

Postgraduate Certificate

Therapeutic Management of the Poisoned Patient





Postgraduate Certificate Therapeutic Management of the Poisoned Patient

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedicated: 16 hours a week
- » Schedule: at your own pace
- » Exams: online

Website: www.techtute.com/us/medicine/postgraduate-certificate/therapeutic-management-poisoned-patient

Index

01

Introduction

p. 4

02

Objectives

p. 8

03

Course Management

p. 12

04

Structure and Content

p. 18

05

Methodology

p. 22

06

Certificate

p. 30

01

Introduction

Millions of people get sick around the world every year from consuming toxic substances directly or indirectly. Therefore, such as contact with dangerous animals or natural agents and chemical products with high content harmful to health. For this reason, from the Emergency or Primary Care consultation, the specialist faces various cases that require precise attention, quickly, to avoid irreversible effects such as death in many cases. In this sense, the constant updating of the antidotes or therapeutic methods to follow is essential. This academic program contains exclusive content prepared by the TECH team of professionals for your learning and updating of updates on the subject. There will be 6 weeks of 100% online study led by expert teachers and with the most effective teaching methodology: *Relearning*.





“

With this program you will be up to date with the most effective antidotes and methods to increase the elimination of the toxic in the Therapeutic Management of the Poisoned Patient”

The Emergency or Primary Care specialist must know the most up-to-date diagnostic and therapeutic methods for the treatment of the poisoned patient. Being effective in determining the necessary antidote can avoid dire consequences for the patient. That is why constant studies in this sense are necessary, and with this academic program the graduate will acquire the new competencies and skills required to respond to this type of queries.

Throughout 6 weeks of study, the professional will be able to update himself regarding the three phases of the specific treatment of poisoning, the most effective methods according to each case presented, as well as the main antidotes and indications, contraindications, side effects and precautions of each of them.

On the other hand, it will delve into the technique of nasogastric or orogastric tube placement and gastric lavage, in addition to the skin and eye decontamination technique, among others. Upon completion, he will be able to determine risk factors for self-harming behavior, the very important medico-legal aspects of toxicological care, as well as preventive measures.

In the same way, he will delve into the general etiology and toxicological causes of Rhabdomyolysis, Methemoglobinemia or the different syndromes associated with the abuse of psychotropic drugs. All this and much more, in a broad syllabus that has been exhaustively chosen by the professional experts who make up the teaching staff of this program. In this framework, the graduate will be up to date with the most necessary information and up to date with the latest scientific evidence for the Therapeutic Management of the Poisoned Patient.

This **Postgraduate Certificate in Therapeutic Management of the Poisoned Patient** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ The development of practical cases presented by experts in Toxicology in the Emergency Room.
- ♦ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice.
- ♦ Practical exercises where the self-assessment process can be carried out to improve learning.
- ♦ Its special emphasis on innovative methodologies
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ♦ The availability of access to the contents from any fixed or portable device with Internet connection.



You will effectively detect clinical manifestations and differential diagnosis, as well as the treatment of acute dystonia or drug-induced Parkinsonism”

“

You will manage the general outline of the complementary aspects to take into account when dealing with suicidal patients related to Toxicology”

The program includes in its teaching staff professionals of the field who pour into this training the experience of their work, in addition to recognized specialists from reference societies and prestigious universities.

Its multimedia content, developed with the latest educational technology, will allow the professional a situated and contextual learning, that is, a simulated environment that will provide an immersive training programmed to train in real situations.

The design of this program focuses on Problem-Based Learning, in which the professional will have to try to solve the different professional practice situations that will arise throughout the academic course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.

This program contains the medico-legal aspects of toxicological care necessary in the Emergency or Primary Care consultation.

This Postgraduate Certificate offers the most updated content and the Relearning methodology that will allow you to meet your goal easily, quickly and safely.



02 Objectives

This Postgraduate Certificate in Therapeutic Management of the Poisoned Patient contains an ideal structure so that the student can meet their academic goal in just 6 weeks. Thanks to the design designed by expert teachers and the team of TECH professionals, the student will have all the necessary tools and resources through the most modern, comfortable and secure virtual platform to keep up to date. Being able at the end to function in a clinical context of Emergencies or Primary Care consultations for poisoning, managing the most up-to-date diagnostic methods, treatment techniques and antidotes.





“

You will be able to determine the clinical manifestations and the differential diagnosis of emergencies associated with toxic substances such as psychotropic drugs or animal bites, among others”



General Objectives

- ♦ Define the basic and general principles of care for the severely poisoned patient
- ♦ Identify the main toxics available in our environment
- ♦ Describe the main signs and symptoms related to severe acute poisoning and its organ involvement
- ♦ Implement mechanisms to protect the severely poisoned patients and those around them
- ♦ Detect complications related to the related toxicant or to the patient's health status
- ♦ Explain the process of care, diagnosis and treatment of the severely poisoned patient in all its dimensions



Throughout the study of this academic program you will be guided by a team of experts in the pedagogical, health and other specific areas related to Toxicology”





