Postgraduate Diploma NIMV Pathology Care and Research



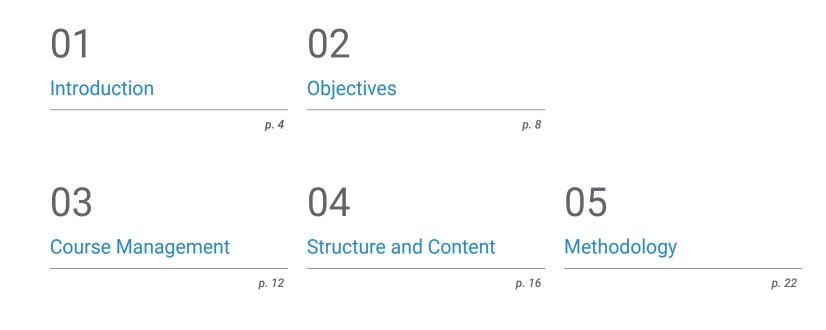


**Postgraduate Diploma** NIMV Pathology Care and Research

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Global University
- » Schedule: at your own pace
- » Exams: online

Website: www.techtitute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-nimv-pathology-care-research

## Index



06 Certificate

## 01 Introduction

Thanks to recent studies, the care applicable to patients with non-invasive mechanical ventilation has undergone significant improvement, with the idea of guaranteeing the patient's full well-being during the hospitalization period. Likewise, the procedures used to elaborate the investigations that offer these findings have also evolved, providing increasingly representative and accurate results. Therefore, keeping up to date in both fields is essential for the physician who wishes to enjoy a multidisciplinary professional update. For this reason, TECH has created this degree, which allows the specialist to delve into the latest protocols for the approach to respiratory secretions or the intricacies of research design on NIMV, online and from home.



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Learn, through this program, the most updated protocols for the management of respiratory secretions in the NIMV patient"

## tech 06 | Introduction

The continuous technological evolution and the constant development of scientific evidence in the field of Non-Invasive Mechanical Ventilation has motivated the improvement of the care applied to the patient who is subjected to it. In this way, the prevention of possible complications associated with the process is optimized, achieving greater safety for patients. In order to find these advances, updated research methodologies have been implemented, which allow optimizing the selection of samples and provide reliable results that will contribute to enrich medical practice.

This way, identifying recent advances in both care and research development is crucial for the specialist who wishes to be at the forefront of NIMV management and research. For this reason, TECH has designed this program, designed to provide a complete update to the student in both fields. Throughout this academic itinerary, you will explore cutting-edge techniques for monitoring oxygenation and ventilation or cutting-edge strategies to prevent aspiration of gastric contents. Likewise, it will delve into the current recommendations for clinical studies on Non-Invasive Mechanical Ventilation.

Since this certificate is taught in a 100% online modality, the physician will be able to manage his or her own study time as desired in order to obtain an effective update. In addition, excellent teaching materials are available in a variety of formats, including video, simulation of real cases and interactive summaries. In this way, you will be able to choose the media that best suits your academic needs.

The **Postgraduate Diploma in NIMV Pathology Care and Research** 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 Non-Invasive Mechanical Ventilation
- The graphic, schematic, and practical contents with which they are created, 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



Throughout this Postgraduate Diploma, you will identify the state-of-the-art techniques for monitoring oxygenation and ventilation of the patient"

## Introduction | 07 tech

Complete your medical update by means of the most innovative multimedia didactic formats of the pedagogical environment"

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.

This TECH certificate will allow you to update your knowledge 100% online and without depending on inconvenient study schedules.

Be able to learn the most cuttingedge protocols for the design of research on the management of Non-Invasive Mechanical Ventilation thanks to this program.

# 02 **Objectives**

The design of this Postgraduate Diploma has been carried out with the premise of guaranteeing with an excellent update in Care and Investigation of NIMV Pathologies by the specialist. Through this program, you will be able to delve into the cutting-edge protocols to address unforeseen situations or procedures for conducting clinical studies on Non-nvasive Mechanical Ventilation in just 6 months.

