LE LINEE GUIDA ASMBS/IFSO

Antonio Vitiello M.D. PhD FIFSO

Ricercatore in Chirurgia Generale
AOU Federico II di Napoli

Dirigente Medico- UOC Chirurgia Generale Oncologica e Mininvasiva - Direttore Prof. Vincenzo Pilone

- A 1978 NIH consensus conference on surgery for obesity considered primarily intestinal (jejunoileal) bypass

- The 1978 conference highlighted the undesirable side effects of this operation, and its use has all but disappeared

- In a 1985 National Institutes of Health (NIH) consensus conference, the health implications of obesity were established (hypertension, dyslipidemia, diabetes mellitus, gallbladder disease, increased prevalence and mortality ratios of selected types of cancer, and socioeconomic and psychosocial impairment)

Obesity Surgery, 1, 257–265

National Institutes of Health Consensus Development Conference Draft Statement on

Gastrointestinal Surgery for Severe Obesity

25–27 March 1991

1. What Are the Nonsurgical Treatment Options for Severe Obesity and Their Consequences?

2. What Are the Surgical Treatments and Criteria for Selection?

3. What Are the Efficacy and Risks of Surgical Treatments for Obesity?

4. What Specific Recommendations Can Be Made for the Treatment of Severe Obesity?

5. What Are the Future Directions for Basic Science, Clinical Research, and Epidemiological Evaluation of Therapy?

Obesity Surgery, 1, 257–265

National Institutes of Health Consensus Development Conference Draft Statement on

Gastrointestinal Surgery for Severe Obesity
25–27 March 1991

What Are the Efficacy and Risks of Surgical Treatments for Obesity?

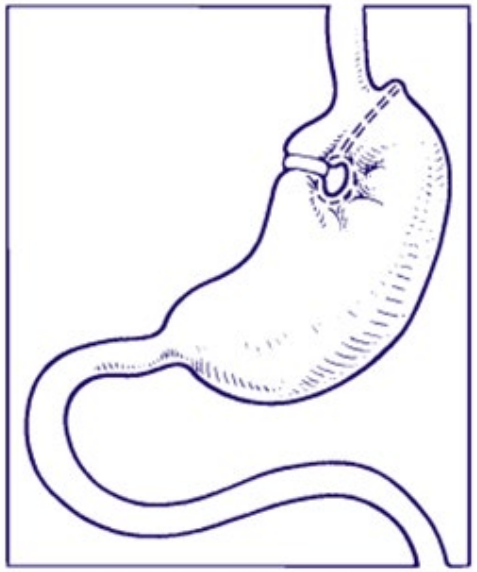

Figure 1. Vertical banded gastroplasty

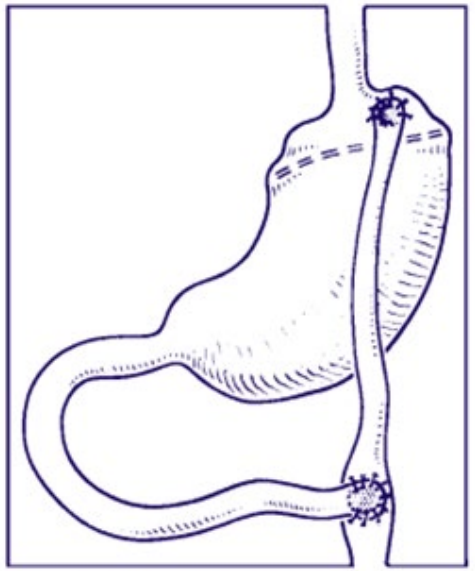

Figure 2. Roux-en-Y gastric bypass

Obesity Surgery, 1, 257–265

National Institutes of Health Consensus Development Conference
Draft Statement on
Gastrointestinal Surgery for Severe Obesity
25–27 March 1991

- Patients whose BMI exceeds 40
- In certain instances less severely obese patients (with BMI's between 35 and 40)
- Children and adolescents have not been sufficiently studied
- patients should first be considered for treatment in a nonsurgical program

IFSO

ABOUT IFSO OBESITY BARIATRIC SURGERY VIRTUAL ACADEMY INTEGRATED HEALTH SECTION ENDORSEMENT R

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Selection Criteria

There are a number of widely accepted criteria which make a patient suitable for Bariatric or weight loss surgery:

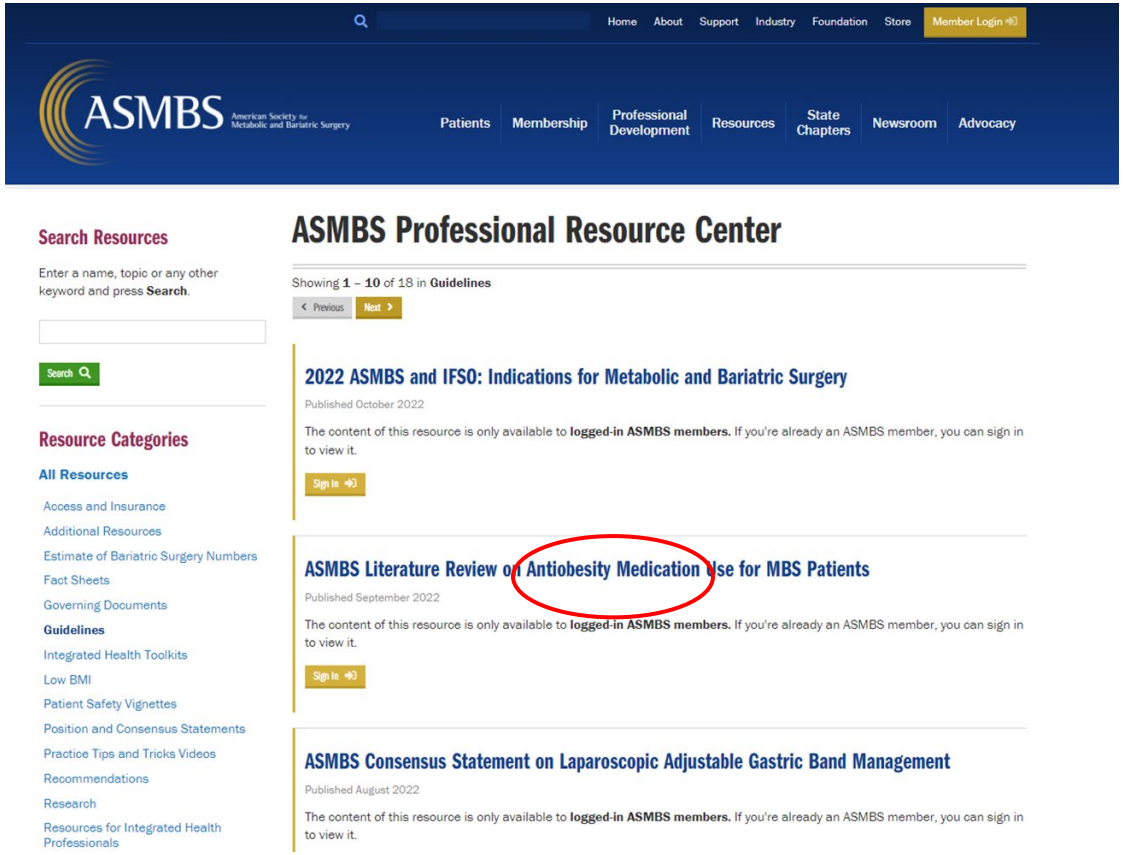
- BMI > 40 by itself or >35 if there is an associated obesity complications , such as diabetes or sleep apnoea
- Reasonable attempts at other weight loss techniques
- Age 18-65
- No drug dependency problems
- A capacity to understand the risks and commitment associated with the surgery.
- Pregnancy not anticipated in the first year following surgery

There is considerable flexibility in these guidelines. Patients as young as 12 have been offered surgery. Sometimes a lower BMI between 30-35 is accepted if patients have difficult to control diabetes.

- BMI >40 kg/m², in assenza di ogni altra comorbilità;
- BMI >35 kg/m², in presenza di comorbilità fra quelle classicamente considerate come associate all'obesità (Tabella 3), tra cui il diabete mellito di tipo 2 (T2DM) resistente al trattamento medico (*Vedi: Indicazioni nel paziente affetto da Diabete Mellito di Tipo 2*).

