THE FAVORABLE IMPACT OF MBS ON CANCER: NEW ASMBS/IFSO GUIDELINES

15.00 - 16.30

Chair: Raul Rosenthal (USA)

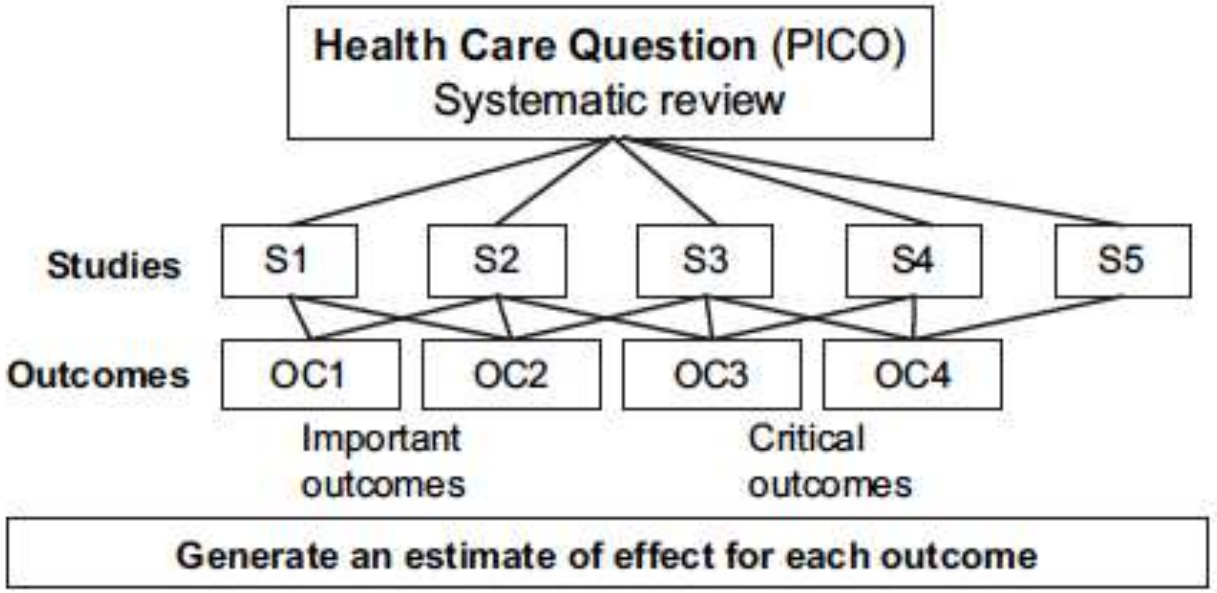
Moderators: Chetan Parmar (UK), Matteo Muto (Italy), Francesco Selvaggi (Italy)

15.00 - 15.10	Systematic Review for the new ASMBS/IFSO Guidelines	Matteo Monami	Italy

Conflicts of interest

Speaking fees: ***Sanofi, Zuccato srl, Boehringer Ingelheim, Eli Lilly, Mundipharma, Novo Nordisk, Sanofi*** and ***Takeda***

GRADE
(Grading of Recommendations Assessment, Development and Evaluation)



RCT and/or OBS

P: Population
I: Intervention
C: Comparison
O: Outcome
S: Setting

Guyatt G et al. *J Clin Epidemiol* 64:383-94, 2011

GRADE
(Grading of Recommendations Assessment, Development and Evaluation)

Meta-analysis

Rate overall quality of evidence
(lowest quality among critical outcomes)

⇩

Decide on the direction (for/against) and grade strength (strong/weak*) of the recommendation considering:
Quality of the evidence
Balance of desirable/undesirable outcomes
Values and preferences
Decide if any revision of direction or strength is necessary considering: Resource use

*Also labeled "conditional" or "discretionary"