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TECH offers you the opportunity to update your skills in NIMV Pathology Care and Research to avoid being left behind the advances in your sector"

## tech 10 | Objectives



## **General Objectives**

- Understand the importance and role of Non-Invasive Mechanical Ventilation in the treatment of acute and chronic respiratory pathologies
- Acquire knowledge of the updated indications and contraindications for the use of Non-Invasive Mechanical Ventilation, as well as the different types of devices and ventilation modes
- Develop skills and competencies in monitoring patients with Non-Invasive Mechanical Ventilation, including data interpretation and the detection and prevention of complications
- Explore cutting-edge technologies used in the telemonitoring of patients with Non-Invasive Mechanical Ventilation and the ethical and legal aspects related to its use
- Delve into the key differences in Non-Invasive Mechanical Ventilation in Pediatrics
- Delve your understanding of the ethical aspects related to the management of patients requiring NIV



### Specific Objectives

#### Module 1. Non-Invasive Mechanical Ventilation in Specific Pathologies

- Describe the indications and contraindications of Non-Invasive Mechanical Ventilation (NIV) in various pathologies such as COPD, Heart Failure, ARDS, or Epidemic Infectious Diseases, among others
- Analyze the selection and adjustment of ventilatory parameters for NIMV in each specific pathology
- \* Evaluate the effectiveness of NIMV in each specific pathology
- Delve into the latest scientific evidence on NIMV management in Epidemic Infectious Diseases
- Understand the complications associated with the use of NIMV in obese patients and strategies for prevention and treatment

#### Module 2. Care in Non-Invasive Mechanical Ventilation

- \* Monitor the patient's vital signs and adjust monitoring as needed
- Monitor patient oxygenation and ventilation and adjust mechanical ventilation according to patient needs
- Evaluate and manage respiratory secretions to prevent aspiration
- Develop an individualized care plan for patients on Non-Invasive Mechanical Ventilation

#### Module 3. Ethics, Innovation, and Research

- Understand ethical principles in the use of NIMV, as well as relevant regulations and legal considerations, and the civil and criminal liability of healthcare professionals
- Gain in-depth knowledge of ethical and legal considerations in decision-making for patients with limited decision-making capacity and patients at the end of life
- Explore new technologies in mechanical ventilation, NIMV in sleep apnea, and home NIMV
- Deepen your understanding of the latest research in NIMV management



Through just 450 hours of study, you will delve into cutting-edge recommendations for designing clinical studies related to NIMV"

## 03 Course Management

With the premise of designing academic programs endowed with the highest educational level, TECH has selected leading specialists in the field of Pulmonology to lead and deliver this qualification. These physicians have worked in top hospitals located throughout Spain and have experience in the field of research on Non-Invasive Mechanical Ventilation. Consequently, the knowledge they will provide to the students will have been previously applied in their professional careers.

Course Management | 13 tech

Enjoy a qualification directed and taught by experts in NIMV who perform their medical and research functions in prestigious hospital and scientific centers"

## tech 14 | Course Management

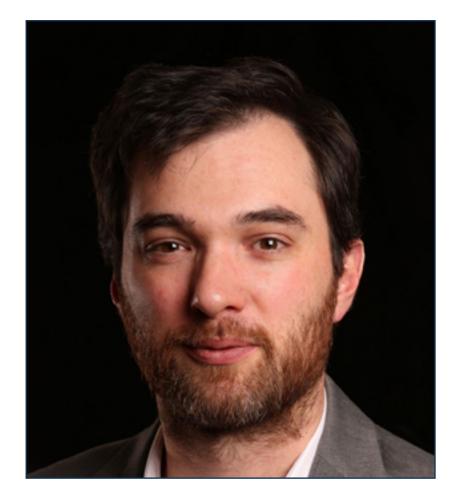
### **International Guest Director**

With a relevant trajectory in the field of Pulmonology and Clinical Research, Dr. Maxime Patout distinguishes himself as an internationally renowned physician and scientist. As such, his involvement and contribution have led him to position himself as Clinical Director in Public Assistance in prestigious hospitals in Paris, standing out for his leadership in the management of Complex Respiratory Diseases. With this, it is worth mentioning his work as Coordinator of the Department of Functional Explorations of Breathing, Exercise and Dyspnea at the famous Hospital de la Pitié-Salpêtrière.

In the field of Clinical Research, Dr. Patout has made valuable contributions in leading areas such as Chronic Obstructive Pulmonary Disease, Lung Cancer and Respiratory Physiology. Accordingly, in his role as a Research Fellow at Guy's and St Thomas' NHS Foundation Trust, he has conducted groundbreaking studies that have expanded and improved the treatment options available to patients.