Tabella 3. Comorbilità dell'obesità

Malattie metaboliche	Neoplasie	
• Diabete mellito di tipo 2 • Dislipidemia • Iperuricemia e gotta • Infertilità femminile • Sindrome dell'ovaio policistico	• Mammella • Colon-retto • Endometrio • Esofago • Rene • Ovaio	• Pancreas • Prostata • Fegato • Colecisti • Leucemie
Malattie cardiovascolari	**Altre**	
• Ipertensione arteriosa • Cardiopatia coronarica • Cardiopatia congestizia • Embolia polmonare • Ictus	• Asma • Apnee ostruttive notturne • Steatoepatite non alcolica • Colecistopatia • Osteoartrite • Pseudotumor cerebri	• Disordini psicologici • Reflusso gastroesofageo • Incontinenza urinaria • Intertrigine • Fascite plantare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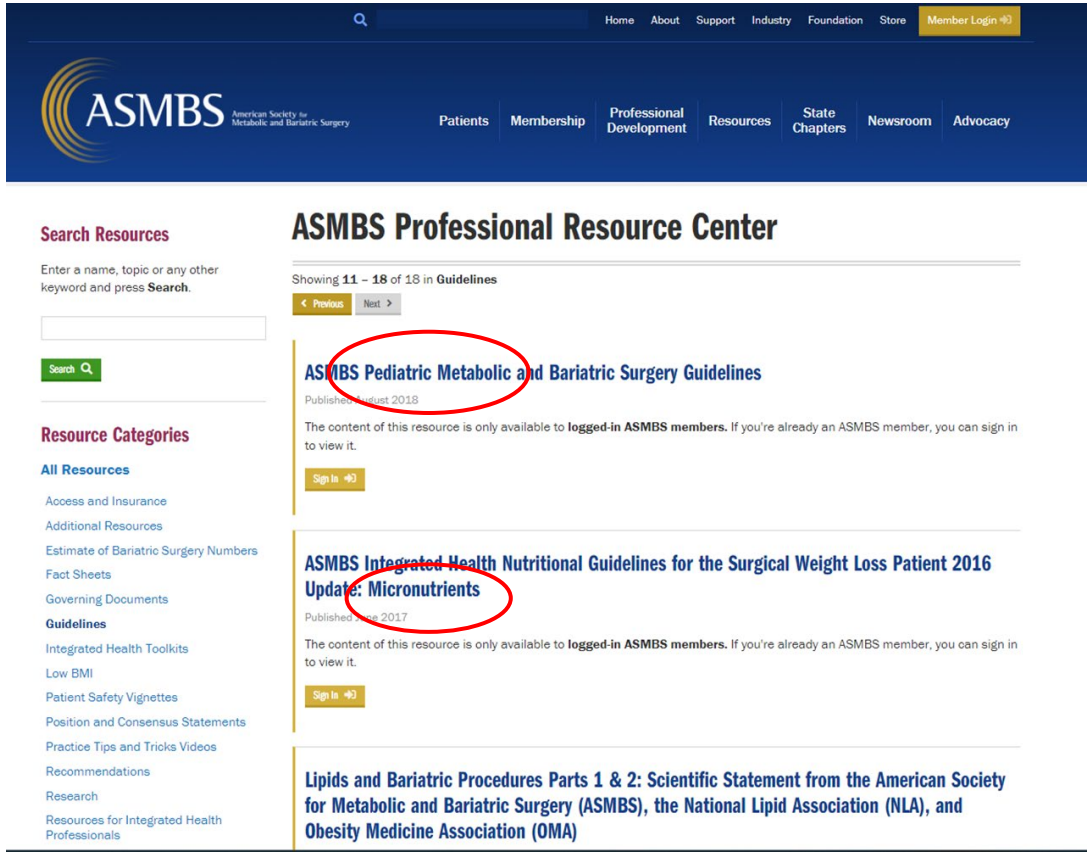
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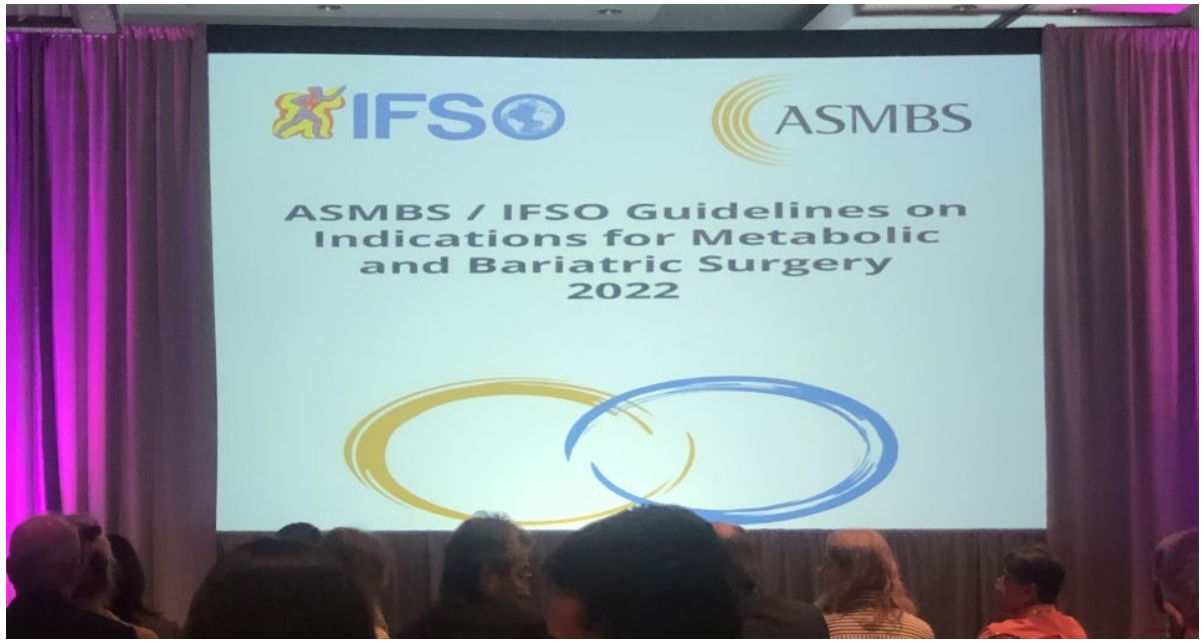
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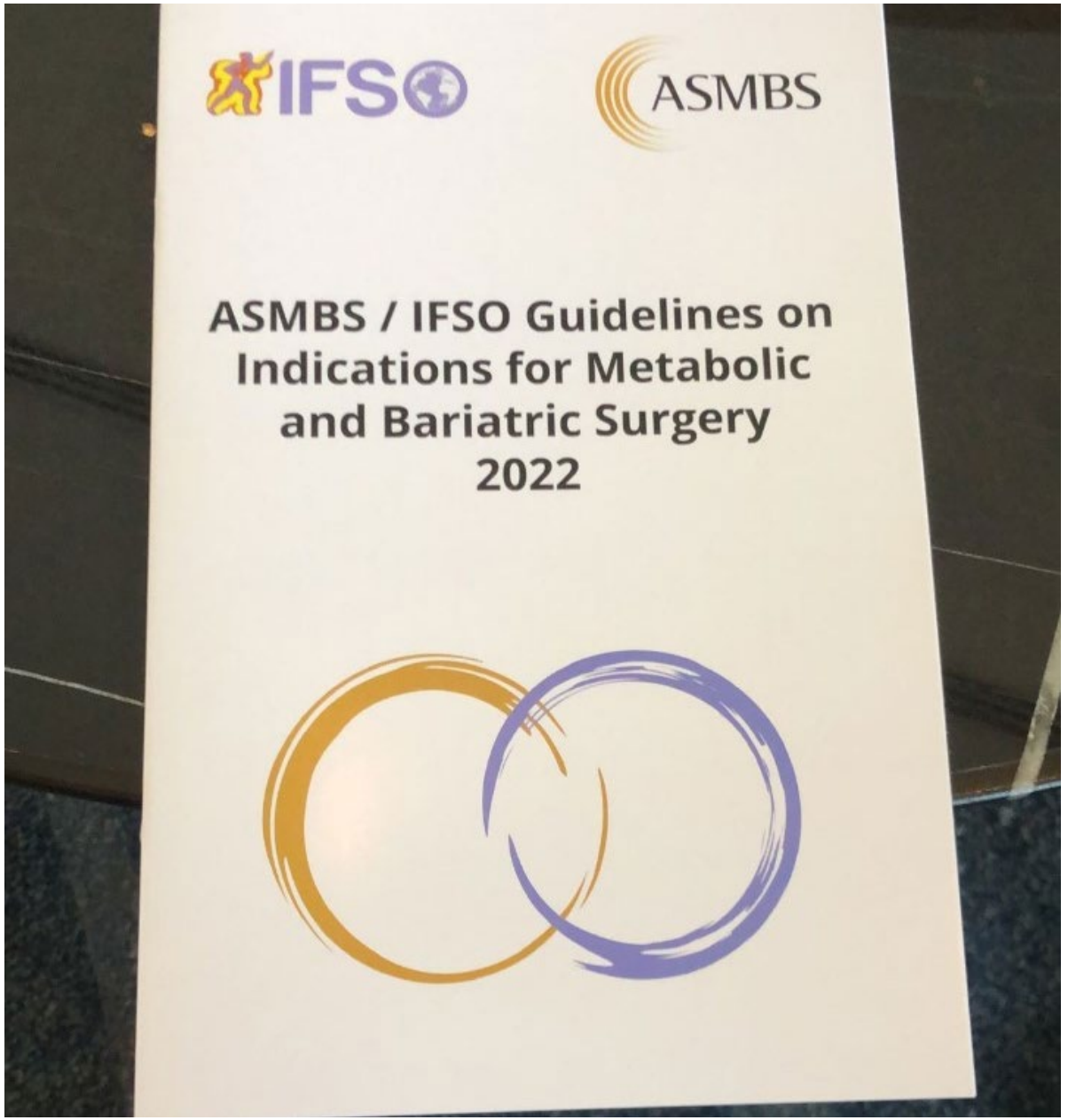
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ASMBS
ASMBS / IFSO Guidelines on
Indications for Metabolic
and Bariatric Surgery
2022

Obesity Surgery
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]

Major updates to 1991 National Institutes of Health guidelines for bariatric surgery

ELSEVIER

Surgery for Obesity and Related Diseases 18 (2022) 1345–1356

SURGERY FOR OBESITY AND RELATED DISEASES

Original article

2022 American Society for 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, M.D.[a,*], Scott A. Shikora, M.D.[b], Edo Aarts, M.D., Ph.D.[c], Ali Aminian, M.D.[d], Luigi Angrisani, M.D.[e], Ricardo V. Cohen, M.D., Ph.D.[f], Maurizio De Luca, M.D.[g], Silvia L. Faria, Ph.D.[h], Kasey P. S. Goodpaster, Ph.D.[d], Ashraf Haddad, M.D.[i], Jacques M. Himpens, M.D., Ph.D.[j], Lilian Kow, B.M.B.S., Ph.D.[k], Marina Kurian, M.D.[l], Ken Loi, M.B.B.S., B.Sc. (Med)[m], Kamal Mahawar, M.B.B.S., M.Sc.[n], Abdelrahman Nimeri, M.D., M.B.B.Ch.[o], Mary O'Kane, M.Sc., R.D.[p], Pavlos K. Papasavas, M.D.[q], Jaime Ponce, M.D.[r], Janey S. A. Pratt, M.D.[a,s], Ann M. Rogers, M.D.[t], Kimberley E. Steele, M.D., Ph.D.[u], Michel Suter, M.D.[v,w], Shanu N. Kothari, M.D.[x]

Major updates to 1991 National Institutes of Health guidelines for bariatric surgery

MBS is recommended for individuals with BMI >35 kg/m^2, regardless of presence, absence, or severity of comorbidities.
MBS is recommended in patients with T2D and BMI >30 kg/m^2
MBS should be considered in individuals with BMI of 30–34.9 kg/m^2 who do not achieve substantial or durable weight loss or co-morbidity improvement using nonsurgical methods.

Major updates to 1991 National Institutes of Health guidelines for bariatric surgery

Clinical obesity in the Asian population is recognized in individuals with BMI >25 kg/m^2

Children and adolescents with BMI >120% of the 95th percentile and a major co-morbidity, or a BMI >140% of the 95th percentile, should be considered for MBS after evaluation by a multidisciplinary team in a specialty center

Major updates to 1991 National Institutes of Health guidelines for bariatric surgery

There is no evidence to support an age limit on patients seeking MBS, but careful selection that includes assessment of frailty is recommended
Studies failed to demonstrate a significant difference in perioperative complications, length of Obesity Surgery stay, 30-day mortality, or long-term outcomes after MBS when individuals with BMI >60 kg/m^2 were compared with those with BMI <60 kg/m^2
Furthermore, studies have shown that MBS can be performed safely in patients with BMI >70 kg/m^2

Major updates to 1991 National Institutes of Health guidelines for bariatric surgery

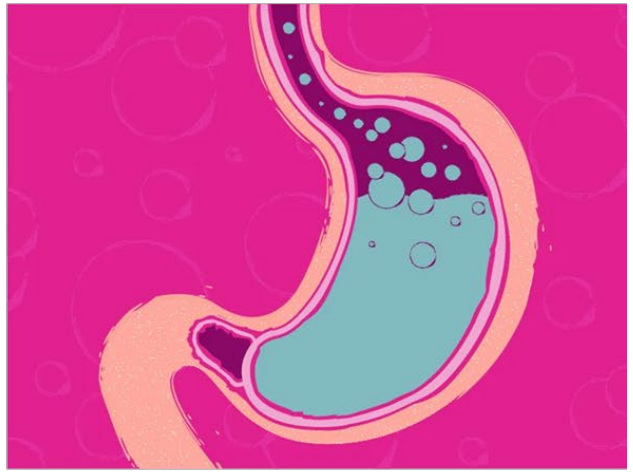
There are reports to suggest that MBS may be effective as a bridge to total joint arthroplasty in individuals with class II/III obesity when performed >2 years prior to joint surgery

In patients with severe obesity and an abdominal wall hernia requiring elective repair, MBS should be considered first to induce significant weight loss

MBS is associated with an 88% risk reduction of progression of NASH to cirrhosis

Patients with endstage organ disease can achieve meaningful weight loss and improve their eligibility to receive an organ transplant

- *Pregnancy*
- *GERD*



- *Specific indication to revisional surgery*

LACK OF SUPPORTING EVIDENCE…..

a generally accepted opinion or decision among a group of people: The general consensus in the office is that he can't do his job. Could we reach a consensus on this matter? Let's take a vote. Thesaurus: synonyms, antonyms, and examples. 1 feb 20

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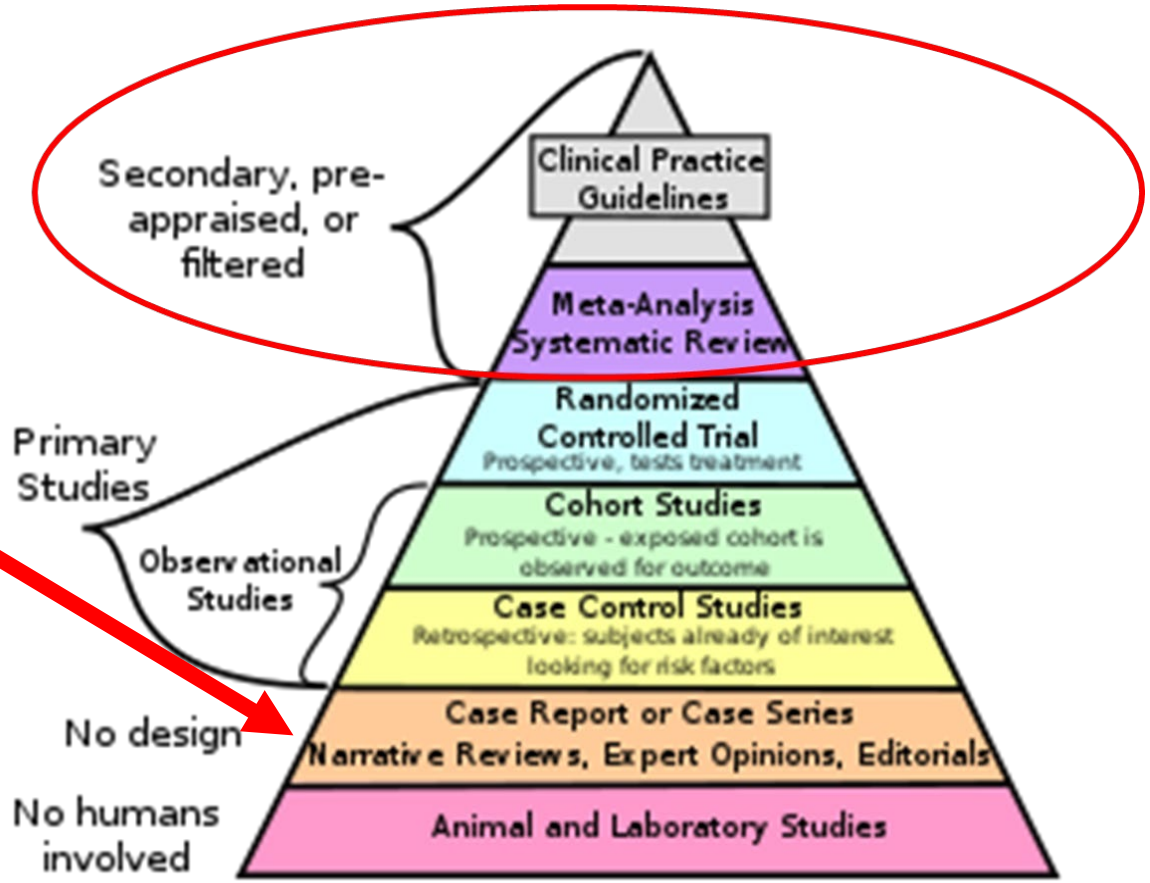

