

Internship Program

Pediatric Infectious Diseases



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01 Introduction

Infectious diseases account for more than 60 percent of pediatric care visits. Therefore, research in this area, with the aim of finding new methods of diagnosis and treatment, is constant. In particular, this medical area has benefited from the implementation of complementary techniques such as ultrasound scans and complex laboratory tests. This constant evolution makes it difficult for pediatricians to keep up to date and, moreover, they do not have pedagogical programs that provide in-depth knowledge of the practical applications of these resources and tools. For this reason, TECH has designed an intensive 3-week stay, where the specialist will be updated on the latest trends and protocols for the care of children and adolescents with this type of pathology.



With this program, you will master the up-to-date management of methods and technologies for the diagnosis of complex infectious diseases in childhood and adolescence"





The diagnostic basis and treatment of pediatric infectious diseases have evolved considerably in recent years. Scientific research and the scope of new technologies have led to the development of much more complex and comprehensive interventional protocols. Paradoxically, medical professionals do not find enough pedagogical programs that provide in-depth updates on this subject, much less with a practical approach. For this reason, TECH has devised a unique study modality that will guarantee the specialist the most recent knowledge related to this area of the healthcare field.

In this way, this Internship Program will consist of a face-to-face and intensive stay in a hospital of the highest level. From that instance, the pediatrician will develop competencies and procedures related to the latest laboratory techniques and tools for the diagnosis of Pediatric Infections. It will also examine the daily application of prophylactic and protective care of the child against different infectious pathologies. On the other hand, it will analyze the most frequent febrile syndromes and exanthemias in children and adolescents and the most effective ways to treat them.

The professional will be inserted, for 3 weeks, in a highly prestigious medical institution. At this institution, you will exchange directly with leading experts and acquire the most sought-after skills in the field. On the other hand, you will have a tutor who will monitor your progress on a personalized basis. In addition, they will have access to the most innovative technologies to detect bacterial, viral and more complex pathologies.

02

Why Study an Internship Program?

Pediatric Infectious Diseases has evolved steadily over the last decades based on wide-ranging scientific research. For this reason, this health area is in constant renewal and its professionals need to be updated, especially in the practical handling of advanced techniques and equipment. With this TECH program, the pediatrician will find all these facilities and, at the same time, will have access to a prestigious international medical institution for 3 weeks of intensive learning.



Learn through real intervention on patients with the most complete and advanced program, technologically and medically and with a team with proven experience".

1. Updating from the latest technology available

Thanks to this program of studies, the pediatrician will be updated on the latest techniques and technologies to provide comprehensive medical care to the patient with infectious diseases. At the same time, the most relevant diagnostic tests used today in this healthcare field will be updated.

2. Gaining In-Depth Knowledge from the Experience of Top Specialists

During this Internship Program, the professional will be accompanied by a designated tutor. This faculty member will be in charge of supervising your academic progress and providing you with a dynamic insertion into the healthcare routines of the hospital center where you will spend your on-site stay. In addition, you will be able to exchange your questions with other experts from that institution.

3. Entering First-Class Clinical Environments

Under meticulous selection parameters, TECH has chosen the healthcare institutions that are part of its Internship Program in Pediatric Infectious Diseases. These centers have the most up-to-date technological resources available at the moment, as well as the most distinguished specialists who will help the pediatrician to put each of them into practice through the direct attention of real cases.



4. Putting the acquired knowledge into daily practice from the very first moment

Educational programs of a practical nature in the field of Pediatric Infectious Diseases are rare in the educational market. For this reason, TECH has set aside the deeper theoretical considerations about this sector and has composed a program of excellence 100% face-to-face and intensive, which will update the doctor on the latest developments in this health area.

5. Expanding the Boundaries of Knowledge

TECH has a wide network of agreements and contacts that help you choose, for this Internship Program, the most competitive institutions on the international scene. In this way, the pediatrician will be able to complete this practical stay in centers located in distant geographic latitudes under his or her preference and master the advances of the specialty under international criteria.



You will have full practical immersion at the center of your choice"

03 Objectives

The objective of this Internship Program in Pediatric Infectious Diseases is for the professional to update the diagnostic and therapeutic procedures of the specialty in an exclusively practical way, through a hospital stay designed with clinical and academic rigor, under the guidance of renowned professionals in a hospital center of the highest scientific quality and technological innovation.



