

# Postgraduate Diploma

Perioperative Management  
for Morbid Obesity. Bariatric  
Patient Emergencies



## Postgraduate Diploma

### Perioperative Management for Morbid Obesity. Bariatric Patient Emergencies

Course Modality: **Online**

Duration: **6 months.**

Certificate: **TECH Technological University**

**18 ECTS Credits**

Teaching Hours: **450 hours.**

Website: [www.techtitute.com/medicine/postgraduate-diploma/postgraduate-diploma-perioperative-management-morbid-obesity-bariatric-patient-emergencies](http://www.techtitute.com/medicine/postgraduate-diploma/postgraduate-diploma-perioperative-management-morbid-obesity-bariatric-patient-emergencies)

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# 01

# Introduction

This Postgraduate Diploma has been designed to provide medical professionals with the necessary training in Perioperative Management for Morbid Obesity. A unique opportunity to specialize in a field of high professional demand, from surgeons with extensive experience in it.

Throughout these months of training you will learn to define the ERAS protocols in bariatric surgery; you will learn the nutritional requirements in pregnancy and lactation in women with previous bariatric surgery and you will learn to identify the specific nutritional risks of menopause after bariatric surgery, among other issues of great interest.





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*The Postgraduate Diploma was created to take the professional through the essential knowledge in each and every one of the areas that make up a high-level Bariatric Unit”*

Obesity is the most common metabolic disease in the western world and one of the most important health problems in developed countries. Nowadays, surgery is considered to be the only treatment capable of offering a substantial and sustained weight loss over time, reducing comorbidities and improving patient quality of life.

In the last decade, the number of annual bariatric procedures has skyrocketed exponentially, leading to an increase in the creation of multidisciplinary bariatric surgery units throughout the world. This has generated a greater demand for healthcare professionals prepared to treat this type of pathology, which has also increased the number of training and accreditation programs in bariatric surgery.

Bariatric surgery has undergone a spectacular development in recent years, the expansion of surgical indications hand in hand with metabolic surgery, technological and robotic innovation, the emergence of new surgical techniques and the exponential growth of vertical gastrectomy, the difficulty to standardize the most effective treatment for weight regain and recurrence of comorbidities, all these factors force both the general and digestive surgeon as well as the specialist in bariatric surgery to update their knowledge, study the available evidence, and develop new skills that will allow them to keep up with the changes and continue to offer good quality treatment to their patients.

The Postgraduate Diploma in Perioperative Management for Morbid Obesity has been conceived to offer medical professionals the necessary training to practice as a bariatric surgeon. This training is a unique opportunity as it contains the most complete and up-to-date scientific program on the market. Its topics allow specialists to access all the necessary knowledge based on scientific evidence and adapt their training process to their personal and professional needs.

Our teaching staff is integrated by different medical professionals of recognized prestige belonging to the field of Obesity (surgeons, endocrinologists, nutritionists, psychologists, gastroenterologists, etc.), who are also references in the field of bariatric surgery. A multidisciplinary team of experienced professionals who will faithfully develop theoretical knowledge and apply their practical experiences to the service of the student, one of the differential qualities of this Postgraduate Diploma.

This **Postgraduate Diploma in Perioperative Management for Morbid Obesity. Bariatric Patient Emergencies** offers you the characteristics of a high-level scientific, teaching and technological course. These are some of its most notable features:

- ♦ Latest technology in online teaching software.
- ♦ 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.
- ♦ Self-regulating 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 course.



*A unique training program with which you can achieve professional success”*

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*The teachers of this Postgraduate Diploma have been selected based on two criteria: the excellence of their medical practice in the field of the creation, promotion and maintenance of bariatric units, and their proven didactic capacity. All in order to offer you the high quality training program that you need”*

Our teaching staff is composed of medical professionals, practising specialists. In this way, we ensure that we provide you with the training update we are aiming for. A multidisciplinary team of professors with training and experience in different environments, who will develop theoretical knowledge effectively, but, above all, will bring their practical knowledge derived from their own experience to the course: one of the differential qualities of this program.

This mastery of the subject is complemented by the effectiveness of the methodology used in the design of this Postgraduate Diploma. Developed by a multidisciplinary team of e-learning experts, it integrates the latest advances in educational technology. This way, you will be able to study with a range of comfortable and versatile multimedia tools that will give you the operability you need in your 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, we will use telepractice: with the help of an innovative interactive video system, and learning from an expert, you will be able to acquire the knowledge as if you were actually dealing with the scenario you are learning about. A concept that will allow you to integrate and fix learning in a more realistic and permanent way.

