



# Master's Degree

# Update on Bariatric Surgery

» Modality: online

» Duration: 12 months

» Certificate: TECH Global University

» Credits: 60 ECTS

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/medicine/master-degree/master-update-bariatric-surgery

# Index

01		02			
Introduction		Objectives			
	p. 4		p. 8		
03		04		05	
Skills		Course Management		Structure and Content	
	p. 16		p. 20		p. 50
		06		07	
		Methodology		Certificate	
			p. 68		p. 76





# tech 06 | Introduction

This Master's Degree in Update on Bariatric Surgery not only covers all the controversial topics in the field of obesity surgery, but it also expands on the contents offered on other similar programs. Therefore, it is undoubtedly the most complete and up-to-date program on the market.

Among its differentiating features, one of the modules is entirely devoted to endoscopic and percutaneous treatments, the management and treatment of bariatric emergencies, postoperative monitoring and nutritional requirements of patients; while another module covers metabolic surgery in depth.

The past few years have seen the emergence of multiple new endoscopic and percutaneous treatments aimed at treating obesity and associated complications, but its actual usefulness is relatively unknown. The objective is to provide up-to-date information on various current alternatives to endoscopic obesity treatment. The main focus is on technical aspects and evidence in the literature of its clinical utility, both in primary obesity treatment and therapy in case of weight regain, or in the management of postoperative complications.

The peculiarities of morbidly obese patients in postoperative care, which differentiate them from standard postoperative patients, have led to the creation of a module exclusively devoted to the management of postoperative emergencies in these patients. This module is of extreme importance due to the legal implications involved. Although postoperative complications are infrequent these days, ignoring these peculiarities can lead to a fatal outcome for the patient. Therefore, every surgeon who wants to join a multidisciplinary bariatric surgery unit must be familiar with them.

The other element that sets this program apart from others is postoperative monitoring and nutritional requirements. Bariatric surgeons must know how to appropriately monitor their patients, how to identify and correlate symptoms with possible nutritional deficits and how to apply the appropriate therapeutic measures in each case.

This **Master's Degree in Update on Bariatric Surgery** contains the most complete and up-to-date scientific program on the market. Its most notable features are:

- The latest technology in online teaching software
- A highly visual teaching system, supported by graphic and schematic contents that are easy to assimilate and understand
- Practical cases presented by practising experts
- State-of-the-art interactive video systems
- Teaching supported by telepractice
- · Continuous updating and recycling systems
- Autonomous learning: full compatibility with other occupations
- Practical exercises for self-evaluation and learning verification
- Support groups and educational synergies: questions to the expert, debate and knowledge forums
- Communication with the teacher and individual reflection work
- Content that is accessible from any fixed or portable device with an Internet connection
- Supplementary documentation databases are permanently available, even after the program



# Introduction | 07 tech



The teachers of this Master's Degree have been selected based on two criteria: the excellence of their medical practice in the field of the creation, promotion and maintenance of the bariatric units, and their proven didactic capacity: To offer you the high-quality program that you require"

Our teaching staff is composed of medical professionals, practicing specialists. That way, TECH ensures to provide the educational up-to-date objectives it intends. A multidisciplinary team of trained and experienced physicians in different environments, who will impart the theoretical knowledge efficiently, but, above all, will put at the service of the program the practical knowledge derived from their own experience: one of the differential qualities of this Master's Degree.

This mastery of the subject is complemented by the effectiveness of the methodology used in the design of this Master's Degree. Developed by a multidisciplinary team of *e-learning* experts, it integrates the latest advances in educational technology. In this way, our students will be able to study with a range of convenient and versatile multimedia tools that will give them the operability they need during the training.

The design of this program is based on Problem-Based Learning: an approach that conceives learning as a highly practical process. To achieve this remotely, telepractice will be used: with the help of an innovative, interactive video system and *Learning from an Expert*, our students will acquire the knowledge as if they were facing the case they are learning in real life. A concept that will allow students to integrate and memorize what they have learnt in a more realistic and permanent way.

With a methodological design based on proven teaching techniques, this master's degree will take you through different teaching approaches to allow you to learn in a dynamic and effective way.

Our innovative telepractice concept will give you the opportunity to learn through an immersive experience, which will provide you with a faster integration and a much more realistic view of the contents: "Learning from an expert"







# tech 10 | Objectives



# **General Objectives**

- Learn the key elements of obesity surgery
- Perform an exhaustive review of the latest scientific evidence available
- Describe and understand the most advanced techniques in bariatric surgery
- Describe the theoretical framework and praxis of multidisciplinary obesity teams
- Describe the aspects of clinical management
- Describe the aspects of economical management
- Describe the medical legal aspects of bariatric surgery
- Describe the different endoscopic and percutaneous techniques in the treatment of obesity
- Analyze the short-term to medium-term results achieved with these procedures
- Evaluate complications
- Establish the mechanisms of action for each technique
- Know the historical background and beginnings of obesity surgery
- Study the different surgical techniques in the treatment of obesity
- Establish which is the most appropriate surgical technique for each patient
- Define ERAS protocols in bariatric surgery
- Break down the different sections within the protocol
- Analyze the results obtained through the implementation of these protocols
- Understand the importance of multidisciplinary management
- Describe the semiology peculiarities of bariatric patients and the different tools used to diagnose complications
- Know the most common surgical complications involved in bariatric surgery

- Evaluate specific medical and nutritional complications during bariatric procedures
- Establish the success or failure criteria of bariatric surgery
- Define the general characteristics and the surgical strategy in revision surgery
- Examine the general criteria of revision surgery in each of the bariatric surgery techniques
- Determine how different techniques can influence the evolution of the patient
- Monitor the nutritional evolution of the patient
- Establish basic recommendations for the special nutritional requirements in children, adolescents and elderly candidates for bariatric surgery
- Know the nutritional requirements during pregnancy and breastfeeding in women who have previously undergone bariatric surgery
- Identify the specific nutritional risks of the menopause after bariatric surgery
- Know the history, concept and indications of metabolic surgery
- Understand the anatomophysiological basis of metabolic surgery and inflammatory mediators
- Study the role of gastrointestinal hormones in the resolution of Type 2 Diabetes Mellitus after bariatric surgery
- Analyze the available evidence on bariatric surgery in patients with BMI < 35 kg/m2, in super obese patients, adolescents and women who wish to procreate
- To determine the adverse effects of bariatric surgery on bone metabolism and muscle mass
- Evaluate current recommendations for bariatric surgery in patient candidates for solid organ transplantation or those who have associated cardiological, renal or psychiatric diseases



# Objectives | 11 tech

- Establish the significance of postoperative gastroesophageal reflux and abdominal wall alterations
- Obtain a general vision of the psychotherapy approach in postoperative follow-up care
- Know the criteria used for the initial assessment of a patient with esthetic consequences of obesity after bariatric surgery
- Establish quality standards and appropriate educational programs
- Identify the most recent technical advances (robotic surgery and NOTES)



Achieve your goals by keeping up with the latest techniques and medical advances in bariatric surgery with this highly demanding academic and scientific program"

# tech 12 | Objectives



# **Specific Objectives**

# Module 1. General Aspects of Obesity

- Gain an in-depth understanding of obesity as a clinical condition and its pathophysiology
- Correctly evaluate a patient with obesity
- Learn advanced practical knowledge of dietary, pharmacological treatment and movement education of obesity

#### Module 2. Endoscopic and Percutaneous Treatments in Obesity

- Establish the physiological basis of action in these procedures
- Describe the development of techniques
- Analyze hormonal effects
- Justify the causes of decreased appetite
- Analyze the safety of treatment
- Evaluate the quality of life during and after the treatment
- Describe adjuvant methods with a synergistic effect in these procedures

# Module 3. Surgical Treatment of Morbid Obesity

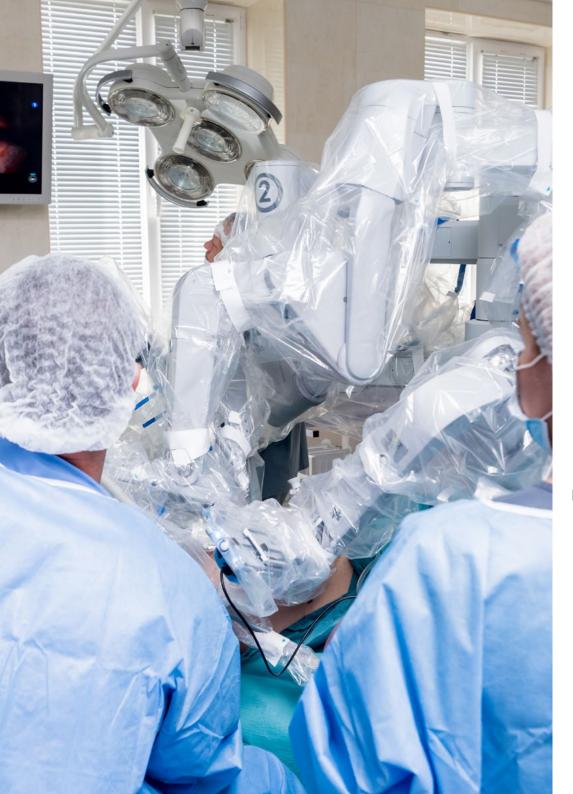
- Know the historical framework of the origin of each of the bariatric techniques
- Describe step-by-step the development of surgical techniques
- Establish the physiological bases and mechanisms of action in these procedures
- · Highlight the most accepted indications of each of the interventions
- Analyze the short-term to medium-term results achieved with these procedures
- Explain the postoperative complications associated with each of the different surgical techniques

# Module 4. Perioperative Management

- Analyze the role of each of the members of a multidisciplinary group
- Establish the importance of information and patient participation in perioperative care
- Evaluate the importance of creating protocols
- Define the measures included in the ERAS protocols
- Analyze the peculiarities of the ERAS protocols in bariatric surgery
- Identify problems in the implementation of protocols
- Develop strategies to promote universal implantation
- Establish guidelines and advice for the reintroduction of physical activity after surgery
- Understand the benefits of weight loss, nutritional optimization and comorbidity preoperatively in bariatric surgery
- Know the guidelines for dietary treatment after bariatric surgery, depending on the type of surgery
- Identify the specific nutritional risks in the perioperative period

# Module 5. Emergencies in Bariatric Surgery Patients

- Analyze the most important findings in the anamnesis and physical examination of bariatric patients, as well as the usefulness of each of the auxiliary diagnostic methods
- Describe the most important complications in endoscopic treatment procedures for obesity, as well as their diagnosis and management
- Study the relative aspects of leakages and fistulas following the different types of surgical techniques, determining the most appropriate algorithm in the treatment of each one



- Establish the main causes of intestinal obstruction which occurs in patients undergoing bariatric surgery, their differential diagnosis and treatment
- Know the most important aspects in the treatment and management of gastrointestinal bleeding and/ or hemoperitoneum after bariatric surgery
- Study the etiology and management of marginal ulcer, stenosis and abdominal digestive disorders in bariatric patients
- Analyze hepatobiliary complications resulting from postoperative intestinal malabsorption and bacterial overgrowth after surgery
- Establish the diagnosis and treatment of endocrine, cardiac and renal complications in the postoperative period of bariatric surgery
- Describe the nutritional or toxic deficits most frequently seen in the emergency department after obesity surgery
- Study etiology and chronic pain management after bariatric surgery

# Module 6. Revision Surgery

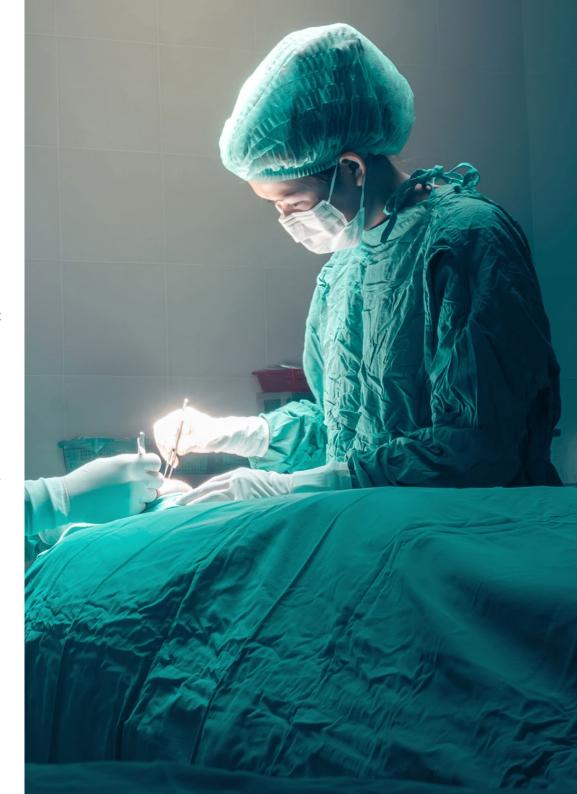
- Describe the therapeutic alternatives in revision surgery for techniques no longer used
- Study the indications, technical details and results after adjustable gastric band revision surgery
- Analyze different technical options for revision surgery after vertical gastrectomy, depending on whether there has been inadequate weight loss and/or weight regain, or due to the occurrence of complications

# tech 14 | Objectives

- Determine the etiology, diagnosis and therapeutic attitude towards complications and revision surgery after a gastric bypass
- Describe the indications, technical details and results after OAGB revision surgery
- Analyze the most relevant aspects of surgical revision for insufficient weight loss, weight regain and/or nutritional complications following duodenal crossover surgery
- Examine the most frequent indications for revision surgery after biliopancreatic diversion
- Establish the most appropriate surgical options in revision surgery due to malnutrition syndromes and severe nutritional complications following SADI-S
- Determine the role of endoscopic surgery in the management of complications and weight regain after bariatric surgery

# Module 7. Postoperative Monitoring and Supplementation

- Describe the parameters to be evaluated in a proper nutritional assessment
- Define the guidelines for providing appropriate nutritional education
- Analyze the nutritional needs based on the intervention the patient underwent
- Establish a program for monitoring patient nutritional status
- Identify nutritional risk during pregnancy and breastfeeding in women who have previously undergone bariatric surgery
- Know the maternal-fetal outcomes of this type of pregnancy
- Identify the specific risks of each type of surgery
- Know the guidelines for supplementation of micronutrients during pregnancy and breastfeeding
- Know the nutritional treatment guidelines during menopause in women who have previously undergone bariatric surgery
- Identify the occurrence of anemia, hypoproteinemia and neurological disorders



### Module 8. Basics of Metabolic Surgery

- Understand the importance of loop lengths in bariatric surgery
- Determine the influence of microbiota on bariatric surgery
- Study the relationship between obesity and NASH
- Present the metabolic effects of manipulating intestinal bile acid availability after bariatric surgery
- Analyze the influence of bariatric surgery on hypogonadism and polycystic ovary syndrome
- Understand the regeneration changes in the pancreas and hyperinsulinism after bariatric surgery

# Module 9. Transplantation, Abdominal Wall and Special Situations in Bariatric Surgery

- Analyze the safety of treatment in patients with BMI < 35kg/m2
- Evaluate the most appropriate techniques for obese patients
- Describe the complications that can occur in the abdominal wall involved in bariatric surgery
- Establish indications for surgery in patients who are candidates for solid organ transplantation
- Interpret the risk of alterations in bone metabolism
- Evaluate the risk of developing sarcopenia
- Quantify the risk-benefit ratio of surgery in when there is also a pre-existing renal, cardiac or psychiatric pathology
- Compare the results of different surgical techniques with conservative treatment
- Design future lines of work in superobese patients
- · Assess the risk of pregnancy in patients put forward for bariatric surgery

# Module 10. Innovation, Quality of Life, Training and Clinical Management in Bariatric Surgery

- Analyze the psychological profile of bariatric patients and their difficulties in adapting to the postoperative process
- Learn about the process of psychological evaluation and intervention following surgery aimed at enhancing its benefits and reduce the risk of weight regain
- Identify the most common areas of the body affected by excess skin following weight loss
- Know the most relevant surgical techniques used according to the affected area, to remove skin excesses
- Identify the benefits of robotic surgery and NOTES
- Establish the criteria for prioritizing patients on the surgical waiting list
- Analyze the cost benefit relationship in bariatric surgery
- Establish quality standards
- Assess the advantages and disadvantages of bariatric tourism
- Identify quality of life indicator parameters
- Weigh up the pros and cons of different surgical training methods





# tech 18 | Skills



# **General Skills**

- Implement the most important elements of the Multidisciplinary Obesity Team
- Create or improve an MOT
- Manage relationships between associated multidisciplinary departments
- Enhancing all aspects of 360° care for morbidly obese patients
- Recognise the appropriate intervention techniques for each case
- Correctly deal with the existing intervention techniques in bariatric surgery
- Organize all aspects of a Bariatric Surgery Unit with true efficacy
- Increase the number of interventions performed



Seize the opportunity and take the step to get up-to-date on the latest developments in Bariatric Surgery"





- Confidently and safely manage the indications of endoscopic and surgical treatments
- Know how to prepare a patient for bariatric surgery and how to select them using the surgical technique criteria
- Manage the protocols which allow MOT professionals to practice with confidence, making the correct decisions in accordance with the best evidence and medical praxis
- Know how to use endoscopic techniques
- Know the indications and clinical management with agility and confidence
- Perform the implantation and removal of endoscopic elements safely (endoscopic physicians, gastroenterologists or surgeons)
- Select the best bariatric technique for each patient
- Possess advanced theoretical knowledge for professional practice
- Elaborate a realistic, high-quality protocol focused on the patient's needs and the possibilities in their surroundings
- Early diagnosis
- Safely and effectively manage complications arising from this surgery
- Confidently evaluate a bariatric surgery patient "in failure"

- Determine the cause of the failure and outline the best plan, surgical or otherwise, for treatment
- Confidently evaluate a Type 2 Diabetic patient
- Determine if they have surgery indications
- Define the patient's expectation of results and choose the best technique for the patient
- Determine which elements are key (and which are not) for the transmission of knowledge in bariatric activity
- Start your scientific activity with a lower volume of cases than other teams who do not have this knowledge
- Design a MOT using a viable and sustainable business plan structure
- Specify the key elements to ensure the business plan is cost-effective
- Carry out practice with legal assuredness
- Learn to cope before, during and after any legal contingency





# tech 22 | Course Management

# Management



# Dr. Priego Jiménez, Pablo

- Specialist Physician, Department of General and Digestive System Surgery, Ramón y Cajal University Hospital (Madrid). Esophagogastric, Bariatric and Minimally Invasive Surgery Unit (January 2015
- PhD in Medicine from the University of Miguel Hernández de Elche (2013). (Outstanding Cum Laude)
- Fellowship in Gastric Oncology Surgery in the Gastric Cancer Department at Cancer Institute Hospital (Tokyo) with Professor Takeshi Sano (July 2018)
- Fellowship in Esophagogastric and Minimally Invasive Oncological Surgery in the Division of Esophageal and Upper Gastrointestinal Surgery at Queen Mary Hospital, Hong Kong with Professor Simon Law (January-March 2014)
- Degree in Medicine from the Complutense University Madrid (1996 2002).
- Master's Dgree in Advanced Laparoscopic Surgery. University of Alcalá (2007).
- Master's Degree in Clinical Management, Medical, and Welfare Management. University of CEU (2019)
- Medical Specialist in the Department of General and Digestive System Surgery at the General Hospital of Villalba (Madrid). Esophagogastric and Bariatric Surgery Unit (Oct 2014- Dec 2014)
- Medical Specialist in the Department of General and Digestive System Surgery at the General University Hospital of Castellón. Esophagogastric, Hepatobiliopancreatic and Thoracic Surgery Unit (Jun 2008-Sep 2014).



