



# Addressing nutritional hurdles for enhanced MBS outcomes

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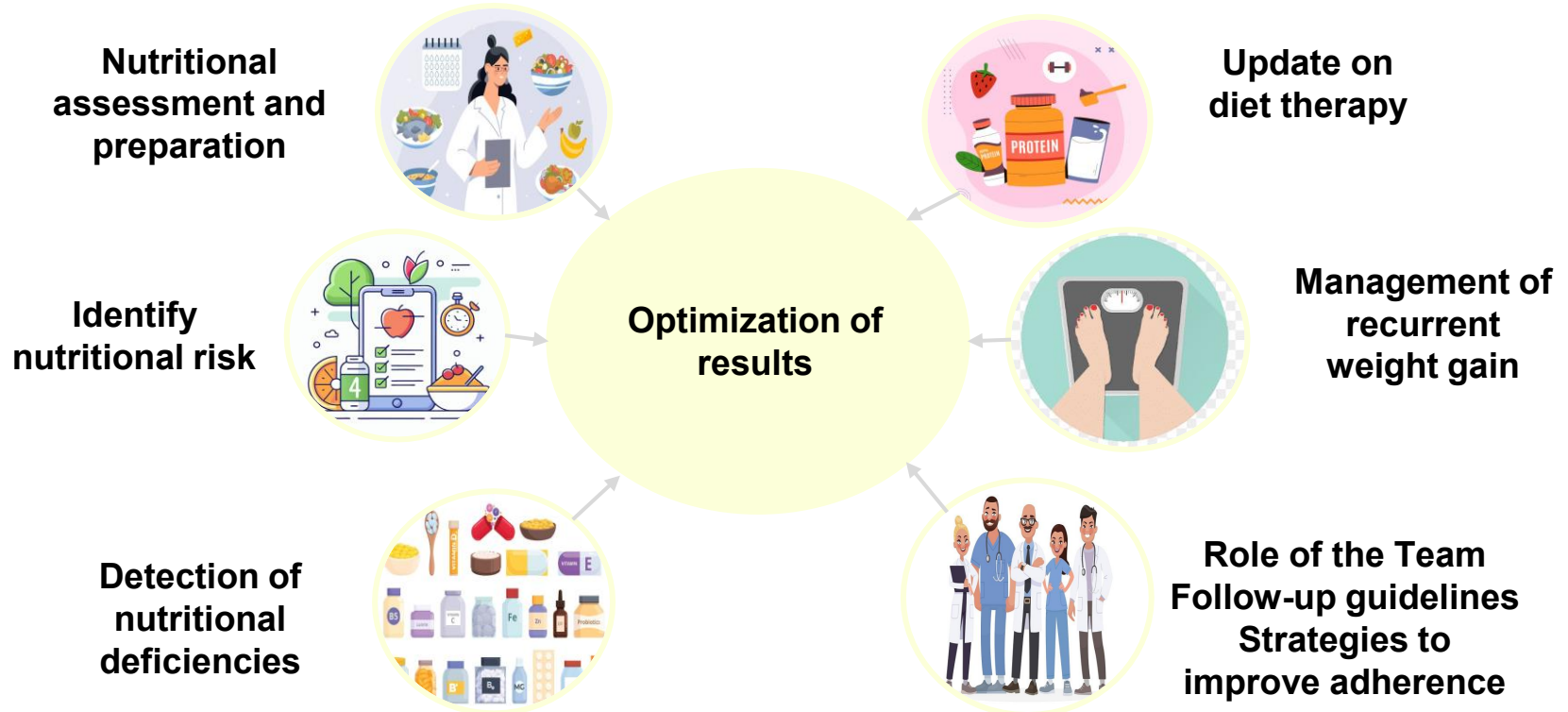
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I have no conflicts of interest

