

Advanced Master's Degree Clinical Pediatrics





Advanced Master's Degree Pediatric Clinic

- » Modality: online
- » Duration: 2 years
- » Certificate: TECH Global University
- » Accreditation: 120 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techitute.com/us/medicine/advanced-master-degree/advanced-master-degree-pediatric-clinic

Index

01

Introduction

p. 4

02

Objectives

p. 8

03

Skills

p. 16

04

Course Management

p. 22

05

Structure and Content

p. 48

06

Study Methodology

p. 72

07

Certificate

p. 82

01 Introduction

The great transformations that pediatrics has recently undergone, accentuated by the pandemic situation, have led to an increase in the complexity of the discipline. Thus, the most advanced techniques and knowledge are needed to respond to the current challenges of this health area. For this reason, this program has been designed to provide the physician with a complete update in the fields of hospital pediatrics, pediatrics in primary care and pediatric emergencies, delving into aspects such as respiratory diseases, hemato-oncology or invasive procedures in critical care, always focused on pediatric patients. All this, with a 100% online teaching methodology specially designed to balance studies with daily professional work.





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This program will provide you with a comprehensive update in the area of Clinical Pediatrics, delving into the latest advances in pediatric emergencies and in hospital and primary care pediatrics"

Of all the existing healthcare areas, pediatrics is one of those that has undergone the greatest changes in recent years. Recent scientific advances in the management of numerous pathologies and the updating of protocols in fields such as emergencies have led pediatrics to incorporate new diagnostic techniques and treatments. As such, the specialist needs to keep up to date with these new procedures in order to have the most up-to-date methods and procedures.

That is why this program has been designed to bring you up to date rapidly in many areas of healthcare. In this way, throughout this Advanced Master's Degree of Continuing Education, the pediatrician will be able to delve into issues such as the care of the critically ill child outside the pediatric intensive care unit, parapneumonic pleural effusion or eosinophilic esophagitis and its relationship with celiac disease.

In addition, you will have at your disposal all the scientific evidence in the approach to febrile and parainfectious crises, as well as the respiratory disease of newborns and the syndrome of incomplete reabsorption of pulmonary fluid. However, this degree does not stop there and offers the latest innovations in issues such as current biosafety in microbiology laboratories for the handling of samples of different viruses.

In this way, the specialists will have access to the most cutting-edge knowledge while enjoying a 100% online learning methodology that will allow them to work while studying, without interruptions or rigid schedules. Furthermore, you will have the most expert teaching staff, composed of physicians with extensive experience, who will make use of numerous multimedia resources to streamline the teaching process.

In addition, leading International Guest Directors will offer unique and disruptive Masterclasses that will provide graduates with advanced clinical skills.

This **Advanced Master's Degree in Clinical Pediatrics** contains the most complete and up-to-date scientific program on the market. The most important features include:

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



Renowned International Guest Directors will deliver exclusive Masterclasses that will provide you with the most sophisticated techniques to manage a wide range of Pediatric Disorders"

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In this qualification you will have at your disposal the best didactic resources: video procedures, interactive summaries, masterclasses... Everything to facilitate your learning process"

Its teaching staff includes professionals from the field of Pediatrics, who bring to this program the experience of their work, as well as recognized specialists from reference 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 learning experience designed to prepare for real-life situations.

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

TECH will provide you with the opportunity to gain in-depth knowledge, thanks to this Advanced Master's Degree of Continuing Education, on issues such as Crohn's disease or the reduction of paraphimosis, always in pediatric patients.

A teaching staff made up of practicing professionals will guide you throughout the program, ensuring that you get the update you are looking for.



02 Objectives

The main objective of this Advanced Master's Degree in Clinical Pediatrics is to bring the specialist closer to all the recent developments in this discipline, helping them to integrate the latest advances in pediatric emergencies into their daily work. And to achieve this goal, it offers a complete, up-to-date and in-depth syllabus, a teaching staff of great prestige and extensive experience, and a learning method that will adapt to your professional circumstances.



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You will achieve your goal of updating yourself thanks to this program, specially designed to make you a professional up to date with all the advances in pediatrics”



General Objectives

- ♦ Master the latest techniques and knowledge in modern hospital pediatrics
- ♦ Become highly fluent 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 update of scientific evidence
- ♦ Obtain an update in the medical field of hospital pediatrics
- ♦ Expand knowledge in the provision of emergency care to improve the child's prognosis and family care
- ♦ Review the main pathologies in children and adolescents and the advances made in them
- ♦ Update the physician on advanced life support, diagnostic and therapeutic techniques for pediatric patients with urgent disorders, in order to provide emergency care to improve the child's prognosis and family care





Specific Objectives

Module 1. Critically Ill Children Care Outside the Pediatric Intensive Care Unit

- Delve into the different hospital practices regarding initial child management in life-threatening situations due to acute hemodynamic, respiratory and/or neurological involvement
- Update rapid intubation sequence and advanced cardiopulmonary resuscitation in children according to the latest ILCOR 2021 recommendations
- Practical diagnosis and therapy management for children disconnected from the environment
- Know the algorithm of action in case of status convulsus
- 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 into chronic respiratory pathologies of frequent hospitalization such as bronchopulmonary dysplasia, interstitial lung disease, +cystic fibrosis, patients with neuromuscular disorder
- 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
- Update on inflammatory bowel disease and hepatic dysfunction, which require a high diagnostic suspicion, since they can cause, if detection is delayed, important 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 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 Fluid 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

- ♦ Use updated 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

Module 11. Healthy Child Care

- ♦ Carry out a complete health assessment
- ♦ Describe the psychomotor development and optimal language level at each stage of childhood
- ♦ Explain the basic principles of successful breastfeeding according to the needs of the infant
- ♦ Describe the foundations of a balanced diet in each of the developmental stages of a normal child
- ♦ Implement diet and exercise programs adapted to each stage of growth
- ♦ Apply the current vaccination schedule

Module 12. Newborn

- ♦ Revise the characteristics of a normal newborn and the care that should receive in the first few hours of life
- ♦ Explain the most common health problems that could occur in a normal newborn
- ♦ Describe the care protocol for normal newborns
- ♦ Differentiate between the most common respiratory problems in newborns with the aim of establishing an appropriate diagnosis and initiating the correct treatment
- ♦ Detect jaundice in a newborn and implement early treatment

Module 13. Dermatology

- ♦ Describe the etiology and basic characteristics of certain dermatological alterations in childhood
- ♦ Implement treatment plans in the case of alterations such as eczema or acne
- ♦ Identify possible related illnesses and their etiology
- ♦ Explain the course of action in cases of infectious or parasitic dermatoses

Module 14. Sleep Disorders

- ♦ Describe the basic principles of sleep and the characteristics at each stage of childhood
- ♦ Evaluate problems related to sleep in pediatrics
- ♦ Establish an appropriate diagnosis and treatment in these types of disorders

Module 15. Rheumatology

- ♦ Describe the main rheumatological alterations that can occur in childhood
- ♦ Establish a differential diagnosis with other non-rheumatological pathologies
- ♦ Apply appropriate treatment according to the etiological agent causing the infection

Module 16. Allergy

- ♦ Describe the main food allergies and how to establish an appropriate diagnosis
- ♦ Implement treatment and dietary plans with the aim of avoiding acute allergic reactions in children with allergies
- ♦ Describe the different diagnostic tests as well as how to prepare for them and possible complications that could arise
- ♦ Describe the action to be taken in case of urticaria and avoid the onset of angioedema by implementing appropriate therapeutic measures

Module 17. Locomotor System

- ♦ Identify possible alterations in the locomotor system in children
- ♦ Establish the most appropriate corrective treatment in the case of an established pathology
- ♦ Identify the causes of back pain and lower limb pain
- ♦ Identify walking abnormalities by thorough examination of the feet
- ♦ Apply corrective methods to reduce walking abnormalities

Module 18. Ophthalmology

- ♦ Describe ocular examination in children and the normal parameters
- ♦ Detect ophthalmologic conditions of infectious origin and establish appropriate treatment
- ♦ Establish a proper diagnosis in case of strabismus and apply necessary corrective measures
- ♦ Identify other ophthalmologic pathologies which require surgical and/or specialist care

Module 19. Surgery

- ♦ Describe the main surgical procedures in pediatrics
- ♦ Identify the cause of acute abdomen with the aim of establishing urgent surgical treatment if necessary
- ♦ Identify the causes of intestinal obstruction in a child and establish an adequate treatment plan

Module 20. Miscellaneous

- ♦ Identify the most appropriate forms of administering drugs in pediatric patients
- ♦ Explain the appropriate way to calculate the dosis of drugs in pediatrics
- ♦ Define alternative treatments in immunosuppressed patients, patients with allergies or with any associated pathology
- ♦ Identify the appropriate pediatric doses of commonly used drugs
- ♦ Describe the normal laboratory values in the newborns, infants and children
- ♦ Identify altered analytical values in the pediatric age group

Module 21. Health Care Organization for Common Pediatric Emergencies

- ♦ Identify the different elements of the equipment in the pediatric emergency department
- ♦ Practice patient selection according to the different triage systems
- ♦ Describe pediatric critical patient transport systems

Module 22. Common Advanced Pediatric and Neonatal Cardiovascular Support

- ♦ Identify the signs and symptoms of the main apparently lethal syndromes, as well as recognize the critically ill child

Module 23. Invasive Techniques in Common Critically Ill Pediatric Patients

- ♦ Incorporate intraosseous puncture as a frequently used technique in pediatric emergency departments

Module 24. Cardiologic Emergencies

- Describe the main signs and symptoms of cardiac pathologies, arrhythmias, syncope, heart failure and congenital heart disease

Module 25. Respiratory Emergencies

- Update the latest recommendations for the performance of basic and advanced cardiopulmonary resuscitation maneuvers and complete upper airway clearance of a foreign body
- Establish the procedures for performing Capnography and Pulse Oximetry, as well as to review the indications for oxygen therapy in pediatric patients, according to the latest scientific evidence
- Identify the main aspects of pediatric airway establishment, rapid intubation sequence, difficult airway and new facilitator devices
- Address respiratory disorders in the newborn, in accordance with the latest scientific evidence
- Describe the main signs and symptoms of respiratory tract pathologies in the child, and the approach to acute pharyngotonsillitis, laryngitis or croup, spasmodic croup, otitis and sinusitis
- Determine the procedures for the management of the child with asthma and chronic cough, and the different diagnostic and therapeutic techniques, such as airway aspiration, thoracentesis and placement of the pleural tube, forced spirometry and bronchodynamic test

Module 26. Pediatric Trauma and Osteoarticular Injuries

- Review the diagnostic process, assessment and care of the pediatric patient with traumatic brain injury
- Incorporate into medical practice the priorities of evaluation and treatment of the traumatized child and the characteristics of pediatric patients
- Develop and practice the sequences in the different workshops on mobilization and immobilization of the trauma patient, functional bandaging, casting and reduction of painful pronation

Module 27. Unintentional Injuries. Child Accidents

- Increase the ability to manage the acutely intoxicated child or adolescent

Module 28. Digestive Emergencies

- Determine the innovations in the management of celiac disease in children
- Address the management procedures of the child with food refusal and relate it to the different digestive pathologies

Module 29. Infectious Emergencies

- Review the latest advances in diagnostic and therapeutic procedures for the different hepatitis virus infections: HAV, HBV, HCV, HDV, HEV
- Review advances in the management of HPV, herpes simplex and shingles viral infections in children
- Review advances in the management of fungal infections, tinea, candidiasis and pityriasis versicolor
- Update knowledge in infectious diseases in children and the management of immunocompromised children



Module 30. Ophthalmologic and Otorhinolaryngologic Emergencies

- ♦ Analyze new developments in the management of children with ophthalmologic and otorhinolaryngologic problems

Module 31. Pediatric Skin Emergencies

- ♦ Update the management of the different common dermatological pathologies in the emergency department

Module 32. Nephrourological Emergencies

- ♦ Describe the main advances in the management of the child with nephrourological problems, incorporating the techniques of urine collection, suprapubic puncture and bladder catheterization, according to updated clinical guidelines

Module 33. Special Situations in Pediatric Emergencies

- ♦ Prepare the specialist to deal with the different special situations that may arise in pediatric emergencies

Module 34. Update on Coronavirus Infections

- ♦ Update the pediatrician on the latest advances in coronavirus infections in children and adolescents



You will be able to learn about the most relevant innovations in aspects such as adrenal insufficiency or head trauma in children"

03 Skills

During this Advanced Master's Degree of Continuing Education in Clinical Pediatrics, specialists will be able to acquire and perfect a series of skills in this health area with which they will continue to perform their work at the highest level. In this way, this program is completely focused on ensuring that the physician obtains all the necessary skills to respond, according to the latest scientific evidence, to the current challenges of the profession.



