

# Professional Master's Degree

## Hospital Pediatrics





## Professional Master's Degree Hospital Pediatrics

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

Website: [www.techtute.com/us/medicine/professional-master-degree/master-hospital-pediatrics](http://www.techtute.com/us/medicine/professional-master-degree/master-hospital-pediatrics)

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# 01

# Introduction

Pediatrics is one of the most complex fields in a hospital. For this reason, physicians must constantly update their knowledge to be able to respond to the current challenges in the discipline. Therefore, this program offers up-to-date information on this area, and delves into the latest advances in different aspects such as empirical antibiotherapy, bronchopulmonary dysplasia, biliary lithiasis or acute ataxia, among others. Therefore, thanks to this degree, specialists will have access to the most recent scientific developments in Hospital Pediatrics. All this, following an innovative 100% online teaching system that allows physicians to balance their career with their studies, since the program can be adapted to their personal circumstances.





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*Access the latest news in the field of Hospital Pediatrics and learn the most recent advances in cyanogenic cardiopathies or in demyelinating diseases that affect pediatric patients”*

Among the existing hospital services, pediatrics treats some of the most delicate patients. It is, therefore, a complex area and has series of specific problems for which the latest tools must be available. In recent years there have been numerous advances in this field and, thanks to this program, physicians have access to the best knowledge to help them face current challenges in Hospital Pediatrics.

This Professional Master's Degree proposes an exhaustive update in this area, and for that purpose it focuses on the most recent discoveries related to issues such as acute disseminated encephalomyelitis, truncus arteriosus, polydipsia and polyuria, adenomegaly and hepatosplenomegaly, among many other pathologies. All this, applied to pediatric patients in the hospital environment.

To undertake this learning process, an innovative e-learning methodology is used so physicians can decide how, when and where to study, which is perfect for practicing professionals. Furthermore, the teaching process is carried out through the use of numerous multimedia resources such as video procedures and techniques, interactive summaries and master classes, among others. In addition, you will be guided at all times by prestigious specialists who will transmit all their knowledge to the professionals who enroll in the program.

This **Professional Master's Degree in Hospital Pediatrics** contains the most complete and up to date scientific program on the market. Its most notable features are:

- ◆ Practical case studies are presented by experts in hospital pediatrics
- ◆ The graphic, schematic, and eminently practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- ◆ Practical exercises where the self assessment process can be carried out to improve learning
- ◆ Special emphasis on innovative methodologies
- ◆ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ◆ Access to content from any fixed or portable device with an Internet connection



*Delve into the main innovations on the most common pathologies in hospital pediatrics with this program"*

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*Hospital Pediatrics is a complex area that requires physicians to constantly update their knowledge. This degree will bring you up to date in the discipline in a simple way, without having to put your professional career to one side”*

The program’s teaching staff includes professionals from the sector who contribute their work experience to this 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 an immersive program designed 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 student will be assisted by an innovative interactive video system created by renowned and experienced experts.

*This program will show you the latest advances in treatments for numerous pediatric pathologies*

*Get up to speed in the constantly evolving field of Hospital Pediatrics*



# 02 Objectives

The main objective of this Professional Master's Degree in Hospital Pediatrics is to update specialists' knowledge in the field by following the latest scientific findings. In order to achieve this, it proposes an in-depth study of a series of procedures and pathologies that affect pediatric patients, taking into account the most recent developments in the discipline. Therefore, at the end of the program, physicians will have gained up-to-date knowledge on relevant issues such as pediatric hemato-oncology.







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*Complete this innovative program  
and achieve all your professional  
goals thanks to TECH”*



## General Objectives

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- ◆ Master the latest techniques and knowledge in modern hospital pediatrics
- ◆ Become proficient in pediatric patient management, ensuring maximum quality and safety during the process
- ◆ Develop exemplary skills to provide high-quality care, guaranteeing patient safety based on the latest scientific evidence
- ◆ Gain up-to-date knowledge of hospital pediatrics



*Your goal is to update your knowledge in Hospital Pediatrics and you will do so thanks to this Profession Master's Degree"*



## Specific Objectives

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### **Module 1. Treating Critically Ill Children Outside of the Pediatric Intensive Care Unit**

- ◆ Delve deeper into the different hospital practices regarding initial child management in life threatening situations due to acute hemodynamic, respiratory and/or neurological involvement
- ◆ Gain up-to-date knowledge of rapid intubation sequence and advanced cardiopulmonary resuscitation in children according to the latest ILCOR 2021 recommendations
- ◆ Master practical diagnosis and therapy management for children disconnected from the environment
- ◆ Know the course of action in case of epilepticus
- ◆ Deal with allergic reactions and anaphylaxis, oxygen therapy, fluid therapy, ECG, analgesia and sedation, and be introduced to thoracic ultrasound

### **Module 2. Infectious Diseases in Pediatrics**

- ◆ Focus on key issues such as antibiotic policy and isolation measures
- ◆ Analyze the most frequent infectious pathologies through new algorithms and protocols, as well as traveler and immigrant infections and new emerging viruses

### **Module 3. Respiratory Diseases in Pediatrics**

- ◆ Delve deeper into chronic respiratory pathologies of frequent hospitalization such as bronchopulmonary dysplasia, interstitial lung disease, cystic fibrosis, patients with neuromuscular pathology
- ◆ Master the latest diagnosis and monitoring procedures and new therapies

**Module 4. Digestive System Diseases in Pediatrics**

- ◆ Take a deeper look into clinical cases and different algorithms in the diagnosis, management and updated therapeutic measures for different pathologies, some very frequent such as abdominal pain and gastroesophageal reflux, and other emerging ones such as eosinophilic esophagitis and biliary lithiasis
- ◆ Manage chronic diarrhea, whose etiology is varied and which can be the expression of a benign process or of a serious disease
- ◆ Gain up-to-date knowledge of inflammatory bowel disease and hepatic dysfunction, which require a high diagnostic suspicion, since they can cause, if detection is delayed, serious complications causing a decline in patient quality of life
- ◆ Delve into gastrointestinal bleeding which, although infrequent, can have potentially severe consequences

**Module 5. Neurological Disorders in Pediatrics**

- ◆ Develop the diagnostic approach and practical aspects of antiepileptic drugs, as well as the diagnostic approach to hypotonic infants and the most frequent conditions such as headaches, or acute conditions such as ataxia, pediatric stroke, or demyelinating diseases, among others

**Module 6. Cardiac Diseases in Pediatrics**

- ◆ Discover new diagnostic modalities in pediatric cardiology: echocardiographic strain, transesophageal echocardiography, among others
- ◆ Delve deeper into the differential diagnosis for suspected heart disease in newborns, early diagnosis and initial stabilization treatment
- ◆ Know the clinical approach to heart disease given current regulations, as well as cardiac flow obstruction pictures, the key ideas behind arrhythmias detection, pathologies acquired in childhood, and suspected heart failure in infants and children and new challenges

**Module 7. Endocrine System, Metabolism and Nutrition in Pediatrics**

- ◆ Delve deeper into nutritional assessment and the most frequent alterations observed during hospital admission, early diagnosis and therapeutic lines
- ◆ Adopt a critical attitude toward new trends in diet and the possible deficiencies they can generate
- ◆ Know when to suspect the presence of a metabolic disease, as well as different clinical pictures, some of which frequent, such as hypoglycemia, diabetic onset and control using new technologies, polyuria – polydipsia and suspected adrenal insufficiency

**Module 8. Nephrology and Water and Electrolyte Disorders in Pediatrics**

- ◆ Offer a global vision of the most frequent pathologies found in hospital admissions through clinical cases, deepening in hematuria-proteinuria, nephrotic syndrome and acute renal damage, arterial hypertension and renal lithiasis, which are becoming more and more common
- ◆ Bring new diagnostic and therapeutic algorithms to the nephrological area

**Module 9. Pediatric Hemato-Oncology**

- ◆ Using 67 up-to-date algorithms and clinical cases, explore simple approaches to the most common conditions such as anemia, purpura and neutropenia
- ◆ Know the indications for transfusions and anticoagulation
- ◆ Approach oncologic emergencies and the differential diagnosis of adenomegaly, hepato-splenomegaly and macrophage activity syndrome

**Module 10. Other Pediatric Processes**

- ◆ Interpret skin lesions and apparent lethal episodes
- ◆ Manage complex pediatric patients
- ◆ Address pediatric intensive care, palliative care, maltreatment and sexual abuse
- ◆ Master standard procedures and new technologies
- ◆ Delve into the mental health and safety of pediatric patients in a hospital setting

# 03 Skills

This Professional Master's Degree in Hospital Pediatrics leads to the acquisition of a series of competencies related to the most recent innovations in the field, including new treatments and approaches to various pediatric pathologies as well as new approaches to aspects such as nutrition, metabolism and endocrinology. Therefore, in general terms, this degree prepares specialists to face present and future challenges in this difficult area and it will provide them with the best tools available to do so.





