



Professional Master's Degree

Hospital Pediatrics

» Modality: Online

» Duration: 12 months.

» Certificate: TECH Global University

» Accreditation: 60 ECTS

» Schedule: at your own pace

» Exams: online

Website: www.techtitute.com/us/medicine/professional-master-degree/master-hospital-pediatrics

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O1 Introduction to the Program

Hospital Pediatrics faces significant challenges due to the increasing prevalence of complex diseases and the continuous evolution of medical treatments. According to the World Health Organization, over 5 million children die each year from preventable causes, highlighting the urgent need for highly trained professionals in this field. In this context, professionals require comprehensive specialization to enhance the quality of care. For this reason, TECH is launching a revolutionary university program focused on Hospital Pediatrics. In addition, it is delivered in a convenient and fully online modality.



tech 06 | Introduction to the Program

Hospital Pediatrics is a medical specialty that faces increasingly complex challenges due to the growing diversity of pediatric pathologies and advances in the treatment of diseases. In this regard, the need for highly trained professionals has never been more urgent. The constant evolution in therapies and diagnoses requires Pediatric Hospitalists to stay current in order to provide high-quality care to children. This academic program offers professionals the opportunity to specialize in key areas of Hospital Pediatrics, effectively addressing the demands of this dynamic field.

By completing this Professional Master's Degree, professionals will benefit from a comprehensive approach that enables them to master the latest advances in the diagnosis, treatment, and management of Pediatric Diseases. Acquiring specialized knowledge will allow them to play a crucial role in improving clinical outcomes for patients, ensuring that they provide child-centered care. Additionally, the knowledge gained will be reflected in their ability to manage complex cases and improve care protocols.

Furthermore, the online format allows specialists to tailor their learning to their schedules and professional commitments. This flexibility, along with access to an interactive and up-to-date platform, fosters a collaborative learning environment. Graduates will be able to connect with experts and peers, optimizing their educational experience and expanding their professional perspectives.

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

- The development of practical case studies presented by experts in Medicine
- 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 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



You will develop skills in making critical clinical decisions, both in inpatient wards and in pediatric intensive care units"

Introduction to the Program | 07 tech

Acquire advanced tools to diagnose and treat complex pediatric pathologies,

The teaching staff includes professionals belonging to the field of medicine, who contribute their work experience to this program, as well as renowned specialists from reference societies and prestigious universities.

enhancing your ability to provide

comprehensive care"

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.

A syllabus tailored to your needs and designed under the most effective teaching methodology: Relearning.

You will promote safe, humanized, and evidence-based care, respecting the rights of the hospitalized child.







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The world's best online university, according to FORBES

The prestigious Forbes magazine, specialized in business and finance, has highlighted TECH as "the best online university in the world" This is what they have recently stated in an article in their digital edition in which they echo the success story of this institution, "thanks to the academic offer it provides, the selection of its teaching staff, and an innovative learning method oriented to form the professionals of the future".

The best top international faculty

TECH's faculty is made up of more than 6,000 professors of the highest international prestige. Professors, researchers and top executives of multinational companies, including Isaiah Covington, performance coach of the Boston Celtics; Magda Romanska, principal investigator at Harvard MetaLAB; Ignacio Wistumba, chairman of the department of translational molecular pathology at MD Anderson Cancer Center; and D.W. Pine, creative director of TIME magazine, among others.

The world's largest online university

TECH is the world's largest online university. We are the largest educational institution, with the best and widest digital educational catalog, one hundred percent online and covering most areas of knowledge. We offer the largest selection of our own degrees and accredited online undergraduate and postgraduate degrees. In total, more than 14,000 university programs, in ten different languages, making us the largest educational institution in the world.



The most complete syllabus





World's
No.1
The World's largest
online university

The most complete syllabuses on the university scene

TECH offers the most complete syllabuses on the university scene, with programs that cover fundamental concepts and, at the same time, the main scientific advances in their specific scientific areas. In addition, these programs are continuously updated to guarantee students the academic vanguard and the most demanded professional skills. and the most in-demand professional competencies. In this way, the university's qualifications provide its graduates with a significant advantage to propel their careers to success.

A unique learning method

TECH is the first university to use Relearning in all its programs. This is the best online learning methodology, accredited with international teaching quality certifications, provided by prestigious educational agencies. In addition, this innovative academic model is complemented by the "Case Method", thereby configuring a unique online teaching strategy. Innovative teaching resources are also implemented, including detailed videos, infographics and interactive summaries.

The official online university of the NBA

TECH is the official online university of the NBA. Thanks to our agreement with the biggest league in basketball, we offer our students exclusive university programs, as well as a wide variety of educational resources focused on the business of the league and other areas of the sports industry. Each program is made up of a uniquely designed syllabus and features exceptional guest hosts: professionals with a distinguished sports background who will offer their expertise on the most relevant topics.

Leaders in employability

TECH has become the leading university in employability. Ninety-nine percent of its students obtain jobs in the academic field they have studied within one year of completing any of the university's programs. A similar number achieve immediate career enhancement. All this thanks to a study methodology that bases its effectiveness on the acquisition of practical skills, which are absolutely necessary for professional development.









Google Premier Partner

The American technology giant has awarded TECH the Google Premier Partner badge. This award, which is only available to 3% of the world's companies, highlights the efficient, flexible and tailored experience that this university provides to students. The recognition not only accredits the maximum rigor, performance and investment in TECH's digital infrastructures, but also places this university as one of the world's leading technology companies.

The top-rated university by its students

Students have positioned TECH as the world's toprated university on the main review websites, with a highest rating of 4.9 out of 5, obtained from more than 1,000 reviews. These results consolidate TECH as the benchmark university institution at an international level, reflecting the excellence and positive impact of its educational model.





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Module 1. Care for Critically Ill Children Outside Pediatric Intensive Care Units

- 1.1. Alarm 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 III 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. Huminized Care for Critically III 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 III Children
 - 1.1.10.3. Asystole Donation
- 1.2. Cerebral Crisis
 - 1.2.1. Initial Assessment
 - 1.2.2. Differential Diagnosis
 - 1.2.3. Acute Treatment
- 1.3. Acute Respiratory Failure. Oxygen Therapy
 - 1.3.1. Acute Respiratory Failure
 - 1.3.2. Pathophysiology
 - 1.3.3. Classification
 - 1.3.4. Diagnosis
 - 1.3.5. Treatment



