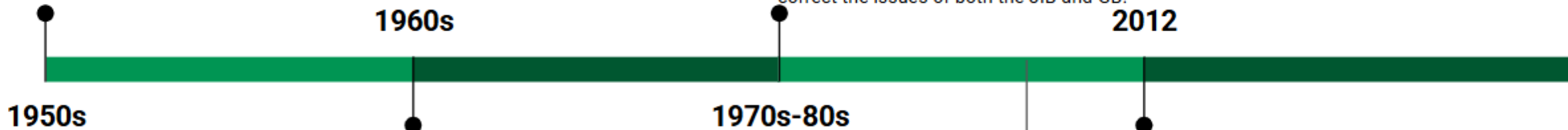


Jejunioleal Bypass

A purely malabsorptive procedure with significant nutritional complications.

BPD/DS, Gastroplasties, Banding

Laparoscopic banding came into vogue in the early 2000s, but various fixed bands and stapled techniques were used to restrict the stomach earlier. The BPD/DS was meant to correct the issues of both the JIB and GB.



1950s

1960s

1970s-80s

2012

Gastric Bypass

This operation would evolve over the years into its current roux en y format performed minimally invasively.

Medicare Starts Covering Sleeve Gastrectomy

The sleeve was performed prior to this usually as the first stage of a BPD/DS.






Open

Laparoscopy

Most Consequential Recent Advances: Minimally invasive surgery (laparoscopic→robotic), better perioperative care, ERAS/optimization.

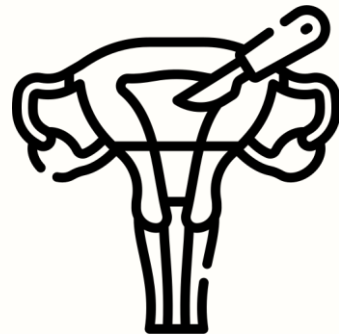


	Sleeve Gastrectomy (LSG)	Roux en Y Gastric Bypass (RYGB)	Biliopancreatic Diversion with Duodenal Switch (BPD/DS or SADI)
			
Description	<p>The most frequently performed procedure due to ease and effectiveness.</p> <p>Involves removing ~75% of the lateral aspect of the stomach permanently.</p>	<p>The second most frequently performed procedure.</p> <p>Involves dividing the stomach into two parts, an egg-sized pouch which receives food and the rest which is left in place. The intestines are rerouted to delay when food and digestive enzymes mix.</p>	<p>Relatively uncommon due to complexity and higher risk profile. Typically reserved for diabetic patients with a BMI > 50.</p> <p>This is essentially a combination of a sleeve and bypass, but the rerouting is done very distally. The version with a single connection is safer and has lower risk of malnutrition.</p>
How does it work?	Reduces calories taken in by limiting appetite, volume.	Reduces calories taken in by limiting appetite, volume, and absorption.	Reduces calories taken in by limiting appetite, volume, and absorption.
Expected TWL%	~25%	~35%	~40%
Improvement of Obesity Related Comorbidities	++	+++	++++
Overall Risk	↑	↑↑	↑↑↑
Avoid if...	You have significant reflux at baseline.	You have risk factors for ulcers, a solitary kidney, or advanced liver disease.	You have significant reflux at baseline, diarrhea at baseline, trouble w supplements.

Surgical Safety & Perioperative Care

	Roux-en-Y gastric bypass (n = 43,354)	Sleeve gastrectomy (n = 98,292)	Total (n = 141,646)
30-Day mortality (% , n)	0.2% (73)	0.1% (88)	0.1% (161)
30-Day reoperation (% , n)	2.5% (1104)	1% (940)	1.4% (2044)
30-Day readmission (% , n)	6.5% (2807)	3.5% (3396)	4.4% (6203)
30-Day intervention (% , n)	2.8% (1207)	1.2% (1131)	1.7% (2338)

Progress in Cardiovascular Diseases 61 (2018) 253–269



Efficacy in Comorbidity Management

Migranes 46% improved

Depression 47% reduced

Pseudotumor cerebri
96% resolution of headaches

Obstructive sleep apnea
45% to 76% resolved

High cholesterol
71% to 94% improved

Asthma 39% resolved

High blood pressure
42% to 66% resolved

Nonalcoholic fatty liver disease
37% resolution of steatosis



Metabolic syndrome 80% resolved

Gastroesophageal reflux
72% to 95% resolved

Type 2 diabetes 45% to 68% resolved

Polycystic ovarian syndrome
52% resolution of hirsutism,
100% resolution of menstrual dysfunction