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*Review your knowledge and acquire new skills in the field, bringing the latest treatments to your clinical performance”*

After completing this program, the professional will be able to:



### General Skills

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- ♦ Manage the latest diagnostic and treatment tools in pediatrics
- ♦ Know the advances in specific patient management in hospital pediatrics
- ♦ Master the behavior of the most common pathologies belonging to the subspecialties of pediatric nephrology, oncology or digestive medicine, among others
- ♦ Incorporate new technologies into diagnostic processes

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*Master the latest techniques and treatments in pediatrics with this degree, which comprises the best specialized contents”*





## Specific Skills

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- ◆ Manage the most common infectious pathologies and new emerging viruses according to new algorithms and protocols
- ◆ Treat common chronic respiratory pathologies such as interstitial lung disease or cystic fibrosis
- ◆ Address the most prevalent digestive diseases such as eosinophilic esophagitis
- ◆ Learn about the latest developments in antiepileptic drugs, and the most frequent neurological processes such as headache, acute conditions such as ataxia or pediatric stroke
- ◆ Diagnose heart disease in newborns
- ◆ Detect the presence of a metabolic disease in pediatric patients
- ◆ Master the particularities of hematuria-proteinuria, nephrotic syndrome and acute renal damage, arterial hypertension
- ◆ Possess all the current tools to safely manage pediatric patients

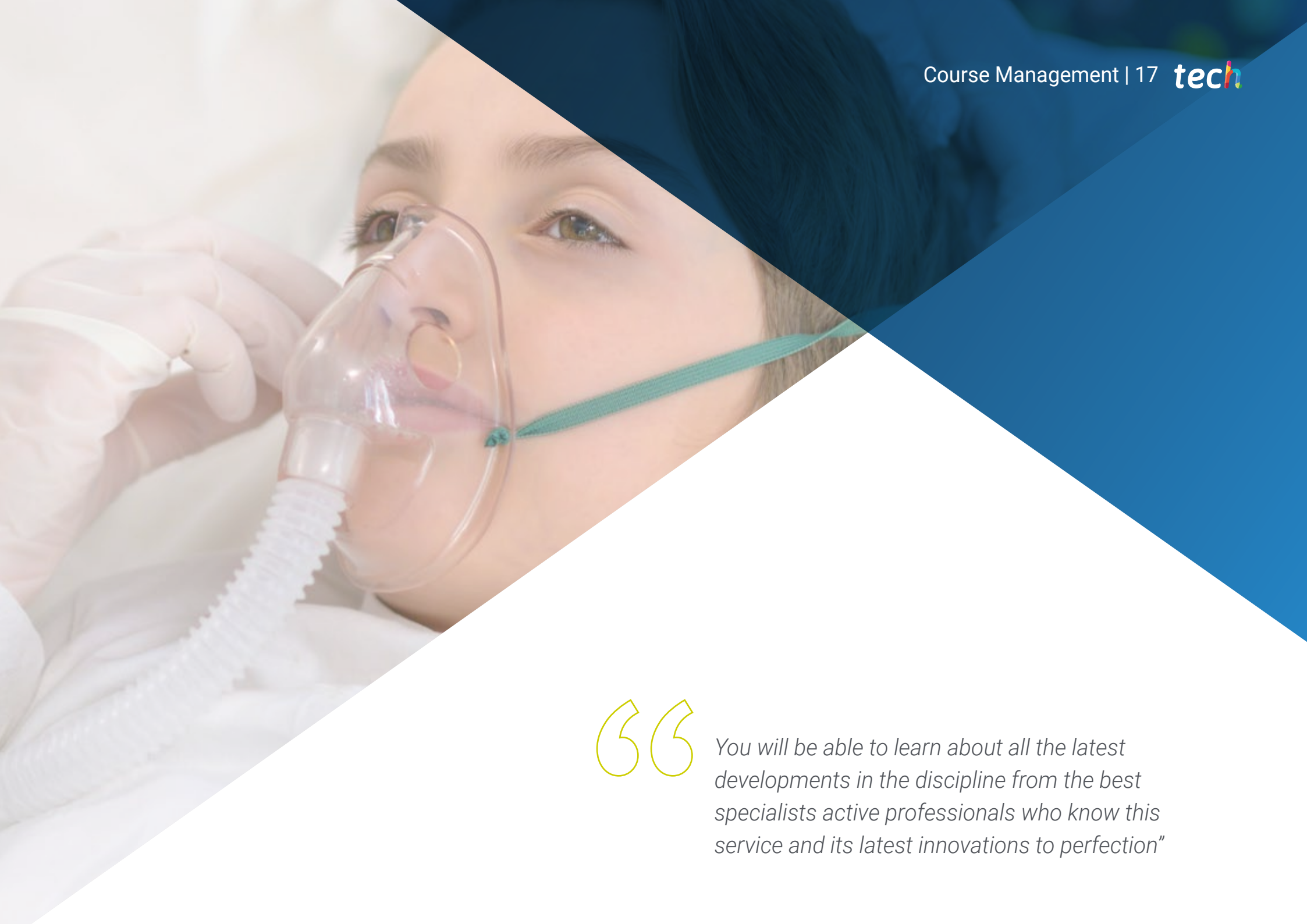
# 04

# Course Management

To ensure an optimal learning process, TECH has assembled the best teaching staff, composed of real experts in the field who will transmit all the keys and developments in Hospital Pediatrics to physician who enroll in this program. Therefore, our professors are internationally renowned and are active professionals in the field, so specialists will enjoy the most up-to-date content taught by elite educators.







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*You will be able to learn about all the latest developments in the discipline from the best specialists active professionals who know this service and its latest innovations to perfection”*

## Management



### Dr. García Cuartero, Beatriz

- ♦ Chief of the Pediatrics Service and coordinator of the Pediatric Endocrinology and Diabetes Unit Ramón y Cajal University Hospital, Madrid, Spain
- ♦ Specialist Physician in Pediatrics at Severo Ochoa, Leganés University Hospital, Madrid
- ♦ Primary Care Pediatrician, Area 4, Madrid
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid
- ♦ Specialist Degree in Pediatrics, MIR accreditation at the Infantil Niño Jesús University Hospital, Madrid Specific Training Area: Pediatric Endocrinology
- ♦ PhD from the Autonomous University of Madrid (UAM) Expression of manganese superoxide dismutase, heme oxygenase and nitric oxide synthase enzymes in cultured pancreatic islets with interleukin 1 by in situ hybridization Unanimous Cum Laude Award
- ♦ Associate Professor of Pediatrics, Faculty of Medicine Alcalá de Henares University
- ♦ Social Security Research Fund (FISS) Grant, Steno Diabetes Center, Copenhagen/Hagedorn Research Laboratory Project: Pancreatic beta cell destruction mechanism and free radicals in type 1 diabetes mellitus

## Professors

### Dr. Buenache Espartosa, Raquel

- ◆ Specialist Physician in Pediatrics and Specialized Areas with a focus on Neuropediatrics Ramón y Cajal University Hospital, Neuropediatrics Profile
- ◆ Specialist Physician in Pediatrics and Specialized Areas Alcorcón Foundation University Hospital
- ◆ Resident Doctor in Pediatrics and Specialized Areas Ramón y Cajal University Hospital
- ◆ Associate Specialist Physician in Pediatrics and Specialized Areas Henares University Hospital, Neuropediatrics Profile
- ◆ Specialist Physician in Neuropediatrics, La Zarzuela Hospital
- ◆ Degree in Medicine and Surgery Autonomous University of Madrid
- ◆ Specialist in Pediatrics and Specialized Areas MIR training at Ramón y Cajal University Hospital, Subspecialization in Neuropediatrics
- ◆ Doctorate Studies Diploma in Advanced Doctoral Studies, which accredits research proficiency, with a qualification of outstanding in the area of Pediatrics in the doctoral program Medical Specialties at the University of Alcalá

### Dr. Morales Tirado, Ana

- ◆ Specialist in Pediatrics at Ramón y Cajal University Hospital
- ◆ Specialist in Pediatrics at 12 de Octubre University Hospital, Móstoles Hospital and San Rafael Hospital
- ◆ Degree in Medicine from the Complutense University of Madrid

### Dr. Blitz Castro, Enrique

- ◆ Specialist Physician in Pediatrics and Specialized Areas in the Pediatrics Service and Cystic Fibrosis Unit, providing the main care as a Pediatric Pneumologist at the Ramón y Cajal University Hospital
- ◆ Supervisor in charge of the Cystic Fibrosis Neonatal Screening Program at Ramón y Cajal University Hospital
- ◆ Resident Intern in Pediatrics and Specialized Areas at Ramón y Cajal University Hospital (Madrid, Spain) and in the Neonatology Department at La Paz University Hospital (Madrid, Spain), devoting the last year of residency completely to the subspecialty of Pediatric Pneumology
- ◆ Degree in Medicine from the Complutense University of Madrid. Clinical training at Gregorio Marañón University Hospital in Madrid
- ◆ PhD student on the Doctoral Program in Health Sciences at the University of Alcalá de Henares and Doctoral Thesis Results on the Neonatal Screening Program for Cystic Fibrosis in the Community of Madrid since its implementation in 2009 to 2022
- ◆ Researcher at the Biomedical Research Foundation, Ramón y Cajal University Hospital, contributing to ongoing research projects in the Cystic Fibrosis Unit at Ramón y Cajal University Hospital

### Dr. Vázquez Ordóñez, Carmen

- ◆ FEA Pediatric Nephrology and Pediatric Emergencies Ramón y Cajal University Hospital
- ◆ Rotation in the Pediatric Nephrology Service 12 de Octubre University Hospital
- ◆ Pediatric Resident Ramón y Cajal University Hospital
- ◆ Degree in Medicine and Surgery Navarra University
- ◆ Teaching Collaborator for 4th and 6th year in Medicine at the University of Alcalá de Henares
- ◆ Seminars in Medicine at the University of Alcalá de Henares

**Dr. Stanescu, Sinziana**

- ◆ Ramón y Cajal Hospital Area Specialist, Pediatrics Department, Metabolic Diseases Unit
- ◆ Ramón y Cajal Hospital Medical on-call duty in the Pediatric Intensive Care Unit
- ◆ Ramón y Cajal Hospital Area Specialist in Pediatrics
- ◆ Henares University Hospital Medical on-call duty
- ◆ Degree in Medicine, Carol Davila University of Medicine and Pharmacy, Bucharest Degree approved by the Ministry of Education and Science (Government of Spain)
- ◆ Specialized training in Pediatrics via MIR Specialist in Pediatrics and Specialized Areas at Ramón y Cajal University Hospital, Madrid Subspecialty: Pediatric Intensive Care, Metabolic Diseases

**Dr. Toledano Navarro, María**

- ◆ Assistant Specialist in Pediatric Cardiology in charge of the Family Cardiopathies consultation and Hemodynamics for diagnostic and interventional procedures for pediatric and adult congenital heart disease as first and second operator Ramón y Cajal University Hospital
- ◆ Degree in Medicine and Surgery from the Complutense University of Madrid
- ◆ EPALS accreditation at Great Ormond Street NHS Trust European Resuscitation Council
- ◆ ESC Certification in Congenital Heart Disease Echocardiography European Society of Cardiology
- ◆ Specialized training in Pediatrics at Ramón y Cajal Hospital (HRYC), Madrid Subspecialty in Pediatric Cardiology with training in Pediatric Cardiology and Adult Congenital Heart Disease



