

# Professional Master's Degree

## Complex Chronic Patient



## Professional Master's Degree Complex Chronic Patient

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

Website: [www.techtute.com/us/medicine/professional-master-degree/master-complex-chronic-patient](http://www.techtute.com/us/medicine/professional-master-degree/master-complex-chronic-patient)

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# 01

# Introduction

The treatment conditions of Complex Chronic Patients require a comprehensive understanding that encompasses medical, nutritional, rehabilitative and psychosocial aspects. In a scenario where this type of care is essential, the demand for highly specialized professionals is becoming more and more pressing. In fact, this need has created a space in the healthcare field that demands experts capable of offering effective and personalized solutions. In this context, the innovative approach of study programs with flexible and updated methodologies, such as the *Relearning* method, becomes essential to educate practicing professionals, adapting to their schedules and needs.





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*Thanks to this complete program, you will delve into the different therapeutic and management options for Complex Chronic Patients”*

In the current healthcare scenario, the management of Complex Chronic Patients emerges as a major challenge. The increasing prevalence of chronic diseases requires highly specialized physicians, capable of addressing these complexities with holistic approaches. In this sense, the present program responds to this imperative need, equipping graduates with the essential skills to positively impact the quality of life of these patients, providing more effective and personalized treatments.

Within the syllabus, the Professional Master's Degree will dive into the analysis of medical problems common to most Chronic and Complex Patients. From the detailed analysis of cases, to the presentation of complementary therapies to the pharmacological approach, the curriculum will cover a wide range of aspects, providing professionals with a complete and updated vision of the main treatment strategies.

It will also delve into the legal bases and bioethical aspects of the care of patients with chronic diseases, preparing students to face ethical and legal dilemmas associated with this field. In this way, the constant search for strategies that improve the patient's quality of life, minimizing the limitations imposed by the disease and its treatments, will be a key focus that will distinguish this academic itinerary.

In terms of methodology, this program is taught 100% online, giving students the opportunity to access the content from anywhere and at any time, adapting the study to their schedules. In addition, it will employ the *Relearning* methodology, consisting of the repetition of key concepts to fix knowledge and facilitate learning effective and long-lasting. This combination of flexibility and innovative pedagogical approach will ensure the acquisition of essential skills to apply in your daily clinical practice.

This **Professional Master's Degree in Complex Chronic Patient** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ The development of case studies presented by experts in Complex Chronic Patients
- ♦ The graphic, schematic, and practical contents which provide scientific and practical information on the disciplines that are essential for professional practice
- ♦ Practical exercises where self-assessment can be used to improve learning
- ♦ Its special emphasis on innovative methodologies
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



*Study from the comfort of your home and update your knowledge online with TECH Global University, the biggest online university in the world"*

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*The interactive summaries of each topic will allow you to consolidate in a more dynamic way the importance of interdisciplinary coordination in the treatment of Complex Chronic Patients"*

*Thanks to the Relearning methodology, a pioneer in TECH, you will update your skills with less effort and higher performance, getting more involved in your professional specialization.*

*You will implement strategies in patients at risk of malnutrition to stimulate appetite, without rigid schedules or evaluation chronograms. That's what this TECH program is all about!*

The program's teaching staff includes professionals from the field who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive education programmed to learn in real situations.

This program is designed around Problem-Based Learning, whereby the professional must try to solve the different professional practice situations that arise during the academic year. For this purpose, the students will be assisted by an innovative interactive video system created by renowned and experienced experts.



# 02 Objectives

The objectives of this curriculum focus on providing graduates with the necessary skills to determine comprehensive therapeutic options, both pharmacological and non-pharmacological, for the effective management of diseases in chronic patients. With a precise focus, the program will equip health professionals with the precise tools to evaluate, select and apply therapeutic strategies tailored to the clinical complexities and specific needs of these patients. Through rigorous case studies, students will develop a thorough and up-to-date understanding of the therapeutic options available in the care of the Complex Chronic Patient.





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*You will provide tools to educate the patient and improve patient adherence to treatment. Reach your goals with TECH!”*



## General Objectives

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- ♦ Examine the medical problems common to most chronic and complex patients
- ♦ Present complementary therapies to the pharmacological approach
- ♦ Delve into the legal basis and bioethical aspects of the care of patients with chronic illnesses
- ♦ Provide a rationale for the Comprehensive Geriatric Assessment (CGA) as a set of tools that allow a diagnostic approach to the complex chronic patient
- ♦ Analyze the main Geriatric Syndromes and their clinical and social importance
- ♦ Assess the incidence and prevalence of nephro-urological diseases in chronic patients
- ♦ Analyze gastrointestinal diseases in patients with chronic medical conditions
- ♦ Investigate, analyze and propose comprehensive strategies for understanding and improving the management of infectious diseases in patients with complex chronic pathology
- ♦ Adequately define endocrinological pathology in chronic and complex patients
- ♦ Seek strategies that improve the patient's quality of life, minimizing the limitations imposed by the disease and its treatments
- ♦ Develop comprehensive care strategies that respond to patients' needs and improve their quality of life
- ♦ Delve into different models of health care for complex chronic patients



## Specific Objectives

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### **Module 1. Care Models and Aspects in the Complex Chronic Patient**

- ♦ Compile the most widely used models of complex chronic patient care
- ♦ Examine the most widely used models of care for the complex chronic patient and delve into their application at different levels of care
- ♦ Determine the most relevant levels of care for the care of the complex chronic patient

### **Module 2. Cardio-Respiratory Pathologies in the Complex Chronic Patient**

- ♦ Establish areas for improvement in the care of chronic cardiorespiratory diseases
- ♦ Propose greater integration between primary and hospital care, nursing, patients and physicians
- ♦ Support the creation or consolidation of hospital teams to support surgical services in the care of patients with chronic disease

### **Module 3. Neurological and Cognitive Pathologies and Mental Illness in the Complex Chronic Patient**

- ♦ Examine the various clinical manifestations of neurological and chronic mental illnesses and assess their impact on the functionality and quality of life of patients
- ♦ Analyze the influence of psychosocial and emotional factors on the experience of the chronic patient with neurological and mental pathology
- ♦ Review the medical and therapeutic interventions available for the management of chronic neurological and mental illness, focusing on multidisciplinary approaches that address both medical and psychosocial issues

#### **Module 4. Osteoarticular and Locomotor System Pathology in the Complex Chronic Patient**

- ♦ Link these conditions with the patient's systemic pathologies
- ♦ Establish a holistic point of view of the patient, so that you can provide them with holistic care
- ♦ Transfer what you have learned to your daily clinical practice and improve your skills

#### **Module 5. Endocrinology and Nutrition in the Complex Chronic Patient**

- ♦ Identify and address risk factors involved in diabetes-related complications and prevent or minimize their impact
- ♦ Analyze the influence of polypharmacy in the development of endocrinological complications and develop strategies to address them
- ♦ Expand knowledge about oral or parenteral supplementation according to the most prevalent pathology in the individual

#### **Module 6. Infectious Pathology in the Complex Chronic Patient**

- ♦ Analyze the interaction between chronic diseases and infection
- ♦ Evaluate strategies for infectious disease prevention in the complex chronic patient
- ♦ Review and evaluate current strategies for infectious disease prevention in the complex chronic patient
- ♦ Develop diagnostic protocols that allow for efficient detection of infectious diseases in complex chronic patients

#### **Module 7. Digestive Pathology in the Complex Chronic Patient**

- ♦ Recognize, diagnose and guide the management of the main pathologies of the digestive system in the chronic complex patient
- ♦ Identify the key aspects of the different pathologies of the digestive system, taking into account the characteristics of the chronic and complex patient
- ♦ Transfer the knowledge of digestive pathology in the chronic and complex patient to the student's clinical practice

#### **Module 8. Nephro-Urological Pathology in the Complex Chronic Patient**

- ♦ Identify common comorbidities associated with nephro-urologic diseases in chronic patients
- ♦ Synthesize findings to provide practical recommendations for health professionals

#### **Module 9. Complex Chronic Elderly Patient Comprehensive Geriatric Assessment (CGA) and Geriatric Syndromes**

- ♦ Compile the main tools that make up the CGA and their correct use
- ♦ Analyze the complex chronic patient within a bio-psycho-social model that guides us towards a more timely action
- ♦ Establish strategies for preventive/therapeutic action and ensure appropriate use of resources

#### **Module 10. Transversal Skills in the Complex Chronic Patient**

- ♦ Compile the key aspects of oncological and hematological pathologies, as well as the approach to pain
- ♦ Identify physical injuries associated with dependency
- ♦ Optimize the pharmacological management of complex chronic patients
- ♦ Present the main legal and bioethical aspects necessary to achieve quality and patient-centered care

# 03 Skills

Through this Professional Master's Degree, graduates will acquire specialized skills in the comprehensive assessment of the nutritional, rehabilitative and psychosocial needs of patients in chronic and complex situations. This program will focus on addressing, in a holistic manner, the specific demands of these patients, through an interdisciplinary approach. From dietary assessment, to the consideration of rehabilitative and psychosocial factors, professionals will be prepared to provide comprehensive and personalized care, significantly improving patients' quality of life.





