

Hybrid Master's Degree

Infectious Diseases in the Emergency Department



Hybrid Master's Degree Infectious Diseases in the Emergency Department

Modality: Hybrid (Online + Clinical Internship)

Duration: 12 months

Certificate: TECH Global University

60 + 5 créditos ECTS

Website: www.techitute.com/us/medicine/hybrid-master-degree/hybrid-master-degree-infectious-diseases-emergency-department

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01

Introduction

Infectious diseases are one of the great challenges for emergency professionals, who need an up-to-date knowledge of them in order to be able to make an adequate differential diagnosis in the first patient-physician contact. In addition, in a globalized world, the speed of contagion of viral infections has increased, which implies the activation of complex healthcare protocols. Given this scenario, it is necessary for specialists to be aware of the latest procedures and treatments in this type of pathologies. For this reason, TECH has created this program that, on the one hand, provides the necessary knowledge and skills for the development of a new approach to the treatment of viral infections. In this way, they will learn in a participative and dynamic way the latest developments in Public Health and the use of Antimicrobial, among other issues.





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With this Hybrid Master's Degree you will be up-to-date with the most effective diagnostic processes in Infectious Diseases in the Emergency Department”

The pandemic caused by Sars-CoV-2 has highlighted to the population the relevance of the role of healthcare professionals, especially those who have the first contact with the patient in the Emergency Department. In addition to making visible the risk posed by infectious diseases. Specifically, those with a high contagious capacity.

A new scenario that requires an update of their skills to establish more accurate diagnoses and appropriate treatments according to the clinical characteristics of the patient. For this reason, TECH has created a Hybrid Master's Degree that delves into the main diagnostic and therapeutic developments of infectious diseases, through an advanced syllabus and a 3-week internship in a reference hospital center.

In this way, the professional will be able to update on the approach to the patient with febrile symptoms in the Emergency Department, the pediatric patient in this department, epidemiology, as well as the different existing bacterial, viral, fungal, mycobacterial and parasitic infections. All this, with multimedia teaching material that can be accessed at any time of the day, from an electronic device with an Internet connection.

In addition, in its aim to offer the specialist the most direct and real update possible, this institution offers the possibility of being able to perform an internship in a relevant health space, where throughout 120 hours the professional will be guided by a real expert in the management of infectious diseases.

Therefore, TECH has designed a Hybrid Master's Degree for and by professionals who wish to obtain an update, without neglecting other areas of their lives and at the same time enter a first-class clinical environment, surrounded by the best experts in Infectious Diseases in the Emergency Department.

This **Hybrid Master's Degree in Infectious Diseases in the Emergency Department** contains the most complete and up-to-date scientific program on the market. The most important features include:

- More than 100 clinical cases presented by medical professionals specialized in emergency care
- 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
- Critical patient assessment, the latest international recommendations on infectious disease control and protocol
- Comprehensive systematized action plans for the main infectious diseases
- Presentation of practical workshops on diagnostic and therapeutic techniques in patients affected by infectious diseases
- An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course
- Practical clinical guides on approaching different pathologies
- With a special emphasis on evidence-based medicine and research methodologies in Infectious Diseases
- All this will be complemented by 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
- Furthermore, they will be able to carry out a clinical internship in one of the best hospitals

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Include in your skills the latest news on the approach to bacterial meningitis and health protocols for action”

This Master's program, which has a professionalizing nature and a hybrid learning modality, is aimed at updating medical professionals who perform their functions in Emergency Department, and who require a high level of qualification. The contents are based on the latest scientific evidence, and oriented in a educational way to integrate theoretical knowledge in the medical practice, and the theoretical-practical elements will facilitate the updating of knowledge and allow decision-making in patient management.

The multimedia content developed with the latest educational technology will provide the medical professional with situated and contextual learning, i.e., a simulated environment that will provide an immersive education program 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, students will be assisted by an innovative interactive video system created by renowned and experienced experts.

This program allows you to complete a 3-week internship in a first-class hospital center in the Emergency Department.

Update your knowledge in a dynamic and direct way with this Hybrid Master's Degree in Infectious Diseases in the Emergency Department.



02

Why Study this Hybrid Master's Degree?

Hospital emergency departments are increasingly seeing patients with infectious diseases. That is why the professional who performs their functions in this area must be aware of the latest developments in diagnostic techniques and the appropriate approach. A reality that forces specialists not only to have a deep knowledge, but also to apply it directly and effectively in their daily practice. For this reason, TECH has created this disruptive program that combines the most recent update on coronavirus infections, emerging pathologies and treatments with a clinical internship in a leading clinical center.



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*Surround yourself with the best
emergency medical professionals and
update your knowledge with them”*

1. Updating from the latest technology available

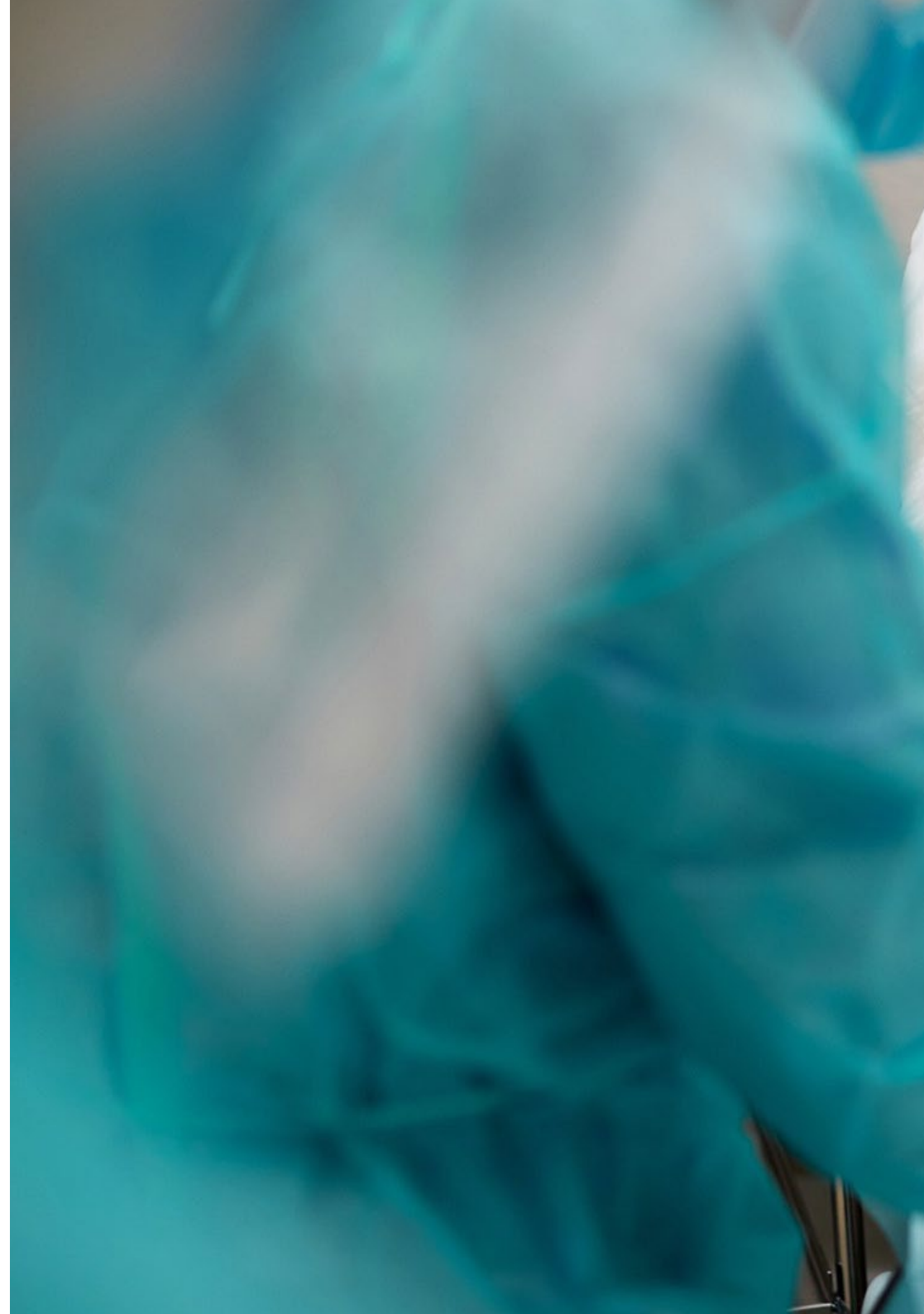
The improvement of sampling devices, as well as the improvement of equipment for the analysis of infectious diseases lead medical professionals to be aware of them in order to offer the best diagnosis and treatment. This is why TECH brings the specialist in this program closer to the most sophisticated and emerging technologies in this field through advanced content and an internship in a hospital center to use the most innovative devices in their day-to-day work.

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

During the development of this Hybrid Master's Degree, the professional will be accompanied by the best specialists in the approach of Infectious Diseases in the Emergency Department. Therefore, firstly, they will have access to a teaching staff with extensive experience in this field, and secondly, they will be tutored on a daily basis by a first level expert, who is part of the *staff* where they will carry out the internship.

3. Entering First-Class Clinical Environments

TECH's philosophy is based on providing professionals with the most rigorous and up-to-date scientific information on their specialty. For this purpose, it carries out a careful selection of all the teachers who teach the program, as well as the centers available for the internship period. In this way, they will be able to see how intensive and precise work is in the care of patients with Infectious Diseases in the Emergency Department, always applying the latest theses and advances in work methodology.





4. Combining the Best Theory with State-of-the-Art Practice

This academic institution has developed a program that meets the real needs of professionals who require not only an update of their knowledge through a theoretical framework with flexible access, but also practice with real patients. That is why this program offers a new updating model based on the combination of 100% online theory and 100% on-site practice. And all this in just 12 months.

5. Expanding the Boundaries of Knowledge

The medical professional who attends this program will be able to expand their frontiers by being able to get an update with the best specialists in Infectious Diseases in the Emergency Department. Professionals who have practiced in first class hospitals and from whom they will be able to learn *in situ*, how the most innovative procedures are used and integrate them into their daily practice.

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

03 Objectives

The design of this Hybrid Master's Degree will allow the medical professional to achieve after 1,620 hours, the update they are looking for on the management of patients with Infectious Diseases in the Emergency Department. To achieve this goal, TECH provides the physician not only with the most advanced theoretical content, but also with a first class teaching staff in this field and a clinical center, which is among the best in the field of in the detection of these infectious pathologies and in their approach.



