

Postgraduate Diploma

Acute and Chronic
Manifestations of Allergic
Disease in Children





Postgraduate Diploma Acute and Chronic Manifestations of Allergic Disease in Children

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

Website: www.techtute.com/us/medicine/postgraduate-diploma/postgraduate-diploma-acute-chronic-manifestations-allergic-disease-children

Index

01

Introduction

p. 4

02

Objectives

p. 8

03

Course Management

p. 12

04

Structure and Content

p. 16

05

Methodology

p. 20

06

Certificate

p. 28

01

Introduction

Allergy in people of different ages can present a wide and varied symptomatological picture, depending on their degree of sensitivity. However, in the case of children and young people, it is necessary to pay special attention and carry out a specialized and specific approach protocol since, on many occasions, these patients are not able to communicate exactly what is happening to them, which can generate confusion in the specialist. For this reason, TECH has considered it necessary to launch a program that brings together, in a single syllabus, the most current considerations in the approach to this type of clinical cases through a 100% online program designed by experts in Pediatrics and Allergology.





“

You will intensively delve into allergic, cutaneous, systemic and respiratory manifestations in children's patients, so that you can expand and update your knowledge in a complete and exhaustive way"

The diagnosis of different types of allergies is part of the daily work of many medical specialists, especially in the field of pediatrics. Children come to your offices with various clinical pictures: irritated eyes, respiratory difficulties, atopic dermatitis and in the most severe cases, anaphylaxis, which end up being identified and treated as allergic to dust, dust mites, a certain food, etc. However, there are occasions on which the manifestation of this pathology does not match the specifications of this immune response, in addition to the patient's inability to communicate what is happening to them. All this may lead to a late or misleading diagnosis.

For this reason, specialists must know in detail and handle the latest scientific advances in terms of protocols for the approach and treatment of these cases, which will allow them to quickly recognize what is happening to the child. Based on this, TECH has considered it necessary to create a qualification that gathers the most current information related to the acute and chronic manifestations of allergic disease in the child and adolescent patient, so that the graduate can get up to date with the most relevant issues in this medical context.

It is a program designed by experts in Pediatrics and Allergology who have created a multidisciplinary and dynamic syllabus, but, above all, adapted to the most demanding requirements of the profession. In addition, its online format and the additional material that you will find in the virtual classroom, give this Postgraduate Diploma a high degree of personalization, being able to adapt the educational experience to your own schedule and the degree of knowledge you wish to acquire.

This **Postgraduate Diploma in Acute and Chronic Manifestations of Allergic Disease in Children** contains the most complete and up-to-date scientific program on the market.

The most important features include:

- ♦ The development of practical cases presented by experts in Pediatrics and Allergology
- ♦ 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 the self-assessment process can be carried out to improve learning
- ♦ Its special emphasis on innovative methodologies
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



Thanks to this Postgraduate Diploma you will be able to get up to date on the factors that influence allergic sensitization and the achievement of tolerance on the triggering cause"

“

It is 450 hours of the best theoretical, practical and additional material, with which you can get a broad and contextualized view of the latest developments in pediatric allergology in a multidisciplinary manner"

The program's teaching staff includes professionals from sector who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

The multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide immersive education programmed to learn in real situations.

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

Delve into the most relevant physical examination findings suggestive of atopy will help you hone your diagnostic skills.

Organize your academic calendar in a personalized way and access the virtual classroom whenever and wherever you want.



02

Objectives

The prevalence of the different types of allergic manifestations in child patients, from infants to adolescents, and their evolution over time, forces pediatric medicine specialists to continuously update their knowledge in order to be able to approach these clinical cases always based on the most accurate and effective recommendations, the results of scientific research. For this reason, the objective of this program is not only to provide the graduate with the best syllabus so that they can update their knowledge during these 6 months, but also to provide them with the educational tools that will facilitate this work in the future.