# Dr. Ruiz-Tovar Polo, Jaime

- Bariatrci Surgeon in the Centre for Excellence for the Study and Treatment of Obesity. Valladolid. Bariatric Surgery Unit (2017-2020).
- Faculty Specialist in the Bariatric Surgery Unit. Rey Juan Carlos University Hospital, Madrid (2014-2020)
- Coordinator of the Bariatric Surgery Unit. Elche University General Hospital (2010 2014)
- Specialist in General and Digestive Surgery. Henares University Hospital Madrid (2019-2020)
- Doctorate in Medicine from the Autonomous University Madric
- Degree in Medicine from the Autonomous University Madrid.
- Master's Dgree in Advanced Laparoscopic Surgery. University of Alcalá
- Specialist in General and Digestive System Surgery
- Diploma of Expert Level Competence by the Spanish Society of Obesity Surgery (SECO).
- Diploma in Obesity and Metabolic Diseases Surgery. European Accreditation Council for Bariatric Surgery of IFSO. 2000 hours.

# tech 24 | Course Management

#### **Professors**

#### Dr. Ramón Trullenque, Juan

- PhD in Medicine from the University of Valencia (2001). (Outstanding Cum Laude)
- Degree in Medicine from the University of Valencia (1987 1993)
- Master's Degree in Medical and Clinical Management UNED the Carlos III Health Institute. (2016-2017)
- Specialist in General and Digestive System Surgery. Dr. Peset University Hospital, Valencia. (1995-2000)
- Complete Training Diploma by the Spanish Society of Obesity Surgery (SECO)
- Medical Specialist in the Department of General and Digestive System Surgery at the Dr Peset University Hospital of Valencia (2000- 2012) Esophagogastric, Bariatric and Wall Surgery Unit
- Head of Esophagogastric, Bariatric and Wall Surgery Department. (2013)

### Dr. Jiménez, José María

- Researcher and Professor of Nursing
- Professor of Nursing at the University of Valladolid
- Attending Nurse at the University Hospital Río Hortega
- Doctor by the University of Valladolid
- Postgraduate Certificate in Nursing at the University of Valladolid
- Master's Degree in Health Emergencies and Catastrophes from the University of León
- Expert in Health Management and Organization, University of Salamanca
- Master's Degree in Occupational Risk Prevention, Quality and Environmental Management
- Specialist in Gender Studies and Management of Equality Policies

### Ms. Vallejo, Carmen

- Resident of Anesthesiology and Resuscitation at the La Princesa Hospital
- Degree in Medicine. Autonomous University of Madrid (2001-2007)
- Resident of Anesthesiology, Resuscitation, and Pain Management. La Princesa University Hospital, Madrid (2008-2012)
- European Diploma in Anesthesiology and Critical Care awarded by the ESA (European Society of Anesthesiology). Part I and II. 2012
- PhD program in Surgery and Medicine in Autonomous University, Madrid. Research work, Researcher Sufficiency "Descriptive observational study on the relationship between cerebral, central venous oxygen saturations and proBNP with perioperative complications in thoracic surgery". Grade. Outstanding
- Rotation at Saint Thomas Hospital in London, in Intensive Care Unit and High Dependency Unit (July 2011)
- Rotation in La Paz Children's Hospital (April, May, June 2011)
- Rotation in Maternity at La Paz Hospital (Nov-Dec, 2009)
- FEA in Anesthesiology and Resuscitation at De la Princesa University Hospital (July-September 2012)
- FEA in Anesthesiology and Resuscitation at Rey Juan Carlos University Hospital (September 2012- July 2015)
- FEA in Anesthesiology and Resuscitation at De la Princesa University Hospital (since July 2015)

#### Dr. Pujol, Juan

- Head of the general and digestive surgery unit of the Mi Tres Torres clinic in Barcelona and coordinator of the obesity and metabolic surgery unit (UCOM)
- Expert in Bariatric and Metabolic Surgery for the Spanish Society of Obesity Surgery, and founding memeber
- World Society for the Surgery of Obesity Career Achievement Award 2003
- Head of the Communication and Development Committee of the European Society for Obesity Surgery and member of the Scientific Research Committee of the World Society for Obesity Surgery (IFSO)
- More than 30 years of experience in the field of bariatric and metabolic surgery where he has treated hundreds of cases throughout his extensive professional career

#### Dr. Picardo, Antonio L

- Head of the Surgery at Infanta Sofía University Hospital. San Sebastián de los Reyes, Madrid
- Professor of Surgery. European University of Madrid
- PhD in Medicine and Surgery Faculty of Medicine. Surgery Department. Complutense University of Madrid. Madrid. Grade. Outstanding Award
- Degree in Medicine and Surgery. Faculty of Medicine. Autonomous University. Madrid. Grade. Outstanding
- Specialist in General and Digestive System Surgery. RMI program. San Carlos University Hospital. Madrid
- Certificate from the Educational Commission for Foreign Medical Graduates (ECFMG)
- Research Fellowship in Oncologic Surgery. Surgery Department. Memorial Sloan-Kettering Cancer Center. New York, USA
- ANECA Accreditation
- European Board Certificate in Endocrine Surgery
- SECO Accreditation (Spanish Society of Obesity Surgery). Level: EXPERT

#### Dr. García Marín, Andrés

- Specialist in General and Digestive System Surgery at Hellín Hospital (Albacete) since December 2018
- PhD in Medicine, Miguel Hernandéz de Elche University, 2017, with the qualification Oustanding Cum Laude
- Degree in Medicine from the Complutense University of Madrid, 2004
- Positive accreditation as Professor Hired Doctor and Private University, by the National Agency for Quality Assessment and Accreditation (ANECA) in 2018
- Proprietary Master's Degree in Coloproctology (Colorectal and Pelvic Floor Surgery), University of Zaragoza (2016)
- Expert in Health Law from University of Alicante (2015)
- Specialist in General and Digestive System Surgery. Gregorio Marañón General University Hospital, Madrid (2005- 2010)
- Degree in Medicine from the Complutense University Madrid (1998 2004)
- Specialist Physician in General and Digestive System Surgery, San Juan de Alicante Hospital (June 2010- November 2018)

#### Dr. Valle de Lersundi, Álvaro Robin

- Specialist in General and Digestive System Surgery at Henares University Hospital since 2008
- PhD in Surgery from the Complutense University of Madrid
- Degree in Medicine and Surgery from the Autonomous University of Madrid in 1998
- Teaching collaborator since 2011 at the Francisco de Vitoria University (Madrid. Spain)
- Resident in General and Digestive System Surgery in San Carlos Clinical Hospital (Madrid) since 1999 until 2004
- Specialist in General and Digestive System Surgery

# tech 26 | Course Management

### Dr. Torres García, Antonio José

- Professor of Surgery. Head of the Surgery Department. Faculty of Medicine. San Carlos Clinical Hospital Complutense University of Madrid. Madrid. 2001- present
- Degree in Medicine and Surgery: University of Malaga. June 1978
- Degree: Degree: University of Malaga. October 1978
- PhD in Medicine and Surgery: Complutense University of Madrid. April 1983
- General and Digestive System Surgery Resident Intern. Carlos Haya University Hospital.
   Malaga.1979-1981
- Thoracic Surgery Resident Intern. San Carlos Clinical Hospital Madrid. 1981-1985
- Surgery Department Specialist. San Carlos Clinical Hospital Madrid. 1986-1987
- Titular Professor Surgery Department Specialist. Faculty of Medicine. San Carlos Clinical Hospital Complutense University of Madrid. Madrid. 1987-1992
- Titular Professor Head of the Surgery Department. Faculty of Medicine. San Carlos Clinical Hospital Complutense University of Madrid. Madrid. 1992-2000
- Professor of Surgery. Head of the Surgery Department. Faculty of Medicine. San Carlos Clinical Hospital Complutense University of Madrid. Madrid. 2000-2001

### Dr. Bolaños Muñoz, María de Lourdes

- Professor in the Neuropsychology Laboratory in the Neurosciences Institute
- Degree in Clinical Psychology from the Autonomous University of Guadalajara
- PhD in Behavioral Sciences, Neuroscience Orientation, University of Guadalajara
- Member of the National Society of Researchers (SNI) as "Candidate to National Researcher" as of January 1, 2019

# Dr. Mayo Ossorio, María de los Angeles

- Coordinator of the Bariatric and Esophagogastric Surgery Unit of the General and Digestive System Surgery Service of the HUPM of Cádiz since 2012
- Degree in Medicine and Surgery from the University of Cadiz (1985-1992)
- PhD in Medicine and Surgery from Cadiz University (1998) with the qualification of outstanding Cum Laude
- Master's Degree in Obesity Surgery. Francisco de Vitoria University (2019)
- Postgraduate Diploma in Esophagogastric and Bariatric Surgery. CEU Cardenal Herrera University. 09/01/2017
- Assistant of surgical team of General Surgery at the Maria Social Institute in Cadiz from 1992 to 2004
- Specialist Physician in the Department of General and Digestive System Surgery at Puerta del Mar University Hospital in Cadiz (2005-2020)
- Associate Professor of Surgery at the Faculty of Medicine of the University of Cadiz (2010-presen)

# Fernández Cebrián, José María

- Specialist in General and Digestive System Surgery
- Degree from the School of Medicine. Complutense University of Madrid. September 1979-July 1985
- PhD: Faculty of Medicine. Complutense University of Madrid. 1985-1987
- Competitive exam for the provision of training positions for specialists in 1986, specializing in General and Digestive Surgery in the C.E. Ramon and Cajal, Madrid, from 1986 to 1990
- General Practitioner in Public Social Security Systems for Member States European Communities
- Management and Directing and Clinical Units
- Advanced Program in Management in Health Institutions-III edition University of Navarra.
   IESE 2009

# Dr. Wolfgang Vorwald, Peter

- Head of Esophago-gastric and Bariatric Surgery Unit
- Jiménez Díaz Foundation (2008-2020)
- General Hospital of Villalba (2015 2020)
- PhD in Medicine from the Complutense University of Madrid
- Degree in Medicine from the Autonomous University Madrid
- Specialist Physician at the Foundation Hospital of Alcorcón (1999-2008)
- Specialist Physician at the University Hospital University Hospital in der Isar" in Munich (1993-1998)
- Chair of the Esophagogastric Surgery Section of the Spanish Association of Surgeons from January 2019 to present
- Coordinator of Esophagogastric Surgery Working Group in the Spanish Multimodal Rehabilitation Group (GERM) from January 2016 to present
- Associate Professor of Health Sciences since 2013, Autonomous University of Madrid, and Associate Professor (1993-1998), Technical University of Munich (Germany)

### Dr. Barragán Serrano, Cristina

- Residency at La Paz University Hospital (2015 2020)
- Assistant in the Esophagogastric and Obesity Unit at Jímenez Díaz Foundation. Fellowship training program (2020-2021)
- Phd and Degree in Medicine from Alcalá de Henares University (UAH), Madrid (2008-2014)
- First cycle at the University of the Basque Country (UPV)
- Second cycle at the Guadalajara Hospital (Alcalá de Henares University)
- Collaborator in practical classes at the Autonomous University of Madrid
- ACS Speaker at the Course on Minimally Invasive Surgery in the MIS-ITEC section. Virtual ACS Classroom. Teaching in times of crisis

- Head of the General and Digestive System Surgery Department at La Luz Quirón Hospital. Madrid
- Degree in Medicine and Surgery from the Complutense University Madrid (1977/ 1983)
- Specialist in General and Digestive Surgery at the Hospital De La Princesa in Madrid.
   Dr. Modesto Martinez Piñeiro Service. (1988)
- Member of different scientific societies
- Spanish Society of Surgery
- Spanish Society of Obesity Surgery
- International Federation for Surgery of Obesity and Metabolic Disorders (ISFO) since 2008
- Inguinal hernia surgeon (transabdominal approach TAPP), colo-rectal surgery by single port and obesity surgery where he has developed his experience, collaborating in the teaching of these techniques to various surgeons who have come to the service

# Dr. Zubiaga, Lorea

- Medical Surgeon, University of Los Andes (Merida- Venezuela), mention: Magna-Cum Laude
- Postdoc in basic research at EGID supported by the University of Lille and Inserm-1190 (2016-2020)
- PhD in Surgical Anatomy from the University of Miguel Hernández de Elche. Oustanding, Cum Laude and Outstanding Award
- Degree in Medicine from the Miguel Hernández de Elche University after passing the academic validation tests of the Ministry of Education
- Faculty Specialist in the Bariatric Surgery Unit. Elche University General Hospital (2012 – 2016)

# tech 28 | Course Management

# Dr. Royo Dachary, Pablo

- Degree in Medicine and Surgery from the University of Zaragoza (1998-2004)
- PhD in Medicine from the University Zaragoza (2008)
- Resident Intern at Zaragoza Clinical Hospital. General and Digestive System Surgery Department. (2005-2010)
- Area Specialist in General Hospital de la Defensa, Zaragoza in the General Surgery Department (2010)
- Area Specialist in San Jorge de Huesca Hospital, in the General Surgery Department ( 2011-2013)
- Area Specialist in Clinical Hospital of Zaragoza in the General Surgery Department. (2013-2019)
- Area Specialist in Miguel Servet Hospital, Zaragoza in the General Surgery Department (since 2019)
- ERAS Spain training program coordinator 2015 2016
- IMPRICA training program coordinator (implementation of the RICA pathway) in Surgery 2017 - 2018

### Dr. Baltar Boilève, Javier

- Specialist in General and Digestive Surgery, CHU Santiago. 1994-present
- Doctor in General and Digestive Surgery, University of Santiago de Compostela. 1994
- Degree in Medicine and Surgery from the University of Santiago de Compostela. 1986
- Specialist in General and Digestive Surgery, MIR (1989-1993)
- Associate Professor since 2013, Surgery Department, University of Santiago de Compostela
- Tutor and Professor of Bariatric Surgery Courses Obesity section of the Spanish Association of Surgery

#### Dr. Durán Poveda, Manuel

- Degree in Medicine and Surgery from the Complutense University of Madrid. 1992
- Master's Degree in Senior Management of Health Services and Business Management (3rd Edition) Laín Entralgo Agency for Training, Research and Health Studies and the University of Alcalá de Henares. 2007
- Master's Degree in Health Management and Research Tools. National University for Distance Learning. 2011
- Co-director of the Master's Degree in Obesity
- General Surgery Resident Teaching Tutor for Interns and Residents. Fuenlabrada Public Hospital. Madrid. Start: 31/03/2004- End: 16/01/2012
- Head of Medicine and Surgery Department. Rey Juan Carlos University. Faculty of Health Sciences. Madrid. Start: 10/07/2009- End: 03/07/2013
- Head of Studies. Rey Juan Carlos University Hospital. Madrid. Dedication regime: Part time teaching tutor. Start: 19/09/2014- present
- Director of the Research Group Obesity and Diabetes Lilly, Rey Juan Carlos University (2017- present)

# Dr. Bretón Lesmes, Irene

- Specialist in Endocrinology and Nutrition
- Attending Physician in Endocrinology and Nutrition Department. Gregorio Marañón General University Hospital, Madrid
- Member of the Obesity Unit at Monteprincipe University Hospital
- Degree in Medicine and Surgery from the Autonomous University of Madrid
- Doctor of Medicine and Surgery, from the Complutense University of Madrid
- Specialist in Endocrinology and Nutrition
- Master's Degree in Management of Endocrinology and Nutrition Care Units from the Menéndez Pelayo International University
- Member of ESPEN Faculty

# Dr. Montoya Álvarez, Teresa

- Degree in Medicine and Surgery from the University of Navarra 1995-2001
- Head of Endocrinology and Nutrition Department at Infanta Elena University Hospital from October 2019
- Master's Degree in Obesity and its Comorbidities. Prevention, Diagnosis, and Integral Treatment. Rey Juan Carlos University. V Edition. 60 credits ECTS 2016/2017
- Researcher at Universidad Autónoma de Madrid (2007)
- Diploma in Advanced Studies at Autonomous University of Madrid (2007)
- Clinical Tutor of Residents of 1st and 5th Year of Medicine Students Francisco de Vitoria University
- Secretary of the Neck and Bariatric Surgery Committee. HUIE since 2010 onwards
- HUIE Documentation and Quality Commission until 2017 Professional Experience
- Attending Physician in the Endocrinology and Nutrition Department at the Infanta Elena Hospital (2007- 2019)
- Resident Doctor at Getafe University Hospital (2002-2006)
- EASO (European Association for the study of Obesity) Corporate Accreditation as a Leading Center for Comprehensive Obesity Management (2018-2021)
- Specialist in General and Digestive System Surgery
- Expert Diploma Level Competence by the Spanish Society of Obesity Surgery (SECO)
- Diploma in Obesity and Metabolic Diseases Surgery. European Accreditation Council for Bariatric Surgery of IFSO

# Dr. Corripio Sánchez, Ramón

- Head of the Bariatric Surgery Unit. La Paz University Hospital
- Quality Coordinator of General and Digestive System Surgery. La Paz University Hospital
- Specialist in General and Digestive System Surgery at Torrelodones University Hospital Monteprincipe
- Faculty Specialist. Esophagogastric and Bariatric Surgery Unit. Jiménez Díaz Foundation Hospital and Collado Villalba General University Hospital. 2015- present
- Degree in Medicine and Surgery from the Complutense University of Madrid
- Specialist in General and Digestive System Surgery. Gregorio Marañón General University Hospital
- Accreditation Diploma of FAST and Ultrasound course for surgeons by the Spanish Association of Surgeons (AEC). 2005
- Surgeon in Our Lady of the Rosary Sanatorium. General and Digestive Surgery. 2004-2009
- Faculty Specialist. Esophagogastric Surgery Unit Coordinator. Infanta Cristina University Hospital. 2008-2015

# Dr. Castro Alija, María José

- Nutrition Specialist in Valladolid Health Clinic
- Consultant Physician at the Center of Excellence for the Treatment of Obesity and Metabolic Diseases in Valladolid
- PhD in Medicine and Surgery from the University of Valladolid
- Degree in Medicine and Surgery from the University of Valladolid in 1992
- Doctor Professor since 2002 at the University of Valladolid in the following subjects,
- Clinical Nutrition
- Dietetics and Diet Therapy
- Extensive teaching experience, with 4 five-year teaching periods recognized by the University of Valladolid with a rating of excellent in the DOCENTIA program

