

Postgraduate Certificate

Diagnosis and Control of Nosocomial Infection





Postgraduate Certificate Diagnosis and Control of Nosocomial Infection

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Credits: 6 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/us/pharmacy/postgraduate-certificate/diagnosis-control-nosocomial-infection

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01

Introduction

Infections that occur in hospitals or healthcare centers are a major concern for healthcare professionals as they can put patients' lives at risk. In this sense, it is vital that pharmacy professionals know everything about this type of infections in order to know how to prevent them from a pharmacological point of view. That is why this TECH program will allow pharmacists to specialize in the Diagnosis and Control of Nosocomial Infection, with this high-level qualification. You will learn the latest techniques and developments in the field, from professionals with years of experience in the sector. A unique opportunity to specialise in a high-demand professional field.



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With this Postgraduate Certificate, you have the opportunity to update your knowledge in a comfortable way and without renouncing the highest scientific standards, to incorporate the latest advances in the approach to infectious pathology in your daily pharmaceutical practice”

Infectious diseases remain the leading cause of mortality and disability (loss of productive life years) in the world. In 2016, of the total 56.4 million deaths worldwide, 33% were due to infectious diseases, 30% to cardiovascular diseases and 10% to cancer. The fight against disease will have two simultaneous fronts: infectious diseases and chronic non-communicable diseases.

Among the 17.3 million people who died from infections in 2016, the most frequent causes of death were lower respiratory infections (3.7 million), malaria (2.2 million), tuberculosis (1.3 million), diarrhea (1.4 million), and HIV/AIDS infection (1.1 million). The most important factors to take into consideration in relation to infectious diseases are demographics and human behavior, technological and industrial development, economic development and variations in land use, intercontinental travelling and commerce, climate change, microbiotic adaptation and finally the disappearance or reduction of efficient public health measures.

These factors, interacting with each other, have conditioned that we should not consider any part of the planet reasonably isolated from the rest, nor impossible the appearance, reappearance or dissemination of imported or apparently eradicated infectious diseases in our environment.

The complex international epidemiological situation so far this century, exemplified by the deliberate release of *Bacillus anthracis* spores as a weapon of bioterrorism to cause pulmonary anthrax in victims who inhaled them, the emergence of West Nile virus as a pathogen in the United States, the epidemic of Severe Acute Respiratory Syndrome (SARS), the zoonotic spread of monkeypox in the United States, the threat of pandemic influenza, the Ebola epidemic in Africa, the emergence of yellow fever cases in Angola, coupled with the re-emergence of dengue and cholera, the emergence of new arboviruses in the Americas region, The emergence of new arboviruses in the Americas, such as Chikungunya and more recently Zika, together with morbidity from other endemic infectious diseases, such as HIV/AIDS, leptospirosis, tuberculosis, community-acquired pneumonia and the increase in antibiotic resistance with the development of multidrug-resistant bacteria, all of which highlight the unprecedented need to improve the process of training and development of human capital in order to increase the competence and performance of all the personnel necessary to face the challenges involved in controlling and dealing with biological, hospital and public health emergencies that guarantee the quality and safety of health care for the population in any part of the world.

This **Postgraduate Certificate in Diagnosis and Control of Nosocomial Infection** contains the most complete and up-to-date program on the market. The most important features of the program include:

- Clinical cases presented by experts in Diagnosis and Control of Nosocomial Infection
- 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
- New developments on Diagnosis and Control of Nosocomial Infection
- Practical exercises where self-assessment can be used to improve learning
- An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course
- 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



Seize the moment and gain up-to-date knowledge on the management of coronavirus infections"

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This Postgraduate Certificate is the best investment you can make in a qualification for two reasons: you will obtain a Postgraduate Certificate from the first private educational institution in Spain, TECH, and you will acquire the best and most up-to-date education in Diagnosis and Control of Nosocomial Infection "

Its faculty is made up of prestigious and renowned professionals, with a long history in health care, teaching and research, who have worked in many countries on several continents, developing a professional and teaching experience that they deliver in an extraordinary way in this Postgraduate Certificate.