Urinary stress incontinence 50% resolved

Osteoarthritis/degenerative joint disease
41% resolved

Venous stasis disease
95% resolution of venous stasis ulcers

Reality of Life After Bariatric Surgery

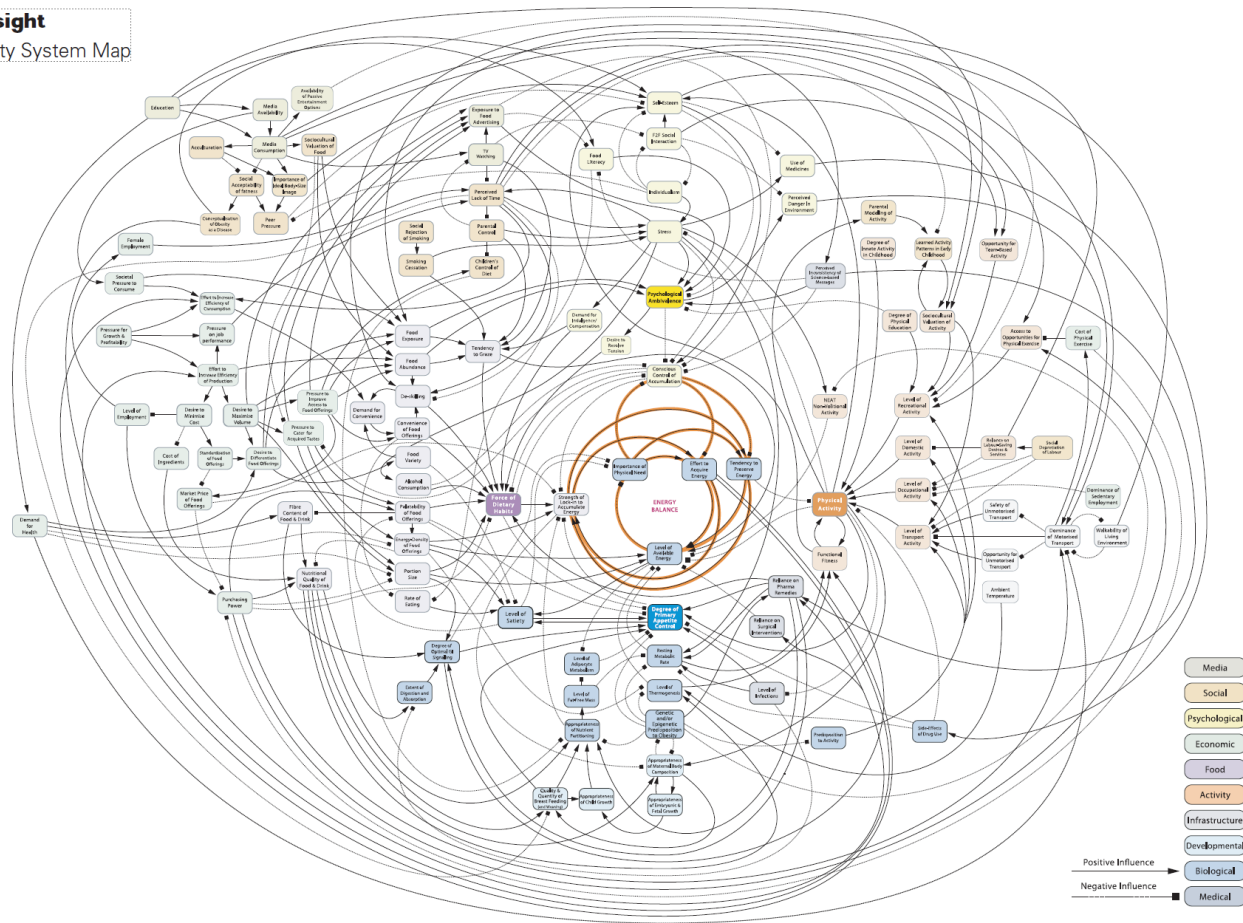


Multimodal Approach to Weight Management

Complex Problems Require Complex Solutions

The key to success is comprehensive, multifaceted, long-term management.

Foresight
Obesity System Map



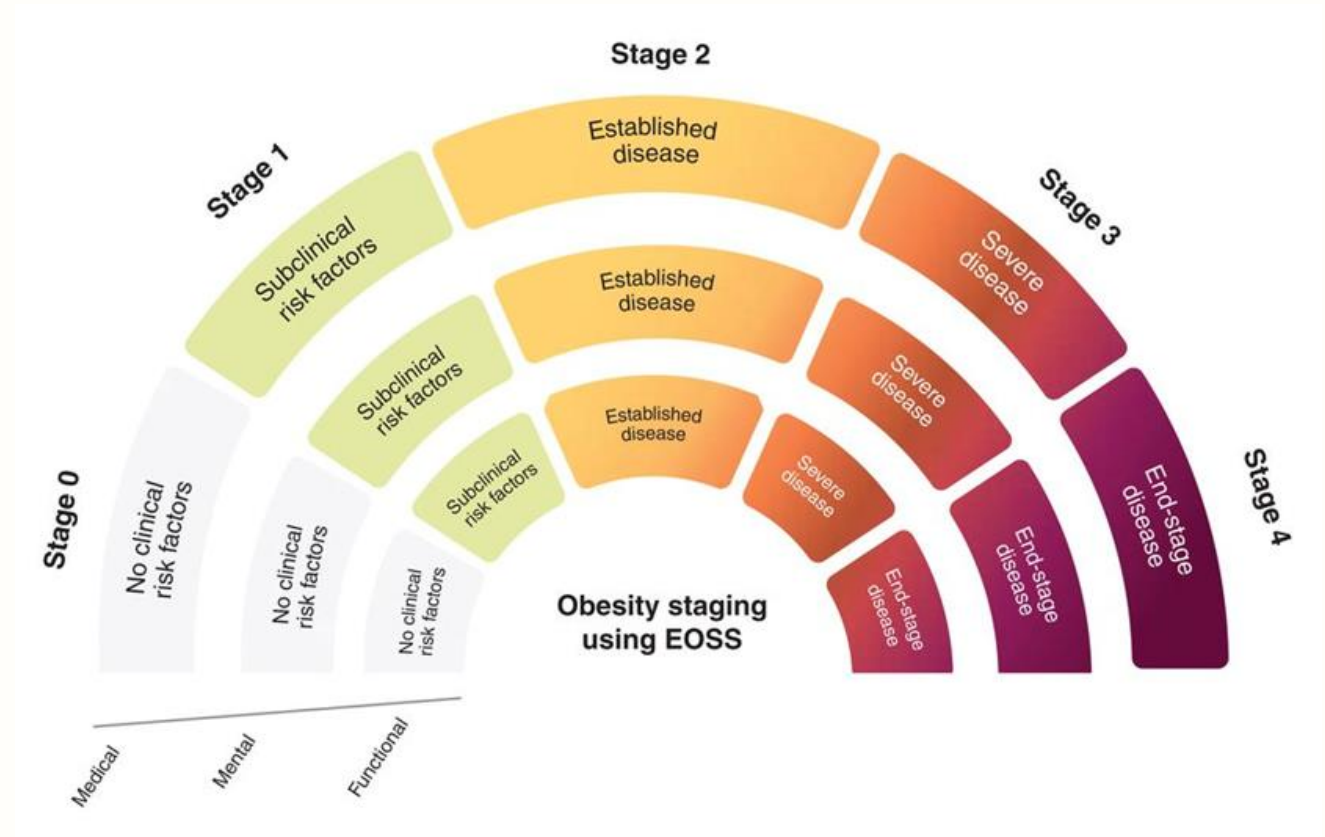
www.gov.uk/government/collections/tackling-obesities-future-choices

Cardiology
Orthopedics
Oncology

Management Starts w Staging

BMI category	Recommendations	Source
25-29.9, overweight	Overweight without additional risk factors: counsel on preventing further weight gain and advise patients to engage in regular physical activity	AHA/ACC/TOS 2013
	Lifestyle interventions (diet, physical activity, behavior therapy)	AHA/ACC/TOS 2013, ACE/ACE 2016
	Consider adjunctive pharmacotherapy if BMI \geq 27 with obesity-associated comorbidities ^a	ACE/ACE 2016
30-34.9, obesity class 1	Lifestyle interventions (diet, physical activity, behavior therapy)	AHA/ACC/TOS 2013, ACE/ACE 2016
	Consider adjunctive pharmacotherapy	ACE/ACE 2016
35-39.9, obesity class 2	Consider adjunctive pharmacotherapy	ACE/ACE 2016
	Lifestyle interventions (diet, physical activity, behavior therapy)	AHA/ACC/TOS 2013, ACE/ACE 2016
	Offer referral for bariatric surgery consultation and evaluation if comorbidities present ^a	AHA/ACC/TOS 2013, ACE/ACE 2016
\geq 40, obesity class 3	Offer referral for bariatric surgery consultation and evaluation	AHA/ACC/TOS 2013, ACE/ACE 2016
	Consider adjunctive pharmacotherapy	ACE/ACE 2016
	Lifestyle interventions (diet, physical activity, behavior therapy)	AHA/ACC/TOS 2013, ACE/ACE 2016

Table based on AHA/ACC/TOS 2013 [19] and ACE/ACE 2016 [18] recommendations.