# tech 30 | Course Management

### Dr. Ortiz Larcozana, Javier

- Attending Physician for General and Digestive Surgery Service Basurto University Hospital. (1990-Present) with specialized activity in Bariatric and Metabolic Surgery since 2001
- Coordinator of Bariatric and Metabolic Surgery at the Esophagogastroenterology Unit, University Hospital Basurto (2013-present)
- Degree in Medicine and Surgery UPV/EHU, 1982)
- PhD in Medicine and Surgery (UPV/EHU, 1989)
- Specialist in General and Digestive System Surgery (1989- RMI system)
- Collaborator (1985-1989); Acting Full Professor (Chair of Surgery, Radiology and Physical Medicine UPV/EHU, 1990-92)
- Associate Professor of Surgery (Chair of Surgery, Radiology and Physical Medicine UPV/ EHU, 1992-present).
- Postgraduate Professor (UPV/ EHU)
- Doctoral Degree Courses: Medical Degree
- Courses: Master's Degree in Perioperative Care (Nursing Degree)
- Membership in national and international scientific societies specialized in Obesity Surgery and Metabolic diseases and the study and treatment of nutritional disorders: SEC01, SEED02, IFS03, SENPE4, AEC5

# Dr. Puigdevall Gallego, Víctor

- Doctor of Medicine and Surgery.
- Specialist in Endocrinology and Nutrition in Soria Hospital Complex.
- Associate Professor in Valladolid University (academic courses 2005-2021)

# Dr. Laguna Sastre, José Manuel

- Head of General and Digestive Surgery Services at the General University Hospital of Castellón. Since February 2020 to present.
- Degree in Medicine and Surgery from the University of Valladolid in 1986.
- PhD in Medicine and Surgery from the University of Alcalá de Henares 1998.
- Specialist in General and Digestive Surgery, General University Hospital of Castellón since January 1993 until January 2015 (with a statuatory fixed place since April 2005).
- Head of the Bariatric, Endocrine and Breast Surgery Section of the General and Digestive Surgery Service of the Hospital General Universitario de Castellón. Since January 2015 until February 2020.
- Certificate Specialist in General and Digestive System Surgery. Ramón y Cajal Hospital.
   Madrid. January 1993.
- University Diploma in Laparoscopic Surgery. Montpellier University. 2001 2002

### Dr. Cañamares Orbís, Pablo

- Facultative Area Specialist in the Digestive System at San Jorge University Hospital, Huesca (2019- present)
- Degree in Medicine from the Complutense University of Madrid, 2014.
- Specialist in the Digestve System since 2019.
- Master's Degree in Initiation to Research in Medicine from the University of Zaragoza.
- Master's Degree in Gastroenterological and Hepatobiliary Emergencies by the Distance Learning University of Madrid.
- Resident in Lozano Blesa University Clinical Hospital, Zaragoza (2015-2019).
- Facultative Area Specialist in the Digestive System at Donostia Hospital (2019)

### Dr. Botella Carretero, José Ignacio

- Head of the Endocrinology and Nutrition Department. Endocrinology and Nutrition Services. Ramón y Cajal Hospital. Madrid. Since December 2014.
- Degree in Medicine and Surgery. Autonomous University of Madrid (1995).
- Specialist in Endocrinology and Nutrition. Ramón y Cajal University Hospital Madrid 2001
- Doctor of Medicine. Outstanding, Cum Laude and Outstanding Award. Alcalá Henares University. Madrid 2005
- MBA in Management and Integrated Management of Clinics, Medical Centers and Hospitals. European Institute of Business Studies. Associate Center of the International Commission on Distance Education, 2012.
- Resident Intern. Endocrinology and Nutrition Services. Ramón y Cajal Hospital.
   Madrid. May 1997 May 2001
- Specialist in Endocrinology and Nutrition in Velázquez Medical Office. A private center with an agreement with the Community of Madrid as a Collaborating Health Center.
   June 2001 – March 2002
- Specialist in Endocrinology and Nutrition. Endocrinology and Nutrition Services at Carlos III Health Institution (ISCII) Ramón y Cajal Hospital. Madrid. March 2002 – March 2005
- Specialist in Endocrinology and Nutrition. Providing Continuous Care shifts.
   Endocrinology and Nutrition Services. Ramón y Cajal Hospital. Madrid. March 2005
   July 2005
- Specialist in Endocrinology and Nutrition. Clinical Nutrition and Dietetics Unit.
   Endocrinology and Nutrition Services. Ramón y Cajal Hospital. Madrid. July 2005 May 2013
- Specialist in Endocrinology and Nutrition. Endocrinology and Nutrition Services. Ramón y Cajal Hospital. Madrid. May 2013 - December 2014

### Dr. Bruna Esteban, Marcos

- Facultative Area Specialist. Section of Esophagogastric Surgery and Peritoneal Carcinomatosis. General and Digestive System Surgery Department.
- Doctor of Medicine, Outstanding Cum Laude, University of Valencia (2015).
- Degree in Medicine from the Faculty of Medicine at the Autonomous University of Madrid 2003.
- RMI training in General and Digestive System Surgery, obtaining the qualification EXCELLENT in the Consorcio General University Hospital of Valencia in 2009.
- Advanced Studies Diploma (2007) from the University of Valencia in the Department: Surgery and its Specialities.
- Full Training Level Diploma of Competence by the Spanish Society of Obesity Surgery (2016).
- Facultative Area Specialist. Section of Esophagogastric Surgery, Morbid Obesity and Abdominal Wall. General and Digestive System Surgery Department. Centre: Consorcio General University Hospital in Valencia. June 2009 - March 2019
- Coordinator of the Transplant Unit. Centre: Consorcio General University Hospital in Valencia. April 2013 March 2019
- Chair of the Section of Esophagogastric Surgery of the Spanish Association of Surgeons from January 2019 to November 2020.
- Secretary of the Esophagogastric Surgery Section of the Spanish Association of Surgeons from January 2015 to November 2019
- Coordinator of Esophagogastric Surgery Working Group in the Spanish Multimodal Rehabilitation Group (GERM) from January 2016 to present.

# tech 32 | Course Management

#### Dr. Santos Benito, Francisco Fernando

- General and Digestive System Private Surgeon. Virgen de Fátima de Vigo Hospital,
   La Rosaleda de Santiago de Compostela and currently Quirón-Domínguez Hospital in Pontevedra
- Degree in Medicine and Surgery, 1993, Faculty of Medicine. University of Salamanca
- PhD in Medicine and Surgery, 1998, Department of Surgery, Faculty of Medicine. University
  of Salamanca
- Specialist in General and Digestive System Surgery through the RMI program at Clinical University Hospital, Salamanca.
- Master's Degree in Laparoscopic Surgery. Institute of Digestive Diseases in the Foundation Clinic, University Clinical Hospital of Barcelona.
- Master's Degree in Pancreatic and Esophageal Surgery. Hammersmith University Hospital, London.
- Master's Degree in Laparoscopic Surgery. Montpellier University Hospital.
- Clinical Assistant at Amato Lusitano de Castelo Branco Hospital Coimbra
- Clinical Assistnat at Santiago de Compostela University Clinical Hospital
- Head of the Surgical Performance Unit. Virgen de Fátima de Vigo Hospital Pontevedra
- Registered activity in Pontevedra and La Coruña, with number 15/3705782.

# Dr. Serrano Moreno, Clara

- · Specialist in Endocrinology and Nutrition. Gregorio Marañón General University Hospital
- · Faculty Specialist in Endocrinology and Nutrition in Alcorcón Foundation Hospital.
- Resident Intern in Endocrinology and Nutrition in Alcorcón Foundation Hospital.
- Degree in Medicine. Navarra University
- · Master's Degree in Clinical Nutrition from the University of Granada.

# Dr. Cuadrado Ayuso, Marta

- Faculty Area Specialist Ramón y Cajal Hospital (2016- present). Esophagogastric and Bariatric Surgery Unit
- Degree in Medicine and Surgery from the Autonomous University of Madrid (2010)
- Master's Degree in Update on General and Digestive System Surgery, Cardenal Herrera University CEU (2020)
- Specialist in General and Digestive System Surgery, Gregorio Marañón General University Hospital (2016).
- Facultative Area Specialist at El Escorial Hospital (2016).
- Faculty Specialist in the private field, Torrelodones (2016).
- Faculty Specialist in the private field, La Luz Hospital (2019).

# Hernández García, Artur Marc

- Coordinator of the exercise program for bariatric patients at Miguel Hernández University.
- Degree in Physical Activity and Sports Science from the University of Valencia (2012).
- Master's Degree in Performance and Health from Miguel Hernández University (2013).
- PhD in Health Psychology from Miguel Hernández University (2017).
- Project Researcher "Physiological and Psychological Effects of Exercise in Patients Put
  Forward for Bariatric Surgery". Development of study design, coordination and supervision
  of the training sessions, data collection, statistical analysis and document writing.

#### Dr. Martínez Amorós, Rosana

- Clinical Psychologist in the Mental Health Unit of San Vincent of Raspeig (Alicante) Since May 2019
- Degree in Psychology from the University of Valencia
- Specialist in Clinical Psychology
- 2016-2019 Clinical Psychologist in the Mental Health Unit of Altabix de Elche (Alicante)
- 2013-2016 Clinical Psychologist at the Elche University General Hospital (Alicante) dependent on the Valencian Health Agency.
- 2006 2013 Sexologist in the Reproductive and Sexual Health Center of Novelda-Aspe (Alicante) dependent on the Valencian Health Agency.
- October 2004 October 2006. Clinical Psychologist, C.V. Foundation CEEM Day Center. Santos Andrés y Santiago de Sueca (Valencia)
- May 2004 September 2004. Coordinator of the moderate and severe intellectual disability ward of the Pere Mata University Psychiatric Hospital of Reus (Tarragona).

# Dr. Almeida Ponce, Helen

- Facultative Area Specialist at Alcañiz Hospital, Alcañiz.
- Degree in Medicine from catholic University of Santiago de Guayaquil (2004-2010) Homologated to the Spanish degree of Licenciada en Medicina (1/10/2010)
- PhD in Medicine from the University Zaragoza (2020)
- Master's Degree in Coloproctology, University of Zaragoza.
- Proprietary Master's Degree in General and Digestive System Surgery.
- University Expert in Pelvic Floor Minimally Invasive Surgery.
- · Specialist Physician, Obispo Polanco Hospital, Teruel.
- Specialist Physician, ErnestLluch Hospital, Calatayud.

# Dr. Sánchez López, José Daniel

- Attending Physician in General and Digestive Surgery Services at Infanta Sofía University Hospital (San Sebastián de Los Reyes, Madrid) from 2008 to present.
- Degree in Medicine and Surgery from the University of Alcalá de Henares, Madrid (1990).
- RMI training as Specialist in General and Digestive System Surgery at 12th October University Hospital. (Madrid). 1992-1996
- PhD in Medicine and Surgery, Complutense University of Madrid (Outstanding Cum Laude 1999)
- University Expert in Minimally Invasive Surgery. Complutense University of Madrid (1999).
- Master's Degree in Medical Management from the International School of Senior Hospital Management (2004).
- SECO accreditation as Bariatric Surgeon. Complete Training Diploma by the Spanish Society of Obesity Surgery (SECO). November 2017.
- Attending Physician in General and Digestive Surgery Services at Prince of Asturias University Hospital (Alcalá de Henares, Madrid) from 1999 to 2008. Statutory position by competitive examination since 2005
- Laparoscopic Obesity Surgery (Restrictive, Malabsorptive and Mixed Techniques)
- Laparoscopic Esophagogastric Surgery (hiatal hernia, gastroesophageal reflux, gastric cancer, esophageal cancer, etc.
- Laparoscopic Surgery of the inguinal hernia and eventration.

#### Dr. Mirada Murua, María del Coro

- Head of Esophagogastric and Bariatric Surgery Unit. Navarra Hospital Complex.
- 1. Training as specialist in General and Digestive System Surgery through RMI: Pamplona Hospital in Navarra. January 1995 December 1999
- 2. Attending Physian in General and Digestive System Surgery, January 2000 January 2019
- Degree in Medicine: Navarra University. Spain. June 1992

# tech 34 | Course Management

### Dr. García Ruíz, Amador

- Faculty Specialist in Services Commisions at Vall d'Hebron University Hospital, Barcelona since January 2019
- Degree in Medicine. Faculty of Medicine and Dentistry. Basque Country University / Euskal Herriko
- PhD from the University of the Basque Country / Euskal Herriko Unibertsitatea. Defended his Doctoral Thesis 19/11/2015 entitled: "Critical Analysis of Vertical Gastrectomy as a Bariatric Surgical Technique". Grade: Outstanding Cum Laude
- Diploma in Research Methodology: Design and Statistics in Health Sciences. Autonomous University of Barcelona
- Resident of General and Digestive System Surgery. Bellvitge University Hospital, Llobregat Hospital. Barcelona: 16th June 2003 - 15th June 2008
- External rotation at the Surgery Department of the Western General Hospital. Colorectal Unit. Edinburgh (United Kingdom). February-April 2008
- Assistant of the General and Digestive System Surgery Service of the Bellvitge University Hospital from 1/1/2009 to 31/5/2018
- Statutory position since 1/6/2018

### Dr. Balagué Ponz, María Carmen

- Attending Physician for General and Digestive Surgery Services at Hospital de la Sta. Creu i Sant Pau of Barcelona
- Coordinator of the Functional Unit of Bariatric and Metabolic Surgery of the Hospital de la Sta. Creu i Sant Pau of Barcelona
- Degree in Medicine and Surgery from the University of Barcelona. 1989
- Specialist in General and Digestive Surgery. MIR 1991-1995. Barcelona Clinical Hospital
- PhD in Medicine and Surgery from the University of Barcelona. 1998
- Attending Physician for General Surgery Services at Clinical Hospital Barcelona. 1999-2002
- Professor of Surgery at UD Sant Pau. Autonomous University of Barcelona (2007)

# Dr. Gómez Correcher, María Amparo

- Department Specialist Physician at the Hospital Arnau de Vilanova from January 2019 to the present. PhD in Clinical and Surgical Sciences with the thesis entitles: "Effect of axillary lavage with gentamicin solution on drainage debit after axillary lymphadenectomy in breast cancer patients". Miguel Hernández University. 29/07/2014
- Specialist in General and Digestive System Surgery Training Period (RMI): 2010 2015
   General Surgery Department. Elche University General Hospital
- Degree in Medicine and Surgery University of Valencia. Promotion 2003-2009. Member number 46-4621989 of the Very Illustrious Official College of Physicians of Valencia
- Department Specialist Physician at the Hospital of Vilanova from May 2015 September 2015
- Department Specialist Physician at Llíria Hospital from September 2015 to January 2019
- Master's Degree in Clinical and Surgical Investigation from Miguel Hernández de Elche University 2010-2011 (60 credits)
- Master's Degree in Esthetic and Anti-aging Medicine from the Complutense University Madrid (2018- 2019)
- Expert in Pelvic Floor University Specialist in Pelvic Floor Pathology in Surgery. 300 hours

# Ms. Llavero Garrido, Carolina

- Operating Room, Resuscitation and CMA Service. Southeast Hospital Arganda del Rey (Madrid). (2008– present.)
- · Collaborating researcher in several research lines developed in bariatric surgery and obesity
- Diploma in Nursing from the Alfonso X University

# Dr. Alfaro Almajano, Enrique

- Specialist in Digestive System Unit. Lozano Blesa Clinical University Hospital. Zaragoza (2019-present) Degree in Medicine. University of Zaragoza. 2008-2014
- RMI training in Digestive System in Lozano Blesa Clinical University Hospital. Zaragoza
- Specialist in Digestive System Unit. Lozano Blesa Clinical University Hospital. Zaragoza
- Resident Intern in Digestive System in Lozano Blesa Clinical University Hospital. Zaragoza (2015-2019)
- Master's Degree in Initiation to Research in Medicine. Faculty of Medicine. University of Zaragoza 2016-2017
- University expert degree: Emergencies in Gastroenterology and Hepatology. Distance Learning University of Madrid (UDIMA) 2017
- Master's Degree in Gastroenterological and Hepatobiliary Emergencies. Distance Learning University of Madrid (UDIMA). 2018-2020
- Master's Tutor in Health Sciences (Lille University, 2017-2018)
- Clinical Tutor at Elche University General Hospital (2012 -2016)
- Collaborating Professor at Miguel Hernández de Elche University (Spain) in Human Anatomy and Medical Surgical Pathology

# Dr. Moreno Sanz, Carlos

- Head of Surgery Services at General Hospital Mancha Centro and General Hospital of Tomelloso
- Specialist in General and Digestive System Surgery with specific focus on Minimally Invasive Surgery and its Innovations
- Honorary Member of European Fellow in Minimally Invasive Surgery
- Professor in the International Doctorate School at the University of Castilla La Mancha
- Professor, Master's Degree in Coloproctology, University of Zaragoza, and the Master's Degree in Update on General Surgery and the Digestive System, CEU University

# Dr. García Villabona, Esther

- Attending Physician (Anaethesiology, Resuscitation and Pain Treatment) La Princesa University Hospital
   Degree in Medicine: University of Salamanca (1999-2005)
- Specialized Training in Medicine: Resident of Anesthesiology, Resuscitation, and Pain Management. La Princesa University Hospital, Madrid. 2006-2010
- Resident Intern in La Princesa University Hospital. May 2006 May 2010. External Rotations at La Paz University Hospital: -Maternity: Jannuary February 2008 (two-month duration) Pediatrics: October December 2009 (three-month duration)
- External Rotation at Gregorio Marañón University Hospital
- PCU Rotation (Postoperative Care Cardiac Surgery). February March 2010. External Rotation in "Memorial Sloan-Kettering Cáncer Center" Hospital (New York): Thoracic Surgery, ICU, Pain Unit. June - July 2009 (two-month duration)

# Dr. García Muñoz-Najar, Alejandro

- Specialist Physician, Department of General and Digestive System Surgery, Rey Juan Carlos University Hospital (Madrid). Abdominal Wall Surgery Unit. Endocrine Surgery Unit. Coordinator of the Bariatric and Metabolic Surgery Unit (2014-...)
- Degree in Medicine from the University of Navarra (1988 1994)
- Specialist in General and Digestive System Surgery. 12 de Octubre University Hospital (Madrid) 1995-1999
- Medical Specialist in the Department of General and Digestive System Surgery at the University Hospital of Fuenlabrada (Madrid). Endocrine and Bariatric Surgery Unit (2004-2014)