# Nutritional tools to optimize outcomes



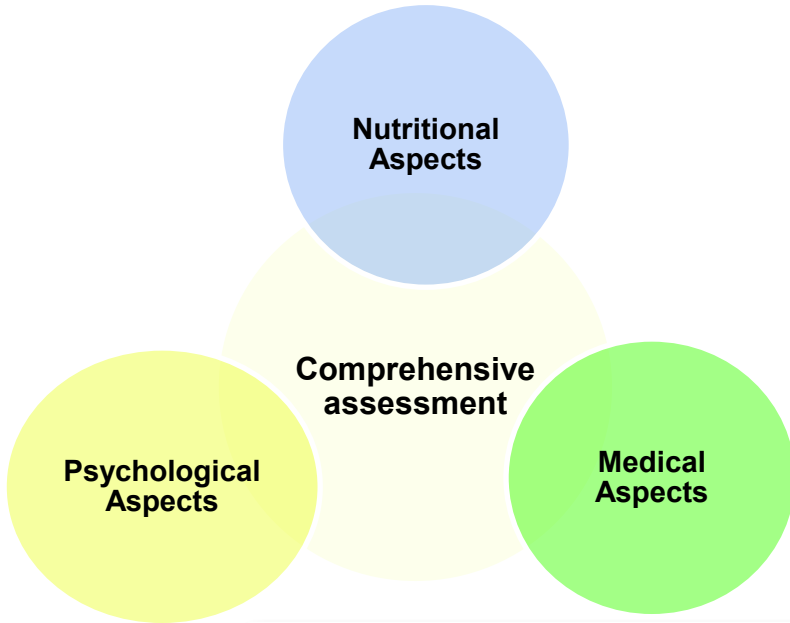
# Identify patients at high nutritional risk

- Multiple nutritional deficiencies
- EDs (Eating Disorders)
- Hypoalbuminemia
- Sarcopenic obesity
- Reduced bone density
- Advanced kidney disease
- Poor oral hygiene
- Patients with BPD (Biliopancreatic Diversion)

Require a more thorough **nutritional assessment and stabilization of risk factors**

Preoperative **malnutrition** is associated with postoperative **nutritional deficiencies and additional metabolic complications**

# Preoperative assessment and preparation for MBS



## Dietary and nutritional assessment

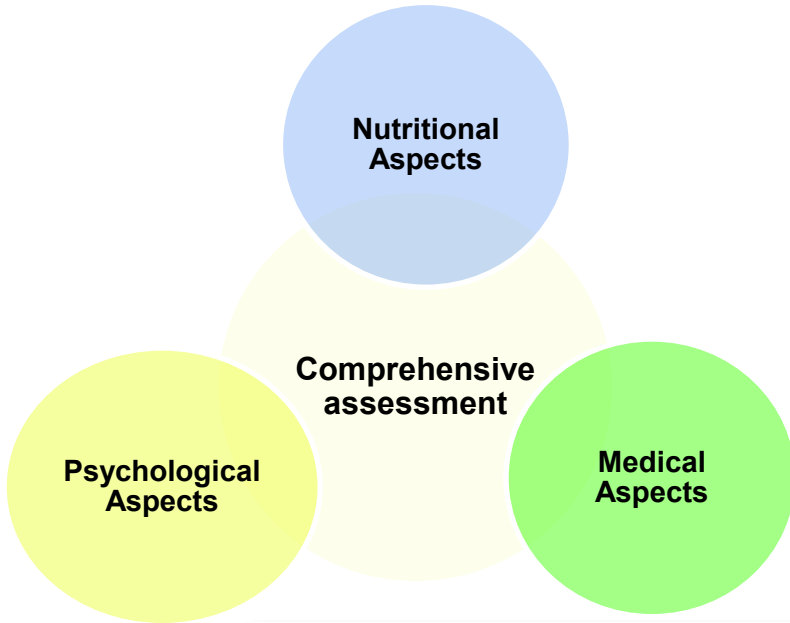
Clinical Interview  
Knowledge about MBS  
Morphofunctional evaluation  
Additional anthropometric measurements

## Preoperative nutritional preparation and education

Weight loss program?  
Glycemic control  
Correction of micronutrient deficiencies  
Healthy lifestyle habits  
Knowledge empowerment

Evaluate the patient's readiness, comprehension, ability to adhere, agreement with the treatment plan, and level of commitment