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Incorporate the latest pediatric procedures into your work and hone your skills to adapt to the transformations that this discipline has undergone in recent years”



General Skills

- ♦ 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 to diagnostic processes
- ♦ Know how to communicate conclusions, knowledge, and supporting arguments to specialized and non-specialized audiences in a clear and unambiguous way
- ♦ Acquire study skills that will enable further study in a largely self-directed or autonomous manner
- ♦ Possess and understand knowledge that provides a basis or opportunity to be original in the development and/or application of ideas, often in a research context
- ♦ Know how to apply the acquired knowledge and problem-solving skills, in new or unfamiliar environments, within broader (or multidisciplinary) contexts related to its area of study
- ♦ Integrate knowledge and face the challenge of making judgements based on incomplete or limited information. In addition, include reflections on the social and ethical responsibilities linked to implementing this knowledge and judgement





Specific Skills

- ♦ 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
- ♦ Carry out a complete health assessment with the aim of describing the psychomotor development and optimal language level at each stage of childhood
- ♦ Explain the basic principles for successful breastfeeding and normal infant development in order to ensure that the child's needs are adequately met through this method
- ♦ Describe the foundations of a balanced diet in each of the developmental stages of a normal child in order to implement diet and exercise programs adapted to each stage of growth
- ♦ Describe the characteristics of a normal newborn and the care that they should receive in their first hours of life, in order to detect the most common health problems that can occur in a normal newborn

- ♦ Differentiate between the most common respiratory problems in newborns with the aim of establishing an appropriate diagnosis and initiating the correct treatment
- ♦ Describe the etiology and basic characteristics of certain dermatological alterations in childhood in order to implement treatment plans in the case of alterations such as eczema or acne
- ♦ Identify possible related illnesses and their etiology to be able to carry out a correct diagnosis and implement an appropriate treatment
- ♦ Identify food-related disorders in order to carry out thorough monitoring of a child in the field of primary care
- ♦ Implement therapeutic plans for the care and treatment of the diabetic child in order to avoid hypoglycemia and to solve it in case it occurs
- ♦ Explain the different procedures that the pediatrician can carry out to resolve potentially dangerous situations safely in the emergency department
- ♦ Develop basic and advanced cardiopulmonary resuscitation procedures
- ♦ Describe actions for complete upper airway clearance
- ♦ Define the criteria for the correct detection of child abuse
- ♦ Assess the degree of pain in the pediatric patient
- ♦ Explain the sedoanalgesia procedure and indicate the necessary pharmacology
- ♦ Apply the specific protocols of action for pediatric patients with fever
- ♦ Connect the different types of brain damage and their clinical manifestations
- ♦ Perform initial assessment of traumatic brain injury





- ♦ Identify characteristics of the traumatized child and priorities for assessment and treatment
- ♦ State and describe the differences between viral and bacterial meningitis
- ♦ Describe the management procedure of the pediatric patient with acute intoxication
- ♦ Determine the specific actions of the physician in emergencies of the pediatric patient with special needs
- ♦ Explain and identify the most frequent causes of an apparently lethal episode
- ♦ Define anaphylaxis and its clinical manifestations to guide the diagnosis
- ♦ Classify the situations in which we suspect abuse
- ♦ Describe burn care, including cleanup, management of phlyctenas, draping, analgesia and prophylaxis
- ♦ Signal the differential organizational and management characteristics of pediatric emergency departments

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*The best program to get up to date
in clinical pediatrics is here"*

04

Course Management

TECH always aims to offer the best learning experience. Therefore, it is responsible for selecting the best teaching staff so that the pediatrician enjoys the most updated knowledge. In this way, the teaching staff of this Advanced Master's Degree of Continuing Education has a great experience and reputation in the specialty, and will transfer to the professionals the most advanced procedures, techniques and protocols, thereby guaranteeing that they obtain an immediate update.



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The most distinguished professionals in the field of pediatrics will dynamically update you, adapting to your personal needs"

International Guest Director

Dr. Todd Florin is a recognized Pediatric Emergency Physician and clinical epidemiologist, expert in Lower Respiratory Tract Infections in children, especially in the field of Bronchiolitis and Pneumonia. In addition, at international level, he is a leader in the use of biomarkers and predictive analysis to improve the diagnosis and treatment of these conditions.

In this way, he has served as Director of Research in Emergency Medicine at the Ann & Robert H. Lurie Children's Hospital in Chicago. Moreover, at the same hospital, he has directed the Grainger Research Program in Pediatric Emergency Medicine, where he has led key projects, such as the CARPE DIEM study (*Catalyzing Ambulatory Research in Pneumonia Etiology and Diagnostic Innovations in Emergency Medicine*), a pioneering investigation of community-acquired Pneumonia, as well as other global studies, such as PERN, focused on understanding the severity of Pneumonia and the impact of COVID-19 in children.

Dr. Todd Florin has also received numerous awards for his outstanding medical and research work, including the Young Investigator Award from the *Academic Pediatric Association*, and has been recognized for his research leadership and mentorship at renowned institutions such as Cincinnati Children's Hospital Medical Center. His vision of combining translational science with clinical care has driven significant advances in the management of Pediatric Respiratory Infections.

In fact, his work has been endorsed by prestigious institutions such as the National Heart, Lung and Blood Institute and the National Institute of Allergy and Infectious Diseases. Likewise, his focus on Precision Medicine has transformed the way Respiratory Infections in children are managed, contributing to the reduction of unnecessary antibiotic use.



Dr. Florin, Todd

- Director of Emergency Medicine Research, Ann & Robert H. Lurie Children's Hospital, Chicago, United States
- Chief of the Grainger Research Program in Pediatric Emergency Medicine at Ann & Robert H. Lurie Children's Hospital
- Assistant Physician, Division of Emergency Medicine, Ann & Robert H. Lurie Children's Hospital
- Principal Investigator of the *Catalyzing Ambulatory Research in Pneumonia Etiology and Diagnostic Innovations in Emergency Medicine Study* (CARPE DIEM)
- Director of Strategy and Operations at the Society for Pediatric Research
- Specialist in Pediatric Emergency Medicine at the Children's Hospital of Philadelphia
- Doctor of Medicine from the University of Rochester
- Master's Degree in Clinical Epidemiology from the University of Pennsylvania
- B.A. in Music from the University of Rochester
- Young Investigator Award from the Academic Pediatric Association
- Member of: Academic Pediatric Association, American Academy of Pediatrics, Pediatric Infectious Diseases Society, Society for Academic Emergency Medicine, Society for Pediatric Research



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

Guest Director



Dr. Sánchez Díaz, Juan Ignacio

- ♦ Head of PICU and Pediatric Emergency Department at the 12 de Octubre University Hospital
- ♦ Specialist in General Pediatrics at the SENDA Maternity and Children's Medical Center
- ♦ Specialist in the Treatment of the Critically Ill Child
- ♦ Accreditation in Pediatric Intensive Care, Spanish Association of Pediatrics
- ♦ 80 publications in international scientific journals
- ♦ Speaker at congresses and meetings such as the XXVII SOMIAMA Meeting
- ♦ Member of the medical scientific committee of the XXXV and XXXII Congress of the Spanish Society of Pediatric Intensive Care (SECIP)
- ♦ Member of: Spanish Society of Pediatric Intensive Care (SECIP) and the Technical Assistance Board of the 12 de Octubre University Hospital

Management



Dr. Castaño Rivero, Antón

- ♦ Pediatrician
- ♦ Attending Physician of the Pediatric Emergency Department at Cabueñes University Hospital
- ♦ CPR Instructor and Course Director, accredited by the Spanish Group of Pediatric and Neonatal CPR
- ♦ Accredited in the subspecialty of Pediatric Emergency Medicine by the Spanish Association of Pediatrics (AEP)
- ♦ Former President of the Spanish Society of Pediatric Emergency Medicine
- ♦ Master's Degree in Emergencies and Acute Pathology in Pediatrics, Autonomous University from Madrid

**Dr. García Cuartero, Beatriz**

- ♦ Head of the Pediatrics Service and Coordinator of the Pediatric Endocrinology and Diabetes Unit at the Ramón y Cajal University Hospital
- ♦ Head of the Pediatrics Service and Coordinator of the Pediatric Endocrinology and Diabetes Unit at the Ramón y Cajal University Hospital
- ♦ Pediatric Area Specialist at the Severo Ochoa University Hospital
- ♦ Pediatrician in Primary Care in Area 4 of Madrid
- ♦ Associate Professor of Pediatrics at the Alcalá University
- ♦ Fellowship of the Social Security Research Fund (FISS) at the Steno Diabetes Center Copenhagen and the Hagedorn Research Laboratory. Project: Mechanism of pancreatic beta cell destruction and free radicals in type 1 diabetes mellitus
- ♦ PhD from the Autonomous University of Madrid
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid
- ♦ Specialist in Pediatrics by MIR accreditation at the Niño Jesús University Children's Hospital
- ♦ Member of: CAM, AEP, SEEP, SED, SEEN, ISPAD, ESPE, PHP



Dr. Mantecón Fernández, Laura

- ♦ Neonatology Assistant Specialist at the Central University Hospital of Asturias. Spain
- ♦ PhD in Medicine from the University of Oviedo with Outstanding Cum Laude
- ♦ Degree in Medicine from the University of Cantabria.
- ♦ Outpatient residency in the Neonatal Intensive Care Unit at the Jackson Memorial Hospital. Miami, Florida
- ♦ Accredited Instructor in Neonatal Resuscitation at the Spanish Society of Neonatology (SENEO)
- ♦ Postgraduate Degree in Neonatology, Pediatric Emergencies and Update in Pediatric Primary Care
- ♦ Researcher specialized in the impact of antibiotics on neonatal intestinal microbiota and vitamin D in pediatric population (markers and status)
- ♦ Member of: Spanish Society of Neonatology (SENEO)

Professors

Dr. Buenache Espartosa, Raquel

- ♦ Specialist in Pediatrics and its Specific Areas, with dedication to Neuropediatrics at the University Hospital Ramón y Cajal
- ♦ Specialist in Pediatrics and its specific areas at the University Hospital Fundación Alcorcón
- ♦ Assistant Physician with a Profile in Neuropediatrics and its Specific Areas at the University Hospital del Henares
- ♦ Specialist in Neuropediatrics at the University Hospital La Zarzuela
- ♦ Doctorate studies in the area of Pediatrics, within the Medical Specialties Doctorate program at the University of Alcalá
- ♦ Bachelor's Degree in Medicine and Surgery from the Autonomous University of Madrid
- ♦ Resident Medical Intern training as a Specialist in Pediatrics and Sub-specialization in Neuropediatrics at the University Hospital Ramón y Cajal

Dr. Blitz Castro, Enrique

- ♦ Pediatric Specialist in the Management of Patients with Cystic Fibrosis
- ♦ Pediatric Pneumologist of the Pediatrics Service and Cystic Fibrosis Unit at the Ramón y Cajal University Hospital
- ♦ Responsible for the Cystic Fibrosis Neonatal Screening program at the Ramón y Cajal University Hospital
- ♦ PhD in Health Sciences from the University of Alcalá
- ♦ Member of: Biomedical Research Foundation of the Ramón y Cajal University Hospital