- 1.4. Allergic Reactions. Anaphylaxis
 - 1.4.1. Allergic and Clinical Reaction
 - 1.4.2. Etiology
 - 1.4.3. Diagnosis
 - 1.4.4. Treatment
 - 1.4.5. Prevention
- 1.5. Blood Gas Interpretation
 - 1.5.1. Blood Gas Interpretation
 - 1.5.2. Pathophysiology
 - 1.5.3. Basic Elements to Interpret Acid-Base Balance
 - 1.5.4. General Diagnosis
 - 1.5.5. Approach to Acid-Base Balance Disturbances
- 1.6. Analgesia and Sedation
 - 1.6.1. Analgesia and Sedation
 - 1.6.2. Pain Assessment and Management
 - 1.6.3. Sedo Analgesia
 - 1.6.3.1. Adverse Effects
 - 1.6.3.2. Candidate Patients
 - 1.6.3.3. Necessary Personnel and Supplies
 - 1.6.3.4. Non-Pharmacological Measures in Pain Control and Anxiety
 - 1.6.3.5. Drugs and Antidotes
 - 1.6.3.6. Sedoanalgesia Procedures and Strategies
 - 1.6.3.7. Necessary Documentation
 - 1.6.3.8. Monitoring
- 1.7. Fluid Therapy
 - 1.7.1. Body Fluid Composition
 - 1.7.2. Main Mechanisms for Volume Regulation, Osmolarity and Acid-Base Balance
 - 1.7.3. Calculating Basal Needs
 - 1.7.4. Treating Dehydration: Rehydration Routes (Indications, Serums used)
 - 1.7.5. Treating the Main Hydroelectrolyte and Acid-Base Balance Disorders

- 1.8. Electrocardiogram
 - 1.8.1. General 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 Botonology
 - 1.9.3. Pulmonary Ultrasound Semiology
 - 1.9.4. POCUS Diagnosis (Point-of-Care Ultrasound)
 - 1.9.4.1. Consolidated Pneumonia
 - 1.9.4.2. Alveolo-Interstitial Pneumonia
 - 1.9.4.3. Airway Obstruction
 - 1.9.4.4. Heart Failure
 - 1.9.4.5. Pleural Effusion
 - 1.9.4.6. Pneumothorax

Module 2. Respiratory Diseases in Pediatrics

- 2.1 Acute Bronchiolitis
 - 2.1.1. Acute Bronchiolitis
 - 2.1.2. Etiology
 - 2.1.3. Epidemiology
 - 2.1.4. Clinical Presentation
 - 2.1.5. Diagnosis
 - 2.1.6. Treatment
 - 2.1.7. Prevention
- 2.2. Asthma Attacks
 - 2.2.1. Asthma Attacks
 - 2.2.2. Epidemiology
 - 2.2.3. Pathophysiology
 - 2.2.4. Clinical Presentation
 - 2.2.5. Diagnosis
 - 2.2.6. Treatment
 - 2.2.7. Education

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- 2.3. Chronic Cough
 - 2.3.1. Persistent Bacterial Bronchitis
 - 2.3.2. Post-infectious Cough
 - 2.3.3. Psychogenic Cough
 - 2.3.4. Atelectasis: Middle Lobe
 - 2.3.5. Non-Cystic Fibrosis (CF) Bronchiectasis
- 2.4. Bronchopulmonary Dysplasia
 - 2.4.1. Bronchopulmonary Dysplasia
 - 2.4.2. Epidemiology
 - 2.4.3. Prevention
 - 2.4.4. Pathophysiology
 - 2.4.5. Clinical Presentation
 - 2.4.6. Treatment
- 2.5. Interstitial Lung Diseases
 - 2.5.1. Classification
 - 2.5.2. Neuroendocrine Cell Hyperplasia
 - 2.5.3. Surfactant Protein Deficiency
 - 2.5.4. Pulmonary Interstitial Glycogenosis
 - 2.5.5. Hypersensitivity Pneumonitis
- 2.6. Respiratory Management in Neuromuscular Patients
 - 2.6.1. Pathophysiology
 - 2.6.2. Complementary Respiratory Tests
 - 2.6.3. Treatment
- 2.7. Respiratory Pathology in Cystic Fibrosis
 - 2.7.1. Respiratory Pathology
 - 2.7.2. Pathophysiology
 - 2.7.3. Respiratory Exacerbation
 - 2.7.4. Pneumothorax
 - 2.7.5. Hemoptysis
 - 2.7.6. Allergic Bronchopulmonary Aspergillosis
 - 2.7.7. Atelectasis

- 2.8. Obstructive Sleep Apnea
 - 2.8.1. Obstructive Sleep Apnea
 - 2.8.2. Epidemiology
 - 2.8.3. Pathophysiology
 - 2.8.4. Clinical Presentation
 - 2.8.5. Diagnosis
 - 2.8.6. Treatment
- 2.9. Inhalation Systems
 - 2.9.1. Inhalation Systems
 - 2.9.2. Metered Dose Inhaler (MDI), Dry Powder, Nebulizers
- 2.10. Pneumology Procedures
 - 2.10.1. Forced Spirometry
 - 2.10.2. Bronchoscopy

Module 3. Infectious Diseases in Pediatrics

- 3.1. Healthcare-Associated Infections (HAIs). Prevention Measures for Infection Transmission
 - 3.1.1. Impact in a Pediatric Inpatient Ward
 - 3.1.2. Epidemiology and Incidence
 - 3.1.3. Types of HAIs
 - 3.1.4. Prevention of Infection Transmission
 - 3.1.4.1. Types of Isolation and Indications for Specific Microorganisms
 - 3.1.4.2. Hand Hygiene
 - 3.1.4.3. Other Measures
- 3.2. The Laboratory in the Diagnosis of Infectious Diseases. Collection of Microbiological Samples
 - 3.2.1. Biochemical and Hematological Findings in Infectious Diseases
 - 3.2.2. Clinical Considerations Prior to Collecting Microbiological Samples
 - 3.2.3. Recommended Biological Samples for Diagnosing the Most Common Infections. Conventional Microbiology, Rapid Techniques, Molecular Techniques
 - 3.2.4. Available Microbiological Techniques and Their Indications
 - 3.2.5. Transport and Storage of Samples