Specific Objectives

- ♦ Determine the organic repercussions of Toxicology in athletes and the different products used
- ♦ Assess poisoning related to possible pharmacological errors in the pediatric patient
- ♦ Apply specific protocols to be followed in case of overdose in pregnant women
- ♦ Locate the principles of teratogenesis and all those products that can produce it
- ♦ Master products that may pose a risk of poisoning to both the mother and the newborn during breastfeeding
- ♦ Examine the epidemiology, etiology and repercussions of acute poisonings in pediatric and neonatal age
- ♦ Diagnose the characteristics of intentional and unintentional poisoning in the elderly
- ♦ Evaluate the toxicokinetics of paracetamol, antihistamines and decongestants and protocols for their management
- ♦ Recognize the toxicokinetics of antifungal and anti-inflammatory drugs and therapeutic strategies against them
- ♦ Examine the toxicokinetics of opioids, bisphosphonates and antineoplastics and their treatment in case of acute intoxication
- ♦ Determine the toxicokinetics of antiepileptics, antidiabetics and hypoglycemic agents and their appropriate clinical approach

03

Course Management

Thanks to the renowned experience of the teachers who make up this program, the syllabus is full of the most up-to-date and exclusive content, since based on their own experience and the latest scientific evidence they have designed 2 modules on the most timely manner, to develop in the area of health, specifically in the therapeutic management of the poisoned patient. A guarantee of the quality that they want to obtain in such a relevant topic.





“

The most expert teachers in Emergency Toxicology are here. You will enjoy a unique and exclusive academic journey”

Management



Dr. Álvarez Rodríguez, Cesáreo

- ♦ Emergency Physician Head of the Emergency Unit of Verín Hospital
- ♦ Chairman of the Research and Teaching, Ethics and Medical Records Committee Verín Hospital
- ♦ Coordinator of the Toxicology Working Group of SEMES Galicia.
- ♦ Scientific Secretary of the Galician Society of Emergency Medicine (SEMES Galicia).
- ♦ Vice-Secretary for Training of the Spanish Society of Emergency Medicine (SEMES)
- ♦ Director of Doctoral Thesis in the area of Clinical Toxicology (Extraordinary Award)
- ♦ Resident Intern. Virgen de la Concha General Hospital of Zamora
- ♦ Specialist in the Emergency Department Virgen de la Concha General Hospital of Zamora
- ♦ Resident Intern. Professional School of Sports Medicine of the University of Oviedo
- ♦ Primary Care Physician SERGAS
- ♦ PhD in Medicine and Surgery from the Autonomous University of Madrid.
- ♦ Degree in Medicine and Surgery from the University of Santiago de Compostela with a Bachelor's Degree in Medicine and Surgery
- ♦ Physical Education and Sports Medicine Professional School of Sports Medicine of the University of Oviedo
- ♦ Research Sufficiency by the University of Salamanca
- ♦ Specialist in Family and Community Medicine
- ♦ Postgraduate Diploma in Health Promotion
- ♦ Advanced Life Support Instructor (American Heart Association Accredited)
- ♦ Member of the Editorial Board of the journal "Emergencias"

Professors

Dr. Burillo Putze, Guillermo

- ♦ Specialist in Family and Community Medicine
- ♦ Researcher of the Department of Physical and Pharmacological Medicine of the University of La Laguna
- ♦ Former Coordinator of the Emergency Department of the University Hospital Complex of the Canary Islands
- ♦ Doctor in Medicine and Surgery from the University of La Laguna.
- ♦ Postgraduate Diploma in Toxicology by the University of Seville
- ♦ Advanced Life Support Instructor Course of the School of Clinical Toxicology of Washington, USA
- ♦ Member of European Register of Toxicologists, Spanish Association of Toxicology

Dr. Bajo Bajo, Angel Ascensiano

- ♦ Hospital Emergency Physician at the University Health Care Complex of Salamanca
- ♦ Associate Professor of Emergency Medicine at the University of Salamanca
- ♦ PhD in Medicine from the University of Salamanca
- ♦ Degree in Medicine and Surgery from the University of Salamanca.
- ♦ Certified in Emergency Medicine by the Spanish Society of Emergency Medicine (SEMES)
- ♦ Member of Clinical Toxicology La Section of the Spanish Association of Toxicology (AETOX), Clinical Toxicology Working Group of the Spanish Society of Emergency Medicine (SEMETOX), European Association of Poison Control Centres and Clinical Toxicology (EAPCCT), Founder of the Spanish Foundation of Toxicology (FETOC)

Dr. Giralde Martínez, Patricia

- ♦ Prehospital Emergency Physician in the Galician 061 Health Emergency Service
- ♦ Hospital Emergency Physician at the Montecelo Hospital
- ♦ Postgraduate University Professor in the course "Postgraduate Diploma in Urgencies and Emergencies" of the School of Health Sciences of the Complutense University of Madrid
- ♦ General Vice-Secretary of the Galician Society of Emergency Medicine (SEMES Galicia)
- ♦ Member of Scientific Committee of the XXI Conference on Clinical Toxicology and XI Conference on Toxicovigilance
- ♦ Graduate in Medicine and Surgery from the University of Santiago de Compostela
- ♦ Specialist in Family and Community Medicine
- ♦ Master's Degree in Emergencies and Catastrophes by the University CEU San Pablo

Dr. Mayan Conesa, Plácido

- ♦ Emergency Coordinator at University Clinical Hospital of Santiago
- ♦ Emergency Physician at the University Hospital Complex of La Coruña
- ♦ Reviewer of the journal Emergencias
- ♦ Teacher of Advanced Life Support
- ