September 3rd, 2024

Recurrent weight gain is normal after MBS: how do we define suboptimal weight loss and recurrent weight gain?

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XXVII IFSO World Congress



Melbourne 2024



Disclosures



- Lecture fees: Novo Nordisk
- Employment: University of Turku, Turku University Hospital, private practice Terveystalo
- PI: SLEEVEPASS, APPAC
- IFSO-EC President elect
- Editor-in-Chief, Scandinavian Journal of Surgery
- Editor, BJS
- Editorial Board Member JAMA Surgery and Surgery
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Primary procedures





IFSO Consensus conference 2023: Standardized reporting and definitions

Obesity Surgery (2024) 34:30–42 https://doi.org/10.1007/s11695-023-06913-8

ORIGINAL CONTRIBUTIONS

IFSO Consensus on Definitions and Clinical Practice Guidelines for Obesity Management—an International Delphi Study

Paulina Salminen^{1,2} · Lilian Kow³ · Ali Aminian⁴ · Lee M. Kaplan⁵ · Abdelrahman Nimeri⁶ · Gerhard Prager⁷ · Estuardo Behrens⁸ · Kevin P. White⁹ · Scott Shikora⁶ · IFSO Experts Panel



 $\cosh x + b_n \sinh x) \quad \widetilde{G}^2(\varepsilon) = \widetilde{G}^2(\varepsilon) = \frac{i-1}{i_0 - 2i_0}, (1)$

XIFSO

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Hamburg, 9-10 March, 2023

IFSO Consensus 2023

- 136 statements, 15 on definitions
- 43 experts in obesity management: 26 bariatric surgeons, 4 endoscopists, 8 endocrinologists, 2 nutritionists, 2 councellors, an internist and a pediatrician + a Delphi-statistician (MD)
- Expert criteria: Obesity management as a major focus of their practice, considered experts by IFSO, have over 10 years of experience managing patients with obesity, fluent in written and spoken English

 $cosn x + b_n sinn x) \quad \widetilde{C}^2(\varepsilon) = \widetilde{S}^2(\varepsilon) = \frac{1}{n-2n}$



IFSO Consensus results (Obes Surg 2024; 34:30-42)

- Definition statements (100%, 15/15): mean consensus level 90.1%
- MBS statements (80%, 68/85): mean consensus level 79.6%
- Reporting definitions: 13
 - E.g., suboptimal initial response, baseline weight (with or without AOMs), initial surgical weightloss, conversion surgery, revision surgery, description of procedures by anatomical features
- Reporting standards: 2
 - Suboptimal initial clinical response
 - Late postoperative clinical deterioration



 $\cosh x + b_n \sinh x) \quad \widetilde{G}^2(\varepsilon) = \widetilde{G}^2(\varepsilon) = \frac{i-1}{i_0}, (1)$



Reporting definitions / percentage consensus (Obes Surg 2024; 34:30-42) REVISION or CONVERSION SURGERY?

 $\cos nx + b_n \sin nx$ $\widetilde{C}^2(\varepsilon) = \widetilde{S}^2(\varepsilon) = \frac{i-1}{n}$

- 8. Surgical or endoscopic procedures to convert to a new type of metabolic/bariatric operation (conversion surgery) and those to re-establish normal anatomy (reversal surgery) should be clearly distinguished and considered separately from procedures to modify or enhance the effects of a previous operation (revision or modification surgery). / 97.5%
- 9. Modification or revision procedures are typically designed to optimize the effectiveness of previous operations, while conversion procedures most commonly introduce additional mechanisms of therapeutic action. / 95.0%



Definitions

• Less than ideal weight loss or clinical improvement after MBS

 $\cosh x + b_n \sin x) \quad \widetilde{G}^2(\varepsilon) = \widetilde{G}^2(\varepsilon) = \frac{i}{2} \frac{i}{n} \frac{1}{2} \frac{1}{n} \frac{1}{2} \frac{1}{n} \frac{1}{n} \frac{1}{2} \frac{1}{n} \frac{1$

- Suboptimal clinical response or suboptimal weight loss
- NOT: non-responder or an inadequate response to treatment
- Patients, who experience significant weight gain after initial postoperative weight loss
 - Recurrent weight gain
 - NOT: weight regain or recidivism



- Suboptimal clinical response or suboptimal weight loss
- Recurrent weight gain
- RARELY reflects either substandard surgical skill or technique
- RARELY caused by noncompliance or inadequate behavior by the patient

 $\cosh x + b_n \sin x$ $\widetilde{C}^2(\varepsilon) = \widetilde{S}^2(\varepsilon) = \frac{i-1}{n}$

The language used to describe these suboptimal outcomes must avoid being judgemental, ascribing blame, or drawing causality



#IFS® IFSO Consensus on definitions and clinical practice guidelines

Definitions

- A suboptimal initial response to metabolic/bariatric surgery is demonstrated either by inadequate weight loss OR by an unusually modest improvement in a significant obesity complication. / 100%
- Less than ideal weight loss or clinical improvement after MBS
 - Suboptimal clinical response or suboptimal weight loss
 - NOT non-responder or an inadequate response to treatment
- Patients, who experience significant weight gain after initial postoperative weight loss
 A late post-operative clinical deteriorat demonstrated either by recurrent weight
 - Recurrent weight gain
 - NOT weight regain or recidivism
- A late post-operative clinical deterioration is demonstrated either by recurrent weight gain <u>OR</u> by worsening of a significant obesity complication that occurs after an initially adequate post-operative clinical response. / 97.4%

