

XXVIII IFSO World Congress

9-12 September 2025 | Santiago, Chile



NAUSEA: A common barrier in obesity treatment

IFSO 2025 Santiago

Combined Therapies, The Dawn of a New Era

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Disclosures



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- I have received honoraria for lectures from Novo Nordisk, Nerthus, TEVA.
- Participated in advisory boards for Boehringer Ingelheim and Adium.



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Key Points: In obesity management, this isn't just a side effect—
it's a barrier to long-term treatment

- Prevalence of nausea in different obesity treatments:
 - MBS-Endoscopic procedures-pharmacological AE-combinations

- Discuss management, including pharmacological, nutritional, and preventive strategies.

Prevalence of nausea in Obesity Therapy:



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- **Medical treatment:**
 - GLP-1 agonists
 - 43% Tirzepatide
 - 44% Semaglutide (*N Engl J Med* 2025;393:26-36)
 - Naltrexone/bupropion
 - 30-42% (*Clin Obes* 2016 Aug 1)
- **Endoscopic procedures**
- **Surgical:**
 - PONV
 - Early: anastomotic ulcer, anastomotic leaks, strictures, or obstruction.
 - Candy cane syndrome

Relevance to Combined Therapy: Synergy of medical agents (e.g., delayed gastric emptying from GLP-1s) and surgical changes (e.g., reduced stomach volume) may amplify symptoms.



Pharmacotherapy and nausea

	Liraglutide	Naltrexone/ Bupropion	Orlistat	Semaglutide	Tirzepatide
% of patients achieving ≥20% weight loss	Not studied	Not studied	Not studied	Statistical significance not tested	30.0 % (5mg) 50.1 % (10 mg) 56.7 % (15mg) (vs 3.1% with placebo) ⁶
Effect on maintenance of previous lifestyle-induced weight loss	6.2% additional placebo-subtracted weight loss at 1 year ¹²	Not studied	2.4kg less weight regain vs. placebo over 3 years ¹³	Not studied	94% patients able to maintain at least 80% of weight lost vs 43.8% with placebo ¹⁴
Contraindications	<ul style="list-style-type: none"> Personal or family history of medullary thyroid cancer Personal history of MEN2 syndrome Pregnancy, women attempting conception, breastfeeding 	<ul style="list-style-type: none"> Uncontrolled hypertension Any opioid use History of, or risk factors for, seizure Abrupt discontinuation of alcohol Concomitant administration of monoamine oxidase inhibitors (MAOI) Severe hepatic impairment End-stage renal failure Pregnancy, women attempting conception, breastfeeding 	<ul style="list-style-type: none"> Cholestasis Chronic malabsorption syndrome Pregnancy, women attempting conception, breastfeeding 	<ul style="list-style-type: none"> Personal or family history of medullary thyroid cancer Personal history of MEN2 syndrome Pregnancy, women attempting conception, breastfeeding 	<ul style="list-style-type: none"> Personal or family history of medullary thyroid cancer Personal history of MEN2 syndrome Pregnancy, women attempting conception, breastfeeding
Common side effects	Nausea, constipation, diarrhea, vomiting	Nausea, constipation, headache, dry mouth, dizziness, diarrhea	Loose, oily stools, flatus	Nausea, diarrhea, constipation, vomiting	Nausea, diarrhea, constipation, dyspepsia, vomiting