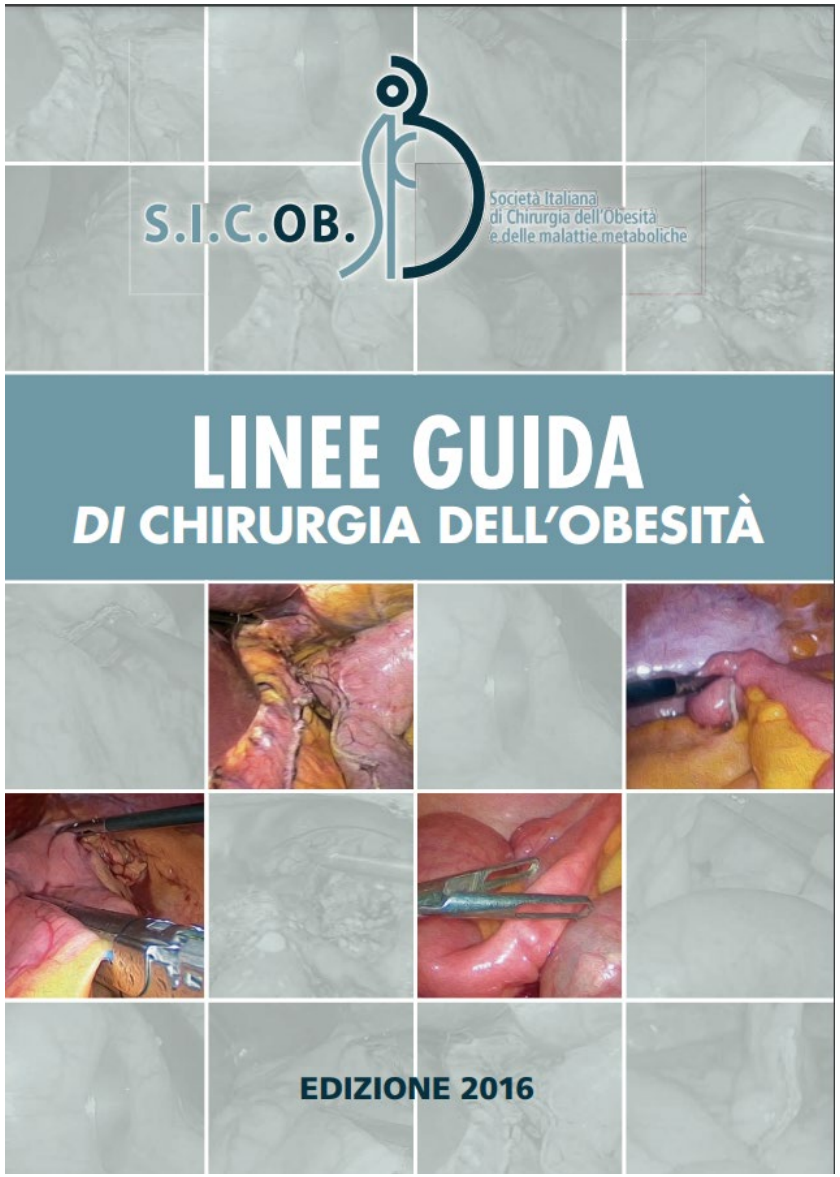

S.I.C.OB.

Società Italiana di
Chirurgia dell'Obesità
e delle malattie metaboliche

LINEE GUIDA E STATO DELL'ARTE DELLA CHIRURGIA BARIATRICA E METABOLICA IN ITALIA

a cura di:
P. Forestieri,
M. Alkilani, E. Amenta, L. Angrisani,
M. Anselmino, N. Basso, S. Boschi,
L. Busetto, F. C. Campanile, S. Cariani,
M. De Luca, M. De Paoli, L. Di Cosmo,
C. Giardiello, E. Lattuada, G. Lesti,
M. Lucchese, M. Morino, G. Nanni,
F. Puglisi, R. Sacco, G. Silecchia,
M. Toppino, C. Vassallo, M. A. Zappa
e N. Scopinaro

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Table 1
Indications and contraindications for adolescent metabolic and bariatric surgery (MBS)

Indications for adolescent MBS include
• BMI ≥35 kg/m^2 or 120% of the 95th percentile with clinically significant co-morbid conditions such as obstructive sleep apnea (AHI >5), T2D, IIH, NASH, Blount's disease, SCFE, GERD, or hypertension; or BMI ≥40 kg/m^2 or 140% of the 95th percentile (whichever is lower).
• A multidisciplinary team must also consider whether the patient and family have the ability and motivation to adhere to recommended treatments pre- and postoperatively, including consistent use of micronutrient supplements.
Contraindications for adolescent MBS include
• A medically correctable cause of obesity
• An ongoing substance abuse problem (within the preceding yr)
• A medical, psychiatric, psychosocial, or cognitive condition that prevents adherence to postoperative dietary and medication regimens.
• Current or planned pregnancy within 12 to 18 mo of the procedure

BMI = body mass index; AHI = apnea-hypopnia index; T2D = type 2 diabetes; IIH = idiopathic intracranial hypertension; NASH = nonalcoholic steatohepatitis; SCFE = slipped capital femoral epiphysis; GERD = gastroesophageal reflux disease.

E.8 La chirurgia bariatrica si è dimostrata efficace in pazienti obesi di età <18 anni (LIVELLO DI EVIDENZA: 2; GRADO DI RACCOMANDAZIONE: B) e >60 anni (LIVELLO DI EVIDENZA: 2; GRADO DI RACCOMANDAZIONE: A).

Nel caso del trattamento chirurgico dell'obesità nel paziente in età evolutiva, valgono criteri più restrittivi rispetto a quelli dell'adulto[75]:

- BMI >35 kg/m² (>99,5° percentile per età) con almeno una comorbilità;
- trattamento medico da almeno 6 mesi presso un Centro specializzato;
- maturità scheletrica e sviluppo completato;
- capacità di aderire a programmi multidisciplinari pre- e postoperatori;
- possibilità di accedere a una struttura con supporto pediatrico specialistico.

Nel caso del trattamento chirurgico del paziente obeso ultrasessantenne, deve essere considerato che vi è una maggiore percentuale di complicanze postoperatorie e un minor calo di peso nei confronti dei pazienti più giovani, ma sono ugualmente attesi il miglioramento (o la risoluzione) delle comorbilità e un miglioramento della qualità di vita[76-79].

In ogni caso devono essere verificate:

- la motivazione, la capacità di esprimere un valido consenso, la disponibilità ai controlli periodici e al regime dietetico prevedibile;
- la certezza della resistenza alla terapia nutrizionale e comportamentale;
- l'assenza di controindicazioni maggiori;
- la compatibilità con il rischio operatorio, valutato in base all'*Obesity Surgery Mortality Risk Score* (OS-MRS)[107].

GRUPPO DI LAVORO DELLA LINEE GUIDA

COORDINATORE
De Luca Maurizio
Dipartimento di Chirurgia Generale e Metabolica; Ospedale di Rovigo; Rovigo.
Il Dr. De Luca Maurizio coordina tutte le attività del panel, comitato di scrittura, Evidence Review Team, documentalisti e comitato di redazione.

CO-CORDINATORI
Piatto Giacomo
Ospedale di Montebelluna, Treviso
Zese Monica
Ospedale di Rovigo, Rovigo
Il Dr. Piatto Giacomo e la Dr.ssa Zese Monica aiutano il coordinatore a coordfinare tutte le attività del panel, Evidence Review Team, comitato di scrittura, documentalisti e comitato di redazione.

METODOLOGO
Monami Matteo
Azienda Ospedaliero-Universitaria Careggi; Firenze.
Il Dr. Monami Matteo coordina le attività dell'intero gruppo di lavoro nell'applicazione del metodo GRADE in tutte le fasi del processo di sviluppo della linea guida.

MENU Istituto Superiore di Sanità

SNLG – Sistema Nazionale Linee Guida

Pubblicato 13/11/2019 - Modificato 05/01/2022

La legge n. 24/2017 sulla responsabilità professionale ha affidato un ruolo fondamentale alle linee guida (LG), dando all'ISS, tramite il Centro Nazionale per l'Eccellenza Clinica, la Qualità e la Sicurezza delle Cure (CNEC), il ruolo di garante metodologico e di governance nazionale del processo di produzione di LG di buona qualità, informate dalle migliori evidenze disponibili e rispondenti ai bisogni di salute del Paese sulla base di criteri di rilevanza e impatto clinico, economico e sociale.

Nel nuovo contesto normativo, l'SNLG costituisce, quindi, il punto di accesso istituzionale alle linee guida per la pratica clinica o per scelte di salute pubblica sviluppate per il Servzio Sanitario Nazionale e per decisori, professionisti e pazienti.

LINEE GUIDA DELLA SICOB SOCIETÀ ITALIANA DI CHIRURGIA DELL'OBESITÀ E DELLE MALATTIE METABOLICHE

La terapia chirurgica dell'obesità e delle complicanze associate

ANALYSIS

RATING QUALITY OF EVIDENCE AND STRENGTH OF RECOMMENDATIONS

GRADE: an emerging consensus on rating quality of evidence and strength of recommendations

Guidelines are inconsistent in how they rate the quality of evidence and the strength of recommendations. This article explores the advantages of the GRADE system, which is increasingly being adopted by organisations worldwide

Box 1 | Advantages of GRADE over other systems

- Developed by a widely representative group of international guideline developers
- Clear separation between quality of evidence and strength of recommendations

Box 2 | Quality of evidence and definitions

High quality— Further research is very unlikely to change our confidence in the estimate of effect

Moderate quality— Further research is likely to have an important impact on our confidence in the estimate of effect and may change the estimate

Low quality— Further research is very likely to have an important impact on our confidence in the estimate of effect and is likely to change the estimate

Very low quality— Any estimate of effect is very uncertain

Strong recommendation The panel is confident that the desirable effects of adherence to the recommendation outweigh the undesirable effects.

Weak recommendation: The desirable effects to adherence to the recommendation probably outweigh the undesirable effects, but the panel is less confident.

PICO

The PICO Principle assists you in organizing and focusing your question into a searchable query.

P

Participants / Population
Who are the relevant patients?

I

Intervention / Indication
What is the management strategy, diagnostic test or exposure that you are researching?

C

Comparator / Control
Is there a control or alternative management strategy, test, or exposure?

O

Outcome
What are the patient-relevant consequences?

Methods

- In order to methodologically support the previously published ASMBS/IFSO guidelines, two international teams of writers were created.
-
- One team of seven researcher (MDL, GM, AI, GP, ST, SC, AV) performed a systematic search of high-level evidence for different items, according to the PRISMA

Methods

TWO INDEPENDENT RESEARCHERS FOR EVERY ITEM ANALYZED EACH ARTICLE

IN CASE OF DISAGREEMENT A THIRD RESEARCHER (MDL) WAS CONSULTED.