“

If your goal is to manage perfectly and based on the latest scientific evidence child patients suffering from anaphylaxis, this qualification will give you the keys to act based on current industry recommendations”



General Objectives

- ♦ Provide the graduate with an integral and exhaustive vision of the allergic disease present in the pediatric stage
- ♦ Provide them with all the educational tools that will allow them to update their knowledge in the management of clinical cases of infantile and juvenile patients with different types of allergies
- ♦ Facilitate access to the best theoretical and practical content to improve the approach to the different allergic pathologies, with special emphasis on atopic dermatitis

“

TECH has designed this Postgraduate Diploma with the objective that you will find in it all the tools you need to get up to date in a specific way on the latest developments in your specialty”





Specific Objectives

Module 1. Allergic Disease

- ♦ Gain knowledge about the cells involved in the immune system, and the inflammatory mediators related to allergic diseases
- ♦ Understand the mechanisms of allergen recognition and allergic inflammatory response
- ♦ Know the main primary immunodeficiencies, and be able to suspect them and make a diagnostic orientation
- ♦ Become familiar with the terminology used in allergic pathology
- ♦ Delve into available in vivo and in vitro tests
- ♦ Delve into the mechanisms by which tolerance is achieved

Module 2. Allergic Cutaneous, Systemic and Respiratory Manifestations

- ♦ Delve into the pathophysiology of acute urticaria and angioedema
- ♦ Delve into the most frequent causes of acute urticaria and angioedema in the pediatric age group
- ♦ Analyze the steps of treatment in chronic urticaria
- ♦ Know how to define recurrent angioedema and make a correct differential diagnosis
- ♦ Get to know the most frequent causes of recurrent angioedema in pediatric age
- ♦ Know how to suspect the diagnosis of hereditary angioedema due to C1 inhibitor deficiency and perform a correct screening
- ♦ Gain knowledge about the treatment possibilities in hereditary angioedema due to C1 inhibitor deficiency

- ♦ Early recognition of anaphylaxis
- ♦ Know how to give recommendations to the patient with anaphylaxis
- ♦ Gain knowledge about the manifestations of mastocytosis in the pediatric age.
- ♦ Delve into the pathophysiology of exercise-induced anaphylaxis
- ♦ Know how to recognize this condition, its possible causes, and give appropriate recommendations appropriate recommendations

Module 3. Atopic Dermatitis

- ♦ Be able to make a diagnosis of atopic dermatitis
- ♦ Delve into clinical forms throughout the lifespan
- ♦ Learn about the available scales for severity assessment
- ♦ Perform health education advice for the care of atopic skin
- ♦ Delve into the possible complications of atopic dermatitis and its treatment
- ♦ Become familiar with the different drugs and routes of administration used in atopic dermatitis

03

Course Management

TECH values greatly that the teachers who offer their candidacy to be part of the faculty of qualifications such as this one are active, so that, in this way, they can contribute in addition to the syllabus a realistic and current vision of the context in which their profession is developed. For this reason, the team of this Postgraduate Diploma is made up of a group of specialists in Pediatric Medicine and Allergology with a long career in the sector, professionals committed to their work and to the formation of specialists who are increasingly prepared to take on the challenges of the practice.





“

Another of the opportunities that TECH offers you is the opportunity to recycle yourself with experts in the field of Pediatric Medicine and Allergology"

Management



Dr. Troyano Rivas, Carmen

- ♦ Assistant Physician of the Pediatrics Department in the Pulmonology and Pediatric Allergy Section of the 12 de Octubre University Hospital
- ♦ Collaborating Professor at the Complutense University of Madrid
- ♦ Degree in Medicine from the Complutense University of Madrid
- ♦ MIR Specialist in Pediatrics and its specific areas at the La Fe University Hospital, Valencia

Professors

Dr. Morales Tirado, Ana

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



Dr. Canals Candela, Francisco José

- ♦ Associate Professor of Pediatrics at the Miguel Hernández d'Elx University
- ♦ Specialist in Pediatrics and Head of the Pediatric Allergology Clinic at the General University Hospital of Elche
- ♦ Specialist in Pediatrics at the ASISA Elche Medical Center
- ♦ Specialist in Pediatrics at the Denia Hospital and the General University Hospital of Elda
- ♦ Doctorate in Medicine from the University of Murcia
- ♦ Degree in Medicine in the University of Miguel Hernández de Elche
- ♦ Specialist in Pediatrics and its specific areas at the Elche General University