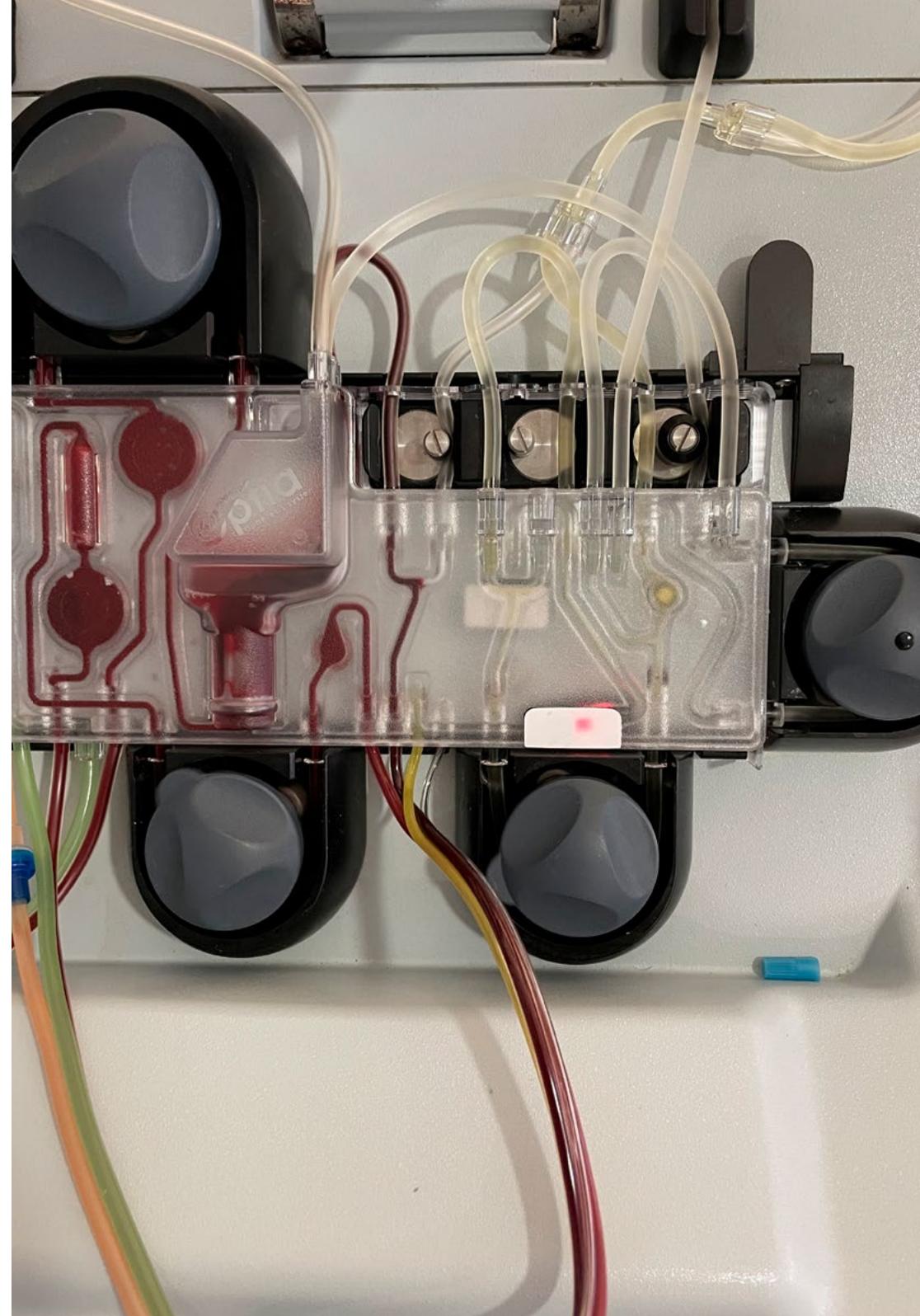
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*Take advantage of this unique opportunity and take the step to get up to speed on the latest care techniques for the Complex Chronic Patient"*



## General Skills

- ◆ Develop the most relevant aspects of digestive pathology in the Complex Chronic Patient in order to achieve the best clinical care for these patients
- ◆ Establish diagnostic strategies and therapeutic protocols that adapt to the complexity and clinical diversity of the chronic patient, considering factors such as polypharmacy and fragility characteristic of these patients
- ◆ Promote a holistic approach in the medical care of the digestive pathology of chronic and complex patients
- ◆ Establish opportunities for change at different levels of care in providing care to the complex chronic patient
- ◆ Diagnose and treat the most prevalent conditions in the field of osteoarticular and musculoskeletal pathology to provide more reliable care for your patients, improving their quality of life and reducing their disability
- ◆ Determine the inherent characteristics of the complex chronic patient requiring an "alternative" approach to the "classical" medical approach
- ◆ Establish clear objectives and design individualized plans for preventive and therapeutic updating, in order to achieve the highest degree of independence or the best quality of life for the patient
- ◆ Contribute to research in this area to help improve the understanding of these diseases and develop new lines of research
- ◆ Determine the most prevalent chronic pathologies of the nervous system and of Mental Health





## Specific Skills

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- ♦ Assess nutritional, rehabilitative and psychosocial needs of chronic and complex patients
- ♦ Develop the main geriatric syndromes and analyze their clinical-social impact
- ♦ Determine the pharmacological and non-pharmacological therapeutic options for the management of nephro-urological diseases in chronic patients
- ♦ Optimize treatments for the most prevalent infectious diseases in the complex chronic patient Investigate and propose strategies to individualize treatments for infectious diseases in patients with complex chronic pathology, taking into account the complexity and possible drug-drug interactions
- ♦ Provide tools to educate the patient and improve adherence to endocrinological treatment in the face of the overwhelming polypharmacy to which complex patients may be subjected, as well as try to simplify therapies
- ♦ Implement strategies in patients at risk for malnutrition to stimulate appetite, such as offering more frequent meals, appealing and appetizing foods, and adapting food textures as needed
- ♦ Recognize, diagnose and guide the management of the major pathologies affecting the bones, muscles, tendons, ligaments, and joints of the chronic and complex patient
- ♦ Promote public and professional awareness of neurological and mental pathology in chronic patients, highlighting the importance of continuing education for patients, families and healthcare professionals
- ♦ Approach patient-centered care in the context of chronic neurological and mental pathology, considering the active involvement of the patient in decision making and the design of personalized treatment plans
- ♦ Enhance case management, the use of technology and computerized medical records in the care of chronic patients with complex needs



*You will delve into the legal bases and bioethical aspects of chronic patient care"*

# 04

# Course Management

The faculty of this university program is composed of an outstanding group of specialists, carefully selected by TECH. Each member has an extensive and recognized professional background in the field of Complex Chronic Patients, providing practical experience and specialized knowledge. These experts are committed to academic excellence and constant updating, guaranteeing graduates a deep immersion in the most recent and effective developments in the treatment and management of challenging clinical situations. The diversity of approaches and perspectives will enrich the learning experience, offering students a comprehensive learning.





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*You will be supported by a faculty of distinguished professionals in the management of the Complex Chronic Patient”*

## International Guest Director

Awarded by the **American Society of Addiction Medicine** for his research in this field, Robert W. Kirchoff is considered a prestigious physician specialized in the approach to **Substance Use Disorders**. In this sense, he has developed most of his career in health institutions of international reference, such as the **Mayo Clinic Hospital** in Minnesota or the **Saint Joseph Mercy Health System** in Michigan.

Among his main achievements, his great contribution to the foundation of the **Laboratory of Informatics and Machine Learning** stands out. In this way, he has contributed significantly to the improvement of hospital resources through **Predictive Analytics**. He has also used this technological tool belonging to Artificial Intelligence to identify patients at **risk of drug dependence and relapse**. As a result, it has enabled numerous users to acquire advanced coping strategies in order to avoid drug use.