Methods

- The second team (MDL, MK, ST) was tasked to resolve any issues that were not answered by the systematic reviews.
- For these situations, a Delphi survey was constructed and consisted of two consecutive rounds.
- Forty-nine recognized MBS experts from 18 different countries participated in this Delphi survey

First Name	Last Name	Country
Edo	Aaarts	Netherland
Ahmad	Aly	Australia
Ali	Aminian	USA
Luigi	Angrisani	Italy
Ahmad Abdallah	Bashir	Jordan
Estuardo	Behrens	Guatemala
Helmuth Thorlakur	Billy	USA
Sonja	Chiappetta	Italy
Jean Marc	Chevallier	France
Ricardo Vitor	Cohen	Brazil
Maurizio	De Luca	Italy
Pierre Y	Garneau	Canada
Khaled Aly	Gawdat	Egypt
Ashraf	Haddad	Jordan
Jacques M	Himpens	Belgium
Farah Anwari	Husain	USA
Angelo	Iossa	Italy
Mohammad	Kermansaravi	Iran
Shanu Nikhil	Kothari	USA
Lilian	Kow	Australia
Marina	Kurian	USA
Teresa LeAnn	LaMasters	USA
Silvia	Leite Faria	Brazil
Ken Wing King	Loi	Australia
Kamal K	Mahawar	UK
Corrigan Lee	McBride	USA
Giovanni	Merola	Italy
Monali	Misra	USA
Abdelrahman Ali	Nimeri	USA
Joe	Northup	USA
Mary	O'Kane	UK
Pavlos	Papasavas	USA
Richard M	Peterson	USA
Giacomo	Piatto	Italy
Luis	Poggi	Peru
Jaime	Ponce	USA
Gerhard	Prager	Austria
Janey Sue Andrews	Pratt	USA
Almino Cardoso	Ramos	Brazil
Ann M	Rogers	USA
Paulina	Salminen	Finland
Nathaniel James	Sann	USA
John David	Scott	USA
Scott Alan	Shikora	USA
Michel	Suter	Switzerland
Salvatore	Tolone	Italy
Antonio	Vitiello	Italy
Cunchuan	Wang	China

Methods

- Consensus was reached when the agreement/disagreement rate was equal to or greater than 70%.
- An online platform (Survey Monkey) was used.
- Seven statements reached consensus in the first round and two statements reached consensus in the second round of voting

Level of evidence and grade recommendation

GRADE OF RECOMMENDATION	LEVEL OF EVIDENCE	TYPE OF STUDY
A	1a	Systematic review of [homogeneous] randomized controlled trials
A	1b	Individual randomized controlled trials [with narrow confidence intervals]
B	2a	Systematic review of [homogeneous] cohort studies of "exposed" and "unexposed" subjects
B	2b	Individual cohort study / low-quality randomized control studies
B	3a	Systematic review of [homogeneous] case-control studies
B	3b	Individual case-control studies
C	4	Case series, low-quality cohort or case-control studies
D	5	Expert opinions based on non-systematic reviews of results or mechanistic studies

Methods

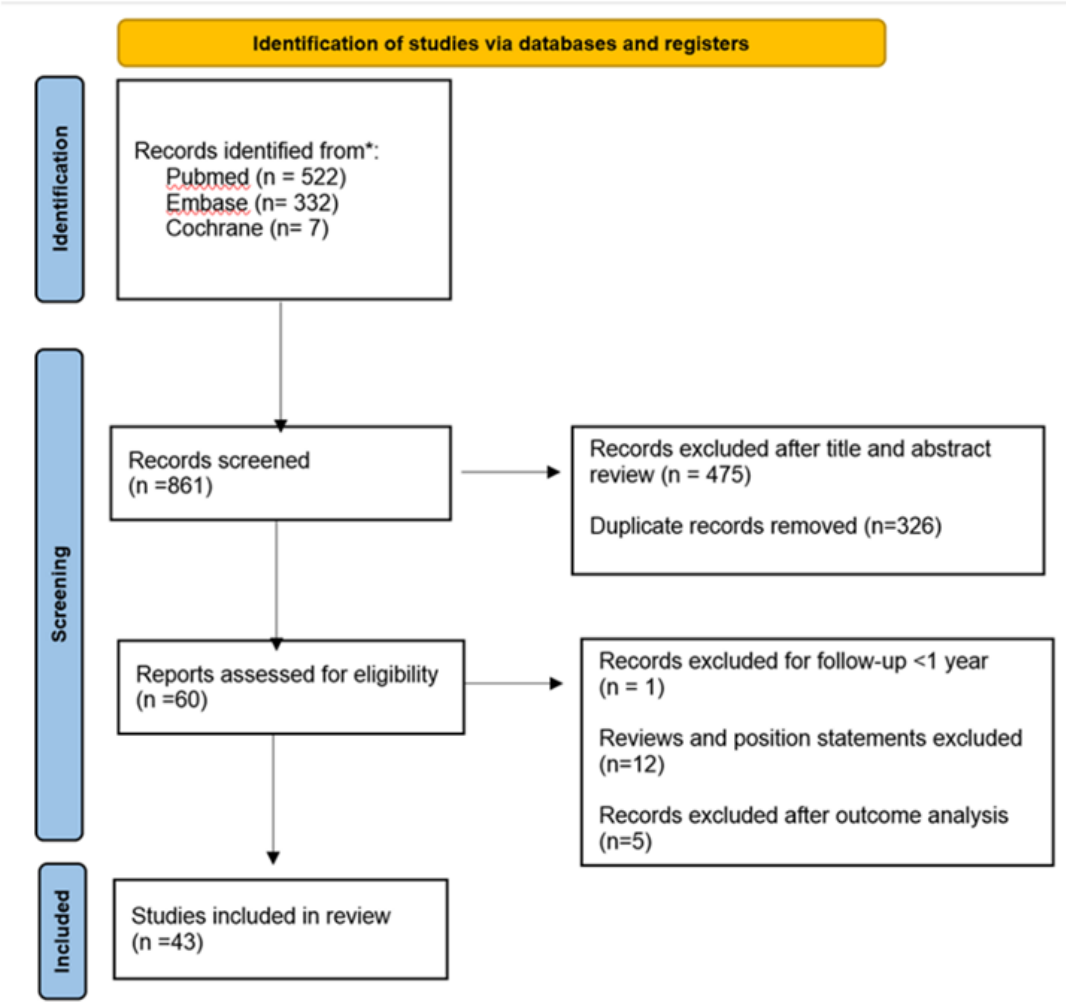
- 12 different systematic reviews from the 13 PRISMA were carried out.
- PRISMA on item 2 (BMI 35-40 kg/m2 without obesity-associated medical problems) produced no studies.

Criteria	PRISMA and DELPHI	Level of Evidence	Grade of Recommendation
MBS for BMI 30 - 34.9 kg/m^2	PRISMA	2a	B
MBS for BMI 35-40 kg/m^2 without obesity-associated comorbidities	PRISMA Insufficient data DELPHI	5	D
BMI thresholds in the Asian population	PRISMA	2a	B
MBS in the lder population	PRISMA	2a	B
MBS for the pediatric and adolescents	PRISMA	1b	A
MBS prior to joint Arthroplasty	PRISMA Conflicting data DELPHI	2b	B
MBS and abdominal wall hernia repair	PRISMA	2b	B
MBS prior to organ transplantation	PRISMA	2b	B
MBS for BMI ≥ 60 kg/m^2	PRISMA	2a	B
MBS in patients with liver cirrhosis	PRISMA	2b	B
MBS in patients with heart failure	PRISMA	2b	B
Multidisciplinary care	PRISMA	2c	B
Revisional surgery	PRISMA	2b	B

1- MBS for BMI 30 - 34.9 kg/m2

- 43 articles were included in the present review, 29 (69%) were conducted on non-Asian patients and 13 (31%) on Asian patients.

- Operative time and length of stay (LOS) appeared comparable to available data in the literature for MBS in BMI ≥ 35 kg/m^2.



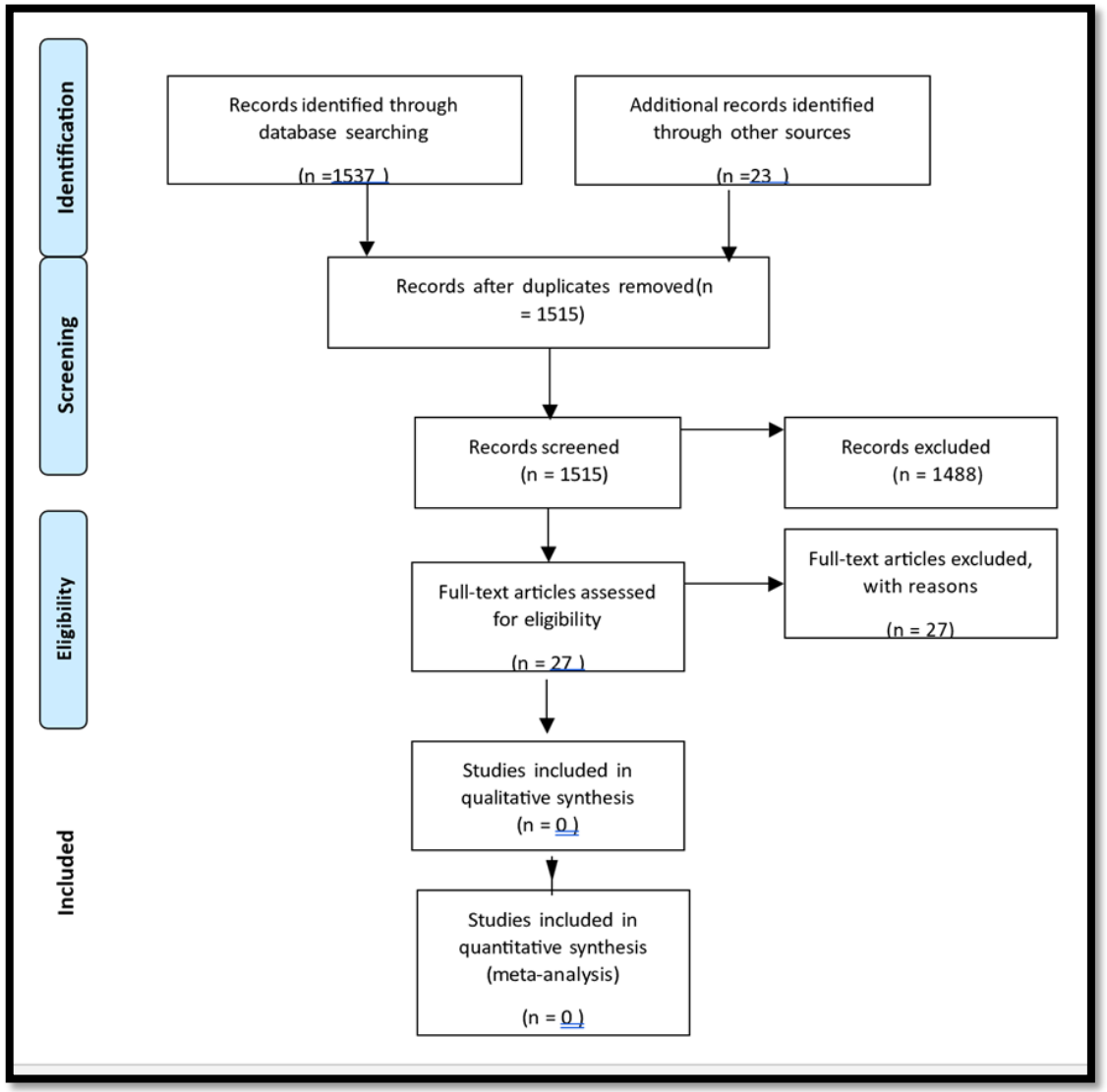
1- MBS for BMI 30 - 34.9 kg/m2

Recommendation:
• MBS is recommended for patients with T2DM and BMI of 30-34.9 kg/m2.
• MBS is recommended for patients with BMI of 30-34.9 kg/m2 and one obesity-associated medical problem.
• MBS should be considered in patients with BMI of 30-34.9 kg/m2 who do not achieve substantial or durable weight loss or co-morbidity improvement using nonsurgical methods.
Level of Evidence 2a
Grade of recommendation B

2- MBS for BMI 35-40 kg/m2 without obesity-associated medical problems

- Leaderships of IFSO and ASMBS have convened a Delphi survey

- According to the survey results of 49 experts, MBS is indicated in patients with class II obesity, BMI of 35-40 kg/m^2, with no associated medical problems in all group of ages following comprehensive multi-disciplinary team (MDT) assessment.