*With a methodological design based on proven teaching techniques, this Postgraduate Diploma will take you through different teaching approaches to allow you to learn in a dynamic and effective way.*



# 02 Objectives

This program aims to train highly qualified professionals for the workplace. An objective that is complemented, moreover, in a global manner, by promoting human development that lays the foundations for a better society. This objective is focused on helping surgical professionals reach a much higher level of expertise and control, meeting all the requirements in the field of bariatric surgery. A goal that, in just a few months, you will be able to achieve with a highly intensive and precise course.





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*Our goal is yours: to provide you with the best online training and specialization course in Bariatric Surgery on the market. A highly qualified step, from the hands of the best professionals in this specialty”*



## General Objectives

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- 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.
- Determine how different techniques can influence the evolution of the patient
- Monitor the nutritional evolution of the patient.
- Establish the basic recommendations in relation to the special nutritional requirements of 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
- Describe the semiology peculiarities of bariatric patients and the different tools available for the diagnosis of complications.
- Know the most common surgical complications involved in bariatric surgery.
- Evaluate the specific medical and nutritional complications during bariatric procedures.





## Specific Objectives

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- ♦ 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 as preoperative measures 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.
- ♦ Describe the parameters to be evaluated in a correct nutritional assessment.
- ♦ Define the guidelines for providing appropriate nutritional education.
- ♦ Analyze the nutritional needs of patients in relation to an intervention.
- ♦ Establish a program for monitoring the nutritional status of a patient.
- ♦ Identify the 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.
- ♦ 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 the bariatric patient.
- ♦ Analyze hepato-biliary complications resulting from post-surgical 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 the etiology and chronic pain management after bariatric surgery.

03

# Course Management

For our Postgraduate Diploma to be of the highest quality, we are proud to work with a teaching staff of the highest level, chosen for their proven track record in the field of Bariatric Surgery. A multidisciplinary team, made up of professionals who will contribute their vision and experience to this comprehensive course. A unique opportunity to learn from the best.



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*Your professors in this Postgraduate Diploma will be a team of professionals with solid backgrounds: a unique opportunity to learn directly from the best in the field”*

## 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" in the 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 Degree 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)
- ◆ Specialist Physician. Department of General Surgery and Digestive System at the General University Hospital of Castellón. Esophagogastric, Hepatobiliopancreatic and Thoracic Surgery Unit (Jun 2008 - Sep 2014).



### **Dr. Ruiz-Tovar Polo, Jaime**

- ◆ Bariatric 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 Madrid
- ◆ Degree in Medicine from the Autonomous University Madrid.
- ◆ Master's Degree 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.

## Professors

### 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.
- ♦ Degree in Medicine and Surgery from the Autonomous University of Madrid in (2003).
- ♦ General and Digestive System Surgeon associated with the Jiménez Díaz Foundation (March 2011- October 2019)
- ♦ Rotation in Bariatric Surgery Unit at 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)
- ♦ General and Digestive System Surgery in the Infanta Sofía de Parla Hospital (February 2011 until May 2011)
- ♦ Attending Physician in General and Digestive System Surgery in the Fuenlabrada University Hospital (from May 2009 to February 2011).

### 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 Montepíncipe 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. García Marín, Andrés

- ♦ Specialist in General and Digestive System Surgery at Hellín Hospital (Albacete) since December 2018.
- ♦ PhD in Medicine from the Miguel Hernández de Elche University 2017, with the qualification of Outstanding Cum Laude.
- ♦ Degree in Medicine from the Complutense University of Madrid, 2004.
- ♦ Positive accreditation as Associate PhD Professor and Private University Professor from the National Agency for Quality Assessment and Accreditation (ANECA) in 2018.
- ♦ Master's Degree in Coloproctology (Colorectal and Pelvic Floor Surgery) from the 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 in General and Digestive System Surgery at San Juan de Alicante Hospital (June 2010- November 2018)

### 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 from the University of Guadalajara.
- ♦ Member of the National Society of Researchers (SNI) and National Researcher Candidate as of January 1, 2019.



**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. García Villabona, Esther**

- Attending Physician (Anaesthesiology, 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: 2 months (Jan-Feb 2008) - Infant 3 months (Oct-Dec 2009)
- 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. Duration 2 months: June-July 2009.