It should be noted that he balances this work with his facet as a **clinical researcher**. In this regard, he has an extensive production on subjects such as the applications of **Big Data** to the field of medicine, the **most innovative pharmacological treatments** to combat alcohol addiction, **translational informatics** applied to individuals with psychological disorders, techniques to prevent drug abuse or cutting-edge methodologies for the treatment of **drug addiction**.

On the other hand, in his firm commitment to the advancement of medical technology, he regularly participates as a speaker at **scientific congresses and symposiums** on an international scale. Thanks to this, he has facilitated the health community to have a greater knowledge of **drug-assisted therapies** for chemical dependency. In turn, he has enabled specialists to acquire the skills to get the most out of **Clinical Bioinformatics** and to optimize both their diagnostics and disease management considerably.



## Dr. Kirchoff, Robert W.

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- President for Research at Mayo Clinic Hospital in Minnesota, United States
- Medical Director at Foundations Detroit
- President of the American Society for Addiction Medicine
- Founder of the Laboratory of Informatics and Machine Learning at Mayo Clinic Hospital
- Attending Physician at Saint Joseph Mercy Health System in Michigan
- Master of Science in Medical Informatics from The Johns Hopkins University School of Medicine
- Bachelor of Arts, Biology and Chemistry from Albion College
- Internal Medicine Resident Physician at Wayne State University School of Medicine
- General Surgery Residency at Mayo Clinic Hospital
- Board Certified by the American Board of Internal Medicine
- Fellow of the American Board of Preventive Medicine



*Thanks to TECH, you will be able to learn with the best professionals in the world"*

## Management



### Dr. Romero Pareja, Rodolfo

- ◆ Specialist in Family and Community Medicine
- ◆ Medical Director at the Emergency Hospital Nurse Isabel Zendal
- ◆ Area Physician, Emergency Department, at the University Hospital of Getafe
- ◆ Collaborator of working groups in programs of Medicine; Health Management and Planning for Health Managers; and Emergency and Critical Care
- ◆ Doctor of Medicine, University of Oviedo
- ◆ Master's Degree in Emergency Medicine from the Complutense La University of Madrid
- ◆ Master in Medical Management and Clinical Management by the National School of Health, Instituto Salud Carlos III and Universidad Nacional Educación a Distancia
- ◆ Degree in Medicine and Surgery from the Complutense University of Madrid



### Dr. Tejedor López, Luis

- ◆ Specialist in Geriatrics
- ◆ Specialist Physician in Geriatrics, Emergency Hospital Nurse Isabel Zendal
- ◆ Medical Case Manager. HealthMotiv S.L
- ◆ President of the MIR Association Spain
- ◆ Master's Degree in Support Treatment and Palliative Care in Oncology Patients, Isabel I University
- ◆ MBA in Health Management and Administration from the European School of Health Education
- ◆ Medical Specialist in Geriatrics via MIR
- ◆ Degree in Medicine from the University of Navarra

## Professors

### Dr. Pérez Sanz, María Teresa

- ◆ Specialist in Internal Medicine
- ◆ Specialist in Internal Medicine at the Hospital Universitario del Sureste.
- ◆ Collaborator in practical teaching in the Department of Medicine of the Faculty of Medicine of the Complutense University of Madrid.
- ◆ Participation in the evaluation of the ECOE (Objective Structured Clinical Examination) of the Complutense University of Madrid, at the Hospital 12 de Octubre
- ◆ University Master in Infectious Diseases and International Health from the Miguel Hernández University
- ◆ Degree in Medicine from the University of Zaragoza

### Dr. Artero Ortiz, Jorge

- ◆ Specialist in Geriatrics and Gerontology
- ◆ Specialist Physician in Geriatrics, Emergency Hospital Nurse Isabel Zenda
- ◆ Medical Specialist in Geriatrics of the Acute Unit, at the Hospital Universitario Guadalajara
- ◆ Medical Specialist in Geriatrics of the Acute Unit, at the Hospital General Universitario Gregorio Marañón
- ◆ Medical Specialist in Geriatrics of the Geriatric Emergencies Unit, at the Hospital Rey Juan Carlos
- ◆ Master in Palliative Care, Universidad Pontificia de Salamanca.
- ◆ Degree in Medicine from the European University of Madrid
- ◆ Member of: Spanish Society of Geriatrics and Gerontology (SEGG), Spanish Society of Geriatric Medicine (SEMEG) and Pain Committee at the Red Cross Central Hospital

### Dr. Molina Báez, Manuel

- ◆ Specialist in Internal Medicine
- ◆ Resident Physician of the Internal Medicine Department, at the Hospital Universitario de La Princesa
- ◆ Medical Specialist in Internal Medicine, Functional Rehabilitation Unit, at the Hospital de Emergencias Nurse Isabel Zenda
- ◆ Specialist in Internal Medicine at the Hospital General Universitario Gregorio Marañón, Madrid
- ◆ Researcher in the Prevalence Study of Nosocomial Infections in Spain (EPINE)
- ◆ Master ESTHER HIV, Universidad Rey Juan Carlos, Madrid
- ◆ Graduate in Medicine from the University of Extremadura

### Dr. Anguita Sánchez, Noemí

- ◆ Specialist in Geriatrics
- ◆ Medical Specialist in the Geriatric Area at the Hospital Emergencias Nurse Isabel Zenda
- ◆ Specialist in Geriatrics at the Infanta Sofia University Hospital
- ◆ Expert in Methodology of Noninvasive Mechanical Ventilation by the International School of Noninvasive Mechanical Ventilation
- ◆ Expert in Emergency Management of Infectious Pathology, Francisco de Vitoria University
- ◆ Degree in Medicine from the Universidad Autónoma de Madrid
- ◆ Professor Barea Award by the Signo Foundation (2021)

**Dr. Ortiz Barraza, Evelyn Iveth**

- ♦ Specialist in Internal Medicine
- ♦ Internal Medicine Specialist in the Functional Rehabilitation Unit, at the Emergency Hospital Nurse Isabel Zandal
- ♦ Specialist in Internal Medicine in the Cardiovascular Risk and Cardiometabolic Medicine Unit, Hospital Ramón y Cajal
- ♦ Master's Degree in HIV Infection from the Universidad Rey Juan Carlos
- ♦ Degree in General Medicine from the University of Caldas
- ♦ Member of: Spanish Society of Infectious Diseases and Clinical Microbiology Vascular Risk Group, Clinical Ultrasound and Infectious Diseases, the Spanish Society of Internal Medicine (SEMI)

**Dr. Quiñónez Barreiro, Fabio Augusto**

- ♦ Specialist in Geriatrics and Gerontology
- ♦ Specialist Geriatrics Physician at the Virgen del Valle Hospital
- ♦ On-call Geriatrician at the Emergency Hospital Nurse Isabel Zandal
- ♦ Geriatrician at Quirón Salud, Tres Culturas Hospital
- ♦ On-call Physician in the Emergency Department at Hospital Virgen de la Salud
- ♦ Master's Degree in Psychogeriatrics from the Autonomous University of Barcelona
- ♦ Degree in Medicine from the Latin American School of Medicine (ELAM)

**Dr. Casillas Ramos, Nazaret**

- ♦ Specialist in Internal Medicine
- ♦ Specialist Physician in Internal Medicine in the Functional Rehabilitation Unit of the Emergency Hospital Nurse Isabel Zandal
- ♦ Specialist in Internal Medicine, Hospitalization Area and Internal Medicine Consultations, at the Virgen de la Luz Hospital in Cuenca.
- ♦ Doctor of Medicine from the University of Castilla La Mancha
- ♦ Master in Diabetes in Clinical Practice, University of Barcelona.
- ♦ Master in Systemic Autoimmune Diseases by TECH Technological University
- ♦ Medical Degree from the University of Extremadura



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*Take the opportunity to learn about the latest advances in this field in order to apply it to your daily practice”*

# 05

## Structure and Content

The Professional Master's Degree in Complex Chronic Patients will offer graduates a deep dive into the challenges faced by Chronic and Complex Patients. Throughout the curriculum, the common medical problems that affect most of these patients will be analyzed, acquiring a comprehensive understanding of their needs and particularities. From diagnosis to management strategies, the program will also address the complexities inherent to this population, providing healthcare professionals with the essential tools to face the most demanding clinical scenarios and improve the quality of life of these individuals.