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*This program will take you through
1,620 hours of the latest developments
in Bacterial, Viral, Fungal, Mycobacterial
and Parasitic Infections”*

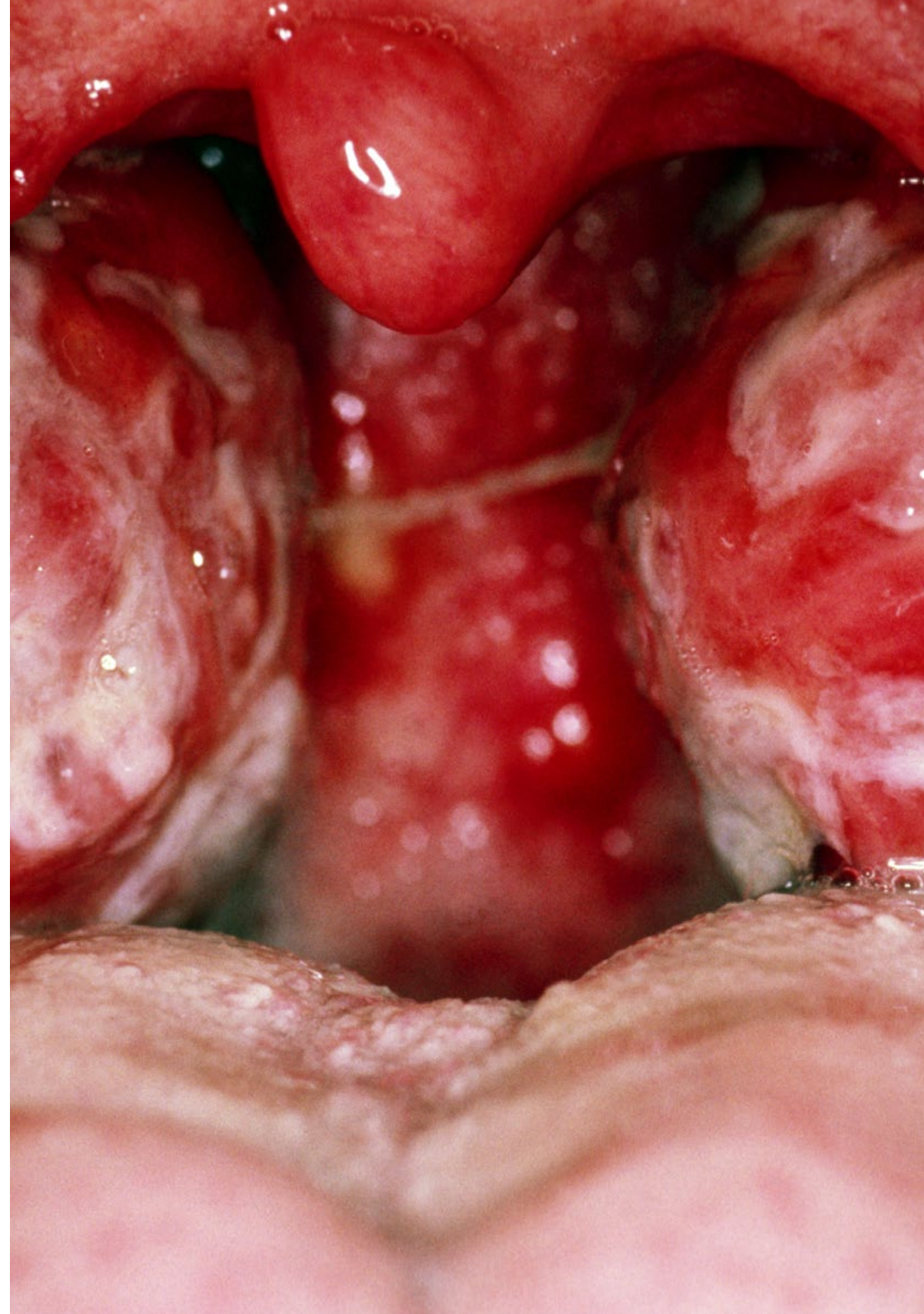


General Objective

- The general objective of the Hybrid Master's Degree in Infectious Diseases in the Emergency Department is to ensure that professionals update their knowledge on the care of various infectious diseases. For this purpose, TECH provides the most innovative teaching tools, which can be accessed from any computer, tablet or cell phone with an Internet connection and, in addition, at any time of the day. This makes it easier for the specialist to balance his or her most demanding responsibilities with a program that is at the forefront of the academic panorama



You will get to be up-to-date on the microbiological characteristics of coronaviruses and the most accurate treatments in patients with a history of respiratory diseases"





Specific Objectives

Module 1. Update on Infectious Diseases

- ♦ Define virulence factors and toxins
- ♦ Identify the main human pathogens in our environment
- ♦ Explain the different current scenarios of infection in the Emergency Department
- ♦ Describe the etiopathogenic profiles of bacterial infections
- ♦ Identify the etiopathogenic profiles of viral infections
- ♦ Analyze the etiopathogenic profiles of fungal infections
- ♦ Describe the etiopathogenic profiles of microbacterial infections
- ♦ Detail the etiopathogenic profiles of parasitic infections

Module 2. The Microbiology Laboratory in the Emergency Department

- ♦ Explain the process of collecting specimens
- ♦ Define which specimens are most commonly requested in the Emergency Department
- ♦ Detail the collection of specimens in patients with devices
- ♦ Describe the management of specimens in the laboratory
- ♦ Explain the clinical significance of bacterial resistance
- ♦ Define the techniques available for emergency diagnoses
- ♦ Describe the interpretation of preliminary results
- ♦ Interpret the analytical analysis of different types of samples
- ♦ Define the procedures in hospitals without on-call microbiologists
- ♦ Explain the Diagnostic Techniques that can possibly be performed in the Emergency Department Laboratory

Module 3. Public Health and Infectious Disease in the Emergency Room

- ♦ Describe the action protocols in cases of specific exposure
- ♦ Mostrar los protocolos de aislamiento establecidos
- ♦ Explain the current indications of exclusion or isolation
- ♦ Describe notifiable diseases
- ♦ Detail the procedure for emergency declaration to Public Health
- ♦ Describe the action protocol for epidemiological outbreaks
- ♦ Delve into the Imported Pathology as well as Pathology with High Contagious Capacity
- ♦ Describe the Seasonal Epidemiological Parameters in the most common infections in the community
- ♦ Explain epidemic outbreaks and common sources with punctual, continuous, propagative and mixed exposure
- ♦ Define the post-exposure prophylaxis that is initiated in the emergency department
- ♦ Indicate the process to follow in the case of Bacterial Meningitis
- ♦ Discern the process to follow in the case of HIV Infection
- ♦ Delve deeper into the process to follow in the case of Sexual Assault
- ♦ Describe the process to follow in the case of Rabies

Module 4. Systemic Febrile Syndrome. Antimicrobials

- ♦ Identify the biomarkers used in the clinical diagnosis of infectious disease
- ♦ Define the use of C-reactive Protein and procalcitonin in the diagnosis of infectious diseases
- ♦ Indicate the practical use of non-specific tests for infectious evidence
- ♦ Explain the initial focus in Acute Fever Syndrome
- ♦ Define the action taken in cases of Bacteremia, Sepsis and Septic Shock
- ♦ Explain how to activate Code Sepsis
- ♦ Establish the use of different antimicrobials in Fever Syndrome
- ♦ Describe the characteristics of the different types of antimicrobials
- ♦ Define the implications of antimicrobial resistance when selecting treatment
- ♦ Explain the basic steps in the selection of antimicrobials according to the type of host and other extrinsic or environmental factors
- ♦ Explain the concept of empirical antibiotic therapy
- ♦ Know how to act in the case of beta-lactam allergy
- ♦ Describe the use of antimicrobials and renal function

Module 5. Emergency Diagnostic and Therapeutic Management of Fever in Special Situations

- ♦ Detail the relationship between fever and the presence of exanthema
- ♦ Explain the relationship between fever and the presence of adenopathies
- ♦ Fever and hematological alterations
- ♦ Delve into the association of fever with altered level of consciousness
- ♦ Describe fever management in the elderly patient
- ♦ Delve into fever management in the hemodialysis patient
- ♦ Detail fever management in a patient with intravascular devices
- ♦ Describe fever management in a patient with a HIV infection
- ♦ Explain fever management in a patient with iatrogenic immunosuppression
- ♦ Delve deeper into fever management in a patient with oncohematological pathology
- ♦ Describe fever management in a patient with febrile neutropenia
- ♦ Delve into fever management in the solid organ transplant patient
- ♦ Clarify the implications of cytomegalovirus and BK virus infections in transplant recipients
- ♦ Indicate the fever management in a patient who has recently undergone surgery
- ♦ Describe the current management of infection of surgical wounds
- ♦ Explain the management of other infections in a patient who has recently undergone surgery
- ♦ Detail fever process of management in a pregnant patient
- ♦ Explain the use of antibiotic therapy in pregnancy

Module 6. Infections of Organs and Apparatus (I): ORL, Head and Neck, Ophthalmological

- ♦ Delve into the diagnosis and treatment of pharyngotonsillitis in the Emergency Department
- ♦ Describe the process of diagnosis and treatment of Tracheitis, Laryngitis and Epiglottitis in the Emergency Department
- ♦ Identify the diagnosis and treatment of Otitis externa, media and mastoiditis in the Emergency Department
- ♦ Present the diagnosis and treatment of sinusitis in the Emergency Department
- ♦ Explain the diagnosis and treatment of a peritonsillar and para-retropharyngeal abscess in the Emergency Department
- ♦ Specify the diagnosis and treatment of dental infections in the Emergency Department
- ♦ Delve into the diagnosis and treatment of mucositis and stomatitis in the Emergency Department
- ♦ Delve deeper into the diagnosis and treatment of Salivary Gland Infections in the Emergency Department
- ♦ Explain the diagnosis and treatment of Cervical Adenitis in the Emergency Department Embryonic cyst infections Suppurative thyroiditis
- ♦ Describe the diagnosis and treatment of conjunctivitis and keratitis in the Emergency Department
- ♦ Explain the diagnosis and treatment of Uveitis, Endophthalmitis, and Retinitis in the Emergency Department
- ♦ Explain the diagnosis and treatment of periocular infections in the Emergency Department
- ♦ Delve into the diagnosis and treatment of eyelid infections in the Emergency Department
- ♦ Explain the diagnosis and treatment of lacrimal apparatus in the Emergency Department
- ♦ Indicate the diagnosis and treatment of orbital cellulitis in the Emergency Department

Module 7. Infections of Organs and Apparatus (II): Skin, Soft and Osteoarticular

- ♦ Explain the diagnosis and treatment of cellulitis and superficial infections in the Emergency Department
- ♦ Delve into the diagnosis and treatment of Myositis in the Emergency Department
- ♦ Delve deeper into the diagnosis and treatment of Fasciitis in the Emergency Department
- ♦ Discern about the diagnosis and treatment of gangrene in the Emergency Department
- ♦ Explain the diagnosis and treatment of diabetic foot in the Emergency Department
- ♦ Describe the diagnosis and treatment of pressure ulcers in the Emergency Department
- ♦ Explain the diagnosis and treatment of Septic Arthritis in the Emergency Department
- ♦ Describe the diagnosis and treatment of Osteomyelitis in the Emergency Department
- ♦ Explain the diagnosis and treatment of Spondylodiscitis in the Emergency Department
- ♦ Specify the diagnosis and treatment of infection of Joint Prostheses and Osteosynthesis Material in the Emergency Department

Module 8. Infections of Organs and Apparatus (III): Lower Airway, Intra-abdominal