**Dr. 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 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". Study design development, coordination and supervision of the training sessions, data collection, statistical analysis and document writing.

**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 Martín 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. 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 UH. de la Princesa (July-September 2012)
- ♦ FEA in Anesthesiology and Resuscitation at UH Rey Juan Carlos (Sept 2012- July 2015)
- ♦ FEA in Anesthesiology and Resuscitation at UH de la Princesa (since July 2015)

### 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 Professional 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. General University Hospital of Castellón, 2008– 2013
- ♦ Educational Commission for Foreign Medical Graduates (ECFMG) (EEUU) – 2007 – MD Degree
- ♦ International College of Surgeons – Fellow in Laparoscopic and Bariatric Surgery – 2016.
- ♦ Robotic Bariatric Surgery – IRCAD – Strasbourg - France – 2018
- ♦ Active member of the Latin American Association for Endoscopy Surgery, 2017
- ♦ Paraguayan Society for Bariatric and Metabolic Surgery- Former President
- ♦ Instructor of Laparoscopic Surgery Course for Residents at the General Hospital of Castellón 2013-2018.
- ♦ Tutor of Surgical Residents National Institute of Cancer (INCAN), Paraguay, 2014-2017.

### Dr. Cañamares Orbís, Pablo

- ♦ Physician 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 Digestive System since 2019.
- ♦ Professional 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).
- ♦ Physician Area Specialist in the Digestive System at Donostia Hospital (2019).

**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: Professional Master's Degree in General and Digestive System Surgery. ESOPHAGOGASTRIC SURGERY. Oesophageal Diverticula
- ♦ Resident in General and Digestive System Surgery in Carlos III Clinical Hospital, Madrid (2004-2008.)
- ♦ 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.)

**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, Provincial de Buen Pastor Private Clinic- Buenos Aires - Argentina (2014-present).
- ♦ Medical Surgeon of the Bariatric Surgery Program Paysandu - Paysandu - Uruguay (2018-present).
- ♦ Medical Surgeon of the Bariatric Surgery Program Obesitac - 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. Jiménez, José María**

- ♦ Administration and clinical management of patients of the European Accreditation Council for Bariatric Surgery of the Center of Excellence for the Study and Treatment of Obesity. Valladolid. Bariatric Surgery Unit (2010- present).
- ♦ Professor in the Nursing Faculty. Valladolid
- ♦ PhD from the University of Valladolid. University Diploma in Nursing.
- ♦ Master's Degree in Integrated Management. University expert in Health Organization and Management.
- ♦ Master's Degree Health Emergencies and Disasters.
- ♦ University specialist in Gender Studies and Equality Policy Management.
- ♦ Attending Nurse at the Río Hortega University Hospital, Valladolid (2009-2018).

#### 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
- ♦ Master's Degree in General Surgery and Digestive System Update 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 University.
- ♦ Associate Professor since 2016 at the Miguel Hernández University of Elche, Alicante.
- ♦ Medical-surgical anatomy III

#### 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. Durán Poveda, Manuel

- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid. 1992
- ♦ Professional 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 in Health Management and Research Tools. National University for Distance Learning. 2011
- ♦ Co-director of Master's Degree in Obesity.
- ♦ General Surgery Resident Teaching Tutor for Interns and Residents. Fuenlabrada Public Hospital. Madrid. Start: March 31, 2004 - End: January 16, 2012.
- ♦ Head of Medicine and Surgery Department. Rey Juan Carlos University. Faculty of Health Sciences. Madrid. Start: 10/07/2009- End: Wednesday, July 03, 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. 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.

**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 the 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

**Mrs. 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. 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 esophago-gastric surgery and therapeutic endoscopy of the upper digestive tract.
- ♦ Intern at the Surgery Department of the Hospital Italiano, Bahía Blanca, Argentina
- ♦ Intern at the Esophago-gastric Department at the Italian Hospital of Bahía Blanca.
- ♦ Coordinator of the Esophago-gastric 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.