Guyatt G et al. *J Clin Epidemiol* 64:383-94, 2011

Eminence-Based Medicine

AGREE (Appraisal of Guidelines for Research and Evaluation) - II

DOMAIN 1: SCOPE AND PURPOSE

DOMAIN 2: STAKEHOLDER INVOLVEMENT

DOMAIN 3: RIGOUR OF DEVELOPMENT

DOMAIN 4: CLARITY OF PRESENTATION

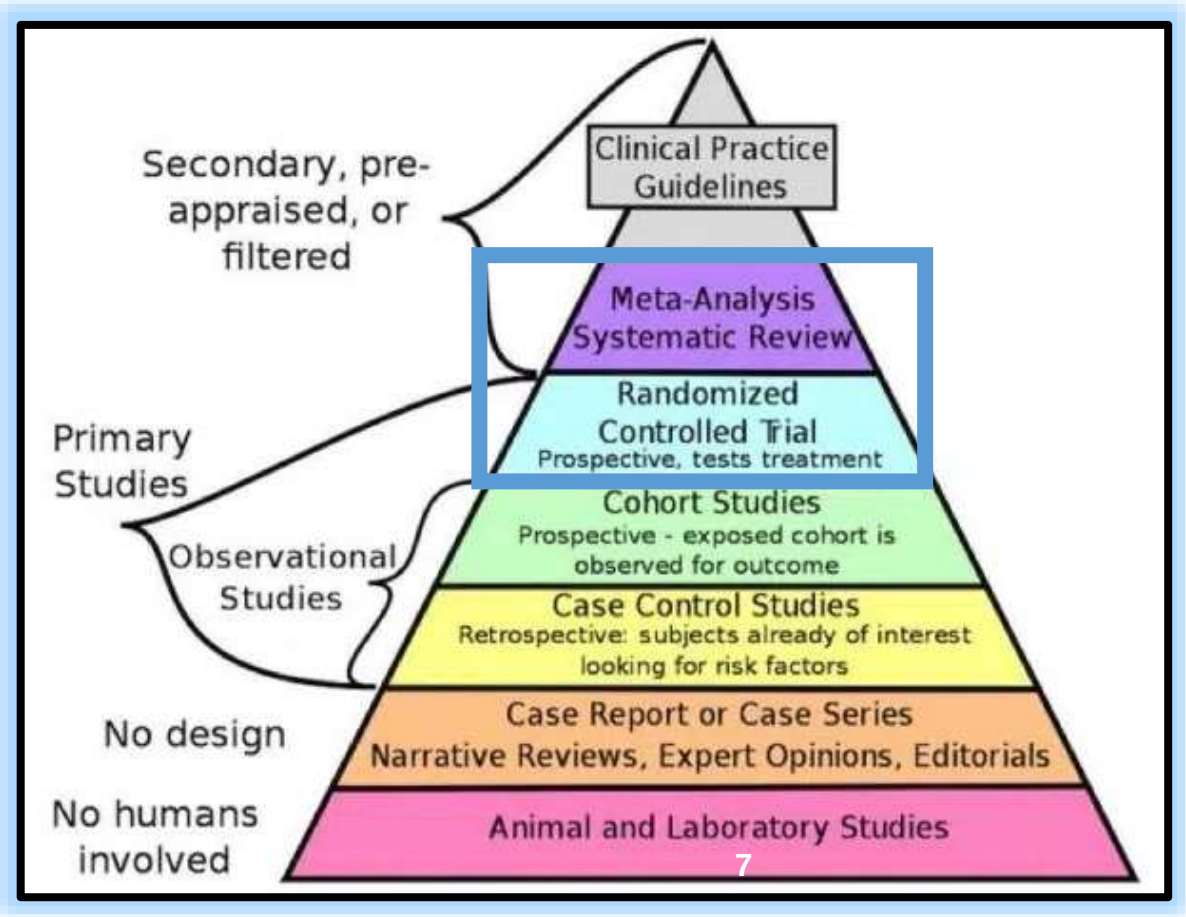
DOMAIN 5: APPLICABILITY

DOMAIN 6: EDITORIAL INDEPENDENCE

AGREE (Appraisal of Guidelines for Research and Evaluation) - II

DOMAIN 3: RIGOUR OF DEVELOPMENT

1. **Systematic methods** were used to search for evidence.
2. **There is an explicit link between the recommendations and the supporting evidence.**
3. The guideline has been externally reviewed by experts prior to its publication.
4. etc.