The methodological design of this Postgraduate Certificate, developed by a multidisciplinary team of e-learning experts, integrates the latest advances in educational technology for the creation of numerous educational multimedia tools that allow the professional, based primarily on the problem-based learning method, to address real problems in their daily clinical practice, which will allow them to advance by acquiring knowledge and developing skills that will impact their future professional work.

It should be noted in this Postgraduate Certificate that all of the contents generated, as well as the videos, self-evaluations, clinical cases and exams have been thoroughly reviewed, updated, and integrated by the teachers and the team of experts that make up the working group, to facilitate the learning process with a step-by-step approach in order to achieve the teaching program objectives.

This program, recently updated to address the global pandemic situation, is the best in the educational landscape on viral infections.

Don't miss the opportunity to learn about advances in the treatment of infections and incorporate them into your daily pharmacy practice.



02 Objectives

The fundamental purpose of the educational program is to specialize and improve the pharmacist to achieve a deep theoretical mastery of the latest and most current scientific knowledge in the area of clinical infectious diseases, as well as the development of skills that allow them to approach the complex process of health and infectious diseases in individuals and communities with more comfort and safety.



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This program will generate a sense of confidence in the performance of pharmacy practice, which will help you grow personally and professionally”



General Objectives

- Update or deepen your knowledge and develop your skills for daily clinical practice in healthcare, teaching or research roles in the field of infectious diseases in order to provide individual or group population care that allows for the improvement of health indicators
- Improve the pharmaceutical and health care of patients with infectious diseases, based on comprehensive care, the application of the clinical epidemiological method and the correct use of antimicrobials in accordance with the most up-to-date scientific evidence





Specific Objectives

- Identify the main germs involved in foodborne infections and their clinical significance.
- To highlight the role of immunity in central nervous system infections and their complications
- Highlight the role of Zoonoses as a major global health problem

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Improve the care of your patients by taking advantage of the program offered by the Postgraduate Certificate in Diagnosis and Control of Nosocomial Infection"

03

Course Management

This academic program includes the most specialized teaching staff in the current educational market. They are specialists selected by TECH to develop the whole syllabus. In this way, starting from their own existence and the latest evidence, they have designed the most up-to-date content that provides a guarantee of quality in such a relevant subject.



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TECH offers the most specialized teaching staff in the field of study. Enroll now and enjoy the quality you deserve”

International Guest Director

Dr. Jatin Vyas is a prestigious physician specializing in Microbial Infectious Pathologies and Fungal Immunology. His work philosophy is based on providing holistic care to his patients, with an empathetic approach to pain management. Likewise, his work, code of ethics and values have been recognized on multiple occasions in the form of awards, including the Kass Award for “Clinical Excellence in Infectious Diseases”.

It should be noted that, after completing his residency in Anesthesiology at Case Western Reserve University in Cleveland, he obtained a fellowship in Interventional Pain Management from the University of Iowa. In line with this, he has combined this work with his role as a Research Scientist, focusing on immune responses to pathogenic fungi. In this sense, he has published a wide production of specialized articles in areas such as viral elimination and evolution of SARS-CoV-2, differentiation of functional airway microfold cells or epithelial defects of the respiratory tract associated with the TAT3 mutation in Job's Syndrome. On the other hand, he has been in charge of leading multiple research projects focused on infectious conditions and innovative treatments. Likewise, he has contributed significantly to the understanding and management of several contagious bacterial diseases.

In his commitment to clinical excellence, he regularly participates in the most renowned scientific congresses and medical symposia worldwide. He shares his extensive experience and knowledge on subjects such as antibiotic resistance, the adaptation mechanisms of pathogenic fungi or the most cutting-edge therapies to combat different viral infections. Thanks to this, Dr. Jatin Vyas has contributed cutting-edge strategies to raise awareness of these conditions in both the healthcare community and society at large.



Dr. Vyas, Jatin

- Director of Internal Medicine at Massachusetts General Hospital, United States
- Researcher funded by the National Institutes of Health of the United States Government
- Research Fellow in Interventional Pain Management at the University of Iowa
- Research Fellow in Chemistry at the Welch Foundation, California
- Residency in Anesthesiology at Case Western Reserve University, Cleveland, Ohio
- Doctorate in Medicine, University of Arkansas
- Bachelor of Science in Forensic Science
- Board Certification in Infectious Diseases by the American Board of Internal Medicine
- Board Certification in Internal Medicine by the American Board of Internal Medicine



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

04

Structure and Content

The syllabus has been created by a group of professors and professionals in pharmacy and medicine, from various medical specialties, with extensive medical, research and teaching experience in several countries in Africa, Central and South America, interested in integrating the latest and most current scientific knowledge of clinical infectology and antimicrobial therapeutics to ensure training and professional development to improve the daily clinical practice of professionals who care for patients or populations with infectious diseases.