**Dr. Vázquez Martínez, José Luís**

- ◆ Head of the Pediatric ICU Ramón y Cajal Hospital
- ◆ Postgraduate Diploma in Pediatrics and Specialized Areas, La Paz Children's Hospital
- ◆ Degree in Medicine and Surgery from the University of Oviedo
- ◆ PhD in Medicine and Surgery from the Autonomous University of Madrid
- ◆ Associate Professor, University of Alcalá

**Dr. De Tejada Barásoain, Enrique Otheo**

- ◆ Area Specialist, Ramón y Cajal University Hospital, Pediatrics Service
- ◆ Internal Hospital Pediatrics and Pediatric Infectious Diseases General Pediatrics and Pediatric Infectious Diseases Consultation
- ◆ Member of the HURyC Antimicrobial Policy Committee
- ◆ Degree in Medicine and Surgery from the Autonomous University of Madrid
- ◆ PhD in Medicine, Doctoral Thesis: Etiology of Community Acquired Pneumonia in children, University of Alcalá, outstanding cum laude honors
- ◆ Associate Professor of Pediatrics at the University of Alcalá
- ◆ Member of the Spanish Society of Internal Hospital Pediatrics
- ◆ Member of the Spanish Society of Pediatric Infectology

**Dr. Vicente Santamaría, Saioa**

- ◆ Faculty Area Specialist Ramón y Cajal University Hospital
- ◆ Degree in Medicine and Surgery Navarra University
- ◆ Master's Degree in Pediatric Gastroenterology and Hepatology Cardenal Herrera University
- ◆ Master's Degree in Clinical Nutrition in Pediatrics Cardenal Herrera University
- ◆ Postgraduate Course in Pediatric Nutrition Boston University School Medicine
- ◆ Expert Diploma in Malnutrition and Digestive Pathology in Children, Cardenal Herrera University

**Dr. Tabares González, Ana**

- ◆ Assistant Pediatric Physician in the Emergency Department, Hospitalization and Consultations at Ramón y Cajal University Hospital (Madrid)
- ◆ Assistant Pediatric Physician in Emergency Department, Hospitalization and Consultations of Child Gastroenterology at San Rafael Hospital (Madrid)
- ◆ Assistant Pediatric Physician in the Pediatric Gastroenterology Consultation Area at Ramón y Cajal University Hospital (Madrid)
- ◆ Attending Pediatric Physician in the Pediatric Emergency and Hospitalization Area at Severo Ochoa Hospital in Leganés (Madrid)
- ◆ Degree in Medicine Autonomous University of Madrid
- ◆ Postgraduate Diploma in Immunonutrition, San Vicente Mártir Catholic University

**Dr. Rekarte García, Saray**

- ◆ Ramón y Cajal University Hospital Area Specialist Physician in Pediatrics and Specialized Areas Neuropediatrician
- ◆ Infanta Cristina Hospital Area Specialist Physician in Pediatrics and Specialized Areas Neuropediatrician
- ◆ Sanitas La Moraleja University Hospital Area Specialist Physician in Pediatrics and Specialized Areas Neuropediatrician
- ◆ Area Specialist Physician in Pediatrics and Specialized Areas Neuropediatrician, Sanitas Centro Milenium, Costa Rica
- ◆ Degree in Medicine from the University of Oviedo
- ◆ Resident Intern in Pediatrics and Specialized Areas at Asturias Central University Hospital
- ◆ Master's Degree in Pediatric Neurology and Neurodevelopment Cardenal Herrera University
- ◆ Postgraduate Diploma in Advances in Motor and Paroxysmal Disorders in Pediatric Neurology, Cardenal Herrera University

**Dr. Alkadi Fernández, Khusama**

- ◆ Associate Specialist Physician in Pediatrics, Ramón y Cajal University Hospital
- ◆ Associate Specialist Physician in Pediatrics, Puerta De Hierro Hospital
- ◆ Degree in Medicine and Surgery, University of Seville
- ◆ PhD in Medicine. Official Doctoral Program in Medicine, Autonomous University of Madrid
- ◆ Incap Project, Puerta de Hierro, Majadahonda Health Research Institute

**Dr. Quintero Calcaño, Víctor**

- ◆ Faculty Specialist in Pediatrics, Pediatric Services, Ramón y Cajal University Hospital, Madrid
- ◆ Clinical fellow Hematology department Birmingham Children's Hospital Birmingham, United Kingdom
- ◆ Faculty Specialist in Pediatrics, Infanta Sofía Hospital in San Sebastián de los Reyes Madrid
- ◆ Faculty Specialist in Pediatrics, Ciudad Real General Hospital
- ◆ Faculty Specialist in Pediatrics, Pediatric Oncology and Hematology Unit, Cruces Hospital Barakaldo, Bizkaia, Spain
- ◆ PhD in Pediatric Medicine, Autonomous University of Madrid
- ◆ Medical Surgeon, University Central of Venezuela, Caracas Certified by the Ministry of Education and Science as equivalent to the Spanish degree of Licenciado en Medicina y Cirugía

**Dr. Armero Pedreira, Paula**

- ◆ Pediatrician at Puerta de Hierro Hospital in pediatric emergencies
- ◆ Pediatrician at Casa de los Niños Children's Residence, a center for the protection of minors belonging to the General Directorate of Childhood and Family in the Community of Madrid
- ◆ Pediatrician at San Rafael Hospital .Work experience in Social Pediatrics consultation
- ◆ Pediatrician in the Pediatric Palliative Care Unit, Vianorte-Laguna Foundation
- ◆ Resident Physician in Pediatrics, La Paz Children's Hospital. Sub-specialization in the Complex Pathology Unit at La Paz Children's Hospital and in the Palliative Care Unit in the Community of Madrid
- ◆ Master's Degree in Pediatric Palliative Care, La Rioja International University
- ◆ Postgraduate Studies in Social Pediatrics, University of Barcelona
- ◆ Professor for the Master's Degree in Pediatric Palliative Care at La Rioja International University

**Ms. Clemente Linares, Raquel**

- ◆ Nurse in Pediatric Hospitalization, Ramón y Cajal University Hospital
- ◆ Nurse in Adult Hospitalization in different services, Ramón y Cajal University Hospital
- ◆ University Diploma in Nursing, European University of Madrid
- ◆ Nurse in the Meliá Hotels International medical service
- ◆ Medical examinations: ECG, vision control, audiometry and other nursing tests, Quiron Prevention Superior Sports Council
- ◆ Nursing Consultation and Health Promotion, Quiron Prevention Superior Sports Council

**Ms. Yelmo Valverde, Rosa**

- ◆ Nurse Educator in Pediatric Diabetes at Ramón y Cajal University Hospital (Madrid)
- ◆ Diabetes Nurse Educator for the Diabetes and Telemedicine Unit at San Rafael Hospital
- ◆ Department of Extractions and Prevention and Occupational Risks Service at La Paz Hospital
- ◆ Internal Medicine Department and Palliative Care Unit at Hospital San Rafael (Madrid)
- ◆ Diploma in Nursing from Pontificia de Comillas University
- ◆ Diploma in Company Nurse, Carlos III Institute and Ciudad Real Nursing University
- ◆ Master's Degree in Obesity and Its Comorbidities: Prevention, Diagnosis, and Integral Treatment.,Alcalá de Henares University
- ◆ Master's Degree in Foundations for the Care and Education of People with Diabetes, University of Barcelona

**Dr. Pando Velasco, María Fuencisla**

- ◆ Psychiatry Specialist, Ramón y Cajal University Hospital
- ◆ Psychiatry Specialist, Hermanas Hospitalarias del Sagrado Corazón de Jesús
- ◆ Psychiatry Specialist, Actors in the National Health System
- ◆ Degree in Medicine and Surgery, Autonomous University of Madrid, 2003
- ◆ Advanced Studies Diploma in Aesthetic Medicine, University of Alcalá, 2008
- ◆ Specialist in Psychiatry, Ramón y Cajal University Hospital, 2009

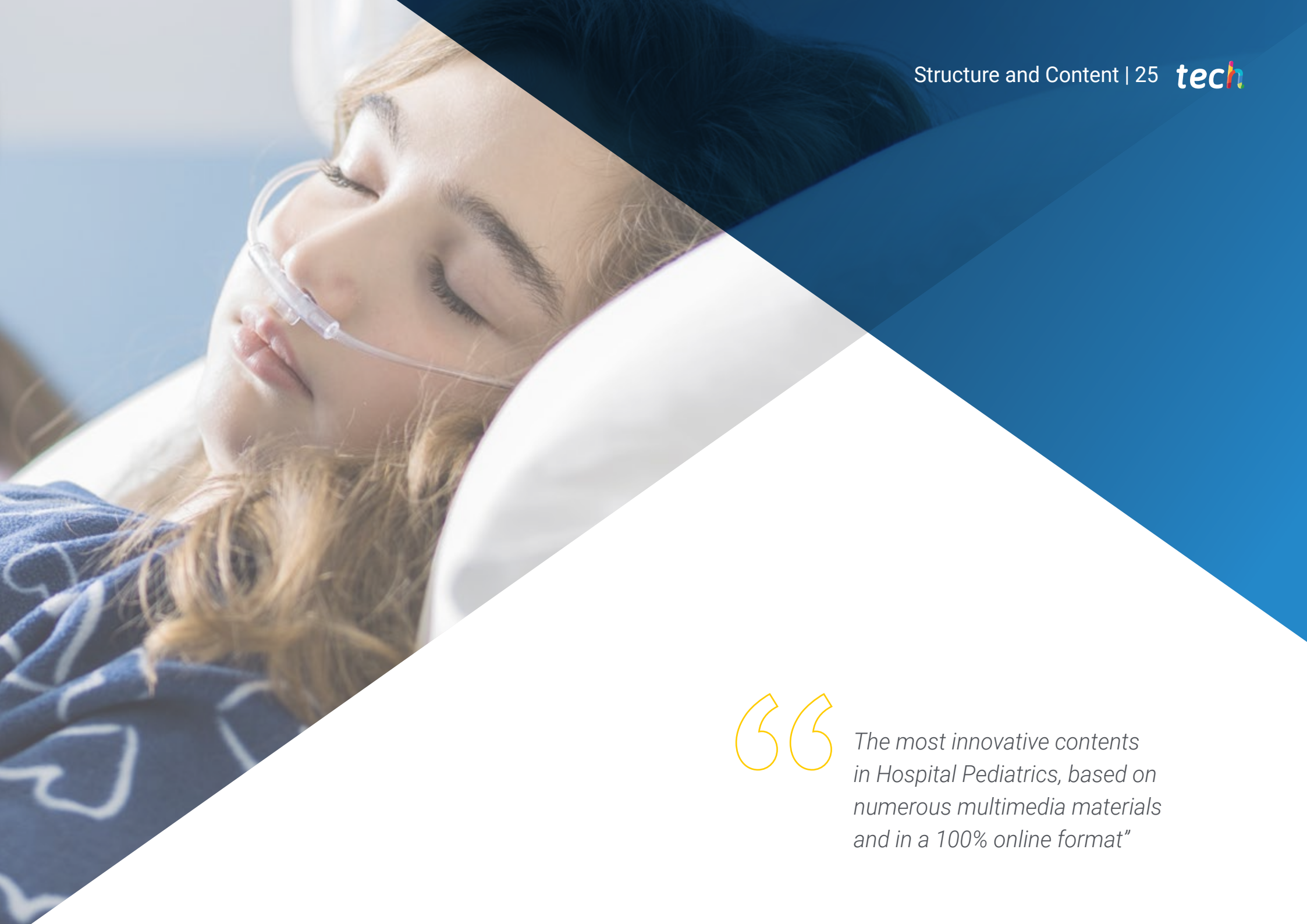
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## Structure and Content

