

ENDOSCOPY COMMITTEE REPORT



Bariatric Metabolic Endoscopy Committee



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IFSO-WGO GUIDELINES ON OBESITY

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VII. Endoscopic metabolic and bariatric therapy (EMBT)

Section 7: Endoscopic metabolic and bariatric therapy (EMBT)

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Evidence-based guidelines for endoscopic metabolic & bariatric therapy (EMBT)

- **Statement 1: Principles of action**

Applicable principles of action by EBMTs are **restriction** (reduction of gastric capacity), **biliopancreatic diversion** (sectional separation from duodenal and upper jejunal mucosa, as well of food from digestive juices), and **percutaneous aspiration** of already-ingested gastric contents, with the aim of achieving weight loss by influencing the sensation of hunger and satiety.

- **Statement 2: Applicability**

153 Globally, EBMTs that reduce gastric capacity, like **intra-gastric balloons** (various models) and endoscopic **sleeve gastropasty (ESG)**, are used regularly in everyday clinical practice.

- **Statement 3: Indication**

The indication spectrum of EBMTs is the BMI range of $>30 \text{ kg/m}^2$ to $< 40 \text{ kg/m}^2$ or BMI $> 27 \text{ kg/m}^2$ with concomitant comorbidities.

- **Statement 4: Procedure safety**

EBMTs are effective and safe. They also can be used repeatedly.

- **Statement 5: Weight Loss**

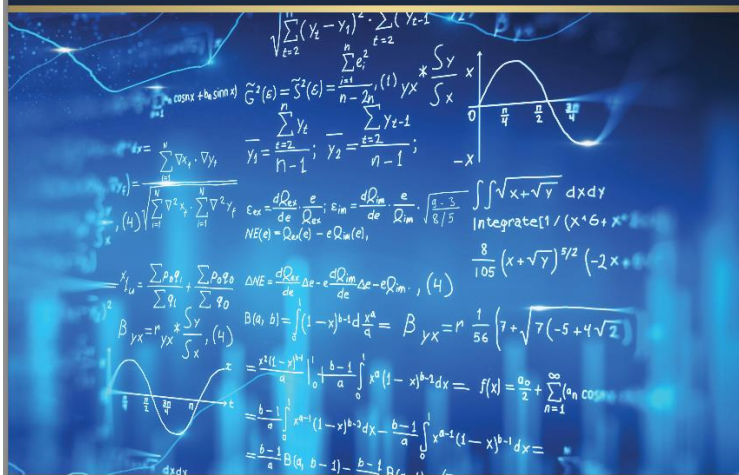
EBMTs have a reported total weight loss (TWL) range from 10% (Obalon) to 17.8% (ESG).

- **Statement 6: Improvement of comorbidities**

The Orbera® Intra-gastric Balloon has received a Breakthrough Device Designation for the treatment of non-alcoholic fatty liver disease from the FDA.



CONSENSUS ON DEFINITIONS AND CLINICAL PRACTICE GUIDELINES FOR PATIENTS CONSIDERING METABOLIC-BARIATRIC SURGERY



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Table 4-6: Endoscopic Metabolic and Bariatric Therapy (EMBT)

Statements (N = 15)	N	Rounds required	Most common selection	Percentage consensus	Consensus achieved
ESG combined with lifestyle intervention is preferable to lifestyle interventions alone, for the management of adults with class II obesity.	39	1	Agree	89.7%	Yes
ESG combined with lifestyle intervention is an acceptable management option for adults with class III obesity who either do not qualify (given medical or psychological comorbidities) or do not wish to pursue MBS.	42	1	Agree	87.5%	Yes
ESG combined with lifestyle intervention is preferable to lifestyle interventions alone, for the management of adults with class I obesity.	38	1	Agree	78.9%	Yes
In individuals with class I obesity and comorbidities, ESG is effective at inducing sustained weight loss that remains at 12-24 months follow-up.	38	1	Agree	76.3%	Yes
In individuals with class I obesity and comorbidities, ESG is superior to LIFESTYLE CHANGES/AOM/NEITHER/BOTH.	39	1	Lifestyle changes	74.4%	Yes
ESG combined with lifestyle intervention is preferable to lifestyle interventions alone, for the management of adolescents with class II obesity.	40	1	Agree	72.5%	Yes
In individuals with class I obesity and comorbidities, ESG is not suitable if an individual does not want surgical treatment.	39	1	Disagree	71.8%	Yes
IGB therapy combined with lifestyle intervention is preferable to lifestyle interventions alone, for the management of adolescents with class II obesity.	42	2	Disagree	59.5%	No
ESG combined with lifestyle intervention is preferable to lifestyle interventions alone, for the management of adolescents with class I obesity.	41	2	Agree	56.1%	No
IGB therapy combined with lifestyle intervention is preferable to lifestyle interventions alone, for the management of adolescents with class I obesity.	42	2	Disagree	54.8%	No
IGB therapy combined with lifestyle intervention is preferable to lifestyle interventions alone, for the management of adults with class II obesity.	41	2	Agree	53.7%	No
IGB therapy combined with lifestyle intervention is preferable to lifestyle interventions alone, for the management of adults with class I obesity.	41	2	Disagree	51.2%	No
IGB therapy combined with lifestyle intervention is an acceptable management option for adults with class III obesity who either do not qualify (given medical or psychological comorbidities) or do not wish to pursue MBS.	41	2	Disagree	51.2%	No

N = number of voters in deciding round; ESG = endoscopic sleeve gastroplasty; IGB = laparoscopic gastric banding; IGB = intra-gastric balloon; MBS = metabolic and bariatric surgery; AOM = anti-obesity medication. Shaded cells indicate non-consensus.