UNIVERSITÀ DEGLI STUDI FIRENZE

Obesity Surgery (2023) 33:3–14
https://doi.org/10.1007/s11695-022-06332-1

ORIGINAL CONTRIBUTIONS

2022 American Society of Metabolic and Bariatric Surgery (ASMBS) and International Federation for the Surgery of Obesity and Metabolic Disorders (IFSO) Indications for Metabolic and Bariatric Surgery

Dan Eisenberg[1] · Scott A. Shikora[2] · Edo Aarts[3] · Ali Aminian[4] · Luigi Angrisani[5] · Ricardo V. Cohen[6] · Maurizio de Luca[7] · Silvia L. Faria[8] · Kasey P.S. Goodpaster[4] · Ashraf Haddad[9] · Jacques M. Himpens[10] · Lilian Kow[11] · Marina Kurian[12] · Ken Loi[13] · Kamal Mahawar[14] · Abdelrahman Nimeri[15] · Mary O'Kane[16] · Pavlos K. Papasavas[17] · Jaime Ponce[18] · Janey S. A. Pratt[1,19] · Ann M. Rogers[20] · Kimberley E. Steele[21] · Michel Suter[22,23] · Shanu N. Kothari[24]

Published online: 7 November 2022

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Cancer risk

Obesity is associated with an elevated risk of multiple cancers, including esophagus, breast, colorectal, endometrial, gallbladder, stomach, kidney, ovary, pancreas, liver, thyroid, multiple myeloma, and meningioma [128–133]. There is evidence to suggest that MBS can lead to a significant reduction in incidence of obesity-associated cancer and cancer-related mortality, compared with obese individuals who did not undergo surgery. Multiple studies have shown that MBS reduces the risk of developing cancer in the population with class II/III obesity, ranging from 11% to 50% for all cancer types [130, 134–137]. Benefits were also documented for the incidence of specific cancers, such as gastrointestinal and hepatobiliary cancers, genitourinary cancers, and gynecological cancers.

Furthermore, MBS may significantly reduce overall cancer mortality compared with nonsurgical obese controls [134, 137]. There is some evidence to suggest that the risk-reduction attenuates as time from surgery increases, although it is unclear to what extent type of operation, type of cancer, health behaviors, and presence of co-morbidities confound these findings [138]. Nonetheless, a recent retrospective cohort study of >30,000 patients with a median follow-up of 6 years found that adults with obesity who underwent MBS had a 32% lower risk of developing cancer and 48% lower risk of cancer-related death compared with a matched cohort who did not have surgery [137].