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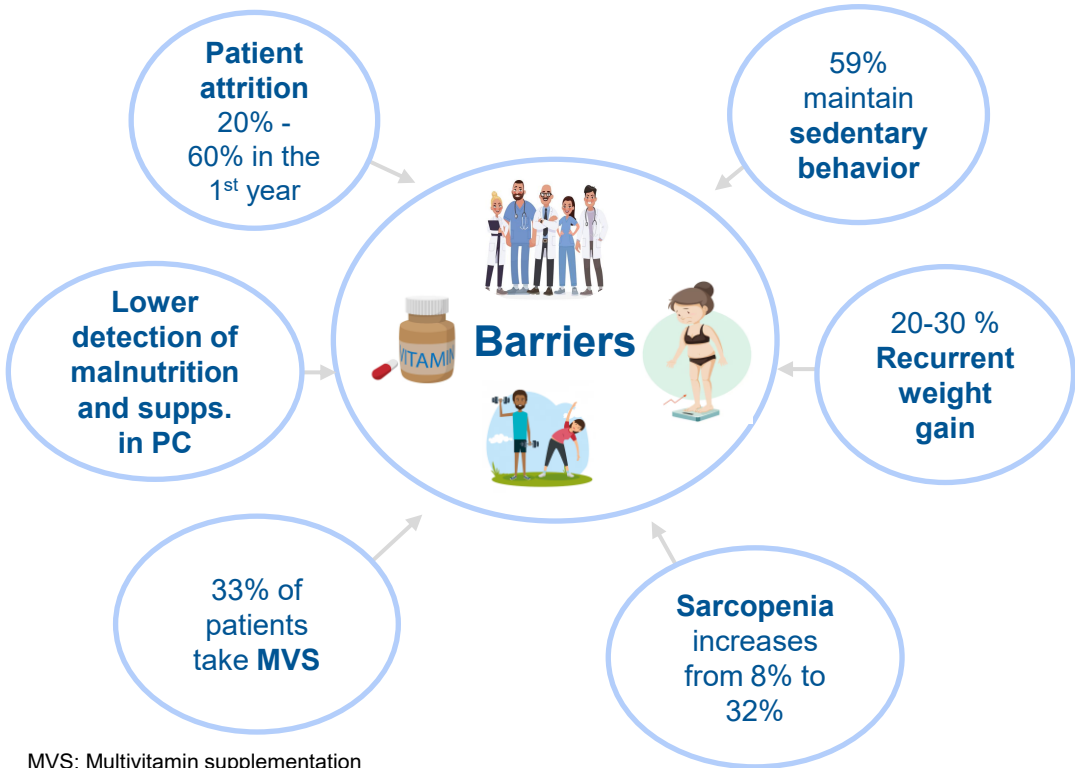
# Tools to build a therapeutic relationship



**Practice empathy**  
**Listen actively**  
**Build trust**  
**Validate ambivalence**  
**Set shared goals**  
**Provide continued support**

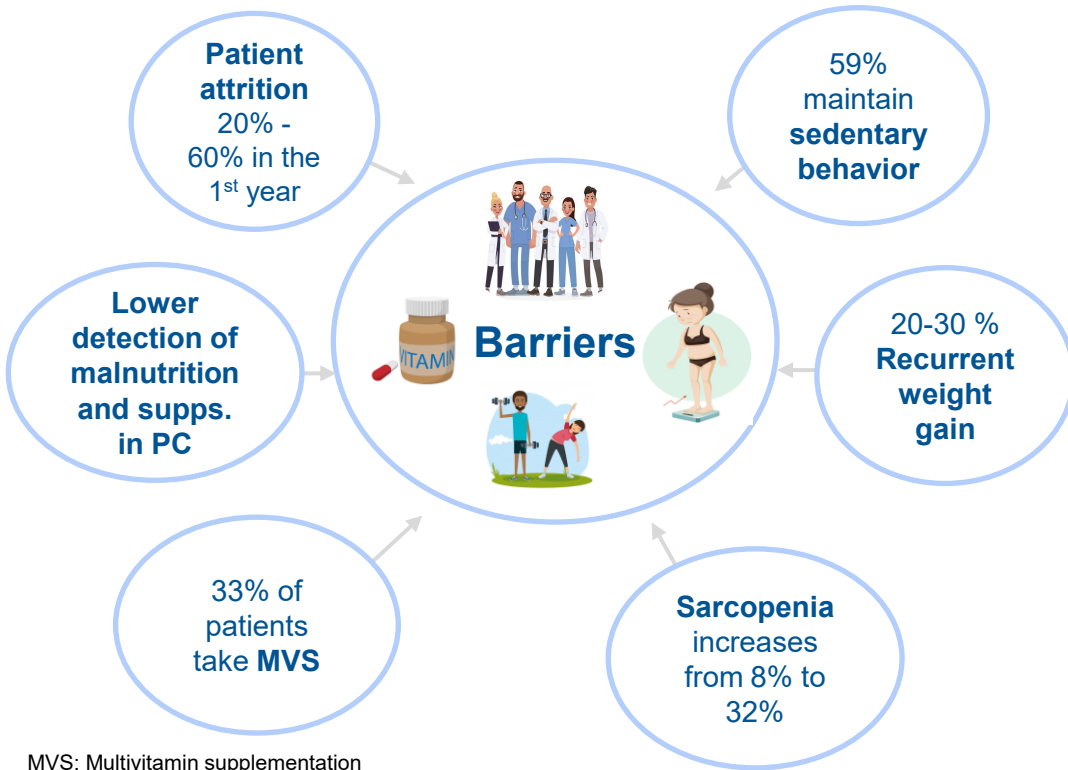
- **Adherence and sustained success**
- **Emotional support and prevention of recurrence**
- **An individualized and empathetic approach**