Dr. Morales Tirado, Ana

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

Dr. Vázquez Ordóñez, Carmen

- ♦ Specialist in Pediatric Nephrology and Pediatric Emergencies
- ♦ Specialist in Pediatric Nephrology and Pediatric Emergencies at the University Hospital Ramón y Cajal
- ♦ Teaching Collaborator for 4th and 6th year in Medicine at the University of Alcalá
- ♦ Seminar in Medicine from the University of Alcalá
- ♦ Rotation in the Pediatric Nephrology Service at the University Hospital 12 de Octubre
- ♦ Resident of Pediatrics at Ramón y Cajal University Hospital
- ♦ Degree in Medicine and Surgery from the University of Navarra

Dr. Stanescu, Sinziana

- ♦ Pediatrician Specialized in Metabolic Diseases and Intensive Care
- ♦ Pediatric Metabolic Diseases Unit Physician at Ramón y Cajal University Hospital
- ♦ Medical Specialist in Pediatric Intensive Care at the Ramón y Cajal University Hospital
- ♦ Collaborator at the University Hospital of Alcalá de Henares

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. Toledano Navarro, María

- ♦ Pediatric Cardiologist Specialized in Congenital Heart Disorders
- ♦ Responsible for the Familial Heart Disease and Hemodynamics Clinic at the Ramón y Cajal University Hospital
- ♦ Attending Specialist in Pediatric Cardiology at the Ramón y Cajal University Hospital
- ♦ Doctor of Medicine and Surgery from the Complutense University of Madrid
- ♦ Member of: European Society of Cardiology and the European Resuscitation Council

Dr. Vázquez Martínez, José Luís

- ♦ Head of the Pediatric Intensive Care Unit at the Ramón y Cajal University Hospital
- ♦ Associate Professor, University of Alcalá
- ♦ Winfocus Iberia Professor
- ♦ PhD in Medicine and Surgery from the Autonomous University of Madrid.
- ♦ Degree in Medicine and Surgery from the University of Oviedo
- ♦ Specialization in Pediatrics and its specific areas at La Paz Children's Hospital
- ♦ Member of: Pediatric Ultrasound Working Group

Dr. De Tejada Barásoain, Enrique Otheo

- ♦ Attending Physician of the Pediatrics Service at the Ramón y Cajal University Hospital
- ♦ Coordinator of Hospitalization and Pediatric Emergencies at the Ramón y Cajal University Hospital
- ♦ Hospital Internal Pediatrics and Pediatric Infectious Diseases and General Pediatrics and Pediatric Infectious Diseases Consultation
- ♦ PhD Cum Laude in Medicine from the University of Alcalá
- ♦ Degree in Medicine from the Autonomous University Madrid
- ♦ Member of: SEPIH, SEIP, Antimicrobial Policy Committee of the University Hospital Ramón y Cajal

Dr. Vicente Santamaría, Saioa

- ♦ Pediatric Gastroenterologist Adjunct to the Cystic Fibrosis Unit
- ♦ Attending Specialist in the Department of Pediatric Gastroenterology at the Ramón y Cajal University Hospital
- ♦ Degree in Medicine and Surgery from the University of Navarra.
- ♦ Master's Degree in Pediatric Gastroenterology and Hepatology from the CEU Cardenal Herrera University
- ♦ Master's Degree in Clinical Pediatrics in Pediatrics from CEU Cardenal Herrera University
- ♦ Postgraduate degree in Pediatric Nutrition from Boston University School of Medicine
- ♦ University Expert in Malnutrition and Digestive Disorders in Childhood by CEU Cardenal Herrera University

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- ♦ Pediatrician Specializing in Emergency and Gastroenterological Disorders
- ♦ Attending Physician in the Emergency Department, Hospitalization and Consultations at the Ramón y Cajal University Hospital.
- ♦ Pediatric Gastroenterology Clinic at the Clinical University Hospital of San Rafael
- ♦ Assistant Physician in the Pediatric Emergency and Hospitalization Area at Severo Ochoa University Hospital Leganés, Spain
- ♦ Master's Degree in Immunonutrition by the Catholic University of Valencia

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- ♦ Specialist in Pediatric Neurology and Neurodevelopment
- ♦ Specialist Pediatrician and Neuropediatrician at the University Hospital Ramón y Cajal
- ♦ Specialist Pediatrician and Neuropediatrician at the University Hospital Infanta Cristina
- ♦ Specialist Pediatrician and Neuropediatrician at the University Hospital Sanitas La Moraleja
- ♦ Pediatric Specialist and Neuropediatrician at the Centro Milenium Costa Rica of Sanitas
- ♦ Degree in Medicine from the University of Oviedo
- ♦ Resident Intern in Pediatrics and its Specific Areas at the University Hospital Central de Asturias
- ♦ Master's Degree in Pediatric Neurology and Neurodevelopment from the CEU Cardenal Herrera University
- ♦ University Expert in Advances in Motor and Paroxysmal Disorders in Pediatric Neurology from the CEU Cardenal Herrera University

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- ♦ Associate Specialist Physician in Pediatrics Ramón y Cajal University Hospital.
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- ♦ Doctor of Medicine. Official Doctoral Programme in Medicine. Autonomous University of Madrid

- ♦ Degree in Medicine and Surgery. University of Sevilla
- ♦ Stay at the Allgemeines Krankenhaus Linz Hospital, Austria
- ♦ Stay at the University Hospital Universitätsklinikum Freiburg of the Albert Ludwig University in Freiburg im Breisgau, Germany
- ♦ Stay at the Department of Dermatology Unispital Hospital Zürich Type of entity. Zurich, Switzerland

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- ♦ Degree in Medicine and Surgery. University of Sevilla
- ♦ Stay at the Allgemeines Krankenhaus Linz Hospital, Austria
- ♦ Stay at the University Hospital Universitätsklinikum Freiburg of the Albert Ludwig University in Freiburg im Breisgau, Germany
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- ♦ Pediatrician specialized in Palliative Care and Complex Pathology
- ♦ Pediatrician in Pediatric Emergency at the University Hospital Puerta de Hierro Majadahonda
- ♦ Pediatrician with Labor Activity in Social Pediatrics at Hospital San Rafael
- ♦ Pediatrician in the Pediatric Palliative Care Unit at the Vianorte-Laguna Foundation
- ♦ Pediatrician at the Casa de los Niños Children's Residence, a center for the protection of minors of the General Directorate of Childhood and Family of the Community of Madrid
- ♦ Professor in Pediatric Palliative Care

- ♦ Degree in Medicine from the Complutense University of Madrid.
- ♦ Resident Pediatric Physician with Subspecialization in the Complex Pathology Unit at the Children's Hospital La Paz and in the Palliative Care Unit of the Community of Madrid
- ♦ Master's Degree in Pediatric Palliative Care from the International University of La Rioja
- ♦ Postgraduate degree in Social Pediatrics from the University of Barcelona

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- ♦ Nurse in Pediatric Hospitalization at the Ramón y Cajal University Hospital
- ♦ Nurse in Hospitalization for Adults in different services at the Ramón y Cajal University Hospital
- ♦ Nursing and Health Promotion Consultation at Quirónprevención for the Consejo Superior de Deportes (Higher Sports Council)
- ♦ Nurse in the Joint Medical Service of Meliá Hotels International
- ♦ Nurse in the Medical Service of the Company El Corte Inglés, Hipercor
- ♦ Medical recognition of ECG, vision control, audiometry and other nursing tests at Quirónprevención for the Higher Council of Sports
- ♦ Diploma in Nursing from the European University of Madrid

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- ♦ Nurse Educator in Childhood Diabetes at the University Hospital Ramón y Cajal
- ♦ Nurse Educator in the Diabetes and Telemedicine Unit at the San Rafael Hospital
- ♦ Primary Care Nurse at the Nuestra Señora de Fátima Health Center
- ♦ Occupational Training Teacher for the companies EMAS and Motiva Formación
- ♦ Department of Extractions and Occupational Risk Prevention Service at the University Hospital La Paz
- ♦ Internal Medicine Department and Palliative Care Unit at Hospital San Rafael
- ♦ Diploma in Nursing from Comillas Pontifical University

- ♦ Diploma in Corporate Nursing from the Carlos III Institute and the University of Nursing of Ciudad Real
- ♦ Master's Degree in Obesity and its Comorbidities: Prevention, Diagnosis and Integral Treatment by the University of Alcalá
- ♦ Master's Degree in Bases for the Care and Education of People with Diabetes from the University of Barcelona

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- ♦ American Academy of Pediatrics APLS Course Instructor
- ♦ Assistant Physician of the Pediatric Emergency Department of the Río Hortega University Hospital
- ♦ APLS course instructor of the American Academy of Pediatrics
- ♦ Pediatric Adjunct Physician at Nuestra Señora de Sonsoles Hospital
- ♦ Master's Degree in Research Methodology: Design and Statistics in Health Sciences and in Research Methodology in Health Sciences Autonomous University of Barcelona

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- ♦ Specialist Physician in charge of the Juvenile Psychiatry Program at the Ramón y Cajal University Hospital
- ♦ Child and Adolescent Psychiatrist at the Blue HealthCare Clinic
- ♦ Honorary Professor of Psychiatry at the University of Alcalá
- ♦ Specialist in Psychiatry at the Congregation Hermanas Hospitalarias del Sagrado Corazón de Jesús
- ♦ Medical Specialist in Psychiatry at the National Health System Management Entity
- ♦ Degree in Medicine and Surgery from the Autonomous University of Madrid.

- ♦ Diploma of Advanced Studies from the University of Alcalá.
- ♦ Specialist in Psychiatry, Ramón y Cajal University Hospital
- ♦ Master's Degree in Child and Adolescent Psychiatry from CEU University
- ♦ Expert in Child and Adolescent Neurodevelopment from the Autonomous University of Barcelona

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- ♦ Master's Degree in Pediatric Emergencies by the International University of Andalucía

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- ♦ Pediatric Emergency Safety Trainer

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- ♦ Assistant Physician of the Pediatrics Service at the Río Hortega Hospital in Valladolid, Castilla y León
- ♦ Author of the book 'Incidence, prevalence and annual risk of tuberculosis infection in children aged 6-7 years in the city of Valencia'
- ♦ She was part of the local committee and the organizing committee of the XXIV Annual Meeting of the Spanish Sleep Society
- ♦ XXXVII Meeting of the Spanish Society of Pediatric Pulmonology

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- ♦ Pediatrician.
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- ♦ Course Director of the American Academy of Pediatrics Emergency Medicine Course APLS (Advanced Pediatric Life Support)

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- ♦ Pediatrician.
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- ♦ Pediatric Basic and Advanced CPR Instructor
- ♦ Specialist Pediatrician at San Agustín Hospital
- ♦ Primary Care Pediatrician Area V
- ♦ Pediatrician at the Hospital of Jarrio
- ♦ Medical Intern Resident at the Santiago de Compostela University Hospital Complex
- ♦ Co-author of several publications on Pediatric Emergencies

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- ♦ Pediatrician.
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- ♦ Resident Doctor in SACYL
- ♦ Pediatric and Neonatal CPR Instructor. APLS instructor. Pediatric Simulation Instructor
- ♦ Instructor of the Pediatric Emergency Course of the American Academy of Pediatrics and the SEUP course Analgesia and Sedation in the Pediatric Patient in Emergency for Non-Anesthesiologists

- ♦ He has been a member of the SEUP board of directors at the XXIV Meeting of the Spanish Society of Pediatric Emergency Medicine
- ♦ Co-author of the book *Pediatría Básica para Padres* (Basic Pediatrics for Parents) and several publications
- ♦ Speaker at several pediatric congresses

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- ♦ Pediatrician.
- ♦ Attending Physician of the Pediatric Emergency Department at Cabueñes University Hospital
- ♦ Member of the Spanish Society of Pediatric Emergency Medicine and the Spanish Association of Pediatrics
- ♦ Speaker and author of several lines of research focused on neurological diseases

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- ♦ Instructor in pediatric and neonatal CPR
- ♦ Pediatric observer in the Neonatal Intensive Care Unit
- ♦ Lecturer in several courses and conferences on Cardiopulmonary Resuscitation, Emergency and Simulation
- ♦ Member of the Spanish Association of Primary Care Pediatrics