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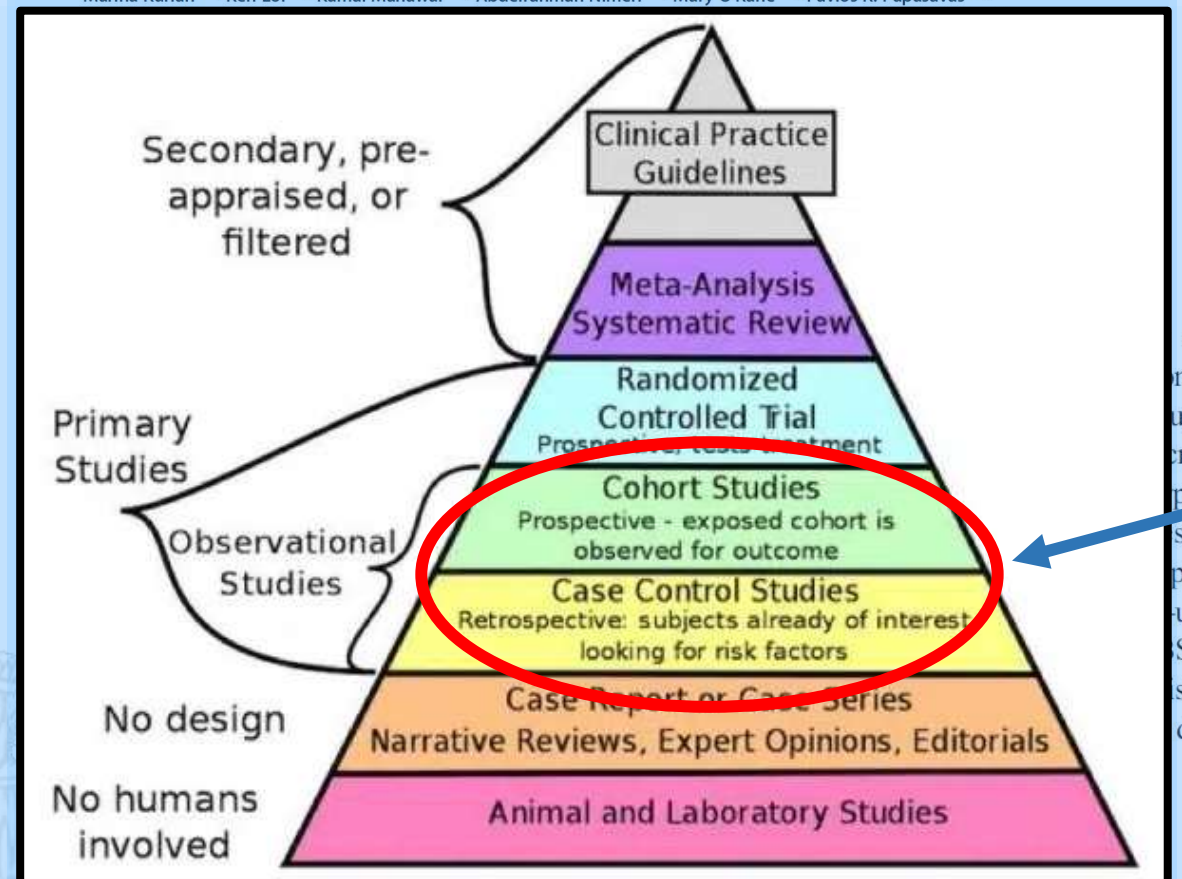

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135. Sjostrom L, Gummesson A, Sjostrom CD, et al. Effects of bariatric surgery on cancer incidence in obese patients in Sweden (Swedish Obese Subjects Study): a prospective, controlled intervention trial. Lancet Oncol. 2009;10(7):653–62.
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137. Aminian A, Wilson R, Al-Kurd A, et al. Association of bariatric surgery with cancer risk and mortality in adults with obesity. JAMA. 2022;327(24):2423–33.
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nutrients

MDPI

Article

Development of the Italian Clinical Practice Guidelines on Bariatric and Metabolic Surgery: Design and Methodological Aspects

Maurizio De Luca [1], Marco Antonio Zappa [2], Monica Zese [1], Ugo Bardi [3], Maria Grazia Carbonelli [4], Francesco Maria Carrano [5], Giovanni Casella [6], Marco Chianelli [7], Sonja Chiappetta [8], Angelo Iossa [9], Alessandro Martinino [10], Fausta Micanti [11], Giuseppe Navarra [12], Giacomo Piatto [13], Marco Raffaelli [14], Eugenia Romano [15], Simone Rugolotto [1], Roberto Serra [16], Emanuele Soricelli [17], Antonio Vitiello [18], Luigi Schiavo [19], Iris Caterina Maria Zani [20], Giulia Bandini [21], Edoardo Mannucci [21], Benedetta Ragghianti [21] and Matteo Monami [21,*] on behalf of the Panel and Evidence Review Team for the Italian Guidelines on Surgical Treatment of Obesity

Nutrients **2023**, *15*, 189. https://doi.org/10.3390/nu15010189

PICO 11 – In patients with BMI ≥ 30 kg/m^2, is metabolic-bariatric surgery preferable to other non-surgical treatments, for preventing incident malignancies?