CLINICAL PRACTICE

Caren G. Solomon, M.D., M.P.H., *Editor*

Obesity in Adolescents

Tamara S. Hannon, M.D., and Silva A. Arslanian, M.D.

This Journal feature begins with a case vignette highlighting a common clinical problem. Evidence supporting various strategies is then presented, followed by a review of formal guidelines, when they exist. The article ends with the authors' clinical recommendations.

A 12-year-old boy with excessive weight gain that began when he was approximately 6 years of age presents for evaluation of obesity. He occasionally rides his bicycle but spends more than 6 hours per day engaging in screen-based activities (e.g., video games and social media). He drinks sugary beverages every day and eats mostly processed foods. His mother has obesity, and his maternal grandmother has type 2 diabetes. His body-mass index (BMI, the weight in kilograms divided by the square of the height in meters) is 41.9 (class 3 obesity, $\geq 140\%$ of the 95th percentile for his age and sex). The fasting cholesterol level is 202 mg per deciliter (5.23 mmol per liter), low-density lipoprotein (LDL) cholesterol level 127 mg per deciliter (3.29 mmol per liter), triglyceride level 320 mg per deciliter (3.62 mmol per liter), and high-density lipoprotein (HDL) cholesterol level 43 mg per deciliter (1.11 mmol per liter). The glycated hemoglobin is 5.9% (6.8 mmol per liter), which is consistent with prediabetes. The alanine aminotransferase level is 80 U per liter, with hepatic steatosis shown on ultrasonography. How would you manage this case?

From the Department of Pediatrics, Division of Pediatric Endocrinology and Diabetology, Indiana University School of Medicine, Indianapolis (T.S.H.); and the Center for Pediatric Research in Obesity and Metabolism and the Division of Pediatric Endocrinology, Metabolism, and Diabetes Mellitus, UPMC Children's Hospital of Pittsburgh, Pittsburgh (S.A.A.). Dr. Arslanian can be contacted at silva.arslanian@chp.edu or at the Division of Pediatric Endocrinology, Diabetes, and Metabolism, University of Pittsburgh, School of Medicine, UPMC Children's Hospital of Pittsburgh, 4401 Penn Ave., FOB 6th Fl., Pittsburgh, PA 15224.

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Obesity in Adolescents

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TO THE EDITOR:

Regarding the Clinical Practice article by Hannon and Arslanian (July 20 issue)¹: adolescent obesity, with its substantial socioeconomic effects, demands specialized solutions.² Innovative therapies such as glucagon-like peptide 1 agonists are emerging, although their long-term effects are yet to be fully known.³ As members of the Bariatric Endoscopy Committee of the International Federation for the Surgery of Obesity and Metabolic Disorders (IFSO), we highlight the potential of endoscopic procedures, notably endoscopic sleeve gastroplasty, for this group. The Multicenter ESG Randomized Interventional Trial (MERIT) indicates that endoscopic sleeve gastroplasty is a low-risk intervention that is superior to lifestyle changes and repeatable if needed.⁴ Unlike gastric bypass or sleeve gastrectomy, endoscopic sleeve gastroplasty is not associated with long-term metabolic complications such as nutritional deficiencies, “dumping syndrome,” or reflux risks.⁵ Given that adolescents have a longer life expectancy than adults, safe and effective interventions such as endoscopic sleeve gastroplasty are crucial, while allowing for any bariatric procedures that may be warranted in the future. Early research on endoscopic intervention in this cohort is promising, and ongoing studies may further establish their usefulness. We advocate for increased awareness of these interventions and for their integration into the treatment algorithm for adolescent obesity.⁶

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for the IFSO Bariatric Endoscopy Committee

Join us
in pioneering the
AMORES trial
the **World's first RCT** on
Endoscopic Sleeve
Gastroplasty in adolescents,
Led by -



Dr. Mohit Bhandari



Dr. Silvana Parretta



Dr. Manoel G. Neto



The Role of Obesity Management Medications (OMMs) in the Context of Metabolic/Bariatric Surgery (MBS)

Endoscopic procedures and OMM Lines 408-416

24. Although further evidence is needed to determine the value added by, and the comparative effectiveness of, combination therapies involving endoscopic procedures and OMM, such an approach can potentially enhance long-term weight loss and positively impact comorbid conditions. **LoEIII**
25. In patients who experience RWG after discontinuation of OMMs, endoscopic procedures along with lifestyle changes are the best next alternative in patients with Class I obesity and are a valid alternative in patients with Class II obesity. **No Evidence**



Prof. Silvana Perretta. Strasbourg

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Thank you for your kind attention