Overview on the endoscopic treatment for obesity: A review

Maheeba Abdulla, Nafeesa Mohammed, Jehad AlQamish

Table 1 A summary of endoscopic procedures for reducing weight in obese patients

Method	Indication (BMI)	Duration	Efficacy	Adverse events
IGBs	30-40 kg/m ²	6 mo	IGB therapy is successful short-term weight loss strategy	Nausea/vomiting and stomach pain were the most common consequences, but mortality and gastric perforation were unusual. Other serious problems included dehydration, which required hospitalization, and intestinal obstruction due to balloon deflation, which required surgery
AT	35-55 kg/m ²	Long term usage	AT is an implantable device that drains a portion of the stomach contents after each meal, removing up to 30% of the calories consumed	Postoperative peristomal granulation tissue and peristomal irritation, cardiac arrhythmias, hypokalemia, hypochloremic hypokalemic metabolic alkalosis, rather than gastric botox and eating problems
Small bowel endoscopic procedures	41.5 kg/m ²	6-12 mo	10.6% TBWL and 40.2% EWL after one year	There were no AEs, and the nausea and diarrhea were self-limiting
Endoscopic sleeve gastroplasty	> 30 kg/m ²	6-24 mo	%TBWL 12%-19% [150]	Leaks, perforation, hemorrhage, improved depth perception, improved visualization, severe stomach discomfort, and perigastric collection are all possible AEs
Endoluminal procedures	30-40 kg/m ²	6-12 mo	41.5 kg/m ² , which reduced to 33.1 kg/m ²	Pain, nausea, and vomiting
DJBS	> 35 kg/m ²	6-12 mo	Effective patients lost 15% of their body weight at 12 mo, compared to 2% of controls	Nausea, vomiting, pancreatitis, GI bleeds, hepatic abscess, obstruction of the sleeve
GJBS	30-40 kg/m ²	N/A	Patients reduced 39.7% of their excess	N/A
Regulation gastric emptying	N/A	N/A	Weight loss was within 10% of their optimum weight	N/A



Incidence of nausea and vomiting after intragastric balloon placement in bariatric patients – A systematic review and meta-analysis

Judy Trang^{a,*}, Seung Su Lee^b, Assia Miller^a, Christian X. Cruz Pico^{a,b}, Angelina Postoev^{a,b}, Isaac Ibikunle^a, Christopher Alade Ibikunle^{a,b}

- 2012-2017
- Four subtypes of IGBs: **Elipse, Obalon, ORBERA, and ReShape.**
- Meta-analytic rate of 63.33% nausea (95% CI 61.49%–65.16%)
 - Obalon IGB placement reported nausea in 200 out of 363 patients with a meta-analytic rate of 55.10%.
 - ORBERA placement reported nausea in 195 / 248 patients with meta-analytic rate of 81.97%.

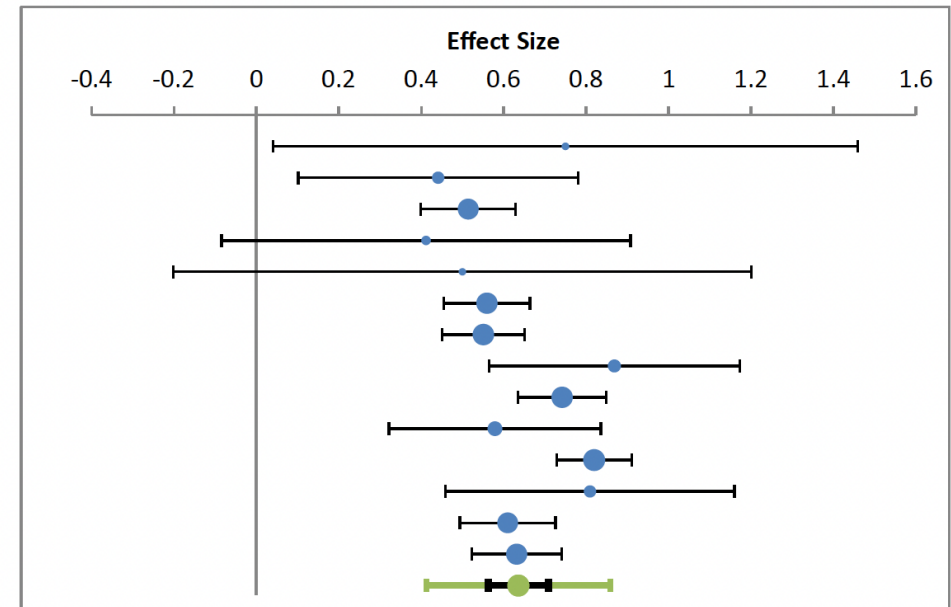


Fig. 4. Forest Plot Rates of Nausea by IGB type.



