

# Postgraduate Diploma

Critical and Pediatric Patient Treatment  
and Rehabilitation in Major Burns



## Postgraduate Diploma Critical and Pediatric Patient Treatment and Rehabilitation in Major Burns

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtitute.com/in/medicine/postgraduate-diploma/postgraduate-diploma-critical-pediatric-treatment-rehabilitation-major-burns](http://www.techtitute.com/in/medicine/postgraduate-diploma/postgraduate-diploma-critical-pediatric-treatment-rehabilitation-major-burns)

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# 01

# Introduction

Patients with severe burns, who are in critical condition, require special care to improve their state of health. Specialization in this field is essential on the part of physicians, especially when dealing with pediatric patients, since documentation in this case is scarcer. If you want to obtain a higher qualification that will allow you to perform appropriate interventions, do not hesitate and join TECH Technological University and its student community.







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*Pediatric patients with severe burns require appropriate intervention by healthcare providers. Don't think twice and specialize in this field of high medical interest”*

The treatment of severe burn patients is similar to that of other critical patients; however, they have some differential elements. For this reason, this Postgraduate Diploma focuses on the particularities of this type of patient and, to this end, will show, firstly, the preparation for anesthesia required in the multiple surgical reinterventions, and analgosedation and delirium (prevention and treatment), making an up-to-date exposition and marking the differences that correspond to these patients.

It is also important to take into account the importance of nutrition in the medium and long term in burn patients, therefore current knowledge on the subject is presented. In some cases, as in the case of trace element and vitamin requirements, there are no studies that provide the minimum necessary requirements, so the most recent studies are discussed and a proposal is made.

It should be noted that pediatric burn patients are not usually treated in classic burn units. This often results in little attention being paid to them and reference is made only to the different initial resuscitation formulas. In order to increase the specialization of physicians, this Postgraduate Diploma aims to give them the importance they deserve and will review all the topics that affect them in a structured way and not only showing the differences with adults.

In addition to the complete and fully updated information, it offers the greatest experience from the teaching staff in the treatment of this type of patient. This experience is very valuable since there are very few burn units and, therefore, the possibility of getting practical experience in them is scarce. As a main advantage, it is a 100% online specialization, so the student can decide from where to study and at what time to do it, in this way, they can flexibly self-direct their study hours.

This **Postgraduate Diploma in Critical and Pediatric Patient Treatment and Rehabilitation in Major Burns** contains the most complete and up-to-date educational program on the market. The most important features include:

- ♦ The development of clinical practical case studies presented by experts in burns
- ♦ 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
- ♦ The presentation of practical workshops on procedures and techniques
- ♦ An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course
- ♦ Action protocols and clinical practice guidelines, which cover the most important latest developments in this specialist area
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ♦ Special emphasis on test-based medicine and research methodologies
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



*Increase your proficiency in treating patients with major burns and give your career a boost"*

“

*This Postgraduate Diploma is the best investment you can make in a specialization to update your knowledge in the care of patients with major burns”*

The teaching staff includes a team of prestigious urologists, who bring their experience to this program, as well as renowned specialists from leading scientific societies.

Its multimedia content, developed with the latest educational technology, will allow professionals to learn in a contextual and situated learning environment, i.e., a simulated environment that will provide immersive specialization for real situations.

The design of this program focuses on Problem-Based Learning, by means of which professionals must try to solve the different professional practice situations that are presented to them throughout the academic year. This will be done with the help of an innovative interactive video system created by renowned experts in the treatment of critically ill patients, pediatric patients and rehabilitation in major burns, and with extensive teaching experience.

*This Postgraduate Diploma allows you to study from anywhere in the world. All you need is a computer or mobile device with an internet connection.*

*Our innovative teaching methodology will allow you to study as if you were dealing with real cases, and therefore increasing your training.*



# 02 Objectives

The program in Critical and Pediatric Patient Treatment and Rehabilitation in Major Burns is designed to facilitate the performance of healthcare professionals with the latest advances and most innovative treatments in the sector.