- ♦ Delve into the diagnosis and treatment of Acute Bronchitis in the Emergency Department
- ♦ Explain the diagnosis and treatment of Acute Chronic Obstructive Pulmonary Disease (COPD) in the Emergency Department
- ♦ Delve deeper into the diagnosis and treatment of Community-Acquired Pneumonia (CAP) in the Emergency Department
- ♦ Explain the diagnosis and treatment of Healthcare-Associated Pneumonia (HAP) in the Emergency Department
- ♦ Describe the diagnosis and treatment of empyema in the Emergency Department
- ♦ Indicate the diagnosis and treatment of a pulmonary abscess in the Emergency Department
- ♦ Explain the diagnosis and treatment of pulmonary tuberculosis in the Emergency Department
- ♦ Present the diagnosis and treatment of Gastroenteritis in the Emergency Department
- ♦ Explain the diagnosis and treatment of liver and biliary tract infections in the Emergency Department
- ♦ Delve deeper into the diagnosis and treatment of cholecystitis and cholangitis in the Emergency Department
- ♦ Explain the diagnosis and treatment of a liver abscess in the Emergency Department
- ♦ Show the diagnosis and treatment of acute hepatitis in the Emergency Department
- ♦ Delve into the diagnosis and treatment of pancreatitis in the Emergency Department
- ♦ Explain the diagnosis and treatment of appendicitis in the Emergency Department
- ♦ Describe the diagnosis and treatment of diverticulitis and perirectal abscess in the Emergency Department
- ♦ Delve deeper into the diagnosis and treatment of Typhlitis in the Emergency Department
- ♦ Indicate the diagnosis and treatment of Peritonitis in the Emergency Department
- ♦ Explain the diagnosis and treatment of an Intraperitoneal Abscess in the Emergency Department

Module 9. Infections of Organs and Apparatus (IV): Cardiovascular, CNS

- ♦ Explain the diagnosis and treatment of laendocarditis and intravascular infections in the Emergency Department
- ♦ Delve into the diagnosis and treatment of septic lathrombophlebitis in the Emergency Department
- ♦ Delve deeper into the diagnosis and treatment of intravascular devices infections in the Emergency Department
- ♦ Indicate the diagnosis and treatment of tunneled and non-tunneled catheter infection in the Emergency Department
- ♦ Explain the diagnosis and treatment of pacemaker infections in the Emergency Department
- ♦ Explain the diagnosis and treatment of other devices infections in the Emergency Department
- ♦ Describe the diagnosis and treatment of pericarditis and myocarditis in the Emergency Department
- ♦ Explain the diagnosis and treatment of mediastinitis in the Emergency Department
- ♦ Show the diagnosis and treatment of meningitis in the Emergency Department
- ♦ Delve the diagnosis and treatment of encephalitis in the Emergency Department
- ♦ Explain the diagnosis and treatment of myelitis in the Emergency Department
- ♦ Delve deeper into the diagnosis and treatment of a cerebral abscess in the Emergency Department
- ♦ Show the diagnosis and treatment of subdural empyema, epidural abscess and intracranial thrombophlebitis in the Emergency Department
- ♦ Describe the diagnosis and treatment of the CSF shunt infections in the Emergency Department

Module 10. Infections of Urinary Tract, Genitals and Sexual Transmission

- ♦ Explain the diagnosis and treatment of cystitis in the Emergency Department
- ♦ Delve into the diagnosis and treatment of septic thrombophlebitis in the Emergency Department
- ♦ Delve deeper into the diagnosis and treatment of a UTI in patients with bladder catheterization in the Emergency Department
- ♦ Specify the details in the diagnosis and treatment of prostatitis in the Emergency Department
- ♦ Explain the diagnosis and treatment of pyelonephritis in the Emergency Department
- ♦ Detail the diagnosis and treatment of a perinephritic abscess in the Emergency Department
- ♦ Explain the diagnosis and treatment of orchiepididymitis in the Emergency Department
- ♦ Delve into the diagnosis and treatment of Vulvovaginitis and Cervicitis in the Emergency Department
- ♦ Indicate the diagnosis and treatment of pelvic infections in the Emergency Department
- ♦ Describe the diagnosis and treatment of intrapartum, postpartum and postabortive infections in the Emergency Department
- ♦ Indicate the diagnosis and treatment of inflammatory pelvic disease in the Emergency Department
- ♦ Explain the diagnosis and treatment of urethritis in the Emergency Department
- ♦ Delve into the diagnosis and treatment of infections which cause skin and genital mucosa lesions in the Emergency Department

Module 11. Infectious Diseases in the Emergency Department of the Pediatric Patient

- ♦ Describe the management of fever syndrome and exanthems in a pediatric patient in the Emergency Department
- ♦ Show the diagnosis and treatment of skin, soft tissue and skeletal system infections in a pediatric patient in the Emergency Department
- ♦ Describe the diagnosis and treatment of ENT and respiratory infections in a pediatric patient in the Emergency Department
- ♦ Develop the diagnosis and treatment of gastrointestinal and genitourinary infections and STIs in a pediatric patient in the Emergency Department
- ♦ Explain the diagnosis and treatment of CNS and CV infections in a pediatric patient in the Emergency Department
- ♦ Explain the treatment in pediatric infectious diseases

Module 12. Imported Infectious Diseases in the Emergency Department

- ♦ Define the concept of globalization and emerging pathology
- ♦ Indicate the geography of the tropical infectious diseases
- ♦ Explain the epidemiology of tropical infectious diseases in travelers, immigrants and VFR
- ♦ Explain the anamnesis of a traveler with fever in the emergency department
- ♦ Detail the possible causes of fever after staying in a tropical or subtropical area
- ♦ Perform syndrome classification of imported infectious pathology
- ♦ Define imported tropical infectious diseases of special interest

Module 13. Latest Information on Coronavirus Infections

- ♦ Know the microbiological characteristics of coronaviruses
- ♦ Assess the morbidity and mortality of coronavirus infections
- ♦ Identify the main risk groups and mechanisms of coronaviruses
- ♦ Identify the necessary tests for diagnosing Coronavirus
- ♦ Get up-to-date with the necessary preventive measures, as well as the most accurate treatments according to the type of patient

04 Skills

This Hybrid Master's Degree will allow the specialist to enhance the competencies and skills to establish an accurate diagnosis in patients with symptoms of Infectious Diseases. To achieve this, TECH has assembled an excellent teaching staff, which will guide students at all times to obtain the most relevant and current information on the techniques and methods used in the Emergency Department.



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Improve your diagnostic skills in Infectious Diseases thanks to the teaching staff of top level specialists, who will guide you in your updating process”



General Skills

- ♦ Know how to apply acquired knowledge and problem-solving skills in new or unfamiliar environments within broader (or multidisciplinary) contexts related to infectious diseases
- ♦ Create a personalized care plan for patients with infectious diseases who visit the Emergency Department
- ♦ Care for patients, whether adult or pediatric, with different types of infections

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This program brings you closer to the latest news on the use of clinical ultrasound as a diagnostic support in frequent infectious pathologies”





Specific Skills

- Describe in depth the handling of microbiological samples, their processing and the interpretation and clinical application of identification and sensitivity results
- Explain the scope of application of an antibiotic treatment, its pharmacological and pharmacodynamic characteristics and its indications
- Assess the severity of the infection
- Explain the management of severe sepsis and the relevance of the existence of the Code Sepsis
- Characterize the clinical syndromes of community-acquired, nosocomial-acquired or healthcare-associated infections
- Gain in-depth knowledge of HIV infection, from its Epidemiology and history to its multiple manifestations, its diagnostic and therapeutic management and prevention
- Characterize clinical syndromes of infection in immunocompromised non-HIV patients, characteristics of chronic HCV infection and emerging, imported and traveler's infectious pathology
- Define the antibiotic prescription support teams and their practical application
- Describe the uses of bedside Clinical Ultrasound in the diagnostic support of common infectious pathology
- Define the concepts of Electronic Clinical Decision Support as applied to infectious pathology
- Work with patients that have been diagnosed with or present symptoms of Coronavirus, complying with all safety measures
- Perform diagnostic tests to detect possible cases of Coronavirus

05

Course Management

The management of this Hybrid Master's Degree has an extensive professional experience focused mainly on the study and approach of Infectious Diseases, both important and emerging. The excellent professional background of the teachers is a guarantee for students who wish to achieve a successful update from the hand of the best specialists.



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You will have a specialized teaching staff with extensive experience in the study of emerging and imported Infectious Diseases”

Management



Dr. García Rodríguez, Magdalena

- Medical Specialist in Internal Medicine and Infectious Diseases
- Attending Physician in the Infectious Diseases Unit of the Consortium of the General University Hospital of Valencia
- Head of the International Health and Travel Advice Section of the Valencian Community
- PhD in Medicine and Surgery from the University of Valencia
- Member of the Spanish Society of Tropical Medicine and International Health, Spanish Society of Infectious Diseases and Clinical Microbiology, Spanish Association of Vaccinology, Spanish Interdisciplinary Society of AIDS



Dr. Ricart Olmos, María del Carmen

- Specialist in Internal Medicine and Expert in Infectious Diseases
- Attending Physician of the Infectious Diseases Unit at the General University Hospital of Valencia
- Attending Physician of the Internal Medicine Department at the Doctor Peset University Hospital, Valencia
- Teacher in training courses for physicians and university postgraduate studies
- Secretary of the Society of Infectious Diseases of the Valencian Community
- Master's Degree in Infectious Diseases in Intensive Care



Dr. García del Toro, Miguel

- Head of the Infectious Diseases Unit at the General University Hospital Consortium of Valencia
- President of the Congress of the National Group for the Study of Hepatitis of the Society for
- for Infectious Diseases and Clinical Microbiology
- PhD in Medicine from the University of Valencia
- Degree in Medicine and Surgery

06

Educational Plan

The syllabus of this Hybrid Master's Degree is made up of an advanced syllabus, where the professional will be able to delve into the main diagnostic tools and techniques, as well as the different infectious pathologies and the appropriate treatments for each type of patient. All this, in addition to a theoretical-practical perspective, which will be materialized with the clinical internship in a hospital center, where they will be guided by specialists who will show them the existing procedures and protocols.