- ♦ Neonatology Unit 12 de Octubre Hospital
- ♦ Pediatric Intensive Care Unit. Vall d'Hebron University Hospital
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- ♦ Pediatrician at the Medina del Campo County Hospital
- ♦ Specialist in Pediatric Cardiology at the Carrión de Palencia Hospital
- ♦ Doctorate in Medicine from UVA
- ♦ Bachelor's Degree in Medicine from UVA
- ♦ Master's Degree in Pediatric Cardiology and Congenital Heart Disease by the UAM

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- ♦ Pediatric Emergency Physician at the University Hospital de Cruces, Basque Country
- ♦ Author of several books and medical publications
- ♦ Speaker at congresses and scientific events such as the I Digital Congress of the Spanish Association of Pediatrics
- ♦ Doctor of Medicine
- ♦ Specialist Pediatrician
- ♦ Bachelor's Degree in Medicine from the University of Valladolid
- ♦ Master's Degree in Health Care Quality and Safety Management and Methodology
- ♦ Master's Degree in Research Methodology
- ♦ Member of: Spanish Society of Pediatric Emergencies, Spanish Association of Pediatrics, Regional Health Management of Castilla y León

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- ♦ Degree in Medicine and Surgery
- ♦ Attending Pediatrician Pediatric Emergency Services Cruces Hospital Osakidetza
- ♦ Author of articles and research studies

Alcalá Minagorre, Pedro J

- ♦ Pediatrician in the Pediatric Hospitalization Unit of the General University Hospital of Alicante
- ♦ Degree in Medicine from the University Miguel Hernández
- ♦ Specialization in Pediatrics and its specific areas at the General University Hospital of Alicante
- ♦ Doctor of Medicine
- ♦ Master's Degree in Public Health and Health Services Management at Miguel Hernández University
- ♦ Course in family accompaniment by the Family Institute and the Francisco de Vitoria University
- ♦ Member of the Scientific Committee of the Congress of the Spanish Society of Hospital Pediatrics
- ♦ Member of the editorial team of Hospital Pediatrics
- ♦ Full member of the Spanish Association of Pediatrics
- ♦ Full member of the Spanish Society of Hospital Pediatrics

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- ♦ Specialist in Pediatrics at HM La Esperanza Hospital
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- ♦ Full Professor of Pediatrics at the European University of Madrid
- ♦ PhD in Medicine from the Complutense University of Madrid.
- ♦ Master's Degree in Pediatric Gastroenterology, Complutense University of Madrid
- ♦ President of the Spanish Society of Probiotics and Prebiotics (SEPyP)

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- ♦ Pediatrician. Unit against Obesity and Cardiovascular Risk in Children and Adolescents. Consortium General University Hospital of Valencia
- ♦ Specialist in Emergency Pediatrics. Consortium General University Hospital of Valencia
- ♦ Researcher associated with the Center for Biomedical Research Network CIBER Obesity and Nutrition
- ♦ Member of the COST Hyperchilnet Association. European Union
- ♦ Coordinator of the Health Promotion Committee of the AEP. Spanish Association of Pediatrics
- ♦ PhD in Medicine from the University of Valencia
- ♦ Degree in Medicine and Surgery from the University of Navarra
- ♦ Specialist in Pediatrics. Cruces Hospital, Brakaldo

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- ♦ Neonatology specialist at the University Hospital Gregorio Marañón
- ♦ Neonatology specialist at the University Hospital of Getafe
- ♦ Principal investigator in the Observatory of Unintentional Injuries of the RiSEUP network of the Spanish Society of Pediatric Emergency Medicine
- ♦ Degree in Medicine from the University of Salamanca
- ♦ Specialist in Pediatrics and its Specific Areas with subspecialty in Neonatology at the Gregorio Marañón Hospital
- ♦ Training stay in the Neonatal Intensive Care Unit at Nationwide Children's Hospital in the United States

- ♦ Master's Degree in Neonatology from the Spanish Society of Neonatology at the Catholic University of Valencia
- ♦ University Expert in Care of the Premature Newborn

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- ♦ Specialist in Pediatrics at the Doctor Peset University Hospital
- ♦ Doctor Assistant of Pediatrics at the Doctor Peset University Hospital
- ♦ Doctor of Medicine
- ♦ Specialist Pediatrician

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- ♦ Pediatrician with expertise in Oncohematology
- ♦ Assistant Physician of the Pediatrics Department of the General University Hospital Gregorio Marañón in Madrid
- ♦ Pediatrician in Pediatric Oncohematology, University Hospital of Torrejón
- ♦ Specialist Physician in the Pediatrics Service of the Foundation Alcorcón University Hospital
- ♦ Member of: Spanish Society of Pediatric Oncology and Hematology

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- ♦ Pediatric Services Gregorio Marañón General University Hospital. Madrid
- ♦ Pediatric Intensivist at the University Hospital General Gregorio Marañón
- ♦ Pediatrician at Hospital Quirón Salud
- ♦ Coordinator of the Constipation Guide in the pediatric patient
- ♦ Degree in Medicine

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- ♦ Specialist in Pediatrics expert in Pediatric Emergencies
- ♦ Pediatrician at the Hospital Miguel Servet

- ♦ Co-author of dozens of articles published in scientific journals
- ♦ Organizer of Advanced Pediatric and Neonatal CPR courses

Dr. Chicano Marín, Francisco José

- ♦ Pediatric Gastroenterology Specialist
- ♦ Pediatrician at University Hospital Los Arcos del Mar Menor
- ♦ Assistant Physician of the Pediatrics Service at Virgen de la Vega Clinic
- ♦ Primary Care Pediatrician at the Guardamar Health Center of the Valencian Health Service
- ♦ PhD in Medicine and Surgery from the University of Murcia.
- ♦ University Expert in Teaching and Digital Competences in Health Sciences, CEU Cardenal Herrera University
- ♦ Vice-Secretary of the Society of Pediatrics of Southeastern Spain
- ♦ Member of: Spanish Society of Pediatrics, Spanish Society of Pediatric, Gastroenterology, Hepatology and Nutrition

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- ♦ Medical Director of Oftálica
- ♦ Collaborating Professor of Ophthalmology at the University of Alicante
- ♦ Doctor in Medicine and Surgery, Strabismus and Pediatric Ophthalmology at the University of Valencia
- ♦ Bachelor's Degree in Medicine, Strabismus and Pediatric Ophthalmology from the University of Alicante
- ♦ 2nd National Chibret Award for Doctoral Thesis
- ♦ Member of: EBO, Treasurer of SEE, AAPOS, SEE, SEO, First Member of the Board of Directors SOCV

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- ♦ Attending Pediatrician Clinical University Hospital of Valencia
- ♦ Degree in Medicine and Surgery
- ♦ Specialist Pediatrician

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- ♦ Vice President of the Valencian Territorial Section of AEDV
- ♦ Head of the Pediatric Dermatology Section of CHGUV
- ♦ Assistant Physician of the CHGUV Dermatology Department
- ♦ Coordinator of the CHGUV Vascular Anomalies Committee
- ♦ Degree in Medicine and Surgery from the UV.
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- ♦ Head of the Dermatology Fields at the General University Hospital Consortium of Valencia
- ♦ Specialist in Pediatric Dermatology
- ♦ Professor of Health Sciences at the University of Valencia
- ♦ PhD in Medicine with the Extraordinary Doctorate Award
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- ♦ Emergency Physician, Castilla La Mancha Health Service (SESCAM)
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- ♦ Member of the Spanish Medical Association

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- ♦ Specialist in Allergology and Head of the Allergy Unit in the Hospital Vithas Valencia Consuelo
- ♦ Allergology Specialist Physician
- ♦ Corporate Medical Director of Vithas Hospitals
- ♦ Degree in Medicine from the University of Valencia
- ♦ Specialist in Allergology from the Clinical University Hospital of Valencia
- ♦ Doctorate in Dermatology from the University of Valencia
- ♦ Member of: Valencian Association of Allergology and Clinical Immunology and Spanish Society of Allergology and Clinical Immunology

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- ♦ Director of the Department of Podiatry at UCV
- ♦ Director of the Podiatry Area at the University Clinic of the UCV
- ♦ Director of the Official Master's Degree in Minimal Incision Foot Surgery for Podiatrists
- ♦ Clinic Manager at Pasito a Pasito of Valencia
- ♦ Manager of Inspomed SL

- ♦ Doctor in Podiatry by the UCV
- ♦ Degree in Podiatry from the University Alfonso X el Sabio
- ♦ Master's Degree in Deterioration of Skin Integrity
- ♦ Master Executive MBA from the UCV

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- ♦ Specialist in Pediatrics. Expert in Neurodevelopment
- ♦ Assistant Physician of Medical Neuropediatrics at the Valencian Institute of Pediatric Neurology.
- ♦ PhD in Medicine and Surgery from the University of Valencia
- ♦ Author of scientific articles on Neurodevelopment
- ♦ Member of: Organizing Committee of the International Congress on Neurodevelopmental Disorders of Valencia, Valencian Society of Neuropediatrics, Valencian Society of Pediatrics and Spanish Society of Child Psychiatry

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- ♦ Pediatrician at the Hospital Ruber Internacional
- ♦ Specialist in Pediatrics area at Hospital del Sureste
- ♦ Assistant Pediatrics Physician at the University Hospital of Los Arcos del Mar Menor
- ♦ Pediatrician specialized in Neonatology
- ♦ Doctorate Autonomous University of Madrid
- ♦ Master's Degree in Neonatology
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid
- ♦ Diploma of Advanced Studies. Pediatrics Department of the Autonomous University of Madrid

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- ♦ Pediatrician in Primary Care at the Madrid Health Service
- ♦ Pediatrician at the University Hospital of Torrejón
- ♦ Medical Intern Resident tutor for medical students
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid
- ♦ Expert in Pediatric Emergencies by the Catholic University of Valencia San Vicente Mártir

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- ♦ Medical Director of the Garcia-Sala Pediatric Clinic
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- ♦ Vice-president of UNICEF of the Valencian Community
- ♦ President of the SEPEAP's Prandi Foundation
- ♦ President of Grupo Audiovisual Pediátrico SL

- ♦ Former President of the Spanish Society of Out-of-Hospital Pediatrics and Primary Care (SEPEAP)
- ♦ Neonatologist of Sanitas Hospitales at 9 de Octubre Hospital in Valencia
- ♦ Head of the Pediatrics and Neonatology Department at Virgen del Consuelo Hospital, Valencia
- ♦ Head of the Pediatrics and Neonatology Service at the Casa de Salud Catholic Hospital of Valencia
- ♦ Professor of Neonatology at the Midwifery Teaching Unit of the Valencian Community
- ♦ Professor of Pediatrics at the Santa Ana Nursing School of Valencia
- ♦ PhD in Medicine Cum Laude
- ♦ Degree in Medicine and Surgery from the Faculty of Medicine, University of Valencia
- ♦ Resident Doctor of Pediatrics at the Children's La Fe Hospital in Valencia
- ♦ Specialist in Pediatrics of the Social Security with a position as Primary Care Pediatrician
- ♦ Accredited Specialist in Neonatology
- ♦ Member of: Spanish Association of Pediatrics, Spanish Association of Neonatology, Spanish Society of Outpatient Pediatrics, Spanish Association of Adolescent Medicine, Valencian Society of Pediatrics

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- ♦ Specialist in Otorhinolaryngology at Crezen Child and Family Health Center
- ♦ Specialist in Otorhinolaryngology at La Zarzuela University Hospital
- ♦ Associate Professor in the European University
- ♦ PhD in Otorhinolaryngology from the Complutense University of Madrid

- ♦ Bachelor's Degree in Medicine and Surgery from the Autonomous University of Madrid
- ♦ Specialist in Otorhinolaryngology at the University San Carlos Clinical Hospital
- ♦ Specialist in Acupuncture and Moxibustion by the Heilongjiang University of Traditional Chinese Medicine
- ♦ Master's Degree in Health Services Administration and Management from Comillas Pontifical University
- ♦ Member of: Spanish Association of Audiology, Spanish Association of Practical Otology, Spanish Society of Otolaryngology and Cervico-Facial Pathology, American Tinnitus Association, Spanish Association of Naturopathic Physicians and Interamerican Association of Pediatric Otorhinolaryngology