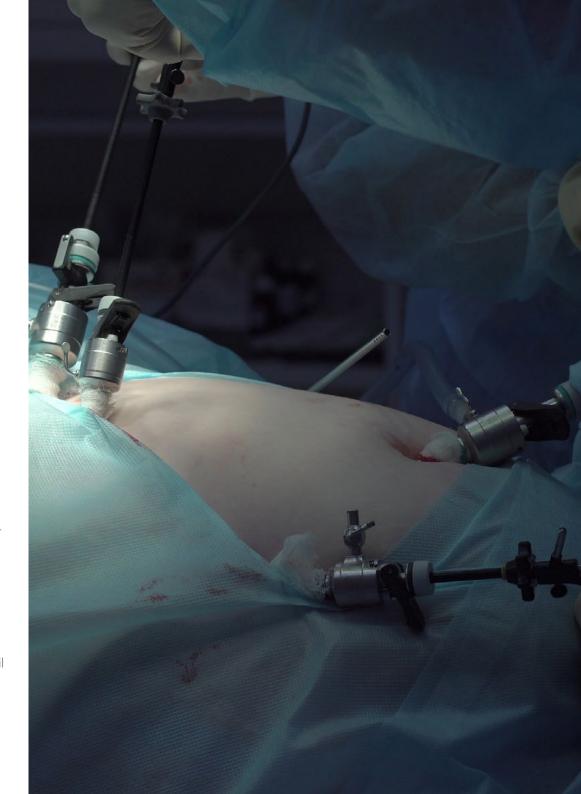
# tech 36 | Course Management

# Dr. García Ureña, Miguel Ángel

- Head of Surgery at Henares University Hospital. 2007- present
- PhD in Medicine from the Complutense University of Madrid
- Outstanding Award in her PhD
- Degree in Medicine from the Autonomous University Madrid
- Specialist in General and Digestive System Surgery Unit at Puerto Real University Hospital, Madrid. 1995-2003
- Facultative Area Specialist in General Surgery
- Specialist in General and Digestive System Surgery
- Professor of surgical conditions at the University School of Nursing Salus Infirmorum, attached to the University of Cadiz. 1995-2000
- Professor of the subject "medical-surgical nursing" at the University School of Salus Infirmorum, attached to the University of Cadiz. 2000-2005

### Dr. Valentí Azcárate, Víctor

- Degree in Medicine and Surgery from the Faculty of Medicine of the University of Navarra
- PhD in Medicine from the University of Navarra
- Co-director of the Obesity Unit. Navarra University Clinic
- Medical Practitioner in General Surgery. General Medical Council. UK. January December 2007
- General and Digestive System Surgery Department Consultant. Navarra University Clinic
- Co-director of the Obesity Unit. Navarra University Clinic
- Esophago-gastric Surgery Section Coordinator. Navarra University Clinic
- Expert Surgical Diploma in Bariatric Surgery. SECO
- Surgeon of Excellence for Bariatric and Metabolic Surgery. European Accreditation Council for Bariatric Surgery (IFSO endorsed COE Program) EAC-BS



#### Dr. García Gómez de las Heras, Soledad

- Degree in Medicine and Surgery (June 1998), Faculty of Medicine in the Complutense University of Madrid
- PhD in Medicine and Surgery (June 2002, Outstanding Cum Laude), Faculty of Medicine at the Complutense University of Madrid
- Doctor Professor in Human Histology and Pathological Anatomy, Faculty of Health Sciences, Rey Juan Carlos University, since October 2006- present
- Doctor Professor in Human Anatomy, Faculty of Health Sciences, Rey Juan Carlos University, since October 1999- October 2006
- Professor of Human Histology module in Medicine Degree since the academic course 2009-2010 where she continues to do most of her teaching
- Professor of Cell Biology and Human Histology in Nursing, Physiotherapy and Dentistry degrees from September 2006 to June 2009
- Professor of Human Anatomy in Nursing, Physiotherapy and Dentistry degrees from 1999 to June 2006

#### Dr. Bordallo Cortina, Alberto

- Degree and PhD in Medicine and Surgery
- Specialist in General and Digestive System Surgery
- Bariatric and metabolic surgeon. SECO Diploma
- Head of the Surgery Department of the HLA Hospital, Denia (Spain)
- He has performed more than than 5,000 laparoscopic procedures
- Chief Surgeon of IntraObes Denia

#### Dr. Ferrero Celemín, Esther

- Faculty Specialist. General and Digestive Surgery Department at Infanta Sofía University Hospital (San Sebastián de Los Reyes, Madrid) from 2013 to present
- Degree in Medicine from the Complutense University Madrid (1990 1996)
- Specialist in General and Digestive System Surgery, Digestive System Surgery and Intestinal Organ Transplant Service of the "Hospital 12 de Octubre", Madrid (prof. E. Moreno González). (1998-2003)
- Doctorate courses in the Department of Surgery and obtaining the recognition of research proficiency. (1999-2001)
- Complete Training Diploma by the Spanish Society of Obesity Surgery (SECO) March 2019
- Instructor of the laparoscopic TAPP/TEP Hernia Training Course. Infanta Sofía Hospital (Madrid). (2016, 2017,2018 and 2019)
- Author of content for teaching use in the academic program of TECH Technological Mexico University, carried out in the 2019-2020 editions: Proprietary Master's Degree in General and Digestive System Surgery. Oesophagogastric Surgery Oesophageal Diverticula
- Resident in General and Digestive System Surgery in Carlos III Clinical Hospital, Madrid.)
- Participation in the general surgery service of Sur de Alcorcón Hospital (Madrid) as an autonomous surgeon (2004-2008)
- Faculty Specialist. General and Digestive System Surgery Department in Infanta Leonor University Hospital, Madrid (2008-2013.)

#### Ms. Escudero Pallardó, Lluch

- Degree in Nutrition
- IntraObes Team Nutrition Manager

#### Dr. Pagán Pomar, Alberto

- Clinical Chief of the Esophagogastric and Morbidly Obese Surgery Unit. General and Digestive System Surgery Department. Son Espases University Hospital Palma, 2015-present
- Founder of Integral Centre of Nutrition of the Balearic Islands (CINIB). Palma, 2015-present
- DamiáCarbó 2020 Award from the Official College of Physicians of the Balearic Islands:
   "Biliopancreatic diversion in the Surgical Treatment of Morbid Obesity. Long-term Results and Metabolic Consequences". Authors: Bianchi A, Pagán A, Marina Jiménez, José Antonio Martínez, Francesc Xavier González
- Degree in Medicine and Surgery, Autonomous University of Barcelona, 1983
- Specialization in Clinical Management. Balearic Islands Offical Medical College, 2003 2004
- Online Course of Fundamentals in Bariatric and Metabolic Surgery. SECO, 2009-2010
- University expert in Management and Use of Minimally Invasive Technologies in Surgery.
   Complutense University of Madrid, 2004-2005
- Master's Degree in Obesity and its Comorbidities: Prevention, Diagnosis, and Integral Treatment. Rey Juan Carlos University, Alcorcón (2017-2018)

#### Dr. Lorenzo González, Óscar

- Degree in Biology Medicine, Complutense University of Madrid, 1996
- PhD in Biochemistry, Autonomous University of Madrid, 2001
- Degree in Medicine (2013-present) Subject: Introduction to Biomedical Research Subject: Fundamentals of Cardiovascular and Renal Research from a Hospital Approach
- Degree in Nursing (2016-present) Subject: Pharmacology and Nutrition. Subject: Biochemistry
- Master's Degree in Pharmacology Research, 30 ECTS. Faculty of Medicine, Autonomous University of Madrid
- Master's Degree in Advanced Patient Care in Anaethesia, Resuscitation and Pain Treatment, 30 ECTS. Jiménez Díaz Foundation Nursing School, Autonomous University of Madrid

#### Dr. Zúñiga Ruiz, Alejandro

- In charge of the Emergency Department at Doctors Hospital East, Guadalupe, Nuevo Leon, Mexico
- General Surgeon in General Surgery Department at the General Hospital in Zone 2 of the Mexican Institute of Social Security in Apizaco; Tlaxcala, Mexico
- General Surgeon in the General Surgery Department in Institute of State Security and Social Services in Zona Tlaxcala General Hospital, Mexico
- Specialist in Bariatric and Metabolic Surgery from the José Eleuterio Gonzalez University Hospital, Autonomous University of Nuevo León, Monterrey, Mexico
- Specialist in General Surgery at the José Eleuterio Gonzalez University Hospital, Autonomous University of Nuevo León, Monterrey, Mexico
- Bachelor's Degree in Surgery and Midwifery, Autonomous University of Nuevo Leon, Monterrey, Mexico
- Certification in Bariatric and Metabolic Surgery from the Mexican Council of General Surgery A.C. (2020)
- High Speciality Course in Bariatric and Metabolic Surgery from the José Eleuterio Gonzalez University Hospital, Autonomous University of Nuevo León, Monterrey, Mexico (2019-2020)

#### Dr. Castellón Pavón, Camilo

- Associate Chief at Rey Juan Carlos Hospital (Móstoles) from March 16, 2018 to present
- Degree in Medicine and Surgery. Autonomous University of Madrid (1992)
- Doctor of Medicine. Complutense University of Madrid. Madrid 2006
- Specialist in General and Digestive System Surgery
- "Expert in Health Management" from the European Institution of Health and Social Wellbeing (2007)
- ESADE Master's Degree "Being a leader at Quirónsalud" (2017)
- Resident Tutor of the General Surgery Service at Rey Juan Carlos University Hospital (Móstoles) from December 2019

#### Dr. Paiva, Gabriel

- Faculty Specialist, Paraguayan Laparoscopic Center Advanced Laparoscopic Surgery
- Faculty Specialist. Santa Julia Medical Center Bariatric and Metabolic Surgery Unit. 2017-2020
- PhD in Medicine from the Faculty of Medicine at the Asunción National University, Paraguay. (2005)
- Specialist in General and Digestive System Surgery. Castellón University General Hospital. (2008-2013)
- Educational Comission for Foreign Medical Graduates (ECFMG) (USA). 2007 MD
- International College of Surgeons Fellow in Laparoscopic and Bariatric Surgery. 2016
- Robotic Bariatric Sugery IRCAD Strasbourg, France. (2018)
- Active member of the Latin American Association for Endoscopy Surgery. 2017
- Paraguayan Society for Bariatric and Metabolic Surgery- Former President Former President

#### Dr. Rodríguez Carrillo, Rodolfo

- Co-Coordinator of the Bariatric and Metabolic Surgery Unit of the Sagunto Hospital
- Specialist in General and Digestive Surgery, Sagunto Doctor Hospital, Medicine, University of Valencia, *Cum Laude*, November 2017
- Degree in Medicine and Surgery: Faculty of Medicine and Dentistry. University of Valencia. July 1999
- Specialist in General and Digestive System Surgery. July 2005
- Resident Intern of General and Digestive Surgery by competitive examination from July 2000 to July 2005. General and Digestive System Surgery Department. Dr. J.V. Roig Vila. Sagunto Hospital
- Attending Physician of the General and Digestive System Surgery Service at the Manises Hospital (Valencia) from May 2009- February 2021
- Attending Physician for General and Digestive Surgery Services at Sagunto Hospital (Valencia) since February 2021

#### Dr. Sartal Cuñarro, María Isabel

- Degree in Medicine from the Faculty of Medicine at the University of Santiago de Compostela, A Coruña. 2000-2006
- 2007 2012: Specialist training in General and Digestive System Surgery via RMI in the Santiago de Compostela University Hospital Complex between May 2007 and May 2012.
- 2009 2011: Completion of doctoral courses: Advances in Surgery, Anesthesia and Ophthalmology. Diploma of Advanced Studies from the University of Santiago de Compostela with work on "Emergency Treatment of Colon Cancer". Surgery Department. University of Santiago de Compostela. RD 185/1985, 778/1998
- 2017: Cum Laude in the Doctoral Thesis "Treatment of rectal cancer by laparoscopic surgery: applicability and results". Surgery Department. University of Santiago de Compostela
- 2018 2019: Master's Degree in General and Digestive System Surgery. Taught and accredited by Cardenal Herrera University with 60 credits and 1500 hours.
- 2019 2020: Master's Degree in Legal and Forensic Medicine. Taught and accredited by Cardenal Herrera University with 60 credits and 1500 hours.
- 2002: Practice in Microbiology and Biochemistry Laboratories at Pontevedra Hospital Complex.
- 2003 2004: Clinical Practice in Emergency Services at Pontevedra Hospital Complex.

# tech 40 | Course Management

#### Dr. Salcedo, Gabriel

- Faculty Specialist. Esophagogastric and Bariatric Surgery Unit. Jiménez Díaz Foundation Hospital and Collado Villalba General University Hospital. 2015- present
- Degree in Medicine from the Autonomous University of Madrid. 1999
- Fellowship Grant for Subspecialized Training of the Spanish Association of Surgeons. 2007
- Specialist in General and Digestive System Surgery. Gregorio Marañón General University Hospital
- Accreditation Diploma of FAST and Ultrasound course for surgeons by the Spanish Association of Surgeons (AEC). 2005
- Surgeon in Our Lady of the Rosary Sanatorium. General and Digestive Surgery. 2004-2009
- Faculty Specialist. Esophagogastric Surgery Unit Coordinator. Infanta Cristina University Hospital (2008-2015).

#### Dr. Molina-Amador García, Alicia

- Dietitian-nutritionist in private practice. (2017-present)
- Dietitian-nutritionist postdoctoral researcher linked to research projects in the Surgery Service at Sant Joan de Reus University Hospital. (2016-present)
- PhD in Biomedicine from the Rovira i Virgili University (2016).
- Diploma in Human Nutrition and Diet from the Rovira i Virgili University (2010).
- Master's Degree in Nutrition and Metabolism from the Rovira i Virgili University (2012).
- Master's Degree in Genetic, Nutritional and Environmental Determinants of Growth and Development from Rovira i Virgili University in 2013.
- Postgraduate Degree in Research: Design and Statistics in Health Sciences from Autonomous University of Barcelona (2014)
- Diploma of Specialized Nutrition in Obesity Surgery from the Mexican College of Obesity Surgery and Metabolic Diseases in 2017.
- Associate Professor in the Surgery Service of the Rovira i Virgili University (2018-present).
- Professor of the Master's Degree in Obesity Surgery SECO/AEC/Editorial Panamericana (2019-present)

#### Dr. Amengual Galbarte, Ángela

- Specialist in Endocrinology and Nutrition. Rey Juan Carlos University Hospital, Madrid (since 2017)
- Degree in Medicine from the Autonomous University Madrid (2006-2012).
- RMI training Medical in Endocrinology and Nutrition at the San Carlos Clinical Hospital (2013-2017).
- Master's Degree in Obesity and its Comorbidities: Prevention, Diagnosis, and Integral Treatment, from a Preventative, Clinical and Research Perspective. Rey Juan Carlos University, Madrid (2017-2018)
- Diploma in Applied Statistical Analysis in Clinical Research, by the Illustrious Official College of Physicians of Madrid (ICOMEM), 2016.

#### Dr. Acín, Débora

- Attending Physician in General and Digestive System Surgery in the Fuenlabrada University Hospital (August 2011- present) Endocrine and Bariatric Surgery Unit
- PhD in Medicine from Rey Juan Carlos University, Madrid, with an Outstanding Cum Laude Qualification and Outstanding Award. (2010)
- Degree in Medicine and Surgery from the Autonomous University of Madrid. (2003)
- General and Digestive System Surgeon Collaborator, Jiménez Díaz Foundation. March 2011
   October 2019
- Rotation in Bariatric Surgery Unit, Bellvitge University Hospital, Barcelona. November 2011.
- Attending Physician in General and Digestive System Surgery in the Severo Ochoa de Leganés Hospital. April 2011 - August 2011
- Attending Physician in General and Digestive System Surgery in the Infanta Sofía de Parla Hospital. March 2011
- On-call Duty, General and Digestive System Surgery in the Infanta Sofía de Parla Hospital.
   February 2011 May 2011
- Attending Physician in General and Digestive System Surgery, Fuenlabrada University Hospital. May 2009 - February 2011

#### Dr. Rivaletto, Lucas

- General Surgeon specializing in Laparoscopy
- PhD in Medicine from La Plata National University, Buenos Aires, Argentina.
- Specialist in General Surgery, degree awarded by the Argentine Association of Surgery.
- Diploma in Obesity and Metabolic Diseases Surgery. European Accreditation Council for Bariatric Surgery of IFSO. 2000 hours. Center of excellence for the treatment of obesity and diabetes, directed by Dr. Carbajo, Miguel Ángel. Valladolid, Spain.
- Fellowship in Esophagogastric and Bariatric Surgery at the National University of La Plata.
- Surgeon in the esophago-stomach section and bariatric surgery at the San Martin de La Plata University Hospital from 2016 to date.
- Staff surgeon at La Plata Italian Hospital from 2018 to date.
- Staff Surgeon at CIOBE (Surgery and Obesity) in the City of La Plata from 2016 to date.