# Postoperative care: challenges and solutions



MVS: Multivitamin supplementation  
 PC: Primary Care

# Postoperative care: challenges and solutions



## Integrated Strategies

### 1. Early Intervention and Education

Early detection of deficiencies  
Nutritional education and preparation before surgery

### 2. Strengthen Long-Term Follow-Up

Ensure a minimum follow-up of 2 years. Structured and scheduled visits  
More intensive follow-up for malabsorptive procedures  
Avoid stigma and promote adherence

### 3. Reinforce Nutritional Monitoring and Support

Lifelong nutritional monitoring  
Nutritional status assessment at least once a year  
Periodic review and adjustment of MVS

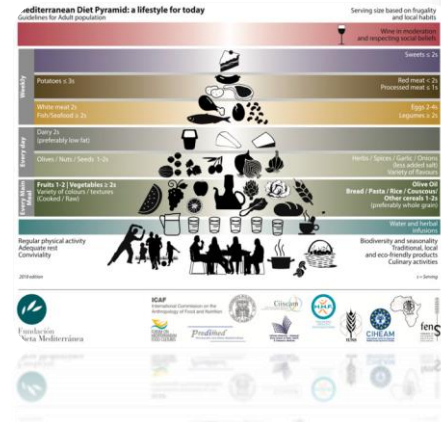
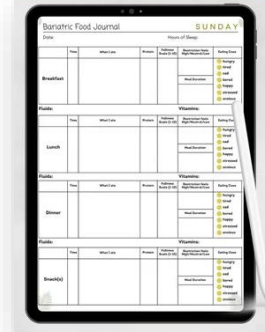
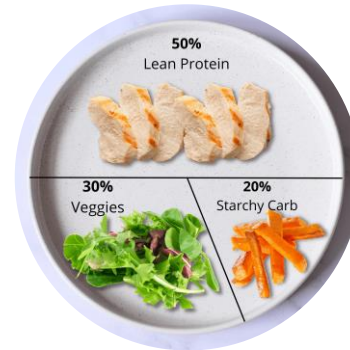
### 4. Improve the Shared and Multidisciplinary Model

Train PC physicians and specialists  
Use protocols  
Include other professionals (gynecologists, nurses, psychologists, PE instructors, etc.)

MVS: Multivitamin supplementation  
PC: Primary Care

# Tools for postoperative nutritional management

- **MyPlate, the DASH diet, the Mediterranean diet, and the Bariatric Food Pyramid** promote a healthy long-term postoperative eating pattern
- **Protein supplementation**
- **Regular monitoring of nutritional intake, nutritional assessments, identification of barriers, problem-solving, and ongoing support by specialists** are essential
- **Annual check-ups, support groups, and digital tools** (motivational messages, reminders, social media) are recommended