Lifestyle & Behavioral Therapy

Foundation of obesity treatment

Lifestyle modification combines nutrition, physical activity, and psychological supports to build sustainable routines.

Behavioral therapy tools

Targets habits and emotional triggers with skills like self-monitoring, stimulus control, and problem-solving.

Why it still matters

Lifestyle-only weight loss is often ~5%, but it supports long-term maintenance and improves response to added therapies.



Surgery | AOMs

And/Or, not Versus

Bariatric Surgery vs GLP1s

Cost Effectiveness

- GLP1s: [Lifetime Health Effects and Cost-Effectiveness of Tirzepatide and Semaglutide in US Adults | Health Policy | JAMA Health Forum | JAMA Network](#)
- Surgery: [Journal of the American College of Surgeons](#)

Heterogeneity of Outcomes

- GLP1s: [Heterogeneity of Treatment Effects of Glucagon-Like Peptide-1 Receptor Agonists for Weight Loss in Adults: A Systematic Review and Meta-Analysis | JAMA Internal Medicine | JAMA Network](#)

Body Composition Changes

- [Body Composition Changes After Bariatric Surgery or Treatment With GLP-1 Receptor Agonists | JAMA Network Open | JAMA Network](#)

Surgery vs GLP1s (all)

- [Obesity Treatment With Bariatric Surgery vs GLP-1 Receptor Agonists | Obesity | JAMA Surgery | JAMA Network](#)

		Mean %BW lost	≥5% Weight Loss	≥10% Weight Loss
orlistat	120 mg PO TID (Rx)	3-4%	14-27%	8-17%
Phentermine/Topiramate	15 mg/92 mg PO daily	8-9%	49%	40%
Naltrexone/Bupropion	16 mg/180 mg PO BID	2-4%	18-25%	10-14%
liraglutide 3 mg	3 mg subcut inj daily	4-5%	23-33%	17-19%
semaglutide 2.4 mg	2.4 mg subcut inj weekly	6-12%	37-52%	34-54%
tirzepatide	5-15 mg subcut inj weekly	10-18%	47-56%	49-65%
Gastric Sleeve	5-year weight results ¹⁸	18-20%	87-88%	75-80%
Gastric Bypass	5-year weight results ¹⁸	25-26%	95-97%	90-95%

DISEASE	SURGERY	GLP-1 RA	DISEASE	SURGERY	GLP-1 RA
CANCER	+++	?	LIVER	+++	+
MORTALITY	++++	+	DEMENTIA	++++	+
DIABETES	+++	+	ORTHO	++	+
CARDIOVASC	+++	+	IIIH-HEADACHE	+++	+
KIDNEY	+++	+	PREGNANCY	+++	--
OPHTHALMO	+++	--	FEM REPROD	+++	+
HTN	+++	+	MALE REPROD	+++	+
DYSLIPIDEMIA	+++	+	SUICIDE	+/-	+/-
SLEEP APNEA	+++	+	SUB ABUSE	--	++++

Fedorka, P. Bariatric Surgery & GLP-1 Medications. KP Presentation. 11 February 2026.

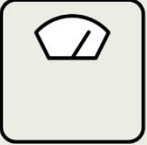

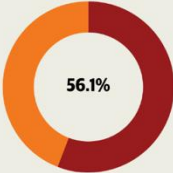
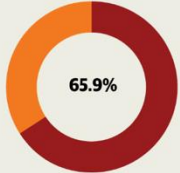

Remember: There is no single Panacea



Durability of Weight Loss w Bariatric Surgery

JAMA Surgery


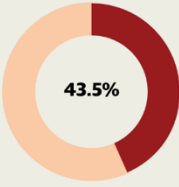
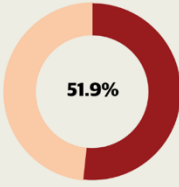

RCT: Long-Term Outcomes of Laparoscopic Roux-en-Y Gastric Bypass vs Laparoscopic Sleeve Gastrectomy for Obesity

<p>POPULATION 61 Males, 156 Females</p>  <p>Adults (age 18-65 y) with a body mass index (BMI) >40 or with BMI >35 and ≥1 obesity-related comorbidity Mean (SD) age, 42.5 (11.1) y</p>	<p>INTERVENTION 225 Patients randomized</p>  <p>69 Sleeve gastrectomy Surgical removal of a portion of the stomach to limit food intake</p> <p>73 Roux-en-Y gastric bypass Surgical procedure to create a small stomach pouch and reroute the intestines</p>	<p>FINDINGS</p> <p>The Roux-en-Y gastric bypass group had significantly greater excess BMI loss compared with the sleeve gastrectomy group in the per-protocol population. The sleeve gastrectomy group had significantly higher conversion rates because of insufficient weight reduction or reflux compared to Roux-en-Y gastric bypass.</p> <div style="display: flex; justify-content: space-around;"> <div data-bbox="978 605 1149 829"> <p>Sleeve gastrectomy</p>  <p>56.1%</p> </div> <div data-bbox="1174 605 1352 829"> <p>Roux-en-Y gastric bypass</p>  <p>65.9%</p> </div> </div> <p>Mean (SD) excess BMI loss, % Sleeve gastrectomy: 56.1 (25.2) Roux-en-Y gastric bypass: 65.9 (26.3); P = .048</p>
<p>SETTINGS / LOCATIONS</p>  <p>4 Bariatric centers in Switzerland</p>	<p>PRIMARY OUTCOME Percentage excess BMI loss at 10 y</p>	

Kraljević M, Süsstrunk J, Wölnerhanssen BK, et al. Long-term outcomes of laparoscopic Roux-en-Y gastric bypass vs laparoscopic sleeve gastrectomy for obesity: the SM-BOSS randomized clinical trial. *JAMA Surg.* Published online February 19, 2025. doi:10.1001/jamasurg.2024.7052