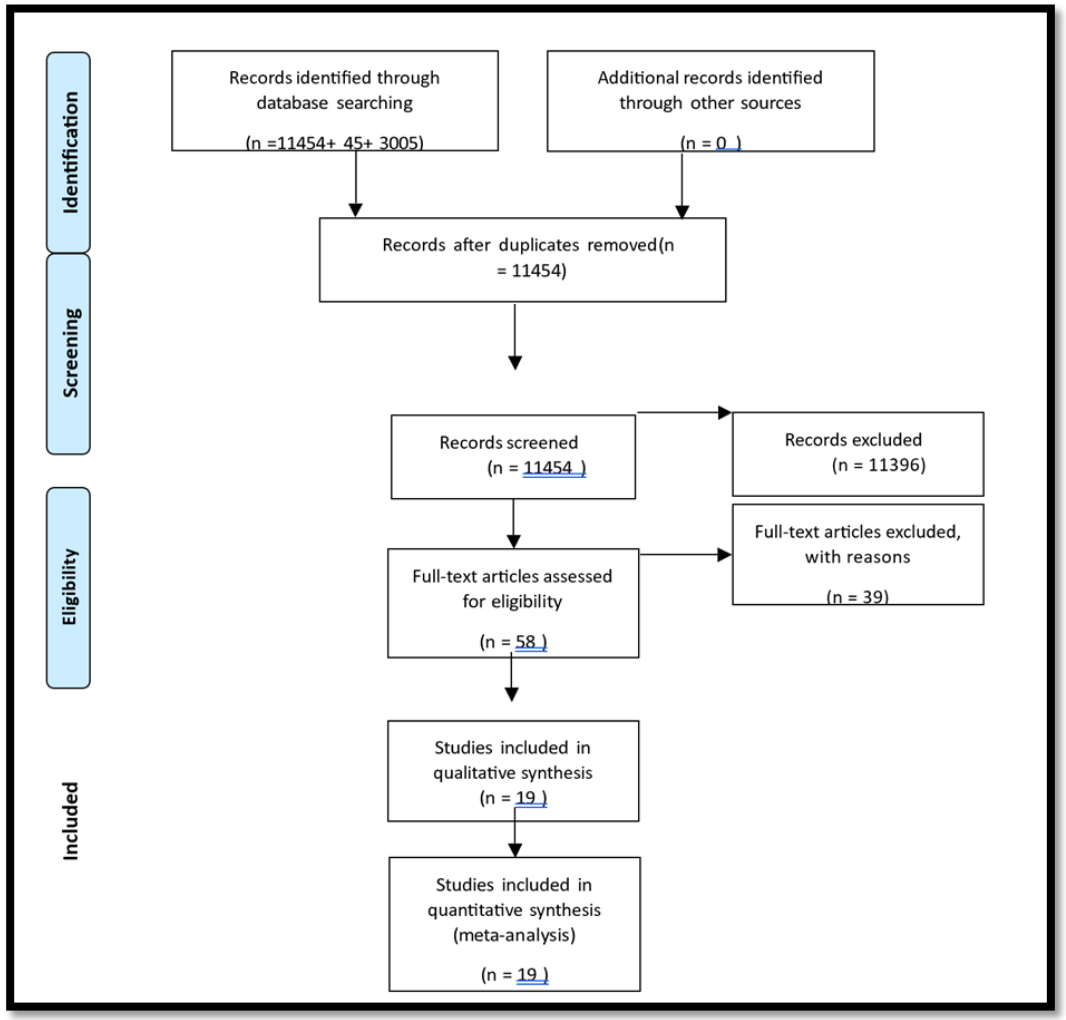
2- MBS for BMI 35-40 kg/m2 without obesity-associated medical problems - Delphi Table 2

Recommendation:
• MBS is recommended for patients with BMI ≥ 35 kg/m^2 regardless of the presence, absence, or severity of co-morbid conditions.
Level of Evidence 5
Grade of recommendation D

3- BMI thresholds in the Asian population

- Seven retrospective (54%, 2 multicenter, 54%) and 6 (46%) prospective studies reported the results of MBS on Asian patients population.

- All articles have a good/fair quality. The articles investigated the effects of surgery on patients with BMI < 30 kg/m2.



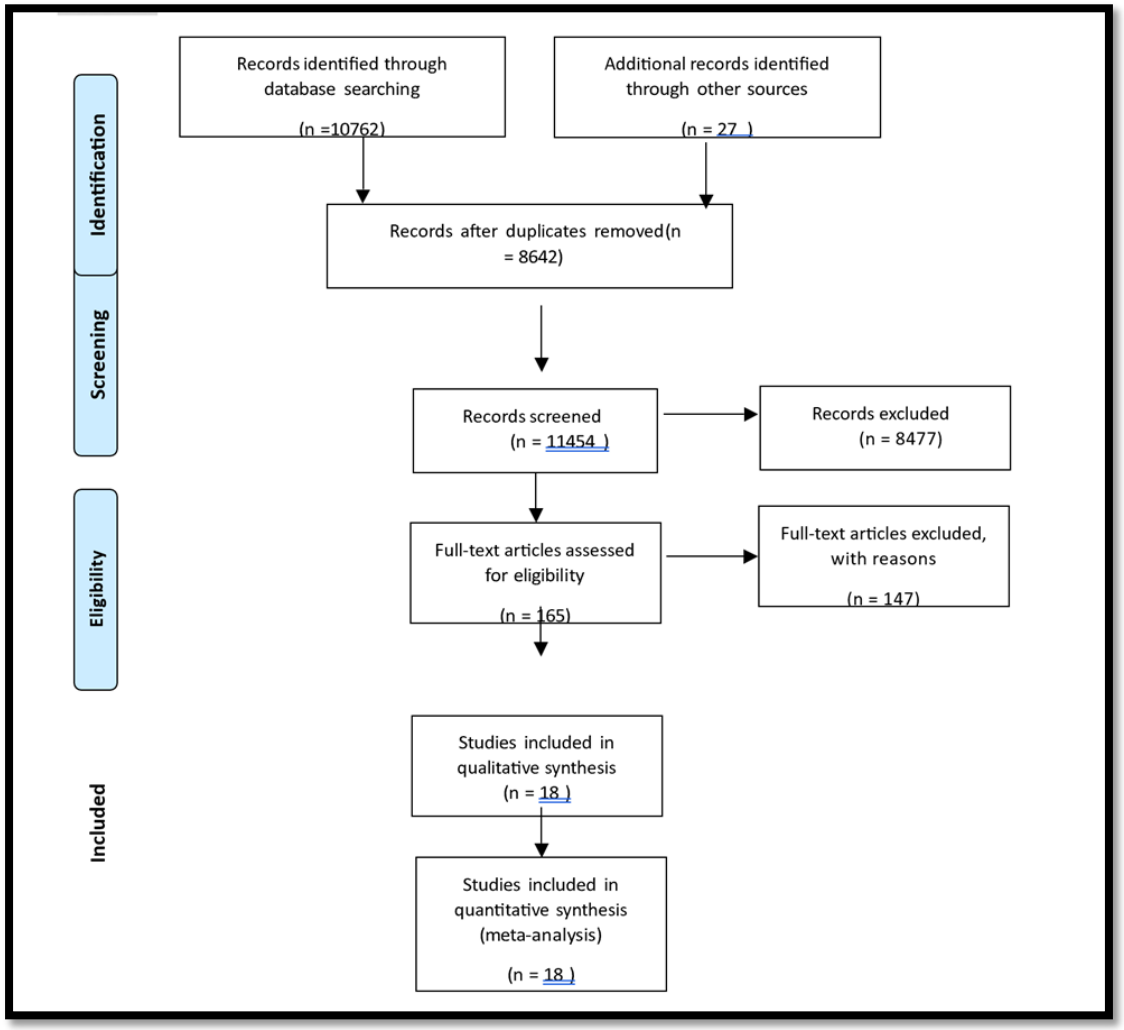
3- BMI thresholds in the Asian population

Recommendation:
• Clinical obesity in the Asian population is recognized in patients with BMI ≥ 25 kg/m^2.
Access to MBS should not be denied solely based on the traditional BMI criteria.
Level of Evidence 2a
Grade of recommendation B

4- MBS in the older population

- Eighteen papers have been retrieved for qualitative analysis.

- One RCT and one prospective multicenter paper have been found.



4- MBS in the older population

Recommendation:

- MBS has been performed successfully in increasingly older patients including patients ≥ 70 years of age. Frailty, cognitive capacity, smoking status, and end-organ function have an important role.

In septuagenarians, compared with a younger population, MBS is associated with slightly higher rates of postoperative complications but still provides substantial benefits of weight loss and co-morbid disease remission.

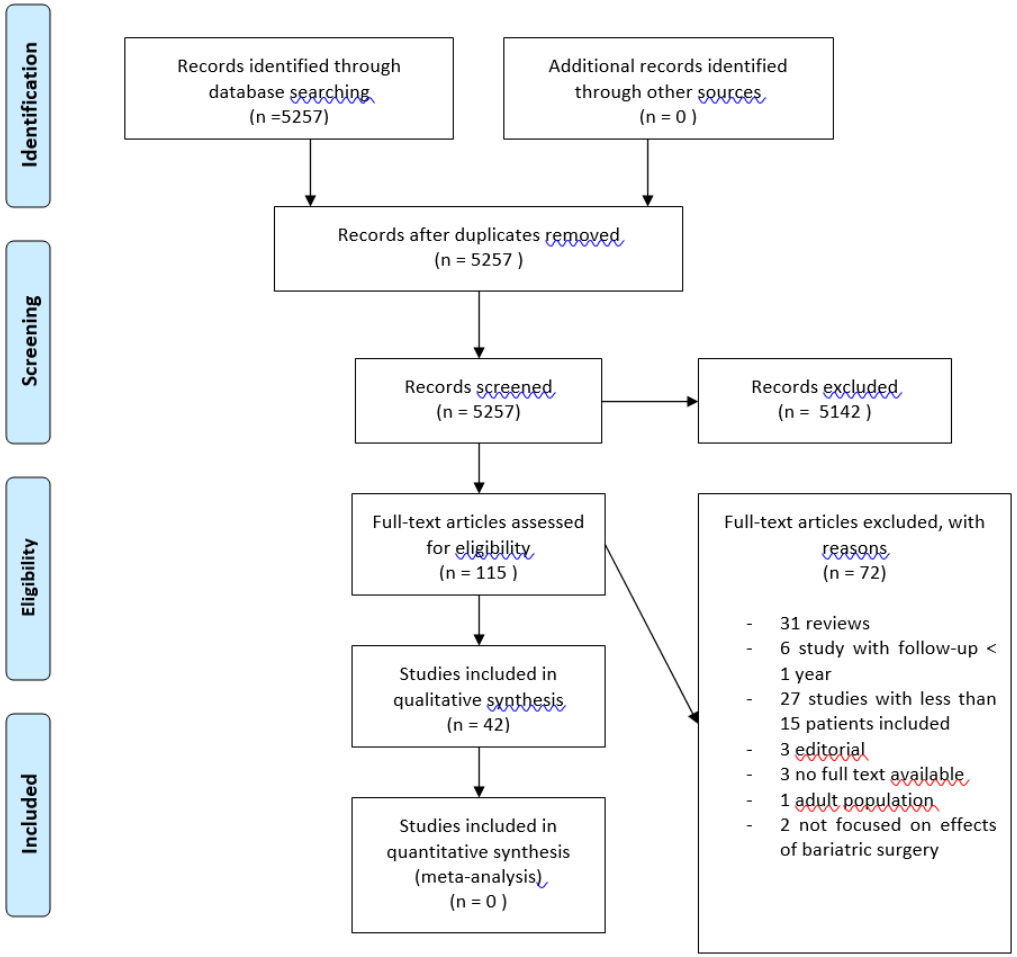
There is no evidence to support an age limit for older patients seeking MBS, but careful patient selection that includes an assessment of frailty is recommended.

Level of Evidence 2a

Grade of recommendation B

5- MBS for pediatrics and adolescents

- Forty-two papers have been retrieved for qualitative analysis.
- One RCT and 14 comparative papers have been found.
- Seven studies about MBS vs lifestyle modifications were evaluated.