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- ♦ Degree in Medicine
- ♦ Specialist Pediatrician
- ♦ Master's Degree in Infectious Diseases and Immunology

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- ♦ Medical Specialist in Pediatric Neurology
- ♦ Neuropediatrician at Ruber Juan Bravo Hospital Complex
- ♦ Neuropediatrician the Infanta Leonor University Hospital
- ♦ Pediatrics at Gregorio Marañón General University Hospital
- ♦ Degree in Medicine from the University of Valladolid

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- ♦ Head of the Pediatrics Department at the Gregorio Marañón General University Hospital.
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- ♦ Emergency Pediatrics at the Gregorio Marañón General University Hospital.
- ♦ Pediatric Gastroenterology at the Gregorio Marañón General University Hospital.
- ♦ Neonatology at the Gregorio Marañón General University Hospital
- ♦ Former President of the Spanish Society of Pediatric Infectious Diseases
- ♦ Program Leader for Pediatric Antifungal Optimization at Astllas Pharma Europe Ltd.
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- ♦ Pediatric Primary Care Specialist
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- ♦ Specialist Pediatrician
- ♦ Degree in Medicine and Surgery
- ♦ Attending Pediatrician Quirón Hospital Valencia

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- ♦ Specialist Pediatrician
- ♦ Pediatrician in the Integrated Health Center of Paiporta

- ♦ Assistant Pediatrician at the Ribera de Alzira Hospital
- ♦ Pediatrician at the Valencian Institute of Pediatrics of the University Hospital Dr. Peset
- ♦ Specialist Pediatrician
- ♦ Degree in Medicine and Surgery

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- ♦ Coordinator at Oftálica-Ophthalmological Clinic
- ♦ Optometry Specialist at Oftálica-Ophthalmological Clinic
- ♦ Bachelor's Degree in Medicine

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- ♦ Responsible Physician in Mental and Juvenile Health at the Comprehensive Pediatrics Unit of the Quirónsalud Valencia Hospital
- ♦ Coordinator of the Pediatric Emergency Area, Hospitalization and Outpatient Pediatrics of Quirónsalud Valencia Hospital
- ♦ GACOVA Member
- ♦ Specialist in Pediatrics at La Fe University Hospital of Valencia
- ♦ Degree in Medicine and Surgery from the University of Valencia
- ♦ Member of: Socvalped, AEP, SEUP and SEMA

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- ♦ Head of the Pediatric Emergency Department at Cruces University Hospital
- ♦ Director of the Advanced Pediatric Life Support of the American Academy of Pediatrics (AAP)
- ♦ Coordinator of the Research Network of the Spanish Society of Pediatric Emergency Medicine (SEUP)
- ♦ Coordinator of the Committee for Safety and Prevention of Unintentional Injuries in Childhood of the Spanish Association of Pediatrics (AEP)

- ♦ Coordinator of the Research Network of the Pediatric Section of the European Society for Emergency Medicine (EUSEM)
- ♦ PhD in Medicine from the University of the Basque Country
- ♦ Degree in Medicine from the University of the Basque Country
- ♦ Master's Degree in Health Management Systems by the Basque Health Service
- ♦ Member of: AEP, EUSEM, AAP, SEUP, PERN, Director of the RISEUP Research Network and Chairman of the European Pediatric Emergency Medicine (REPEM)

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- ♦ Degree in Medicine from the University of Valencia

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- ♦ Specialist in Pediatric Endocrinology
- ♦ Degree in Medicine and Surgery

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- ♦ Medical Specialist in the Pediatric Ophthalmology, Strabismus and Cataract Units at Miranza Clínica Palomares
- ♦ Medical Specialist in Pediatric Ophthalmology and Strabismus at the General University Hospital of Alicante
- ♦ Honorary collaborator of the Department of Pathology and Surgery at the Miguel Hernández University of Elche

- ♦ Doctorate in Bioengineering from the Miguel Hernández University of Elche
- ♦ Degree in Medicine and Surgery from the Miguel Hernández University of Elche
- ♦ Specialist in Ophthalmology via MIR by the General University Hospital of Alicante
- ♦ Member of: SEO, SECOIR and SEE

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- ♦ Associate Professor in the Faculty of Medicine at the University of Granada
- ♦ Specialist Pediatrician
- ♦ Doctor of Medicine
- ♦ Degree in Medicine

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- ♦ Medical Coordinator of the Infectious Diseases Service in Pediatrics at the General University Hospital Gregorio Marañón
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- ♦ Professor of Pediatrics at UCM
- ♦ Professor of the Master ESTHER of the Ministry of Health
- ♦ Medical Specialist in Pediatrics at the UCM
- ♦ University Specialist in Vaccines by the UCM
- ♦ University Expert in International Travel, General Recommendations

- ♦ Doctor of Medicine with the Doctoral Thesis Immunity and micronutrients in HIV-infected children.
- ♦ Degree in Medicine from the UCM
- ♦ Member of: AEP, SEIP, SEIMC, ESPID and EPPICC

Dr. Negre Policarpo, Sergio

- ♦ Specialist in Pediatric Gastroenterology and Nutrition
- ♦ Head of the Section of Pediatric Gastroenterology and Nutrition at Quirónsalud University Hospital Valencia
- ♦ University Professor
- ♦ Principal Investigator of Projects in the Pediatrics Area.
- ♦ More than 60 communications and presentations in national and international congresses.
- ♦ More than 58 books and book chapters related to Pediatrics.
- ♦ Young Investigator Award Excellence in Pediatrics 2009
- ♦ End of Residency Award by La Fe University and Polytechnic Hospital
- ♦ Doctor in Pediatrics Cum Laude from the UV
- ♦ Specialist Pediatrician
- ♦ Degree in Medicine

Dr. Ochando Perales, Gemma

- ♦ Child and Adolescent Psychiatrist at the International Children's Unit of La Fe Polytechnic and University Hospital of Valencia
- ♦ Manager of the Children's Mental Health Unit of La Salud Hospital in Valencia
- ♦ Coordinator of the International Children's Unit at La Fe University and Polytechnic Hospital of Valencia
- ♦ Child and Adolescent Psychiatrist at the Child Mental Health Unit at the University and Polytechnic Hospital of Valencia

- ♦ Researcher specialized in Child Mental Health and Adoption
- ♦ Doctor of Medicine from the Catholic University San Vicente Mártir
- ♦ Degree in Medicine and Surgery from the University of Valencia
- ♦ University Expert in Teaching and Digital Competences in Health Sciences from the CEU Cardenal Herrera University
- ♦ Master's Degree in Psychotherapy in Childhood and Adolescence, given by the Training Area of Psiquiatría.com, accredited by the Spanish Association of Psychotherapy
- ♦ President of the Commission Against Child Abuse of the University and Polytechnic Hospital La Fe of Valencia
- ♦ Member of: Board of Directors of the Section of Child Psychiatry (SPI) of the Spanish Association of Pediatrics (AEP) and the Spanish Association of Child and Adolescent Psychiatry (AEPNYA)

Dr. Oikonomopoulou, Niki

- ♦ Specialist of the Neonatology Service at the Gregorio Marañón General University Hospital in Madrid.
- ♦ Neonatologist at the Clinical University Hospital San Carlos
- ♦ Neonatologist at MHTEPA
- ♦ Neonatologist at the University Hospital Son Espases
- ♦ Researcher at the Carlos III Health Institute

Dr. Olivas López de Soria, Cristina

- ♦ Attending Physician of the Pediatrics Department of the Príncipe de Asturias University Hospital
- ♦ Specialist Pediatrician
- ♦ Researcher at the Príncipe de Asturias University Hospital
- ♦ Degree in Medicine and Surgery

Dr. Olmos Jiménez, María José

- ♦ Hospital Pediatric Endocrinologist
- ♦ Specialist in Hospital Pediatrics at Los Arcos del Mar Menor University Hospital
- ♦ Pediatric Specialist at the General University Hospital Gregorio Marañón in Madrid
- ♦ Pediatric Specialist at the San Carlos University Hospital in Madrid
- ♦ Master's Degree in Pediatric Endocrinology
- ♦ Member of: Society of Pediatric Endocrinology

Dr. Ortiz Sánchez, Pedro Ramón

- ♦ Specialist in Clinical Neurophysiology
- ♦ Assistant Physician of the Neurology Department at the General University Hospital of Valencia
- ♦ Doctor of Medicine and Surgery
- ♦ Valencian Institute of Pediatric Neurology
- ♦ Member of the Organizing Committee of the Annual Meeting of the Valencian Society of Neurology

Dr. Pérez Ferriols, María Desamparados

- ♦ Dermatology Medical Specialist
- ♦ Physician Specialist in the Photobiology and Phototherapy Section of the Dermatology Department at Valencia General University Hospital
- ♦ Professor at the University of Valencia
- ♦ PhD in Medicine and Surgery

Dr. Pérez Moreno, Jimena

- ♦ Specialist Pediatrician
- ♦ Pediatrician at Gregorio Marañón General University Hospital
- ♦ Author of several national and international specialized publications
- ♦ Editor at *El Probiótico*
- ♦ Degree in Medicine from the Complutense University of Madrid
- ♦ Member of: Spanish Society of Probiotics and Prebiotics

Pin Arboledas, Gonzalo

- ♦ Postgraduate Diploma in Sleep Disorders Medicine
- ♦ Coordinator of the Integral Pediatrics Unit at Quirón Hospital Valencia
- ♦ Coordinator of the Integral Pediatrics Unit at Quirón Hospital Valencia
- ♦ Degree in Medicine and Surgery

Dr. Ramón Muñoz, Gloria

- ♦ Pediatric Specialist in Pediatric Cardiology at the Tecma Clinic
- ♦ Pediatrician Specialist in Infant Cardiology at the University Hospital of La Ribera
- ♦ Degree in Medicine and Surgery

Dr. Rincón Lopez, Elena María

- ♦ Pediatric Infectious Diseases Specialist.
- ♦ Attending Physician in the Pediatric Infectious Diseases Section at the General University Hospital Gregorio Marañón.
- ♦ Pediatrician at the University Hospital of Torrejón
- ♦ Resident Doctor in Pediatrics at the University Hospital and Polytechnic La Fe.

- ♦ Degree in Medicine from the University of Murcia
- ♦ Professional Master's Degree in Pediatric Infectious Diseases at the Complutense University of Madrid.