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*This specialization will create a sense of confidence in daily practice and help you to grow professionally"*



## General objectives

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- Learn to manage and treat this complex pathology in which Intensive Care Medicine Specialists and plastic surgeons are fundamentally involved, but also other specialists such as anesthesiologists, infectologists, rehabilitators, psychiatrists, etc., and, of course, specialized nurses
- Offer a complete, integrated and multidisciplinary specialization that enables the care of patients with severe burns and that, through a multidisciplinary knowledge, facilitates the collaboration with other specialists



*Our goal is to achieve academic excellence and to help you achieve it too"*





## Specific objectives

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### **Module 1. Treatment of the Critically Ill Patient with Skin Pathology**

- ◆ Specialize in the unique features of the treatment of these burn patients compared to other critical patients
- ◆ Discuss innovative therapeutic possibilities
- ◆ Provide information on other pathologies such as toxic epidermal necrolysis that have a similar treatment and that have been shown to have a better prognosis when admitted and treated in burn units

### **Module 2. Nutrition and Rehabilitation**

- ◆ Make the student aware that the objective of the treatment should be to return to normal life with the minimum number of repercussions and that the treatment of the acute phase is as important as the avoidance of later complications
- ◆ Have a deeper understanding of the nutritional needs of these patients
- ◆ Highlight the importance of rehabilitation at all times

### **Module 3. Pediatric Burns**

- ◆ Know in depth everything related to pediatric burn patients in a structured way and not as mere appendices



03

# Course Management

A team of leading professionals in the field of burns, who work in major hospitals of great prestige, have created the syllabus, transferring to the program their experience gained in their jobs throughout their careers.







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*The best professionals in this area have come together to offer you the most specialized expertise in burns"*

## Management



### Dr. Rubio Mateo-Sidrón, Jose Alfonso

- ◆ Attending Physician in Intensive Care Medicine University Hospital 12 de Octubre
- ◆ Fellowship in Cardiothoracic Critical Care. Papworth Hospital. Cambridge UK
- ◆ Extracorporeal Life Support Organization (ELSO)
- ◆ Specialist in Intensive Care Medicine.
- ◆ Degree in Medicine. Cádiz University



### Dr. Sánchez Sánchez, Santos Manuel

- ◆ Head of Section of Intensive Care Medicine La Paz University Hospital.
- ◆ Doctor of Medicine from the Autonomous University Madrid. Outstanding Cum Laude
- ◆ Master's Degree in Clinical, Medical and Healthcare Management. CEU Cardinal Herrera University
- ◆ Medical Specialist in Intensive Care Medicine. La Paz University Hospital
- ◆ Degree in Medicine and Surgery. University of Salamanca.

## Professors

### Dr. Flores Cabeza, Eva

- ♦ Specialist in Intensive Care Medicine in the Burn Unit at the La Paz University Hospital
- ♦ Member of the High-Level Isolation Unit La Paz-Carlos III
- ♦ Certified Expert in Emerging and High-Risk Virus Pathology in the UAM

### Dr. Cachafeiro Fuciños, Lucía

- ♦ Specialist in Intensive Care Medicine in the Burns Unit at La Paz University Hospital
- ♦ Member of the High-Level Isolation Unit (HLIU) at La Paz University Hospital. La Paz University Hospital Research Institute IdiPAZ

### Dr. Ruiz Barranco, Inés

- ♦ Specialist in Intensive Care Medicine in the Burn Unit at the La Paz University Hospital
- ♦ Head of the ICU service in the Multidisciplinary Critical Care Unit COVID-19, newly created

### Dr. García Muñoz, Andoni

- ♦ Associate of Intensive Care Medicine
- ♦ Degree in Medicine and Surgery, University of the Basque Country
- ♦ Master's Degree in Clinical Ultrasound for Emergency and Intensive Care CEU

### Dr. Arellano Serrano, María Soledad

- ♦ Resident of Intensive Care Medicine La Paz University Hospital
- ♦ Degree in Medicine and Surgery from the University of Alcalá de Henares