In this line, his versatility and leadership as a physician give him a vast experience in fields such as Biology, Physiology and Pharmacology of Circulation and Respiration. Therefore, he stands out as a renowned specialist in the Pulmonary and Systemic Diseases unit. In addition, his recognized competence in the Anti-Infectious Chemotherapy unit also places him as an outstanding reference in the field, being a regular advisor to future health professionals.

For all these reasons, his outstanding expertise in the field of Pulmonology has led him to be an active member of prestigious international organizations such as the European Respiratory Society and the French-Language Society of Pneumology, where he continues to contribute to scientific progress. So much so, that he shows an active participation in symposiums that enhance his medical excellence and constant updating in his field.



## Dr. Patout, Maxime

- Clinical Director in Public Care at the Salpêtrière Hospital, Paris, France
- Clinical Research Fellow at Guy's and St Thomas' NHS Foundation Trust
- Coordinator of the Breathing, Exercise and Dyspnea Functional Examination
- Service at the Pitié-Salpêtrière Hospital
- Doctor of Medicine, University of Rouen
- Master's Degree in Biology, Physiology and Pharmacology of the Circulation and Respiration at the University of Paris
- University Expert in Pulmonary and Systemic Diseases from the University of Lille
- University Expert in Anti-infectious Chemotherapy, University of Rouen
- Medical Specialist in Pulmonology from the University of Rouen
- Member of: European Respiratory Society, French-language Society of Pneumology

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

## tech 16 | Course Management

### Management



### Dr. Landete Rodríguez, Pedro

- Co-coordinator of the Basic Ventilation Department at La Princesa University Hospital
- Pulmonologist at La Princesa University Hospital
- Pulmonologist at Blue Healthcare
- Researcher in several research groups
- Professor in undergraduate and postgraduate university studies
- Author of numerous scientific publications in international journals and participant in several book chapters
- Speaker at international medical congresses
- Doctor Cum Laude by the Autonomous University of Madrid

### Professors

#### Dr. López Padilla, Daniel

- Pulmonologist Specialist and Researcher
- FEA in the Intermediate Respiratory Care Unit at the General University Hospital
- Teacher in undergraduate studies related to Health Sciences
- Coordinator of the Emerging Group for Mechanical Ventilation and Critical Respiratory Care of the Spanish Society of Pulmonology and Thoracic Surgery

- Member of the Integrated Research Program on Non-Invasive Ventilation and Intermediate Respiratory Care Units of the Spanish Society of Pulmonology and Thoracic Surgery
- Editor-in-Chief of the Journal of Respiratory Pathology
- Author of numerous publications in scientific journals
- Doctorate in Medicine from the Autonomous University Madrid

## Course Management | 17 tech

#### Dr. Muñoz Corroto, Cristina

- Doctor and teaching collaborator
- Specialist in Pulmonology at the Hospital Universitario Reina Sofía
- Teaching collaborator in university studies of Medicine
- Speaker at national and international Pulmonology Congresses
- Expert in Thoracic Ultrasound from the University of Barcelona

#### Ms. González González, María

- Clinical Nurse
- Clinical Nurse in the Intermediate Respiratory Care Unit at the Hospital de La
  Princesa
- Clinical tutor in Nursing degree studies
- \* Master's Degree in Clinical Nutrition from the University of Granada
- Postgraduate Diploma in Nursing Research from the Universidad Católica de Ávila



## 04 Structure and Content

The syllabus of this qualification consists of 3 comprehensive modules through which the pulmonologist will acquire the most up-to-date knowledge in the field of Care and Research of Pathologies in NIMV. Throughout their academic experience, they will have access to the most innovative educational content available, presented in formats such as explanatory videos, real-case simulations, or interactive summaries. Thanks to this, they will enjoy engaging and effective learning through a 100% online mode that allows them to study 24 hours a day.

This Postgraduate Diploma, designed by active specialists in Pulmonology, will provide you with the most up-todate educational content on Care and Research of Pathologies in NIMV"