**Dr. Molina-Amador García, Alicia**

- ♦ Dietitian-nutritionist in private practice (2017-present).
- ♦ Dietitian-nutritionist postdoctoral researcher linked to research projects in the Surgery Service of the University Hospital Sant Joan de Reus (2016-present).
- ♦ PhD in Biomedicine from Rovira i Virgili University (2016).
- ♦ Diploma in Human Nutrition and Diet from Rovira i Virgili University (2010).
- ♦ Master's Degree in Nutrition and Metabolism from 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. 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. García Ruíz, Amador**

- ♦ Faculty Specialist in Services Commissions 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. Outstanding Cum Laude Qualification.
- ♦ 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. Sarmiento Alarcón, Andrei Gustavo**

- ♦ Medicina Humana Universidad Nacional de Trujillo (UNT)
- ♦ Specialty: General Surgery University: 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 post-graduate 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. 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, from the 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...)
- ♦ Laparoscopic Surgery of the inguinal hernia and eventration.

**Dr. Motilla de la Cámara, Marta**

- ♦ Associate 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 Valde las Fuentes 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.

**Mrs. 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.

# 04

# Structure and Content

The contents of this Postgraduate Diploma have been developed by the different experts involved in the program, with a clear purpose: to ensure that our students acquire each and every one of the necessary skills to become true experts in this field. A complete and well-structured program that will take you to the highest standards of quality and success.







“

*A comprehensive teaching program, structured in well-developed teaching units, oriented toward learning that is compatible with your personal and professional life”*

## Module 1 Perioperative Management

- 1.1. ERAS Program in Bariatric Surgery
  - 1.1.1 Introduction
  - 1.1.2 ERAS Protocols in Bariatric Surgery
  - 1.1.3 Results of Implementation
  - 1.1.4 GERM Multidisciplinary Working Group Protocol Update
- 1.2. Multidisciplinary Management of the Bariatric Patient
  - 1.2.1. Pre Surgery
    - 1.2.1.1. Endocrinology and Nutrition
    - 1.2.1.2. Dietitian
    - 1.2.1.3. Psychiatry
    - 1.2.1.4. Psychology
    - 1.2.1.5. Pneumology
    - 1.2.1.6. Cardiology
    - 1.2.1.7. Digestive System
    - 1.2.1.8. Radiology
    - 1.2.1.9. Surgery
    - 1.2.1.10. Anaesthesiology
    - 1.2.1.11. Rehabilitation and Physiotherapy
  - 1.2.2. Hospital Admission
    - 1.2.2.1. Pre Surgery
    - 1.2.2.2. Intraoperative
    - 1.2.2.3. Post-Operative
  - 1.2.3. Monitoring
    - 1.2.3.1. Surgery
    - 1.2.3.2. Endocrinology and Nutrition
    - 1.2.3.3. Dietitian
    - 1.2.3.4. Psychiatry and Psychology
    - 1.2.3.5. Pneumology
    - 1.2.3.6. Primary Care
- 1.3. Patient Information, Objectives and Establishing Realistic Expectations
  - 1.3.1. What is Obesity?
  - 1.3.2. Affectations Arising from Obesity
  - 1.3.3. Obesity in the Current Day
    - 1.3.4. Can it be Modified?
    - 1.3.5. Benefits of Fighting It
    - 1.3.6. Post Surgery Results
      - 1.3.6.1. Complications
      - 1.3.6.2. Weight Regain
      - 1.3.6.3. Therapy Options
    - 1.3.7. Monitoring
- 1.4. Psychological Assessment
  - 1.4.1. Psychological Focus on an Obese Patient in Bariatric Surgery
  - 1.4.2. Emotional State and Quality of Life in Candidates of Bariatric Surgery
  - 1.4.3. Considerations in the Pre Surgery Psychological Assessment
  - 1.4.4. Aspects to be Addressed in the Initial Interviews
    - 1.4.4.1. History of the Start and Evolution of Their Obesity
    - 1.4.4.2. Explore Expectations, Motivation and Goals of the Patient
    - 1.4.4.3. Patient's Lifestyle
    - 1.4.4.4. Family Circle
    - 1.4.4.5. Patient Coping Strategies
  - 1.4.5. Recommended Assessment Instruments
    - 1.4.5.1. Depression/ Anxiety Scale
    - 1.4.5.2. Decision-Making and Self Control
    - 1.4.5.3. Quality of life
    - 1.4.5.4. Body image
    - 1.4.5.5. Eating Disorders
    - 1.4.5.6. Personality
  - 1.4.6. Considerations for Interpreting the Information Collected
- 1.5. Perioperative Nutritional Management for Patients Put Forward for Bariatric Surgery
  - 1.5.1. Introduction
  - 1.5.2. Benefits of Pre-Surgery Weight Loss in Bariatric Surgery
  - 1.5.3. Preoperative Treatment Guidelines:
    - 1.5.3.1. Hypocalorie Diet and Very Low-Calorie Diet
    - 1.5.3.2. Medical treatment
    - 1.5.3.3. Other treatments