### Dr. Díaz Blázquez, Pedro

- ♦ Medical Specialist in Rehabilitation. Burn Unit. La Paz University Hospital
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid

### Dr. Agrifoglio Rotaecche, Alexander

- ♦ Attending Physician in the Intensive care medicine Service. La Paz University Hospital. La Paz University Hospital Research Institute IdiPAZ
- ♦ PhD in Medicine and Surgery, Autonomous University of Madrid

### Dr. Díaz, Mercedes

- ♦ Specialist in Pediatric Surgery, Pediatric Burn Unit, since 2002 La Paz Pediatric Hospital
- ♦ Certificate of Completion of Specialized Training in Pediatric Surgery
- ♦ Lecturer in courses on Initial Pediatric Trauma Care and Pediatric Damage Control Surgery
- ♦ Coordinator of the course on Initial Pediatric Trauma Care
- ♦ Lecturer in Continuous Training Courses on Initial Pediatric Burn Care

**Dr. de Miguel, Miriam**

- ◆ Specialist in the Children's Burn Unit of the La Paz University Hospital
- ◆ Lecturer in the courses "Initial Pediatric Trauma Care" and "Damage Control Surgery", La Paz University Hospital
- ◆ Member of the European Pediatric Burns Club
- ◆ Member of the Spanish Association of Burns and Electrical Trauma
- ◆ Training stay at the Shriners Hospital for Burned Children in Boston (USA)
- ◆ Attendance and presentation of papers at the 7th World Congress of Pediatric Burns, Boston (USA), and at the 8th World Congress of the European Pediatric Burns Club in Birmingham, UK

**Dr. Durán De la Fuente, Pilar**

- ◆ MD Pediatric Anesthesiologist La Paz Children's Hospital, Madrid
- ◆ Teacher in the course of Initial Pediatric Trauma Care
- ◆ IMS Simulation Instructor
- ◆ Pediatric and Neonatal CPR Instructor
- ◆ Head of Safety of the Surgical Block of La Paz Children's Hospital

**Dr. Avilés García, Marcelo**

- ◆ Specialist in Intensive Care Medicine. La Paz University Hospital, Madrid
- ◆ Degree in Medicine and Surgery from Mayor de San Simón University
- ◆ MIR in Intensive Care Medicine at La Paz University Hospital







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*Learn from leading professionals the latest advances in procedures in the field of Critical and Pediatric Patient Treatment and Rehabilitation in Major Burns”*

# 04

# Structure and Content

The structure of the curriculum has been designed by a team of professionals who are familiar with the implications of medical knowledge in the approach to the patient, aware of the relevance of the current specialization and committed to quality teaching through new educational technologies.



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*This Master's Degree contains the most complete and up-to-date scientific program on the market”*



## Module 1. Treatment of the Critically Ill Patient with Skin Pathology

- 1.1. Anesthesia in Burn Patients
- 1.2. Sedation
  - 1.2.1. Classic
  - 1.2.2. By Inhalation
- 1.3. Analgesia
  - 1.3.1. Opioids
  - 1.3.2. Multimodal
- 1.4. Delirium and Anxiety
  - 1.4.1. Prevention
  - 1.4.2. Criteria
- 1.5. Macrodoses of Vitamin C in the Initial Burn Phase
- 1.6. Inhalation Syndrome Treatments
- 1.7. Specific Medical Treatment of Electrical Burns
- 1.8. Treatment of Necrotizing Soft Tissues Infections
- 1.9. NSTI Incidence and Pathophysiology
- 1.10. NSTI Diagnostic Diagnosis, and Treatment

## Module 2. Nutrition and Rehabilitation

- 2.1. Nutritional Needs of Burn Patients
  - 2.1.1. Formulas
- 2.2. Nutrition Protocols
  - 2.2.1. Enteral
  - 2.2.2. Parenteral
- 2.3. Trace Elements and Vitamin Requirements
  - 2.3.1. Trace Elements
- 2.4. Vitamins
- 2.5. Modulation of the Hypermetabolic Response
- 2.6. Anabolic Steroids
  - 2.6.1. Oxandrolone