#### Dr. Velasco Hernández, Norberto Daniel

- Staff surgeon in the esophago-gastric surgery department of the Hospital Interzonal General San Martín of the city of La Plata.
- Medical Doctor, awarded by the Faculty of Medical Sciences of the National University of La Plata.
- Surgical Clinic, College of Physicians of La Province of Buenos Aires. District 1
- Specialist in General Surgery awarded by the Argentine Association of Surgery.
- Specialist in Gastroenterologic Surgery awarded by the Argentina Catholic University
- Full Member of the Argentina Association of Surgery (MAAC)
- Fellow at American College of Surgeons (FACS)
- Full member of the International Federation for the Surgery of Obesity and Metabolic Disorders (IFSO).
- Full member of the International Society for Diseases of the Esophagus (ISDE).
- Full member of the American Society for Metabolic and Bariatric Surgery (ASMBS).
- Staff Surgeon at La Plata Diagnosis Institute

#### Ms. Posada González, María

- Specialist Physician, Esophagogastric and Bariatric Surgery Unit. General and Digestive System Surgery Department. Jiménez Díaz Foundation Hospital (Madrid). July 2016present
- Degree in Medicine from the Autonomous University of Madrid. Promotion 2001-2007
- Specialist Doctor via RMI in "General and Digestive System Surgery" at La Princesa University Hospital (Madrid). May 2008

  – May 2013
- Specialist in General and Digestive Surgery. General and Digestive System Surgery Department. La Paz University Hospital, Madrid. April and May 2016
- Specialist Physician, Esophagogastric and Bariatric Surgery Unit. General and Digestive System Surgery Department. Jiménez Díaz Foundation Hospital (Madrid). November 2015
   February 2016
- Fellowship in Esophagogastric and Obesity Surgery. Esophagogastric Surgery Unit. General and Digestive System Surgery Department. Jiménez Díaz Foundation Hospital (Madrid). November 2013 - November 2015
- Faculty Specialist in the Endocrine Surgery Unit. General and Digestive System Surgery Department. Basurto University Hospital (Bilbao). September-November 2013
- Resident Intern. General and Digestive System Surgery Department. La Princesa University Hospital Madrid. May 2008 May 2013

#### Dr. Díez del Val, Ismael

- Head of Esophago-gastric and Bariatric Surgery Section, Basurto University Hospital, Bilbao
- ACS Esophago-gastric surgery coordinator, 2019 to present
- ACS esophago-gastric surgery coordinator (2019 to present).
- Member of the Board of Directors of SECO
- Expert in Emerging Viruses from SECO

# tech 42 | Course Management

#### Dr. Beisani Pellise, Marc

- Member of the Animal Experimentation Ethics Committee of the Center of Applied Experimental Biomedicine (CREBA) in Lleida (2016-2020)
- Fellowship AEC, Bariatric Surgery, Hospital Universitari Vall d'Hebrón. (2019-2020)
- PhD in Surgery, Autonomous University of Barcelona. (2018)(Cum Laude)
- Specialist in General and Digestive System Surgery, Vall d'Hebron University Hospital. (2010-2015)
- Master's Degree in Applied Clinical Research in Health Sciences, Autonomous University of Barcelona. (2011)
- Degree in Medicine from the University of Barcelona. (1999-2007)
- Attending Physician in the Surgery Unit at Mar Hospital, Barcelona (2018-2019). (2018-2019)
- Coordinator of Surgical Acitivity at the Center for Applied Experimental Biomedical (CREBA) in Lleida. (2016-2018)
- Attending Physician in the Surgery Unit at Arnau de Vilanova Hospital, Lleida (2015-2018). (2015-2018)

#### Dr. El Mehdi Skalli

- Medical Studies, Faculty of Medicine and Rabat Pharmacy. (1995-2003)
- Medicial Doctor, Faculty of Medicine and Rabat Pharmacy. 2nd June 2003
- Diploma in Specialized Studies (DES) in General Surgery, Faculty of Medicine in Montpellier.
   30th April 2010
- Diploma in Additional Specialized Studies (DESC) in Visceral and Digestive Surgery from the Faculty of Medicine in Montpellier. 28th October 2011

#### Dr. Oliver, José Ramón

• General and Digestive System Surgery Service, Soria Healthcare Complex

#### Dr. Solar Peche, Alfonso

- General Surgery and Laparoscopy Doctor, Staff at San Pablo Hospital Complex. San Pablo Clinic, Sede Surco, July 2019 - present
- Professional degree of Surgical Medicine graduated from the Faculty of Human
   Medicine of the San Marcos National Higher University, granted on March 22, 2013.
- Second Professional Speciality Degree in General Surgery from the Faculty of Human Medicine of the San Marcos National Higher University, granted on December 6, 2017.
- Master's Degree in Health Services Management, Faculty of Medicine from San Martin de Porres University, from 1st June 2020
- Essalud Medical Internship Program 2012 at the Edgardo Rebagliati Martins National Hospital, January 1, 2012 December 31, 2012.
- Doctor SERUMS of the Santiago de Pichus Health Post, Microred Pazos, Tayacaja Health Network, DIRESA Huancavelica from May 06, 2013 to May 05, 2014, Directorial Resolution N°791-2013/GOB.REG-HVCA/DIRESA granted on May 28, 2014.
- Resident Doctor of General Surgery, San Marcos National Higher University, II
   Vitarte EsSalud Hospital, Red Desconcentrada Almenara, from July 1, 2014 to June 30, 2017.
- Assistant Physician of General Surgery and Transplantation of the National Hospital Guillermo Almenara Irigoyen EsSalud, in the Liver Transplant Service of the Department of Transplantation, from December 30, 2017 to the present.

#### Dr. Vázquez Martínez, Clotilde

- Head of the Endocrinology and Nutrition Department. Jiménez Díaz Foundation
- Director of the Overweight and Obesity Institute Jiménez Díaz Foundation
- CIBEROBn and IISFJD Researcher
- Co-Chair of the Obesity and Diabetes. Rey Juan Carlos University

#### Dr. Lévano Linares, Dennis César

- Specialist in General and Digestive System Surgery. Rey Juan Carlos University Hospital and Jiménez Díaz Foundation University Hospital (February 2018- present)
- PhD in Medicine from the Autonomous University Madrid (UAM) 2020. Oustanding *Cum* Laude
- Master's Degree in Colorectal and Pelvic Floor Surgery from the University of Zaragoza (2019).
- Homologation to Degree in Medicine and Surgery by the Ministry of Science and Innovation in 2008.
- Medical Surgeon Degree from San Martin de Porres University in Lima (2007).
- Specialist in General and Digestive System Surgery. Collado Villalba General Hospital (2016 2017)
- Official Title of Medical Specialist in General Surgery and Digestive System. Jiménez Díaz Foundation Hospital
- University Diploma in Laparoscopic Surgery. Louis Pasteur University. Strasbourg
- European Accreditation in Laparoscopic Surgery by the European Association of Continuing Medical Education (EACCME)
- Training in Minimally Invasive Surgery by IRCAD EITS. University of Strasbourg

#### Dr. Atencia Goñi, José

- Specialist in Endocrinology and Nutrition: Gregorio Marañón General University Hospital
- Division of Endocrinology, Metabolism, and Lipids. Emory University. Atlanta
- Degree in Medicine from the University of Navarra
- Update in the Management of Neuroendocrine Tumors" patroned by Novartis. Net Alliane Meeting Madrid
- TNE Refresher Course" sponsored by IPSEN. Face-to-Face Gregorio Marañón Hospital Madrid

#### Dr. Martínez Ubieto, Fernando

- Coordinator of the Obesity and Metabolism Surgery Unit at Viamed Montecanal Hospital in Zaragoza, Spain
- Coordinator of the Obesity and Metabolism Surgery Unit of the Viamed Los Manzanos Hospital in Logroño.
- Student intern of the Chair of Surgical Pathology and Clinical Surgery "A" (Prof. Lozano) during the academic years 1978-79 and 1979-80.
- Degree in Medicine and Surgery from the Faculty of Medicine at the University of Zaragoza, from 1974-80.
- Revalidation of Bachelor's Degree on July 12, 1980.
- Certificate in General Medicine in the Spanish National Health System and in the EEC countries, issued by the Ministry of Health on April 1, 1994
- Specialist in General and Digestive (Via RMI) in the 1981 uptake, and was a resident at the Clinical University Hospital of Zaragoza from 1982 to 1987

#### Dr. Del Castillo Díez, Federico

- Assistant Surgeon at the General Surgery and Digestive System Service of the La Paz University Hospital, Madrid, in the Esophagogastroduodenal and Abdominal Wall Surgery Unit.
- Fellowship in Laparoscopic Esophagogastroduodenal and Obesity Surgery, from the Centre Hospitalier de Luxembourg with Prof. Dr. J.S. Azagra Soria
- Degree in Medicine and Surgery from the Complutense University of Madrid in 2003.
- Member of the Illustrious College of Physicians of Madrid, since 2003.
- Member of the Spanish Association of Surgeons since 2004.
- Member of the Spanish Society of Obesity Surgery and of the International Federation of Surgery of the Obesity, IFSO since 2010.
- Member of the European Endoscopic Surgery Society (EAES) and the European Hernia Society (EHS) since 2015.

# tech 44 | Course Management

#### Dr. Antozzi, Luciano

- Vice-coordinator of the Bariatric Endoscopy Committee of the Argentine Society of Obesity Surgery.
- PhD in Medicine from Maimónides University, Buenos Aires, Argentina.
- Clinical Surgical Specialist awarded by District X Italian Hospital of Bahía Blanca.
- Bariatric Surgery Specialist
- Specialist in Esophagogastric Surgery and Therapeutic Endoscopy of the Upper Digestive Tract
- Intern at the Surgery Department of the Hospital Italiano, Bahía Blanca, Argentina
- Intern at the Esophagogastric Department at the Italian Hospital of Bahía Blanca
- Coordinator of the Esophagogastric Surgery Department at the Italian Hospital of Bahía
   Blanca
- Bariatric surgery intern at the Bahía Blanca Special Surgery Center of Bahía Blanca.
- · Active Member of the Argentina Association of Surgery.
- Member of the esophago-gastric surgery committee of the Argentinean Association of Surgery.
- Active member of the Argentine Society of Obesity Surgery.

#### D. Sarmiento Alarcón, Andrei Gustavo

- Medicina Humana Universidad Nacional de Trujillo (UNT)
- Specialty in General Surgery, Universidad Nacional Mayor de San Marcos (UNMSM)
   Headquarters, Hospital Nacional Edgardo Rebagliati Martins (HNERM)
- Fellowship in Bariatric and Metabolic Surgery, training in robotic-laparoscopic surgery in obesity and diabetes surgery, with international diploma degree. Center of excellence for the study and treatment of obesity and diabetes
- Diploma in general ultrasound (with s Degree level): abdominal, soft tissue, musculoskeletal, color Doppler, pediatrics and emergency ultrasound. Obstetrical-

- gynecological ultrasound, 3D, 4D. Trujillo National University
- Diploma in bioethics and health malpractice prevention. Trujillo National University

#### Dr. Deluca, Luciano

- Cirujano de Staff del Servicio de Cirugía General, Programa de Cirugía Bariátrica, Complejo Medico de la PFA Churruca-Visca CABA Argentina (2011-presente)
- Staff Surgeon at the CRQO (Center for Surgical Rehabilitation of Obesity Dr. Ezequiel Fernandez) - CABA - Argentina (2011-present).
- Surgeon, Bariatric Surgery Program, Provincial de Merlo Private Clinic. Buenos Aires, Argentina. (2014 - present)
- Surgeon, Bariatric Surgery Program, Buen Pastor Private Clinic. Buenos Aires, Argentina. (2014 present)
- Surgeon, Batriatic Surgery Program. Paysandu, Uruguay. (2018 present)
- Surgeon, Batriatic Obesity Surgery Program Tacna, Peru. (2020)
- Honorary Diploma in Medicine from the School of Medicine of the University of Buenos Aires.
- Specialist in General Surgery.
- Specialist in Bariatric and Metabolic Minimally Invasive Surgery.

#### Dr. González Ramírez, Gilberto

- Surgeon, Specialist in Gastrointestinal Surgery, Advanced Laparoscopy, Bariatric and Metabolic Surgery.
- Surgeon and Midwife graduated from the University of Guadalajara, Jalisco, Mexico
- Degree in Human Medicine from the University of Guadalajara.
- Specialist in general surgery and digestive system, former civil hospital Fray Antonio Alcalde, University of Guadalajara.
- Bariatric and Metabolic Surgery

- Diploma in Obesity and Metabolic Disorders Surgery, Salvador Zubirán Institute of Medical Sciences, Mexico City.
- Diploma and Fellowship in Obesity and Diabetes Surgery, Valladolid, Spain

#### Dr. Oller Navarro, Inmaculada

- PhD and Degree in Medicine and Surgery from the University of Granada. (2009)
- Master's Degree in Clinical and Surgical Research. 2010/2011, UMH Elche
- Proprietary Master's Degree in General and Digestive System Surgery. 2018/2019 CEU, Cardenal Herrera University
- University Expert Degree in General Surgery, 2018/2019 CEU, Cardenal Herrera University.
- University Expert Degree in Colorectal Surgery, 2018/2019 CEU, Cardenal Herrera University.
- University Expert Degree in Pancreatic Hepatobiliary Surgery, 2018/2019 CEU, Cardenal Herrera University.
- University Expert Degree in Esophagogastric and Bariatric Surgery, 2018/2019 CEU,
   Cardenal Herrera
- Associate Professor since 2016 at the Miguel Hernández University of Elche, Alicante.
- Medical-surgical anatomy III

#### Ms. Pérez López, Mercedes

- Degree in Nursing from the University of Alicante (2014).
- Auxiliary Nursing Care Technician in 2009
- Master's Degree in Emergencies and Disasters organized by TECH Education Rights and Technologies.
- Degree in Nursing from the University of Alicante.
- More than 40 courses, sponsored by the University of Castilla La Mancha and Catholic University of Avila
- Co-author of: 8 book chapters, 7 scientific articles and 22 communications to congresses

#### Dr. Lumbreras, Eva

- Esthetic and Reconstructive Plastic Surgery Physician Specialist from 2008 to the present
- Degree in Medicine and Surgery from the Complutense University of Madrid in June 1995.
- Specialist in Family and Community Medicine via RMI at 12th October Hospital, Madrid (Area 11) 1996-1999.
- Specialist in Esthetic and Reconstructive Plastic Surgery via RMI at Getafe University Hospital (Area 10) 2002-2008.
- Completion of doctoral courses and passing the entire program (research proficiency).
- Accreditation of Personal Competency for performing procedures in animals. Category B and C. Course accredited by the Ministry of Environment. May 2013 (120 hours).
- Associate Professor in Alfonso X El Sabio University since September 2017 in the Human Anatomy Department.
- Family Medicine and Primary Care since May 1999 December 2000 and as an intern in Primary Care at the Abrantes Health Center (Area 11 of Madrid) from May 2001 to June 2003
- Attending Physician in the Emergency Department in Alcorcón Foundation Hospital July 1999 - December 2000.

# tech 46 | Course Management

#### Dr. Escartí Usó, Miguel Ángel

- Degree in Medicine and Surgery from the University of Valencia
- PhD in Medicine from the University of Valencia
- Specialist in General and Digestive System Surgery
- · Master's Degree in Emergency Surgery.
- Skills Diploma by the Spanish Society of Obesity Surgery (SECO).
- Accreditation for Robotic Surgery in Obesity.
- 16 years of exclusive dedication to bariatric surgery.
- More than 2200 cases of obesity surgery performed to date
- Medical Director of IntraObes (Spain's leading private obesity surgery group).
- Bariatric Surgery Unit at HLA Moncloa University Hospital (Madrid) and HLA- La Vega University Hospital (Murcia).

#### Dr. Guijarro Moreno, Carlos

- General and Digestive System Surgery Department. Henares University Hospital
- Professional work in Continuing Care in the General and Digestive System Surgery Service.
   Infanta Cristina University Hospital
- General and Digestive System Surgery Department. Medina del Campo Hospital
- General and Digestive System Surgery Department. Prince of Asturias University Hospital. Madrid
- Degree in Medicine. Autonomous University of Madrid
- Master's Degree in General and Digestive System Surgery. CEU Cardenal Herrera University
- RMI General and Digestive System Surgery. Prince of Asturias University Hospital

#### Dr. González Antigüedad, Cynthia

- Endocrinology at Gregorio Marañón General University Hospital. Morbid Obesity Monographic Consultation
- Collaborating Professor in Medicine at the Complutense University of Madrid.
- Degree in Medicine and Surgery from the San Pablo University CEU
- Specialist in Endocrinology and Diabetes at the Gregorio Marañón University Hospital in Madrid
- · Postgraduate courses on Medicine- Health Sciences.
- Expert Course on Type 2 Diabetes from University of Alcalá
- Expert Course on Obesity and Metabolic Illnesses from the Editorial Médica Panamericana
- Member of the SEEDO Working Groups on Exercise-Obesity and Childhood Obesity.
- Member of the Diabetics Association of Madrid

#### Dr. Serrano Moreno, Clara

- Specialist in Endocrinology and Nutrition. Gregorio Marañón General University Hospital
- Faculty Specialist in Endocrinology and Nutrition in Alcorcón Foundation Hospital.
- Resident Intern in Endocrinology and Nutrition in Alcorcón Foundation Hospital.
- Degree in Medicine. Navarra University
- Master's Degree in Clinical Nutrition from the University of Granada.

#### Dr. Frangi Caregnato, Andrés

- Faculty Specialist of the General and Digestive System Surgery Department, Co-Coordinator of Multidisciplinary Unit of Nutrition and Metabolic and Obesity Surgery at the Sagunto Hospital since March 2016- present.
- Co-Coordinator of Unit of Nutrition and Metabolic and Obesity Surgery, Sagunto Hospital.
   (2016 to present)
- PhD in Medicine from the University of Valencia, Valencia (2015)
- Specialist in General and Digestive System Surgery. RMI La Fe Hospital of Valencia (2004-2009).
- Degree in Medicine from La Plata National University, Buenos Aires, Argentine. (1994-2002)
- Faculty Specialist of the General and Digestive System Surgery Department, in the Coloproctology Unit at the Sagunto Hospital from March 2012- 2016.
- Faculty Specialist of the General and Digestive System Surgery Department, in the Coloproctology Unit at Elche General University Hospital from May 2010- January 2012.
- Faculty Specialist of the General and Digestive System Surgery Department, in the Coloproctology Unit at La Fe University Hospital, Valencia from January 2010- April 2010.

#### Ms. Morales, Ángela

- Researcher in the Clinical Nutrition and Dietetics Unit at Gregorio Marañón Hospital.
- Dietitian-nutritionist in the Obesity Unit at HM Montepríncipe.
- Collaborator in Practical Teaching for the subject Epidemiology and Public Health (UCM).
   Degree in Human Nutrition and Dietetics
- Collaborated in the teaching practice Degree in Human Nutrition and Dietetics while practicing at Gregorio Marañón Hospital.
- Collaborator in Practical Teaching Seminars in Clinical Nutrition (Elective Medical Degree at the Complutense University of Madrid).
- Appointed Collaborating Professor in Practical Teaching. Department of Medicine in

- the Faculty of Medicine Complutense University, Madrid.
- Doctoral candidate in the PhD program in Medical-Surgical Sciences at the Complutense University in Madrid.
- Master's Degree in Human Nutrition and Applied Dietetics (Specialty: Clinic) Complutense University, Madrid.
- Grade in Human Nutrition and Dietetics from the Complutense University of Madrid.

#### Dr. Motilla de la Cámara, Marta

- Doctor Physician in the Clinical Nutrition and Dietetics Unit, Endocrinology and Nutrition Service, Gregorio Marañón University General Hospital, Madrid.
- Attending physician in the Endocrinology and Nutrition Department Infanta Leonor Hospital, Madrid.
- Specialist in Endocrinology and Nutrition at Clínica Valdelasfuentes and Clínica Jaca.
- Author and coauthor of 2 modules for the online course: University Expert in Clinical Nutrition and Nutritional Health 1st and 2nd editions.
- Lecturer Nutrition and Sport classes Rey Juan Carlos University, Madrid.
- Honorary Collaborator in the Faculty of Medicine Department, during the academic year.
- Degree in Medicine from the Autonomous University Madrid
- Specialized in the nutrition of patients in onco-radiotherapy, onco-hematology, head and neck, esophago-gastric surgery, neurosurgery, geriatrics and maxillofacial surgery.
- Specialized health training (MIR): Endocrinology and Nutrition at the Gregorio Marañón University General Hospital in Madrid from the Ministry of Health and Consumer Affairs.