- 1.5.4. Postoperative Nutritional Treatment
  - 1.5.4.1. Dietary Progression in the First Weeks
  - 1.5.4.2. Micronutrient Supplementation Guidelines
  - 1.5.4.3. Special Situations
- 1.6. Thromboembolic Prophylaxis in Bariatric Surgery Prevention Measures for Surgical Site Infections
  - 1.6.1. Thromboembolic Prophylaxis
    - 1.6.1.1. Introduction.
    - 1.6.1.2. Early Mobilization
    - 1.6.1.3. Mechanical Prophylaxis
    - 1.6.1.4. Pharmacological Prophylaxis
  - 1.6.2. Prevention of Surgical Site Infections
    - 1.6.2.1. Introduction
    - 1.6.2.2. Preoperative Phase
      - 1.6.2.2.1. Smoking Control
      - 1.6.2.2.2. Shower and Shaving
      - 1.6.2.2.3. Skin Asepsis and Antisepsis
      - 1.6.2.2.4. Antibiotic Prophylaxis
    - 1.6.2.3. Intra and Perioperative Phase
      - 1.6.2.3.1. Door Opening Control
      - 1.6.2.3.2. Body Temperature and Blood Sugar Level Control
      - 1.6.2.3.3. Tissue Oxygenation
      - 1.6.2.3.4. Wound/Operation Site Irrigation
      - 1.6.2.3.5. Sutures with Antiseptics
    - 1.6.2.4. Post Operative Phase
      - 1.6.2.4.1. Skin Dressings
      - 1.6.2.4.2. Measurement Packages
- 1.7. Antiemetic Prophylaxis and Goal-Directed Fluid Therapy
  - 1.7.1. Antiemetic Prophylaxis
    - 1.7.1.1. Identification of Patients from Risk of Suffering Post Operative Nausea and Vomiting (PONV) in Bariatric Surgery.
    - 1.7.1.2. Detection and Intervention of Factors with Reduce the Basal Risk of PONV
    - 1.7.1.3. Antiemetic Drug Management
    - 1.7.1.4. Establishing a Prophylactic Algorithm to Establish Preventive Strategies in High-Risk Patients.
    - 1.7.1.5. Description of Treatment for PONV in Bariatric Surgery
  - 1.7.2. Goal-Guided Fluid Therapy
    - 1.7.2.1. Different Approaches to Fluid Administration in Obesity Surgery: Liberal vs. Restrictive Approach
      - 1.7.2.1.1. Liberal vs Restrictive Fluid Therapy
      - 1.7.2.1.2. Preoperative, Intraoperative and Postoperative Periods
      - 1.7.2.1.3. Surgical Factors which Affect the Administration of Fluids
    - 1.7.2.2. Concepts Goal-Guided Fluid Therapy
    - 1.7.2.3. Description of the Parameters that Guide the Administration of Fluids in Bariatric Surgery
      - 1.7.2.3.1. Volume Monitoring
      - 1.7.2.3.2. Functional Hemodynamic Variables
    - 1.7.2.4. Review of Current Monitoring Recommendations in Bariatric Surgery
- 1.8. Early Mobilization and Reintroduction of Oral Feeding
  - 1.8.1. Early Mobilization
    - 1.8.1.1. Inconveniences Period of Inactivity
    - 1.8.1.2. Benefits of Early Mobilization
    - 1.8.1.3. Early Mobilization Guidelines
  - 1.8.2. Reintroduction of Oral Feeding
    - 1.8.2.1. Benefits of Early Oral Feeding
    - 1.8.2.2. Importance of Protein Supplements
    - 1.8.2.3. Guidelines for Reintroduction of Oral Feeding
- 1.9. Impact of Physical Training Programs on the Maintenance of Weight Loss Before and After Bariatric Surgery
  - 1.9.1. Impact of Physical Training Programs on the Physical Aptitude of Obese People
  - 1.9.2. Physical Activity in the Preoperative and Postoperative Periods of Bariatric Surgery
    - 1.9.2.1. Preoperative Physical Activity
    - 1.9.2.2. Postoperative Physical Activity
  - 1.9.3. Advice Before Starting a Physical Activity Program After Bariatric Surgery