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*You will have access to a library of
multimedia resources 7 days a week,
24 hours a day”*

Module 1. Update on Infectious Diseases

- 1.1. Principles of Infection
 - 1.1.1. Virulence Factors and Toxins
 - 1.1.2. Defensive Mechanisms of the Host
- 1.2. Main Human Pathogens in our Environment
 - 1.2.1. Current Epidemiology of the Infection
 - 1.2.2. Data on a Worldwide Level
 - 1.2.3. Data in our Environment BORRAR
 - 1.2.4. Microbial Resistance
- 1.3. Current Scenarios of Infection in the Emergency Department
 - 1.3.1. Elderly Patients
 - 1.3.2. Oncology Patients
 - 1.3.3. Chronic Renal Patients on Dialysis
 - 1.3.4. Transplant Recipient
 - 1.3.5. HIV Infection
 - 1.3.6. Travelers and Immigrants
- 1.4. Etiopathogenic Profiles of Infection
 - 1.4.1. Bacterial Infections
 - 1.4.2. Viral Infections
 - 1.4.3. Fungal Infections
 - 1.4.4. Microbacterial Infections
 - 1.4.5. Parasitic Infections

Module 2. The Microbiology Laboratory in the Emergency Department

- 2.1. Process of Sample Collection
 - 2.1.1. General Considerations for Taking, Conserving and Transporting the Samples for Microbiological Study
 - 2.1.2. Material for Sample Collection
- 2.2. Management of Samples in the Laboratory
 - 2.2.1. Receiving Samples
 - 2.2.2. Processing
 - 2.2.3. Methods and Techniques Used for Microbiological Diagnosis According to the Main Infectious Syndromes



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- 2.3. Techniques Available for Emergency Diagnoses
 - 2.3.1. Bacteria
 - 2.3.2. Virus
 - 2.3.3. Fungi
 - 2.3.4. Mycobacteria
 - 2.3.5. Parasites
 - 2.4. Interpretation of Preliminary Results
 - 2.4.1. Interpretation of Microbiological Diagnostic Tests
 - 2.5. Procedures in Hospitals Without On-call Microbiologists
 - 2.5.1. Disadvantages of Not Having an On-call Microbiologist
 - 2.5.2. Advantages of Having an On-call Microbiologist
 - 2.5.3. On-call Care without a Microbiologist

Module 3. Public Health and Infectious Disease in the Emergency Room

- 3.1. Emergency Department Personnel
 - 3.1.1. Initial Assessment
 - 3.1.2. Vaccines
 - 3.1.3. Action Protocols in Cases of Specific Exposure
- 3.2. Established Protocols of Isolation
 - 3.2.1. Types of Transmission and Methods of Isolation
 - 3.2.2. Special Situations
- 3.3. Notifiable Diseases and Urgent Declaration to Public Health
 - 3.3.1. Concept of Notifiable Diseases
 - 3.3.2. Surveillance of Notifiable Diseases
- 3.4. Special Situations
 - 3.4.1. Annual Flu
 - 3.4.2. Epidemiological Outbreaks
 - 3.4.3. Imported Pathology Possibility of Pathology with High Contagious Capacity
- 3.5. Update on Epidemiological Outbreaks
 - 3.5.1. Seasonal Epidemiological Parameters in the Most Common Infections in the Community
 - 3.5.2. Epidemic Outbreak and Types of Source

- 3.6. Post-exposure Prophylaxis that is Initiated in the Emergency Department
 - 3.6.1. Bacterial Meningitis
 - 3.6.2. HIV Infection
 - 3.6.3. Sexual Assault
 - 3.6.4. Rabies

Module 4. Systemic Febrile Syndrome. Antimicrobials

- 4.1. Biomarkers in Sepsis
 - 4.1.1. Lactate
 - 4.1.2. Procalcitonin
 - 4.1.3. Proadrenomedulin
 - 4.1.4. Combinations
- 4.2. Initial Focus in Acute Fever Syndrome
 - 4.2.1. Initial Management of the Patient with Fever in the Emergency Department
 - 4.2.2. Treatment
 - 4.2.3. Special Categories
 - 4.2.4. Fever of Unknown Origin
 - 4.2.5. Attitude and Destiny of the Patient
- 4.3. Bacteremia, Sepsis and Septic Shock
 - 4.3.1. Definitions According to Consensus Conferences
 - 4.3.2. How to Identify a Patient with Sepsis?
 - 4.3.3. Controversies and Limitations of the New Definitions
 - 4.3.4. Managing Sepsis
- 4.4. Antimicrobials:
 - 4.4.1. Concept: What is a Antimicrobial?
 - 4.4.2. Antibacterials
 - 4.4.3. Pregnancy and Breastfeeding
 - 4.4.4. Antifungal

Module 5. Emergency Diagnostic and Therapeutic Management of Fever in Special Situations

- 5.1. Fever in Emergencies
 - 5.1.1. General Concepts
 - 5.1.2. Action Protocol
 - 5.1.3. Patient Orientation
- 5.2. Fever in an Elderly Patient
 - 5.2.1. General Concepts
 - 5.2.2. Characteristics of the Specific Clinical Framework
 - 5.2.3. Points to Remember
- 5.3. Fever in a Hemodialysis Patient
 - 5.3.1. Infections Related to Vascular Access in Hemodialysis
 - 5.3.2. Other Considerations in the Infectious Pathology of a Patient on Dialysis
- 5.4. Fever in the Patient with Intravascular Catheters
 - 5.4.1. Clinical Manifestations
 - 5.4.2. Etiology
 - 5.4.3. Diagnosis
 - 5.4.4. Treatment
 - 5.4.5. Prevention
- 5.5. Patient with HIV Infection
 - 5.5.1. Pulmonary Syndromes
 - 5.5.2. Neurological syndromes
 - 5.5.3. Other Fever Syndromes
 - 5.5.4. Immune Reconstitution Syndrome
- 5.6. Patient with Iatrogenic Immunosuppression
 - 5.6.1. Etiology
 - 5.6.2. Diagnostic Approach
 - 5.6.3. Treatment
- 5.7. Patient with Onco-hematologic Pathology
 - 5.7.1. Diagnosis and Therapeutic Management of an Onco-hematologic Patient with a Fever

- 5.8. Transplant Recipient of a Solid Organ
 - 5.8.1. Infections in the First Month Post-Transplant
 - 5.8.2. Infections Between the First and Sixth Month Post-Transplant
 - 5.8.3. Infections After the Sixth Month Post-Transplant
 - 5.8.4. Diagnostic Strategy
 - 5.8.5. Empirical Treatment
- 5.9. Patient who has Recently Undergone Surgery
 - 5.9.1. Infection of Surgical Wounds Current Management
 - 5.9.2. Other Infections in a Patient who has Recently Undergone Surgery
- 5.10. Pregnant Patient
 - 5.10.1. Special Characteristics of a Pregnant Woman
 - 5.10.2. Diagnostic Orientation in the Emergency Department
 - 5.10.3. Treatment and Management in Special Situations
 - 5.10.4. Indications of Admission for Observation and Inpatient Treatment

Module 6. Infections of Organs and Apparatus (I): ORL, Head and Neck, Ophthalmological

- 6.1. Pharyngotonsillitis
 - 6.1.1. General Concept and Classification
- 6.2. Oral Cavity, Head and Neck Infections
 - 6.2.1. Plaque Gingivitis
 - 6.2.2. GUNA
 - 6.2.3. Oral TB
 - 6.2.4. Oral Syphilis
 - 6.2.5. Oral Mycosis
 - 6.2.6. Viral Infections
- 6.3. Otitis Externa, Media and Mastoiditis
 - 6.3.1. Diffuse Otitis Externa and Circumscribed Otitis Externa (boils)
 - 6.3.2. Otomycosis
 - 6.3.3. Malignant Otitis Externa
 - 6.3.4. Optic Herpes
 - 6.3.5. Bullous Myringitis
 - 6.3.6. Acute Otitis Media
 - 6.3.7. Mastoiditis

- 6.4. Sinusitis
 - 6.4.1. Pathophysiology
 - 6.4.2. Classification According to Etiology and Severity
 - 6.4.3. Symptoms
 - 6.4.4. Diagnosis
 - 6.4.5. Complementary Tests
 - 6.4.6. Treatment
 - 6.4.7. Complications
- 6.5. Peritonsillar, Parapharyngeal and Retropharyngeal Abscesses
 - 6.5.1. Peritonsillar Abscess
 - 6.5.2. Parapharyngeal Space Infection
 - 6.5.3. Retropharyngeal Space Infection
- 6.6. Odontogenic Infections
 - 6.6.1. Etiological Factors
 - 6.6.2. Etiopathogenesis
 - 6.6.3. Clinical Symptoms
 - 6.6.4. Diagnosis
 - 6.6.5. Treatment
- 6.7. Mucositis and Stomatitis
 - 6.7.1. Trauma Lesions
 - 6.7.2. Lesions Caused by Chemical Agents
 - 6.7.3. Allergic Stomatitis
 - 6.7.4. Oral Drug Ulcers by Unknown Mechanisms
 - 6.7.5. Gingival Alterations Caused by Drugs
 - 6.7.6. Facial Reaction to Esthetic Fillers
 - 6.7.7. Oral Lesions Caused by Cocaine
 - 6.7.8. Oral Mucosal Dyschromias due to Exogenous Pigmentation
 - 6.7.9. Injuries Caused by Physical Agents
 - 6.7.10. Recurrent Aphthous Stomatitis
 - 6.7.11. Erythema Multiform
- 6.8. Infection of Salivary Glands
 - 6.8.1. General Aspects. Anamnesis and Examination Complementary Methods
 - 6.8.2. Viral Infection
 - 6.8.3. Bacterial Infections
 - 6.8.4. Sialodochitis or Obstructive Pathology of the Salivary Glands

- 6.9. Acute Laryngitis and Epiglottitis
 - 6.9.1. Acute Laryngitis
 - 6.9.2. Tuberculous Laryngitis
 - 6.9.3. Epiglottitis
- 6.10. Conjunctivitis and Keratitis
 - 6.10.1. Infectious Conjunctivitis
 - 6.10.1.1. Concept and General Considerations
 - 6.10.1.2. Bacterial Conjunctivitis
 - 6.10.1.3. Viral Conjunctivitis
 - 6.10.1.4. Mycotic or Parasitic Conjunctivitis
 - 6.10.2. Infectious Keratitis
 - 6.10.2.1. Concept and General Considerations
 - 6.10.2.2. Bacterial Keratitis
 - 6.10.2.3. Viral Keratitis
 - 6.10.2.4. Mycotic Keratitis
 - 6.10.2.5. Acanthamoeba Keratitis
- 6.11. Uveitis, Endophthalmitis, and Retinitis
 - 6.11.1. Uveitis: Concepts and Classification
 - 6.11.2. Parasitic Uveitis
 - 6.11.3. Viral Uveitis
 - 6.11.4. Fungal Uveitis
 - 6.11.5. Bacterial Uveitis
- 6.12. Periocular Infections
 - 6.12.1. Sty
 - 6.12.2. Chronic Canaliculitis
 - 6.12.3. Acute Dacryocystitis
 - 6.12.4. Preseptal Cellulitis
 - 6.12.5. Postseptal (orbital) Cellulitis
 - 6.12.6. Acute Dacryoadenitis: Inflammation of the Lacrimal Gland
 - 6.12.7. Viral Infections
 - 6.12.8. Other Periocular Infections



Module 7. Infections of Organs and Apparatus (II): Skin, Soft and Osteoarticular

- 7.1. Cellulitis and Superficial Infections
 - 7.1.1. Clinical Symptoms
 - 7.1.2. Diagnosis
 - 7.1.3. Treatment
- 7.2. Deep Infections
 - 7.2.1. Necrotizing Fasciitis
 - 7.2.2. Fournier's Gangrene
 - 7.2.3. Infectious Myositis
- 7.3. Diabetic Foot
 - 7.3.1. Etiopathogenesis
 - 7.3.2. Clinical Symptoms
 - 7.3.3. Staging Classification of Ulcers of Infected Diabetic Foot
 - 7.3.4. Etiology
 - 7.3.5. Diagnosis. Complementary Evaluations
 - 7.3.6. Treatment
- 7.4. Pressure Ulcers
 - 7.4.1. Etiopathogenesis
 - 7.4.2. Risk Factors
 - 7.4.3. Clinical Assessment
 - 7.4.4. Complications
 - 7.4.5. Treatment
 - 7.4.6. Infection of Pressure Lesions
- 7.5. Septic Arthritis
 - 7.5.1. Epidemiology
 - 7.5.2. Pathophysiology
 - 7.5.3. Etiology
 - 7.5.4. Clinical Symptoms
 - 7.5.5. Diagnosis
 - 7.5.6. Differential Diagnosis
 - 7.5.7. Treatment
 - 7.5.8. Prognosis