# Some considerations in special populations

## Adolescents:

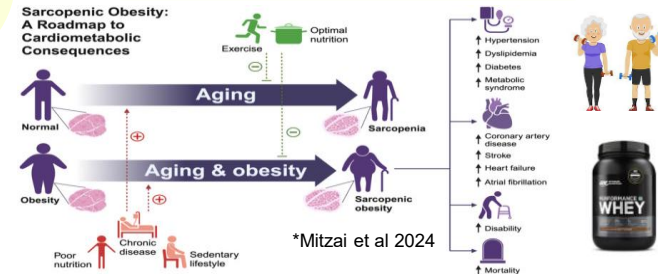
- **OMMs:** useful for suboptimal outcomes
- **MBS:** a safe and effective in specialized centers
- **Education, regular monitoring of adherence, and nutritional assessment**
- Malabsorptive procedures are associated with a higher prevalence of nutritional deficiencies after surgery

## Pregnancy:

- **Educate on fertility, contraception, and associated risks**
- Refer to an obstetrician
- **Delay pregnancy for 12 to 18 months after MBS**
- Enhance **counseling and follow-up by the specialized team**
- No consensus on appropriate supplementation

## Older adults:

- **Age + obesity: risk factors**
- **Sarcopenia** is a serious concern
- Lean mass loss occurs **mostly within the first three months after MBS**
- Implement a **rehabilitation program and ensure adequate protein intake and strength training** before and after MBS



# Promote physical activity guidelines to improve health

## Pre-surgery

- Under the **supervision of specialists**
- Explain the benefits
- **Predicts higher levels of physical activity postoperatively**
- Address barriers

- **At least 150 minutes/week of moderate to vigorous exercise + strength training 2–3 times/week**

## Post-surgery

- **Gradually increase the intensity level and avoid high-intensity exercises**
- Set realistic goals and prevent injuries

- **Begin gradually between the 4<sup>th</sup> and 6<sup>th</sup> week under medical supervision**
- **Avoid lifting weights during the first 6 weeks**
- **Avoid abdominal exercises during the first 8 to 12 weeks**

# Prevention and treatment plan for recurrent weight regain

Preoperative

Education and motivation  
Individualized treatment

Postoperative

- **3-6 month educational program:**
- **Build a therapeutic relationship**
- **Dietary and nutritional assessment** (EDs, nutritional deficiencies)
- **Adherence to dietary guidelines and attendance at follow-up visits** are key to success
- **Physical activity**




- **Nutritional and behavioral counseling**
  - Lifestyle interventions (diet, exercise, stress management, and sleep quality)
  - Cognitive-behavioral interventions
- **Treatment of complications**
- **Pharmacological interventions upon reaching a plateau**
- **Surgical interventions**

# Strategies to improve adherence to MVS intake

Patient-reported reasons for lack of adherence (n = 287)

I find it hard to remember to take them	45.6%
There are too many pills	16.4%
They cause side effects	14.3%
I can't afford them	11.5%
My primary care physician doesn't prescribe them	10.8%
I don't like the taste	10.1%
No siento la necesidad de tomarlos	9.4%
Other	22.6%

- 
- **Apps** (advice on post-surgical symptoms and complications, reminders, contact with the care team, and prescriptions)
  - **Virtual consultations** to reduce in-person visits
  - **Patient organizations and support groups**
  - **Bariatric societies** hold the responsibility of training new professionals
  - **Reduce the number of pills, improve formulations and costs**
  - **Increase prescription rates, educate on importance and benefits**

# Role of the multidisciplinary team



Early identification and management of nutritional risk

Adherence to supplementation and follow-up

Comprehensive pre and postoperative care


Multidisciplinary, patient-centered approach

***The process does not end with MBS***  
Follow-up after surgery is key to ensuring long-term success

**Set expectations regarding the chronic nature of treatment**  
**Lack of long-term therapy is associated with higher relapse rates**



*Muchas Gracias!*

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# Seeking a paradigm shift: is it really the same?

## Preoperative weight loss

- **Beneficial for high-risk patients with metabolic challenges**
- **May be perceived as discriminatory or stigmatizing, and lacks strong scientific support as a mandatory prerequisite**

## Optimization

- **Education**
- **Risk factors**
- **Nutritional status optimization**
- **Behavioral changes**
- **Mediterranean diet pattern**



# Conclusions

- **Identify nutritional risk**
- **Conduct thorough nutritional assessment and preparation**
- **Update and apply evidence-based diet therapy**
- **Detect and correct nutritional deficiencies**
- **Strengthen the role of the multidisciplinary team**
- **Implement structured follow-up guidelines**
- **Apply strategies to improve adherence**
- **Manage recurrent weight regain effectively**
- **Optimize long-term outcomes**