- 3.3. Empirical Antibiotic Therapy: Appropriate Use of Antibiotics
 - 3.3.1. General Principles of Antibiotic Treatment: Structured Clinical Reasoning
 - 3.3.2. How to Select the Appropriate Antibiotic
 - 3.3.3. When to Change an Antibiotic Targeted Antibiotic Therapy
 - 3.3.4. What is Proper Antibiotic Use? Importance and Implications
 - 3.3.5. Role of New Antibiotics in Pediatric Hospital Care
- 3.4. Special Situations in Fever Management: Recurrent Fever, Prolonged Fever, Fever in Patients from the Tropics
 - 3.4.1. Recurrent and Periodic Fever
 - 3.4.1.1. Causes
 - 3.4.1.2. Diagnostic Approach
 - 3.4.2. Prolonged Fever
 - 3.4.2.1. Causes
 - 3.4.2.2. Evaluation
 - 3.4.3. Fever in Patients from the Tropics
 - 3.4.3.1. General Considerations (Traveling Child, Immigrant Child, Adopted Child)
 - 3.4.3.2. Most Common Causes
 - 3.4.3.3. Evaluation
- 3.5. Community-Acquired Pneumonia (CAP). Etiological Diagnosis and Antibiotic Therapy. Complicated Pneumonia Therapy
 - 3.5.1. Etiology by Age Group
 - 3.5.2. Diagnostic Approach
 - 3.5.3. CAP Therapy in Hospitalized Patients
 - 3.5.4. Diagnostic Approach to "Pneumonia That Is Not Improving"
 - 3.5.5. Complicated Pneumonia
 - 3.5.5.1. Types: Parapneumonic Effusion, Necrotizing Pneumonia, Pulmonary Abscess
 - 3.5.5.2. Diagnostic and Therapeutic Approach

- 3.6. Skin and Soft Tissue Infections (SSTIs): Osteoarticular Infection (OAI)
 - 3.6.1. SSTI: Diagnostic and Therapeutic Approach
 - 3.6.1.1. Impetigo
 - 3.6.1.2. Cellulitis and Erysipelas
 - 3.6.1.3. Folliculitis and Furuncles
 - 3.6.1.4. Omphalitis
 - 3.6.1.5. Staphylococcal Scalded Skin Syndrome
 - 3.6.1.6. Ecthyma
 - 3.6.1.7. Necrotizing Fasciitis
 - 3.6.1.8. Bites
 - 3.6.2. Osteoarticular Infections (OAI). Diagnostic and Therapeutic Approach
 - 3.6.2.1. Incidence, Pathophysiology of Different Locations, and Etiology by Age Group
 - 3.6.2.2. Septic Arthritis
 - 3.6.2.3. Osteomyelitis
- 3.7. Genital Infections in Children and Adolescents
 - 3.7.1. Implications and Frequency of Sexually Transmitted Infections (STIs) in Adolescence
 - 3.7.2. STI Syndromes
 - 3.7.2.1. Genital Ulcers
 - 3.7.2.2. Inquinal Lymphadenopathy
 - 3.7.2.3. Genital Warts
 - 3724 Urethritis
 - 3.7.3. Microbiological Diagnosis and Treatment for STIs
 - 3.7.4. Vulvovaginitis in Girls and Adolescents: Bacterial Vaginosis
 - 3.7.5. Pelvic Inflammatory Disease
 - 3.7.6. Orchitis and Epididymitis
- 8.8. Catheter-Related Venous Infection (CVC)
 - 3.8.1. Types of CVC
 - 3.8.2. Common Etiological Agents
 - 3.8.3. Clinical Presentation, Investigations, and Diagnostic Criteria
 - 3.8.4. Treatment of Catheter-Related Venous Infection

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- 3.9. Infections in Immunocompromised Patients
 - 3.9.1. Most Frequent Etiological Agents Based on Immune System Compromise
 - 3.9.2. General Diagnostic Approach in Suspected Infection in an Immunocompromised Child
 - 3.9.3. Infection Prophylaxis in Children with Primary or Secondary Immunodeficiency
 - 3.9.4. The Patient with Febrile Neutropenia
- 3.10. Infection by Emerging Viruses: SARS-CoV-2
 - 3.10.1. Changes in the Organization of Pediatric Hospital Care During the COVID-19 Pandemic.
 - 3.10.2. Diagnosis and Treatment of Acute SARS-CoV-2 Infection
 - 3.10.3. Multisystem Inflammatory Syndrome Temporarily Associated with COVID-19 (MIS-C or PMIS)
 - 3.10.4. Considerations Regarding Future Epidemic Outbreaks
- 3.11. Systemic Inflammatory Response Syndrome (SIRS). Sepsis, Severe Sepsis, and Septic Shock
 - 3.11.1. Clinical Examination
 - 3.11.2. Microorganisms Causing Sepsis. Diagnostic Attitude
 - 3.11.3. Initial Therapy for SIRS, Sepsis, Severe Sepsis, and Septic Shock
 - 3.11.4. Toxic Shock Syndromes

Module 4. Digestive System Diseases in Pediatrics

- 4.1. Abdominal Pain
 - 4.1.1. Acute Abdominal Pain in Children: Clinical Presentations. 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 Ulcer. 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. Causes of Organic Constipation
 - 4.2.6. Functional Constipation: Clinical Presentation and Diagnosis
 - 4.2.7. Treatment
 - 4.2.7.1. Hygienic-Dietary Measures
 - 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 Presentation
 - 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 Monitoring
 - 4.3.4.2. Upper Digestive Endoscopy
 - 4.3.4.3. Other Diagnostic Tests
 - 4.3.5. Treatment
 - 4.3.5.1. Non-Pharmacological Measures
 - 4.3.5.2. Pharmacological Treatment
 - 4.3.5.3. Surgical Treatment
 - .3.6. Diagnostic and Therapeutic 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 Presentation
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
Digestiv	e and Nutritional Aspects of Cystic Fibrosis
4.5.1.	Digestive and Nutritional Aspects
4.5.2.	Gastrointestinal Involvement in Cystic Fibrosis 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. Intestinal Invagination
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.	Cystic Fibrosis-Related Liver Disease
	4.5.4.1. Cystic Fibrosis-Related Liver Disease
	4.5.4.2. Gallbladder Disorders
4.5.5.	Nutritional Involvement
	4.5.5.1. Chronic Malnutrition

4.5.5.2. Fat-Soluble Vitamin Deficiency

4.5.

.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. Alteration of Intestinal Motility		
	4.6.2.	Etiology		
		4.6.2.1. Functional Diarrhea		
		4.6.2.2. Organic Diarrhea		
		4.6.2.2.1. Infectious Diarrhea		
		4.6.2.2.2. Immune-Mediated Diarrhea		
		4.6.2.2.3. Carbohydrate Intolerance-Induced Diarrhea		
		4.6.2.2.4. Exocrine Pancreatic Insufficiency and Hepatobiliary Dysfunction- Induced Diarrhea		
		4.6.2.2.5. Anatomical Diarrhea		
		4.6.2.2.6. Motility Disorder-Induced Diarrhea		
		4.6.2.2.7. Enterocyte Structural Defect-Induced Diarrhea		
		4.6.2.2.8. Metabolic Error-Induced Diarrhea		
		4.6.2.2.9. Other Causes of Diarrhea		
	4.6.3.	Diagnosis		
	4.6.4.	Treatment		
.7.	Inflamr	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

4.7.1.10. Complications During Hospitalization and Their Treatment

Biopsy 4.7.1.7. Diagnosis 4.7.1.8. Activity Index

4.7.1.9. Acute and Maintenance Treatment

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472	Cro	hn'c	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 Indices