N	PICO	Disagreement (Score 1–2)	Agreement (Score 3–5)	Outcome (Median)	Approval
11	In patients with BMI ≥ 30 kg/m^2, is bariatric/metabolic surgery preferable to non-bariatric/metabolic surgical treatments, for preventing incident malignancies?	4.2%	95.8%	-	✓
	Outcomes (efficacy)				
11.1	Reduction of incident malignancies			8	✓
11.2	Reduction of mortality for cancer			8	✓
	Outcomes (safety)				
11.3	Perioperative surgical (bariatric) complications			6.5	✗
11.4	Serious adverse events (surgical and non-surgical)			5	✗

N°	Outcome	Type of study	Main inclusion criteria
11.1	Reduction of incident malignancies	RCT	Patients aged 18+ years, with obesity; studies, with duration≥ 52 weeks, performed on patients with BMI>30 Kg/m^2. Any form of cancer at endpoint.
11.2	Reduction of mortality for cancer	RCT	Patients aged 18+ years, with obesity; studies, with duration≥ 52 weeks, performed on patients with BMI>30 Kg/m^2. Cancer-related mortality at endpoint.

Nutrients **2023**, *15*, 189. https://doi.org/10.3390/nu15010189

PICO 11 – In patients with BMI ≥ 30 kg/m^2, is metabolic-bariatric surgery preferable to other non-surgical treatments, for preventing incident malignancies?

Rational

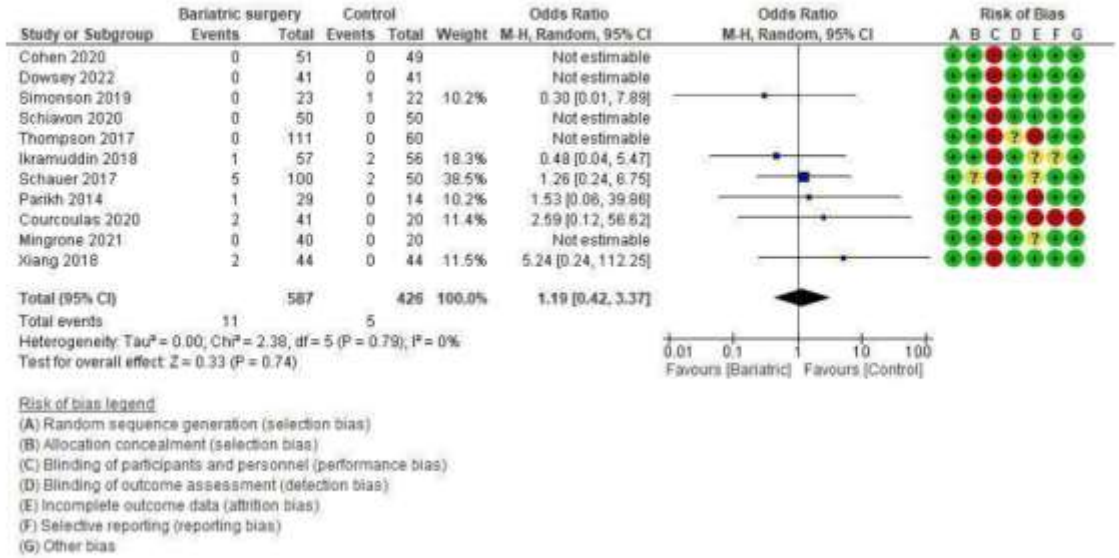
Obesity and its complications are a growing public health problem in many countries, due to increasing prevalence, significant impact on the health of affected individuals, and growing related economic burden. Obesity is also associated with an increased risk of neoplastic diseases, especially estrogen-related ones (e.g., cancers of the gastro-intestinal tract, genital, breast, etc[50]. Metabolic-bariatric surgery, which was developed to achieve significant weight loss in morbidly obese patients, could also play a role in reducing cancer risk in these patients[51]. Following the methodology reported in Table 1, no trial was retrieved comparing MBS with non-surgical therapy, making impossible to balance favourable and unfavourable effects of surgical approaches prevention of malignancies. As a sensitivity analysis, the ERT conducted a meta-analysis of all clinical trials used to answer PICO 3-5 (n=24)[16,19,21,24-28,52-62] cionsidering all incident forms of cancer occurred during the follow-up and reported as serious adverse events. No differences were observed between the intervention and the control group, both in the incidence of malignancies and cancer mortality, whereas an increased risk of serious adverse events was observed in patients allocated to MBS (Chapter 1, Figure 66, 67).