- 1.9.4. Planning on Physical Activity after Bariatric Surgery
  - 1.9.4.1. Physical Activity During the 1st Month
  - 1.9.4.2. Physical Activity Between the 2nd and 6th Month
  - 1.9.4.3. Physical Activity After the 6th Month
- 1.9.5. Types of Routines and Exercises
- 1.10. Optimization of Comorbidities Prior to Bariatric Surgery
  - 1.10.1. Concept of Multimodal Reahbilitation in Bariatric Surgery
  - 1.10.2. Preanesthetic Consultation in Bariatric Surgery
  - 1.10.3. Study and Detection of the Risk Factors of Coronary Heart Disease
  - 1.10.4. Screening for Sleep Apnea-Hypopnea Syndrome
  - 1.10.5. Indications for Preoperative Spirometry in Obese Patients.
  - 1.10.6. Description of the Recommended Laboratory Studies on Proposed Patients for Bariatric Surgery
  - 1.10.7. Nutritional Optimization in the Preoperative Period
  - 1.10.8. Respiratory Physiotherapy
  - 1.10.9. Physical Rehabilitation of the Bariatric Patient

## Module 2 Postoperative Aftercare and Supplementation

- 2.1. Postoperative Aftercare and Screening for Nutritional Deficiencies
  - 2.1.1. Dietary and Lifestyle Guidelines after Bariatric Surgery
  - 2.1.2. Macronutrient Deficiencies
    - 2.1.2.1. Vitamins.
    - 2.1.2.2. Minerals
- 2.2. Postoperative Supplementation Mineral and Vitamin Supplements
  - 2.2.1. Supplementation in Restrictive Techniques
  - 2.2.2. Supplementation in Malabsorption Techniques
  - 2.2.3. Supplementation in Mixed Techniques
- 2.3. Nutritional Recommendations after Restrictive Techniques
  - 2.3.1. Nutritional Recommendations in Patients Undergoing Restrictive Techniques
  - 2.3.2. Post- Surgery Complications and Nutritional Problems





- 2.4. Nutritional Recommendations after Mixed Techniques
  - 2.4.1. Introduction.
  - 2.4.2. Nutritional Objectives
  - 2.4.3. Dietary Progression after Surgery
    - 2.4.3.1. Clear Liquid Diet
- 2.5. Nutritional Recommendations after Malabsorptive Techniques.
  - 2.5.1. Introduction
  - 2.5.2. Preoperative Evaluation and Supplementation
  - 2.5.3. Postoperative Diet and Supplementation
    - 2.5.3.1. Proteins
    - 2.5.3.2. Micronutrients
  - 2.5.4. Gastrointestinal Symptoms
  - 2.5.5. Long-Term Monitoring
  - 2.5.6. Conclusions
- 2.6. Nutritional Management of Patients Suffering from Complications (Critical Patients).
  - 2.6.1. Nutritional Assessment for Critically Ill Patients
  - 2.6.2. Therapeutic Approach for Patients with Complications
- 2.7. Specific Nutritional Requirements in Children and Adolescents
  - 2.7.1. Introduction
  - 2.7.2. Nutritional Recommendations
  - 2.7.3. Assessment of Nutritional Status
  - 2.7.4. Nutritional Education
  - 2.7.5. Nutritional Needs
  - 2.7.6. Monitoring of Nutritional Status
- 2.8. Special Nutritional Requirements in the Elderly
  - 2.8.1. Preoperative Age-Focused Assessment
  - 2.8.2. Age-related Physiological Changes that Alter Supplementation
  - 2.8.3. Special Supplementation and Monitoring
- 2.9. Special Nutritional Requirements in Women (Pregnancy, Breastfeeding and Menopause)

- 2.9.1. Introduction
- 2.9.2. Obesity and Reproductive Function in Women
- 2.9.3. Bariatric Surgery, Pregnancy and Breastfeeding
  - 2.9.3.1. Dietary Recommendations
  - 2.9.3.2. Nutritional Supplements
  - 2.9.3.3. Gestational Diabetes
  - 2.9.3.4. Pregnancy Complications after Bariatric Surgery
  - 2.9.3.5. Neonatal Care
  - 2.9.3.6. Nursing
- 2.9.4. Bariatric Surgery and Menopause
- 2.10. Postoperative Management of Specific Complications: Anaemia, Protein Deficiency and Neurological Problems
  - 2.10.1. Introduction
  - 2.10.2. Anaemia
  - 2.10.3. Protein Deficiency
  - 2.10.4. Neurological Complications