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*Bet on TECH! You will delve into the characteristics of Chronic Obstructive Pulmonary Disease in the Complex Chronic Patient”*

## Module 1. Care Models and Aspects in the Complex Chronic Patient

- 1.1. The Complex Chronic Patient
  - 1.1.1. Comorbidity
  - 1.1.2. Temporal
  - 1.1.3. Fragility for
  - 1.1.4. Dependency
- 1.2. International Strategies in Complex Chronic Patient Care
  - 1.2.1. International Health Policies
  - 1.2.2. Examples of Strategies at the International Level
  - 1.2.3. International Programs for Addressing Chronicity
- 1.3. High Complexity Clinical Processes in the Chronic Patient
  - 1.3.1. High Complexity Process
  - 1.3.2. High Complexity Clinical Processes at the Community Level
  - 1.3.3. High Complexity Clinical Processes at the Hospital Level
  - 1.3.4. High Complexity Clinical Processes at the Socio-Sanitary Level
- 1.4. Care Management Models
  - 1.4.1. Person-Centered Care
  - 1.4.2. Shared Care Models
  - 1.4.3. Information Communication Technologies
  - 1.4.4. Integrated Management and Sustainability
- 1.5. Complex Chronic Patient Safety
  - 1.5.1. Complex Chronic Patient Safety. Challenges
  - 1.5.2. Patient Safety Strategies at the International Level
  - 1.5.3. Implementation of Patient Safety Strategies. Examples
- 1.6. Interdisciplinary Coordination according to the Needs of the Complex Chronic Patient
  - 1.6.1. Needs Identification for Complex Chronic Patients
  - 1.6.2. Establishment of an Interdisciplinary Care Plan
  - 1.6.3. Management of an Interdisciplinary Team
  - 1.6.4. Clinical Leadership

- 1.7. Self-Care and Health Education in Chronicity
  - 1.7.1. Advanced Aspects of Self-Care
  - 1.7.2. Role of Self-Care in Chronicity
  - 1.7.3. Public Strategies for Health Education
  - 1.7.4. Public Strategies for the Promotion of Self-care
- 1.8. Ethical and Social Aspects
  - 1.8.1. Socioeconomic Impact of Comorbidity and Chronicity
  - 1.8.2. Physician-Patient Relationship
  - 1.8.3. Equity and Access to Health Care
  - 1.8.4. Discrimination
- 1.9. Information and Communication Technologies in Complex Chronic Patient Care
  - 1.9.1. Telemonitoring and Remote Follow-up of the Complex Chronic Patient
  - 1.9.2. Integration of Information Systems
  - 1.9.3. Digital Education and Self-Management
  - 1.9.4. Ethics and Privacy in the Digital Age
- 1.10. Artificial Intelligence in Complex Chronic Patient Care
  - 1.10.1. Artificial Intelligence in Complex Chronic Patient Care
  - 1.10.2. International Regulation on Artificial Intelligence Applied to Health Care
  - 1.10.3. Artificial Intelligence Tools for Professionals
  - 1.10.4. Artificial Intelligence Tools for Patients

## Module 2. Cardio-Respiratory Pathologies in the Complex Chronic Patient

- 2.1. Heart Failure in the Complex Chronic Patient
  - 2.1.1. Heart Failure Units
  - 2.1.2. Home Treatment and Management of the Complex Chronic Patient. Expert Patient Program
  - 2.1.3. Telemonitoring or Structured Follow-up of Heart Failure with Telephone Calls to this Type of Patient
- 2.2. Ischemic Heart Disease in the Complex Chronic Patient
  - 2.2.1. Management of Coronary Atherosclerosis in Complex Chronic Patients
  - 2.2.2. Cardiovascular Risk Factors in the Complex Chronic Patient
  - 2.2.3. Treatment and Follow-up of the Chronic Patient. Discharge Planning

- 2.3. Valvulopathies in the Complex Chronic Patient
  - 2.3.1. Management of the Chronic Patient with Valvulopathies
  - 2.3.2. Complications of Valvular Prostheses in the Complex Chronic Patient
  - 2.3.3. Complex Chronic Patient Follow-Up
- 2.4. Arterial Hypertension in the Complex Chronic Patient
  - 2.4.1. Management of Arterial Hypertension in Complex Chronic Patients
  - 2.4.2. Organic Repercussions of Hypertension in the Complex Chronic Patient
  - 2.4.3. Treatment of Arterial Hypertension in Complex Chronic Patients
- 2.5. Dyslipidemia in the Complex Chronic Patient
  - 2.5.1. Management of Dyslipidemia in Complex Chronic Patients
  - 2.5.2. Diet for this Type of Patient
  - 2.5.3. New Drugs for the Treatment of Dyslipidemia in the Complex Chronic Patient
- 2.6. Peripheral Arterial Disease in the Complex Chronic Patient
  - 2.6.1. Management of Peripheral Arterial Disease in Complex Chronic Patients
  - 2.6.2. Risk Factors in the Complex Chronic Patient
  - 2.6.3. Follow-up of the Complex Chronic Patient with Peripheral Arterial Disease
- 2.7. Chronic Obstructive Pulmonary Disease in the Complex Chronic Patient
  - 2.7.1. Tobacco Use in the Complex Chronic Patient
  - 2.7.2. Management of Repeat Admissions. Discharge Planning
  - 2.7.3. Follow-up and Treatment of Obstructive Pulmonary Disease in the Complex Chronic Patient
- 2.8. Chronic *Cor Pulmonale* in the Complex Chronic Patient
  - 2.8.1. Management of *Cor Pulmonale* in Complex Chronic Patients
  - 2.8.2. Follow-Up of *Cor Pulmonale* in the Complex Chronic Patient
  - 2.8.3. Treatment
- 2.9. Pulmonary Thromboembolism in the Complex Chronic Patient
  - 2.9.1. Risk Factors in the Complex Chronic Patient
  - 2.9.2. Follow-Up of Pulmonary Thromboembolism in the Complex Chronic Patient
  - 2.9.3. Treatment of Pulmonary Thromboembolism in the Complex Chronic Patient
- 2.10. Obstructive Sleep Apnea Syndrome in the Complex Chronic Patient
  - 2.10.1. Regulation of Ventilation in the Complex Chronic Patient
  - 2.10.2. Obesity in the Complex Chronic Patient
  - 2.10.3. Obstructive and Central Apnea in the Complex Chronic Patient

### Module 3. Neurological and Cognitive Pathologies and Mental Illness in the Complex Chronic Patient

- 3.1. Intracranial Vascular Pathology in the Complex Chronic Patient. Ischemia and Hemorrhage
  - 3.1.1. Management of Cerebral Vascular Diseases in the Complex Chronic Patient
  - 3.1.2. Clinical Manifestations and Risk Factors. Prevention and Treatment Strategies
  - 3.1.3. Multidisciplinary Approach: Prevention, Treatment and Rehabilitation
  - 3.1.4. Psychosocial Aspects in Patient Recovery
- 3.2. Dementia in the Complex Chronic Patient
  - 3.2.1. Management of Alzheimer's Disease and other Primary Degenerative Dementias in these Patients
  - 3.2.2. Vascular and Other Secondary Dementias in the Complex Chronic Patient
  - 3.2.3. Comprehensive Management and Long-Term Care of the Patient
  - 3.2.4. Role of the Family and Caregivers in the Care of the Chronic Patient with Dementia
  - 3.2.5. Impact of Dementia on Society
- 3.3. Disorders of Movement in the Complex Chronic Patient
  - 3.3.1. Management of Parkinson's Disease and Other Parkinsonian Disorders in the Complex Chronic Patient
  - 3.3.2. Management of Chorea, Dystonia and Other Movement Disorders in the Complex Chronic Patient
  - 3.3.3. Collaboration between Medical Specialties and Non-Pharmacological Therapies
  - 3.3.4. Psychosocial Aspects in Patient Quality of Life
- 3.4. Amyotrophic Lateral Sclerosis as a Complex Disease
  - 3.4.1. Management of ALS as a Complex Disease. Multidisciplinary Care
  - 3.4.2. Multidisciplinary Approach to the ALS Patient
  - 3.4.3. Emotional Support and Palliative Care in the Chronic ALS Patient
  - 3.4.4. Role of Social Services in Comprehensive Care
  - 3.4.5. Palliative Care and Quality of Life
- 3.5. Epilepsy in the Complex Chronic Patient
  - 3.5.1. Management of Epilepsy in Complex Chronic Patients
  - 3.5.2. Management of the Cognitive, Behavioral and Emotional Effects of Epilepsy in the Complex Chronic Patient
  - 3.5.3. Stigma and Quality of Life in Chronic Patients with Epilepsy