5-10% regain by 10Y

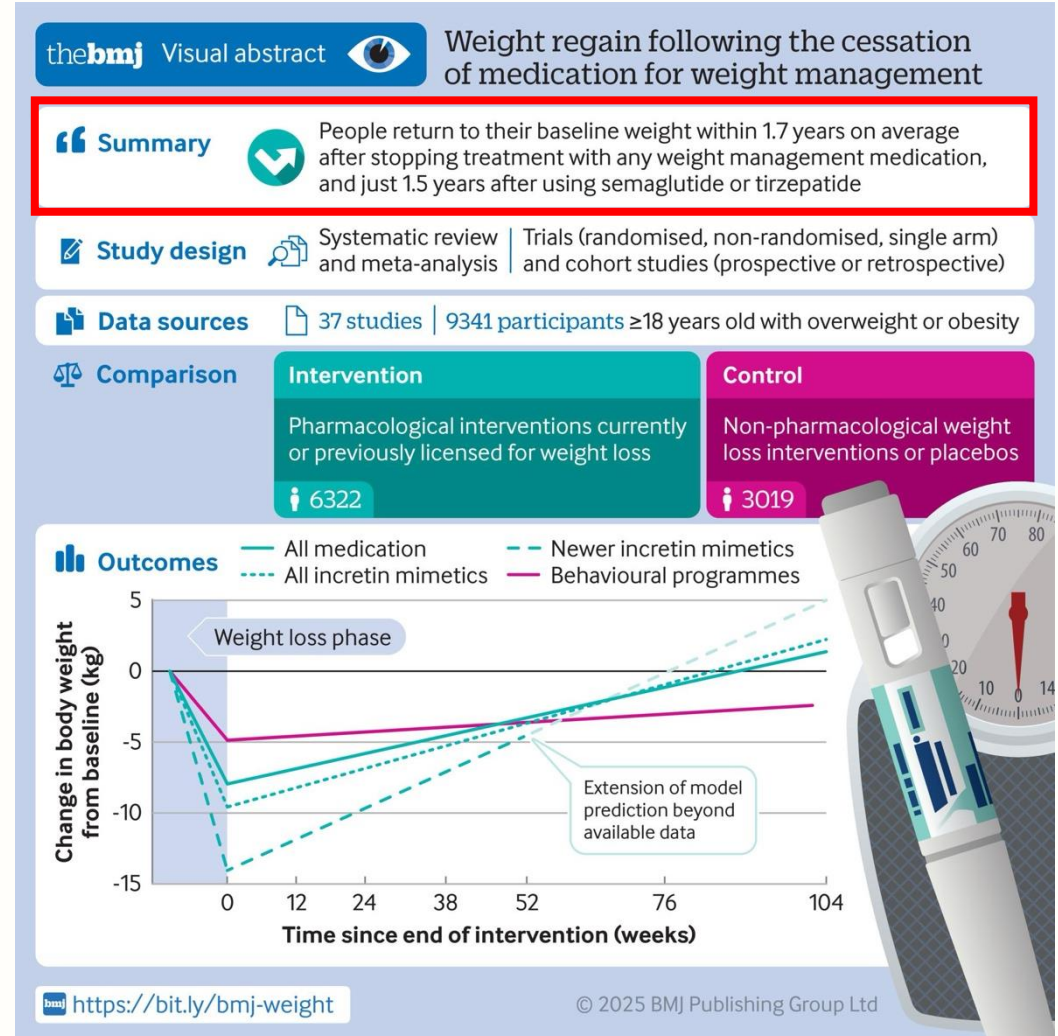
ny vs Roux-en-Y Gastric Bypass on Weight Loss, Comorbidities, Obesity

<p>Adults aged 18-60 y with body mass index (BMI) ≥40 (or ≥35 with obesity-related comorbidity) and prior nonsurgical treatment Mean age, 48.4 y; mean BMI, 44.6</p>	 <p>98 LSG Laparoscopic sleeve gastrectomy</p> <p>95 LRYGB Laparoscopic Roux-en-Y gastric bypass</p>	<p>FINDINGS</p> <p>Both LSG and LRYGB resulted in sustainable weight loss, but 10-y %EWL was not equivalent between the 2 groups</p> <div style="display: flex; justify-content: space-around;"> <div data-bbox="1783 953 1961 1239"> <p>10-y %EWL</p> <p>LSG</p>  <p>43.5%</p> <p>95% CI, 39.8-47.2</p> </div> <div data-bbox="1987 953 2165 1239"> <p>LRYGB</p>  <p>51.9%</p> <p>95% CI, 48.1-55.6</p> </div> </div> <p>Between-group difference in mean 10-y %EWL: 8.4 Percentage points (95% CI, 3.1-13.6)</p>
<p>SETTINGS / LOCATIONS</p>  <p>3 Hospitals in Finland</p>	<p>PRIMARY OUTCOME</p> <p>10-y Percentage excess weight loss (%EWL), defined as the difference between initial weight and follow-up weight divided by the difference between initial weight and ideal weight for BMI of 25, multiplied by 100</p>	

Salminen P, Grönroos S, Helmiö M, et al. Long-term effect of laparoscopic sleeve gastrectomy vs Roux-en-Y gastric bypass on weight loss, comorbidities, and reflux in adult patients with obesity: the SLEEVEPASS randomized clinical trial. *JAMA Surg.* Published online June 22, 2022. doi:10.1001/jamasurg.2022.2229

Durability of Weight Loss w GLP1 Therapy

Nearly 2/3 of patients discontinue GLP1s by year 2 due to cost, side effects, plateau, etc.



Bariatric Surgery and/or AOMs

Combination Therapy

Disclaimer: There are no official guidelines. Data is sparse.


Neoadjuvant: Improve perioperative safety

- Pro: Liver size, bleeding risk; Abdominal wall compliance; Blood clots
- Con: Aspiration/med interactions.
- TBD: May impact postoperative weight loss
- Con? Attrition 7%

Adjuvant: Support weight loss/maintenance

- Additional loss of 7-10% (liraglutide), 13% (semaglutide)
- Overall proportion of pts losing 5, 10% of weight was higher.
- TBD: What happens after stopping medication?

Precision Medicine

	Hungry brain, abnormal satiation	Hungry gut, abnormal postprandial satiety	Emotional hunger, abnormal emotional eating	Slow burn, abnormal resting expenditure
Lifestyle intervention [41]	• Hungry brain diet	• Hungry gut diet	• Behavioral therapy • Hungry feelings diet	• Intense exercise plan • Slow burn diet
Medication [40, 42, 49, 50]	• Phentermine-Topiramate ER	• Liraglutide • Semaglutide	• Bupropion-Naltrexone SR	• Phentermine
Endoscopy [51-55]				
Surgery [54, 56, 57]	• Laparoscopic sleeve gastrectomy	• Roux-en-Y gastric bypass		

Alabduljabbar K, le Roux CW. Pharmacotherapy before and after bariatric surgery. *Metabolism*. 2023 Nov;148:155692. doi: 10.1016/j.metabol.2023.155692. Epub 2023 Sep 18.
 Maria Antonia Espinosa, Rene de J Rivera Gutierrez, Jose Villamarin, Andres Acosta, Precision Medicine for Obesity Treatment, *Journal of the Endocrine Society*, Volume 9, Issue 9, September 2025.

Practical Strategies for General Practitioners



Personalization

Use a scale (e.g. EOSS) to triage patients and treat it as a chronic disease with stage appropriate interventions/referrals.



Expand Skills, Refer to Experts

Consider earning ABOM certification to enhance training and self-efficacy. Alternatively, align with patients to refer to bariatricians and bariatric surgeons.



Bariatric Surgery

Still the Gold Standard for weight and comorbidity management. Reassess dramatization as drastic, overly risky.