This Professional Master's Degree in Hospital Pediatrics is composed of 10 modules divided into different health subspecialties. Physicians will be able to delve into issues such as respiratory and digestive pathologies, neurological conditions such as epilepsy, or Kawasaki disease within cardiac diseases, among many others. Therefore, specialists who complete this degree will get up to speed in a multitude of health issues related to Hospital Pediatrics.







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*The most innovative contents  
in Hospital Pediatrics, based on  
numerous multimedia materials  
and in a 100% online format”*

## Module 1. Treating Critically Ill Children Not in the Pediatric Intensive Care Unit

- 1.1. Warning Signs and Symptoms
  - 1.1.1. Hemodynamic
  - 1.1.2. Respiratory
  - 1.1.3. Metabolic
  - 1.1.4. Neurologic
  - 1.1.5. Hematologic
  - 1.1.6. Decompensation in Critically Ill Children
  - 1.1.7. Monitoring: Instrumental Monitoring Clinic: Clinical Ultrasound
  - 1.1.8. Cardiocirculatory Arrest
    - 1.1.8.1. Prevention
    - 1.1.8.2. Caring for Children in Cardiac Arrest
    - 1.1.8.3. Stabilization
    - 1.1.8.4. Transport: Intrahospital and Interhospital
  - 1.1.9. Humanized Care for Critically Ill Children
    - 1.1.9.1. The Family
    - 1.1.9.2. Music Therapy
    - 1.1.9.3. Others
  - 1.1.10. Difficult Decisions
    - 1.1.10.1. Therapeutic Effort Limitation
    - 1.1.10.2. Critically Ill Children
    - 1.1.10.3. Asystole Donation
- 1.2. Cerebral Crisis
  - 1.2.1. Initial Assessment
  - 1.2.2. Differential Diagnosis
  - 1.2.3. Acute Treatment
- 1.3. Acute Respiratory Failure: Oxygen Therapy
  - 1.3.1. Acute Respiratory Failure
  - 1.3.2. Pathophysiology
  - 1.3.3. Classification
  - 1.3.4. Diagnosis
  - 1.3.5. Treatment
- 1.4. Allergic Reactions: Anaphylaxis
  - 1.4.1. Allergic and Clinical Reaction
  - 1.4.2. Etiology
  - 1.4.3. Diagnosis
  - 1.4.4. Treatment
  - 1.4.5. Prevention
- 1.5. Blood Gas Interpretation
  - 1.5.1. Blood Gas Interpretation
  - 1.5.2. Pathophysiology
  - 1.5.3. Basic Elements to Interpret Acid-Base Balance
  - 1.5.4. General Diagnosis
  - 1.5.5. Approach to Acid-Base Balance Disturbances
- 1.6. Analgesia and Sedation
  - 1.6.1. Analgesia and Sedation
  - 1.6.2. Pain Assessment and Management
  - 1.6.3. Sedo Analgesia
    - 1.6.3.1. Adverse Effects
    - 1.6.3.2. Candidate Patients
    - 1.6.3.3. Necessary Personnel and Supplies
    - 1.6.3.4. Non-Pharmacological Measures in Pain Control and Anxiety
    - 1.6.3.5. Drugs and Antidotes
    - 1.6.3.6. Sedoanalgesia Procedures and Strategies
    - 1.6.3.7. Necessary Documentation
    - 1.6.3.8. Monitoring
- 1.7. Fluid Therapy
  - 1.7.1. Body Fluid Composition
  - 1.7.2. Main Mechanisms for Volume Regulation, Osmolarity and Acid-Base Balance
  - 1.7.3. Calculating Basal Needs
  - 1.7.4. Treating Dehydration: Rehydration Routes (Indications, Serums used)
  - 1.7.5. Treating the Main Hydroelectrolyte and Acid-Base Balance Disorders

- 1.8. Electrocardiogram
  - 1.8.1. General Aspects
  - 1.8.2. Electrical Changes during Childhood Development
  - 1.8.3. Sequential ECG Analysis: P Wave, PR Interval, QRS Complex, Q Wave, ST Segment, T Wave
  - 1.8.4. Characteristics of Atypical ECGs with Non-Pathological Findings
- 1.9. Thoracic Ultrasound Scan
  - 1.9.1. Clinical Ultrasound (POCUS)
  - 1.9.2. Artifacts and Biotology
  - 1.9.3. Pulmonary Ultrasound Semiology
  - 1.9.4. POCUS Diagnosis
    - 1.9.4.1. Consolidated Pneumonia
    - 1.9.4.2. Alveolo-Interstitial Pneumonia
    - 1.9.4.3. Entrapment
    - 1.9.4.4. Heart Failure
    - 1.9.4.5. Pleural Effusion
    - 1.9.4.6. Pneumothorax

## Module 2. Infectious Diseases in Pediatrics

- 2.1. Healthcare-Associated Infections (HAIs) Measures to Prevent the Transmission of Infections
  - 2.1.1. Repercussions in a Pediatric Inpatient Ward
  - 2.1.2. Epidemiology and Incidence
  - 2.1.3. Types of HAIs
  - 2.1.4. Preventing the Transmission of Infections
    - 2.1.4.1. Types of Isolation and Indications for Specific Microorganisms
    - 2.1.4.2. Hand Hygiene
    - 2.1.4.3. Other Measures
- 2.2. The Laboratory in the Diagnosis of Infectious Diseases: Taking Microbiological Samples
  - 2.2.1. Biochemical and Hematologic Findings in Infectious Diseases
  - 2.2.2. Clinical Considerations Prior to Microbiological Sampling
  - 2.2.3. Recommended Biological Samples for the Diagnosis of the Most Frequent Infections: Conventional Microbiology, Rapid and Molecular Techniques
  - 2.2.4. Available Microbiological Techniques and their Indications
  - 2.2.5. Sample Transport and Storage
- 2.3. Empirical Antibiotic Therapy: Appropriate Use of Antibiotics
  - 2.3.1. General Principles in Antibiotic Treatment: Structured Clinical Rationale
  - 2.3.2. How to Adequately Select Antibiotics?
  - 2.3.3. When Is an Antibiotic Changed? Targeted Antibiotic Therapy
  - 2.3.4. What Is an Adequate Use of Antibiotics? Importance and Repercussions
  - 2.3.5. The Role of New Antibiotics in Hospital Pediatrics
- 2.4. Special Fever Situations: Recurrent Fever, Prolonged Fever, Fever in Patients Returning from the Tropics
  - 2.4.1. Recurrent and Periodic Fevers
    - 2.4.1.1. Causes
    - 2.4.1.2. Diagnostic Attitude
  - 2.4.2. Prolonged Fever
    - 2.4.2.1. Causes
    - 2.4.2.2. Assessment
  - 2.4.3. Fever in Patients Returning from the Tropics
    - 2.4.3.1. General Considerations (Traveler, Immigrant and Adopted Children)
    - 2.4.3.2. Most Common Causes
    - 2.4.3.3. Assessment
- 2.5. Community-Acquired Pneumonia (CAP): Etiological Diagnosis and Antibiotic Therapy Complicated Pneumonia Therapy
  - 2.5.1. Etiology According to Age Group
  - 2.5.2. Diagnostic Attitude
  - 2.5.3. CAP Therapy in Home Patients
  - 2.5.4. Diagnostic Attitude to "Pneumonia that Does Not Look Good"
  - 2.5.5. Complicated Pneumonia
    - 2.5.5.1. Types: Parapneumonic Pleural Effusion, Necrotizing Pneumonia, Lung Abscess
    - 2.5.5.2. Diagnostic and Therapeutic Attitude

- 2.6. Skin and Soft Tissue Infections (SSTIs): Osteoarticular Infection (OAI)
  - 2.6.1. SSTI: Diagnostic and Therapeutic Attitude
    - 2.6.1.1. Impetigo
    - 2.6.1.2. Cellulitis and Erysipelas
    - 2.6.1.3. Folliculitis and Boils
    - 2.6.1.4. Omphalitis
    - 2.6.1.5. Staphylococcal Scalded Skin Syndrome
    - 2.6.1.6. Ectima
    - 2.6.1.7. Necrotizing Fasciitis
    - 2.6.1.8. Bites
  - 2.6.2. OAI: Diagnostic and Therapeutic Attitude
    - 2.6.2.1. Incidence, Pathophysiology in Different Locations and Etiology According to Age Group
    - 2.6.2.2. Septic Arthritis
    - 2.6.2.3. Osteomyelitis
- 2.7. Genital Infection in Children and Adolescents
  - 2.7.1. Implications and Frequency of Sexually Transmitted Infections (STIs) in Adolescence
  - 2.7.2. STI Syndromes
    - 2.7.2.1. Genital Ulcers
    - 2.7.2.2. Inguinal Lymphadenopathy
    - 2.7.2.3. Condylomas
    - 2.7.2.4. Urethritis
  - 2.7.3. Microbiological Diagnosis and Treatment for STIs
  - 2.7.4. Vulvovaginitis in Girls and Adolescents: Bacterial Vaginosis
  - 2.7.5. Pelvic Inflammatory Disease
  - 2.7.6. Orchitis and Epididymitis
- 2.8. Central Venous Catheter (CVC) Related Infections
  - 2.8.1. Types of CVC
  - 2.8.2. Common Etiological Agents
  - 2.8.3. Clinical, Research and Diagnostic Criteria
  - 2.8.4. Treating CVC Related Infections