5- MBS for pediatrics and adolescents

Recommendation:

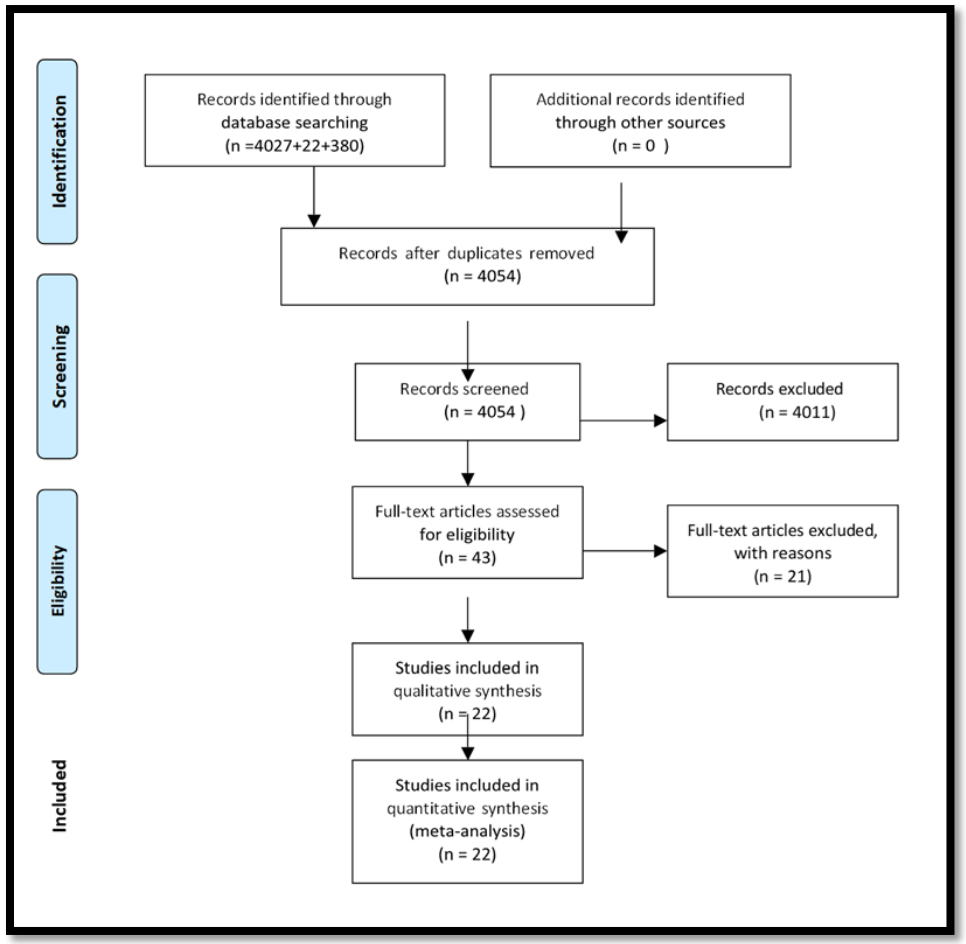
- MBS does not negatively impact on pubertal development or linear growth

MBS is safe in the population younger than 18 years and produces durable weight loss and improvement in co-morbid conditions.

Level of Evidence 1b

Grade of recommendation A

6- MBS prior to joint arthroplasty - Delphi



Twenty-two articles were chosen to be included in the present review

6- MBS prior to joint arthroplasty - Delphi

Recommendation:

- Obesity is associated with poor outcomes after total joint arthroplasty. Orthopedic surgical societies discourage hip and knee replacement in patients with BMI ≥ 40 kg/m^2, mainly due to the increased risk of readmission and surgical complications, such as wound infection and deep vein thrombosis.

MBS prior to total knee and hip arthroplasty has been shown to decrease operative time, hospital LOS, and early postoperative complications

According to experts opinion, MBS can be considered as a bridge to joint arthroplasty in patients with BMI ≥ 30 kg/m^2

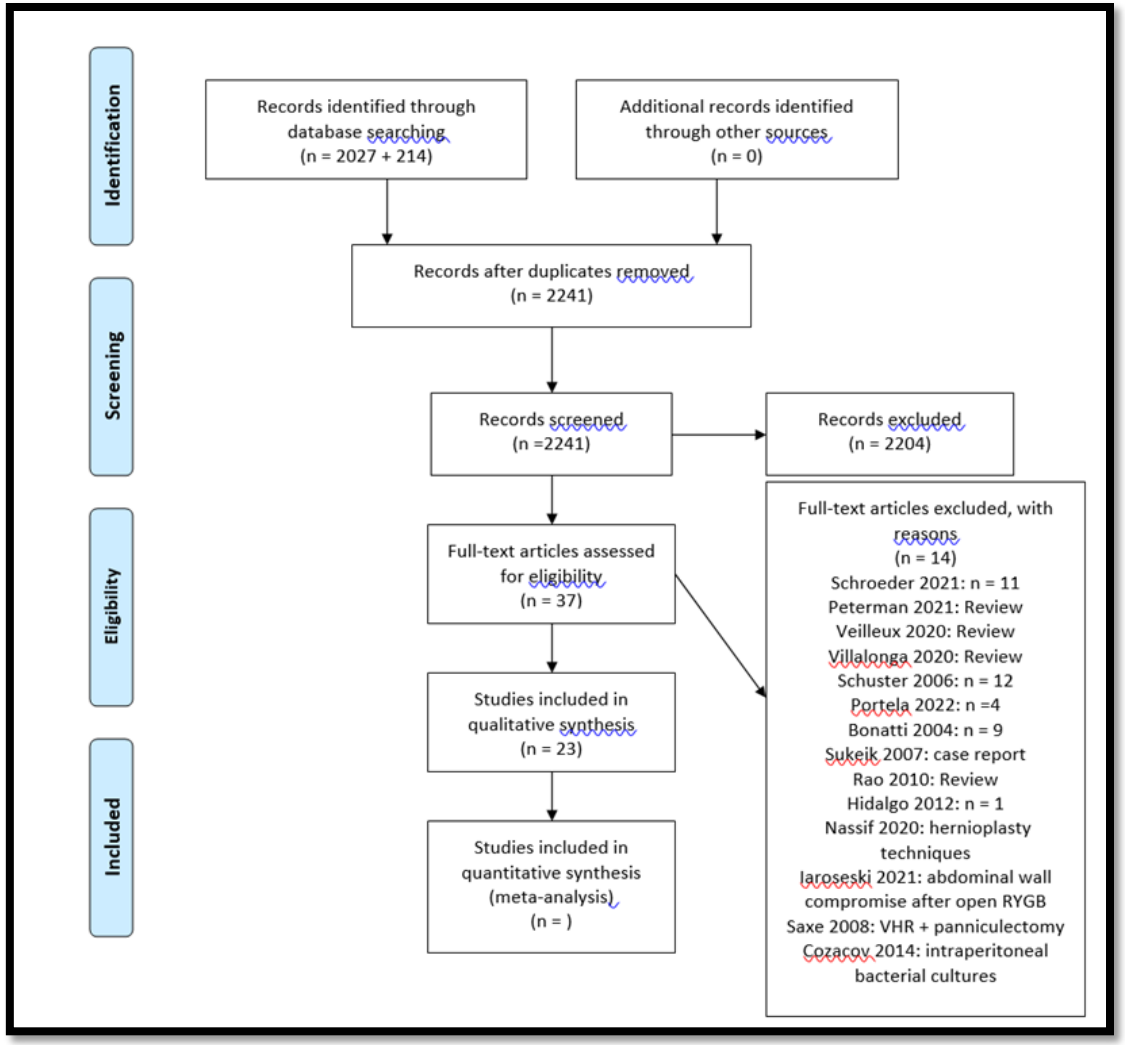
Level of Evidence 2b

Grade of recommendation B

7- MBS and abdominal wall hernia

- Twenty-three studies were included.

- Five studies were extracted from national registers including the Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program (MBSAQIP)



7- MBS and abdominal wall hernia

Recommendation:

- Obesity is a risk factor for the development of ventral hernias.

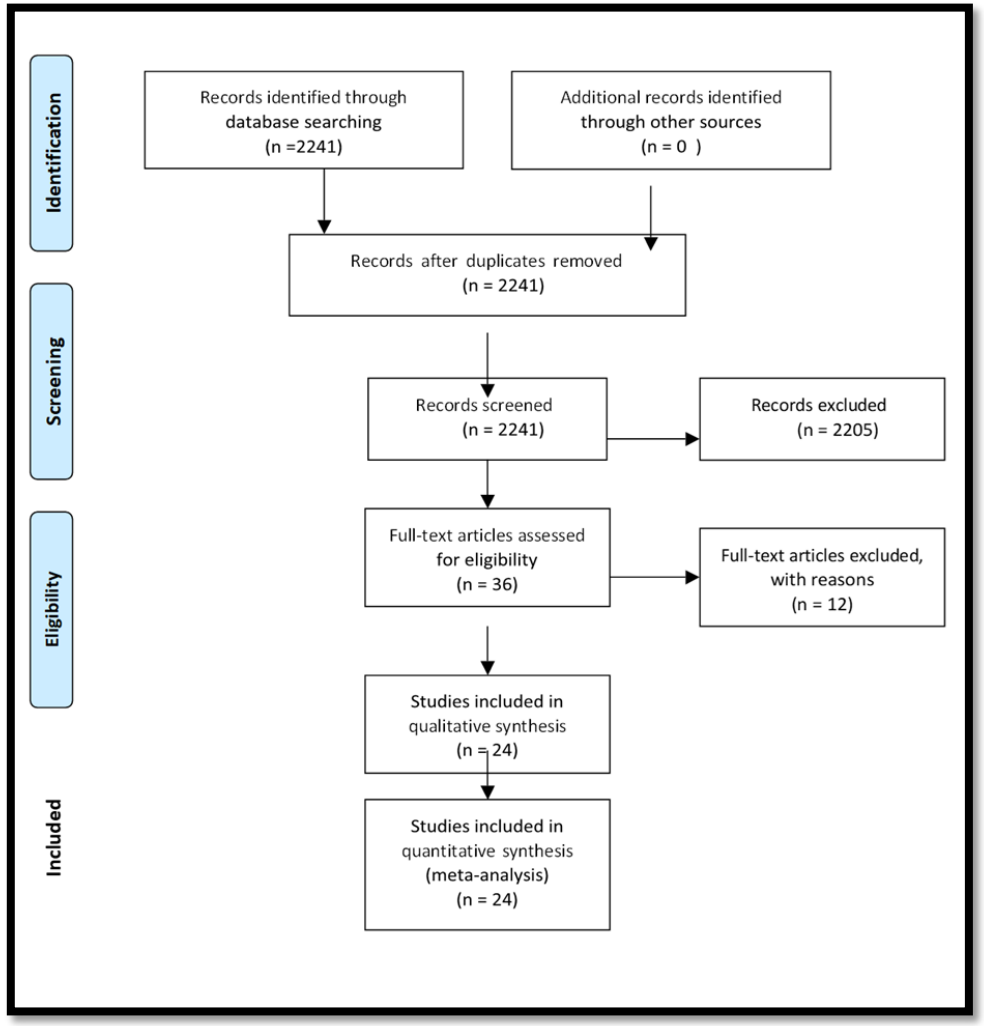
patients with obesity and an abdominal wall hernia, MBS-induced weight loss is suggested before ventral hernia repair in order to reduce the rate of postoperative complications.

Level of Evidence 2b

Grade of recommendation B

8- MBS and organ transplantation

- A systematic review on 2241 papers identified 24 fully analyzed studies.
- The studies included different SOT summarized as heart/lung, kidney, and liver.



8-MBS and organ transplantation

Recommendation:

- Obesity is associated with end-stage organ disease and may limit access to transplantation.

MBS is shown to be safe and effective as a bridge to liver transplantation in selected patients who would otherwise be ineligible.

Heart transplant can also be improved by MBS.

Limited data suggest that MBS could improve eligibility to lung transplantation.

MBS can be performed post SOT or concomitantly to reduce complication rates and mortality.

Obesity is also a relative contraindication for solid organ transplantation and poses unique technical challenges during surgery.

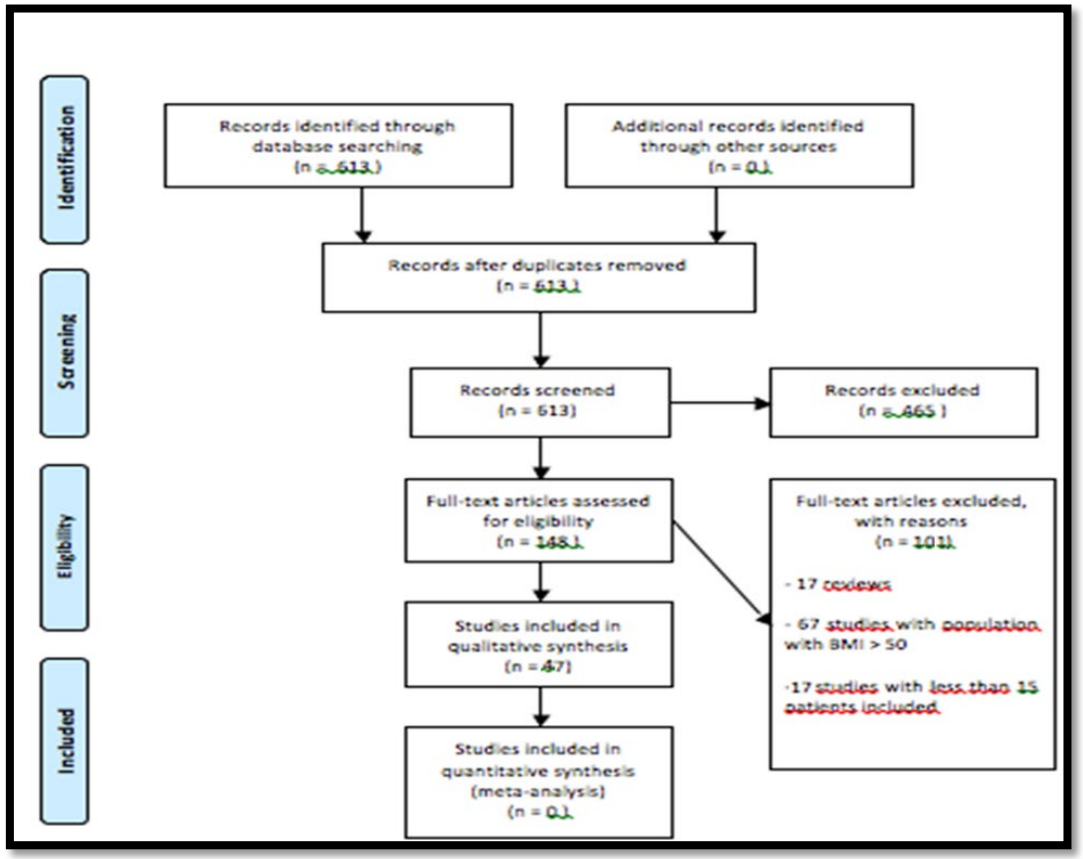
Published data supports considering patients with end-stage renal disease and morbid obesity being able to be listed for kidney transplant after MBS.