- 7.6. Osteomyelitis
 - 7.6.1. Classification
 - 7.6.2. Etiology and Clinical Characteristics
 - 7.6.3. Diagnosis
 - 7.6.4. Treatment
- 7.7. Spondylodiscitis
 - 7.7.1. Etiopathogenesis and Microbiology
 - 7.7.2. Clinical Manifestations
 - 7.7.3. Diagnosis
 - 7.7.4. Treatment
 - 7.7.5. Prognosis
- 7.8. Infection of Joint Prostheses and Osteosynthesis Material
 - 7.8.1. Etiopathogenesis
 - 7.8.2. Diagnostic Approximation
 - 7.8.3. Treatment Management

Module 8. Infections of Organs and Apparatus (III): Lower Airway, Intra-abdominal

- 8.1. Acute Bronchitis
 - 8.1.1. Definition
 - 8.1.2. Clinical Manifestations
 - 8.1.3. Diagnosis
 - 8.1.4. Treatment
- 8.2. Acute Chronic Obstructive Pulmonary Disease (ACOPD)
 - 8.2.1. Definition
 - 8.2.2. Diagnosis
 - 8.2.3. Treatment
 - 8.2.4. Attitude to Clinical Failure
 - 8.2.5. Key Concepts

8.3. Community-Acquired Pneumonia (CAP)

- 8.3.1. Concept
- 8.3.2. Pathophysiology
- 8.3.3. Epidemiology
- 8.3.4. Etiology
- 8.3.5. Clinical Manifestations
- 8.3.6. Diagnostic Attitude
- 8.3.7. Antibiotic Treatment

8.4. Healthcare-Associated Pneumonia (HAP)

- 8.4.1. Concept
- 8.4.2. Healthcare-Associated Pneumonia Versus Community-Acquired Pneumonia due to Resistant Pathogens (CAP-PR)
- 8.4.3. Etiology
- 8.4.4. Microbiological Diagnosis
- 8.4.5. Empirical Treatment
- 8.4.6. Prognosis

8.5. Pneumonic Pleural Effusion and Empyema

- 8.5.1. Clinical Symptoms
- 8.5.2. Staging
- 8.5.3. Imaging Tests
- 8.5.4. Laboratory Studies: Pleural Fluid Analysis
- 8.5.5. Pathophysiology Staging
- 8.5.6. Bacteriology
- 8.5.7. Prognosis
- 8.5.8. Treatment

8.6. Pulmonary Abscess

- 8.6.1. Definition
- 8.6.2. Etiology
- 8.6.3. Pathophysiology
- 8.6.4. Clinical Manifestations
- 8.6.5. Diagnosis
- 8.6.6. Treatment

8.7. Pulmonary Tuberculosis

- 8.7.1. Etiology
- 8.7.2. Clinical Manifestations
- 8.7.3. Diagnosis
- 8.7.4. Treatment

8.8. Gastroenteritis

- 8.8.1. Etiology
- 8.8.2. Clinical Manifestations and Physical Examination
- 8.8.3. Laboratory Data and Imaging Tests
- 8.8.4. Diagnosis
- 8.8.5. Treatment

8.9. Liver and Biliary Tract Infections

- 8.9.1. Bacterial Infections Which Affect the Liver
- 8.9.2. Viral Infections Which Affect the Liver
- 8.9.3. Parasitic Infections Which Affect the Liver
- 8.9.4. Fungal Infections Which Affect the Liver

8.10. Cholecystitis and Cholangitis

- 8.10.1. Acute Cholecystitis
- 8.10.2. Acute Cholangitis

8.11. Liver Abscesses

- 8.11.1. Concept and General Characteristics
- 8.11.2. Classification and Etiopathogenesis
- 8.11.3. Pyogenic Hepatic Abscesses
- 8.11.4. Amoebic Liver Abscesses

8.12. Acute Hepatitis

- 8.12.1. Definition
- 8.12.2. Etiology
- 8.12.3. Clinical Manifestations and Physical Examination
- 8.12.4. Laboratory Data
- 8.12.5. Diagnosis
- 8.12.6. Severe Acute Hepatitis
- 8.12.7. Severe Acute Liver Failure
- 8.12.8. Treatment

- 8.13. Pancreatitis
 - 8.13.1. Etiology
 - 8.13.2. Diagnosis
 - 8.13.3. Classification
 - 8.13.4. Severity Prediction and Prognosis
 - 8.13.5. Treatment
 - 8.13.6. Infectious Complications
- 8.14. Appendicitis
 - 8.14.1. Epidemiology
 - 8.14.2. Etiopathogenesis
 - 8.14.3. Microbiology
 - 8.14.4. Diagnosis
 - 8.14.5. Differential Diagnosis
 - 8.14.6. Treatment
 - 8.14.7. Preoperative Antibiotic Prophylaxis
 - 8.14.8. Postoperative Antibiotic Treatment
 - 8.14.9. Post-surgery Complications
- 8.15. Diverticulitis and Perirectal Abscess
 - 8.15.1. Definition of Diverticulitis
 - 8.15.2. Pathogenesis
 - 8.15.3. Risk Factors
 - 8.15.4. Diverticulitis Diagnosis
 - 8.15.5. Diverticulitis Classification
 - 8.15.6. Treatment for Diverticulitis
 - 8.15.7. Perirectal Abscess
- 8.16. Typhlitis
 - 8.16.1. Epidemiology
 - 8.16.2. Etiology
 - 8.16.3. Pathogenesis
 - 8.16.4. Clinical Manifestations
 - 8.16.5. Diagnosis
 - 8.16.6. Differential Diagnosis
 - 8.16.7. Treatment
- 8.17. Peritonitis
 - 8.17.1. Classification
 - 8.17.2. Pathogenesis
 - 8.17.3. Diagnosis
 - 8.17.4. Assess the Severity of the Infection
 - 8.17.5. Treatment
- 8.18. Spontaneous Bacterial Peritonitis
 - 8.18.1. Concept
 - 8.18.2. Epidemiology
 - 8.18.3. Pathogenesis
 - 8.18.4. Clinical Manifestations
 - 8.18.5. Diagnosis
 - 8.18.6. Prognosis
 - 8.18.7. Treatment
 - 8.18.8. Prophylaxis
- 8.19. Secondary Peritonitis
 - 8.19.1. Definition and Classification
 - 8.19.2. Microbiology
 - 8.19.3. Evaluation of Severity
 - 8.19.4. General Principles for the Management
- 8.20. Intraperitoneal Abscess
 - 8.20.1. Definition
 - 8.20.2. Epidemiology
 - 8.20.3. Etiology and Pathophysiology
 - 8.20.4. Diagnosis
 - 8.20.5. Treatment

Module 9. Infections of Organs and Apparatus (IV): Cardiovascular, CNS

- 9.1. Infectious Endocarditis
 - 9.1.1. Epidemiology
 - 9.1.2. Etiology
 - 9.1.3. Clinical Symptoms
 - 9.1.4. Diagnosis
 - 9.1.5. Treatment
 - 9.1.6. Prevention
- 9.2. Infection of Intravascular Devices
 - 9.2.1. Infections Associated with Intravascular Catheter
 - 9.2.2. Infections Related to Implantable Electronic Cardiovascular Implantable Cardiovascular Devices
- 9.3. Acute Pericarditis
 - 9.3.1. Definition
 - 9.3.2. Incessant and Chronic Pericarditis
 - 9.3.3. Recurrent Pericarditis
 - 9.3.4. Myopericarditis
- 9.4. Mediastinitis
 - 9.4.1. Acute Mediastinitis
 - 9.4.2. Sclerosing Mediastinitis
- 9.5. Meningitis
 - 9.5.1. Epidemiology and Etiopathogenesis
 - 9.5.2. Diagnosis of Meningitis: Clinical and Laboratory
 - 9.5.3. Antimicrobial Treatment
- 9.6. Encephalitis
 - 9.6.1. Epidemiology and Etiopathogenesis
 - 9.6.2. Diagnosis of Encephalitis: Clinical and Complementary Evaluations
 - 9.6.3. Antimicrobial Treatment
- 9.7. Myelitis
 - 9.7.1. Epidemiology and Etiopathogenesis
 - 9.7.2. Clinical Symptoms
 - 9.7.3. Diagnosis
 - 9.7.4. Treatment



- 9.8. Cerebral Abscess
 - 9.8.1. Etiopathogenesis
 - 9.8.2. Clinical Manifestations and Diagnosis
 - 9.8.3. Treatment
- 9.9. Subdural Empyema, Epidural Abscess and Intracranial Thrombophlebitis
 - 9.9.1. Subdural Empyema: Etiopathogenesis, Clinical Manifestations, Diagnosis and Treatment
 - 9.9.2. Epidural Abscess: Etiopathogenesis, Clinical Manifestations, Diagnosis and Treatment
 - 9.9.3. Septic Thrombophlebitis: Etiopathogenesis, Clinical Manifestations, Diagnosis and Treatment
- 9.10. CSF Shunt Infections
 - 9.10.1. Etiopathogenesis
 - 9.10.2. Clinical Manifestations
 - 9.10.3. Diagnosis
 - 9.10.4. Treatment

Module 10. Infections of Urinary Tract, Genitals and Sexual Transmission

- 10.1. Cystitis
 - 10.1.1. Symptoms
 - 10.1.2. Etiology
 - 10.1.3. Diagnosis
 - 10.1.4. Differential Diagnosis
 - 10.1.5. Treatment
- 10.2. Asymptomatic Bacteriuria
 - 10.2.1. Epidemiology
 - 10.2.2. Pathophysiology
 - 10.2.3. Assessment and Treatment
- 10.3. UTI in Patients with Bladder Catheterization
 - 10.3.1. Etiology
 - 10.3.2. Clinical Manifestations
 - 10.3.3. Diagnosis
 - 10.3.4. Prevention
 - 10.3.5. Treatment

- 10.4. Prostatitis
 - 10.4.1. Etiopathogenesis
 - 10.4.2. Diagnosis
 - 10.4.3. Clinical Symptoms
 - 10.4.4. Treatment
 - 10.4.5. Complications
 - 10.4.6. Chronic Nonbacterial or Chronic Idiopathic Prostatitis or Chronic Pelvic Pain Syndrome
- 10.5. Pyelonephritis
 - 10.5.1. Etiology
 - 10.5.2. Clinical Manifestations
 - 10.5.3. Complementary Tests
 - 10.5.4. Treatment
 - 10.5.5. Admission Criteria
- 10.6. Perinephritic Abscess
 - 10.6.1. Pathophysiology
 - 10.6.2. Clinical Symptoms
 - 10.6.3. Etiology
 - 10.6.4. Diagnosis
 - 10.6.5. Assessment and Treatment
- 10.7. Infections which Cause Skin and Genital Mucosal Lesions
 - 10.7.1. Bacterial Infections
 - 10.7.2. Fungal Infections
 - 10.7.3. Viral Infections