# tech 48 | Course Management

#### Dr. Abreu Quezada, Hanser Antonio

- General Director, Advanced Medical Center, Maternity and Pediatric Clinic and specialties
- International Fellowship in Bariatric and Metabolic Surgery: Center of Excellence for the Study and Treatment of Obesity and Diabetes and the Center for Endocrinology and Nutrition. University of Valladolid, Spain
- Medical Doctor, Technological University of Santiago (UTESA)
- Master's Degree in Obesity Surgery, Francisco de Vitoria University

#### Dr. Miranda Múrua, María del Coro

- Head of the Esophagogastric Surgery Unit, General Surgery Area, Navarra Hospital Complex
- Doctor of Medicine
- Degree in Medicine from the University of Navarra

#### Dr. Ortega Abad, Virginia

- Specialist in Gynecology and Obstetrics, Gregorio Marañón Hospital
- Degree in Medicine and Surgery

#### Dr. Acosta Mérida, María Asunción

- Head of the Esophagogastric, Endocrinometabolic and Obesity Surgery Section, Dr. Negrín University Hospital of Gran Canaria (HUGCDN)
- Assistant Professor, Medicine and Surgery Department, Las Palmas de Gran Canaria University
- Member of the Scientific Committee the Spanish Society of Obesity Surgery (SECO)
- Degree in Medicine and Surgery, La Laguna University
- Master's Degree in Coloproctology, University of Zaragoza







An impressive teaching staff, made up of specialists from different areas of expertise, will be your professor during the program: A unique opportunity not to be missed"





## tech 52 | Structure and Content

#### Module 1. General Aspects of Obesity

- 1.1. Obesity and Overweight
  - 1.1.1. Introduction
  - 1.1.2. Definition of Obesity
  - 1.1.3. Epidemiology
  - 1.1.4. Pathophysiology
  - 1.1.5. Energy Intake
  - 1.1.6. Metabolism and Energy Expenditure
  - 1.1.7. Up-to-date Action Mechanisms in Bariatric Surgery
  - 1.1.8. Etiology: Genetics and Epigenetics of Obesity Syndromes with Dysmorphic Obesity
  - 1.1.9. Initial Evaluation of Obesity
    - 1.1.9.1. Body mass index.
    - 1192 Waist Circumference
    - 1.1.9.3. Body Fat Percentage
    - 1194 Other Parameters
  - 1.1.10. Evaluation of Patient Risk
- 1.2. Major Comorbidities
  - 1.2.1. Definition of Major and Minor Comorbidity
  - 1.2.2. Diabetes Mellitus Type 2
    - 1.2.2.1. Prediabetes and Diabetes: Definition
    - 1.2.2.2. Dietary Treatment
    - 1.2.2.3. Oral Anti-diabetic Treatment
    - 1.2.2.4. Insulin Treatment
    - 1.2.2.5. Target Organ Involvement: Signs and Symptoms
  - 1.2.3. Hyperlipidemia
    - 1.2.3.1. Total Cholesterol
    - 1.2.3.2. HDL and LDL
    - 1.2.3.3. Triglycerides
  - 1.2.4. Cardiovascular
    - 1.2.4.1. Cardiac: Ischemic Heart Disease
    - 1.2.4.2. Vascular
      - 1.2.4.2.1. Venous Stasis with Increased Risk of DVT/PTE
      - 1.2.4.2.2. High Blood Pressure

- 1.2.5. Metabolic Syndrome
- 1.2.6. Respiratory: hypoventilation syndrome and apnea-hypopnea syndrome
- 1.2.7. Load-Bearing Arthropathy: Definition and Common Injuries
- 1.2.8. Infertility
- 1.3. Minor Comorbidities
  - 1.3.1. Digestive
    - 1.3.1.1. Hepatic Steatosis, Steatohepatitis and Cirrhosis
    - 1.3.1.2. Cholelithiasis, Cholecystitis
    - 1.3.1.3. Gastroesophageal Reflux Diseases.
  - 1.3.2. Obesity and Cancer: Incidence
  - 1.3.3. Asthma
  - 1.3.4. Hypothyroidism
  - 1.3.5. Incontinence
  - 1.3.6. Psychologucal Alterations (Major or Minor?)
  - 1.3.7. Other Minor Comorbidities
- 1.4. Dietary and Pharmacological Treatment
  - 1.4.1. Dietary Treatment
    - 1.4.1.1. Introduction
    - 1.4.1.2. Food plan Dietary Treatment
    - 1.4.1.3. Distribution of Macronutrients in the Diet
    - 1.4.1.4. Modification of Diet Structure
    - 1.4.1.5. General Recommendations for Hypocalorie Diets
  - 1.4.2. Pharmacological Treatment
    - 1.4.2.1. Types of Drugs
    - 1.4.2.2. Drugs Which Affect Appetite and Fullness
    - 1.4.2.3. Drugs Which Work on a Gastrointestinal Level
    - 1.4.2.4. Thermogenic Drugs
    - 1.4.2.5. Other Drugs
    - 1.4.2.6. Medication being Researched
    - 1.4.2.7. Therapeutic Algorithms
- 1.5. Physical Activity
  - 1.5.1. Program Objectives
  - 1.5.2. Types of Exercise
  - 1.5.3. Frequency, Duration and Intensity
  - 1.5.4. Behaviour Modification

- 1.6. Indications of Endoscopic and Surgical Treatments
  - 1.6.1. According to BMI
  - 1.6.2. According to Previous Surgery
  - 1.6.3. According to Associated Comorbidities
  - 1.6.4. Listening to the Patient
  - 1.6.5. Therapeutic Algorithms
- 1.7. Pre-Operative Study
  - 1.7.1. Basic Preoperative Process
  - 1.7.2. Study of the Upper Digestive Tract: Endoscopy vs. Rx
  - 1.7.3. Study and Eradication of Helicobacter Pylori: When and How?
  - 1.7.4. ASMBS Micronutrient Survey and Grades of Recommendations
  - 1.7.5. Indications from Other Studies
    - 1.7.5.1. Respiratory: Functional Respiratory Tests and Polysomnography
    - 1.7.5.2. Digestive: Ultrasound and CAT
    - 1.7.5.3. Cardiac: ECG and Stress Test
    - 1.7.5.4. Movement: Antigravity Treadmill Test
    - 1.7.5.5. DMT2. Hb Glycated A1, Pancreatic Reserve, and Pancreatic Antibodies
    - 1.7.5.6. Studies of Venous Circulation in Lower Limbs
  - 1.7.6. Updated Pre-anaesthesia Assessment in Bariatric Surgery
- 1.8. Pre-surgery Preparation
  - 1.8.1. Pre-surgery Preparation
  - 1.8.2. Duration, Objectives and Scientific Evidence Related to Preparation
  - 1.8.3. Liquid Diet
  - 1.8.4. Physical Activity
  - 1.8.5. Respiratory Physiotherapy and Tobacco Consumption
  - 1.8.6. Study and Control of Arterial Hypertension
  - 1.8.7. Updated Blood Glucose Control in Bariatric Surgery
- 1.9. Surgical Technique Selection
  - 1.9.1. According to BMI
  - 1.9.2. According to Psychological and Nutritional Profile
  - 1.9.3. According to Associated Comorbidities
  - 1.9.4. Listening to the Patient
  - 1.9.5. Recommended Algorithm

- 1.10. Indications and Technique Selection in Special Groups
  - 1.10.1. Adolescents and Children
    - 1.10.1.1. Children vs. Adolescents: How to Identify Them
    - 1.10.1.2. Bridge Techniques vs. Definitive Techniques: On Whom and Which Ones?
  - 1.10.2. Patients over the Age of 60
    - 1.10.2.1. How to Differentiate between Biological Age and Theoretical Age
    - 1.10.2.2. Specific Techniques for >60s
  - 1.10.3. BMI 30-35
    - 1.10.3.1. Indication for surgery
    - 1.10.3.2. Surgical Techniques.
  - 1.10.4. Other Borderline Patients
    - 1.10.4.1. BMI < 30 and DMT2
    - 1.10.4.2. BMI 30-35 and C-peptide=0
    - 1.10.4.3. BMI 30 and 35 and DMT1
    - 1.10.4.4. Children Over the Age of 70
    - 1.10.4.5. HIV Patients
    - 1.10.4.6. Liver Cirrhosis Patients

#### Module 2. Endoscopic and Percutaneous Treatments in Obesity

- 2.1. Intragastric balloon (Oballon, ELIPSE)
  - 2.1.1. Definition
  - 2.1.2. Technique
  - 2.1.3. Results
  - 2.1.4. Complications
- 2.2. Endobarrier
  - 2.2.1. Definition
  - 2.2.2. Technique
  - 2.2.3. Results
  - 2.2.4. Complications
- 2.3. Vertical Endoluminal Gastroplasty (EndoCinch)
  - 2.3.1. Definition
  - 2.3.2. Technique
  - 2.3.3. Results

# tech 54 | Structure and Content

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	2.3.4.	Corripiications		
2.4.	Transor	al Gastroplasty (TOGA)		
	2.4.1.	Definition		
	2.4.2.	Technique		
	2.4.3.	Results		
	2.4.4.	Complications		
2.5.	POSE			
	2.5.1.	Definition		
	2.5.2.	Technique		
	2.5.3.	Results		
	2.5.4.	Complications		
2.6.	Endoscopic Plication (Apollo)			
	2.6.1.	Definition		
	2.6.2.	Technique		
	2.6.3.	Results		
	2.6.4.	Complications		
2.7.	Gastric	Gastric Electrical Stimulation (Gastric Pacemaker)		
	2.7.1.	Definition		
	2.7.2.	Technique		
		Results		
	2.7.4.	Complications		
2.8.	Neuros	timulation of the Dermatomes of the Abdomen		
	2.8.1.	Definition		
	2.8.2.	Technique		
	2.8.3.	Results		
	2.8.4.	Complications		
2.9.	Aspire Method			
	2.9.1.	Definition		
	2.9.2.	Technique		
	2.9.3.	Results		
	2.9.4.	Complications		
2.10.	Uncom	mon Methods (Lingual Mesh, Surgiclip)		
	2.10.1.	Definition		
	2.10.2.	Techniques		
	2.10.3.	Results		

#### 2.10.4. Complications

#### Module 3. Surgical Treatment of Morbid Obesity

- 3.1. History of Surgical Treatment of Morbid Obesity
  - 3.1.1. Historical Background in Ancient Times
  - 3.1.2. Beginning of Obesity Surgery in the Modern Era
  - 3.1.3. Current Use of Bariatric and Metabolic Surgery
- 3.2. Adjustable Gastric Band
  - 3.2.1. Introduction
  - 3.2.2. Surgical Technique
  - 3.2.3. Results
  - 3.2.4. Immediate postoperative complications.
- 3.3. Vertical Gastrectomy
  - 3.3.1. Introduction
  - 3.3.2. Surgical Technique
  - 3.3.3. Results
  - 3.3.4. Immediate Postoperative Complications
- 3.4. Gastric Bypass Roux-en-Y
  - 3.4.1. Introduction
  - 3.4.2. Surgical Technique
  - 3.4.3. Results
  - 3.4.4. Immediate postoperative complications.
- 3.5. Gastric Bypass of One Anastomosis
  - 3.5.1. Introduction
  - 3.5.2. Surgical Technique
  - 3.5.3. Results
  - 3.5.4. Immediate postoperative complications.
- 3.6. Biliopancreatic Diversion
  - 3.6.1. Introduction
  - 3.6.2. Surgical Technique

- 3.6.3. Results
- 3.6.4. Immediate postoperative complications.
- 3.7. Duodenal Crossover
  - 3.7.1. Introduction
  - 3.7.2. Surgical Technique
  - 3.7.3. Results
  - 3.7.4. Immediate postoperative complications.
- 3.8. SADIS
  - 3.8.1. Introduction
  - 3.8.2. Surgical Technique
  - 3.8.3. Results
  - 3.8.4. Immediate Postoperative Complications.
- 3.9. Nissen Sleeve
  - 3.9.1. Introduction
  - 3.9.2. Surgical Technique
  - 3.9.3. Results
  - 3.9.4. Immediate postoperative complications.
- 3.10. Other techniques: SAGIS/SASI, Intestinal Bipartition, Gastric Plication, Banding Techniques, etc.
  - 3.10.1. Introduction
  - 3.10.2. Surgical Technique
  - 3.10.3. Results
  - 3.10.4. Immediate postoperative complications.

#### Module 4. Perioperative Management

- 4.1. ERAS Program in Bariatric Surgery
  - 4.1.1. Introduction
  - 4.1.2. ERAS Protocol in Bariatric Surgery
  - 4.1.3. Implementation Results
  - 4.1.4. GERM Multidisciplinary Working Group. Protocol Update
- 4.2. Multidisciplinary Management of the Bariatric Patient
  - 4.2.1. Pre-Surgery
    - 4.2.1.1. Endocrinology & Nutrition
    - 4.2.1.2. Dietitian

- 4.2.1.3. Psychiatry
- 4.2.1.4. Psychology
- 4.2.1.5. Pneumology
- 4.2.1.6. Cardiology
- 4.2.1.7. Digestive System
- 4.2.1.8. Radiology
- 4.2.1.9. Surgery
- 4.2.1.10. Anaesthesiology
- 4.2.1.11. Rehabilitation and Physiotherapy
- 4.2.2. Hospital Admission
  - 4.2.2.1. Pre-Surgery
  - 4.2.2.2. Intraoperative
  - 4.2.2.3. Post-Operative
- 4.2.3. Follow-up
  - 4.2.3.1. Surgery
  - 4.2.3.2. Endocrinology & Nutrition
  - 4.2.3.3. Dietitian
  - 4.2.3.4. Psychiatry and Psychology
  - 4.2.3.5. Pneumology
  - 4.2.3.6. Primary Care
- 4.3. Patient Information, Objectives and Establishing Realistic Expectations
  - 4.3.1. What is Obesity?
  - 4.3.2. Affectations Arising from Obesity
  - 4.3.3. Obesity in the Current Day
  - 4.3.4. Can it be Modified?
  - 4.3.5. Benefits of Fighting It
  - 4.3.6. Postoperative Results
    - 4.3.6.1. Complications
    - 4.3.6.2. Weight Regain

    - 4.3.6.3. Therapy Options
  - 4.3.7. Follow-up
- 4.4. Psychological Assessment.

## tech 56 | Structure and Content

4.6.1. Thromboembolic Prophylaxis

4.6.1.1. Introduction

- 4.4.1. Psychological Focus on an Obese Patient in Bariatric Surgery 4.4.2. Emotional State and Quality of Life in Candidates for Bariatric Surgery 4.4.3. Considerations in Preoperative Psychological Assessments 4.4.4. Aspects to be Addressed in the Initial Interviews 4.4.4.1. History of the Start and Evolution of Their Obesity 4.4.4.2. Explore Expectations, Motivation and Goals of the Patient 4.4.4.3. Patient's Lifestyle 4.4.4.4. Family Circle 4.4.4.5. Patient Coping Strategies 4.4.5. Recommended Evaluation Tools 4.4.5.1. Depression/ Anxiety Scale 4.4.5.2. Decision-Making and Self Control 4.4.5.3. Quality of life 4.4.5.4. Body image 4.4.5.5. Eating Disorders 4.4.5.6. Personality 4.4.6. Considerations for Interpreting the Information Collected Perioperative Nutritional Management for Patients under Bariatric Surgery 4.5.1. Introduction 4.5.2. Benefits of Pre-Surgery Weight Loss in Bariatric Surgery 4.5.3. Preoperative Treatment Guidelines 4.5.3.1. Hypocaloric Diet and Very Low-Calorie Diet 4.5.3.2. Pharmacological Treatment 4.5.3.3. Other Treatments 4.5.4. Postoperative Nutritional Treatment 4.5.4.1. Dietary Progression in the First Weeks 4.5.4.2. Micronutrient Supplementation Guidelines 4.5.4.3. Special Situations Thromboembolic Prophylaxis in Bariatric Surgery Prevention Measures for Surgical Site Infections
- - 4.6.1.3. Mechanical Prophylaxis 4.6.1.4. Pharmacological Prophylaxis Prevention of Surgical Site Infections 4.6.2.1. Introduction 4.6.2.2. Preoperative Phase 4.6.2.2.1. Smoking Control 4.6.2.2.2. Shower and Shaving 4.6.2.2.3. Skin Asepsis and Antisepsis 4.6.2.2.4. Antibiotic Prophylaxis 4.6.2.3. Intra and Perioperative Phase 4.6.2.3.1. Door Opening Control 4.6.2.3.2. Body Temperature and Blood Sugar Level Control 4.6.2.3.3. Tissue Oxygenation 4.6.2.3.4. Wound/Operation Site Irrigation 4.6.2.3.5. Sutures with Antiseptics 4.6.2.4. Postoperative Phase 4.6.2.4.1. Skin Dressings 4.6.2.4.2. Measurement Packages 4.7. Antiemetic Prophylaxis and Goal-Directed Fluid Therapy 4.7.1. Antiemetic Prophylaxis 4.7.1.1. Identification of Patients from Risk of Suffering Post Operative Nausea and Vomiting (PONV) in Bariatric Surgery. 4.7.1.2. Detection and Intervention of Factors with Reduce the Basal Risk of **PONV**

4.7.1.4. Establishing a Prophylactic Algorithm to Establish Preventive Strategies

4.7.1.5. Description of Treatment for PONV in Bariatric Surgery

4.7.2.1. Different Approaches to Fluid Administration in Obesity Surgery:

4.7.1.3. Antiemetic Drug Management

in High-Risk Patients.