Level of Evidence 2b

Grade of recommendation B

9- MBS and BMI>60

- A total of 47 papers have been retrieved for qualitative analysis.
- Twelve studies were focused on the safety and feasibility of MBS among patients with severe obesity at 30 days follow-up after surgery, and there was with no reported data on weight loss or obesity-related co-morbidities.
- Thirty-five studies analyzed safety, feasibility, and medium to long-term results of MBS in patients with obesity and BMI ≥ 60 kg/m2.



9- MBS and BMI>60

Recommendation:

- MBS is safe and effective in patients with BMI ≥ 60 kg/m^2

Evidence suggests a higher rate of perioperative complications after MBS in patients with BMI ≥ 60 kg/m^2.

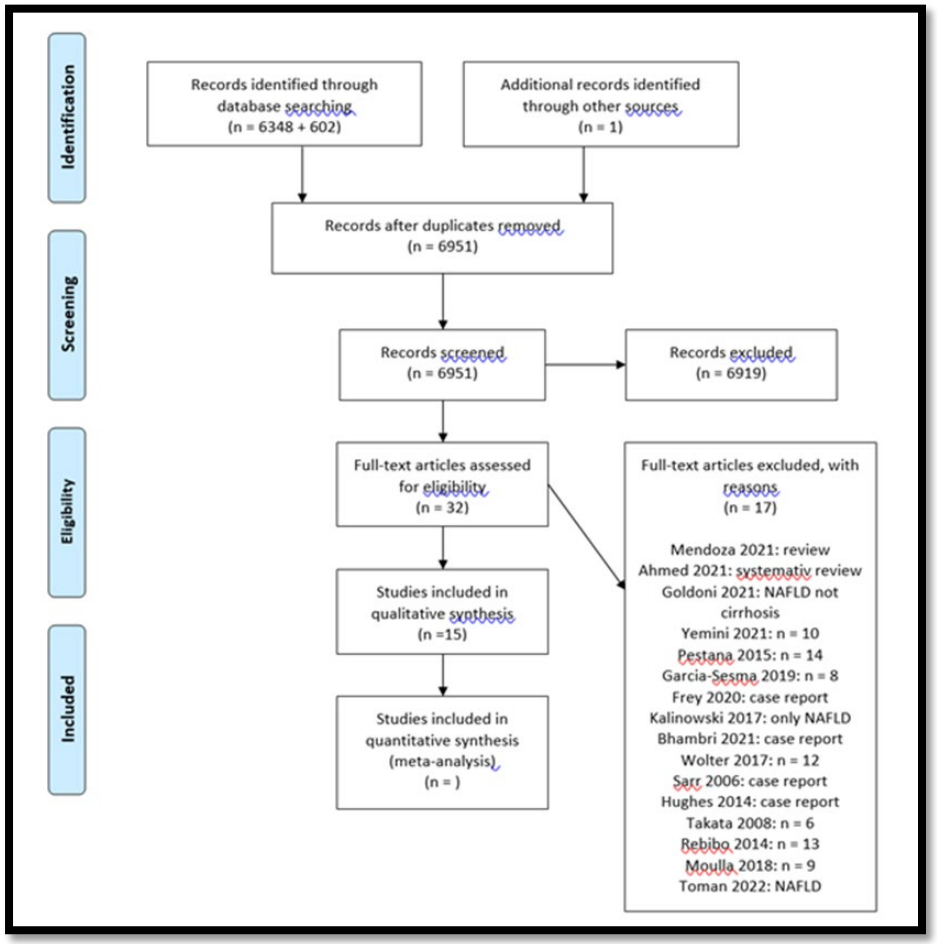
According to the literature, MBS appears safe in patients with initial BMI ≥ 70 kg/m^2

Level of Evidence 2A

Grade of recommendation B

10- MBS in patients with liver cirrhosis

- A total of 47 papers have been retrieved for qualitative analysis.
- Twelve studies were focused on the safety and feasibility of MBS among patients with severe obesity at 30 days follow-up after surgery, and there was with no reported data on weight loss or obesity-related co-morbidities.
- Thirty-five studies analyzed safety, feasibility, and medium to long-term results of MBS in patients with obesity and BMI ≥ 60 kg/m2.



10- MBS in patients with liver cirrhosis

Recommendation:

- Obesity is a significant risk factor for MAFLD and liver cirrhosis.

MBS has been associated with histologic improvement of MAFLD and regression of liver fibrosis

MBS is associated with a risk reduction of progression of MAFLD to liver cirrhosis.

MBS in patients with 'decompensated' cirrhosis is associated with high perioperative mortality.

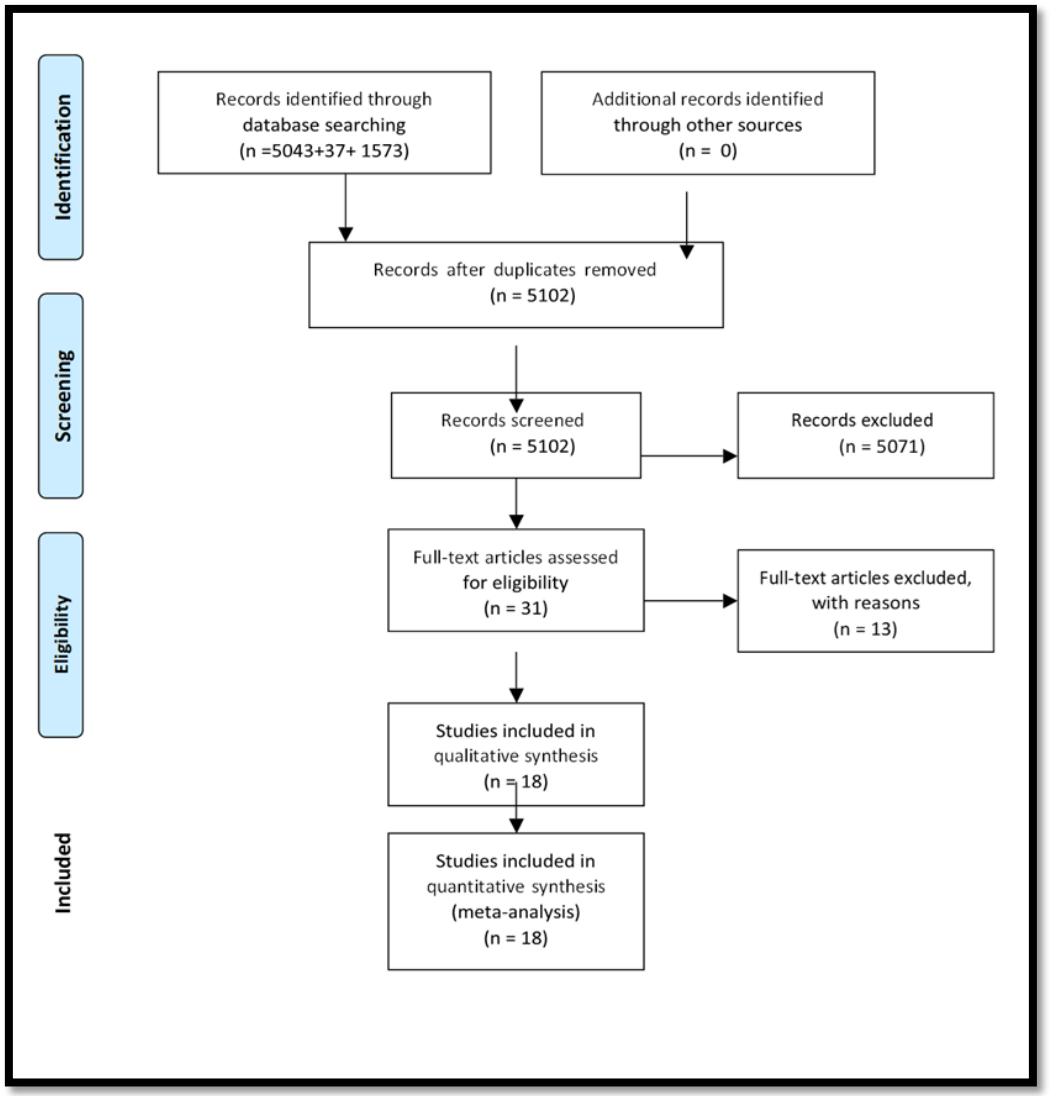
Careful patient selection and consideration of the choice of surgical procedure are important to ensure the best outcomes.

Level of Evidence 2b

Grade of recommendation B

11- MBS in patients with heart failure

- Thirty-one full-text articles were assessed for eligibility.
- studies are included in the qualitative synthesis.
- MBS is associated with a lower risk of major adverse cardiovascular events (MACE) including myocardial infarction, ischemic heart disease or heart failure (HF) in patients with severe obesity



11- MBS in patients with heart failure

Recommendation:

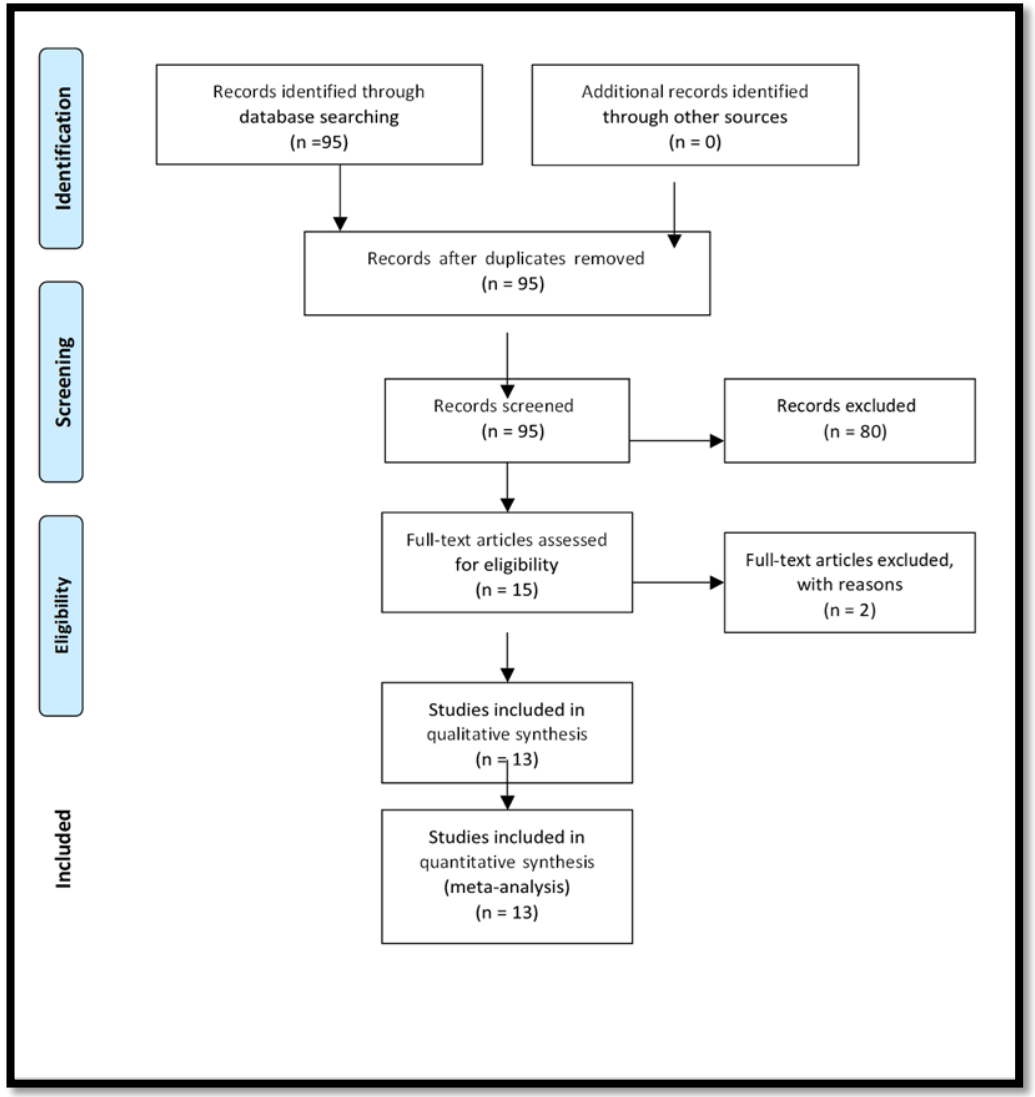
In patients with obesity and HF, MBS has low morbidity and mortality and can be a useful adjunct before heart transplantation or placement of LVAD.