- 2.9. Infections in Immunocompromised Patients
  - 2.9.1. Most Frequent Etiologic Agents According to the Type of Immune System Involvement
  - 2.9.2. General Diagnostic Approach to Suspected Infection in Immunocompromised Children
  - 2.9.3. Antibiotic Prophylaxis in Children with Primary or Secondary Immunodeficiencies
  - 2.9.4. Patients Presenting Febrile Neutropenia
- 2.10. Emerging Virus Infections: SARS-CoV-2
  - 2.10.1. Changes to Hospital Pediatrics Organization in the Context of the COVID-19 Pandemic
  - 2.10.2. Diagnosis and Treatment of Acute SARS-CoV-2 Infection
  - 2.10.3. Multisystem Multi- Inflammatory Syndrome Temporally Related to COVID-19 (MIS-C or PMIS)
  - 2.10.4. Considerations Regarding Future Epidemic Outbreaks
- 2.11. Systemic Inflammatory Response Syndrome (SIRS): Sepsis, Severe Sepsis and Septic Shock
  - 2.11.1. Clinical Examination
  - 2.11.2. Microorganisms Causing Sepsis: Diagnostic Attitude
  - 2.11.3. Initial Therapy for SIRS, Sepsis, Severe Sepsis and Septic Shock
  - 2.11.4. Toxic Shock Syndrome

**Module 3. Respiratory Diseases in Pediatrics**

- 3.1. Acute Bronchiolitis
  - 3.1.1. Acute Bronchiolitis
  - 3.1.2. Etiology
  - 3.1.3. Epidemiology
  - 3.1.4. Clinical Symptoms
  - 3.1.5. Diagnosis
  - 3.1.6. Treatment
  - 3.1.7. Prevention

- 3.2. Asthma Attacks
  - 3.2.1. Asthma Attacks
  - 3.2.2. Epidemiology
  - 3.2.3. Pathophysiology
  - 3.2.4. Clinical Symptoms
  - 3.2.5. Diagnosis
  - 3.2.6. Treatment
  - 3.2.7. Educational
- 3.3. Chronic Cough
  - 3.3.1. Persistent Bacterial Bronchitis
  - 3.3.2. Post-Infectious Cough
  - 3.3.3. Psychogenic Cough
  - 3.3.4. Atelectasis: Middle Lobe
  - 3.3.5. Non-Cystic Fibrosis (CF) Bronchiectasis
- 3.4. Bronchopulmonary Dysplasia
  - 3.4.1. Bronchopulmonary Dysplasia
  - 3.4.2. Epidemiology
  - 3.4.3. Prevention
  - 3.4.4. Pathophysiology
  - 3.4.5. Clinical Symptoms
  - 3.4.6. Treatment
- 3.5. Interstitial Pulmonary Diseases
  - 3.5.1. Classification
  - 3.5.2. Neuroendocrine Cell Hyperplasia
  - 3.5.3. Surfactant Protein Deficiency
  - 3.5.4. Pulmonary Interstitial Glycogenosis
  - 3.5.5. Hypersensitivity Pneumonitis
- 3.6. Respiratory Management in Neuromuscular Patients
  - 3.6.1. Pathophysiology
  - 3.6.2. Complementary Respiratory Tests
  - 3.6.3. Treatment
- 3.7. Cystic Fibrosis Respiratory Pathology
  - 3.7.1. Respiratory Pathology
  - 3.7.2. Pathophysiology
  - 3.7.3. Respiratory Exacerbation
  - 3.7.4. Pneumothorax
  - 3.7.5. Hemoptysis
  - 3.7.6. Allergic Bronchopulmonary Aspergillosis
  - 3.7.7. Atelectasis
- 3.8. Obstructive Sleep Apnea
  - 3.8.1. Obstructive Sleep Apnea
  - 3.8.2. Epidemiology
  - 3.8.3. Pathophysiology
  - 3.8.4. Clinical Symptoms
  - 3.8.5. Diagnosis
  - 3.8.6. Treatment
- 3.9. Inhalation Systems
  - 3.9.1. Inhalation Systems
  - 3.9.2. Metered Dose Inhaler (MDI), Dry Powder, Nebulizers
- 3.10. Pneumology Procedures
  - 3.10.1. Forced Spirometry
  - 3.10.2. Bronchoscopy

## Module 4. Digestive System Diseases in Pediatrics

- 4.1. Abdominal Pain
  - 4.1.1. Acute Abdominal Pain in Children: Clinical Picture. Diagnosis and Treatment
  - 4.1.2. Chronic Abdominal Pain: Incidence Etiology
    - 4.1.2.1. Organic Abdominal Pain
    - 4.1.2.2. Functional Abdominal Pain: Treatment
  - 4.1.3. Gastritis: Peptic Ulcers in Pediatrics
    - 4.1.3.1. Gastritis
    - 4.1.3.2. Peptic Ulcers: Clinical Presentation Diagnosis and Treatment
    - 4.1.3.3. Helicobacter Pylori Gastritis. Clinical Presentation. Digestive and Extradigestive Manifestations. Diagnosis and Treatment

- 4.2. Constipation
  - 4.2.1. Constipation
  - 4.2.2. Pathophysiology
  - 4.2.3. Etiology
  - 4.2.4. Triggering Factors
  - 4.2.5. Organic Constipation Causes
  - 4.2.6. Functional Constipation: Clinical Diagnosis
  - 4.2.7. Treatment
    - 4.2.7.1. Lifestyle Modifications
    - 4.2.7.2. Pharmacological Treatment: Disimpaction Maintenance Treatment. Other Treatments
- 4.3. Gastroesophageal Reflux
  - 4.3.1. Gastroesophageal Reflux
  - 4.3.2. Pathophysiology
  - 4.3.3. Clinical Symptoms
    - 4.3.3.1. Warning Signs and Symptoms
    - 4.3.3.2. Digestive Manifestations
    - 4.3.3.3. Extradigestive Manifestations
  - 4.3.4. Diagnosis
    - 4.3.4.1. pH / Esophageal Impedance
    - 4.3.4.2. Upper Digestive Endoscopy
    - 4.3.4.3. Other Diagnostic Tests
  - 4.3.5. Treatment
    - 4.3.5.1. Non-Pharmacological Methods
    - 4.3.5.2. Medical Treatment
    - 4.3.5.3. Surgical Management
  - 4.3.6. Therapeutic Diagnostic Approach according to Age
- 4.4. Eosinophilic Esophagitis
  - 4.4.1. Eosinophilic Esophagitis
  - 4.4.2. Epidemiology
  - 4.4.3. Pathogenesis
    - 4.4.3.1. Environmental Factors
    - 4.4.3.2. Genetic Factors
  - 4.4.4. Clinical Symptoms
  - 4.4.5. Diagnosis
    - 4.4.5.1. Endoscopic Findings
    - 4.4.5.2. Histological Findings
    - 4.4.5.3. Natural History
  - 4.4.6. Treatment
    - 4.4.6.1. Proton Pump Inhibitors
    - 4.4.6.2. Topical Corticosteroids
    - 4.4.6.3. Dietary Treatment
    - 4.4.6.4. Endoscopic Dilatation
    - 4.4.6.5. Other Treatments
- 4.5. Digestive and Nutritional Considerations for CF
  - 4.5.1. Digestive and Nutritional Considerations
  - 4.5.2. Gastrointestinal Tract Involvement in CF Patients
    - 4.5.2.1. Gastroesophageal Reflux
    - 4.5.2.2. Distal Obstruction Syndrome/Constipation
    - 4.5.2.3. Abdominal Pain
    - 4.5.2.4. Meconium Ileus
    - 4.5.2.5. Bowel Intussusception
  - 4.5.3. Pancreatic Involvement
    - 4.5.3.1. Exocrine Pancreatic Insufficiency
    - 4.5.3.2. Pancreatitis
    - 4.5.3.3. Cystic Fibrosis (CF) Related Diabetes
  - 4.5.4. Hepatobiliary Disease in CF Patients
    - 4.5.4.1. CF-Related Liver Disease
    - 4.5.4.2. Gallbladder Alterations
  - 4.5.5. Nutritional Involvement
    - 4.5.5.1. Chronic Malnutrition
    - 4.5.5.2. Fat-Soluble Vitamin Deficiency