No specific pharmacoeconomics studies were found, but the costs to be covered by metabolic-bariatric surgery are high (Chapter 1, Table 3), coupled with the lack of evidence in favor of the procedure, make it possible to make a weak recommendation against metabolic-bariatric surgery.

Manuscript submitted

Incident cancer

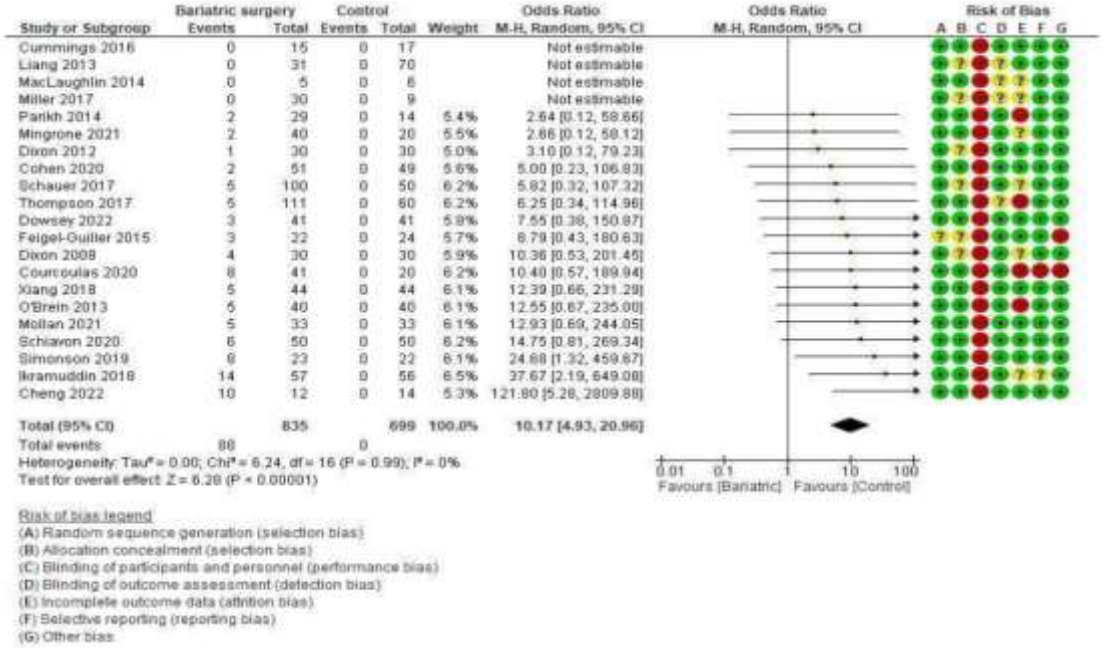
Figure 66 – Comparison of metabolic-bariatric surgery and nonsurgical therapies on the risk of incident cancer in patients with BMI ≥30Kg/m ^{2}.



Twenty-four placebo-controlled RCT
Sixteen RCT reported information on incident malignancies, as SAE
Eleven RCT reported at least 1 neoplastic event (both estrogen-dependent and non-dependent cancer)

Serious Adverse Events

Figure 67 – Comparison of metabolic-bariatric surgery and nonsurgical therapies on the risk of severe aversi events in patients with BMI ≥30Kg/m².