Level of Evidence 2b

Grade of recommendation B

12- Multidisciplinary care

- The search screened 95 papers but only 6 were fully analyzed.
- There were guidelines or consensus statements from the European Association for the Study of Obesity (EASO) and the European Association for Endoscopic Surgery (EAES)



12- Multidisciplinary care

Recommendation:

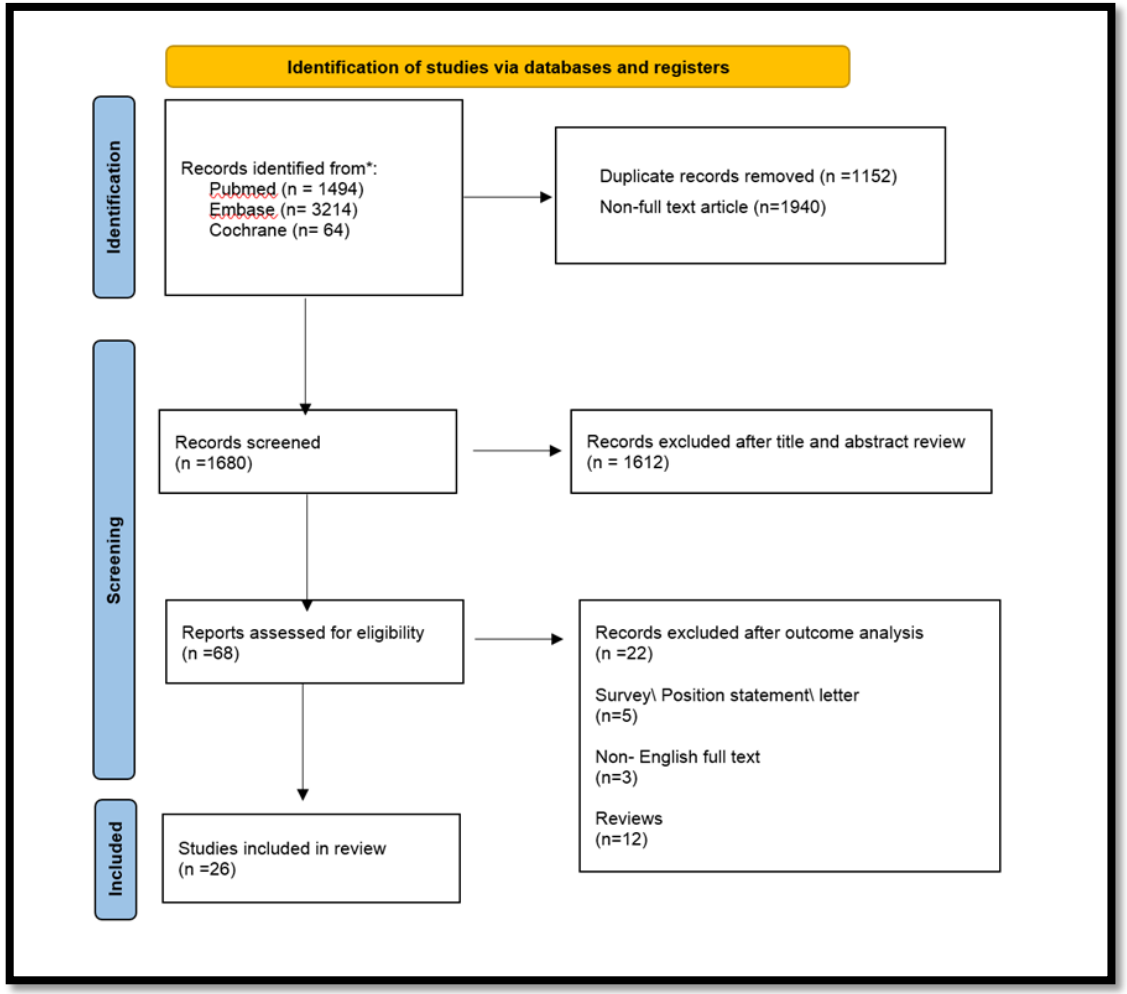
MDT has an important role in the pre and post operative management of MBS patients

Level of Evidence 2b

Grade of recommendation B

13- Revisional Surgery

- Twenty-six studies were selected for this Systematic Review
- All studies were retrospective with a good/fair quality.
- Recent articles report conversion from AGB and SG and revision of RYGB and OAGB.



13- Revisional Surgery

Recommendation:

- Indication for revisional surgery after MBS varies among individual patients, but may include insufficient weight loss, weight regain, insufficient remission of co-morbidities, and management of complications [e.g. gastroesophageal reflux].

Due to its complexity, revisional MBS may be associated with higher rates of perioperative complications.

However, revisional MBS induces satisfactory metabolic outcomes with acceptable rates of complications and mortality.

Level of Evidence 2b

Grade of recommendation B

TRADITIONAL MEDICINE vs. PRECISION MEDICINE

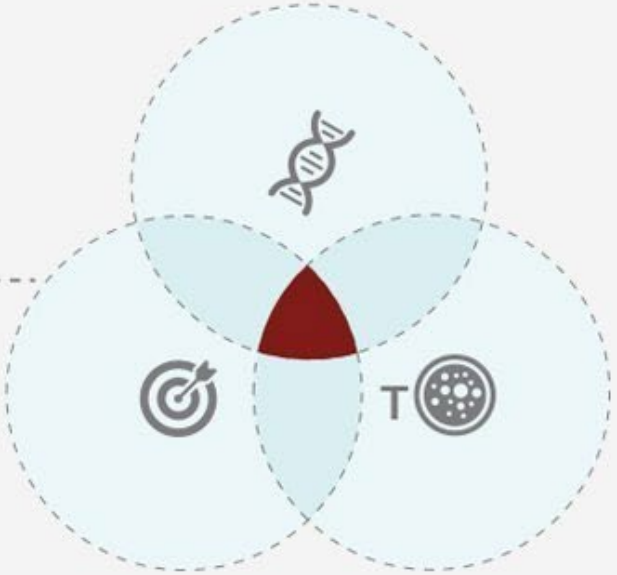
Traditionally, radiation, chemotherapy, and surgery were the only means by which doctors could treat cancer.
With precision medicine, doctors use a patient's genes to uncover clues for treating the disease.

RADIATION
- High-energy particles damage or destroy cancer cells

CHEMOTHERAPY
- Chemicals attack cancer

SURGERY
- Operate on part of the body to diagnose or treat cancer

Advanced Personalized Treatment



GENETICS
- Gene sequencing
- Locate cancer-causing genes

IMMUNOTHERAPY
- Identify ways to customize treatment
- Find ways to turn immune system on
- Personalize treatment with immune-activating drugs

TARGETED THERAPIES
- Drugs turn specific genes on or off

+ TRADITIONAL THERAPIES

Journal of
Clinical Medicine

MDPI

Editorial

Precision Bariatric/Metabolic Medicine and Surgery

Laurent Genser [1,2,*], Dominique Thabut [3] and Judith Aron-Wisnewsky [2,4]

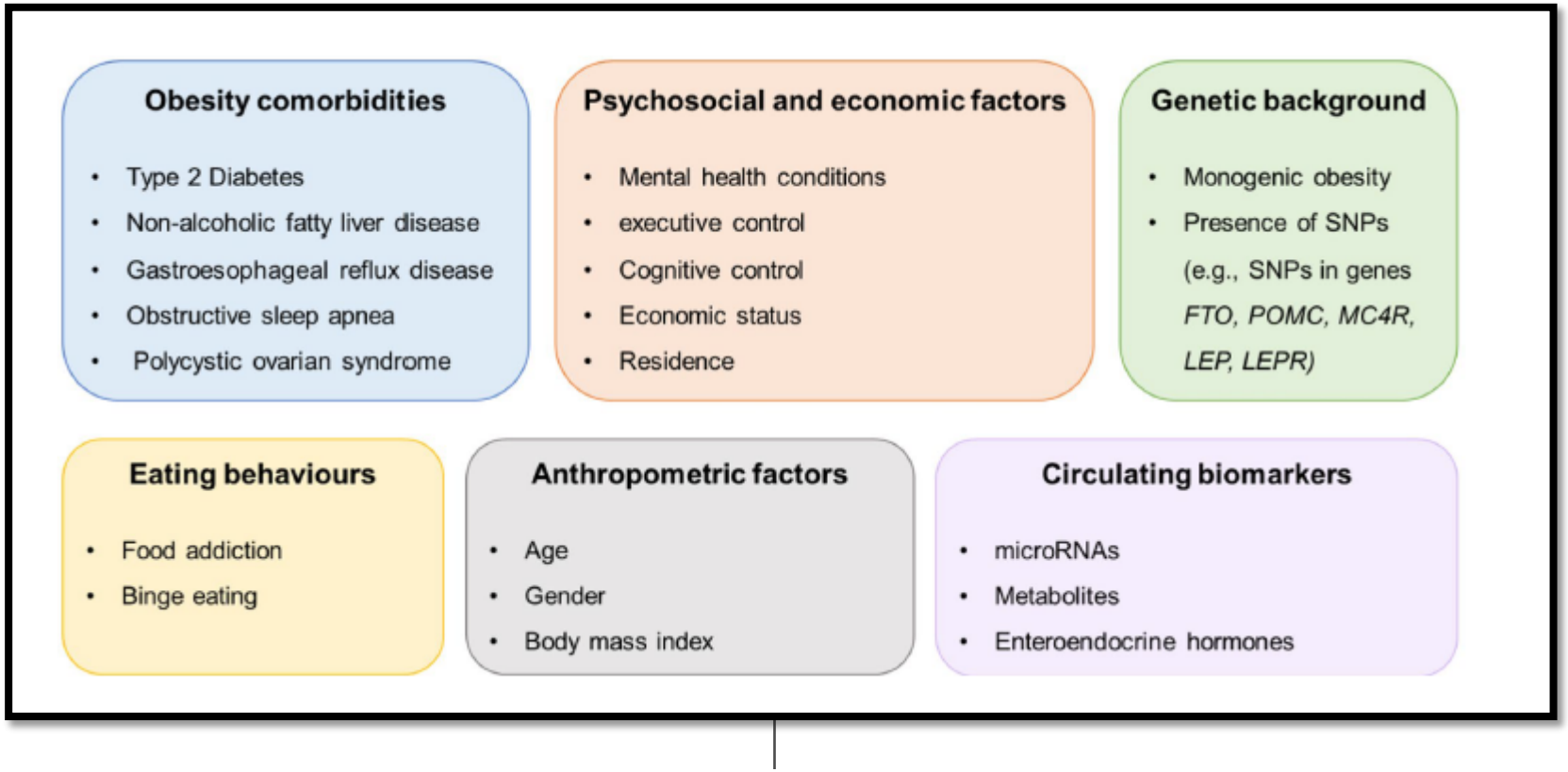
Reviews in Endocrine and Metabolic Disorders (2023) 24:961–977
https://doi.org/10.1007/s11154-023-09801-9

Check for updates

Towards precision medicine in bariatric surgery prescription

Sofia S. Pereira[1,2] · Marta Guimarães[1,2,3] · Mariana P. Monteiro[1,2]

Accepted: 12 March 2023 / Published online: 2 May 2023



- Despite there are universally accepted indications for considering bariatric surgery

- there are no defined criteria for the use of each procedure nor guidelines for a patient-tailored decision among different technical procedures in order to optimize bariatric surgery outcomes.

Antonio Vitiello M.D. PhD FIFSO

Ricercatore in Chirurgia Generale
AOU Federico II di Napoli

Dirigente Medico- UOC Chirurgia Generale Oncologica e Mininvasiva - Direttore Prof. Vincenzo Pilone