- 4.6. Chronic Diarrhea: Malabsorption
  - 4.6.1. Pathophysiology
    - 4.6.1.1. Osmotic Diarrhea
    - 4.6.1.2. Secretory Diarrhea
    - 4.6.1.3. Inflammatory Diarrhea
    - 4.6.1.4. Intestinal Motility Alteration
  - 4.6.2. Etiology
    - 4.6.2.1. Functional Diarrhea
    - 4.6.2.2. Organic Diarrhea
      - 4.6.2.2.1. Diarrhea due to Infection Mechanism
      - 4.6.2.2.2. Diarrhea due to Immune Mechanism
      - 4.6.2.2.3. Diarrhea due to Carbohydrate Intolerance
      - 4.6.2.2.4. Diarrhea due to Exocrine Pancreatic Insufficiency and Hepatobiliary Dysfunction
      - 4.6.2.2.5. Diarrhea due to Anatomical Alteration
      - 4.6.2.2.6. Diarrhea due to Altered Motility
      - 4.6.2.2.7. Diarrhea due to Enterocyte Structural Defects
      - 4.6.2.2.8. Diarrhea due to Metabolic Errors
      - 4.6.2.2.9. Other Causes of Diarrhea
  - 4.6.3. Diagnosis
  - 4.6.4. Treatment
- 4.7. Inflammatory Bowel Disease
  - 4.7.1. Ulcerative Colitis and Unclassified Inflammatory Bowel Disease
    - 4.7.1.1. Inflammatory Bowel Disease
    - 4.7.1.2. Etiology
    - 4.7.1.3. Incidence
    - 4.7.1.4. Classification
    - 4.7.1.5. Symptoms and Physical Examination
    - 4.7.1.6. Complementary Tests: Laboratory and Imaging Tests Endoscopy with Biopsy
    - 4.7.1.7. Diagnosis
    - 4.7.1.8. Activity Indexes
    - 4.7.1.9. Onset Treatment and Maintenance
    - 4.7.1.10. Complications during Hospital Admission and Treatment
  - 4.7.2. Crohn's Disease
    - 4.7.2.1. Crohn's Disease
    - 4.7.2.2. Etiology
    - 4.7.2.3. Incidence
    - 4.7.2.4. Classification
    - 4.7.2.5. Symptoms and Physical Examination
    - 4.7.2.6. Complementary Tests: Laboratory and Imaging Tests. Endoscopy with Biopsy
    - 4.7.2.7. Diagnosis
    - 4.7.2.8. Activity Indexes
    - 4.7.2.9. Onset Treatment and Maintenance
    - 4.7.2.10. Complications during Hospital Admission and Treatment
- 4.8. Biliary Lithiasis. Cholestasis
  - 4.8.1. Biliary Lithiasis
  - 4.8.2. Diagnosis
    - 4.8.2.1. Anamnesis and Physical Examination
    - 4.8.2.2. Complementary Tests: Laboratory and Imaging Tests. Other Complementary Tests
  - 4.8.3. Treatment
  - 4.8.4. Newborn and Infant Neurological Examination
  - 4.8.5. Cholestasis in Older Children
    - 4.8.5.1. Cholestasis Secondary to Hepatocellular Injury
    - 4.8.5.2. Cholestasis due to Biliary Tract Involvement
- 4.9. Acute Liver Failure, Hepatic Dysfunction
  - 4.9.1. Hepatic Dysfunction: Hypertransaminasemia
    - 4.9.1.1. Acute Liver Failure
    - 4.9.1.2. Diagnosis
    - 4.9.1.3. Differential Diagnosis of Pathologies Presenting Hypertransaminasemia: Infectious Hepatitis, Wilson's Disease, Autoimmune Hepatitis, Other Causes of Hypertransaminemia in Pediatrics
  - 4.9.2. Acute Liver Failure
    - 4.9.2.1. Liver Failure
    - 4.9.2.2. Acute Liver Failure Diagnosis in Pediatric Patients
    - 4.9.2.3. Therapeutic Approach
    - 4.9.2.4. Differential Diagnosis of Pathologies Presenting Liver Failure

- 4.10. Gastrointestinal Bleeding
  - 4.10.1. Upper Gastrointestinal Bleeding
    - 4.10.1.1. Gastrointestinal Bleeding
    - 4.10.1.2. Etiology
    - 4.10.1.3. Diagnosis
    - 4.10.1.4. Medical and Endoscopic Treatments: Esophageal Varices
  - 4.10.2. Lower Gastrointestinal Bleeding
    - 4.10.2.1. Lower Gastrointestinal Bleeding
    - 4.10.2.2. Differential Diagnosis of Lower Gastrointestinal Bleeding
    - 4.10.2.3. Treatment

## Module 5. Neurological Disorders in Pediatrics

- 5.1. Febrile and Parainfectious Crises
  - 5.1.1. Febrile Crises
  - 5.1.2. Epidemiology
  - 5.1.3. Etiology
  - 5.1.4. Clinical Symptoms
  - 5.1.5. Diagnosis
  - 5.1.6. Treatment
  - 5.1.7. Prognosis
- 5.2. Epileptic Syndromes in Pediatric Patients: Practical Considerations in Antiepileptic Drug Management
  - 5.2.1. Epileptic Syndromes Classification and Diagnostic Approach
  - 5.2.2. Epileptic Syndromes in Infants and Preschoolers
  - 5.2.3. Epileptic Syndromes in School Children and Adolescents
  - 5.2.4. Practical Considerations in Antiepileptic Drug Management
- 5.3. Non-Epileptic Paroxysmal Disorders
  - 5.3.1. Non-Epileptic Paroxysmal Disorders
  - 5.3.2. Clinical and Etiological Characteristics
  - 5.3.3. Differential Diagnosis: Epileptic Seizures
- 5.4. Infant Hypotonia and the Most Common Neuromuscular Disorders in Infancy
  - 5.4.1. Non-Paralytic or Central Hypotonia in Infants
  - 5.4.2. Paralytic or Peripheral Hypotonia in Infants
  - 5.4.3. Most Common Neuromuscular Disorders in Childhood: Spinal Muscular Atrophy, Hereditary Sensory-Motor Neuropathies, Myasthenias, Infantile Botulism and Myopathies
- 5.5. Guillain-Barré Syndrome
  - 5.5.1. Guillain-Barré Syndrome and Classification
  - 5.5.2. Pathophysiology
  - 5.5.3. Clinical Symptoms
  - 5.5.4. Diagnostic Criteria
  - 5.5.5. Treatment
  - 5.5.6. Prognosis
- 5.6. Headaches
  - 5.6.1. Headaches
  - 5.6.2. Etiology
  - 5.6.3. Classification: Primary and Secondary Headaches: Migraines, Tension and Trigemino-Autonomic Headaches, and Others
  - 5.6.4. Anamnesis and Physical Examination
  - 5.6.5. Admission Criteria and Warning Signs
  - 5.6.6. Complementary Evaluations
  - 5.6.7. In-Hospital Migraine Management
  - 5.6.8. Acute and Chronic Treatment
- 5.7. Acute Ataxia
  - 5.7.1. Vestibular Ataxia and Cerebellar Ataxia
  - 5.7.2. Main Etiologic Differential Diagnosis in Children Admitted for Acute Ataxia Episodes
  - 5.7.3. Practical Management Protocols
- 5.8. Pediatric Stroke
  - 5.8.1. Epidemiology: Etiology and Risk Factors
  - 5.8.2. Pediatric Stroke Clinical Manifestations
  - 5.8.3. Stroke Mimics
  - 5.8.4. Pediatric Stroke Code Protocol and Hospital Diagnostic Approach



- 5.9. Acute Encephalitis
  - 5.9.1. Acute Encephalitis / Encephalopathy and Classification
  - 5.9.2. Infectious Encephalitis / Meningoencephalitis
  - 5.9.3. Immune-Mediated Encephalitis
  - 5.9.4. Toxic-Metabolic Encephalitis
- 5.10. Demyelinating Diseases:
  - 5.10.1. Acute Demyelinating Injuries in Pediatrics
  - 5.10.2. Acute Disseminated Encephalomyelitis
  - 5.10.3. Multiple Sclerosis in Childhood: Diagnostic Criteria Initial Therapeutic Approach

## Module 6. Cardiac Diseases in Pediatrics

- 6.1. Suspected Heart Disease in Newborns
  - 6.1.1. Past, Present and Future of Congenital Heart Disease in Pediatrics
  - 6.1.2. Fetal and Postnatal Circulation: Newborn Adaptation
  - 6.1.3. Physical Examination and Vital Signs
  - 6.1.4. Differential Diagnosis for Congenital Heart Disease in Newborns
  - 6.1.5. Prostaglandin Use
- 6.2. Diagnostic Tools for Pediatric Cardiac Pathology
  - 6.2.1. Basic Tools Utility for Diagnosing Congenital Heart Disease: ECG and Chest X-Ray
  - 6.2.2. Advances in Echocardiography
  - 6.2.3. Fetal Echocardiography
  - 6.2.4. Advanced Imaging Techniques for Diagnosing Congenital Heart Disease: CAT and MRI
  - 6.2.5. Diagnostic Cardiac Catheterization
- 6.3. Congenital Heart Disease Classification: Pulmonary Hypertension
  - 6.3.1. Segmental Classification for Congenital Heart Disease
  - 6.3.2. Congenital Heart Disease Pathophysiology: Hemodynamic Principles
  - 6.3.3. Pulmonary Hypertension, Classification and Diagnosis
  - 6.3.4. Pulmonary Hypertension associated with Congenital Heart Disease and Eisenmenger's Syndrome
  - 6.3.5. Therapeutic Advances in Pulmonary Hypertension Treatment
- 6.4. Cyanogenic Heart Disease
  - 6.4.1. Main Artery Transposition
  - 6.4.2. Truncus Arteriosus
  - 6.4.3. Anomalous Pulmonary Venous Drainage
  - 6.4.4. Fallot's Tetralogy and Variants
  - 6.4.5. Tricuspid Atresia
  - 6.4.6. Complete Septal Pulmonary Atresia
  - 6.4.7. Ebstein Anomaly
- 6.5. Non-Cyanogenic Heart Disease
  - 6.5.1. Interauricular Communication
  - 6.5.2. Ventricular Septal Defect
  - 6.5.3. Persistent Ductus Arteriosus
  - 6.5.4. Atrioventricular Canal
- 6.6. Conditions Obstructing Cardiac Flow and Other Less Common Congenital Heart Diseases
  - 6.6.1. Pulmonary Stenosis
  - 6.6.2. Aortic Stenosis
  - 6.6.3. Aorta Coarctation
  - 6.6.4. S. Alcapa
  - 6.6.5. Vascular Rings
- 6.7. Childhood-Acquired Heart Disease
  - 6.7.1. Pericarditis
  - 6.7.2. Myocarditis
  - 6.7.3. Infectious Endocarditis
  - 6.7.4. Kawasaki Disease
  - 6.7.5. Rheumatic Fever
- 6.8. Heart Rate and Electrical Conduction Abnormalities in Children
  - 6.8.1. Supraventricular Tachycardia
  - 6.8.2. Ventricular Tachycardias
  - 6.8.3. Atrioventricular (AV) Block
  - 6.8.4. Cartography and Catheter Ablation
  - 6.8.5. Pacemakers and Automatic Implantable Defibrillators

- 6.9. Heart Failure in Infants and Children
  - 6.9.1. Etiological and Pathophysiological Characteristics
  - 6.9.2. Clinical Characteristics: Diagnostic Tools in Heart Failure
  - 6.9.3. Medical Treatment for Pediatric Heart Failure
  - 6.9.4. Ventricular Assist Devices and Other Technical Advances
  - 6.9.5. Pediatric Heart Transplantation
- 6.10. Pediatric Familial Heart Disease: Genetic Alterations
  - 6.10.1. Clinical Genetic Evaluation
  - 6.10.2. Cardiomyopathies: Hypertrophic, Dilated, Arrhythmogenic and Restrictive Dysplasia
  - 6.10.3. Connectivopathies
  - 6.10.4. Canalopathies
  - 6.10.5. Syndromes related to Heart Disease: Down Syndrome, DiGeorge Syndrome, Turner Syndrome, Williams Beuren Syndrome and Noonan Syndrome, etc.