- 2.7. Bone and Muscle Effects
- 2.8. Early-Stage Rehabilitation
  - 2.8.1. Postural
  - 2.8.2. Rehabilitation
    - 2.8.2.1. Physiotherapy
    - 2.8.2.2. Occupational Therapy
  - 2.8.3. Orthoses
    - 2.8.3.1. Splints
- 2.9. Rehabilitation in the Recovery Phase
  - 2.9.1. Postural
  - 2.9.2. Rehabilitation
  - 2.9.3. Orthoses
- 2.10. Compression Therapy

### Module 3. Pediatric Burns

- 3.1. Pathophysiology of Pediatric Burns
- 3.2. Initial Management of the Pediatric Patient
- 3.3. Distinguishing Features of Critical Burns in Children
- 3.4. Surgical Treatment
- 3.5. Temporary and Definitive Coverage
- 3.6. After-effects and Transition to Adulthood
- 3.7. Rehabilitation and Physiotherapy



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

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.



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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.





# 06 Certificate

The Postgraduate Diploma in Critical and Pediatric Patient Treatment and Rehabilitation in Major Burns guarantees you, in addition to the most rigorous and up-to-date training, access to a Postgraduate Diploma issued by TECH Technological University.



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*Successfully complete this program  
and receive your university degree  
without travel or laborious paperwork”*

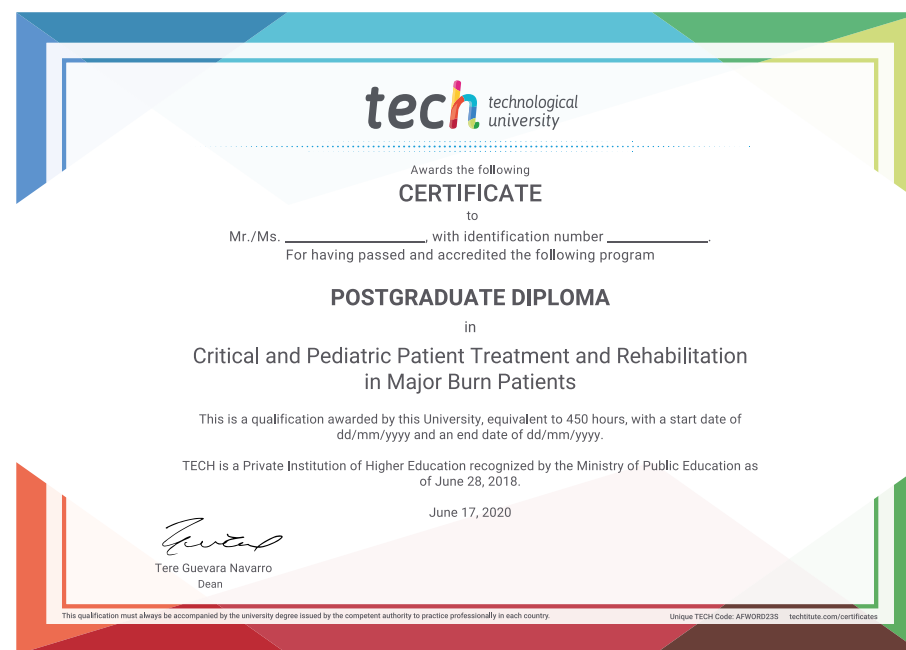
This **Postgraduate Diploma in Critical and Pediatric Patient Treatment and Rehabilitation in Major Burns** contains the most complete and up-to-date scientific program on the market.

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

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

Title: **Postgraduate Diploma in Critical and Pediatric Patient Treatment and Rehabilitation in Major Burn Patients**

Official N° of hours: **450 h.**



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

future

health confidence people

education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

**tech** technological  
university

personalized service innovation

knowledge present  
online treatment  
development language  
virtual classroom

**Postgraduate Diploma**  
Critical and Pediatric Patient  
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