Dr. Roldán Cano, Virginia

- ♦ Pediatrician at the Puerta del Mar University Hospital in Cadiz
- ♦ Primary Care Pediatrician
- ♦ Member of: Pediatric Research Group of Cádiz (INPECA)

Dr. Romero Castillo, Estefanía Julia

- ♦ Pediatrician at the Puerta del Mar University Hospital in Cadiz
- ♦ Degree in Medicine
- ♦ Member of: Spanish Society of Social Pediatrics

Dr. Ros Cervera, Gonzalo

- ♦ Neuropediatrician at IMED Valencia
- ♦ Neuropediatrician at General University Hospital of Elda
- ♦ Neuropediatrician at Xàtiva Hospital
- ♦ Neuropediatrician at Valencian Institute of Neurosciences(IVANN)
- ♦ Neuropediatrician at Hospital Francesc de Borja
- ♦ Specialist in the Department of Pediatrics at the University Hospital of Vinalopó
- ♦ Degree in Medicine and Surgery from the University of Valencia
- ♦ Specialization via MIR as a family physician at the Hospital Universitari Vall d'Hebrón
- ♦ Specialization via MIR in Pediatrics and its specific areas at La Fe University Hospital. Valencia, Spain

- ♦ Sub-specialization in Neuropediatrics in the Department of Child Neurology at the University Hospital La Fe. Valencia, Spain
- ♦ Training stay at the Neurology Department of the Children's Hospital Sant Joan de Déu. Barcelona
- ♦ International training stay at the Children's Hospital of St. Gallen. Switzerland
- ♦ Graduate in Research Sufficiency in the Autonomous University of Barcelona.
- ♦ Neuropediatrician accredited by the Spanish Association of Pediatrics

Dr. Tolín Hernani, María del Mar

- ♦ Specialist in Gastroenterology, Hepatology, and Nutrition at the Gregorio Marañón Maternal-Child Hospital
- ♦ Specialist in Pediatric Digestive Health at the Hospital at the University Hospital San Rafael Clinic
- ♦ Degree in Medicine from the Complutense University of Madrid
- ♦ Specialty in Pediatrics at the Gregorio Marañón General University Hospital
- ♦ Subspecialty in Digestive and Pediatric Nutrition at the Gregorio Marañón General University Hospital

Dr. Saavedra Lozano, Jesús

- ♦ Specialist in Pediatric Infectious Diseases at the Gregorio Marañón General University Hospital
- ♦ Associate Professor at the Complutense University of Madrid
- ♦ PhD in Medicine from the Complutense University of Madrid.
- ♦ Degree in Medicine and Surgery from the Autonomous University of Madrid
- ♦ Clinical Fellowship in Pediatric Infectious Diseases at UT Southwestern Medical Center United States
- ♦ Member of: European Society of Pediatric Infectious Diseases (ESPID) and Spanish Society of Pediatric Infectious Diseases (SEIP)

Dr. Sainz Costa, Talía

- ♦ Pediatrician and Researcher at La Paz University Hospital
- ♦ Pediatrics Resident Tutor at La Paz University Hospital
- ♦ Juan Rodés Postdoctoral Researcher in the Department of Hospital Pediatrics, Infectious and Tropical Diseases at La Paz Children's Hospital
- ♦ Professor at the Rey Juan Carlos University
- ♦ Professor of the Department of Pediatrics at the Autonomous University of Madrid
- ♦ Doctor of Medicine from the Complutense University of Madrid with Extraordinary Doctorate Award
- ♦ Degree in Medicine from the Complutense University of Madrid
- ♦ Pediatric Infectious Diseases by the Complutense University of Madrid
- ♦ Master's degree in HIV infection from the Rey Juan Carlos University
- ♦ Young Investigator Award on four occasions
- ♦ Young Investigator Award ESPID
- ♦ Member of: EPTRI, PENTA ID, TEDDY, INVEST-AEP Platform and RITIP

Dr. Utrero Valiente, Juan Antonio

- ♦ Specialist in Pediatrics at the Pediatric Home Hospital Unit of the General University Hospital of Alicante
- ♦ Degree in Medicine and Surgery

Dr. Valverde Molina, José

- ♦ Specialist in Pediatrics Head of Pediatrics Section
- ♦ President in ASGRAMUR of the Murcian Association of Severe Asthma of the Region of Murcia
- ♦ Head of the Pediatrics Service and President of the Severe Asthma Committee at the

General University Hospital Santa Lucía de Murcia

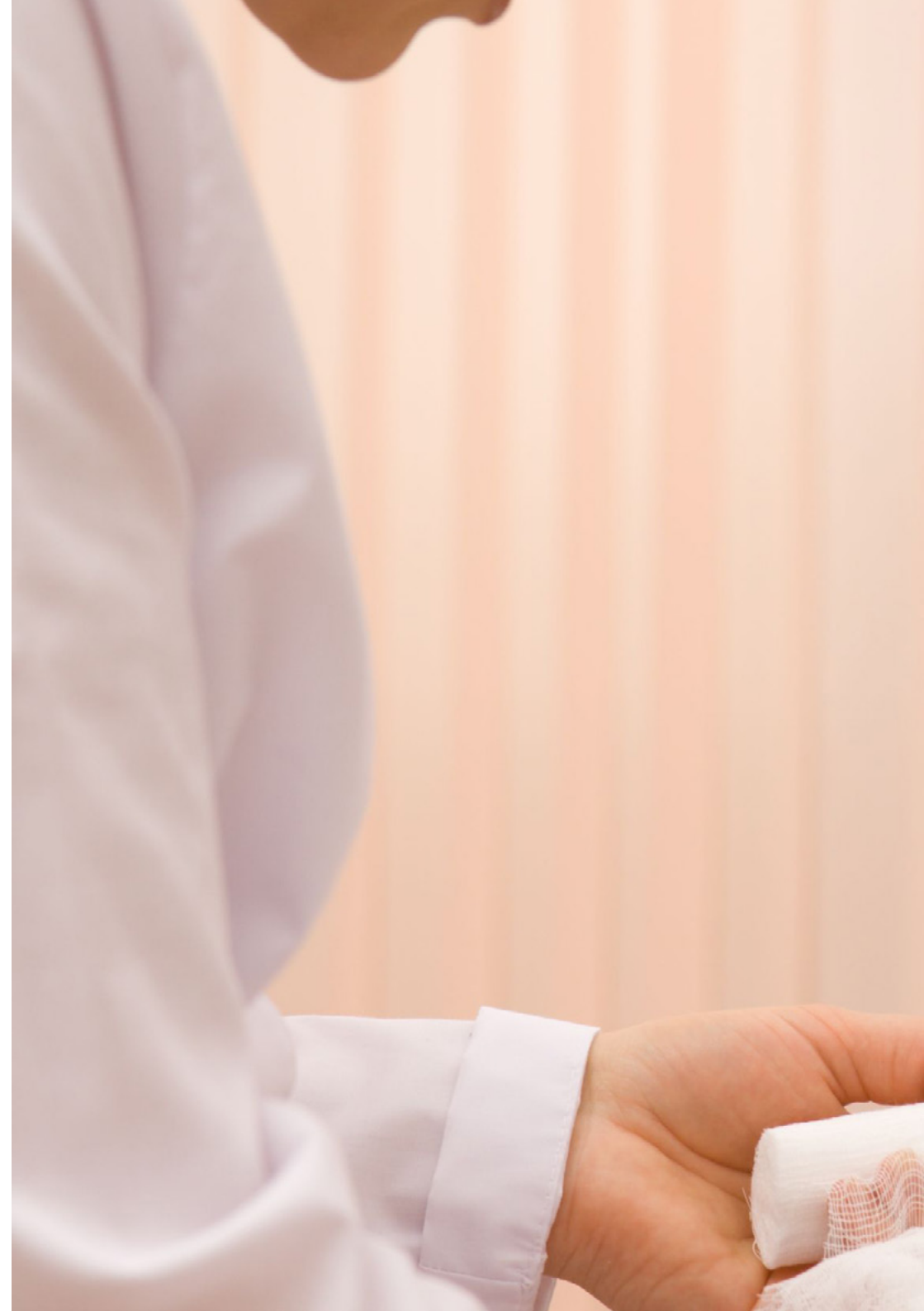
- ♦ President of the Society of Pediatrics of Southeast Spain
- ♦ Coordinator of the SENP Asthma Group
- ♦ Coordinator of the Respiratory Pathology Group of SEUP
- ♦ Degree in Medicine and Pediatrics from the University of Alicante
- ♦ Doctor of Medicine from the University of Murcia
- ♦ Specialist Training in Pediatric Pneumology

Dr. Zaragoza Ninet, Violeta

- ♦ Attending Physician of the Dermatology Service at the General University Hospital Consortium of Valencia
- ♦ Head of the Cutaneous Allergies and Collagenopathies Section at CHGUV
- ♦ President Valencian Section of AEDV
- ♦ Associate Professor of Medicine at the UV
- ♦ Degree in Medicine and Surgery from the UV.
- ♦ Member of GEIDAC

Dr. Villanueva, Laura

- ♦ Co-founder, Director and Internationally Certified Breastfeeding Consultant IBCLC at The Lactation Clinic
- ♦ President of the Sina Association
- ♦ Enterprise Account Manager at Ventureexperience





- ♦ IBCLC Breastfeeding Consultant at Comprehensive Pediatrics Unit Q Valencia SLP - UPIQ
- ♦ Purchasing Manager of Control Systems and Automation of Power Plant Piloting at EDF
- ♦ Industrial Engineering at UPV
- ♦ Postgraduate Degree in Sales Management, Administration and Business Management at ESIC Business & Marketing School
- ♦ Energy Specialization at SUPELEC Paris
- ♦ Diploma of Advanced Studies in Electrical Engineering at SUPELEC Paris

“

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

05

Structure and Content

This Advanced Master's Degree in Clinical Pediatrics has been structured in a series of specialized modules that will delve into different aspects of hospital, emergency and primary care pediatrics. In this way, the professional will delve into the latest developments in the treatment of the main hydroelectrolyte and acid-base balance disorders, bronchopulmonary dysplasia, the latest tools for the diagnosis of pediatric cardiac pathology or the management of hypertensive crises, among many other relevant aspects.



“

The most complete and advanced contents in clinical pediatrics will be at your disposal in this Advanced Master Master's Degree"

Module 1. Critically Ill Children Care Outside 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 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. Overview
 - 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 NoPathological Findings
- 1.9. Thoracic Ultrasound Scan
 - 1.9.1. Clinical Ultrasound (POCUS)
 - 1.9.2. Artifacts and Bottonology
 - 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 CVCs
- 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. Postinfectious 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 Lung 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. Pharmacological Treatment
 - 4.3.5.3. Surgical Treatment
 - 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 Hepatic 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. Diagnosis. 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 Anti-Epileptic 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 Anti-Epileptic 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. Headache
 - 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 Disease
- 6.5. Non-Cyanogenic Heart Disease
 - 6.5.1. Atrial Septal Defect
 - 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. Coarctation of Aorta
 - 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 Inherited 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

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 and Parenteral Nutrition
 - 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 with Acute Presentation in the Neonatal Period and in Children <1 Year of Age
 - 7.5.2.2. IEM with Recurrent Seizures
 - 7.5.2.3. IEM with 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 Frequent 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 Test. Indications. 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. Diabetic Education
 - 7.8.6.3. Insulin Therapy
 - 7.8.6.4. Feeding
 - 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. Determination of the Degree of Severity

- 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 Fluid 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. Renal Lithiasis
 - 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. Purpura
 - 9.3.1. Purpura
 - 9.3.2. Basic Principles in Studying Patients with Excessive Bleeding
 - 9.3.3. Diagnostic Tests
 - 9.3.4. Differential Diagnosis
 - 9.3.5. Clinical Cases
- 9.4. Cancer in Childhood
- 9.5. Clinical Manifestations of the Child with Cancer
- 9.6. Anticoagulation in Pediatric Patients
 - 9.6.1. Anticoagulation Indications
 - 9.6.2. Anticoagulation in Children
 - 9.6.3. Anticoagulation Monitoring

- 9.7. Oncologic Emergencies
 - 9.7.1. Tumor Lysis Syndrome
 - 9.7.2. Hyperuricemia
 - 9.7.3. Hypercalcemia
 - 9.7.4. Hypercalcemia
 - 9.7.5. Hyperphosphatemia
 - 9.7.6. Hyperleukocytosis
 - 9.7.7. Mediastinal Mass and Superior Vena Cava Syndrome
 - 9.7.8. Acute Medullary Compression
 - 9.7.9. Endocranial Hypertension
 - 9.7.10. Fever in Hematooncology Patients
 - 9.7.11. Disseminated Intravascular Coagulation (DIC)
 - 9.7.12. Hemorrhages
- 9.8. Oncologic Emergency II
- 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. Pain Treatment in Oncologic Patients

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 Brief Reported Unexplained Event (BRUE)
 - 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 Diabetic Children upon Onset. Diabetic 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. Diabetic Ketoacidosis (DKA) PreventionPrevention 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 Abuse
 - 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 Frequent 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

Module 11. Healthy Child Care

- 11.1. Health Examinations
- 11.2. Psychomotor and Language Development
- 11.3. Breastfeeding and Formula Feeding
- 11.4. Nutrition in the First Year of Life and Pre-school
- 11.5. School and Adolescent Nutrition
- 11.6. Vaccines. Vaccination Calendar
- 11.7. Vaccination in Special Situations

Module 12. Newborn

- 12.1. Normal Newborn. Characteristics and Care of a Recent Newborn and Most Common Problems
- 12.2. Respiratory Pathology of Newborns