## Module 7. Endocrine System, Metabolism and Nutrition in Pediatrics

- 7.1. Nutritional Status Assessment
  - 7.1.1. Nutritional Status Assessment
  - 7.1.2. Medical History, Nutritional Anamnesis and Physical Examination
  - 7.1.3. Body Composition Evaluation: Anthropometry, Weight / Height Ratio Indexes: Body Composition
  - 7.1.4. Nutritional Screening
- 7.2. Healthy Children Diet
  - 7.2.1. Breastfeeding
  - 7.2.2. Artificial Breastfeeding
  - 7.2.3. Healthy Children Diversification
- 7.3. Enteral Nutrition and Parenteral
  - 7.3.1. Detecting Patients in Need of Nutritional Support
  - 7.3.2. Requirement Calculations
  - 7.3.3. Choosing Artificial Nutrition Options
  - 7.3.4. Enteral Nutrition
    - 7.3.4.1. Access Routes
    - 7.3.4.2. Enteral Nutrition Formulas used in Pediatrics
    - 7.3.4.3. Monitoring and Complications
- 7.3.5. Parenteral Nutrition
  - 7.3.5.1. Access Routes
  - 7.3.5.2. Monitoring and Complications
- 7.3.6. Refeeding Syndrome
- 7.4. Deficiencies caused by New Forms Nutrition: New Diet Trends
  - 7.4.1. Types of Vegetarian Diets
  - 7.4.2. Macro - and Micro-Nutrients at Risk in Vegetarian Diets
  - 7.4.3. Vegetarian or Vegan Diet Recommendations according to Age
  - 7.4.4. Dietary Mistakes in Infants: Vegetable Drinks
  - 7.4.5. Information Sources
- 7.5. Approaching Patients with Suspected Inborn Errors of Metabolism (IEM)
  - 7.5.1. Inborn Errors of Metabolism (IEM)
  - 7.5.2. Clinical Approach
    - 7.5.2.1. IEM: Acute Presentation in the Neonatal Period and in Children <1 Year of Age
    - 7.5.2.2. IEM: Recurrent Seizures
    - 7.5.2.3. IEM: Chronic or Progressive Clinical Course
  - 7.5.3. Diagnostic Procedures
  - 7.5.4. Treatment
    - 7.5.4.1. Emergency Treatment
    - 7.5.4.2. Pharmacological Treatments and Cofactors
    - 7.5.4.3. Nutrition
    - 7.5.4.4. Others (Extrarenal Depuration Techniques, Organ Transplantation, etc.)
- 7.6. Hypoglycemia
  - 7.6.1. Hypoglycemia
  - 7.6.2. Directed Initial Evaluation: Anamnesis, Physical Examination
  - 7.6.3. Complementary Examinations during Hypoglycemia Episodes
  - 7.6.4. Differential Diagnosis
  - 7.6.5. Treatment
- 7.7. Polydipsia-Polyuria
  - 7.7.1. Polyuria in Pediatric Patients: Normal Diuresis by Age Group
  - 7.7.2. Etiopathogenesis
    - 7.7.2.1. Aqueous Diuresis: Osmotic Diuresis
    - 7.7.2.2. Osmotic Diuresis: Most Common Causes

- 7.7.3. Clinical Practice for Polyuric States
- 7.7.4. Diagnosis
  - 7.7.4.1. Anamnesis and Physical Examination
  - 7.7.4.2. Complementary Tests: Water Restriction Test or Miller's TestIndications: Limitations Arginine Vasopressin (AVP) and Copeptin Imaging and Other Tests
- 7.7.5. Treatment Side Effects and Precautions
- 7.7.6. Current Lines of Research
- 7.8. Diabetes Mellitus
  - 7.8.1. Introduction
  - 7.8.2. Epidemiology
  - 7.8.3. Etiopathogenesis
    - 7.8.3.1. Type 1 Diabetes (T1D)
    - 7.8.3.2. Type 2 Diabetes (T2D)
    - 7.8.3.3. Monogenic Diabetes: Type Maturity Onset Diabetes of the Young (MODY) Diabetes Neonatal Diabetes
    - 7.8.3.4. Cystic Fibrosis (CF) Related Diabetes
    - 7.8.3.5. Other Specific Types
  - 7.8.4. Diagnostic Criteria
  - 7.8.5. Clinical Presentation of T1D and Action
    - 7.8.5.1. Diabetic Ketoacidosis
    - 7.8.5.2. Hyperglycemia with/without Ketosis
    - 7.8.5.3. Hyperglycemia in Asymptomatic Patients
  - 7.8.6. T1D Treatment and Monitoring
    - 7.8.6.1. Glycemic Targets
    - 7.8.6.2. Diabetes Education
    - 7.8.6.3. Insulin Therapy
    - 7.8.6.4. Diet
    - 7.8.6.5. Physical Exercise
    - 7.8.6.6. Glycemic Monitoring
    - 7.8.6.7. Screening for Acute and Chronic Complications
  - 7.8.7. T2D Treatment and Monitoring
  - 7.8.8. MODY Treatment and Monitoring
  - 7.8.9. Other Types of Diabetes
- 7.9. Adrenal Insufficiency
  - 7.9.1. Adrenal Insufficiency
  - 7.9.2. Etiological classification
    - 7.9.2.1. Primary or Adrenal
    - 7.9.2.2. Secondary-Tertiary or Hypothalamo-Pituitary
  - 7.9.3. Clinical Manifestations
    - 7.9.3.1. Acute Adrenal Gland Failure: Severity Criteria
    - 7.9.3.2. Chronic Adrenal Gland Insufficiency
  - 7.9.4. Diagnosis
    - 7.9.4.1. Adrenal Crisis: Lab Findings
    - 7.9.4.2. Hypocortisolism: Suspicion of Adrenal Insufficiency Analytical Determinations
      - 7.9.4.2.1. Initial Complementary Tests: Cortisol and Plasma Corticotropin (ACTH) Reference Values
      - 7.9.4.2.2. Stimulus Hormone Tests: ACTH Test Insulin Hypoglycemia Test Other Tests
      - 7.9.4.2.3. Second Level Complementary Tests: Imaging, Microbiology, Pathological Anatomy, Immunology and Genetic Tests
  - 7.9.5. Differential Diagnosis for Hypocortisolism: Relevant Entities
    - 7.9.5.1. Primary Forms
    - 7.9.5.2. Secondary and Tertiary Forms
  - 7.9.6. Treatment
    - 7.9.6.1. Adrenal Crisis
    - 7.9.6.2. Replacement Therapy
    - 7.9.6.3. Adrenal Crisis Management and Prevention
    - 7.9.6.4. Chronic Corticosteroid Therapy Withdrawal
    - 7.9.6.5. Pre and Postoperative Management
    - 7.9.6.6. Patient and Family Education

## Module 8. Nephrology and Water and Electrolyte Disorders in Pediatrics

- 8.1. Urinary Tract Infections
  - 8.1.1. Urinary Tract Infections
  - 8.1.2. Other Meanings
  - 8.1.3. Etiology
  - 8.1.4. Clinical Symptoms
  - 8.1.5. Diagnosis
  - 8.1.6. Treatment
  - 8.1.7. Monitoring
- 8.2. Urinary Tract Congenital Abnormalities
  - 8.2.1. Urinary Tract Congenital Abnormalities
  - 8.2.2. Etiology
  - 8.2.3. Classification (Hypodysplasia and Single Kidney, Obstructive Uropathies, Ureteral Vesico-ureteral Reflux)
  - 8.2.4. Pre - and Postnatal Diagnosis
  - 8.2.5. Treatment
  - 8.2.6. Scarring Nephropathy
- 8.3. Hematuria-Proteinuria
  - 8.3.1. Hematuria-Proteinuria
  - 8.3.2. Diagnosis
  - 8.3.3. Clinical Symptoms
  - 8.3.4. Differential Diagnosis
  - 8.3.5. Treatment
- 8.4. Post-Streptococcal Glomerulonephritis
  - 8.4.1. Post-Streptococcal Glomerulonephritis
  - 8.4.2. Etiology
  - 8.4.3. Clinical Symptoms
  - 8.4.4. Diagnosis Practical Approach
  - 8.4.5. Treatment
  - 8.4.6. Prognosis
- 8.5. Nephrotic Syndrome
  - 8.5.1. Nephrotic Syndrome
  - 8.5.2. Pathophysiology
  - 8.5.3. Etiology
  - 8.5.4. Clinical symptoms
  - 8.5.5. Diagnosis Practical Approach
  - 8.5.6. Treatment: Onset and Relapses Maintenance
  - 8.5.7. Prognosis
- 8.6. Hydroelectrolytic Alterations and Acid-Base Balance
  - 8.6.1. Hydroelectrolytic Alterations and Acid-Base Balance
  - 8.6.2. Water and Sodium Alterations
  - 8.6.3. Potassium Alterations
  - 8.6.4. Phosphocalcium-Calcium Metabolism and Alterations
  - 8.6.5. Acid-Base Equilibrium
- 8.7. Acute Renal Damage
  - 8.7.1. Acute Renal Damage
  - 8.7.2. Epidemiology
  - 8.7.3. Classification
  - 8.7.4. Diagnosis
  - 8.7.5. Treatment Practical Approach
  - 8.7.6. Prognosis
- 8.8. Hypertension
  - 8.8.1. Hypertension
  - 8.8.2. Classification
  - 8.8.3. Clinical Symptoms
  - 8.8.4. Diagnosis
  - 8.8.5. Treatment
  - 8.8.6. Hypertensive Crisis and Emergency
  - 8.8.7. Monitoring
- 8.9. Nephrolithiasis
  - 8.9.1. Introduction
  - 8.9.2. Etiology and Pathophysiology
  - 8.9.3. Clinical Symptoms
  - 8.9.4. Diagnosis
  - 8.9.5. Renal Colic Treatment
  - 8.9.6. Long Term Monitoring and Treatment Consultation