Dr. Valderrama Arnay, Sara

- ♦ Specialist in Pediatric Allergy and Pulmonology at the Móstoles University Hospital.
- ♦ Honorary Tutor at Rey Juan Carlos University
- ♦ Degree in Medicine from the Complutense University of Madrid
- ♦ Specialty in Pediatric Allergy and Pulmonology at the 12 de Octubre University Hospital

04

Structure and Content

Thanks to the pedagogical methodology that this university has used in the design of the content of this Postgraduate Diploma, its teaching load has been considerably reduced, without renouncing, of course, to the quality and completeness of its syllabus. As it is presented in a multidisciplinary way, it is possible to replace the long and tedious hours of study with additional material in audiovisual format, making it dynamic and entertaining and favoring an effective and exhaustive updating of knowledge.





“

TECH guarantees that you will be able to implement the latest advances in the treatment of atopic dermatitis in your professional practice, even before finishing this Postgraduate Diploma”

Module 1. Allergic Disease

- 1.1. Epidemiology
 - 1.1.1. Prevalence of Allergic Disease
 - 1.1.2. Genetic, Epigenetics and Environmental Factors
- 1.2. Immune System Development
 - 1.2.1. Fetal Immunity
 - 1.2.2. Immune System Maturation
- 1.3. Inborn Errors of the Immune System
 - 1.3.1. Main Primary Immunodeficiencies
 - 1.3.2. Warning Signs
 - 1.3.3. Allergic Manifestations
 - 1.3.4. Diagnostic Approximation
 - 1.3.5. Treatment
- 1.4. Allergic Sensitization
 - 1.4.1. Cells Involved
 - 1.4.2. Inflammatory Mediators
 - 1.4.3. Sensitization Pathways
- 1.5. Tolerance Mechanisms
 - 1.5.1. Factors Influencing the Achievement of Tolerance
 - 1.5.2. Immunological Basis
- 1.6. Atopic Gait
- 1.7. General Evaluation of the Allergic Patient
 - 1.7.1. General Medical Records
 - 1.7.2. Findings on Physical Examination Suggestive of Atopy
 - 1.7.3. General Notions of Diagnostic Tests in Allergy
- 1.8. Terminology
 - 1.8.1. Allergy. Sensitization
 - 1.8.2. Allergenic Source. Allergens. Cross-Reactivity
- 1.9. Molecular Diagnoses
 - 1.9.1. Current Indications and Limitations
 - 1.9.2. Approach to Molecular Diagnostics
 - 1.9.3. Most Relevant Allergen Families
- 1.10. Respiratory Function Tests in Children
 - 1.10.1. Spirometry and Bronchodilation Test
 - 1.10.2. Bronchial Provocation Tests
 - 1.10.3. Tests for Measuring Eosinophilic Inflammation
 - 1.10.4. Others Diagnostic Methods

Module 2. Allergic Cutaneous, Systemic and Respiratory Manifestations

- 2.1. Acute Urticaria
 - 2.1.1. Pathophysiology
 - 2.1.2. Frequent Etiology in the Child
 - 2.1.3. Anamnesis and Physical Examination
 - 2.1.4. The Role of Antihistamines in the Treatment of Acute Urticaria
- 2.2. Chronic Urticaria
 - 2.2.1. Etiopathogenesis
 - 2.2.2. Classification
 - 2.2.3. Diagnosis
 - 2.2.4. Treatment
- 2.3. Acute Angioedema
 - 2.3.1. Pathophysiology
 - 2.3.2. Frequent Etiology in the Child
 - 2.3.3. Anamnesis and Physical Examination
 - 2.3.4. Treatment
- 2.4. Recurrent Angioedema
 - 2.4.1. Etiopathogenesis
 - 2.4.2. Classification
 - 2.4.3. Diagnosis
 - 2.4.4. Treatment
- 2.5. Angioedema due to C1 Inhibitor Deficiency
 - 2.5.1. Etiopathogenesis
 - 2.5.2. Classification
 - 2.5.3. Diagnosis
 - 2.5.4. Treatment
- 2.6. Anaphylaxis
 - 2.6.1. Pathophysiology
 - 2.6.2. Etiology
 - 2.6.3. Treatment
 - 2.6.4. Prevention
- 2.7. Idiopathic Anaphylaxis
 - 2.7.1. Differential Diagnosis