4.7.2.9. Acute and Maintenance Treatment

4.7.2.10. Complications During Hospitalization and Their Treatment

4.8. Biliary Lithiasis. Cholestasis

4.8.1. Gallbladder 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. Cholestasis in Newborns and Infants

4.8.5. Cholestasis in Older Children

4.8.5.1. Cholestasis Due 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 Diseases Presenting with 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. Diagnosis in Pediatric Patients with Acute Liver Failure

4.9.2.3. Therapeutic Approach

4.9.2.4. Differential Diagnosis of Diseases Presenting with Liver Failure

4.10. Digestive Hemorrhage

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 Post-infectious Seizures

5.1.1. Febrile Seizures

5.1.2. Epidemiology

5.1.3. Etiology

5.1.4. Clinical Presentation

5.1.5. Diagnosis

5.1.6. Treatment

5.1.7. Prognosis

5.2. Epileptic Syndromes in Pediatrics. Practical Aspects of Managing Antiepileptic Drugs

5.2.1. Classification of Epileptic Syndromes and Diagnostic Approach

5.2.2. Epileptic Syndromes in Infants and Preschool Children

5.2.3. Epileptic Syndromes in School-Aged Children and Adolescents

5.2.4. Practical Aspects of Managing Antiepileptic Drugs

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 with Epileptic Seizures

- 5.4. Infantile Hypotonia and Common Neuromuscular Disorders in Childhood
 - 5.4.1. Non-Paralytic or Central Infantile Hypotonia
 - 5.4.2. Paralytic or Peripheral Infantile Hypotonia
 - 5.4.3. 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 Presentation
 - 5.5.4. Diagnostic Criteria
 - 5.5.5. Treatment
 - 5.5.6. Prognosis
- 5.6. Headache
 - 5.6.1. Headache
 - 5.6.2. Etiology
 - 5.6.3. Classification. Primary and Secondary Headaches. Migraine, Tension-Type Headache, Trigemino-autonomic Headaches, Others
 - 5.6.4. Anamnesis and Physical Examination
 - 5.6.5. Admission Criteria and Alarm Signs
 - 5.6.6. Complementary Evaluations
 - 5.6.7. Hospital Management of Migraine Status
 - 5.6.8 Acute and Chronic Treatment
- 5.7. Acute Ataxia
 - 5.7.1 Vestibular Ataxia and Cerebellar Ataxia
 - 5.7.2. Main Differential Etiological Diagnosis for a Child Admitted with Acute Ataxia
 - 5.7.3. Practical Management Protocols
- 5.8. Pediatric Stroke
 - 5.8.1. Epidemiology. Etiology and Risk Factors
 - 5.8.2. Clinical Manifestations of Pediatric Stroke
 - 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. Immunomediated Encephalitis
 - 5.9.4. Toxic-Metabolic Encephalitis
- 5.10. Demyelinating Diseases
 - 5.10.1. Acute Demyelinating Lesions 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. Suspicion of Heart Disease in Newborns
 - 6.1.1. Past, Present, and Future of Congenital Heart Diseases in Pediatrics
 - 6.1.2. Fetal and Postnatal Circulation: Newborn Adaptation
 - 6.1.3. Physical Examination and Vital Signs
 - 6.1.4. Differential Diagnosis of Congenital Heart Diseases in Newborns
 - 6.1.5. Use of Prostaglandins
- 6.2. Diagnostic Tools for Pediatric Cardiac Pathology
 - 6.2.1. Usefulness of Basic Tools for Diagnosing Congenital Heart Diseases: 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 Diseases: CT and MRI
 - 5.2.5. Diagnostic Cardiac Catheterization
- 6.3. Classification of Congenital Heart Diseases. Pulmonary Hypertension
 - 6.3.1. Segmental Classification of Congenital Heart Diseases
 - 6.3.2. Pathophysiology of Congenital Heart Diseases: Hemodynamic Principles
 - 6.3.3. Pulmonary Hypertension: Classification and Diagnosis
 - 6.3.4. Pulmonary Hypertension Associated with Congenital Heart Diseases and Eisenmenger Syndrome
 - 6.3.5. Therapeutic Advances in the Treatment of Pulmonary Hypertension

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- 6.4. Cyanotic Heart Diseases
 - 6.4.1. Transposition of the Great Arteries
 - 6.4.2. Truncus Arteriosus
 - 6.4.3. Anomalous Pulmonary Venous Return
 - 6.4.4. Tetralogy of Fallot and Its Variants
 - 6.4.5. Tricuspid Atresia
 - 6.4.6. Pulmonary Atresia with Intact Septum
 - 6.4.7. Ebstein's Disease
- 6.5. Acyanotic Heart Diseases
 - 6.5.1. Atrial Septal Defect
 - 6.5.2. Ventricular Septal Defect
 - 6.5.3. Patent 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 the Aorta
 - 6.6.4. Alcapa Syndrome
 - 6.6.5. Vascular Rings
- 6.7. Acquired Heart Diseases in Childhood
 - 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 Rhythm and Electrical Conduction Abnormalities in Children
 - 6.8.1. Supraventricular Tachycardia
 - 6.8.2. Ventricular Tachycardia
 - 6.8.3. Atrioventricular (AV) Block

- 6.8.4. Mapping and Catheter Ablation
- 6.8.5. Pacemakers and Implantable Cardioverter Defibrillators
- 6.9. Heart Failure in Infants and Children
 - 6.9.1. Etiological and Pathophysiological Characteristics
 - 6.9.2. Clinical Characteristics. Diagnostic Tools for Heart Failure
 - 6.9.3. Medical Treatment of Pediatric Heart Failure
 - 6.9.4. Ventricular Assist Devices and Other Technical Advances
 - 6.9.5. Pediatric Heart Transplantation
- 6.10. Pediatric Familial Heart Disease: Genetic Alterations
 - 6.10.1. Clinical Genetic Evaluation
 - 6.10.2. Cardiomyopathies: Hypertrophic, Dilated, Arrhythmogenic Dysplasia, and Restrictive
 - 6.10.3. Connective Tissue Disorders
 - 6.10.4. Canalopathies
 - 6.10.5. Syndromes Associated with Heart Diseases: Down Syndrome, DiGeorge Syndrome, Turner Syndrome, Williams-Beuren Syndrome, Noonan Syndrome, etc.