## Module 9. Pediatric Hemato-Oncology

- 9.1 Diagnosing Anemia in Pediatric Patients
  - 9.1.1. Anemia
  - 9.1.2. Anemia Pathophysiology
  - 9.1.3. Diagnostic Tests in Anemic Patients
  - 9.1.4. Differential Diagnosis in Anemic Pediatric Patients
  - 9.1.5. Clinical Cases
- 9.2. Iron Deficiency Anemia
  - 9.2.1. Iron Deficiency Anemia
  - 9.2.2. Iron Deficiency Epidemiology
  - 9.2.3. Iron Deficiency Anemia Pathophysiology
  - 9.2.4. Differential Diagnosis for Iron Deficiency Anemia
  - 9.2.5. Diagnostic Tests for Iron Deficiency Anemia
  - 9.2.6. Iron Deficiency Anemia Treatment
  - 9.2.7. Clinical Cases
- 9.3. Sickle Cell Anemia
  - 9.3.1. Sickle Cell Anemia Pathophysiology
  - 9.3.2. Epidemiology
  - 9.3.3. Diagnosis
  - 9.3.4. Neonatal Screening
  - 9.3.5. Sickle Cell Disease Treatment
  - 9.3.6. Most Common Complications in Sickle Cell Anemia
  - 9.3.7. Clinical Cases
- 9.4. Purpura
  - 9.4.1. Purpura
  - 9.4.2. Basic Principles in Studying Patients with Excessive Bleeding
  - 9.4.3. Diagnostic Tests
  - 9.4.4. Differential Diagnosis
  - 9.4.5. Clinical Cases
- 9.5. Immune Thrombocytopenia Purpura (ITP)
  - 9.5.1. Immune Thrombocytopenia Purpura (ITP)
  - 9.5.2. ITP Pathophysiology
  - 9.5.3. Diagnostic Tests
  - 9.5.4. Differential Diagnosis
  - 9.5.5. Acute ITP Treatment
  - 9.5.6. Chronic/Persistent ITP Treatment
  - 9.5.7. Clinical Cases
- 9.6. Neutropenia
  - 9.6.1. Neutropenia
  - 9.6.2. Differential Diagnosis
  - 9.6.3. Chronic vs. Reactive vs. Secondary Neutropenia
  - 9.6.4. Diagnostic tests
  - 9.6.5. Chronic Neutropenia
  - 9.6.6. Chronic Neutropenia Treatment
  - 9.6.7. Clinical Cases
- 9.7. Adenomegaly and Hepatosplenomegaly
  - 9.7.1. Differential Diagnosis for Adenopathies
  - 9.7.2. Differential Diagnosis for Splenomegaly
- 9.8. Oncologic Emergencies
  - 9.8.1. Tumor Lysis Syndrome
  - 9.8.2. Hyperuricemia
  - 9.8.3. Hypercalcemia
  - 9.8.4. Hypercalcemia
  - 9.8.5. Hyperphosphatemia
  - 9.8.6. Hyperleukocytosis
  - 9.8.7. Mediastinal Mass and Superior Vena Cava Syndrome
  - 9.8.8. Acute Medullary Compression
  - 9.8.9. Endocranial Hypertension
  - 9.8.10. Fever in Hematooncology Patients
  - 9.8.11. Disseminated Intravascular Coagulation (DIC)
  - 9.8.12. Hemorrhages

- 9.9. Transfusion Therapy in Pediatric Patients
  - 9.9.1. Transfusion Therapy in Pediatric Patients
  - 9.9.2. Common Blood Products
  - 9.9.3. Indications for Platelet Transfusion
  - 9.9.4. Indications for Platelet Transfusion
  - 9.9.5. Indications for Plasma Transfusion
  - 9.9.6. Complications in Transfusion Therapy
- 9.10. Anticoagulation in Pediatric Patients
  - 9.10.1. Anticoagulation Indications
  - 9.10.2. Anticoagulation in Children
  - 9.10.3. Anticoagulation Monitoring

## Module 10. Other Pediatric Processes

- 10.1. Most Common Injuries
  - 10.1.1. Etiology
  - 10.1.2. Diagnostic Approach
  - 10.1.3. Febrile and Afebrile Exanthema
  - 10.1.4. Vesicular Exanthem
  - 10.1.5. Purpuric Exanthem
  - 10.1.6. Morbilliform Exanthem
  - 10.1.7. Kawasaki Disease
  - 10.1.8. Scarlet Fever
  - 10.1.9. Steven Johnson Syndrome
- 10.2. Lactating Infant Presenting Apparent Life-Threatening Event (ALTE) or BRUE (Brief Reported Unexplained Event)
  - 10.2.1. Lactating Infant Presenting ALTE
  - 10.2.2. Epidemiology
  - 10.2.3. Risk Factors
  - 10.2.4. Hospital Diagnosis and Management
  - 10.2.5. Hospital Discharge Criteria
- 10.3. The Role of Nursing during Pediatric Hospitalization
  - 10.3.1. Illness in Childhood: Psychological Reactions and Attitude toward Hospital Admission
  - 10.3.2. Nursing Care during Hospitalization
    - 10.3.2.1. Objectives According to Age
    - 10.3.2.2. Parental Care / Interventions
    - 10.3.2.3. Environment Care / Interventions
  - 10.3.3. Hospitalization Procedures
    - 10.3.3.1. Measuring Vital Signs according to Age, Anthropometric Parameters and Capillary Measurements
    - 10.3.3.2. Secretion and Foreign Body Aspiration
    - 10.3.3.3. Clamping Techniques
    - 10.3.3.4. Probes
    - 10.3.3.5. Sample Collection
    - 10.3.3.6. Medication Administration, Reconstitution and Dosage Calculation
    - 10.3.3.7. Vesiculo-Vacuolar Organelle (VVO) Channeling
    - 10.3.3.8. Bandages
    - 10.3.3.9. Cardiopulmonary Resuscitation in Pediatrics
- 10.4. Nursing Care in Managing Children Recently Diagnosed with Diabetes: Diabetes Education
  - 10.4.1. Patient and Family Needs upon Onset: Empowerment
  - 10.4.2. Capillary Ganglion Cell Layer (GCL) and Continuous Glucose Monitoring (CGM)
  - 10.4.3. Injection Technique, Rotational Zones
  - 10.4.4. Insulin: Storage and Maintenance
  - 10.4.5. Day to Day Diabetes Management
    - 10.4.5.1. Acute Complications, Hypoglycemia and Hyperglycemia Management (Symptoms, Prevention and Correction)
    - 10.4.5.2. Diabetes during Illness: Prevention of CAD
    - 10.4.5.3. Blood Glucose and Diet: Carbohydrate (CH) Quantification Glycemic Index Label Reading
    - 10.4.5.4. Attitude toward Exercise
    - 10.4.5.5. Children at School: Necessary Supplies

- 10.5. General Postoperative Patient Care
  - 10.5.1. Hospital Pediatrician Role in Cases of Children and Adolescents undergoing Surgery
  - 10.5.2. General Postoperative Care
    - 10.5.2.1. Controlling Temperature
    - 10.5.2.2. Liquids and Electrolytes
    - 10.5.2.3. Nausea and Vomiting
    - 10.5.2.4. Postoperative Nutrition
    - 10.5.2.5. Respiratory Function Recovery
    - 10.5.2.6. Early Rest and Mobilization
    - 10.5.2.7. Surgical Antibiotic Prophylaxis
    - 10.5.2.8. Controlling Postoperative Pain
- 10.6. Complex Pediatric Patients
  - 10.6.1. Chronicity and Complexity: Defining Populations
  - 10.6.2. Special Health Needs
  - 10.6.3. Technology Dependency: Nutritional, Respiratory and Cardiac Support
- 10.7. Home Hospitalization
  - 10.7.1. Home Hospitalization
  - 10.7.2. Historical Journey
  - 10.7.3. Subsidiary Patients and Families
    - 10.7.3.1. Benefits for Patients and Family
    - 10.7.3.2. Benefits for the National Health System
  - 10.7.4. Organization: Resources and Coordination
- 10.8. Pediatric Palliative Care
  - 10.8.1. Palliative Care and Patient Classification
  - 10.8.2. End-of-Life Patient and Family Care
    - 10.8.2.1. Decision Making
    - 10.8.2.2. Communication with Patients and Families
  - 10.8.3. Palliative Medicine: Treatment and Support
    - 10.8.3.1. Pain Treatment
    - 10.8.3.2. Palliative Sedation
    - 10.8.3.3. Care during and after Death
- 10.9. Child Abuse
  - 10.9.1. Types of Child Maltreatment
  - 10.9.2. Epidemiology
  - 10.9.3. Clinical Manifestations
  - 10.9.4. Approach to Suspected Child Abuse in Pediatrics
- 10.10. Liaison and Interconsultation Psychiatry
  - 10.10.1. The Child and the Family in the Face of Illness and Hospitalization
  - 10.10.2. Chronic Diseases
  - 10.10.3. Psychopathology associated with Physical Pathologies
  - 10.10.4. Delirium
  - 10.10.5. Pain
  - 10.10.6. Psychosomatics
  - 10.10.7. Suicidal Behavior
  - 10.10.8. Psychopharmacology
- 10.11. Pediatric Patient Safety in a Hospital Setting
  - 10.11.1. Safety as a Critical Objective in Quality Care
  - 10.11.2. Adverse Events (AEs) in Pediatric Hospitalization
    - 10.11.2.1. Most Common Causes
    - 10.11.2.2. Most Frequent AEs in Pediatrics
    - 10.11.2.3. Prevention
  - 10.11.3. Patient Safety Culture
  - 10.11.4. Information Sources: Notification and Record Systems
  - 10.11.5. Analysis Systems
  - 10.11.6. Safety Strategies: Safe Practices



*There is no more complete syllabus in the field of Hospital Pediatrics”*

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 learning, 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 Hospital Pediatrics 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 Hospital Pediatrics** 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: **Professional Master's Degree in Hospital Pediatrics**

Modality: **online**

Duration: **12 months**

Accreditation: **60 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.

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



## Professional Master's Degree

Hospital Pediatrics

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

# Professional Master's Degree

## Hospital Pediatrics