- 2.7.2. Diagnosis
- 2.7.3. Treatment
- 2.8. Exercise-Induced Anaphylaxis
 - 2.8.1. Etiopathogenesis
 - 2.8.2. Classification
 - 2.8.3. Diagnosis
 - 2.8.4. Treatment
- 2.9. Mastocytosis in Children
 - 2.9.1. Prevalence
 - 2.9.2. Mastocytoma
 - 2.9.3. Urticaria Pigmentosa
 - 2.9.4. Diagnosis and Monitoring
 - 2.9.5. Treatment
- 2.10. Treatment of Asthma Attack
 - 2.10.1. Severity Assessment
 - 2.10.2. Treatment Algorithm
 - 2.10.3. Response Assessment and Discharge Recommendations

Module 3. Atopic Dermatitis

- 3.1. Etiopathogenesis
 - 3.1.1. Predisposing Factors
 - 3.1.2. Skin Barrier Dysfunction
 - 3.1.3. Immunological Alterations
- 3.2. Diagnosis
 - 3.2.1. Clinical Diagnosis
 - 3.2.2. Severity Assessment
 - 3.2.3. Differential Diagnosis
- 3.3. Complications of Atopic Dermatitis
 - 3.3.1. Infectious
 - 3.3.2. Non-Infectious
- 3.4. General Guidelines for Atopic Skin Care
 - 3.4.1. Hygiene
 - 3.4.2. Feeding
 - 3.4.3. Dresses and Clothing
 - 3.4.4. Environmental Guidelines

- 3.5. Treatment Objectives
 - 3.5.1. Treatment of the Inflammation
 - 3.5.2. Itching Control
 - 3.5.3. Restoration of the Skin Barrier
- 3.6. Topical Drugs
 - 3.6.1. Emollients
 - 3.6.2. Topical corticosteroids
 - 3.6.3. Use of Topical Immunomodulators
- 3.7. Systemic Treatment
 - 3.7.1. Antihistamines
 - 3.7.2. Systemic Corticoids
 - 3.7.3. Systemic Immunomodulators
 - 3.7.4. Biological Drugs
- 3.8. Treatment of Infectious Complications
 - 3.8.1. Infections of Viral Etiology
 - 3.8.2. Infections of Bacterial Etiology
- 3.9. When and How to Assess Food Allergy as a Cause of Atopic Dermatitis?
- 3.10. Contact Dermatitis



The teaching team has actively participated in the development of this qualification, so the syllabus of this Postgraduate Diploma will be based on the immediate reality of the pediatric sector and the management of allergic patients"

05

Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning**.

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.



“

Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"

At TECH we use the Case Method

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

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



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

“

Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method”

The effectiveness of the method is justified by four fundamental achievements:

1. Students who follow this method not only achieve the assimilation of concepts, but also a development of their mental capacity, through exercises that evaluate real situations and the application of knowledge.
2. Learning is solidly translated into practical skills that allow the student to better integrate into the real world.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine the study of clinical cases with a 100% online learning system based on repetition, combining a minimum of 8 different elements in each lesson, a real revolution with respect to the mere study and analysis of cases.

Professionals will learn through real cases and by resolving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.



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

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

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

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

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



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



Study Material

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

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



Surgical Techniques and Procedures on Video

TECH introduces students to the latest techniques, the latest educational advances and to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch the videos as many times as you like.



Interactive Summaries

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

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



Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



Classes

There is scientific evidence on the usefulness of learning by observing experts. The system known as Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



Quick Action Guides

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



06

Certificate

The Postgraduate Diploma in Acute and Chronic Manifestations of Allergic Disease in Children guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Technological University.



“

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

This **Postgraduate Diploma in Acute and Chronic Manifestations of Allergic Disease in Children** contains the most complete and up-to-date scientific program on the market.

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

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

Title: **Postgraduate Diploma in Acute and Chronic Manifestations of Allergic Disease in Children**

Official N° of Hours: **450 h.**



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



Postgraduate Diploma
Acute and Chronic
Manifestations of Allergic
Disease in Children

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

Postgraduate Diploma

Acute and Chronic
Manifestations of Allergic
Disease in Children