Goal-Guided Fluid Therapy

Liberal vs. Restrictive Approach

4.6.1.2. Early Mobilization

- 4.7.2.1.1. Liberal Fluid Therapy vs. Restrictive Fluid Therapy
- 4.7.2.1.2. Preoperative, Intraoperative and Postoperative Periods
- 4.7.2.1.3. Surgical Factors which Affect the Administration of Fluids
- 4.7.2.2. Concepts Goal-Guided Fluid Therapy
- 4.7.2.3. Description of the Parameters that Guide the Administration of Fluids in Bariatric Surgery
  - 4.7.2.3.1. Volume Monitoring
  - 4.7.2.3.2. Functional Hemodynamic Variables
- 4.7.2.4. Review of Current Monitoring Recommendations in Bariatric Surgery
- 4.8. Early Mobilization and Reintroduction or Oral Feeding
  - 4.8.1. Early Mobilization
    - 4.8.1.1. Inconveniences Period of Inactivity
    - 4.8.1.2. Benefits of Early Mobilization
    - 4.8.1.3. Early Mobilization Guidelines
  - 4.8.2. Reintroduction of Oral Feeding
    - 4.8.2.1. Benefits of Early Oral Feeding
    - 4.8.2.2. Importance of Protein Supplements
    - 4.8.2.3. Guidelines for Reintroduction of Oral Feeding
- 4.9. Impact of Physical Training Programs on the Maintenance of Weight Loss Before and After Bariatric Surgery
  - 4.9.1. Impact of Physical Training Programs on the Physical Aptitude of Obese People
  - 4.9.2. Physical Activity in the Preoperative and Postoperative Periods of Bariatric Surgery
    - 4.9.2.1. Preoperative Physical Activity
    - 4.9.2.2. Postoperative Physical Activity
  - 4.9.3. Advice Before Starting a Physical Activity Program After Bariatric Surgery
  - 4.9.4. Planning on Physical Activity after Bariatric Surgery

- 4.9.4.1. Physical Activity during the First Month
- 4.9.4.2. Physical Activity between the 2nd and 6th Months
- 4.9.4.3. Physical Activity after the 6th Month
- 4.9.5. Types of Routines and Exercises
- 4.10. Optimization of Comorbidities Prior to Bariatric Surgery
  - 4.10.1. Concept of Multimodal Rehabilitation in Bariatric Surgery
  - 4.10.2. Preanesthetic Consultation in Bariatric Surgery
  - 4.10.3. Study and Detection of the Risk Factors of Corony Heart Disease
  - 4.10.4. Screening for Sleep Apnea-Hypopnea Syndrome
  - 4.10.5. Indications for Preoperative Spirometry in Obese Patients.
  - 4.10.6. Description of the Recommended Laboratory Studies on Proposed Patients for Bariatric Surgery
  - 4.10.7. Nutritional Optimization in the Preoperative Period
  - 4.10.8. Respiratory Physiotherapy
  - 4.10.9. Physical Rehabilitation of Bariatric Patients

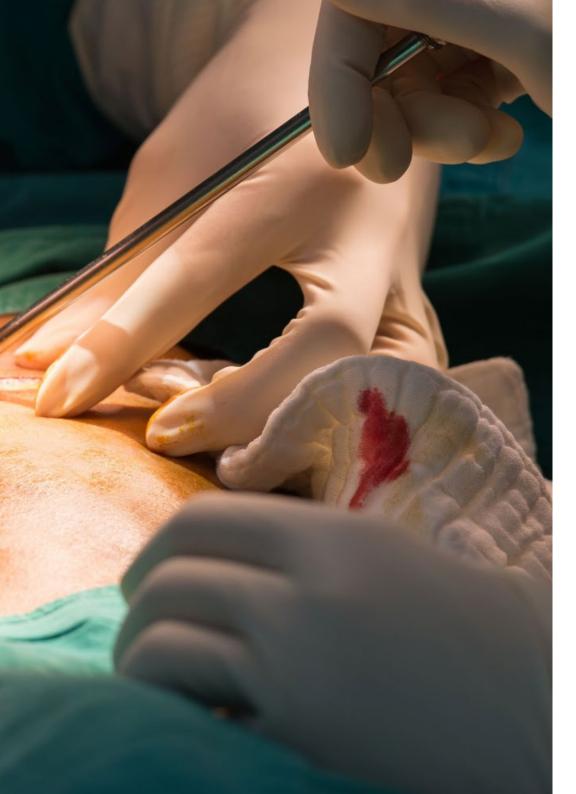
#### Module 5. Emergencies in Bariatric Surgery Patients

- 5.1. Semiology of Abdominal Pathology and Complementary Explorations in Emergencies in Patients with a History of Bariatric Surgery
  - 5.1.1. Introduction
  - 5.1.2. Medical History
  - 5.1.3. Physical Exploration
  - 5.1.4. Complementary Examination Orientation
  - 5.1.5. Blood Analysis
  - 5.1.6. Abdomen Rx
  - 5.1.7. Abdominal ultrasound
  - 5.1.8. Computerised and Axial Tomography
  - 5.1.9. Esophagogram and Upper Intestinal Transit
  - 5.1.10. Upper Digestive Endoscopy

# tech 58 | Structure and Content

- 5.1.11. Endoscopic Retrograde Cholangiopancreatography
- 5.1.12. Cholangio Nuclear Magnetic Resonance
- 5.1.13. Echoendoscopy
- 5.1.14. Exploratory Laparoscopy
- 5.2. Complications of Endoscopic Procedures (Intragastric Balloon, POSE, Apollo)
  - 5.2.1. Definition of Techniques
  - 5.2.2. Indication of Techniques
  - 5.2.3. Development of Complications
  - 5.2.4. Solution of Complications
- 5.3. Fistula Management After Bariatric Surgery
  - 5.3.1. Introduction
  - 5.3.2. Leakage and Postoperative Sepsis
  - 5.3.3. Fistula after Laparoscopic Vertical Gastrectomy
    - 5.3.3.1. Causes
    - 5.3.3.2. How to Avoid Them
    - 5.3.3.3. How to Diagnose Them
    - 5.3.3.4. Management
  - 5.3.4. Fistula after Gastric Bypass
    - 5.3.4.1. Causes
    - 5.3.4.2. How to Avoid Them
    - 5.3.4.3. How to Diagnose Them
    - 5.3.4.4. Management
  - 5.3.5. Fistulas after Malabsorptive Techniques
- 5.4. Intestinal Obstruction of the Upper and Lower Digestive Tract (bridles, internal hernias, trocars, etc. after Bariatric Surgery
  - 5.4.1. Introduction
  - 5.4.2. Obstruction of Upper Digestive Tract
  - 5.4.3. Causes of Intestinal Obstruction
    - 5.4.3.1. After Open Surgery
      - 5.4.3.1.1. Early Onset
      - 5.4.3.1.2. Late Onset
    - 5.4.3.2. After Laparoscopic Surgery
      - 5.4.3.2.1. Early Onset





## Structure and Content | 59 tech

5 4	13	22	Late	Onset

- 5.4.4. Diagnosis of Intestinal Obstruction
- 5.4.5. Treatment of Intestinal Obstruction
- 5.4.6. Additional Material
- 5.5. Acute Digestive Complications: Marginal Ulcer of Anastomotic, Stenosis, Diarrhea, Proctalgia, etc.
  - 5.5.1. Introduction
  - 5.5.2. Anastomotic Fistula
  - 5.5.3. Marginal Ulcer
  - 5.5.4. Anastomic Stenosis
  - 5.5.5. Acute Diarrhea following Bariatric Surgery
  - 5.5.6. Proctalgia following Bariatric Surgery
- 5.6. Managing Bleeding after Bariatric Surgery (Upper GI Hemorrhage, Hemoperitoneum, etc.
  - 5.6.1. Upper Gastrointestinal Bleeding
    - 5.6.1.1. Early Onset
    - 5.6.1.2. Late Onset
  - 5.6.2. Lower Gastrointestinal Bleeding
  - 5.6.3. Hemoperitoneum
- 5.7. Hepato-Biliary Complications Secondary to Post-Surgical Intestinal Malabsorption.

  Bacterial Overgrowth
  - 5.7.1. Hepato-Biliary Complications Colelitiasis
  - 5.7.2. Effect of Bacterial Overgrowth on MO
  - 5.7.3. Bacterial overgrowth and NASH
- 5.8. Medical Complications Related to Bariatric Surgery (Dumping Syndrome, Reactive Hypoglycemia, Cardiopulmonary, Renal)
  - 5.8.1. Dumping Syndrome
  - 5.8.2. Reactive Hypoglycemia
  - 5.8.3. Cardiopulmonary Complications
  - 5.8.4. Renal Complications
- 5.9. Nutritional or Toxic Deficiency Emergencies
  - 5.9.1. Introduction
  - 5.9.2. Digestive Emergencies

# tech 60 | Structure and Content

5.10.	5.10.1. 5.10.2. 5.10.3. 5.10.4. 5.10.5.	Neurological Emergencies Cardiac Emergencies Nephrourological Emergencies Psychiatric Emergencies Pain After Bariatric Surgery: a Challenge for the Multidisciplinary Team Introduction Definition Etiology Diagnosis Non-Invasive Treatment Invasive Treatment
Mod	ule 6. F	Revision Surgery
6.1.	Definition	on and Indications of Revision Surgery
	6.1.1.	Definition and Indicators of the Success or Failure of the Bariatric Surgery
	6.1.2.	Indications of Revision Surgery
	6.1.3.	General Features of Revision Surgery
	6.1.4.	Surgical Strategy in Revision Surgery
	6.1.5.	General Criteria According to the Type of Primary Technique
6.2.	Revision	n Surgery of Techniques No-Longer Used
	6.2.1.	Introduction Historical Review
	6.2.2.	Description of Techniques No-Longer Used
	6.2.3.	Indications of Revision Surgery
	6.2.4.	Preoperative Study and Preparation of the Patient
	6.2.5.	Therapy Options
	6.2.6.	Conclusions
6.3.	Revision	n Surgery Following Adjustable Gastric Band
	6.3.1.	Introduction, Indications and Basic Principles When Should We Consider Bandage Revision Surgery?
	6.3.2.	Revision Surgery Following Adjustable Gastric Band. Technique Analysis of Surgery
	6.3.3.	Revision Surgery following Adjustable Gastric Band: Results
6.4.	Revision	n Surgery following Vertical Gastrectomy
	6.4.1.	Reasons and Candidates for Revision Surgery following Vertical Gastrectomy

	6.4.2.	Revision Surgery due to Insufficient Loss or Weight Regain following Vertical Gastrectomy				
		6.4.2.1. Duodenal/SADI-S Crossover. Revision or Second Part				
		6.4.2.2. Gastric <i>Bypass</i> as an Alternative to Duodenal Crossover				
		6.4.2.3. Other Possible Alternatives				
	6.4.3. R	3. Revision Surgery for GER following Vertical Gastrectomy				
		6.4.3.1. Gastric Bypass as the Best Option				
		6.4.3.2. Other Possible Alternatives				
	Revision	n Surgery following Gastric <i>Bypass</i>				
	6.5.1.	Introduction				
	6.5.2.	Indications				
		6.5.2.1. Insufficient Weight Loss				
		6.5.2.2. Weight Regain				
		6.5.2.3. Persistence of Comorbidities				
		6.5.2.4. Late Complications				
		6.5.2.4.1. Reservoir Dilatation				
		6.5.2.4.2. Alterations of the Gastro-Gastric Anastomosis				
		6.5.2.4.3. Gastroesophageal Reflux				
		6.5.2.4.5. Internal Hernias				
6		6.5.2.4.6. Malnutrition				
		6.5.2.4.7. Hypoglycemia				
	6.5.3.	Technical Aspects				
		6.5.3.1. Reconfection of the Reservoir				
		6.5.3.2. Reparation of the Gastro-Gastric Anastomosis				
		6.5.3.3. Modification of Handle Length				
		6.5.3.4. Conversion of Normal Anatomy				
	6.5.4.	Conclusions				
	Revision	n Surgery after a One Anastomosis Bypass				
	6.6.1.	Introduction				
	6.6.2.	Relevance of a Correct Technique				
	6.6.3.	Indications				
		6.6.3.1. Weight Loss Weight Regain				
		6.6.3.2. Persistence of Comorbidities				

6.5.

6.6.

6.6.3.3. Gastroesophageal Reflux

6.6.3.4. Nutritional Disorders

6.6.4. Technical Aspects

6.6.5. Results

6.6.6. Conclusions

6.7. Revision Surgery following Duodenal Crossover

6.7.1. Revision Surgery following Duodenal Crossover

6.7.1.1. Revision Surgery for Nutritional Complications

6.7.1.1.1 Indications

6.7.1.1.2. Technique Options

6.7.2. Revision Surgery for Insufficient Weight Loss or Weight Regain after Duodenal Crossover

6.7.2.1. Indications

6.7.2.2. Technique Options

6.8. Revision Surgery after BPD

6.8.1. Indications of Revision Surgery for Biliopancreatic Diversion

6.8.2. Revision Surgery Due To Insufficient Loss or Weight Regain after Biliopancreatic Diversion

6.8.3. Medical-Surgical Criteria for Revision Surgery For Protein Malabsorption6.8.3.1. Technique Options in Revision Surgery for Severe Protein Deficiency

6.8.4. Revision Surgery in Ulcerative Complications of Gastrojejunal Anastomosis in Biliopancreatic Diversion

6.9. Revision surgery after SADI-S

6.9.1. Medium and Long-Term Results of SADI-S, Common Problems

6.9.2. Indications of Revision Surgery following SADI-S

6.9.3. Technique Options in Revision Surgery for Severe Protein Deficiency

6.10. Role of Endoscopic Surgery in the Management of Complications and Weight Regain

6.10.1. Introduction

6.10.2. Gastrointestinal Bleeding

6.10.3. Anastomotic Ulcers

6.10.4. Stenosis

6.10.5. Leakages and Fistulas

6.10.6. Pancreatobiliary Pathology

6.10.7. Weight Regain

#### Module 7. Postoperative Monitoring and Supplementation

7.1. Postoperative Monitoring and Screening for Nutritional Deficiencies

7.1.1. Dietary and Lifestyle Guidelines after Bariatric Surgery

7.1.2. Macronutrient Deficiencies

7.1.2.1. Vitamins

7.1.2.2. Minerals

7.2. Postoperative Supplementation. Mineral and Vitamin Supplements

7.2.1. Supplementation in Restrictive Techniques

7.2.2. Supplementation in Malabsorption Techniques

7.2.3. Supplementation in Mixed Techniques

7.3. Nutritional Recommendations after Restrictive Techniques

7.3.1. Nutritional Recommendations in Patients Undergoing Restrictive Techniques

7.3.2. Post-Surgery Complications and Nutritional Problems

7.4. Nutritional Recommendations after Mixed Techniques

7.4.1. Introduction

7.4.2. Nutritional Objectives

7.4.3. Dietary Progression after Surgery

7.4.3.1. Clear Liquid Diet

7.5. Nutritional Recommendations following Malabsorptive Techniques

7.5.1. Introduction

7.5.2. Preoperative Evaluation and Supplementation

7.5.3. Postoperative Diet and Supplementation

7.5.3.1. Proteins

7.5.3.2. Micronutrients

# tech 62 | Structure and Content

- 7.5.4. Gastrointestinal Symptoms
- 7.5.5. Long-Term Monitoring
- 7.5.6. Conclusions
- 7.6. Nutritional Management of Patients Suffering from Complications (Critical Patients).
  - 7.6.1. Nutritional Assessment for Critically III Patients
  - 7.6.2. Therapeutic Approach for Patients with Complications
- 7.7. Specific Nutritional Requirements in Children and Adolescents
  - 7.7.1. Introduction
  - 7.7.2. Nutritional Recommendations
  - 7.7.3. Assessment of Nutritional Status
  - 7.7.4. Nutritional Education
  - 7.7.5. Nutritional Needs
  - 7.7.6. Monitoring of Nutritional Status
- 7.8. Special Nutritional Requirements in the Elderly
  - 7.8.1. Preoperative Age-Focused Assessment
  - 7.8.2. Age-Related Physiological Changes that Alter Supplementation
  - 7.8.3. Special Supplementation and Monitoring
- 7.9. Special Nutritional Requirements in Women (Pregnancy, Breastfeeding and Menopause)
  - 7.9.1. Introduction
  - 7.9.2. Obesity and Reproductive Function in Women
  - 7.9.3. Bariatric Surgery, Pregnancy and Breastfeeding
    - 7.9.3.1. Dietary Recommendations
    - 7.9.3.2. Nutritional Supplements
    - 7.9.3.3. Gestational Diabetes.
    - 7.9.3.4. Pregnancy Complications following Bariatric Surgery
    - 7.9.3.5. Neonatal Care
    - 7.9.3.6. Nursing
  - 7.9.4. Bariatric Surgery and Menopause

- 7.10. Postoperative Management of Specific Complications: Anemia, Protein Malnutrition and Neurological Disorders
  - 7.10.1. Introduction
  - 7.10.2. Anaemia
  - 7.10.3. Protein Deficiency
  - 7.10.4. Neurological Complications

#### Module 8. Basics of Metabolic Surgery

- 8.1. Metabolic Syndrome and Mediators of Inflammation
  - 8.1.1. Bariatric Surgery vs. Metabolic Surgery. Anatomophysiological Basis of Metabolic Surgery
  - 8.1.2. Control Mechanisms for Various Obesity Comorbidities
  - 8.1.3. Future Perspectives of Metabolic Surgery
- 8.2. Pathophysiology of Diabetes Medical and Dietary Treatment of Diabetes
  - 8.2.1. Insulin and Alteration in its Cellular Response.
  - 8.2.2. Hyperglycemia, Hyperlipidemia and Tissue Damage
  - 8.2.3. Energetic Metabolism Alterations
  - 3.2.4. Associated Phenomena: Inflammation, Apoptosis, Steatosis and Cellular Fibrosis
- 8.3. Role of Gastrointestinal Hormones in the Resolution of Type 2 Diabetes Mellitus after Bariatric Surgery
  - 8.3.1. Introduction
  - 8.3.2. Gastointestinal Hormones Involved in the Metabolism of Glucose 8.3.2.1. Incretinic Effect
  - 8.3.3. Pathphysiology and Etipathogenesis of Type 2 Diabetes in Obese Patients 8.3.3.1. Role of Gastrintestinal Hormones in Resistance to Insulin
  - 8.3.4. Contribution of Bariatric Surgery to the Resolution of Type 2 Diabetes
    - 8.3.4.1. Weight Loss
    - 8.3.4.2. Modification of Nutrients and Microbiota
    - 8.3.4.3. Effect of Gastrointestinal Hormones: Proximal and Distal Gut Theory
  - 1.3.5. Evidence of Bariatric Surgery in Type 2 Diabetes
    - 8.3.5.1. Short- and Long-Term Impact of Bariatric Surgery in Regulating Glucose Metabolism
    - 8.3.5.2. Surgical Treatment vs. Medical Treatment

- 8.3.5.3. BPGL vs. GV
- 8.4. Concept of Metabolic Surgery, Concept and Scientific Evidence
  - 8.4.1. Introduction: History of Metabolic Surgery
  - 8.4.2. Concepts of Metabolic Surgery
    - 8.4.2.1. General Concepts: Obesity Surgery and Metabolic Complications
    - 8.4.2.2. Specific Concept: Diabetes Surgery
  - 8.4.3. Indications of Metabolic Surgery
    - 8.4.3.1. Indications in Diabetic Patients with Morbid Obesity
    - 8.4.3.2. Indications in Type 2 Diabetic Patients with BMI 35-40
    - 8.4.3.3. Indications in Diabetic Patients with BMI< 30
  - 8.4.4. Surgical Techniques.
    - 8.4.4.1. Traditional Techniques: (Gastric Banding, Vertical Gastrectomy, Gastric *Bypass* and Biliopancreatic Bypass)
    - 8.4.4.2. New Techniques: BAGUA. SADI-S, Gastroileal Bypass of One Anastomosis. and Others
  - 8.4.5. Current Scientific Evidence on Metabolic Surgery
  - 8.4.4. Ethical and Deontological Aspects of Metabolic Surgery
- 8.5. Importance of Loop Lengths in Bariatric Surgery
  - 8.5.1. Determining Cutting Points
  - 8.5.2. Patient Monitoring
  - 8.5.3. Comorbidity Remission
- 8.6. Influence of the Microbiota in Bariatric Surgery
  - 8.6.1. Microbiome: basic concepts
  - 8.6.2. Microbiome and Obesity
  - 8.6.3. Changes in Microbiome after Bariatric Surgery
- 8.7. Obesity and NASH Role of the Liver as Metabolism Regulator
  - 8.7.1. Role of the Liver as Metabolism Regulator
  - 8.7.2. Obesity and Non-Alcoholic Fatty Liver Disease
  - 8.7.3. Bariatric Surgery and Non-Alcoholic Fatty Liver Disease
- 8.8 Influence of Bile Acids