Pharmacotherapy (GLP-1 Agonists)

Enhances and sustains weight loss post-surgery, reduces risk of weight regain, and supports metabolic health.

Questions?

Advancing Comprehensive Care for Obesity



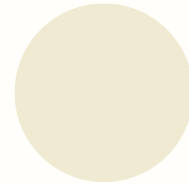
Chronic disease framing

Obesity requires sustained, comprehensive management rather than short-term, single-modality treatment.



Multimodal therapy

Bariatric surgery and pharmacotherapy expand options when integrated with individualized lifestyle support.



Primary care leadership

PCPs as experts in prevention and lifestyle management for all patients.



Specialists

Bariatricians as experts in complex care management.

GLP-1 RAs in Practice:

Optimizing Patient Outcomes and Navigating Real-World Challenges

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Center for Weight Management

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Mar 21, 2026

I have no disclosures or conflicts of interest

Objectives

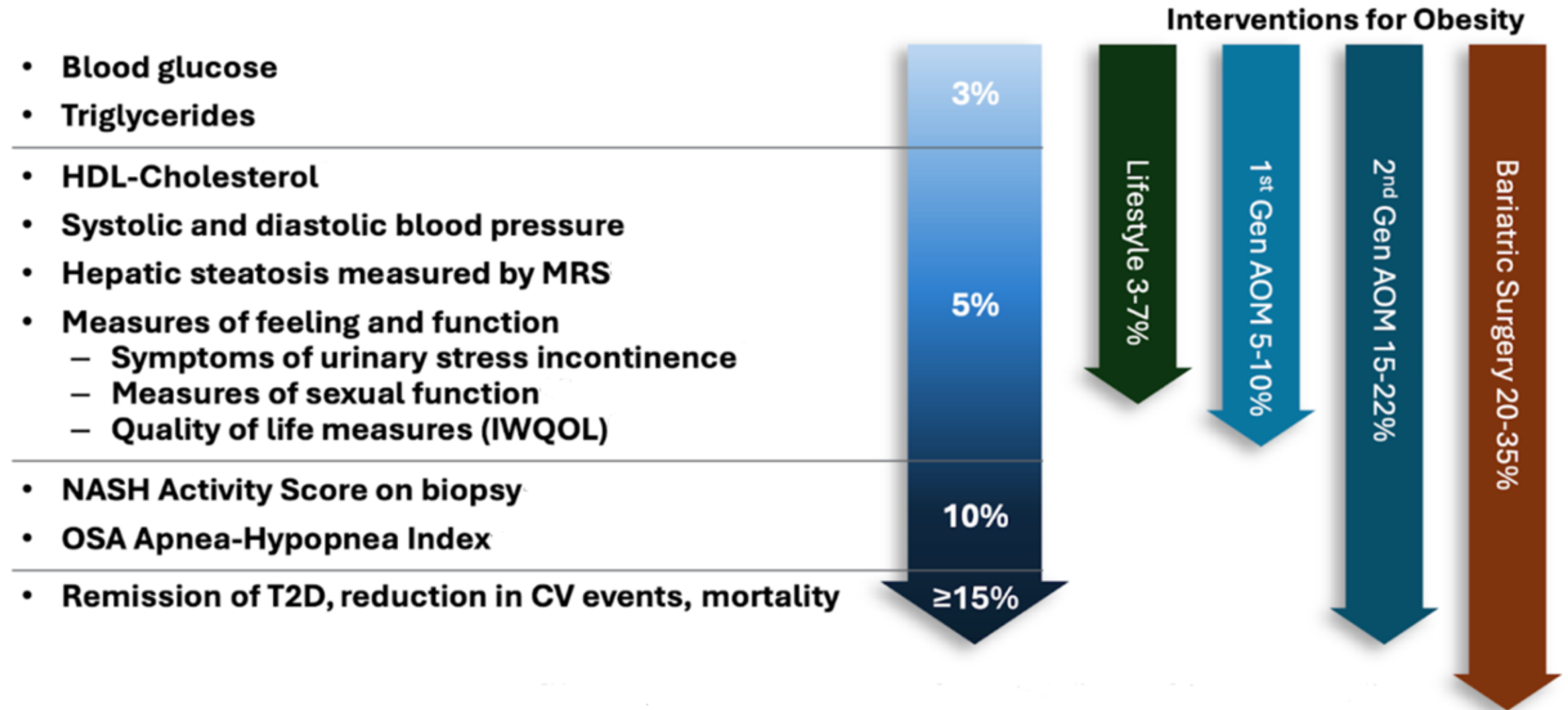
Review FDA-approved indications and develop an evidence-based prescribing strategy for GLP-1 Receptor Agonists (GLP-1 RAs) to optimize treatment efficacy.

Implement proactive strategies to counsel patients and mitigate common GLP-1 RAs related GI side effects.

Discuss practical approaches to navigate the cost and accessibility challenges of GLP-1 RAs.

Section 1: Optimizing Prescribing Strategy

Percentage Of Weight Reduction And Health Improvements



Beyond A1c:

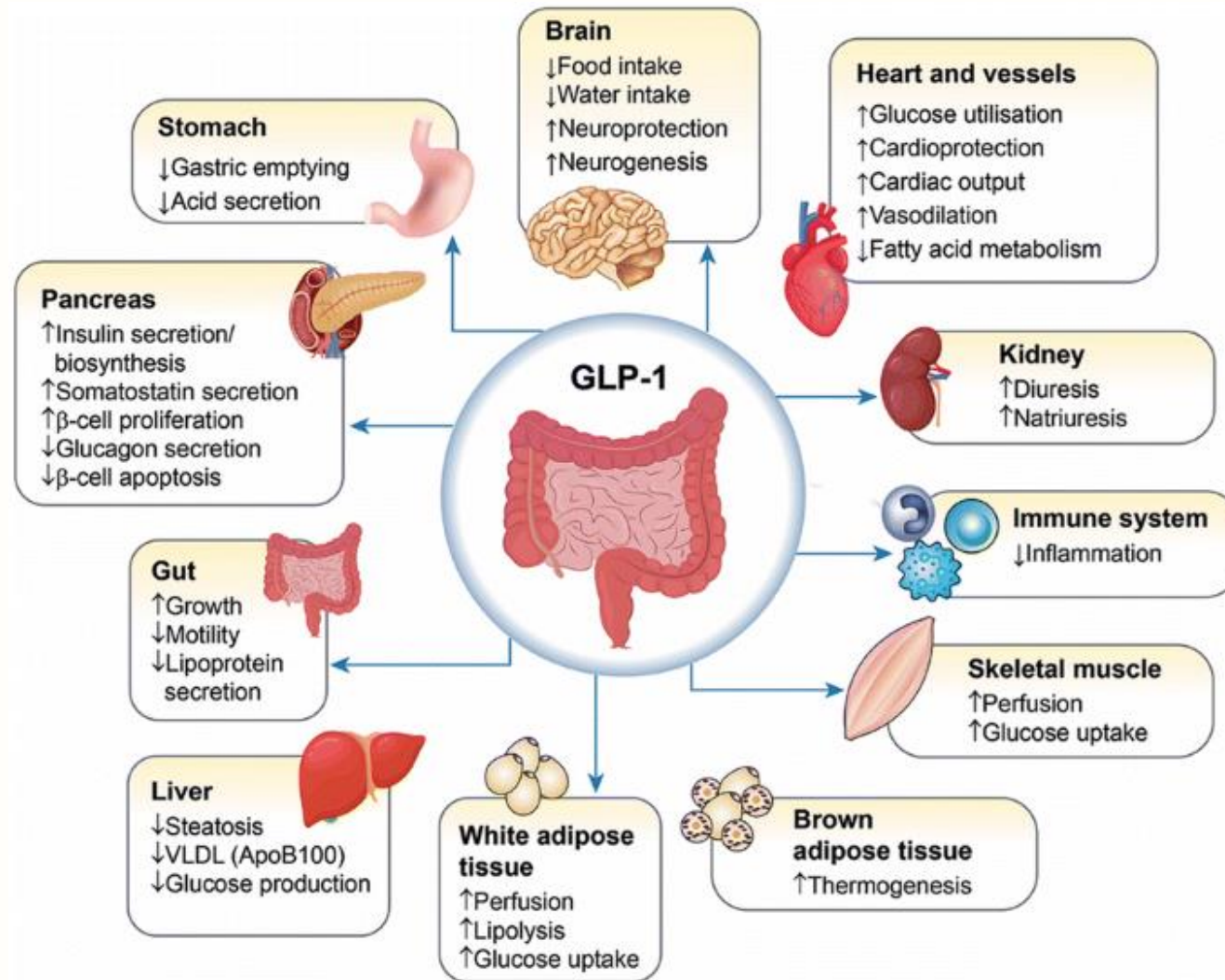
2026 ADA Standards of Care in Diabetes

GLP-1RA is recommended for patients with:

- Established ASCVD
- High risk of ASCVD
- CKD
- Heart Failure



The Evolving Landscape of GLP-1 RAs



Investigational GLP-1 agonist trials for chronic diseases

Condition	Semaglutide	Tirzepatide	Trial Name
HFpEF	Improved CHF symptoms and exercise capacity	less mortality/worsening CHF, improved symptoms & exercise capacity	STEP-HFpEF 2023 (S) SUMMIT 2025 (T)
MASH/NASH	Reduced liver fibrosis		ESSENCE 2025 (S) SYNERGY-NASH 2024 (T)
Cardiovascular risk reduction	FDA approved	Phase 3 Trial closes 2027	SELECT 2023 (S) SURMOUNT MMO (T)
T1DM & Obesity	Improved time in range	Phase 3 Trial closes 2027	ADJUST-T1D 2025 (S) SURPASS-T1D-1 (T)
Major Depression	Phase 3 trial completed/unpublished		NCT04466345 (S)
ETOH use	Phase 3 Trial completes this year	Phase 2 Trial closes 2026	SEMALCO (S) NCT06994338 (T)
Non-diabetic CKD	Phase 3 Trial completes soon		SMART (S)
Alzheimer's	Phase 3 trial enrolling		EVOKE (S)

Current FDA-Approved Indications as of 3/2026

	T2DM	Obesity	CVD	CKD	MASH	OSA
Liraglutide Victoza	Adults and Peds 10+ with T2DM		Adults with T2DM with est ASCVD			
Saxenda		Adults with BMI ≥ 30 or ≥ 27 with at least 1 comorbid Peds 12+ with obesity ($\geq 95\%$ tile)				
Semaglutide Ozempic	Adults 18+ with T2DM		Adults with T2DM with est ASCVD	Adults with T2DM with CKD		
Rybelsus	Adults 18+ with T2DM		Adults with T2DM with est ASCVD			
Wegovy		Adults and Peds 12+	Adults overweight with est ASCVD		Adults MASH with F2 - F3 fibrosis	
Wegovy Pill		Adults 18+ only				
Tirzepatide Mounjaro	Adults and Peds 10+ with T2DM					
Zenbound		Adults 18+ only				Adults only; mod to severe

Established ASCVD (ADA, AHA, ACC)

1. Coronary Artery Disease (CAD)
 - a. Prior Myocardial Infarction
 - b. Prior Coronary Revascularization: CABG or PCI
 - c. Angina: stable or unstable, especially if corroborated by objective evidence (stress test...etc.)
 - d. Documented Significant Coronary Stenosis
2. Cerebrovascular Disease
 - a. Prior Ischemic Stroke
 - b. Prior Transient Ischemic Attack
 - c. Carotid Artery Disease
3. Peripheral Artery Disease
 - a. Prior Peripheral Revascularization
 - b. Amputation due to Atherosclerosis
 - c. Intermittent Claudication particularly if confirmed by objective tests (e.g. ABI < 0.9)
 - d. Documented significant peripheral arterial stenosis by radiographic evidence

MASH/MASLD for

Acceptable Fibrosis Testing:

1. Liver Biopsy (Gold Standard)
2. Elastography (Most common)
 - a. FibroScan
 - b. MR Elastography

Supportive Testing:

1. Serum Fibrosis Panel
 - a. Enhanced Liver Fibrosis Test
 - b. FibroTest/FibroSure
2. Indirect Fibrosis Scores
 - a. FIB-4
 - b. NAFLD Fibrosis Score

Obstructive Sleep Apnea

moderate to severe OSA, defined as apnea-hypopnea index

SLEEP APNEA AHI CHART

Severity of OSA	Adult AHI (events per hour of sleep)	Description
Mild	5-14	May be asymptomatic or have mild daytime sleepiness
Moderate	15-30	Occasional daytime sleepiness during activities that require some attention
Severe	> 30	Frequent daytime sleepiness that interferes with normal daily activities

Tailoring GLP1-RA Therapy

Comorbidity burden

Patient goals & motivation

Prior treatment history

Readiness for lifestyle

Contraindications

- Pregnancy

- Personal/family history of Medullary thyroid carcinoma

- MEN2 syndrome

- Concomitant use of other GLP1RA or history of allergies/serious adverse reaction

Section 2: Practical Management of Side Effects & Adherence

Weight Loss Trajectory Depends on Many Factors



Influenced by a combination of individual and environmental elements.