General Objectives

- Know the current epidemiology of different infectious diseases with higher incidence in children and adolescents, as well as their behavior in the last decades
- Define the fundamentals, indications, limitations and cost-effectiveness of rapid virus identification methods and their use in daily practice
- Master different technologies that enable the diagnosis and treatment of infectious diseases in childhood and adolescence





Specific Objectives

- ♦ Identify the epidemiological situation of bacterial meningitis and tuberculosis, as well as resistance to their treatment
- ♦ Manage the role of fever associated with infection and antipyretic therapy, as well as immune system alterations that contribute to vulnerability to infection
- ♦ Explain the new methods used in blood culture and manage the sample processing technique with the proper interpretation of an antibiogram
- ♦ Master the risk factors, microorganisms and prevention of infection in neonatology, as well as the main congenital infections
- ♦ Practice the algorithms of action against infection in the neonatal period as well as early and late sepsis
- ♦ Analyze the different complementary explorations to be used cost-effectively in community-acquired infections
- ♦ Describe the clinical manifestations of diseases affecting the skin and soft tissues
- ♦ Describe the management of central nervous system infections and the differential diagnosis with autoimmune encephalitis
- ♦ Define the procedure for exploratory and preventive actions for renal or urinary malformations, as well as vesicoureteral reflux in urinary tract infections
- ♦ Know the up-to-date diagnostic criteria for viral hepatitis and their current treatment
- ♦ Discern the use of antibacterial treatments in surgical pathology
- ♦ Describe how to deal with immunosuppressed, hemato-oncologic, transplanted, neutropenic, cystic fibrosis, splenic or major burns patients
- ♦ Manage the management of vertically transmitted or adolescent HIV infection
- ♦ Manage the main groups of antibacterials, antivirals and antifungals with their innovations and the judicious and rational way of drug choice
- ♦ Describe the current use of vaccines, doses, intervals, side effects, responses to anti-vaccine movements



Throughout your stay you will learn about a wide range of infectious pathologies, acquiring the most updated ways of working in this field"

04 Educational Plan

This Internship Program in Pediatric Infectious Diseases consists of a 3-week stay, from Monday to Friday, with 8 consecutive hours of practical training with an attending specialist. Through it, the physician will see real patients, alongside a team of specialists of reference in that area, applying the most innovative diagnostic procedures and planning the latest generation of therapy for each pathology.

In this training proposal, completely practical in nature, the activities are aimed at developing and perfecting the competencies necessary for the provision of health care in areas and conditions that require a high level of qualification, and which are oriented towards specific training for the exercise of the activity, in an environment of patient safety and high professional performance.

The practical education will be carried out with the active participation of the student performing the activities and procedures of each area of competence (learning to learn and learning to do), with the accompaniment and guidance of the professors and other training partners that facilitate teamwork and multidisciplinary integration as transversal competencies for the practice of the medical (learning to be and learning to relate).

The procedures described below will form the basis of the practical part of the training, and their completion is subject to both the suitability of the patients and the availability of the center and its workload, with the proposed activities being as follows:



| Module | Practical Activity |
|---|---|
| Laboratory techniques and tools for the diagnosis of pediatric infections. | Properly apply the collection of oral and other excreta samples. |
| | Indicate antibiogram for pediatric patients suspected of having infectious diseases. |
| | Perform skin and other soft tissue biopsies that may indicate the source of an infectious disease. |
| | Use ultrasound and other imaging techniques to measure the extent of an infectious disease within the body and verify the pathology |
| | Properly interpret microbiological reports and other results obtained from the application of laboratory techniques. |
| Ocular, cutaneous, soft tissue and skeletal system infections in children and adolescents, soft tissue and skeletal system infections in children and adolescents. | Implement surgical interventions in severe and chronic cases of dacryocystitis. |
| | Diagnose pre- and postseptal orbital cellulitis by complete blood count, blood culture or culture of pharyngeal exudate. |
| | Indicate therapeutic protocols for pediatric patients with lymphangitis, including the use of oral and intravenous antibiotics, analgesics and anti-inflammatory drugs. |
| | Apply magnetic resonance imaging studies to recognize osteomyelitis and arthritis. |
| Prophylactic and protective care of the child against Pediatric Infections | Apply protocols for hospital control of current multiresistant microorganisms. |
| | Implement current isolation protocols in pediatric hospital care. |
| | Adequate antibiotic prophylaxis in children and adolescents, with emphasis on transplant recipients and patients treated for atypical hemolytic uremic syndrome. |
| | Structure, according to current criteria, the vaccination schedule from the neonatal period to adolescence of a pediatric patient. |

| Module | Practical Activity |
|---|--|
| Gastrointestinal and Urinary Tract Infections and STDs | Activate protocols for diagnosis and treatment of diarrhea in traveling children |
| | Indicate the collection of blood samples from children and adolescents suspected of having contracted any type of Hepatitis (A, B, C and E). |
| | Perform surgery to remove parts of the colon affected by Clostridium difficile in pediatrics. |
| | Using radionuclide cystography to diagnose urinary tract infection in children and adolescents. |
| | Implement antiretrovirals in pediatrics, especially in children suspected of having HIV. |
| Febrile syndromes and exanthemias | Perform specific PCR test for leishmania, coronavirus and other infectious diseases. |
| | Use indirect immunofluorescent antibody test for recurrent and periodic febrile outbreaks. |
| | Indicate Gram staining of skin lesions, pleural fluid and stool of the child and adolescent suspected of bacterial infectious disease. |
| | Apply serology for brucellosis and other infections of bacterial and viral origin in children and adolescents. |