- 3.6. Headaches and Migraine in the Complex Chronic Patient
  - 3.6.1. Management of Chronic Headaches in Complex Chronic Patients
  - 3.6.2. Biopsychosocial Impact of Chronic Headaches
  - 3.6.3. Comprehensive Approach: Therapies and Strategies for Quality of Life Improvement in Headache Patients
- 3.7. Polyneuropathies in the Complex Chronic Patient
  - 3.7.1. Management of Polyneuropathies in Complex Chronic Patients
  - 3.7.2. Multidisciplinary Assessment and Team Approach in the Treatment of Polyneuropathies in the Complex Chronic Patient
  - 3.7.3. Physical and Psychosocial Rehabilitation in the Patient with Chronic Polyneuropathy
- 3.8. Neuropathic Pain in the Complex Chronic Patient
  - 3.8.1. Pain Management as a Chronic Pathology
  - 3.8.2. Multidisciplinary Strategies for Pain Management in the Complex Chronic Patient
  - 3.8.3. Biopsychosocial Approach
- 3.9. Multiple Sclerosis in the Complex Chronic Patient
  - 3.9.1. Comprehensive Approach in Complex Chronic Multiple Sclerosis Patients: Coordination of Care Between Neurology, Physical Therapy and Mental Health
  - 3.9.2. Rehabilitation and Long-Term Care of Chronic Patients with Multiple Sclerosis
  - 3.9.3. Ongoing Support and Community Services for the Patient and Family
- 3.10. Mental Illness in the Complex Chronic Patient
  - 3.10.1. Management of Mental Illness in the Complex Chronic Patient
  - 3.10.2. Multidisciplinary Therapeutic Approach in the Complex Chronic Patient: Coordination of Care
  - 3.10.3. Ethics in the Treatment of Chronic Mental Illnesses in the Patient
  - 3.10.4. Stigma Associated with Mental Illness. Impact on the Patient's Quality of Life

## Module 4. Osteoarticular and Locomotor System Pathology in the Complex Chronic Patient

- 4.1. Approach to Chronic Pain of Osteoarticular Etiology in Complex Patients
  - 4.1.1. Pathophysiology of Osteoarticular Pain in the Complex Chronic Patient Assessment and Diagnosis
  - 4.1.2. Pharmacological Treatment
  - 4.1.3. Interventional Procedures. Non-Pharmacological Approach
- 4.2. Spinal Pathology in the Complex Chronic Patient
  - 4.2.1. Management of Degenerative Pathologies of the Spine in the Complex Chronic Patient
  - 4.2.2. Management of Inflammatory and Autoimmune Pathologies of the Spine
  - 4.2.3. Multidisciplinary Approach in Non-Traumatic Spine Pathology Prevention and Rehabilitation in the Complex Chronic Patient
- 4.3. Rachis Fractures in the Complex Chronic Patient
  - 4.3.1. Management of Rachis Fractures in the Complex Chronic Patient. Frequent Locations and Diagnosis
  - 4.3.2. Conservative Treatment
  - 4.3.3. Surgical Treatment
- 4.4. Upper Limb Pathology in the Complex Chronic Patient
  - 4.4.1. Management of Non-Traumatic Osteoarticular Pathology of the Shoulder in Complex Chronic Patients
  - 4.4.2. Management of Shoulder Fractures in the Complex Chronic Patient Conservative Treatment Surgical Management
  - 4.4.3. Management of Elbow, Wrist and Hand Pathology in the Complex Chronic Patient
- 4.5. Hip Pathology in the Complex Chronic Patient
  - 4.5.1. Management of Coxarthrosis in Complex Chronic Patients. Hip Soft Tissue Pathology
  - 4.5.2. Management of Hip Fractures in the Complex Chronic Patient
  - 4.5.3. Management of the Sacroiliac Joint Pathologies in the Complex Chronic Patient Pelvic Fractures

- 4.6. Knee, Ankle and Foot Pathology in the Complex Chronic Patient
  - 4.6.1. Management of Knees Osteoarthritis in the Complex Chronic Patient. Hip Soft Tissue Pathology
  - 4.6.2. Management of Knees Arthroplasty in the Complex Chronic Patient. Knee Telerehabilitation
  - 4.6.3. Management of Ankle and Foot Pathology in the Complex Chronic Patient
- 4.7. Lower Limb Amputations
  - 4.7.1. Management of Lower Limb Amputation in the Complex Chronic Patient. Levels of Amputation
  - 4.7.2. Rehabilitative Treatment
  - 4.7.3. Prosthetization in the Complex Chronic Patient Patient Follow-Up
- 4.8. Rheumatic Diseases in the Complex Chronic Patient
  - 4.8.1. Management of Rheumatoid Arthritis in Complex Chronic Patients
  - 4.8.2. Management of Osteoarthritis in Complex Chronic Patients
  - 4.8.3. Management of Other Rheumatic Diseases in the Complex Chronic Patient
- 4.9. Assessment and Treatment of Osteoporosis
  - 4.9.1. Assessment and Treatment of Osteoporosis in Complex Chronic Patients
  - 4.9.2. Pharmacological Treatment
  - 4.9.3. Comprehensive Management of the Complex Chronic Patient
- 4.10. Osteoarticular Pathology in the Complex Chronic Patient
  - 4.10.1. Management of Systemic Diseases and Their Impact on Osteoarticular Pathology and Vice-versa in the Complex Chronic Patient
  - 4.10.2. Therapeutic Approach in the Complex Chronic Patient. Comprehensive Management Multidisciplinary Approach Education and Self-Care. Prevention Strategies
  - 4.10.3. Future Perspectives in Osteoarticular Pathology. Treatment and Technological Advances. Regenerative Therapies. Research

## Module 5. Endocrinology and Nutrition in the Complex Chronic Patient

- 5.1. Endocrinology Pathology in the Complex Chronic Elderly Patient
  - 5.1.1. Hormonal Changes Associated with Aging in the Complex Chronic Elderly Patient
  - 5.1.2. Management of Aging Associated with Pathology in the Complex Chronic Patient
  - 5.1.3. Diagnostic Approach in the Complex Patient
- 5.2. Hypothalamic Pathology in the Complex Chronic Patient
  - 5.2.1. Management of Hypopituitarism in the Complex Chronic Patient
  - 5.2.2. Management of Hyperprolactinemia in the Complex Chronic Patient
  - 5.2.3. Inadequate ADH Secretion
- 5.3. Gonadal Pathology in the Complex Chronic Patient
  - 5.3.1. Management of Hypogonadism. in the Complex Older Patient
  - 5.3.2. Management of Gynecomastia in Complex Older Patients
  - 5.3.3. Therapeutic Approach to Gonadal Disorders in the Chronic Patient
- 5.4. Thyroid Pathology in the Complex Chronic Patient
  - 5.4.1. Management of Goiters in the Complex Chronic Patient
  - 5.4.2. Approach to Hypothyroidism and Hyperthyroidism in the Complex Chronic Patient. Thyroid Drug Involvement
  - 5.4.3. Management of Thyroiditis in Complex Chronic Patients
- 5.5. Pancreatic Endocrine Pathology in the Chronic Patient
  - 5.5.1. Management of Diabetes in Complex Chronic Patients. Diagnosis
  - 5.5.2. Acute and Chronic Hyperglycemia Complications
  - 5.5.3. Hypoglycemia and Increased Morbidity and Mortality
  - 5.5.4. Therapeutic Approach
- 5.6. Adrenal Pathology in the Complex Patient
  - 5.6.1. Management of Adrenal Insufficiency in Complex Chronic Patients
  - 5.6.2. Management Cushing's Syndrome in the Complex Chronic Patient
  - 5.6.3. Management of Incidentalites in Complex Chronic Patients