Setting Realistic Expectations

	Avg % TWL	Key Trials
Liraglutide	5~8%	SCALE Obesity and Prediabetes (56 weeks)
Semaglutide	15~17%	STEP1 (68 wks)
	~16%	STEP TEENS (68 wks)
Pill	13~15%	OASIS-1 (68 wks)
Tirzepatide	~21%	SURMOUNT-1 w/o DM (72 wks)
	~15%	SURMOUNT-2 _{4W} DM (72 wks)

COMMON SIDE EFFECTS

- Nausea (25-44%)
 - Diarrhea (19-31%)
 - Vomiting (8-25%)
 - Constipation (11-24%)
 - Headache (14%)
 - Fatigue (7-11%)
 - Dyspepsia (9-10%)
 - Eructation/belching (5-7%)
 - Lightheadedness/dizziness (4-8%)
 - Hair loss (3-5%)
- Side effects are typically dose-dependent
 - In clinical trials, 6-10% discontinued due to adverse events, primarily GI.
 - Real-world discontinuation rates may be higher, with one observational study showing 53% of patients stopping within 1 year.

Management Strategies for Common Side Effects

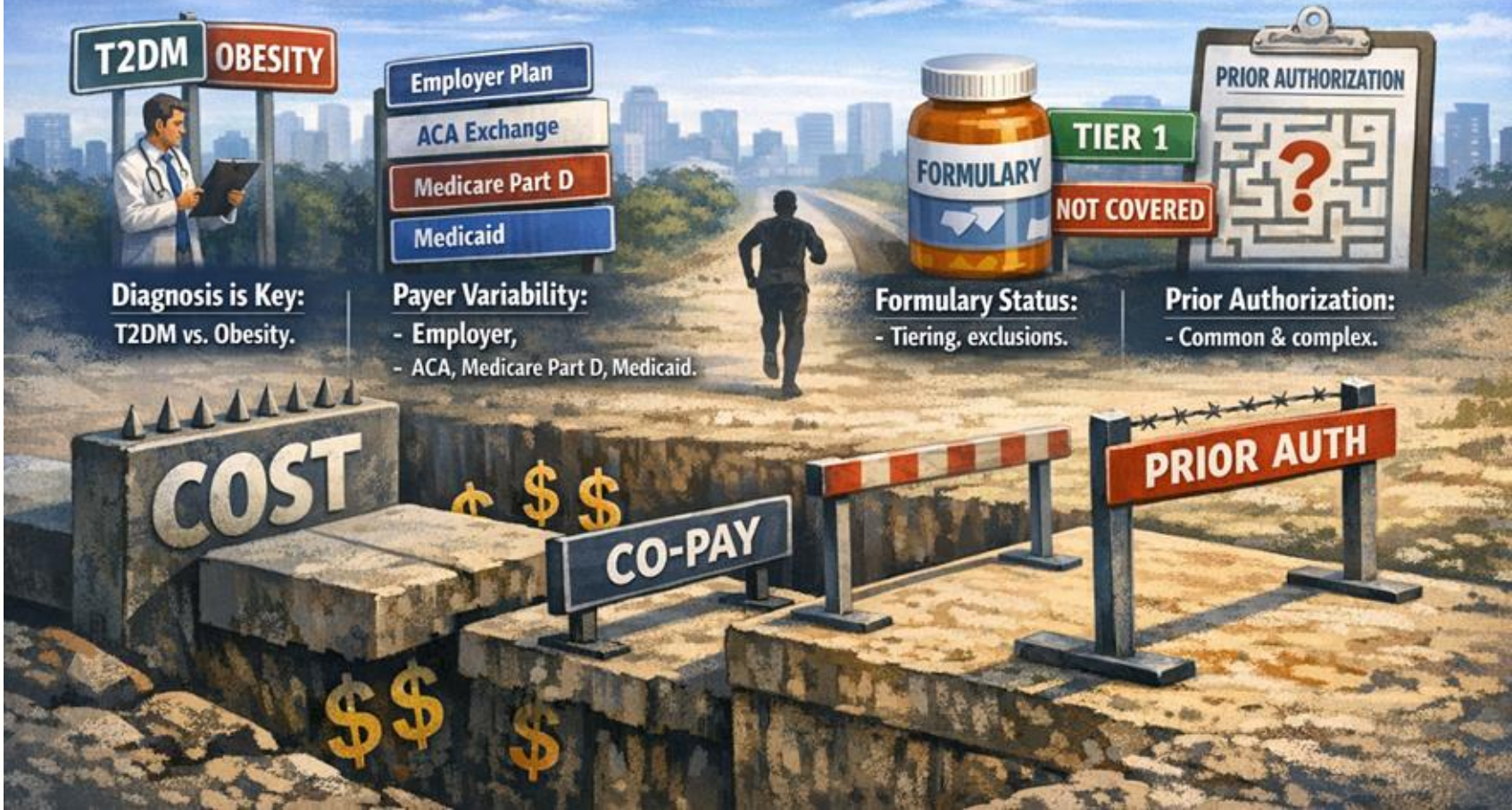
- Always start at lowest dose when starting or resuming
- Consider slower titration (longer at lower dose), especially for patients that are medication sensitive, on other hypoglycemic agents, and of older population.
- For nausea, instruct patients to avoid foods that naturally slow the stomach (high-fat, fiber, alcohol, carbonated drinks) until symptoms resolve.
- Also when nauseous, best to stick to liquid/soft diet until symptoms resolve.
- Short-term antiemetics (ondansetron) for severe nausea/vomiting
- H2 blocker or PPI for dyspepsia
- Counsel on healthy bowel regimen with adequate fiber and hydration, with bulk-forming laxatives (psyllium), stool softeners (docusate), osmotic laxatives (polyethylene glycol), and stimulant (senna) for constipation.

Always Counsel Patients on Rare Serious Adverse Events

Gallbladder Disease	Cholelithiasis and cholecystitis with patients more likely to require cholecystectomy. Liraglutide showed the strongest association.
Pancreatitis	Although early concerns existed, large-scale trials have not demonstrated increased risk. However, general recommendation is discontinuation if pancreatitis occurs.
Acute Kidney Injury	Large-scale trials and meta-analyses suggest no increased risk. Cases are typically related to hypovolemia from severe GI losses.
Gastroparesis	A large real-world cohort study found GLP-1 associated with 59% increased risk of gastroparesis (HR 1.591, $p < 0.001$) compared to other oral antidiabetics, though the absolute incidence remains low.
Diabetic Retinopathy	Semaglutide was associated with increased retinopathy complications, particularly among those with baseline retinopathy who experienced rapid glycemic improvement. This may relate more to rapid glucose correction rather than direct drug toxicity. Patients with diabetes should be UTD on annual retinopathy screening prior to initiating.

Section 3: Navigating Real-World Challenges: Cost & Accessibility

The Real-World Hurdle: Cost & Coverage Disparities



Federal and State Insurance Programs DO NOT cover anti-obesity medications solely for weight management

2003 Medicare Part D provision explicitly excludes drugs labeled for weight loss.

The Treat and Reduce Obesity Act, which would expand Medicare coverage for AOMs prescribed for obesity as a disease, passed the House Ways and Means Committee in 2024 but has not yet become law.