## tech 20 | Structure and Content

#### Module 1. Non-Invasive Mechanical Ventilation in Specific Pathologies

- 1.1. Non-Invasive Mechanical Ventilation in Acute Chronic Obstructive Pulmonary Disease (COPD)
  - 1.1.1. Indications and Contraindications in Patients with COPD
  - 1.1.2. Selection and Adjustment of Ventilatory Parameters in COPD
  - 1.1.3. Assessment of Efficacy
  - 1.1.4. Weaning Strategies from NIMV in COPD Patients
  - 1.1.5. Criteria for NIMV at Hospital Discharge
- 1.2. Non-Invasive Mechanical Ventilation in Heart Failure
  - 1.2.1. Effects of Non-Invasive Mechanical Ventilation on the Hemodynamics of Heart Failure Patients
  - 1.2.2. Monitoring Heart Failure Patients during Non-Invasive Mechanical Ventilation
  - 1.2.3. Non-Invasive Mechanical Ventilation in Patients with Acutely Decompensated Heart Failure
  - 1.2.4. Non-Invasive Mechanical Ventilation in Patients with Chronic Heart Failure and Its Impact on Patient Quality of Life
- 1.3. Non-Invasive Mechanical Ventilation in Acute Respiratory Distress Syndrome (ARDS)
  - 1.3.1. Definition and Diagnostic Criteria for ARDS
  - 1.3.2. Indications and Contraindications of NIMV in ARDS Patients
  - 1.3.3. Selection and Adjustment of Ventilatory Parameters in ARDS Patients on NIMV
  - 1.3.4. Monitoring and Evaluation of Response to NIMV in ARDS Patients
  - 1.3.5. Comparison of NIMV with IMV in ARDS Patients
- 1.4. Non-Invasive Mechanical Ventilation in Diffuse Interstitial Lung Diseases (DILD)
  - 1.4.1. Pathophysiology of Diffuse Interstitial Lung Diseases (DILD)
  - 1.4.2. Scientific Evidence in the Management of NIMV in DILD
  - 1.4.3. Indications for NIMV in Patients with DILD
  - 1.4.4. Assessment of the Efficacy of NIMV in Patients with DILD
- 1.5. Non-Invasive Mechanical Ventilation in Obesity
  - 1.5.1. Obesity Pathophysiology and Its Relationship with NIMV
  - 1.5.2. Indications and Contraindications in Obese Patients
  - 1.5.3. Specific NIMV Adjustments in Obese Patients
  - 1.5.4. Strategies for Prevention and Treatment of Complications
  - 1.5.5. NIMV in Patients with Obstructive Sleep Apnea
  - 1.5.6. Obesity Hypoventilation Syndrome

- 1.6. Non-Invasive Mechanical Ventilation in Neuromuscular and Rib Cage
  - 1.6.1. Indications
  - 1.6.2. Main Neuromuscular and Rib Cage Diseases
  - 1.6.3. Selection of Ventilatory Modes
  - 1.6.4. Adjustment of Ventilatory Parameters
  - 1.6.5. Assessment of Efficacy and Tolerance of NIMV
  - 1.6.6. Tracheostomy Indications
  - 1.6.7. Management of Complications
- 1.7. Non-Invasive Mechanical Ventilation in COVID-19 Patients
  - 1.7.1. Indications for NIMV in COVID-19 Patients
  - 1.7.2. Adjustment of Ventilatory Parameters
  - 1.7.3. Safety Considerations in NIMV for COVID-19
  - 1.7.4. Assessment of Efficacy
  - 1.7.5. Disconnection Strategies
- 1.8. Non-Invasive Mechanical Ventilation in Acute Hypoxemic Respiratory Failure
  - 1.8.1. Definition of De Novo Respiratory Failure
  - 1.8.2. Indications and Contraindications for NIMV in Acute Hypoxemic Respiratory Failure
  - 1.8.3. Parameters and Adjustments in NIMV for Patients with Acute Hypoxemic Respiratory Failure
  - 1.8.4. Complications Associated with NIMV Use in Acute Hypoxemic Respiratory Failure
  - 1.8.5. Assessment of NIMV Efficacy in Improving Oxygenation and Reducing Respiratory Work in Acute Hypoxemic Respiratory Failure
  - 1.8.6. Comparison of NIMV with Invasive Mechanical Ventilation in Patients with Acute Hypoxemic Respiratory Failure
- 1.9. Non-Invasive Mechanical Ventilation in the asthmatic patient in exacerbation
  - 1.9.1. Indications for NIMV in Asthma Attacks
  - 1.9.2. Ventilatory Parameters to Adjust
  - 1.9.3. Monitoring of the acutely ill asthmatic patient during NIMV
  - 1.9.4. Alarm Criteria for Poor Response to NIMV
- 1.10. Non-Invasive Mechanical Ventilation in Pre-Intubation Preparation
  - 1.10.1. Benefits, Risks, and Limitations
  - 1.10.2. Management of NIMV in Transition to Invasive Mechanical Ventilation