- 5.7. Cardiovascular Risk Factors in the Complex Chronic Patient: Lipids in Comorbidity
  - 5.7.1. Management of Dyslipidemias in Comorbidity in the Complex Chronic Patient
  - 5.7.2. Management of Dyslipidemias in the Chronic Polymedicated Patient
  - 5.7.3. New Therapies Available
- 5.8. Bone Mineral Metabolism. Osteoporosis Update and Approach in the Chronic Patient
  - 5.8.1. Management of Hypercalcemia and Hypocalcemia in the Complex Chronic Patient
  - 5.8.2. Management of Osteoporosis in Chronic Elderly Patients
  - 5.8.3. Therapeutic Approach in the Chronic Elderly Patient. Side Effects
- 5.9. Obesity and Chronicity in the Complex Chronic Patient
  - 5.9.1. Obesity as a Problem in the 21st Century
  - 5.9.2. Management of Sarcopenic Obesity in Complex Chronic Patients
  - 5.9.3. Non-Pharmacologic and Pharmacologic Therapies
- 5.10. Nutrition in the Complex Chronic Patient
  - 5.10.1. Malnutrition Associated with the Disease and in Special Situations in the Complex Chronic Patient
  - 5.10.2. Supplementation: Enteral or Parenteral Nutrition in Complex Patients
  - 5.10.3. Vitamins and Trace Elements in Comorbid Patients
  - 5.10.4. Complications Associated with Nutrition
- 6.4. Clostridioides Difficile Infections in the Complex Chronic Patient
  - 6.4.1. Management of Clostridioides Difficile Infections in the Complex Chronic Patient
  - 6.4.2. C. difficile Infection Diagnosis
  - 6.4.3. Treatment of First Infection and Recurrences
- 6.5. Skin and Soft Tissue Infections in the Complex Chronic Patient
  - 6.5.1. Management of Skin Infections in Complex Chronic Patients
  - 6.5.2. Management of Decubitus Ulcers in the Complex Chronic Patient
  - 6.5.3. Management of Diabetic Foot in the Complex Chronic Patient
- 6.6. Bacteremia and Endovascular Infections in the Complex Chronic Patient
  - 6.6.1. Management of Bacteremia and Endovascular Infections in the Complex Chronic Patient
  - 6.6.2. Treatment and Monitoring of Bacteremia in Complex Chronic Patients
  - 6.6.3. Management of Infection From Endovascular Devices in Complex Chronic Patients
- 6.7. Infections of Surgical Wounds in Complex Chronic Patients
  - 6.7.1. Scarring in Patients with Chronic Pathology
  - 6.7.2. Etiology of Surgical Wound Infection and Microbiological Diagnosis
  - 6.7.3. Multidisciplinary Treatment of Surgical Wounds in Complex Chronic Patients
- 6.8. Prosthesis Infection in the Complex Chronic Patient
  - 6.8.1. Management of Prosthetic Joint Infection in the Complex Chronic Patient
  - 6.8.2. Etiology and Diagnosis of Prosthetic Infection
  - 6.8.3. Choice of Treatment and Duration
- 6.9. Intra-Abdominal Infection in the Complex Chronic Patient
  - 6.9.1. Management of Cholecystitis in Complex Chronic Patients
  - 6.9.2. Management of Diverticulitis in Complex Chronic Patients
  - 6.9.3. Etiology, Diagnosis and Treatment of Intra-abdominal Abscess in the Complex Chronic Patient
- 6.10. Treatments and Prophylaxis in the Most Prevalent Infectious Pathology
  - 6.10.1. Vaccination in the Complex Chronic Patient
  - 6.10.2. Antimicrobial Prophylaxis in Special Situations
  - 6.10.3. Infection Treatment Tables in the Complex Chronic Patient

## Module 6. Infectious Pathology in the Complex Chronic Patient

- 6.1. Management of Infections in the Complex Chronic Patient
  - 6.1.1. Use of Antimicrobials in Patients with Multiple Pathologies
  - 6.1.2. Multidrug-Resistance in Complex Chronic Patients
  - 6.1.3. Selection of Antimicrobial Treatment According to the Case
  - 6.1.4. Health Care-associated Infections
- 6.2. Respiratory Infections in the Complex Chronic Patient
  - 6.2.1. Prevalence and Etiology
  - 6.2.2. Microbiological Samples. Indications and Interpretation
  - 6.2.3. Selection of Antimicrobial Treatment in the Complex Chronic Patient
- 6.3. Urinary Infections in the Complex Chronic Patient
  - 6.3.1. Etiology and Use of Microbiological Specimens
  - 6.3.2. Asymptomatic Bacteriuria in the Complex Chronic Patient
  - 6.3.3. Management of Lower Urinary Tract Infection and Catheter-Associated Cystitis
  - 6.3.4. Management of Upper Urinary Tract Infection

## Module 7. Digestive Pathology in the Complex Chronic Patient

- 7.1. Esophageal Pathology in the Complex Chronic Patient
  - 7.1.1. Management of Esophageal Motor Disorders in the Complex Chronic Patient
  - 7.1.2. Management of Gastro-esophageal Reflux Disease in Complex Chronic Patients
  - 7.1.3. Other Esophageal Pathologies in the Complex Chronic Patient
- 7.2. Dyspepsia and Gastropathies in the Complex Chronic Patient
  - 7.2.1. Management of Dyspepsia in Complex Chronic Patients
  - 7.2.2. Management of Gastropathies in Complex Chronic Patients
  - 7.2.3. Management of Hiatal Hernia and Other Gastric Anatomical Disorders in the Chronic Patient
  - 7.2.4. Management of Gastric Emptying Disorders in the Complex Chronic Patient
- 7.3. Pancreatic and Biliary Pathology in the Complex Chronic Patient
  - 7.3.1. Management of Jaundice and Cholestasis in the Complex Chronic Patient
  - 7.3.2. Management of Pancreatitis in Complex Chronic Patients
  - 7.3.3. Management of Cholelithiasis and Choledocholithiasis in the Pluripathological Patient
- 7.4. Hepatic Pathology in the Complex Chronic Patient
  - 7.4.1. Management of Toxic-Drug Hepatitis in the Complex Chronic Patient
  - 7.4.2. Management of Cirrhosis in the Pluripathological Patient
  - 7.4.3. Liver Transplant in the Complex Chronic Patient
- 7.5. Intestinal Pathology in the Complex Chronic Patient
  - 7.5.1. Management of Intestinal Ischemia in Complex Chronic Patients
  - 7.5.2. Diarrhea and Malabsorption in the Pluripathologic Patient
  - 7.5.3. Inflammatory Bowel Disease in the Complex Patient
- 7.6. Gastrostomy, Colostomy and Ileostomy in the Complex Chronic Patient
  - 7.6.1. Ostomies in the Complex Chronic Patient
  - 7.6.2. Ostomy Care
  - 7.6.3. Complications of Ostomies in the Pluripathological Patient
- 7.7. Constipation and Fecal Incontinence in the Complex Chronic Patient
  - 7.7.1. Constipation in the Complex Chronic Patient
  - 7.7.2. Acquired Chronic Megacolon and Ogilvie's Syndrome
  - 7.7.3. Management of Fecal Incontinence in the Pluripathological Patient

- 7.8. Functional Digestive Disorders in the Complex Chronic Patient
  - 7.8.1. Management of Esophageal Functional Disorders in the Complex Chronic Patient
  - 7.8.2. Management of Functional Gastroduodenal Disorders in the Complex Chronic Patient
  - 7.8.3. Management of Functional Bowel Disorders in the Complex Chronic Patient
- 7.9. Digestive Pathology and Polypharmacy in the Complex Chronic Patient
  - 7.9.1. Use of Proton Pump Inhibitors (PPIs) in the Chronic Patient Side Effects
  - 7.9.2. Anticoagulation and Gastrointestinal Bleeding in the Chronic Patient
  - 7.9.3. Diagnosis and Management of Deficiency Anemia in the Complex Patient
- 7.10. Endoscopic Procedures in the Complex Chronic Patient
  - 7.10.1. Endoscopic Study in the Chronic and Complex Patient
  - 7.10.2. Planning of Anticoagulation Studies. Suspension of Anticoagulation in the Chronic-Complex Patient
  - 7.10.3. Complications in Endoscopic Procedures

## Module 8. Nephro-Urological Pathology in the Complex Chronic Patient

- 8.1. Chronic Kidney Disease (CKD) in Complex Chronic Patients
  - 8.1.1. Diagnosis and Evaluation of Chronic Kidney Disease in Complex Chronic Patients
  - 8.1.2. Treatment and Management of Chronic Kidney Disease in Complex Chronic Patients
  - 8.1.3. Complications of Chronic Kidney Disease in Complex Chronic Patients
  - 8.1.4. Challenges and Strategies in the Management of Chronic Kidney Disease in this Type of Patient
  - 8.1.5. Innovations and Future Directions in Chronic Kidney Disease Research
- 8.2. Ionic Alterations in Complex Chronic Patients
  - 8.2.1. Sodium (Na<sup>+</sup>), Potassium (K<sup>+</sup>), Magnesium (Mg<sup>2+</sup>) Alterations
  - 8.2.2. Electrolyte Interactions in Complex Chronic Patients
  - 8.2.3. Evaluation and Monitoring of Ionic Alterations in Complex Chronic Patients
  - 8.2.4. Treatment and Prevention Strategies
- 8.3. Benign Prostatic Hyperplasia (BPH) in the Complex Chronic Patient
  - 8.3.1. Complications and Comorbidities in the Complex Chronic Patient
  - 8.3.2. Treatment and Management of the Complex Chronic Patient
  - 8.3.3. Innovations and Challenges in the Treatment of BPH