Train in an institution that can offer you all these possibilities, with an innovative academic program and a human team capable of developing you to the maximum"

05 Where Can I Do the Internship Program?

TECH aims to offer pediatricians a unique classroom environment to update their practical skills. Therefore, this training will take place in state-of-the-art hospital centers where the most recent technological innovation for the diagnosis of pediatric infectious diseases converge with the most distinguished professionals in this area. So, during 3 weeks, the specialist will learn the latest procedures and how to apply them in a holistic manner in their daily work practice.



Get up to date, from a broad, modern and updated look at the medical vanguard of this specialty, in a first class medical center on an international scale"





The student will be able to do this program at the following centers:



Hospital HM Sanchinarro

| | |
|---------|--------|
| Country | City |
| Spain | Madrid |

Address: Calle de Oña, 10, 28050, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

Related internship programs:

- Anaesthesiology and Resuscitation
- Palliative Care



Policlínico HM Sanchinarro

| | |
|---------|--------|
| Country | City |
| Spain | Madrid |

Address: Av. de Manteras, 10,
28050, Madrid

Network of private clinics, hospitals and specialized centers distributed throughout Spain.

Related internship programs:

- Gynecological Care for Midwives
- Nursing in the Digestive Tract Department

06

General Conditions

Civil Liability Insurance

This institution's main concern is to guarantee the safety of the trainees and other collaborating agents involved in the internship process at the company. Among the measures dedicated to achieve this is the response to any incident that may occur during the entire teaching-learning process.

To this end, this educational entity undertakes to take out civil liability insurance to cover any eventuality that may arise during the stay at the internship center.

This liability policy for interns will have broad coverage and will be taken out prior to the start of the practical training period. In this way, the professional will not have to worry in case they have to face an unexpected situation and will be covered until the end of the practical program at the center.



General Conditions of the Internship Program

The general terms and conditions of the internship agreement for the program are as follows:

1. TUTOR: During the Internship Program, students will be assigned two tutors who will accompany them throughout the process, answering any doubts and questions that may arise. On the one hand, there will be a professional tutor belonging to the internship center who will have the purpose of guiding and supporting the student at all times. On the other hand, they will also be assigned an academic tutor, whose mission will be to coordinate and help the students during the whole process, solving doubts and facilitating everything they may need. In this way, the student will be accompanied and will be able to discuss any doubts that may arise, both clinical and academic.

2. DURATION: The internship program will have a duration of three continuous weeks, in 8-hour days, 5 days a week. The days of attendance and the schedule will be the responsibility of the center and the professional will be informed well in advance so that they can make the appropriate arrangements.

3. ABSENCE: If the student does not show up on the start date of the Internship Program, they will lose the right to it, without the possibility of reimbursement or change of dates. Absence for more than two days from the internship, without justification or a medical reason, will result in the professional's withdrawal from the internship, therefore, automatic termination of the internship. Any problems that may arise during the course of the internship must be urgently reported to the academic tutor.

4. CERTIFICATION: Professionals who pass the Internship Program will receive a certificate accrediting their stay at the center.

5. EMPLOYMENT RELATIONSHIP: The Internship Program shall not constitute an employment relationship of any kind.

6. PRIOR STUDIES Some centers may require a certificate of previous studies for the Internship Program. In these cases, it will be necessary to submit it to the TECH internship department so that the assignment of the chosen center can be confirmed.

7. DOES NOT INCLUDE: The Internship Program will not include any element not described in the present conditions. Therefore, it does not include accommodation, transportation to the city where the internship takes place, visas or any other items not listed

However, students may consult with their academic tutor for any questions or recommendations in this regard. The academic tutor will provide the student with all the necessary information to facilitate the procedures in any case.

07 Certificate

This **Internship Program in Pediatric Infectious Diseases** contains the most comprehensive and up-to-date program in the professional and academic landscape.

After the student has passed the assessments, they will receive their corresponding Internship Program Certificate issued by TECH Technological University via tracked delivery.

The diploma issued by TECH will state the score obtained in the test.

Program: **Internship Program in Pediatric Infectious Diseases**

Duration: **3 weeks**

Attendance: **Monday to Friday, shifts of 8 consecutive hours**

Total Hours: **120 h. of professional practice**



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