Module 7. Endocrine System, Metabolism and Nutrition in Pediatrics

- 7.1. Nutritional Status Assessment
 - 7.1.1. Nutritional Status Assessment
 - 7.1.2. Medical History, Nutritional Anamnesis and Physical Examination
 - 7.1.3. Body Composition Assessment: Anthropometry, Weight / Height Ratio Indices: Body Composition
 - 7.1.4. Nutritional Screening
- 7.2. Feeding of the Healthy Infant: Breastfeeding and Formula Feeding. Weaning
 - 7.2.1. Breastfeeding
 - 7.2.2. Formula Feeding
 - 7.2.3. Weaning of the Healthy Child

Enteral and Parenteral Nutrition 7.3.1. Detection of Patients Requiring Nutritional Support 7.3.2. Calculation of Requirements 7.3.3 Choice of Artificial Nutrition Forms 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. Follow-up and Complications 7.3.5. Parenteral Nutrition 7.3.5.1. Access Routes 7.3.5.2. Follow-up and Complications 7.3.6. Refeeding Syndrome Nutritional Deficiencies Due to New Forms of Nutrition. New Diet Trends 7.4.1. Types of Vegetarian Diets 7.4.2. Macro and Micronutrients at Risk in Vegetarian Diets 7.4.3. Recommendations for Vegetarian or Vegan Diets by Age 7.4.4. Dietary Errors in Infants: Plant-Based Beverages 7.4.5. Sources of Information Approach to 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 7.5.2.2. EIM 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. Other Treatments (Extrarenal Purification Techniques, Organ

Transplantation, etc.)

7.6. Hypoglycemia 7.6.1. Hypoglycemia 7.6.2. Initial Directed Evaluation: Anamnesis, Physical Examination Complementary Examinations During Hypoglycemic Episodes 7.6.4. Differential Diagnosis 7.6.5. Treatment Polydipsia-Polyuria 7.7.1. Polyuria in Pediatrics: Normal Diuresis by Age Group 7.7.2. Etiopathogenesis 7.7.2.1. Water Diuresis. Osmotic Diuresis 7.7.2.2. Osmotic Diuresis: Most Frequent Causes Clinical Manifestations of 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 Measurements. Imaging and Other Studies Treatment. Side Effects and Precautions Current Lines of Research 776 Diabetes Mellitus 7.8.1. Introduction 7.8.2. Epidemiology Etiopathogenesis 7.8.3. 7.8.3.1. Type 1 Diabetes (T1D) 7.8.3.2. Type 2 Diabetes (T2D) 7.8.3.3. Monogenic Diabetes: Maturity-Onset Diabetes of the Young (MODY). **Neonatal Diabetes** 7.8.3.4. Cystic Fibrosis (CF) Related Diabetes 7.8.3.5. Other Specific Types Diagnostic Criteria 7.8.4. 7.8.5. Clinical Presentation of T1D and Management 7.8.5.1. Diabetic Ketoacidosis

7.8.5.2. Hyperglycemia with / without Ketosis 7.8.5.3. Hyperglycemia in Asymptomatic Patients

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7.8.6. Treatment and Follow-up in T1D 7.9.6. Treatment 7.8.6.1. Glycemic Targets 7.9.6.1. Adrenal Crisis 7.8.6.2. Diabetic Education 7.9.6.2. Substitution Therapy 7.8.6.3. Insulin Therapy 7.9.6.3. Management and Prevention of Adrenal Crisis 7.8.6.4. Nutrition 7.9.6.4. Withdrawal of Chronic Corticosteroid Therapy 7.8.6.5. Physical Activity 7.9.6.5. Pre- and Post-Surgical Management 7.8.6.6. Glucose Monitoring 7.9.6.6. Education for Patients and Their Families 7.8.6.7. Screening for Acute and Chronic Complications Module 8. Nephrology and Electrolyte Disorders in Pediatrics 7.8.7. Treatment and Follow-up in T2D 7.8.8. Treatment and Follow-up of MODY Diabetes Urinary Tract Infection 7.8.9. Other Forms of Diabetes 8.1.1. Urinary Tract Infection Adrenal Insufficiency 8.1.2. Other Definitions 7.9.1. Adrenal Insufficiency 8.1.3. Etiology 7.9.2. Etiological Classification Clinical Presentation 8.1.4. 7.9.2.1. Primary or Adrenal Diagnosis 7.9.2.2. Secondary-Tertiary or Hypothalamic-Pituitary 8.1.6. Treatment 7.9.3. Clinical Manifestations 8.1.7. Follow-up 7.9.3.1. Acute Adrenal Insufficiency. Severity Criteria Congenital Anomalies of the Urinary Tract 7.9.3.2. Chronic Adrenal Insufficiency 8.2.1. Congenital Anomalies of the Urinary Tract 7.9.4. Diagnosis 8.2.2. Etiology 7.9.4.1. Adrenal Crisis. Laboratory Findings Classification (Hypodysplasia and Single Kidney, Obstructive Uropathy, 8.2.3. 7.9.4.2. Hypocortisolism. Suspected Adrenal Insufficiency. Analytical Vesicoureteral Reflux) Determinations 8.2.4. Diagnosis (Prenatal and Postnatal) 7.9.4.2.1. Initial Complementary Tests. Cortisol and ACTH Reference Values 8.2.5. Treatment 7.9.4.2.2. Hormonal Stimulation Tests. ACTH Test. Insulin-Induced Scarring Nephropathy Hypoglycemia. Other Tests Hematuria-Proteinuria 7.9.4.2.3. Second-Level Complementary Tests: 8.3.1. Hematuria-Proteinuria Imaging, Microbiological, Pathological, Immunological Studies, and 8.3.2. Diagnosis Genetic Studies 8.3.3. Clinical Presentation 7.9.5. Differential Diagnosis of Hypocortisolism. Relevant Entities 8.3.4. Differential Diagnosis 7.9.5.1. Primary Forms 8.3.5. Treatment 7.9.5.2. Secondary and Tertiary Forms

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8.4.	Poststre	ptococcal	Glomeru	ulonephritis
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- 8.4.1. Poststreptococcal Glomerulonephritis
- 8.4.2. Etiology
- 8.4.3. Clinical Presentation
- 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 Presentation
- 8.5.5. Diagnosis. Practical Approach
- 8.5.6. Treatment: Onset and Relapses Maintenance
- 8.5.7. Prognosis

8.6. Electrolyte Disturbances and Acid-Base Balance

- 8.6.1. Electrolyte Disturbances and Acid-Base Balance
- 8.6.2. Water and Sodium Disturbances
- 8.6.3. Potassium Disturbances
- 8.6.4. Phosphocalcic Metabolism and Its Disturbances
- 8.6.5. Acid-Base Balance

8.7. Acute Kidney Injury

- 8.7.1. Acute Kidney Injury
- 8.7.2. Epidemiology
- 8.7.3. Classification
- 8.7.4. Diagnosis
- 8.7.5. Treatment. Practical Approach
- 8.7.6. Prognosis