## Structure and Content | 21 tech



#### Module 2. Care in Non-Invasive Mechanical Ventilation

- 2.1. Monitoring of the Patient's Vital Signs
  - 2.1.1. Importance of Monitoring Vital Signs
  - 2.1.2. Types of Vital Signs to Monitor
  - 2.1.3. Analysis and Interpretation of Obtained Values
  - 2.1.4. Adjusting Monitoring According to the Patient's Needs
- 2.2. Monitoring Oxygenation and Ventilation of the Patient
  - 2.2.1. Techniques for Monitoring Oxygenation and Ventilation
  - 2.2.2. Interpreting Pulse Oximetry and Capnography Values
  - 2.2.3. Early Detection of Hypoxia and Hypercapnia
  - 2.2.4. Adjusting Mechanical Ventilation According to the Patient's Needs
- 2.3. Monitoring of Interface and Ventilation Circuit
  - 2.3.1. Identification and Prevention of Leaks in the Interface and Circuit
  - 2.3.2. Cleaning and Maintenance of the Interface and Circuit
  - 2.3.3. Changing and Selecting the Interface According to the Patient's Needs

#### 2.4. Management of Respiratory Secretions

- 2.4.4. Assessment Techniques for Respiratory Secretions
- 2.4.5. Methods for Mobilizing and Removing Secretions
- 2.4.6. Precautions and Measures to Avoid Aspiration of Secretions
- 2.4.2. Selection and Adjustment of Secretion Suction Devices
- 2.5. Skin Care at the Interface Site
  - 2.5.1. Assessment and Prevention of Skin Lesions at the Interface Site
  - 2.5.2. Skin Cleaning and Care Techniques at the Interface Site
  - 2.5.3. Dressings and Wound Care for Skin Lesions
- 2.6. Prevention of Gastric Content Aspiration
  - 2.6.1. Assessment of Aspiration Risk
  - 2.6.2. Prevention Measures for Aspiration in Non-Invasive Mechanical Ventilation Patients
  - 2.6.3. Types of Tubes and Devices Used for Patient Nutrition and Feeding

## tech 22 | Structure and Content

- 2.7. Patient and Family Education on Non-Invasive Mechanical Ventilation
  - 2.7.1. Importance of Patient and Family Education
  - 2.7.2. Information to Be Provided to the Patient and Their Family About the Use of Non-Invasive Mechanical Ventilation
  - 2.7.3. Management of Emergencies and Unexpected Situations by the Patient and Their Family
  - 2.7.4. Strategies to Promote Adherence to Non-Invasive Mechanical Ventilation
- 2.8. Individualized Care Plan for Patients on Non-Invasive Mechanical Ventilation
  - 2.8.1. General Considerations in Developing the Care Plan
  - 2.8.2. Nursing Assessment of Patients on NIMV
  - 2.8.3. NANDA Diagnosis
  - 2.8.4. Nursing Outcomes and Interventions
- 2.9. Tracheostomy care and treatment
  - 2.9.1. Tracheostomy cleaning and healing techniques
  - 2.9.2. Selection and adjustment of the tracheostomy device
  - 2.9.3. Prevention and treatment of complications associated with tracheostomy
- 2.10. Infection transmission prevention measures
  - 2.10.1. Standard Precautions
  - 2.10.2. Types of hospital isolation
  - 2.10.3. NIMV patient specifications

#### Module 3. Ethics, Innovation, and Research

- 3.1. Ethics and Legality in Non-Invasive Mechanical Ventilation
  - 3.1.1. Ethical Principles in Non-Invasive Mechanical Ventilation
  - 3.1.2. Patient Confidentiality and Privacy
  - 3.1.3. Professional and Legal Responsibility of Healthcare Personnel
  - 3.1.4. Regulations and Guidelines for Non-Invasive Mechanical Ventilation
  - 3.1.5. Civil and Criminal Liability in Non-Invasive Mechanical Ventilation