- 8.3.4. Prevention in the Complex Chronic Patient
- 8.4. Lithiasis in the Complex Chronic Patient
  - 8.4.1. Contributing Factors in Complex Chronic Patients
  - 8.4.2. Complications in Renal Health Impact in Complex Chronic Patients
  - 8.4.3. Treatment and Management of Kidney Lithiasis in Complex Chronic Patients
  - 8.4.4. Innovations and Challenges in the Treatment of Renal Lithiasis
- 8.5. Functional Bladder Disorders in the Complex Chronic Patient
  - 8.5.1. Complications and Comorbidities in Complex Chronic Patient
  - 8.5.2. Treatment and Management of Complex Chronic Patient
  - 8.5.3. Innovations and Challenges in the Treatment
  - 8.5.4. Psychosocial Considerations and Quality of Life
- 8.6. Hematuria in the Complex Chronic Patient
  - 8.6.1. Complications and Comorbidities in the Complex Chronic Patient
  - 8.6.2. Treatment and Management of the Complex Chronic Patient
  - 8.6.3. Innovations and Challenges in the Treatment of Hematuria
- 8.7. Vesical Carcinoma in the Complex Chronic Patient
  - 8.7.1. Treatment and Management of the Complex Chronic Patient
  - 8.7.2. Complications and Comorbidities in the Complex Chronic Patient
  - 8.7.3. Prognosis and Survival
  - 8.7.4. Innovations and Challenges in the Treatment of Bladder Cancer
  - 8.7.5. Quality of Life and Psychosocial Support
- 8.8. Renal Carcinoma in the Complex Chronic Patient
  - 8.8.1. Treatment and Management of the Complex Chronic Patient
  - 8.8.2. Complications and Comorbidities in the Complex Chronic Patient
  - 8.8.3. Prognosis and Survival of the Complex Chronic Patient
  - 8.8.4. Innovations and Challenges in the Treatment of Renal Cancer
  - 8.8.5. Quality of Life and Psychosocial Support
- 8.9. Prostatic Carcinoma in the Complex Chronic Patient
  - 8.9.1. Treatment and Management of the Complex Chronic Patient
  - 8.9.2. Complications and Comorbidities in the Complex Chronic Patient
  - 8.9.3. Prognosis and Survival of the Complex Chronic Patient
  - 8.9.4. Innovations and Challenges in the Treatment of of Prostate Cancer
  - 8.9.5. Quality of Life and Psychosocial Support

- 8.10. Impact of Nephro-Urological Diseases on Sexuality in the Complex Chronic Patient
  - 8.10.1. Impact of Nephro-Urological Diseases on Sexuality in Complex Chronic Patient
  - 8.10.2. Specific Sexual Dysfunction
  - 8.10.3. Clinical Approach to Sexual Dysfunctions
  - 8.10.4. Treatments and Management Strategies in Complex Chronic Patients

## Module 9. Complex Chronic Elderly Patient Comprehensive Geriatric Assessment (CGA) and Geriatric Syndromes

- 9.1. Comprehensive Geriatric Assessment (CGA) in the Complex Chronic Patient
  - 9.1.1. Comprehensive Geriatric Assessment of the Complex Chronic Patient
  - 9.1.2. Components of the Comprehensive Geriatric Variation. Tools
  - 9.1.3. Decision Making
- 9.2. Functional Assessment and Frailty in the Elderly as a Complex Chronic Patient
  - 9.2.1. Functional Assessment in the Complex Chronic Elderly Patient
  - 9.2.2. Scales and Tools for Functional Measurement
  - 9.2.3. Strategies to Improve Functional Function and Prevent Complications
- 9.3. Cognitive/affective Assessment in the Elderly as a Complex Chronic Patient
  - 9.3.1. Cognitive/affective Assessment in the Complex Chronic Elderly Patient
  - 9.3.2. Cognitive Changes
  - 9.3.3. Cognitive/affective Assessment Scales: Use and Interpretation
- 9.4. Nutritional Assessment in the Complex Chronic Elderly Patient
  - 9.4.1. Nutritional Assessment in the Complex Chronic Elderly Patient
  - 9.4.2. Eating Behavior Patterns
  - 9.4.3. Measurement Tools: Physical and Biochemical Parameters of Nutrition
  - 9.4.4. Importance of a Correct Nutritional Assessment
  - 9.4.5. Nutritional Intervention according to Individual Needs in the Malnourished Complex Chronic Elderly Patient

- 9.5. Chronic Diseases and Comorbidities. Evaluation and Management
  - 9.5.1. Impact of Chronic Diseases in Complex Elderly Patients
  - 9.5.2. Addressing Comorbidities
  - 9.5.3. Evaluation and Integrated Management
- 9.6. Polypharmacy and Treatment Optimization
  - 9.6.1. Polypharmacy: Definition and Implications
  - 9.6.2. Strategies to Optimize Medication
  - 9.6.3. Strategies to Minimize Adverse Effects
- 9.7. Prevention and Management of Falls in the Complex Chronic Elderly Patient
  - 9.7.1. Identification of Risk Factors
  - 9.7.2. Prevention Strategies
  - 9.7.3. Evaluation and Orientation towards Post-fall Rehabilitative Therapy
- 9.8. Management of Geriatric Syndromes Specific for Complex Chronic Patients
  - 9.8.1. Geriatric Syndromes in Clinical Practice
  - 9.8.2. Tools for Assessment
  - 9.8.3. Management and Prevention Strategies
- 9.9. Social Assessment in the Complex Chronic Elderly Patient
  - 9.9.1. Social Assessment in the Chronic Elderly Patient
  - 9.9.2. Role of the Family in Caregiving and Identification of Support Networks
  - 9.9.3. Multidisciplinary Coordination for the Development of a Comprehensive Care Plan
  - 9.9.4. Discharge Planning and Continuity of Care in the Chronic Elderly Patient
- 9.10. Ethics in the Care of the Complex Chronic Elderly Patient
  - 9.10.1. Ethical Principles in the Care of the Complex Chronic Elderly Patient
  - 9.10.2. Ethical Challenges in Care Decisions
  - 9.10.3. Importance of Autonomy and Respect in Geriatric Care

## Module 10. Transversal Skills in the Complex Chronic Patient

- 10.1. Oncologic and Hematologic Pathology in the Complex Chronic Patient
  - 10.1.1. Management of Non-hematological Oncological Pathologies in the Complex Chronic Patient
  - 10.1.2. Management of Oncohematologic Pathologies in the Complex Chronic Patient
  - 10.1.3. Management of Other Hematologic Pathologies in this Type of Patient
  - 10.1.4. Care of Patients with Advanced Cancer
- 10.2. Injuries Associated with Dependency in the Complex Chronic Patient
  - 10.2.1. Management of Muscular Atrophy in Complex Chronic Patients
  - 10.2.2. Management of Skin Lesions in the Complex Chronic Patient
  - 10.2.3. Decreased Vital Capacity. Respiratory Disorders in this Type of Patient
- 10.3. Management of Pain in the Complex Chronic Patient
  - 10.3.1. Classification of Analgesics
  - 10.3.2. Breakthrough Pain Management
  - 10.3.3. Opioid Rotation
  - 10.3.4. Interventional Measures
- 10.4. Polypharmacy. Adherence to Treatment
  - 10.4.1. Polypharmacy. Selection of the Main Medications
  - 10.4.2. Adherence to Treatment. Strategies for Improvement
  - 10.4.3. STOPP/START Criteria
- 10.5. Complementary Therapies, Nutrition and Psychotherapy in the Complex Chronic Patient
  - 10.5.1. Complementary Therapies Scientific Evidence
  - 10.5.2. Nutrition in the Complex Chronic Patient
  - 10.5.3. Assessment of the Nutritional Status of the Complex Chronic Patient
  - 10.5.4. Nutritional Requirements
  - 10.5.5. Management of Diseases and Specific Situations in the Complex Chronic Patient
  - 10.5.6. Mental Illness in the Chronic Patient. Psychotherapy

- 10.6. Physical Exercise and Functional Capacity. Rehabilitation Medicine in the Chronic Patient
  - 10.6.1. Benefits of Physical Exercise
  - 10.6.2. Physical Exercise Programs
  - 10.6.3. Rehabilitative Therapy. Types and Objectives
- 10.7. Role of Communication and Information Technologies (ICTs) in the Complex Chronic Patient
  - 10.7.1. Resources for Professionals. Complementary Models for Clinical Practice
  - 10.7.2. Resources for Patients
  - 10.7.3. Health Data Management. Artificial Intelligence and Data Analysis
- 10.8. Care and Social Aspects of the Complex Chronic Patient
  - 10.8.1. Family Support and Support Network
  - 10.8.2. Adaptations in the Environment
  - 10.8.3. Social Needs Assessment. Accessing Social Resources. Community and Work Integration Programs
  - 10.8.4. Patient Empowerment. Support Groups
- 10.9. Disease Management and Palliative Care in the Complex Chronic Patient. Advanced Care Planning
  - 10.9.1. Individualized and Coordinated Care Plan
  - 10.9.2. Education of the Patient and the Patient's Environment
  - 10.9.3. Palliative Care. Objectives and Models
  - 10.9.4. Advanced Care Planning
- 10.10. Bioethical Aspects in Relation to the Chronic Patient. Limitation of Therapeutic Effort. Euthanasia
  - 10.10.1. Bioethical Principles. Integration in Clinical Practice, Research, Use of Technology
  - 10.10.2. Limitation of Therapeutic Effort
  - 10.10.3. Ethical Dilemmas
  - 10.10.4. Euthanasia





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*You will reinforce your key knowledge through the innovative Relearning methodology for an effective assimilation of the subject”*

06

# Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, 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.