### Module 3 Emergencies of the Bariatric Surgery Patient

- 3.1. Semiology of Abdominal Pathology and Complementary Explorations in the Emergency Department in Patients with a History of Bariatric Surgery
  - 3.1.1. Introduction
  - 3.1.2. Medical History and Anamnesis
  - 3.1.3. Physical Exploration
  - 3.1.4. Complementary Examination Orientation
  - 3.1.5. Blood Analysis
  - 3.1.6. Abdomen Rx
  - 3.1.7. Abdominal ultrasound
  - 3.1.8. Axial and Computerized Tomography
  - 3.1.9. Esophagogram and Upper Intestinal Transit
    - January 03, 2010. Upper Digestive Endoscopy
    - January 03, 2011. Endoscopic Retrograde Cholangiopancreatography
    - January 03, 2012. Cholangio Nuclear Magnetic Resonance
    - January 03, 2013. Echoendoscopy.
    - February 03, 2014. Exploratory Laparoscopy
- 3.2. Complications of Endoscopic Procedures (intra-gastric balloon, POSE, Apollo).
  - 3.2.1. Definition of Techniques
  - 3.2.2. Indication of Techniques
  - 3.2.3. Development of Complications
  - 3.2.4. Solution of Complications
- 3.3. Fistula Management After Bariatric Surgery
  - 3.3.1. Introduction
  - 3.3.2. Leakage and Postoperative Sepsis
  - 3.3.3. Fistula after Laparoscopic Vertical Gastrectomy
    - 3.3.3.1. Causes
    - 3.3.3.2. How to Avoid Them
    - 3.3.3.3. How to Diagnose Them
    - 3.3.3.4. Management
  - 3.3.4. Fistula after Gastric Bypass
    - 3.3.4.1. Causes
    - 3.3.4.2. How to Avoid Them
    - 3.3.4.3. How to Diagnose Them
    - 3.3.4.4. Management
  - 3.3.5. Fistulas after Malabsorptive Techniques
- 3.4. Intestinal Obstruction of the Upper and Lower Digestive Tract (bridles, internal hernias, trocars...) after Bariatric Surgery
  - 3.4.1. Introduction
  - 3.4.2. Obstruction of Upper Digestive Tract

- 3.4.3. Causes of Intestinal Obstruction
  - 3.4.3.1. After Open Surgery
    - 3.4.3.1.1. Early Onset
    - 3.4.3.1.2. Late Onset
  - 3.4.3.2. After Laparoscopic Surgery
    - 3.4.3.2.1. Early Onset
    - 3.4.3.2.2. Late Onset
- 3.4.4. Diagnosis of Intestinal Obstruction
- 3.4.5. Treatment of Intestinal Obstruction
- 3.4.6. Additional Material
- 3.5. Acute Digestive Complications: marginal ulcer of anastomotic, stenosis, diarrhea, proctalgia...
  - 3.5.1. Introduction
  - 3.5.2. Anastomotic Fistula
  - 3.5.3. Marginal Ulcer
  - 3.5.4. Anastomotic Stenosis
  - 3.5.5. Acute Diarrhea after Bariatric Surgery
  - 3.5.6. Proctalgia after Bariatric Surgery
- 3.6. Management of Bleeding after Bariatric Surgery (Upper GI Hemorrhage, Hemoperitoneum...)
  - 3.6.1. Upper Gastrointestinal Bleeding
    - 3.6.1.1. Early Onset
    - 3.6.1.2. Late Onset
  - 3.6.2. Lower Gastrointestinal Bleeding
  - 3.6.3. Hemoperitoneum
- 3.7. Hepato-biliary Complications Secondary to Post-Surgical Intestinal Malabsorption. Bacterial Overgrowth
  - 3.7.1. Hepato-biliary Complications Colelitis
  - 3.7.2. Effect of Bacterial Overgrowth on MO
  - 3.7.3. Bacterial overgrowth and NASH
- 3.8. Medical Complications Related to Bariatric Surgery (dumping syndrome, reactive hypoglycemia, cardiopulmonary, renal).
  - 3.8.1. Dumping Syndrome
  - 3.8.2. Reactive Hypoglycemia
  - 3.8.3. Cardiopulmonary Complications
  - 3.8.4. Renal Complications
- 3.9. Nutritional or Toxic Deficiency Emergencies
  - 3.9.1. Introduction
  - 3.9.2. Digestive Emergencies
  - 3.9.3. Neurological Emergencies
  - 3.9.4. Cardiac Emergencies
  - 3.9.5. Nephrourological Emergencies
  - 3.9.6. Psychiatric Emergencies
- 3.10. Chronic Pain After Bariatric Surgery: a Challenge for the Multidisciplinary Team
  - 3.10.1. Introduction
  - 3.10.2. Definition
  - 3.10.3. Etiology
  - 3.10.4. Diagnosis
  - 3.10.5. Non-Invasive Treatment
  - 3.10.6. Invasive Treatment