3.8. Hypertension

- 8.8.1. Hypertension
- 8.8.2. Classification
- 8.8.3. Clinical Presentation
- 8.8.4. Diagnosis
- 8.8.5. Treatment
- 8.8.6. Hypertensive Crisis and Emergency
- 8.8.7. Follow-up

8.9. Kidney Stones

- 8.9.1. Introduction
- 8.9.2. Etiology and Pathophysiology
- 8.9.3. Clinical Presentation
- 8.9.4. Diagnosis
- 8.9.5. Treatment of Renal Colic
- 8.9.6. Follow-up and Long-term Treatment

Module 9. Hemato-Oncology in Pediatrics

9.1. Diagnosis of Pediatric Patients with Anemia

- 9.1.1. Anemia
- 9.1.2. Pathophysiology of Anemia
- 9.1.3. Diagnostic Tests in Anemic Patients
- 9.1.4. Differential Diagnosis of Anemia in Pediatric Patients
- 9.1.5. Clinical Cases

9.2. Iron Deficiency Anemia

- 9.2.1. Iron Deficiency Anemia
- 9.2.2. Epidemiology of Iron Deficiency
- 9.2.3. Pathophysiology of Iron Deficiency
- 9.2.4. Differential Diagnosis of Iron Deficiency Anemia
- 9.2.5. Diagnostic Tests for Iron Deficiency Anemia
- 9.2.6. Treatment of Iron Deficiency Anemia
- 9.2.7. Clinical Cases

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9.3.	Purpura						
	9.3.1.	Purpura					
		Basic Principles in the Study of Patients with Excessive Bleeding					
		Diagnostic Tests					
	9.3.4.	Differential Diagnosis					
	9.3.5.	Clinical Cases					
9.4.	Pediatri	ic Cancer					
9.5.	Clinical Manifestations of Children with Cancer						
9.6.	Anticoagulation in Pediatric Patients						
	9.6.1.	Indications for Anticoagulation					
	9.6.2.	Anticoagulation in Children					
	9.6.3.	Anticoagulation Monitoring					
9.7.	Oncolo	Oncological 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 Spinal Cord Compression					
	9.7.9.	Increased Intracranial Pressure					
	9.7.10.	Fever in Hemato-oncological Patients					
	9.7.11.	Disseminated Intravascular Coagulation (DIC)					
	9.7.12.	Hemorrhages					
9.8.	Oncolo	gical Emergencies II					
9.9.	Transfu	Transfusion Therapy in Pediatric Patients					
	9.9.1.	Transfusion Therapy in Pediatric Patients					
	9.9.2.	Frequently Used 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 of Transfusion Therapy

9.10. Pain Management in Oncological Patients

Module 10. Other Pediatric Processes

- 10.1. Most Common Skin Lesions
 - 10.1.1. Etiology
 - 10.1.2. Diagnostic Approach
 - 10.1.3. Febrile Rashes and Afebrile Rashes
 - 10.1.4. Vesicular Rashes
 - 10.1.5. Purpuric Rashes
 - 10.1.6. Morbilliform Rashes
 - 10.1.7. Kawasaki Disease
 - 10.1.8. Scarlet Fever
 - 10.1.9. Stevens-Johnson Syndrome
- 10.2. The Infant with EAL (Apparent Life-Threatening Event) or BRUE (Brief Resolved Unexplained Event)
 - 10.2.1. The Infant with EAL (Apparent Life-Threatening Event)
 - 10.2.2. Epidemiology
 - 10.2.3. Risk Factors
 - 10.2.4. Diagnosis and Hospital Management
 - 10.2.5. Hospital Discharge Criteria
- 10.3. Postoperative Care for Pediatric Patients
 - 10.3.1. Illness in Childhood: Psychological Reactions and Attitudes Toward Hospital Admission
 - 10.3.2. Nursing Care During Hospitalization
 - 10.3.2.1. Objectives According to Age
 - 10.3.2.2. Care/Interventions with Parents
 - 10.3.2.3. Care/Interventions in the Environment
 - 10.3.3. Procedures During Hospitalization
 - 10.3.3.1. Vital Sign Measurement by Age, Anthropometric Parameters, and Capillary Measurements
 - 10.3.3.2. Aspiration of Secretions and Foreign Bodies
 - 10.3.3.3. Restraint Techniques
 - 10.3.3.4. Catheters
 - 10.3.3.5. Sample Collection

10.3.3.8. Dressing and Bandaging 10.3.3.9. Pediatric Cardiopulmonary Resuscitation 10.4. Pediatric Patient with Complex Pathology 10.4.1. Needs of the Patient and Family at Diagnosis, Empowerment 10.4.2. Capillary Blood Glucose Monitoring and Continuous Glucose Monitoring (CGM) 10.4.3. Injection Techniques, Rotation Sites 10.4.4. Insulin: Storage and Maintenance 10.4.5. Managing Day-to-Day Life with Diabetes 10.4.5.1. Acute Complications: Management of Hypoglycemia and Hyperglycemia (Symptoms, Prevention, Correction) 10.4.5.2. Diabetes During Illness: Preventing Diabetic Ketoacidosis (DKA) 10.4.5.3. Relationship Between Blood Glucose and Food Carbohydrate Counting (CHO). Glycemic Index. Label Reading 10.4.5.4. Exercise Considerations 10.4.5.5. The Child at School: Necessary Materials 10.5. Nursing Care in Pediatric Hospitalized Patients. Most Common Procedures 10.5.1. Role of the Pediatric Hospitalist in the Surgically Intervened Child and Adolescent 10.5.2. General Postoperative Care 10.5.2.1. Temperature Control 10.5.2.2. Fluids 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. Rest and Early Mobilization 10.5.2.7. Surgical Antibiotic Prophylaxis 10.5.2.8. Postoperative Pain Control 10.6. Management of the Child with Diabetes at Diagnosis. Peculiarities 10.6.1. Chronicity and Complexity: Defining Populations 10.6.2. Special Health Needs 10.6.3. Technology Dependency: Nutritional, Respiratory and Cardiac Support