Module 11. Infectious Diseases in the Emergency Department of the Pediatric Patient

- 11.1. Fever Without Focus
 - 11.1.1. Child With a Fever Without Focus and Poor Appearance
 - 11.1.2. Fever Without Focus and Good General Appearance
 - 11.1.3. Children from 3-36 Months Old With a Fever Without Focus and Good General Appearance
 - 11.1.4. Breastfeeding Infant less than 3 Months Old With a Fever Without Focus and Good General Appearance
- 11.2. Sepsis and Septic Shock
 - 11.2.1. Concept
 - 11.2.2. Current Definition of Shock and Septic Shock
 - 11.2.3. Etiology and Epidemiology
 - 11.2.4. Pathophysiology
 - 11.2.5. Risk Factors
 - 11.2.6. Differential Diagnosis
 - 11.2.7. Clinical Symptoms
 - 11.2.8. Complementary Tests
 - 11.2.9. Treatment
- 11.3. Fever in a Traveling Child
 - 11.3.1. Medical History
 - 11.3.2. Physical Examination
 - 11.3.3. Complementary Tests
 - 11.3.4. Treatment
 - 11.3.5. Malaria
 - 11.3.6. Dengue
- 11.4. Exanthem
 - 11.4.1. Etiology
 - 11.4.2. Diagnosis
 - 11.4.3. Differential Diagnosis
- 11.5. Skin and Soft Tissue Infections
 - 11.5.1. Etiopathogenesis
 - 11.5.2. Diagnosis
 - 11.5.3. Main Clinical Framework
 - 11.5.4. Treatment
 - 11.5.5. Community-acquired Methicillin-Resistant S. Aureus
- 11.6. Cervical Adenitis
 - 11.6.1. Etiology
 - 11.6.2. Clinical Assessment
 - 11.6.3. Diagnosis and Treatment
 - 11.6.4. Differential Diagnosis
- 11.7. Osteoarticular Infections: Acute Osteomyelitis and Septic Arthritis
 - 11.7.1. Epidemiology
 - 11.7.2. Etiopathogenesis
 - 11.7.3. Clinical Symptoms
 - 11.7.4. Diagnosis
 - 11.7.5. Differential Diagnosis
 - 11.7.6. Treatment
- 11.8. Pharyngotonsillitis and Its Complications
 - 11.8.1. Concept
 - 11.8.2. Epidemiology and Etiology
 - 11.8.3. Clinical Symptoms
 - 11.8.4. Diagnosis
 - 11.8.5. Treatment
- 11.9. Otitis Media and External Sinusitis
 - 11.9.1. Concept of Otitis Media and External
 - 11.9.1.1. Epidemiology and Etiology
 - 11.9.1.2. Clinical Symptoms
 - 11.9.1.3. Complications
 - 11.9.1.4. Diagnosis
 - 11.9.1.5. Treatment
 - 11.9.2. Concept of Acute Sinusitis
 - 11.9.2.1. Epidemiology and Etiology
 - 11.9.2.2. Clinical Symptoms
 - 11.9.2.3. Diagnosis
 - 11.9.2.4. Treatment

- 11.10. Acute Mumps
 - 11.10.1. Epidemic Mumps
 - 11.10.2. Vaccines
 - 11.10.3. Prevention of Epidemic Outbreaks
- 11.11. Laryngitis and Epiglottitis
 - 11.11.1. Concept
 - 11.11.2. Epidemiology and Etiology
 - 11.11.3. Clinical Symptoms
 - 11.11.4. Diagnosis
 - 11.11.5. Treatment
 - 11.11.6. Admission Criteria
- 11.12. Pertussis Syndrome
 - 11.12.1. Concept
 - 11.12.2. Epidemiology and Etiology
 - 11.12.3. Clinical Symptoms
 - 11.12.4. Complications
 - 11.12.5. Diagnosis
 - 11.12.6. Treatment
 - 11.12.7. Prevention
- 11.13. Bronchiolitis and Recurrent Wheezing Episodes
 - 11.13.1. Acute Bronchiolitis
 - 11.13.2. Recurrent Wheezing
- 11.14. Pneumonia and Complications
 - 11.14.1. Epidemiology
 - 11.14.2. Etiology
 - 11.14.3. Clinical Characteristics
 - 11.14.4. Diagnosis
 - 11.14.5. Treatment
 - 11.14.6. Prevention
 - 11.14.7. Complications
- 11.15. Tuberculosis
 - 11.15.1. Manifestations
 - 11.15.2. Diagnosis
 - 11.15.3. Treatment
- 11.16. Acute Gastroenteritis
 - 11.16.1. Etiopathogenesis
 - 11.16.2. Clinical Symptoms
 - 11.16.3. Diagnosis
 - 11.16.4. Treatment
- 11.17. Viral Hepatitis
 - 11.17.1. Assessment and Initial Management of Hepatitis in the Emergency Department
 - 11.17.2. Classic Viral Hepatitis
- 11.18. Appendicitis (Need for Antibiotic or Not) and Perirectal Abscesses
 - 11.18.1. Acute Appendicitis
 - 11.18.2. Perirectal Abscess
- 11.19. Urinary Infection
 - 11.19.1. Definition
 - 11.19.2. Etiopathogenesis
 - 11.19.3. Clinical Symptoms. When to Suspect a Urinary Tract Infection in the Pediatric Age Group?
 - 11.19.4. Diagnosis
 - 11.19.5. Management
- 11.20. CNS Infections in Pediatrics: Acute Meningitis
 - 11.20.1. Etiology
 - 11.20.2. Clinical Symptoms
 - 11.20.3. Diagnosis
 - 11.20.4. Treatment
 - 11.20.5. Chemoprophylaxis
 - 11.20.6. Complications and Prognosis
- 11.21. Endocarditis, Myocarditis and Pericarditis
 - 11.21.1. Infectious Endocarditis
 - 11.21.2. Myocarditis
 - 11.21.3. Pericarditis

- 11.22. Treatment in Pediatric Infectious Diseases
 - 11.22.1. Bacterial Infections in the Pediatric Emergency Department: Diagnosis and Antibiotic Treatment of Choice, Depending on the Resistance of the Pathogens Responsible for the Disease
 - 11.22.2. Delayed Antibiotic Prescribing Strategy
 - 11.22.3. When is the Association of Amoxicillin with Clavulanic Acid and Macrolides Indicated in Pediatrics?
 - 11.22.4. Do I Also Have to be Careful with Topical Antibiotherapy to Avoid Bacterial Resistance?

Module 12. Imported Infectious Diseases in the Emergency Department

- 12.1. Introduction to Imported Pathology
 - 12.1.1. Imported Pathologies of Special Interest:
 - 12.1.1.1. Chagas Disease
 - 12.1.1.2. Dengue
 - 12.1.1.3. Chikungunya
 - 12.1.1.4. Malaria
- 12.2. Globalization and Emerging Pathology
 - 12.2.1. Emerging and Re-emerging Diseases
 - 12.2.2. Main Causes of Emergency in Infectious Diseases
 - 12.2.3. Transmission
 - 12.2.4. Zoonotic
 - 12.2.5. Future Previsions
- 12.3. Geography of Tropical Infectious Diseases
 - 12.3.1. Subspecialties of Medical Geography
 - 12.3.2. Relevance and Relationship to Tropical Diseases
 - 12.3.3. Main Infectious Diseases According to Area
- 12.4. Epidemiology of Tropical Infectious Diseases in Travelers, Immigrants and VFRs
 - 12.4.1. Importance
 - 12.4.2. Epidemiological Characteristics of Immigrants
 - 12.4.3. Epidemiological Characteristics of People Traveling to the Tropics
 - 12.4.4. Epidemiological Characteristics of VFRs
 - 12.4.5. Data on Imported Pathology in Spain BORRAR
- 12.5. Anamnesis of a Traveler with Fever in the Emergency Department
 - 12.5.1. Initial Approximation of a Traveler with Fever
 - 12.5.2. Differential Diagnosis
 - 12.5.3. Treatment of a Traveler with Fever



- 12.6. Fever After Staying in a Tropical and / or Subtropical Area
 - 12.6.1. Importance of Good Anamnesis
 - 12.6.2. Investigation of Possible Vectors
 - 12.6.3. Fever of Parasitic Origin
 - 12.6.4. Fever of Viral Origin
 - 12.6.5. Fever of Bacterial Origin
 - 12.6.6. Other Causes of Fever
- 12.7. Imported Infectious Pathology. Syndrome Classification
 - 12.7.1. Fever and Cutaneous Lesion
 - 12.7.2. Fever and Altered Level of Consciousness
 - 12.7.3. Fever and Liver Problems
 - 12.7.4. Fever and Respiratory Semiology
 - 12.7.5. Fever and Digestive Semiology
- 12.8. Imported Tropical Infectious Diseases of Special Interest:
 - 12.8.1. Malaria
 - 12.8.2. Arbovirus: Dengue, Zika, Chikungunya
 - 12.8.3. MERS Coronavirus (MERS CoV)
 - 12.8.4. Schistosomiasis
 - 12.8.5. Invasive Enteritis (Salmonella, Shigella, E.coli, Campylobacter)
 - 12.8.6. Hemorrhagic Fevers (Ebola, Lassa, Marburg, Yellow Fever, Crimean-Congo)