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*Discover Relearning, 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

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.

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*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 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

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This 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, a real revolution with respect to the mere study and analysis of cases.

*Professionals will learn through real cases and by resolving 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 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.



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 applied to the 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

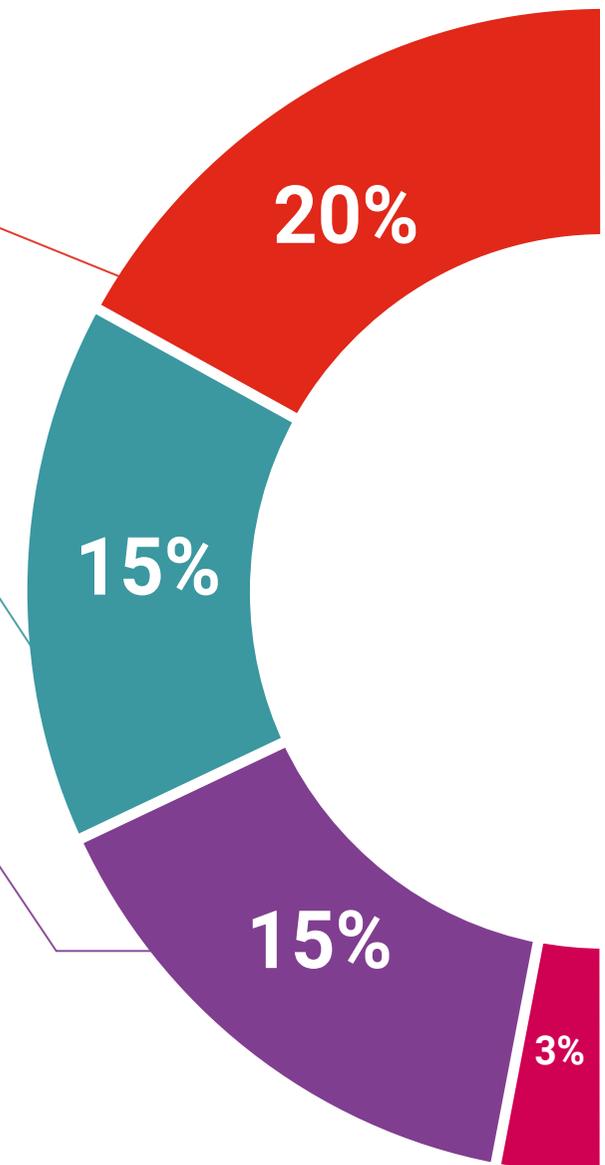
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

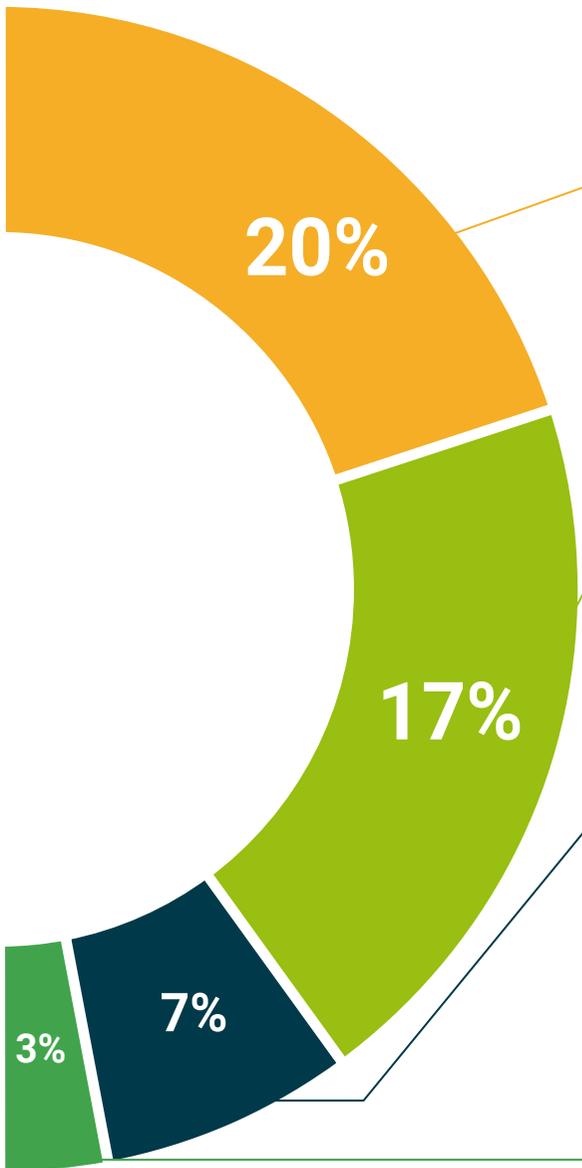
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



#### 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 the expert will guide students, 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 students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



#### 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.



# 07 Certificate

The Professional Master's Degree in Complex Chronic Patient guarantees students, in addition to the most rigorous and up-to-date education, access to a Professional Master's Degree issued by TECH Global University.



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*Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork”*

This program will allow you to obtain your **Professional Master's Degree diploma in Complex Chronic Patient** endorsed by **TECH Global University**, the world's largest online university.

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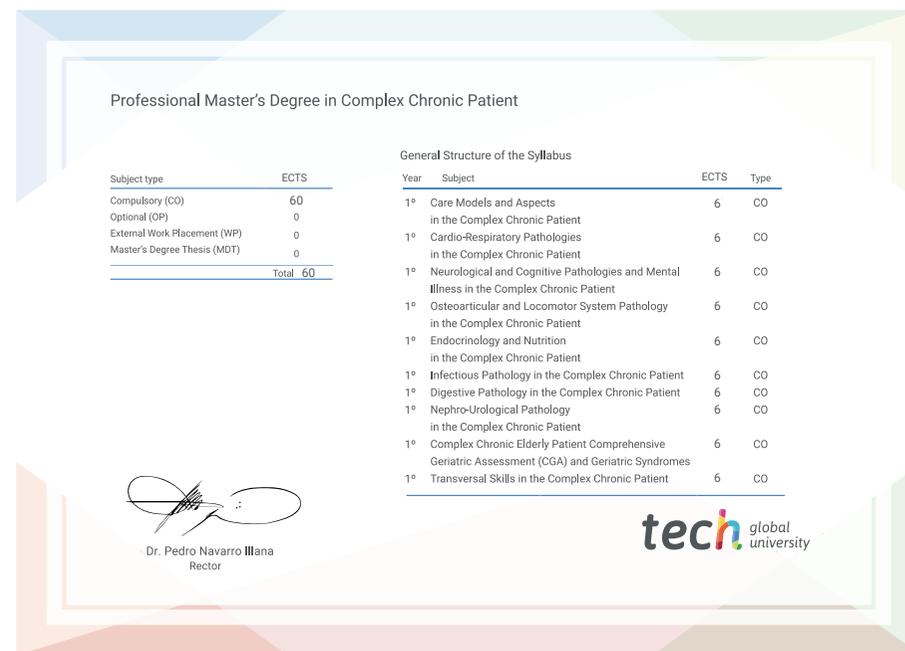
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Professional Master's Degree in Complex Chronic Patient**

Modality: **online**

Duration: **12 months**

Accreditation: **60 ECTS**



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**Professional Master's  
Degree**  
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- » Certificate: TECH Global University
- » Credits: 60 ECTS
- » Schedule: at your own pace
- » Exams: online

# Professional Master's Degree

## Complex Chronic Patient