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*This Postgraduate Certificate in
Diagnosis and Control of Nosocomial
Infection for Pharmacists contains
the most complete and up-to-date
program on the market”*

Module 1. Nosocomial Infections Associated With Healthcare and Patient Safety

- 1.1. Epidemiology of Nosocomial Infections
 - 1.1.1. Operative Site Infection: Definition Epidemiology. Most Frequent Germs Therapeutic Behavior
 - 1.1.2. Nosocomial Pneumonia and Associated Mechanical Ventilation: General Concepts Epidemiology. Risk Factors. Etiology. Diagnosis. Prevention. Most-Used Antibiotics
- 1.2. Infection Associated With Non-Tunneled Peripheral and Central Venous Catheters and Urinary Catheters
 - 1.2.1. Epidemiology
 - 1.2.2. Etiology
 - 1.2.3. Risk Factors
 - 1.2.4. Behavior for its Diagnosis and Treatment
- 1.3. Clostridium Difficile Infection
 - 1.3.1. Epidemiology
 - 1.3.2. Risk Factors
 - 1.3.3. Clinical Manifestations
 - 1.3.4. Diagnosis
 - 1.3.5. Treatment
- 1.4. Global Vision of the Infection in Critical Patients in the ICU
 - 1.4.1. Epidemiology
 - 1.4.2. Risk Factors
 - 1.4.3. Etiology
 - 1.4.4. Prevention
 - 1.4.5. Most-Used Antibiotics



- 1.5. Infections Associated With Devices Used in Medicine
 - 1.5.1. Infections Associated with Biofilm
 - 1.5.2. Infections From Devices Used in Orthopedics
 - 1.5.3. Infection From Devices Used in Cardiovascular Surgery
 - 1.5.4. Infection in Neurosurgery Devices
 - 1.5.5. Infections of Implants and Prostheses
- 1.6. Universal Measures for Nosocomial Infection:
 - 1.6.1. Main Measures Internationally Recommended the Control of Nosocomial Infection
- 1.7. Infections Associated With Healthcare
 - 1.7.1. Definition
 - 1.7.2. Epidemiology
 - 1.7.3. Etiology
 - 1.7.4. Antimicrobials Used

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A unique, key, and decisive program to boost your professional development”

05

Methodology

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

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





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

At TECH we use the Case Method

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

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



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

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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. Pharmacists who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their 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.

Our 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, which represent a real revolution with respect to simply studying and analyzing cases.

Pharmacists will learn through real cases and by solving 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 115,000 pharmacists have been trained with unprecedented success in all clinical specialties, regardless of the surgical load. This pedagogical methodology is developed in a highly demanding environment, with a university student body with a high socioeconomic profile and an average age of 43.5 years.

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 created specifically for the course by specialist pharmacists who will be teaching the course, so that the didactic development is highly specific and accurate.

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.



Video Techniques and Procedures

TECH introduces students to the latest techniques, to the latest educational advances, to the forefront of current pharmaceutical care procedures. All of this, first hand, and explained and detailed with precision to contribute to assimilation and a better understanding. And best of all, you can watch them as many times as you want.



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 unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".



Additional Reading

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





Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, we will present you with real case developments in which the expert will guide you through focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



Testing & Retesting

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



Classes

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



Quick Action Guides

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



06

Certificate

The Postgraduate Certificate in Diagnosis and Control of Nosocomial Infection guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Global University.



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

This program will allow you to obtain your **Postgraduate Certificate in Diagnosis and Control of Nosocomial Infection** 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: **Postgraduate Certificate in Diagnosis and Control of Nosocomial Infection**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**



future

health confidence people

education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

personalized service innovation

knowledge present

online training

development languages

virtual classroom

tech global
university

Postgraduate Certificate Diagnosis and Control of Nosocomial Infection

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