- 8.8.1. Bile Acid Synthesis and Hepatic Circulation
- 8.8.2. Regulation of Dietary Fat Availability by Bile Acids
- 8.8.3. Main Bile Acid Receptors: TGR5 FXR
- 8.8.4. Regulation of Metabolism by the Bile Acids
- 8.8.5. Metabolic Effects of Manipulating Intestinal Bile Acid Availability after Bariatric Surgery
- 8.9. Influence of Bariatric Surgery on Hypogonadism and Polycystic Ovary Syndrome (POS)
  - 3.9.1. Prevalence of Male Hypogonadism and POS in Bariatric Surgery Candidates
  - 8.9.2. Effects of Bariatric Surgery in the Hormonal Concentrations of Patients with Male Hypogonadism and Semen Quality
  - 8.9.3. Effects of Bariatric Surgery on the Resolution of POS and Female Fertility
- 8.10. Timing of Metabolic Surgery and its Effect on the Pancreas
  - 8.10.1. Time as a Predictor of Diabetes Resolution following Metabolic Surgery
  - 8.10.2. Pancreas Remodeling Capacity of the Pancreas in Human vs. Animal Models
  - 8.10.3. Regeneration of the Pancreas and Hyperinsulinism following Bariatric Surgery

# **Module 9.** Transplantation, Abdominal Wall and Special Situations in Bariatric Surgery

- 9.1. Technical Considerations in the Perioperative Management of the Morbidly Obese Patient with Associated Abdominal Wall Pathology
  - 9.1.1. Preoperative Optimization
  - 9.1.2. Obesity Surgery Before Wall Surgery
  - 9.1.3. Dermolipectomies as an Associated Procedure in Abdominal Wall Reconstruction
- 9.2. Solid Organ Transplant and Bariatric Surgery
  - 9.2.1. Obesity and Donors
  - 9.2.2. Transplantation and Surgical Technique
  - 9.2.3. Post-Transplant Obesity: Metabolic Syndrome
  - 9.2.4. Bariatric Surgery and Liver or Kidney Transplant
- 9.3. Obesity and Gastroesophageal Reflux
  - 9.3.1. Pathophysiology of Reflux Diagnostic Tests

# tech 64 | Structure and Content

	9.3.2.	GERD in the Context of Obesity
	9.3.3.	GERD Therapy Focus in Obese Patient
	7.0.0.	9.3.3.1. Medical Treatment
		9.3.3.2. Surgical Management
	9.3.4.	Monitoring of Patient with GERD
9.4.	Manag	ement of a Morbidly Obese Patient What is the Ideal Strategy?
	9.4.1.	Definition of Superobese Patients
	9.4.2.	Is a Superobese Patient Different to a Simple Obese Patient?
	9.4.3.	Multidisciplinary Preoperative Management of the Superobese Patient
	9.4.4.	Role of an Intragastric Balloon in a Superobese Patient
	9.4.5.	Anesthetic Management and Monitoring of the Superobese Patient
	9.4.6.	Surgery in Superobese Patients Is There a Technique of Choice?
	9.4.7.	What Results Can We Expect Following Surgery in Superobese Patients?
	9.4.8.	Nutritional Monitoring in a Superobese Patient After Surgery
9.5.	Surgery	y in a Patient with BMI <35
	9.5.1.	Introduction
	9.5.2.	Impact of Class I Obesity (BMI 30-35kg/ m2) on Health
	9.5.3.	Non-Surgical Treatment of Class I Obesity
	9.5.4.	Evidence in the Literature for Bariatric Surgery in BMI 30-35 Kg/M2
	9.5.5.	Safety in Bariatric Surgery
	9.5.6.	Cost-Benefit Ratio
	9.5.7.	Recommendations offered by Different Scientific Societies
9.6. Pregnancy and Bariatric		ncy and Bariatric Surgery
	9.6.1.	Perinatal Risks and Complications in Pregnant Women undergoing Bariatric Surgery
	9.6.2.	Management of Pregnant Woman Undergoing Bariatric Surgery
9.7.	Adoles	cents and Bariatric Surgery. Technique and Results
	9.7.1.	Adolescents and Morbid Obesity
	9.7.2.	Indications and Current Scene
	9.7.3.	Therapeutic Perspectives and Results
9.8.	Effects	of Bariatric Surgery on Bone Metabolism





# Structure and Content | 65 tech

9.8.1.	Introduction	
9.8.1.	muroaucuon	

- 9.8.2. Pathophysiological Mechanisms
  - 9.8.2.1. Nutrient Malabsorption
  - 9.8.2.2. Mechanical Disorders
  - 9.8.2.3. Neurohormonal Mechanisms
- 9.8.3. Effects of Bariatric Surgery on Bone Metabolism
  - 9.8.3.1. Adjustable Gastric Band
  - 9.8.3.2. Gastric Bypass
  - 9.8.3.3. Vertical Gastrectomy
  - 9.8.3.4. Biliopancreatic Diversion and Duodenal Crossover
- 9.8.4. Fracture Risk
- 9.8.5. Recommendations in the Preoperative Evaluation and Treatment of Bone Metabolism Alterations after Bariatric Surgery
  - 9.8.5.1. Preoperative Evaluation
  - 9.8.5.2. Treatment of Bone Metabolism Alterations following Bariatric Surgery
- 9.9. Other Special Situations in Bariatric Surgery
  - 9.9.1. Inflammatory Bowel Disease
  - 9.9.2. Heart Disease
  - 9.9.3. Kidney Diseases
  - 9.9.5. Neurological Diseases and Mobility Problems
  - 9.9.6. Psychiatric Illness
- 9.10. Sarcopenia and Loss of Muscle Mass
  - 9.10.1. Body Tissue
  - 9.10.2. Energy Expenditure
  - 9.10.3. Sarcopenia

# tech 66 | Structure and Content

9.10.3.1. Definition

9.10.3.2. Evaluation

9.10.3.3. Sarcopenic Obesity

9.10.4. Changes in Body Composition in Bariatric Patients

9.10.5. Inconveniences of Loss of Fat-Free Mass in Bariatric Patients

# **Module 10.** Innovation, Quality of Life, Training and Clinical Management in Bariatric Surgery

10.1. Innovation, Quality of Life, Training and Clinical Management in Bariatric Surgery

10.1.1. Application of Robotics in Bariatric Surgery

10.1.1.1. Bariatric Procedures: General Aspects (Indications, Contraindications, Advantages and Disadvantages)

10.1.1.2. Restrictive Laparoscopic and Robot-Assisted Procedures

10.1.1.2.1. Gastric Sleeve: Advantages and Disadvantages of Using Robots

10.1.1.2.2. Other Restrictive Procedures: Gastric Banding, Bariclip,

Gastroplication, Intragastric Balloon and Endorobotics

10.1.1.3. Robot-Assisted Laparoscopic Roux-en-Y Gastric Bypass

10.1.1.3.1. Pouch Confirmation and Probe Calibration

10.1.1.3.2. Intestinal Loop Length: Alimentary Loop, Biliopancreatic Loop, Common Loop

10.1.1.3.3. Types of Anastomosis: Manual, Linear, Circular, Robotic Grappling (Anterior, Posterior, One Plane, Two Plane)

10.1.1.3.4. Closing Spaces and Gaps

10.1.1.3.5. Intraoperative Tests: Methylene Blue, Pneumatic Test, Endoscopy

10.1.1.3.6. Use of Open and Closed Drains

10.1.1.4. Other Robot-Assisted Mixed Procedures:

10.1.1.4.1. Gastric Bypass of One Anastomosis

10.1.1.4.2. SADI-S

10.1.1.4.3. Duodenal Crossover and Biliopancreatic Diversion

10.1.1.4.4. Intestinal Bipartition

10.1.1.5. Revision Surgery and Robotic Surgery

10.1.1.6. Superobesity and Robotic Surgery

10.1.1.7. Use of New Platforms in Gastrointestinal Surgery

10.1.1.8. How to Reduce Costs in Robotic Surgery without Putting the Patient at

Risk?

10.1.1.9. Future of Robotic Surgery in Bariatric Surgery

10.1.1.10. Pandemic and Robotic Surgery

10.1.1.11. Telemedicine and 5G Technology

10.1.1.12. Conclusions

10.2. Application of NOTES and Single Port in Bariatric Surgery

10.2.1. Basics of Access Reduction in Bariatric Surgery

10.2.2. Surgical Techniques.

10.2.3. Results

10.3. Quality of Life After Bariatric Surgery

10.3.1. Introduction

10.3.2. Concept of Quality of Life

10.3.3. Questionnaires

10.3.3.1. Generic Ouestionnaires

10.3.3.2. Specific Questionnaires

10.3.4. Results

10.3.4.1. Surgical Techniques Results

10.3.4.1.1. Short-Term Results

10.3.4.2. Long-Term Results

10.3.4.3. Future Perspectives

10.3.4.4. Conclusions

10.4. Bariatric Surgery Cost-Benefit Studies

10.4.1. Economic Impact of Obesity and Bariatric Surgery

10.4.1.1. Economic Load of Obesity

10.4.1.2. Costs of Bariatric Surgery.

10.4.1.3. Benefits of Bariatric Surgery

10.4.1.4. Cost-effective Aspect of Bariatric Surgery

10.4.2. Systems or Methods for the Evaluation of the Impact on Health Costs

10.4.2.1. Comparison of Approaches for Measuring Cost Impact

10.4.2.1.1. Cost Minimization Analysis (CMA)

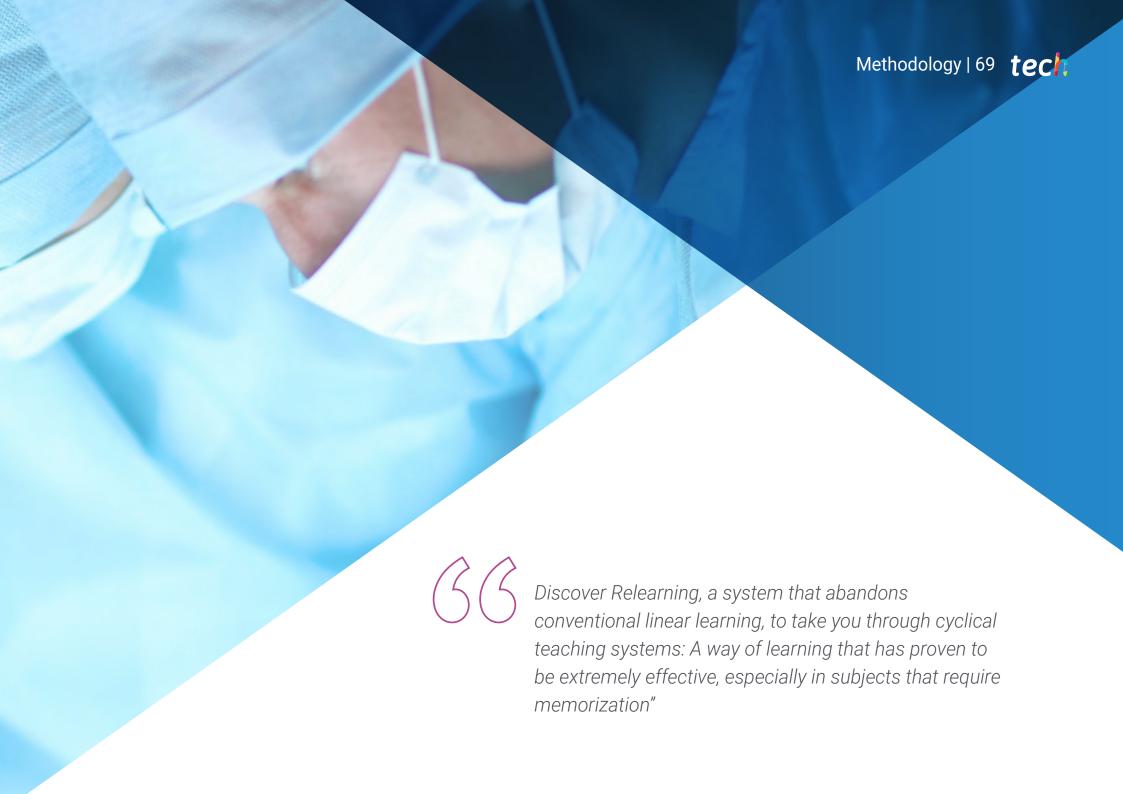
## Structure and Content | 67 tech

10.4.2.1.2. Cost-Effectiveness Analysis (CEA) 10.4.2.1.3. Cost-Utility Analysis (CUA) 10.4.2.1.4. Cost-Benefit Analysis (CBA) 10.4.2.2. Visualization of Cost-effectiveness Using the Cost-effectiveness Plan 10.4.3. Summary of Current Data on the Economic Benefit of Bariatric Surgery 10.5. Management of Waiting List and Selection of Candidates in Bariatric Surgery 10.5.1. Introduction 10.5.2. Candidate Selection for Bariatric Surgery 10.5.3. Factors Affecting the Waiting List 10.5.3.1. Resources Availability 10.5.3.2. Severity 10.5.3.3. Waiting Capacity 10.5.4. Criteria for Prioritizing Patients on the Waiting List Severity Scales 10.5.5. Conclusions 10.6. Experimental Animal and Cadaver Training Thiel in Bariatric Surgery 10.6.1. Introduction 10.6.2. Learning Curve in Laparoscopic Gastric Bypass 10.6.3. Ex vivo Laparoscopic Gastric Bypass Training Strategies 10.6.3.1. Training Models 10.6.3.1.1. Laboratory Models 10.6.3.1.2. Virtual Reality Simulators 10.6.3.1.3. Animal Experimentation Models 10.6.3.1.4. Thiel Human Cadavers 10.6.3.2. Laparoscopic Surgery Workshops 10.7. Bariatric Tourism 10.8. Quality Standards After Bariatric Surgery. What is the Current Evidence? 10.8.1. In Relation to Weight Loss 10.8.2. In Relation to the Resolution of Comorbidities in Revision Surgery 10.8.3. Mortality and Morbidity in Bariatric Procedures. Record of Complications 10.8.4. How to Measure Quality of Life in Bariatric Patients? Measuring Systems 10.9. Aesthetic and Body Contouring Surgery

10.9.1. Selection Criteria for Intervention of Morbid Obesity Sequelae Following Bariatric

Surgery 10.9.2. Plastic Surgery Techniques for the Intervention of Sequelae 10.9.2.1. Upper Limbs Classification and Techniques 10.9.2.1.1. Horizontal, L, T Brachioplasty 10.9.2.1.2. Posterior Brachioplasty 10.9.2.2. Posterior Brachioplasty 10.9.2.2.1. Horizontal Lifting 10.9.2.2.2. Vertical Lifting 10.9.2.2.3. Complementary Techniques 10.9.2.3. Abdomen Classification and Techniques 10.9.2.3.1. Conventional/ Anchor Abdominoplasty with/ without Rectus Plication, with/ without Umbilical Transposition 10.9.2.3.2. Upper/Lower Body Lift 10.9.2.3.3. Complementary Techniques: Liposuction 10.9.2.4. Breast Classification and Techniques 10.9.2.4.1. Breast Reduction 10.9.2.4.2. Mastopexy with/without Prosthesis 10.9.3. Intra / Postoperative Management 10.9.4. Complications after Obesity Seguelae Surgery 10.10. Creation of Behavioral Therapy Programs for Maintaining Weight Loss after Surgery 10.10.1. Introduction 10.10.2. Psychological Aspects of Morbidly Obesity Postoperative Patients 10.10.3. Phases in Postoperative Monitoring 10.10.4. Areas to Evaluate in Postoperative Monitoring 10.10.5. Individual Psychological Monitoring





# tech 70 | Methodology

#### At TECH, we use the Case Method

What should a professional do in a given situation? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, trying to recreate the real conditions in the physician's professional practice.



Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method"

#### The effectiveness of the method is justified by four fundamental achievements:

- Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
- 2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
- 3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
- 4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.





#### Relearning Methodology

TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

We enhance the Case Study with the best 100% online teaching method: Relearning.

Professionals will learn through real cases and by resolving complex situations in simulated learning environments. These simulations are developed using state-of-theart software to facilitate immersive learning.



## Methodology | 73 tech

At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology, more than 250,000 physicians have been trained with unprecedented success in all clinical specialties regardless of surgical load. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.

# tech 74 | Methodology

This program offers the best educational material, prepared with professionals in mind:



#### **Study Material**

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is highly specific and precise.

These contents are then adapted in audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high-quality pieces in each and every one of the materials that are made available to the student.



#### **Surgical Techniques and Procedures on Video**

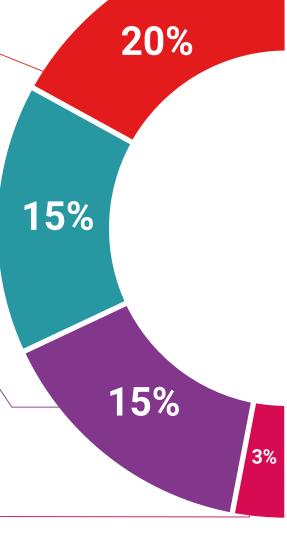
TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.



#### **Interactive Summaries**

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".





#### **Additional Reading**

Recent articles, consensus documents and international guidelines, among others In TECH's virtual library, students will have access to everything they need to complete their course.

Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which

and direct way to achieve the highest degree of understanding.



**Testing & Retesting** 

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.

the expert will guide students, focusing on and solving the different situations: a clear



Classes

There is scientific evidence on the usefulness of learning by observing experts.

The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



**Quick Action Guides** 

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.



17% 7%





# tech 76 | Certificate

This private qualification will allow you to obtain a **Master's Degree diploma in Update on Bariatric Surgery** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra (official bulletin). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

This **TECH Global University** private qualification is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: Master's Degree in Update on Bariatric Surgery

Modality: online

Duration: 12 months

Accreditation: 60 ECTS





<sup>\*</sup>Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH Global University will make the necessary arrangements to obtain it, at an additional cost.

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# Master's Degree Update on Bariatric Surgery

- » Modality: online
- » Duration: 12 months
- » Certificate: TECH Global University
- » Credits: 60 ECTS
- » Schedule: at your own pace
- » Exams: online