## Structure and Content | 23 tech

- 3.2. Use of NIMV in Emergency Situations
  - 3.2.1. NIMV in Emergency Situations: Assessing Risks and Benefits in the Context of a Pandemic
  - 3.2.2. Selecting Patients for NIMV in Emergency Situations: How to Choose the Most Suitable Patients?
  - 3.2.3. NIMV in Emergency Situations: Practical and Logistical Aspects in a High-Demand Environment
  - 3.2.4. The Role of Nursing Staff in the Application and Monitoring of NIMV in Emergency Situations
  - 3.2.5. Ethical and Legal Considerations in the Application of NIMV in Emergency Situations During and After the Pandemic
- 3.3. Use of NIMV in Patients with Limited Decision-Making Capacity
  - 3.3.1. Ethical Considerations in Decision-Making for Patients with Limited Decision-Making Capacity in NIV
  - 3.3.2. Role of the Multidisciplinary Team in Assessment and Decision-Making
  - 3.3.3. Importance of Effective Communication with Family or Caregivers in Decision-Making
  - 3.3.4. Assessment of the Patient's Quality of Life and Capacity to Tolerate NIMV
  - 3.3.5. Analysis of the Potential Consequences of NIMV in Patients with Limited Decision-Making Capacity and Its Impact on Medical Decision-Making
- 3.4. Use of Non-Invasive Mechanical Ventilation in End-of-Life Patients
  - 3.4.1. The Role of the Palliative Care Team in the Decision to Use NIMV at the End of Life
  - 3.4.2. Ethical Considerations in the Use of NIMV in End-of-Life Patients
  - 3.4.3. Psychological Impact on Patients and Families when Using NIMV at the End of Life
  - 3.4.4. Identifying Candidates for NIMV at the End of Life
  - 3.4.5. Alternatives to NIMV in Palliative Care
- 3.5. Effective Communication in Non-Invasive Mechanical Ventilation
  - 3.5.1. Importance of Effective Communication in Healthcare
  - 3.5.2. Techniques for Effective Communication with Patients and Their Families
  - 3.5.3. Non-Verbal Communication in Non-Invasive Mechanical Ventilation
  - 3.5.4. Effective Communication in Planning the Discharge of Patients with Chronic NIMV
- 3.6. Education and Training of Healthcare Personnel, Patients, and Families in Home NIMV Management

- 3.7. Conflict Situations in the Management of Non-Invasive Mechanical Ventilation
  - 3.7.1. Challenges in the Application of NIMV in Morbidly Obese Patients
  - 3.7.2. Intolerance to Non-Invasive Mechanical Ventilation: Causes and Alternatives
  - 3.7.3. Approach to NIMV in Patients with Advanced Neuromuscular Disorders
- 3.8. NIMV in Patient Care in the Context of Palliative Care
  - 3.8.1. Indications and Ethical Considerations
  - 3.8.2. NIMV in Patients with Terminal Illness: When to Initiate and Discontinue
- 3.9. Innovation in Non-Invasive Mechanical Ventilation
  - 3.9.1. New Technologies in NIMV: Advanced Ventilators and Ventilation Modes
  - 3.9.2. NIMV in Sleep Apnea: Advances and Challenges
  - 3.9.3. NIMV at Home: Implications and Self-Care Recommendations
- 3.10. Research in Non-Invasive Mechanical Ventilation Management
  - 3.10.1. Study Design in Non-Invasive Mechanical Ventilation Management
  - 3.10.2. Research
    - 3.10.2.1. Efficacy and Safety of NIMV
    - 3.10.2.2. Patient Quality of Life and Satisfaction
    - $3.10.2.3. \ \mbox{implemented}$  and Dissemination of Guidelines and Recommendations for NIMV Management

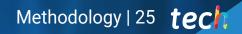


Enroll in this Postgraduate Diploma and study dynamically and effectively through educational resources like explanatory videos and interactive summaries"

# 05 **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.



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"

## tech 26 | Methodology

### At TECH we use the Case Method

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

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



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

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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:

 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.
- 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.



## tech 28 | Methodology

### **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.



## Methodology | 29 tech

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

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

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

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

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



## tech 30 | Methodology

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



#### **Study Material**

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

20%

15%

3%

15%

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.

## Methodology | 31 tech



#### **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.

20%

7%

3%

17%



#### **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.



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.

# 06 **Certificate**

The Postgraduate Diploma in NIMV Pathology Care and Research guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Global University.



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

## tech 34 | Certificate

This program will allow you to obtain your **Postgraduate Diploma in NIMV Pathology Care and Research** endorsed by **TECH Global University**, the world's largest online university.

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

This **TECH Global University** 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: Postgraduate Diploma in NIMV Pathology Care and Research

Modality: online

Duration: 6 months

Accreditation: 18 ECTS



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

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Postgraduate Diploma NIMV Pathology Care and Research