Module 13. Latest Information on Coronavirus Infections

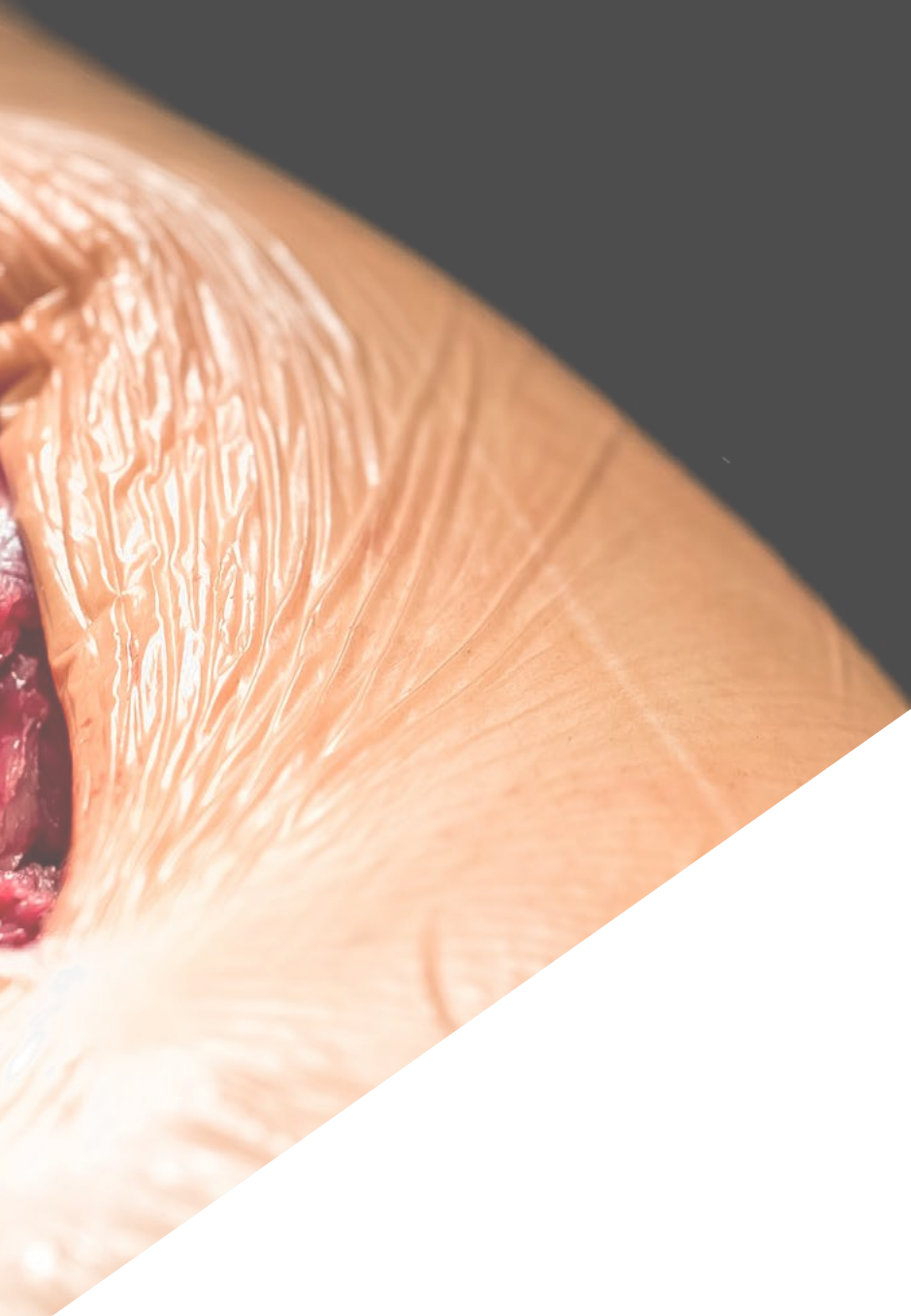
- 13.1. Discovery and Evolution of Coronaviruses
 - 13.1.1. Discovery of Coronaviruses
 - 13.1.2. Global Trends in Coronavirus Infections
- 13.2. Main Microbiological characteristics and Members of the Coronavirus Family
 - 13.2.1. General Microbiological Characteristics of Coronaviruses
 - 13.2.2. Viral Genome
 - 13.2.3. Principal Virulence Factors
- 13.3. Epidemiological Changes in Coronavirus Infections from Discovery to the Present
 - 13.3.1. Morbidity and Mortality of Coronavirus Infections from their Emergence to the Present
- 13.4. The Immune System and Coronavirus Infections
 - 13.4.1. Immunological Mechanisms Involved in the Immune Response to Coronaviruses
 - 13.4.2. Cytokine Storm in Coronavirus Infections and Immunopathology
 - 13.4.3. Modulation of the Immune System in Coronavirus Infections
- 13.5. Pathogenesis and Pathophysiology of Coronavirus Infections
 - 13.5.1. Pathophysiological and Pathogenic Alterations in Coronavirus Infections
 - 13.5.2. Clinical Implications of the Main Pathophysiological Alterations
- 13.6. Risk Groups and Transmission Mechanisms of Coronaviruses
 - 13.6.1. Main Sociodemographic and Epidemiological Characteristics of Risk Groups Affected by Coronavirus
 - 13.6.2. Coronavirus Mechanisms of Transmission
- 13.7. Natural History of Coronavirus Infections
 - 13.7.1. Stages of Coronavirus Infection
- 13.8. Latest Information on Microbiological Diagnosis of Coronavirus Infections
 - 13.8.1. Sample Collection and Shipment
 - 13.8.2. PCR and Sequencing
 - 13.8.3. Serology Testing
 - 13.8.4. Virus Isolation
- 13.9. Current Biosafety Measures in Microbiology Laboratories for Coronavirus Sample Handling
 - 13.9.1. Biosafety Measures for Coronavirus Sample Handling
- 13.10. Up-to-Date Management of Coronavirus Infections
 - 13.10.1. Prevention Measures
 - 13.10.2. Symptomatic Treatment
 - 13.10.3. Antiviral and Antimicrobial Treatment in Coronavirus Infections
 - 13.10.4. Treatment of Severe Clinical Forms
- 13.11. Future Challenges in the Prevention, Diagnosis and Treatment of Coronavirus
 - 13.11.1. Global Challenges for the Development of Prevention, Diagnostic, and Treatment Strategies for Coronavirus Infections

07

Clinical Internship

Once the theoretical phase is completed, the medical professional will begin a 100% clinical internship in a hospital center that has been selected by TECH, by meeting the demanding requirements established by this institution. In this way, the professional will have guaranteed access to a first-class environment, where they will be able to test *in situ* the most effective diagnostic methods and techniques used in the care of Infectious Diseases in the Emergency Department.





“

The hospital centers where you will be able to do your internship have been selected under rigorous quality requirements”

TECH has designed a 3-week internship, where the medical professional will be from Monday to Friday, with 8-hour consecutive shifts in a prestigious healthcare environment. It is in this environment and accompanied by specialists in Infectious Diseases, where they will be able to treat real patients with different infectious pathologies that require differential diagnoses and specific treatments.

In this way, the professional will be able to see the procedures, protocols and working methods used in different situations, as well as the innovative devices used to carry out the most effective diagnostic tests. Therefore, they will be able to integrate in their day to day, all the up-to-date knowledge both in the theoretical phase and in the internship stage of this program.

It is undoubtedly an opportunity to learn by working in healthcare environments that are committed to keeping professionals up-to-date with everything that is happening in the field of care and science on Infectious Diseases and their approach. A unique professional experience, which enhances and improves the skills of professionals and that only this academic institution offers.

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





The procedures described below will form the basis of the practical part of the training, and their implementation 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
Detection of Infectious Diseases in the Emergency Department	Assess the patient's pathology and establish the necessary complementary tests
	Apply existing protocols, if necessary, in the event of an epidemiological outbreak
	Collaborate in the application of the appearance of a patient with bacterial meningitis
	Support in the management of patients with bacteremia, sepsis and septic shock
Management of Patients with Fever in Special Situations	Establish the relationship of fever with the presence of exanthema and lymphadenopathy
	Observation of fever and hematological alterations
	Treat febrile patients with recent surgery
	Manage surgical wound infection
Management of the Pediatric Patient with an Infectious Disease	Examine the patient with febrile syndromes and exanthemata
	Apply the most appropriate antimicrobial treatment for Encephalitis and Meningitis
	Perform the diagnostic for patients presenting with CSF shunt infections
	Diagnose and treat patients presenting with acute pericarditis using the latest techniques
Approach to Patients with Coronavirus in the Emergency Department	Apply the latest protocols in the care of patients with coronavirus
	Perform immediate diagnostic tests in patients suspected of having coronavirus
	Prescribe the most effective treatments according to the variant of coronavirus and patient characteristics
	Assess the morbidity and mortality of coronavirus infections

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 entity commits to purchasing a civil liability insurance policy to cover any eventuality that may arise during the course of the internship at the center.

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



General Conditions for Practical Training

The general terms and conditions of the internship program agreement shall be as follows:

1. TUTOR: During the Hybrid Master's Degree, students will be assigned with 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 with 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 students does not show up on the start date of the Hybrid Master's Degree, 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 Hybrid Master's Degree will receive a certificate accrediting their stay at the center.

5. EMPLOYMENT RELATIONSHIP: the Hybrid Master's Degree shall not constitute an employment relationship of any kind.

6. PRIOR EDUCATION: Some centers may require a certificate of prior education for the Hybrid Master's Degree. 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 Hybrid Master's Degree 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.

08

Where Can I Do the Clinical Internship?

This Hybrid Master's Degree program includes a clinical internship in a hospital center known for its care of patients with Infectious Diseases in the Emergency Department. Given the increase and relevance of these pathologies, TECH brings professionals closer to reference health environments in this field, so that they can obtain an update in a first-class health space.





“

Complete your internship with an unbeatable clinical stay. You will be in a prestigious hospital center with the best specialists in Infectious Diseases”

The student will be able to complete the internship of this Hybrid Master's Degree at the following centers:



Medicine

Hospital HM Modelo

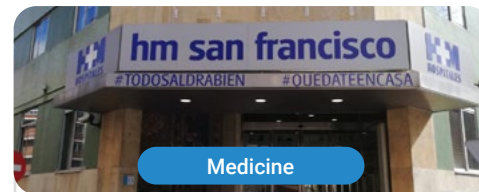
Country City
Spain La Coruña

Address: Rúa Virrey Osorio, 30, 15011,
A Coruña

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

Related internship programs:

- Anaesthesiology and Resuscitation
- Palliative Care



Medicine

Hospital HM San Francisco

Country City
Spain León

Address: C. Marqueses de San Isidro, 11,
24004, León

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

Related internship programs:

- Update in Anesthesiology and Resuscitation
- Trauma Nursing



Medicine

Hospital HM Regla

Country City
Spain León

Address: Calle Cardenal Landázuri, 2,
24003, León

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

Related internship programs:

- Update on Psychiatric Treatment in Minor Patients



Medicine

Hospital HM Nou Delfos

Country City
Spain Barcelona

Address: Avinguda de Vallcarca, 151,
08023 Barcelona

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

Related internship programs:

- Aesthetic Medicine
- Clinical Nutrition in Medicine



Medicine

Hospital HM Madrid

Country City
Spain Madrid

Address: Pl. del Conde del Valle de Súchil, 16,
28015, Madrid

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

Related internship programs:

- Palliative Care
- Anaesthesiology and Resuscitation



Medicine

Hospital HM Montepíncipe

Country City
Spain Madrid

Address: Av. de Montepíncipe, 25, 28660,
Boadilla del Monte, Madrid

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

Related internship programs:

- Palliative Care
- Aesthetic Medicine



Medicine

Hospital HM Torrelodones

Country City
Spain Madrid

Address: Av. Castillo Olivares, s/n, 28250,
Torrelodones, Madrid

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

Related internship programs:

- Anaesthesiology and Resuscitation
- Palliative Care



Medicine

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



Medicine

Hospital HM Puerta del Sur

Country	City
Spain	Madrid

Address: Av. Carlos V, 70, 28938,
Móstoles, Madrid

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

Related internship programs:

- Palliative Care
- Clinical Ophthalmology



Medicine

Hospital HM Vallés

Country	City
Spain	Madrid

Address: Calle Santiago, 14, 28801, Alcalá
de Henares, Madrid

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

Related internship programs:

- Gynecologic Oncology
- Clinical Ophthalmology

09

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.