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Table 2 SG vs. laparoscopic RYGB

	SG			RYGB			SG VS. RYGB	
	1-mo	6-mo	12-mo	1-mo	6-mo	12-mo	aHR, 95% CI	p-values
Healthcare utilization								
Readmission (all cause)	3.44	6.68	10.20	5.18	10.45	14.98	0.65 (0.64, 0.68)	< 0.0001
30-day readmission*	3.44			5.18			0.65 (0.62, 0.69)	< 0.0001
Emergency room visit	8.98	19.84	29.15	12.71	26.99	37.85	0.72 (0.70, 0.73)	< 0.0001
EGD	27.87	29.81	31.20	22.17	29.18	32.17	1.13 (1.11, 1.15)	< 0.0001
Bariatric surgery								
Leak	0.01	0.01	0.01	0.01	0.01	0.01	1.26 (0.51, 3.12)	0.610
Wound dehiscence	0.73	1.05	1.33	1.41	1.86	2.22	0.58 (0.54, 0.63)	< 0.0001
Digestive complications								
Dehydration	5.81	8.95	10.36	6.84	11.80	13.66	0.75 (0.73, 0.78)	< 0.0001
Weight/feeding disorder	1.94	7.51	11.10	1.68	8.54	13.44	0.83 (0.81, 0.86)	< 0.0001
Malabsorption	3.51	18.94	25.19	7.66	32.89	43.25	0.51 (0.50, 0.52)	< 0.0001
Anemia	9.19	19.51	26.29	11.29	23.13	31.06	0.82 (0.80, 0.83)	< 0.0001
Vitamin deficiency	9.68	31.68	42.58	11.37	36.07	48.78	0.84 (0.83, 0.85)	< 0.0001
Nausea/Vomiting	7.95	13.11	16.40	8.99	18.56	23.06	0.70 (0.69, 0.72)	< 0.0001
Heartburn	1.10	1.99	2.69	0.93	1.46	1.91	1.38 (1.28, 1.49)	< 0.0001
Dysphagia	2.49	4.45	5.27	2.97	8.16	9.48	0.55 (0.53, 0.57)	< 0.0001
Gastritis	19.64	21.16	22.37	2.65	5.17	7.18	4.28 (4.14, 4.44)	< 0.0001
Other digestive symptoms	2.95	5.16	7.26	4.53	9.42	12.44	0.56 (0.55, 0.58)	< 0.0001



GI Side Effects In Incretin-Based OMMs Treatment

Characteristics of GI side effects

Strategies for the prevention and management of GI side effects

Type

- Upper GI
- Lower GI

Timing

- Initiation
- Escalation
- “surprise factor”

Diagnosis

- Expectable effect VS Adverse effect

Impact

- “Pay the price” V/s discontinuation

Diferential diagnosis

- Cholelithiasis
- Pregnancy
- Psychological factors.
- GERD
- Other medications
- Gastroparesia



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Complications

- Dehydration, electrolyte imbalances, AKI
- Thiamine deficiency
- Treatment discontinuation.
 - Approximately 6% to 10% of patients enrolled in clinical trials permanently discontinued these drugs due to AEs.



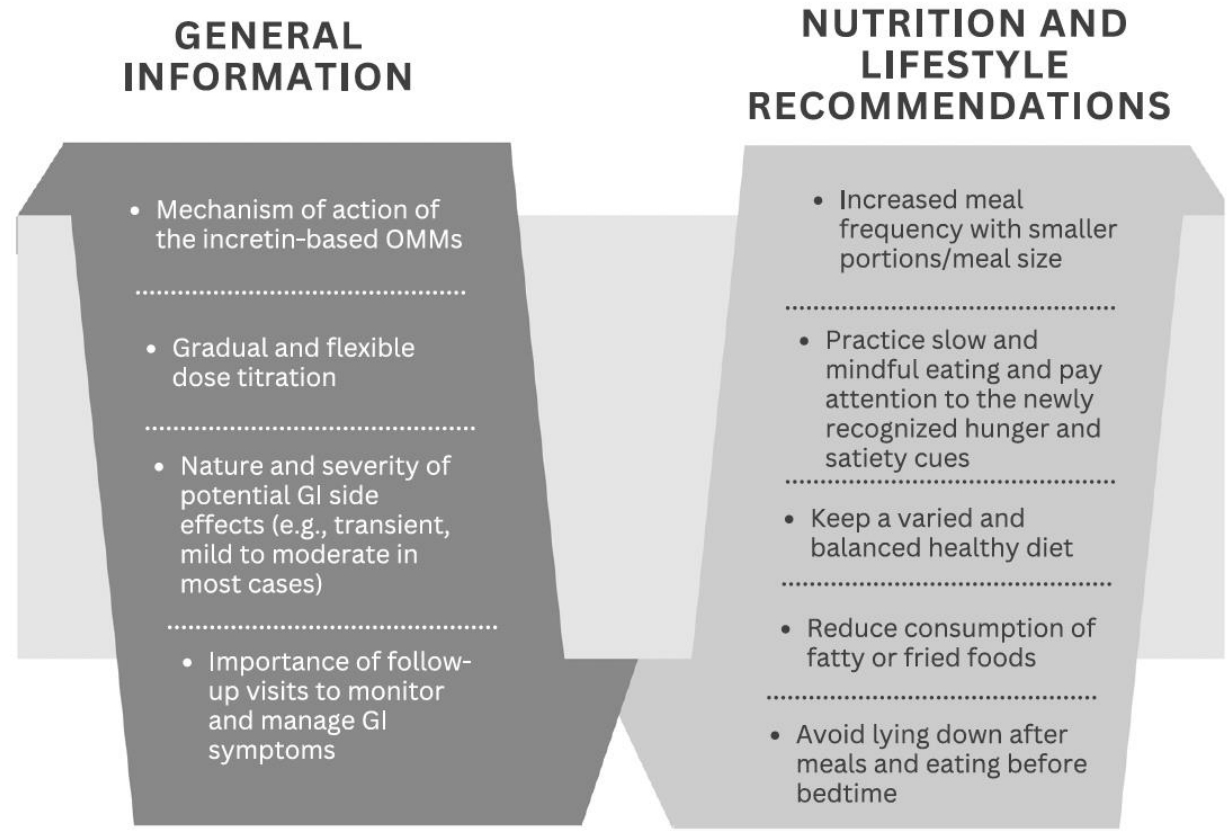
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Setting expectations before starting incretin-based OMM treatment, preparing patients for potential GI symptoms, and offering management strategies may improve tolerance and adherence