10.3.3.6. Administration of Medication, Reconstitution, and Dose Calculation

10.3.3.7. Venous Access (VA

10.7. Home Hospitalization 10.7.1. Home Hospitalization 10.7.2. Historical Overview 10.7.3. Eligible 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. Care of the Patient and Family at the End of Life 10.8.2.1. Decision Making 10.8.2.2. Communication with Patients and Families 10.8.3. Palliative Medicine: Treating and Accompanying 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 Abuse in Pediatrics 10.10. Mental Health: Approach to the Pediatric Patient During Hospitalization 10.10.1. The Child and Family Facing Illness and Hospitalization 10.10.2. Chronic Illness 10.10.3. Psychopathology Associated with Physical Pathologies 10 10 4 Delirium 10.10.5. Pain 10.10.6. Psychosomatic Disorders 10.10.7. Suicidal Behavior 10.10.8. Psychopharmacology





tech 30 | Teaching Objectives



General Objectives

- Update knowledge in Hospital Pediatrics to ensure the application of the latest scientific advancements in the diagnosis and treatment of pediatric diseases
- Develop advanced clinical skills in the assessment, management, and follow-up of complex pediatric pathologies within the hospital setting
- Optimize medical decision-making through an evidence-based approach, promoting effective and safe interventions
- Foster teamwork in multidisciplinary settings, improving coordination between professionals from different fields to ensure comprehensive care
- Enhance the management of Pediatric Emergencies, enabling a rapid and effective response to critical situations
- Deepen knowledge in neonatal care and the management of hospitalized newborns, addressing specific pathologies and treatment protocols
- Develop competencies in hospital management, promoting efficient resource administration in Pediatrics
- Integrate digital tools and new technologies to improve the diagnosis, treatment, and monitoring of pediatric patients
- Promote continuous learning and constant updates, ensuring that professionals remain aligned with the latest trends and discoveries
- Encourage research in Hospital Pediatrics, promoting the generation of knowledge and the implementation of innovative strategies in pediatric care





Module 1. Care for Critically III Children Outside Pediatric Intensive Care Units

- Identify signs of severity in pediatric patients outside the PICU
- Apply stabilization protocols and initial management in critical situations

Module 2. Respiratory Diseases in Pediatrics

- Diagnose and manage Acute and Chronic Respiratory Diseases in children
- Implement therapeutic strategies to improve respiratory function in pediatric patients

Module 3. Infectious Diseases in Pediatrics

- Recognize the main etiological agents responsible for infections in childhood
- Interpret diagnostic tests for accurate and timely management

Module 4. Digestive System Diseases in Pediatrics

- Apply diagnostic techniques to assess Gastrointestinal Disorders
- Implement nutritional strategies in patients with Digestive Pathologies

Module 5. Neurological Disorders in Pediatrics

- Diagnose and treat prevalent Neurological Diseases in childhood
- Apply therapeutic strategies in patients with Neurodevelopmental Disorders

Module 6. Cardiac Diseases in Pediatrics

- Identify Congenital and Acquired Heart Diseases in the pediatric population
- Apply therapeutic strategies to improve cardiac function in children

Module 7. Endocrine System, Metabolism and Nutrition in Pediatrics

- Diagnose and treat common Endocrine Disorders in childhood
- Implement nutritional strategies in children with Metabolic Diseases

Module 8. Nephrology and Electrolyte Disorders in Pediatrics

- Diagnose and treat Renal Diseases in childhood
- Evaluate and correct Electrolyte Imbalances in pediatric patients

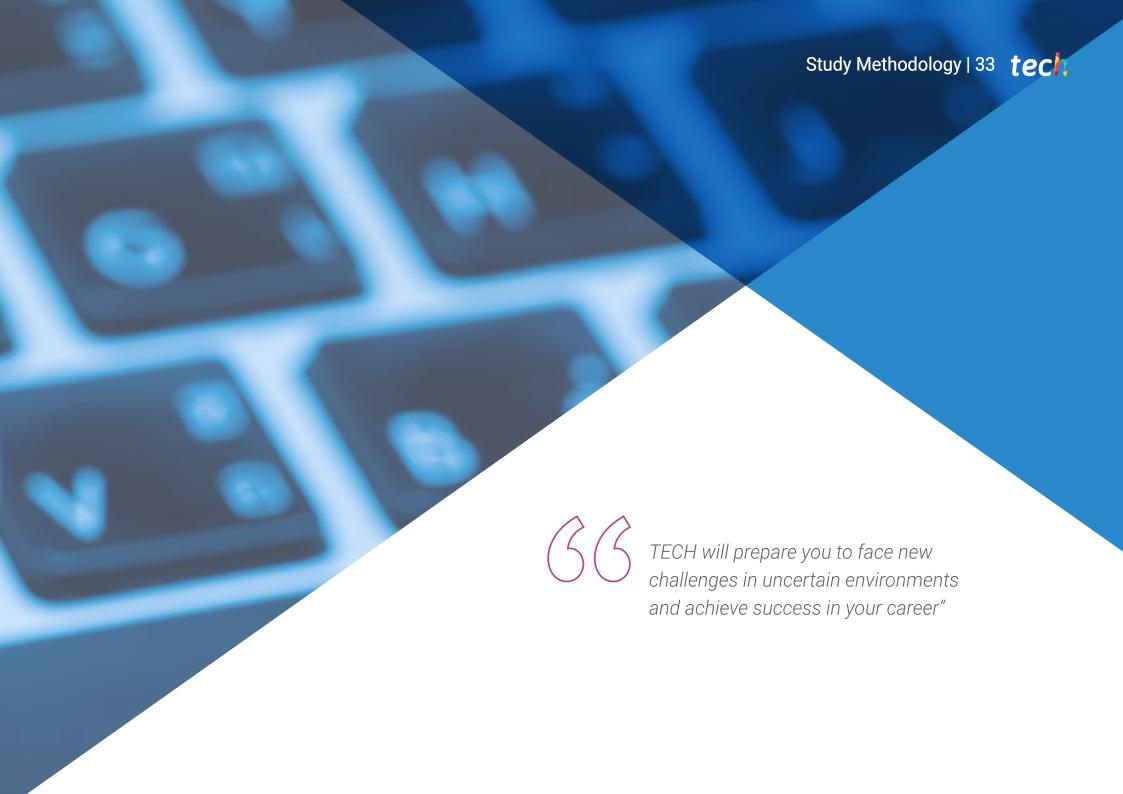
Module 9. Hemato-Oncology in Pediatrics

- Identify the most common Hematological and Oncological Diseases in children
- Apply diagnostic and treatment protocols in pediatric oncology patients

Module 10. Other Pediatric Processes

- Address Autoimmune and Rheumatological Diseases in Pediatrics
- Diagnose and treat common Dermatological Pathologies in children



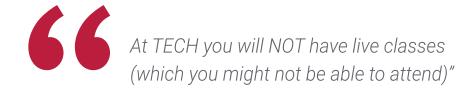


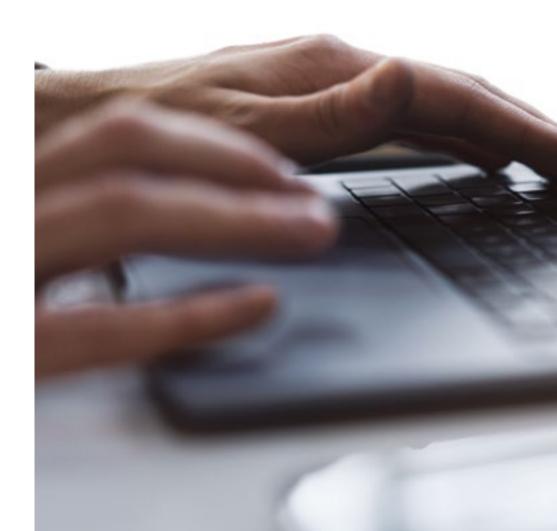
The student: the priority of all TECH programs

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.