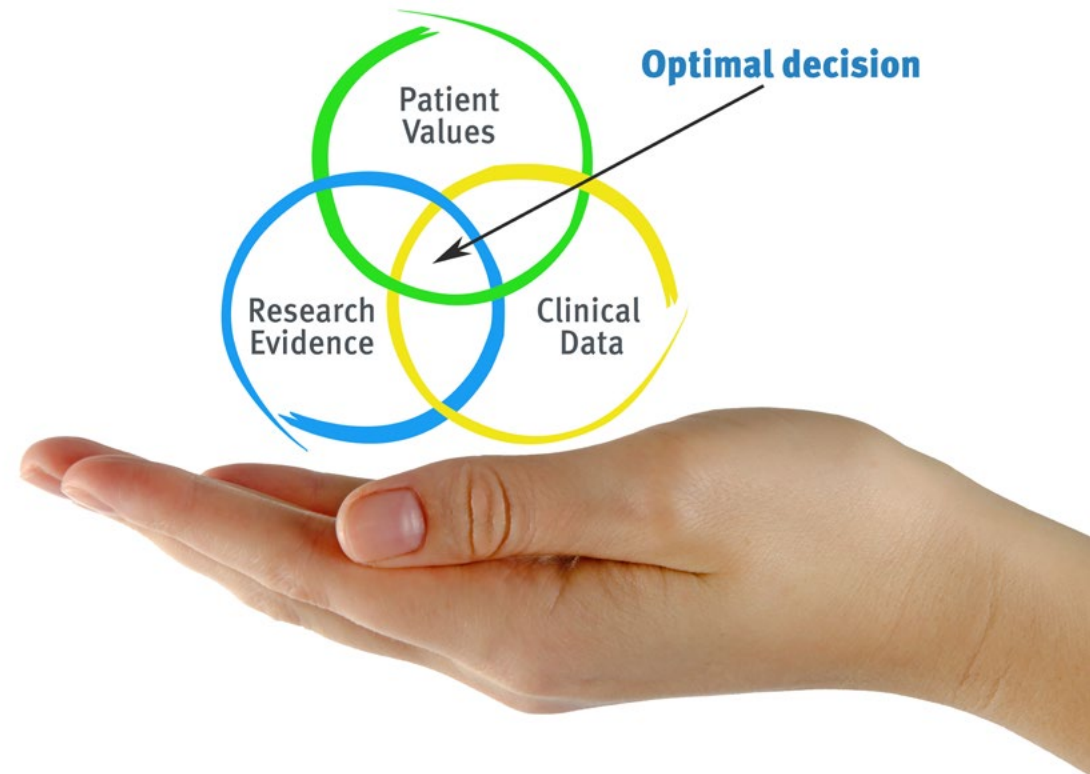
“

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. Gervas, 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.

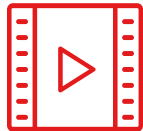
Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.

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

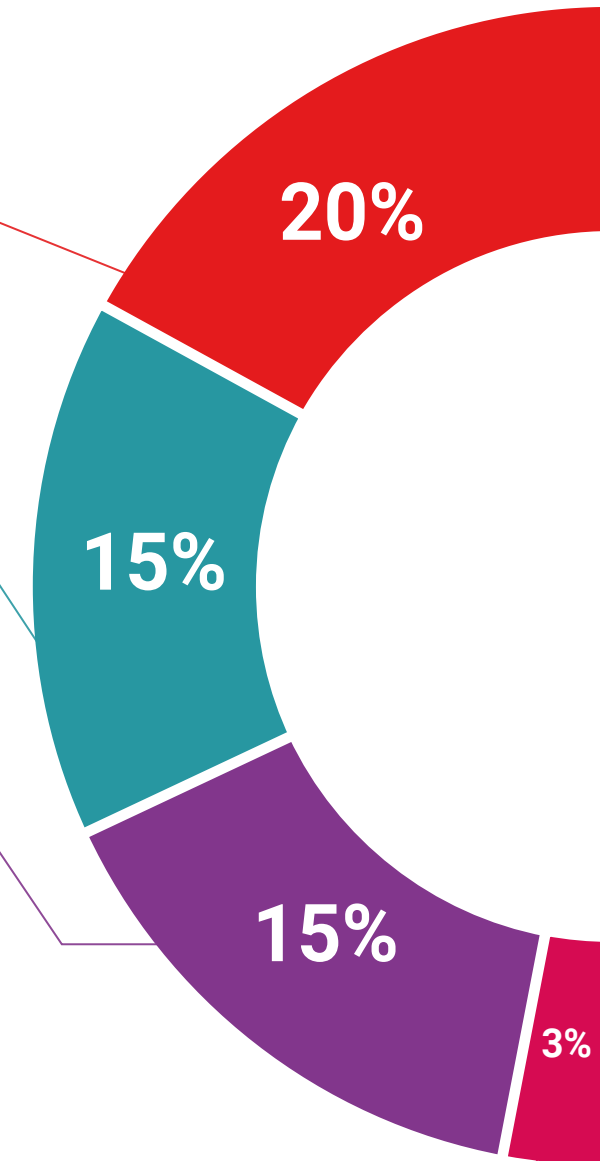
The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

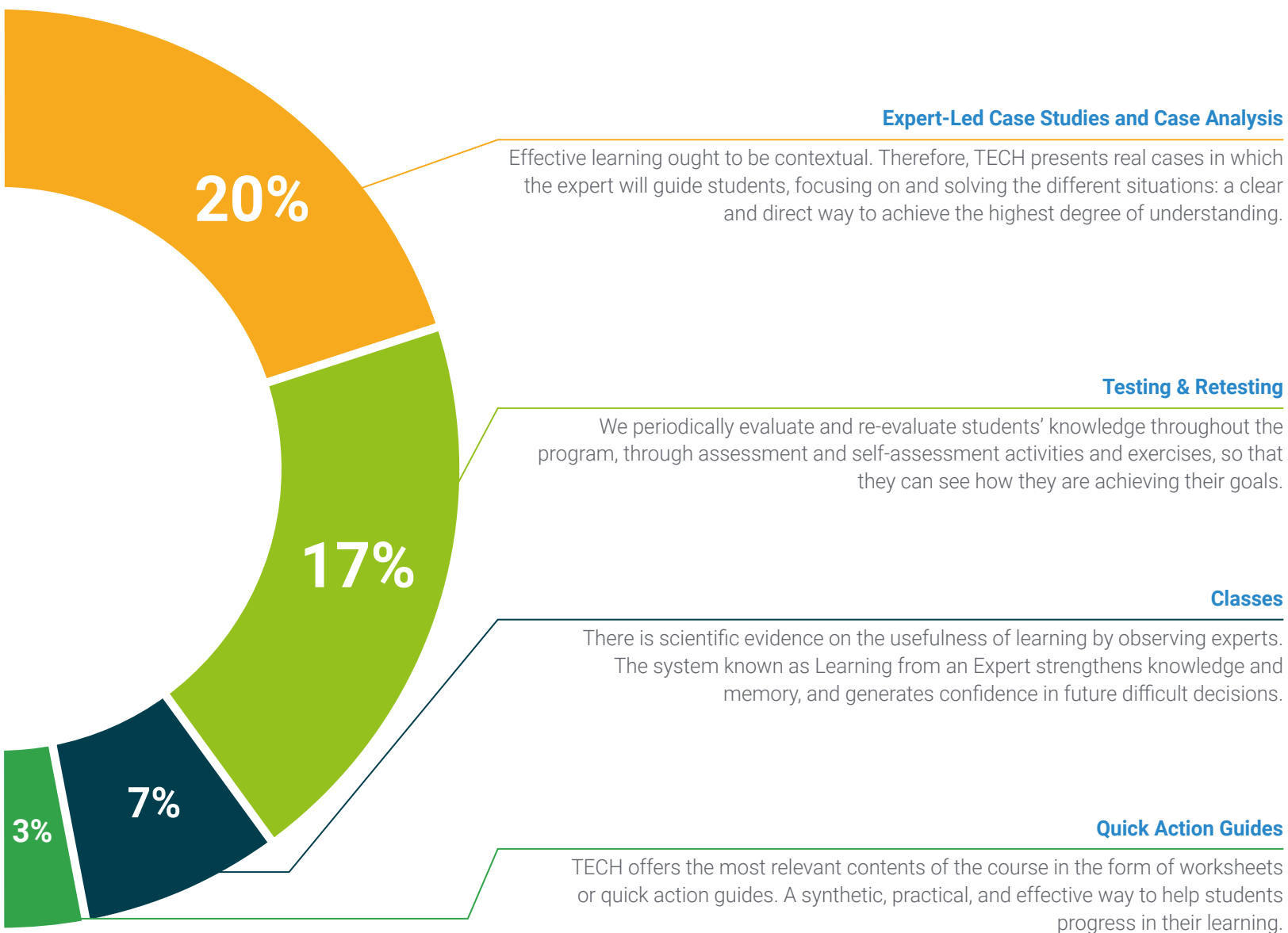
This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



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.





10 Certificate

This Hybrid Master's Degree in Infectious Diseases in the Emergency Department guarantees students, in addition to the most rigorous and up-to-date education, access to a Hybrid Master's Degree diploma issued by TECH Global University.



“

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

This program will allow you to obtain your **Hybrid Master's Degree diploma in Infectious Diseases in the Emergency Department** endorsed by **TECH Global University**, the world's largest online university.

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



This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

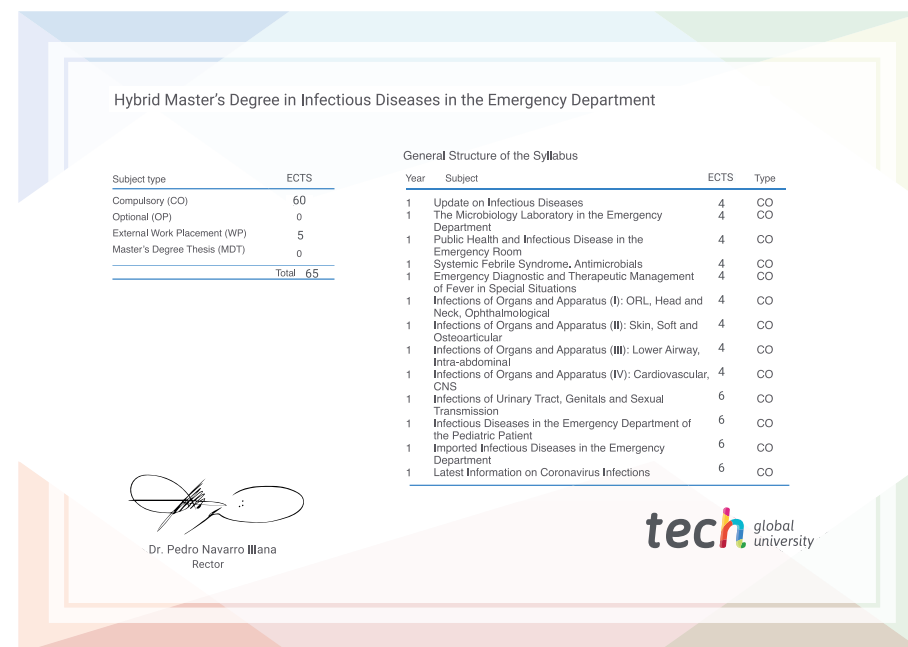
Title: **Hybrid Master's Degree in Infectious Diseases in the Emergency Department**

Course Modality: **Hybrid (Online + Clinical Internship)**

Duration: **12 months**

Certificate: **TECH Global University**

Recognition: **60 + 5 ECTS Credits**





Hybrid Master's Degree Infectious Diseases in the Emergency Department

Modality: Hybrid (Online + Clinical Internship)

Duration: 12 months

Certificate: TECH Global University

60 + 5 créditos ECTS

Hybrid Master's Degree

Infectious Diseases in the Emergency Department