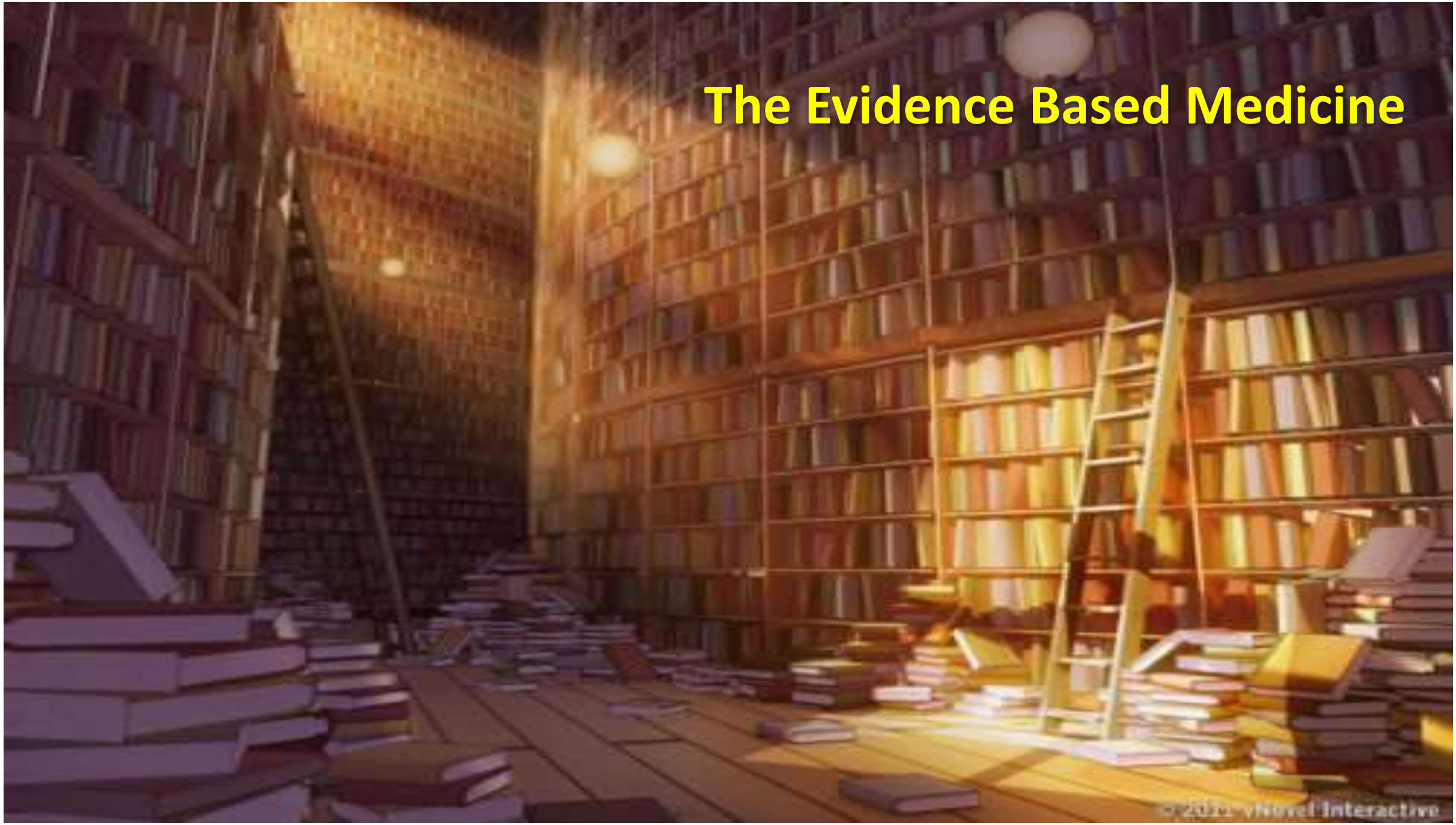


Manuscript submitted

Recommendation:
The use of BMS in patients affected by obesity should not be advisable ***with the only aim*** of reducing the risk of neoplatic events due to high costs and an increased risk of adverse events.

PS: When deciding to perform a bariatric intervention, the reduction of neoplastic risk associated to the weight lost is one of the many outcomes considered in the balance of favourable and unfavourable effects of the surgical approach, but it can't be the only one…

Manuscript submitted


The Evidence Based Medicine