*A unique, key, and decisive training experience to boost your professional development*

05

# Methodology

This training program provides you with a different way of learning. Our methodology uses a cyclical learning approach: ***Re-learning***.

This teaching system is used in the most prestigious medical schools in the world, and major publications such as the ***New England Journal of Medicine*** have considered it to be one of the most effective.





“

*Discover Re-learning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization”*

## At TECH we use the Case Method

In a given situation, what would you do? Throughout the program, you will be presented with multiple simulated clinical cases based on real patients, where you will have to investigate, establish hypotheses and, finally, resolve the situation. There is abundant scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

*With TECH you can 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 potential 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 professional medical 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:

1. Students who follow this method not only grasp concepts, but also develop their mental capacity by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on 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.



## Re-learning Methodology

At TECH we enhance the Harvard case method with the best 100% online teaching methodology available: Re-learning.

Our University is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, which represent a real revolution with respect to simply studying and analyzing cases.



*The physician will learn through real cases and by solving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.*

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

With this methodology we have trained more than 250,000 physicians with unprecedented success, in all clinical specialties regardless of the surgical load. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

*Re-learning 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 (we learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

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



In this program you will have access to the best educational material, prepared with you 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.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.



#### Latest Techniques and Procedures on Video

We introduce you to the latest techniques, to the latest educational advances, to the forefront of current medical techniques. All this, in first person, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want.



#### Interactive Summaries

We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".



#### Additional Reading

Recent articles, consensus documents, international guides. in our virtual library you will have access to everything you need to complete your training.





**Expert-Led Case Studies and Case Analysis**

Effective learning ought to be contextual. Therefore, we will present you with real case developments in which the expert will guide you through focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



**Testing & Retesting**

We periodically evaluate and re-evaluate your knowledge throughout the program, through assessment and self-assessment activities and exercises: so that you can see how you are achieving your goals.



**Classes**

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an expert strengthens knowledge and memory, and generates confidence in our future difficult decisions.



**Quick Action Guides**

We offer you the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help you progress in your learning.



# 06 Certificate

This **Postgraduate Diploma in Perioperative Management for Morbid Obesity. Bariatric Patient Emergencies** guarantees, in addition to the most rigorous and updated training, access to a qualification issued by **TECH Technological University**.





“

*Successfully complete this training and receive your certificate without travel or laborious paperwork”*

This **Postgraduate Diploma in Perioperative Management for Morbid Obesity. Bariatric Patient Emergencies** contains the most complete and up-to-date scientific program on the market.

After the student has passed the evaluations, they will receive their corresponding **Postgraduate diploma** issued by **TECH Technological University via tracked delivery**.

The certificate issued by **TECH Technological University** will specify the qualification obtained through the Postgraduate Diploma, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Diploma in Perioperative Management for Morbid Obesity. Bariatric Patient Emergencies**

ECTS: **18**

Official Number of Hours: **450 hours**.



\*Apostille Convention. In the event that the student wishes to have their paper certificate issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

health future  
confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present  
development languages  
virtual classroom



## Postgraduate Diploma

Perioperative Management  
for Morbid Obesity. Bariatric  
Patient Emergencies

Course Modality: Online

Duration: 6 months.

Certificate: TECH Technological University

18 ECTS Credits

Teaching Hours: 450 hours.

# Postgraduate Diploma

Perioperative Management  
for Morbid Obesity. Bariatric  
Patient Emergencies