Medicare coverage is highly variable by state. Washington Apple Health products DO NOT cover anti-obesity medications.

However, both Medicare Part D and Washington Apple Health products cover for other approved medical diagnoses, but the prior authorization process is arduous, delayed and has a low approval rate.

Pharmacy prior authorization

Request a pharmacy prior authorization (PA)

By phone

Call the pharmacy authorization services line at 1-800-562-3022 ext. 15483.

By fax

Download and complete the [Pharmacy Information Authorization form](#)

Request a change in fee-for-service (FFS) reimbursement

Download and complete the [Pharmacy Information Authorization form](#) (13-835A). Fax request to 1-833-991-0704.

For questions, please email the [pharmacy rates team](#)

Submit supporting documentation to an existing authorization

- If supporting documentation was requested by HCA on a drug or drug class specific form, fax the form as the first page followed by the supporting documentation; **OR**
- If HCA did not fax a specific form, fax a completed Pharmacy Information Authorization (HCA 13-835A) form as the first page followed by supporting documentation.

Need more information?

For information on billing and rates, the Apple Health preferred drug list, and expedited authorization codes, please visit the [Prescription Drug Program](#) on our provider billing guide and rates page.

Pharmacy Information Authorization

Org	1.	Authorization Type	2.
Client Information			
Name	3.	Client ID	4.
	5.	Reference Auth #	6.
Provider Information			
Pharmacy NPI #	7.	Pharmacy Fax #	8.
Prescriber NPI #	9.	Prescriber Specialty	10.
Prescriber Phone #	11.	Prescriber Fax #	12.
Date of Fill:	13.	Dispense as Written (Yes/No)	14.
Service Request Information			
Drug Name, Strength and Form:		Actual per unit cost	AWP per unit cost
15.		16.	17.
18. RX#		19. Wholesaler	
20. Code Qualifier	21. Product ID	22. Qty	23. Days Supply
			24.
			25. Directions for Use (SIG)
			26. Prod Select Cd
Medical Information			
Diagnosis Code	27.	Diagnosis name	28.
Patient Residence	29.		
30. Comments:			

Please Fax this form and any supporting documents to 1-833-991-0704.

The material in this facsimile transmission is intended only for the use of the individual to whom it is addressed and may contain information that is confidential, privileged, and exempt from disclosure under applicable law. [HIPAA Compliance](#): Unless otherwise authorized in writing by the patient, protected health information will only be used to provide treatment, to seek insurance payment, or to perform other specific health care operations.

Provider One?!?!?

Prior Authorization Playbook: Success Strategies

1. Leverage members
2. Be strategic with the
3. all the details
4. Get involved early
5. of insurers' criterias
- 6.

GLP-1 RA Insurance Verification Worksheet

Please be aware that the health insurance coverage for anti-obesity medications is inconsistent. If you have a diagnosis of type 2 diabetes, obstructive sleep apnea, or cardiovascular disease, some of the medications may be preferred. Please complete this worksheet before you ask your provider if a medication may be covered for you. Please keep a copy for yourself and return a copy as an attachment through your MyChart account or in-person.

To qualify for anti-obesity medications, the following criteria must be met (may slightly differ per insurance):

Baseline body mass index (BMI) must be:

- Greater than or equal to 30 kg/m² with no risk factors OR
- Greater than or equal to 27 kg/m² with at least one weight-related comorbid condition (e.g. Sleep Apnea, hypertension, type 2 diabetes mellitus, or dyslipidemia)

We currently have the following policy:

When obesity or weight loss medications are prescribed, it is the patient's responsibility to follow up on medication coverage. We ask that you complete the attached worksheet first.

There are two options for coverage at this time after a medication is prescribed:

1. Use your insurance at your pharmacy to determine if the medication is covered. We will complete prior-authorization if needed. If the medication is denied coverage by your insurance, we will attempt an appeal on your behalf. **Please also complete the patient appeal process** following the instructions on the denial letter which you should receive in the mail from your insurance company. There usually is a stronger case of appeal if the patient completes it.

or

2. Use cash/HSA/FSA payment at your pharmacy. For GLP1-agonists, please call or message us for options and forwarding of your prescription to the manufacturer's discount pharmacy.

Thank you for your understanding. We honor your medical journey efforts and have hope that prescription drug coverage will improve in the future.

Remember, nutrition and movement are still the bedrock of weight management. If the medication originally prescribed cannot be covered, there is still hope and we can still help!

Sincerely,
Your VMFH Center for Weight Management team

GLP1RA Insurance Verification Worksheet

Contact your insurance plan by calling the number on the back of your insurance card. Ask the following:

Do I have bariatric surgery coverage? Yes No

Do I have prescription drug coverage? Yes No

Does my plan include benefits for obesity/weight loss? Yes No

Do I have a deductible for medications? Yes No

If yes, what is my yearly deductible? \$ _____

How much of my deductible has been met? \$ _____

For each medication answer the following questions. Please check for all diagnoses, even if it does not apply to you at this time.

Medication name Brand (Generic)	Diagnosis (CPT Code)	Covered?	If Yes, Coverage Criteria? <small>(if they say "Prior Auth", please ask for elaboration: ex. BMI >35, at least 2 co-morbid conditions, 6 months lifestyle intervention, trial of different medication...etc)</small>
<input type="checkbox"/> Saxenda (liraglutide)	Obesity (E66.81)	Y or N	_____
<input type="checkbox"/> Victoza (liraglutide)	Diabetes (E11)	Y or N	Atc? _____
<input type="checkbox"/> Wegovy (semaglutide) Shot	Obesity (E66.81)	Y or N	_____
<input type="checkbox"/> Wegovy (semaglutide) Shot	Fatty Liver (K76.0)	Y or N	Fibrosis? _____
<input type="checkbox"/> Wegovy (semaglutide) Pill	Obesity (E66.81)	Y or N	_____
<input type="checkbox"/> Ozempic (semaglutide)	Diabetes (E11)	Y or N	Atc? _____
<input type="checkbox"/> Rybelsus (semaglutide)	Diabetes (E11)	Y or N	Atc? _____
<input type="checkbox"/> Zepbound (tirzepatide)	Obesity (E66.81)	Y or N	_____
<input type="checkbox"/> Zepbound (tirzepatide)	Sleep Apnea (G47.33)	Y or N	Sleep test? _____
<input type="checkbox"/> Mounjaro (tirzepatide)	Diabetes (E11)		_____

Mitigating Cost & Exploring Alternatives

1. Manufacturer Savings Programs: coupons for commercial insurance coverage
2. Patient Assistance Programs: low income/uninsured
3. Manufacturer's Direct to Consumer Service: Novocare and LillyDirect
4. Compounding Options: provider's discretion; patient must understand safety/efficacy (FDA warning) 🙄
5. Alternative Anti-Obesity Medications

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Thank you

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