Module 13. Dermatology

- 13.1. Skin Infections and Infestations
- 13.2. Eczema. Atopic Dermatitis
- 13.3. Acne
- 13.4. Skin Alterations of the Hair and Nails

Module 14. Sleep Disorders

- 14.1. Introduction to the Neuroanatomy of Sleep
 - 14.1.1. Sleep Cycles
 - 14.1.2. Sleep Regulation
 - 14.1.3. Evolution of Sleep in Pediatrics: From Fetus to Adolescent
- 14.2. Evaluation of Sleep Problems in PA
 - 14.2.1. Clinical Suspicion of Sleep Disorders: Daytime and Nocturnal Symptoms
 - 14.2.2. Tools for Sleep Evaluation in PA
 - 14.2.3. Expert Referral Indicators
- 14.3. Diagnosis and Treatment in PA of the Main Disorders
 - 14.3.1. Children with Difficulties in Falling Asleep: Insomnia, Circadian Disorders, Restless Leg Syndrome
 - 14.3.2. Children with Difficulties During Sleep
 - 14.3.3. Managing a Snoring Child Sleep Apnea Syndrome

Module 15. Rheumatology

- 15.1. Arthralgias and Arthritis
- 15.2. Osteoarticular Infections

Module 16. Allergy

- 16.1. Food-based
- 16.2. Medication Allergies
- 16.3. Diagnostic Tests

Module 17. Locomotor System

- 17.1. Assessment of Children's Feet
- 17.2. Hip Pathology by Age
- 17.3. Pathological and Walking Disorders

Module 18. Ophthalmology

- 18.1. Visual Control in Children
- 18.2. Visual Sharpness. Amblyopia. Strabismus: Diagnosis. Treatment Focus According to the Clinical Conditions

Module 19. Surgery

- 19.1. Minor Surgery in the Emergency Room or Pediatrics Consultation Room

Module 20. Miscellaneous

- 20.1. Medication in Pediatrics
- 20.2. Normal Values in Hematology

Module 21. Health Care Organization for Common Pediatric Emergencies

- 21.1. Equipment in the Pediatric Emergency Department (PED)
 - 21.1.1. Differential Characteristics of PEDs
 - 21.1.2. Infrastructure, Staffing
 - 21.1.3. Material
- 21.2. Triage in Pediatrics
 - 21.2.1. Definition
 - 21.2.2. Classification Systems
- 21.3. Transport of Critical Pediatric Patient. In-hospital Transfer, Out-of-Hospital Transfer and ISOBAR
- 21.4. Neonatal and Pediatric Transportation

Module 22. Common Advanced Pediatric and Neonatal Cardiovascular Support

- 22.1. Apparently Lethal Syndromes
 - 22.1.1. Sudden Infant Death
 - 22.1.2. Treatment
 - 22.1.3. Home Monitoring
- 22.2. Recognition and Management of Critically Ill Children
 - 22.2.1. Epidemiology, Etiology and Prevention of CRP in Childhood
 - 22.2.2. Pediatric Assessment Triangle (PAT) and its Utility
 - 22.2.3. Pediatric ABCDE Evaluation
- 22.3. Basic Pediatric Cardiopulmonary Resuscitation
- 22.4. Advanced Pediatric Cardiopulmonary Resuscitation Advanced Airway Management.
- 22.5. Basic Concepts of Mechanical Ventilation
- 22.6. Infusion Routes and Drugs.
- 22.7. Pediatric AVS Algorithms and Treatment of Arrhythmias
- 22.8. Neonatal Resuscitation
- 22.9. Stabilization, Post-Resuscitation and Neonatal Transportation

Module 23. Invasive Techniques in Common Critically Ill Pediatric Patients

- 23.1. Peripheral and Central Vein Access.
 - 23.1.1. Peripheral Route
 - 23.1.2. Central Route
- 23.2. Intraosseous Puncture
- 23.3. Capnography. Pulse Oximetry
- 23.4. Oxygen Therapy
- 23.5. Analgesia and Sedation
 - 23.5.1. Approaching Pain
 - 23.5.2. Procedure
 - 23.5.3. Reference Drugs in Analgesia and Sedation
- 23.6. Protocol for Child Death
- 23.7. Rapid Intubation Sequence.

Module 24. Cardiologic Emergencies

- 24.1. Hypertensive Crisis
 - 24.1.1. Diagnostic Guidance for Hypertension in Children and Adolescents
 - 24.1.2. Therapeutic Guidance for Hypertension in Children and Adolescents
- 24.2. Quick Reading of an ECG
- 24.3. Management of Tachyarrhythmias and Bradyarrhythmias: Electrical Cardioversion and Transcutaneous Pacing
- 24.4. Management of Defibrillable Arrhythmias: Defibrillation

Module 25. Respiratory Emergencies

- 25.1. Respiratory Pathology of Newborns
 - 25.1.1. Incomplete Pulmonary Fluid Reabsorption Syndrome
 - 25.1.2. Meconium Aspiration Syndrome
 - 25.1.3. Hyaline Membrane Disease
 - 25.1.4. Pneumothorax
 - 25.1.5. Pneumonia
 - 25.1.6. Apnea in Newborns
- 25.2. Airway Diseases
 - 25.2.1. Acute Pharyngotonsillitis
 - 25.2.2. Laryngitis or Croup
 - 25.2.3. Spasmodic Croup
 - 25.2.4. Otitis
 - 25.2.5. Sinusitis
- 25.3. Community-Acquired Pneumonia (CAP)
 - 25.3.1. Diagnosis
 - 25.3.2. Hospital Admission Criteria
 - 25.3.3. Latest Advances in Treatment

- 25.4. Managing a Child with a Persistent Cough. Chronic Cough
 - 25.4.1. Etiology
 - 25.4.1.1. Persistent Bacterial Bronchitis
 - 25.4.1.2. Asthma
 - 25.4.1.3. Gastroesophageal Reflux, etc.
 - 25.4.2. Treatment
- 25.5. Caring for Asthmatic Children
 - 25.5.1. Clinical Diagnosis. Functional Diagnosis
 - 25.5.2. Pharmacological Treatment. Non-Pharmacological Treatment
 - 25.5.3. Health Education
- 25.6. Inhalation Techniques. Oxygen Therapy
- 25.7. Thoracentesis and Chest Tube Placement
- 25.8. Forced Spirometry. Bronchodynamic Tests FEM

Module 26. Pediatric Trauma and Osteoarticular Injuries

- 26.1. Initial Pediatric Trauma Care
 - 26.1.1. Types and Patterns of Injury in Pediatrics
 - 26.1.2. Primary and Secondary Assessment
 - 26.1.3. Spinal Cord Injuries
- 26.2. Head Trauma in Children
- 26.3. Lower Extremity Trauma
- 26.4. Upper Limb Trauma
- 26.5. Thoracic Trauma. Rib Fractures and Contusions
- 26.6. Limping
 - 26.6.1. Types of Lameness
 - 26.6.2. Treatment
 - 26.6.3. Referral Criteria
- 26.7. Classification of Pediatric Fractures
- 26.8. Mobilization and Immobilization Workshop
- 26.9. Active Mobilization Stimulation
- 26.10. Hyperpronation

- 26.11. Supination-Flexion
- 26.12. Radial Head Subluxation

Module 27. Unintentional Injuries. Child Accidents

- 27.1. Injuries
- 27.2. Burns
- 27.3. Drowning
- 27.4. Stings and Bites
- 27.5. Drug and Non-drug Intoxications
- 27.6. Anaphylaxis
 - 27.6.1. Classification of Severity
 - 27.6.2. Diagnostic Procedures
 - 27.6.3. Treatment and Discharge Recommendations
- 27.7. Extraction of Foreign Body from the Ear
- 27.8. Extraction of Foreign Bodies from the Nose
- 27.9. Freeing of Trapped Penis or Scrotum
- 27.10. Incarcerated Inguinal Hernia Reduction
- 27.11. Reduction of Paraphimosis

Module 28. Digestive Emergencies

- 28.1. The Infant with Food Refusal
- 28.2. Acute Abdominal Pain
- 28.3. Gastrointestinal Disorders
- 28.4. Acute Dehydration
 - 28.4.1. Isonatremic Dehydration
 - 28.4.2. Hyponatremic Dehydration
 - 28.4.3. Hypernatremic Dehydration
- 28.5. Acid-Base Balance Disorders
 - 28.5.1. Metabolic Acidosis. Respiratory Acidosis
 - 28.5.2. Metabolic Alkalosis. Respiratory Alkalosis

- 28.6. Celiac Disease
 - 28.6.1. Diagnostic Algorithm
 - 28.6.2. Treatment
- 28.7. Gastroesophageal Reflux (GER)
- 28.8. Constipation
- 28.9. Hepatitis
 - 28.9.1. HAV, HBV, HCV, HDV, HEV
 - 28.9.2. Autoimmune Hepatitis
- 28.10. Gastrointestinal Bleeding
- 28.11. Jaundice

Module 29. Infectious Emergencies

- 29.1. Whooping Cough and Pertussis Syndrome
 - 29.1.1. Pharmacological Treatment
 - 29.1.2. Control Measures
- 29.2. Febrile Syndrome without Focus

Module 30. Ophthalmologic and Otorhinolaryngologic Emergencies

- 30.1. Conjunctivitis and Blepharitis Pink Eye
 - 30.1.1. Most Frequent Infectious Pathology
 - 30.1.2. Non-Infectious Pathology
 - 30.1.3. Protocol for Pediatric Ophthalmologic Emergencies
- 30.2. Eyelids and Lacrimal System
 - 30.2.1. Palpebral Alterations and Malformations
 - 30.2.2. Inflammatory Pathology
 - 30.2.3. Cysts and Tumors
 - 30.2.4. Lacrimal Pathology in Children
 - 30.2.5. Palpebral Traumatology in Infancy

- 30.3. Acute Pharyngotonsillitis. Acute Otitis Media. Sinusitis
- 30.4. Extraction of Foreign Bodies from the Eye
- 30.5. Ophthalmologic Examination with Fluorescein
- 30.6. Eversion of the Upper Eyelid

Module 31. Pediatric Skin Emergencies

- 31.1. Bacterial Infections in Pediatrics
 - 31.1.1. Contagious Impetigo
 - 31.1.2. Folliculitis, Furunculosis and Carbuncles
 - 31.1.3. Perianal Streptococcal Dermatitis
- 31.2. Viral Infections in Pediatrics
 - 31.2.1. Human Papillomavirus
 - 31.2.2. Molluscum Contagiosum
 - 31.2.3. Simple Herpes
 - 31.2.4. Shingles
- 31.3. Mycotic Infections in Pediatric Dermatology
 - 31.3.1. Tinea
 - 31.3.2. Candidiasis
 - 31.3.3. Pityriasis Versicolor
- 31.4. Infestations in Pediatric Dermatology
 - 31.4.1. Pediculosis
 - 31.4.2. Scabies

Module 32. Nephrourological Emergencies

- 32.1. Acute Scrotum
 - 32.1.1. Frequency in the Pediatric Age Group
- 32.2. Suprapubic Puncture
- 32.3. Bladder Catheterization
- 32.4. Reduction of Paraphimosis

Module 33. Special Situations in Pediatric Emergencies

- 33.1. Children with Special Needs
 - 33.1.1. Tracheostomy and Home Mechanical Ventilation
 - 33.1.2. Gastrostomies and Feeding Tubes
 - 33.1.3. Peritoneal Ventriculo-Peritoneal Shunt Valves
 - 33.1.4. Central Catheters and Prosthetic Vascular Accesses
- 33.2. Medication in Pediatrics
- 33.3. Psychiatry in the Emergency Department
 - 33.3.1. Assessment and Initial Treatment
 - 33.3.2. Psychomotor Agitation and Violence
 - 33.3.3. Suicidal Behavior
 - 33.3.4. Psychotic Disorders
- 33.4. Child Abuse
 - 33.4.1. Attitude in the Emergency Room
 - 33.4.2. Assistance in the Case of Abuse
- 33.5. Techniques and Procedures. Mechanical Restraint of the Agitated or Aggressive Child

Module 34. Update on Coronavirus Infections

- 34.1. Discovery and Evolution of Coronaviruses
 - 34.1.1. Discovery of Coronaviruses
 - 34.1.2. Global Trends in Coronavirus Infections
- 34.2. Main Microbiological Characteristics and Members of the Coronavirus Family
 - 34.2.1. General Microbiological Characteristics of Coronaviruses
 - 34.2.2. Viral Genome
 - 34.2.3. Principal Virulence Factors
- 34.3. Epidemiological Changes in Coronavirus Infections from its Discovery to the Present
 - 34.3.1. Morbidity and Mortality of Coronavirus Infections from their Emergence to the Present.