 $\cos nx + b_n \sin nx$ $\widetilde{C}^2(\varepsilon) = \widetilde{S}^2(\varepsilon) = \frac{i-1}{n}$



Baseline weight

• The baseline weight for assessing weight loss after MBS should be a weight determined before starting preoperative weight reduction./ 95.3%

COSNX 1

 $\cosh x + b_n \sinh x) \quad \widetilde{G}^2(\varepsilon) = \widetilde{G}^2(\varepsilon) = \frac{i-1}{i_n}, (1)$





Reporting standards / percentage consensus (Obes Surg 2024; 34:30-42)

14. In general, a suboptimal initial clinical response to MBS is demonstrated either by total body weight or BMI loss of less than 20% OR by inadequate improvement in an obesity complication that was a significant indication for surgery. / 85.0%

 $\cosh x + b_n \sinh x$ $\widetilde{C}^2(\varepsilon) = \widetilde{S}^2(\varepsilon) = \frac{i-1}{i}$

15. In general, a late post-operative clinical deterioration after MBS is demonstrated either by recurrent weight gain of more than 30% of the initial surgical weight loss **OR** by worsening of an obesity complication that was a significant indication for surgery. / 71.8%



Reporting standards / percentage consensus (Obes Surg 2024; 34:30-42)

14. In general, a suboptimal initial clinical response to MBS is demonstrated either by total body weight or BMI loss of less than 20% OR by inadequate improvement in an obesity complication that was a significant indication for surgery. / 85.0%

 $\cosh x + b_n \sinh x$ $\widetilde{C}^2(\varepsilon) = \widetilde{S}^2(\varepsilon) = \frac{i-1}{i_n}$

15. In general, a late post-operative clinical deterioration after MBS is demonstrated either by **recurrent weight gain** of more than 30% of the initial surgical weight loss **OR** by worsening of an obesity complication that was a significant indication for surgery. / **71.8%**



- 14. In general, a suboptimal initial clinical response to MBS is demonstrated either by total body weight or BMI loss of less than 20% **OR** by inadequate improvement in an obesity complication that was a significant indication for surgery. / **85.0%**
- 15. In general, a late post-operative clinical deterioration after MBS is demonstrated either by recurrent weight gain of more than 30% of the initial surgical weight loss OR by worsening of an obesity complication that was a significant indication for surgery. / 71.8%
 - %TWL > 20%
 = good result for weight loss
 - %TWL 21% = good result?
 - %TWL 19% = bad result?



 $\cosh x + b_n \sinh x$ $\widetilde{C}^2(\varepsilon) = \widetilde{S}^2(\varepsilon) = -$





How much weight loss is enough? 10-20% of total body weight loss is associated with reduced cardiovascular risk

ASA PAPER

How Much Weight Loss is Required for Cardiovascular Benefits? Insights From a Metabolic Surgery Matched-cohort Study

Ali Aminian, MD, * Alexander Zajichek, MS, † Chao Tu, MS, † Kathy E. Wolski, MPH, ‡ Stacy A. Brethauer, MD, § Philip R. Schauer, MD, ¶ Michael W. Kattan, PhD, † and Steven E. Nissen, MD ‡

Weight loss, remission of comorbidities, suboptimal weight loss, recurrent weight gain... JAMA 2018; 320(15):1560-1569

Research

JAMA | Original Investigation

Comparison of the Performance of Common Measures of Weight Regain After Bariatric Surgery for Association With Clinical Outcomes

Wendy C. King, PhD; Amanda S. Hinerman, MPH; Steven H. Belle, PhD; Abdus S. Wahed, PhD; Anita P. Courcoulas, MD, MPH

Editorial Opinion

Standardized Uniform Reporting and Indications for Bariatric and Metabolic Surgery How Can We Reach This Goal?

Paulina Salminen, MD, PhD

The growing obesity epidemic with simultaneous escalation of the type 2 diabetes pandemic¹ followed by the increasing number of bariatric and metabolic surgery² further emphasize the demand and need for evidence-based assessment

H Related articles at jama.com of all effective therapeutic approaches. The status of bariatric surgery as the most efgery indications and optimal revisional procedures. In the study by King et al,¹¹ the best performing measurement was weight regain quantified as percentage of maximum weight loss having the strongest associations with most clinical outcomes. Currently this important problem of weight regain is poorly reported and this problem can only be ameliorated by consensus guidelines, which need to review all promising





TYKS

University

WE NEED A COMPOSITE ENDPOINT = ESSENTIAL OUTCOMES = DATA WE ACTUALLY HAVE SIMPLE AND FEASIBLE IN REAL-LIFE PRACTICE



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Welcome to SF-BARI Score Calculator!





Research

JAMA Surgery | Original Investigation

Standardized Assessment of Metabolic Bariatric Surgery Outcomes Secondary Analysis of 2 Randomized Clinical Trials

Ralph Peterli, MD; Saija Hurme, MSc; Marco Bueter, MD, PhD; Sofia Grönroos, MD; Mika Helmiö, MD, PhD; Paulina Salminen, MD, PhD



JAMA Surgery, 2024; 159 (3): 306-14

Swiss-Finnish Bariatric Metabolic Outcome Score







XIFS® IFSO Consensus on definitions and clinical practice guidelines

Thank you!



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13th Congress of the International Federation for the Surgery of Obesity (IFSO) **European Chapter**

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