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"

tech 36 | Study Methodology

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

The students' assessment of the teaching quality, the quality of the materials, the structure of the program and its objectives is excellent. Not surprisingly, the institution became the top-rated university by its students according to the global score index, 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.



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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

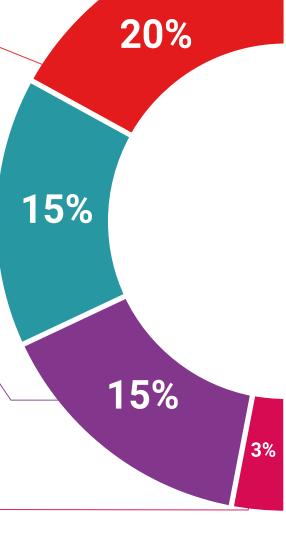
You will carry out activities to develop specific competencies and skills in each thematic field. Exercises and activities to acquire and develop the skills and abilities that a specialist needs to develop within the framework of the globalization we live in.



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.

Study Methodology | 41 tech



Students will complete a selection of the best case studies in the field. Cases that are presented, analyzed, and supervised by the best specialists in the world.



Testing & Retesting

We periodically assess and re-assess your knowledge throughout the program. We do this on 3 of the 4 levels of Miller's Pyramid.



Classes

There is scientific evidence suggesting that observing third-party experts can be useful.





Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical and effective way to help students progress in their learning.





17%

06 Teaching Staff





Train with specialists who have extensive experience in Hospital Pediatrics and various clinical areas, offering a practical and up-to-date view for high-level learning"

tech 44 | Teaching Staff

Management



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
- 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
- Doctor by the Autonomous University of Madrid
- Bachelor's Degree in Medicine and Surgery from 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

Teachers

Dr. Buenache Espartosa, Raquel

- Specialist in Pediatrics and its Specific Areas, with a focus on Pediatric Neurology at the Ramón y Cajal University Hospital
- 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 in Medicine and Surgery from the Autonomous University of Madrid
- Resident Medical Intern Training as a Specialist in Pediatrics and Subspecialization in Pediatric Neurology at the Ramón y Cajal University Hospital

Dr. Blitz Castro, Enrique

- Pediatrician Specialist in the Management of Patients with Cystic Fibrosis
- Pediatric Pulmonologist in the Pediatric Department 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
- Doctorate in Health Sciences, University of Alcala
- 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 Ramón y Cajal University Hospital
- Teaching Collaborator for 4th and 6th year in Medicine at the University of Alcalá
- Seminars in Medicine from the University of Alcalá
- Rotation in the Pediatric Nephrology Department at the 12 de Octubre University Hospital
- 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

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Dr. Toledano Navarro, María

- Pediatric Cardiologist Specialized in Congenital Heart Disorders
- Head of the Familial Heart Disease Clinic and Hemodynamic Specialist at the Ramón y Cajal University Hospital
- Attending Specialist in Pediatric Cardiology at the Ramón y Cajal University Hospital
- PhD in Medicine and Surgery from the Complutense University of Madrid
- Member of: European Society of Cardiology, 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
- Doctor of 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
- Graduate 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 Nutrition 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

Dr. Tabares González, Ana

- 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 Physician at the San Rafael Clinical University Hospital
- 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

Dr. Rekarte García, Saray

- · Specialist in Pediatric Neurology and Neurodevelopment
- Specialist in Pediatrics and Pediatric Neurology at the Ramón y Cajal University Hospital
- Specialist in Pediatrics and Pediatric Neurology at the Infanta Cristina University Hospital
- Specialist in Pediatrics and Pediatric Neurology at the Sanitas La Moraleja University Hospital
- Specialist in Pediatrics and Pediatric Neurology at the Milenium Costa Rica Center of Sanitas
- Bachelor's Degree in Medicine from the University of Oviedo
- Medical Resident Intern in Pediatrics and Specialized Areas at Asturias Central University Hospital
- 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

Dr. Alkadi Fernández, Khusama

- Associate Specialist Physician in Pediatrics Ramón y Cajal University Hospital
- Associate Specialist Physician in Pediatrics Puerta De Hierro Hospital
- Incap Project Puerta de Hierro Majadahonda Health Research Institute
- Doctor of Medicine. Official Doctoral Programme in Medicine. Autonomous University of Madrid
- Bachelor's Degree in Medicine and Surgery. University of Seville
- 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

Dr. Quintero Calcaño, Víctor

- Specialist Pediatric Physician at the Ramón y Cajal University Hospital
- Clinical Fellow of the Department of Hematology at the Birmingham Children's Hospital
- Pediatric Specialist at the Infanta Sofia University Hospital
- Doctor of Medicine from the Autonomous University of Madrid
- Surgeon from the Central University of Venezuela

tech 48 | Teaching Staff

Dr. Armero Pedreira, Paula

- Pediatrician specialized in Palliative Care and Complex Pathology
- Pediatrician in the Pediatric Emergency Department at the Puerta de Hierro Majadahonda University Hospital
- Pediatrician with Labor Activity in the Social Pediatrics Clinic at the San Rafael Hospital
- 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.
- Pediatric Resident with a subspecialization in the Complex Pathology Unit at the La Paz Children's Hospital and the Pediatric 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

Ms. Clemente Linares, Raquel

- 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

Ms. Yelmo Valverde, Rosa

- 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 (Madrid)
- 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 Foundations for the Care and Education of People with Diabetes from the University of Barcelona



Dr. Pando Velasco, María Fuencisla

- 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 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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This private qualification will allow you to obtain a **Professional Master's Degree in Hospital Pediatrics** endorsed by **TECH Global University**, the world's largest online university.

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

Mr./Ms. _______with identification document ______has successfully passed and obtained the title of:

Professional Master's Degree in Hospital Pediatrics

This is a private qualification of 1,800 hours of duration equivalent to 60 ECTs, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana Dean

This pastification must always be scomposed by the university digree issued by the competent subody to practice professionally a sectious professionally as exclusions.

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: Professional Master's Degree in Hospital Pediatrics

Modality: Online

Duration: 12 months.

Accreditation: 60 ECTS



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

health confidence people
education information tutors
guarantee accreditation teaching
institutions technology learning
community commitment



Professional Master's Degree Hospital Pediatrics

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