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Abbreviations: Obesity Management Medications (OMMs), Gastrointestinal (GI).

Fig. 2 Key elements of incretin-based obesity management medications pre-treatment education.



Managing Adverse Effects of Incretin-Based Medications for Obesity

Robert F. Kushner, MD¹; Jaime P. Almandoz, MD, MBA²; Domenica M. Rubino, MD³



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- When 2 or more consecutive doses are missed, therapy should be restarted at a lower dose.
- First-line: 5-HT₃ antagonists (e.g., ondansetron) + prokinetics (e.g., metoclopramide for motility). an H₂ blocker or proton pump inhibitor may be initiated for dyspepsia



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R. Refaeli et al, 2025

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Table 3. Dietary and lifestyle recommendations for the management of specific GI side effects.

Recommendation	Physicians' recommendations	Dietitian's recommendations	Literature review
Nausea and vomiting			
<i>Food choices</i>			
Avoid fried, fatty, sweet, and spicy foods	√	√	√
Choose cold, dry foods with natural flavors and odors (e.g., toast, crackers, and cereal)	√	√	√
Identify specific foods that trigger nausea and avoid or reduce them temporarily (e.g., fatty or fried food, spicy or acidic foods, dairy products, and caffeine). Keep a food diary to identify foods that worsen symptoms	√	√	√
Prefer ginger or mint-based beverages			√
In cases of severe nausea or vomiting, prefer foods that are mashed, chopped, ground, or blended. In case of inability to tolerate solid foods, liquid foods (e.g., soups, shakes) can be consumed			√
<i>Eating habits</i>			
Eat smaller, more frequent meals and avoid skipping meals	√	√	√
Follow a structured nutritional routine	√	√	
Pay attention to hunger and satiety cues	√	√	√
Eat slowly and mindfully, while paying attention to adequate chewing		√	√
Drink cold clear liquids in sips throughout the day and separate liquids from solids		√	√
In case of morning nausea, make sure to eat a light breakfast		√	
<i>Lifestyle modifications</i>			
Avoid lying down after a meal and prefer sitting, standing, or walking (if it's possible in fresh air)	√		√
Ensure a well-ventilated eating environment with fresh air, avoid excessive heat and strong odors, and minimize food preparation time			√
Perform light physical activity			√
Wear loose-fitting clothes			√
Identify lifestyle patterns associated with exacerbation of nausea (e.g., during weekends or eating outside)		√	

Conclusion

Key Points:

- Nausea is a manageable complication in obesity's therapies, rooted in GI and hormonal disruptions. Proactive, multimodal strategies are essential for success.
- **Takeaways:** Prioritize prevention, personalize care, and collaborate across disciplines.



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Let's turn this complication into an opportunity for better care.



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ii Thank you!!

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