- 34.4. The Immune System and Coronavirus Infections
 - 34.4.1. Immunological Mechanisms Involved in the Immune Response to Coronaviruses
 - 34.4.2. Cytokine Storm in Coronavirus Infections and Immunopathology
 - 34.4.3. Modulation of the Immune System in Coronavirus Infections
- 34.5. Pathogenesis and Pathophysiology of Coronavirus Infections
 - 34.5.1. Pathophysiological and Pathogenic Alterations in Coronavirus Infections
 - 34.5.2. Clinical Implications of the Main Pathophysiological Alterations
- 34.6. Risk Groups and Transmission Mechanisms of Coronaviruses
 - 34.6.1. Main Sociodemographic and Epidemiological Characteristics of Risk Groups Affected by Coronavirus
 - 34.6.2. Coronavirus Mechanisms of Transmission
- 34.7. Natural History of Coronavirus Infections
 - 34.7.1. Stages of Coronavirus Infection
- 34.8. Latest Information on Microbiological Diagnosis of Coronavirus Infections
 - 34.8.1. Sample Collection and Shipment
 - 34.8.2. PCR and Sequencing
 - 34.8.3. Serology Testing
 - 34.8.4. Virus Isolation
- 34.9. Current Biosafety Measures in Microbiology Laboratories for Coronavirus Sample Handling
 - 34.9.1. Biosafety Measures for Coronavirus Sample Handling.
- 34.10. Up-to-date Management of Coronavirus Infections
 - 34.10.1. Prevention Measures
 - 34.10.2. Symptomatic Treatment
 - 34.10.3. Antiviral and Antimicrobial Treatment in Coronavirus Infections
 - 34.10.4. Treatment of Severe Clinical Forms
- 34.11. Future Challenges in the Prevention, Diagnosis, and Treatment of Coronavirus
 - 34.11.1. Global Challenges for the Development of Prevention, Diagnostic, and Treatment Strategies for Coronavirus Infections





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At its experienced teaching staff and its innovative teaching method, it has the most updated and complete syllabus on the market"

06

Study Methodology

TECH is the world's first university to combine the **case study** methodology with **Relearning**, a 100% online learning system based on guided repetition.

This disruptive pedagogical strategy has been conceived to offer professionals the opportunity to update their knowledge and develop their skills in an intensive and rigorous way. A learning model that places students at the center of the educational process giving them the leading role, adapting to their needs and leaving aside more conventional methodologies.



“

TECH will prepare you to face new challenges in uncertain environments and achieve success in your career”

The student: the priority of all TECH programs

In TECH's study methodology, the student is the main protagonist.

The teaching tools of each program have been selected taking into account the demands of time, availability and academic rigor that, today, not only students demand but also the most competitive positions in the market.

With TECH's asynchronous educational model, it is students who choose the time they dedicate to study, how they decide to establish their routines, and all this from the comfort of the electronic device of their choice. The student will not have to participate in live classes, which in many cases they will not be able to attend. The learning activities will be done when it is convenient for them. They can always decide when and from where they want to study.

“

*At TECH you will NOT have live classes
(which you might not be able to attend)”*



The most comprehensive study plans at the international level

TECH is distinguished by offering the most complete academic itineraries on the university scene. This comprehensiveness is achieved through the creation of syllabi that not only cover the essential knowledge, but also the most recent innovations in each area.

By being constantly up to date, these programs allow students to keep up with market changes and acquire the skills most valued by employers. In this way, those who complete their studies at TECH receive a comprehensive education that provides them with a notable competitive advantage to further their careers.

And what's more, they will be able to do so from any device, pc, tablet or smartphone.

“

TECH's model is asynchronous, so it allows you to study with your pc, tablet or your smartphone wherever you want, whenever you want and for as long as you want”

Case Studies and Case Method

The case method has been the learning system most used by the world's best business schools. Developed in 1912 so that law students would not only learn the law based on theoretical content, its function was also to present them with real complex situations. In this way, they could make informed decisions and value judgments about how to resolve them. In 1924, Harvard adopted it as a standard teaching method.

With this teaching model, it is students themselves who build their professional competence through strategies such as Learning by Doing or Design Thinking, used by other renowned institutions such as Yale or Stanford.

This action-oriented method will be applied throughout the entire academic itinerary that the student undertakes with TECH. Students will be confronted with multiple real-life situations and will have to integrate knowledge, research, discuss and defend their ideas and decisions. All this with the premise of answering the question of how they would act when facing specific events of complexity in their daily work.



Relearning Methodology

At TECH, case studies are enhanced with the best 100% online teaching method: Relearning.

This method breaks with traditional teaching techniques to put the student at the center of the equation, providing the best content in different formats. In this way, it manages to review and reiterate the key concepts of each subject and learn to apply them in a real context.

In the same line, and according to multiple scientific researches, reiteration is the best way to learn. For this reason, TECH offers between 8 and 16 repetitions of each key concept within the same lesson, presented in a different way, with the objective of ensuring that the knowledge is completely consolidated during the study process.

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.



A 100% online Virtual Campus with the best teaching resources

In order to apply its methodology effectively, TECH focuses on providing graduates with teaching materials in different formats: texts, interactive videos, illustrations and knowledge maps, among others. All of them are designed by qualified teachers who focus their work on combining real cases with the resolution of complex situations through simulation, the study of contexts applied to each professional career and learning based on repetition, through audios, presentations, animations, images, etc.

The latest scientific evidence in the field of Neuroscience points to the importance of taking into account the place and context where the content is accessed before starting a new learning process. Being able to adjust these variables in a personalized way helps people to remember and store knowledge in the hippocampus to retain it in the long term. This is a model called Neurocognitive context-dependent e-learning that is consciously applied in this university qualification.

In order to facilitate tutor-student contact as much as possible, you will have a wide range of communication possibilities, both in real time and delayed (internal messaging, telephone answering service, email contact with the technical secretary, chat and videoconferences).

Likewise, this very complete Virtual Campus will allow TECH students to organize their study schedules according to their personal availability or work obligations. In this way, they will have global control of the academic content and teaching tools, based on their fast-paced professional update.



The online study mode of this program will allow you to organize your time and learning pace, adapting it to your schedule"

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 assess 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.

The university methodology top-rated by its students

The results of this innovative teaching model can be seen in the overall satisfaction levels of TECH graduates.

The students' assessment of the quality of teaching, quality of materials, course structure and objectives is excellent. Not surprisingly, the institution became the best rated university by its students on the Trustpilot review platform, obtaining a 4.9 out of 5.

Access the study contents from any device with an Internet connection (computer, tablet, smartphone) thanks to the fact that TECH is at the forefront of technology and teaching.

You will be able to learn with the advantages that come with having access to simulated learning environments and the learning by observation approach, that is, Learning from an expert.



As such, the best educational materials, thoroughly prepared, will be available in this program:



Study Material

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

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



Practicing Skills and Abilities

You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.



Interactive Summaries

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

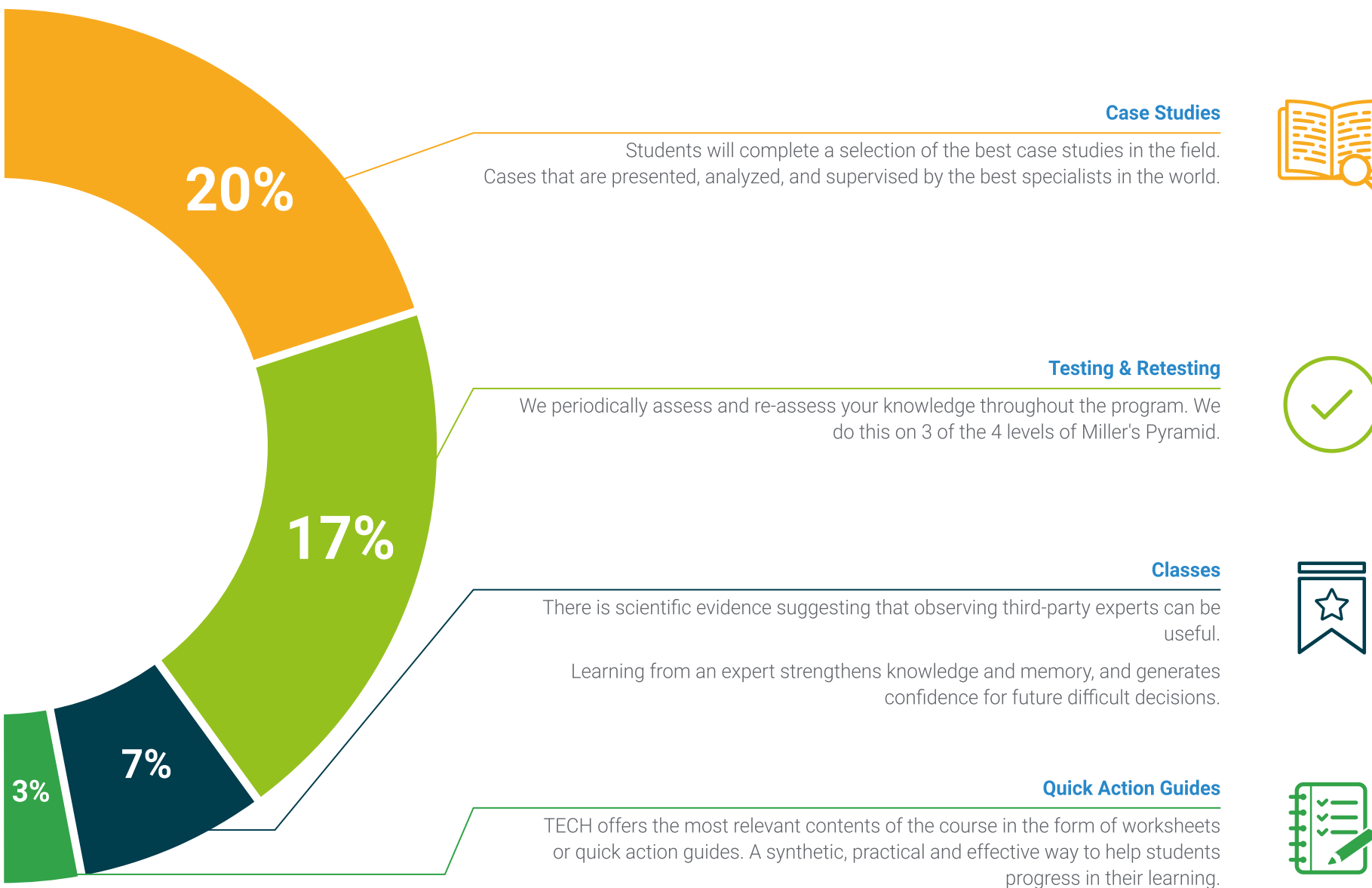
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



Additional Reading

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





07 Certificate

The Advanced Master's Degree in Clinical Pediatrics guarantees students, in addition to the most rigorous and up-to-date education, access to an Advanced Master's Degree diploma 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 private qualification will allow you to obtain a **Advanced Master's Degree in Clinical 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** private qualification 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: **Advanced Master's Degree in Clinical Pediatrics**

Modality: **online**

Duration: **2 years**

Accreditation: **120 ECTS**





Advanced Master's
Degree
Clinical Pediatrics

- » Modality: online
- » Duration: 2 years
- » Certificate: TECH Global University
- » Credits: 120 ECTS
- » Schedule: at your own pace
- » Exams: online

Advanced Master's Degree Clinical Pediatrics

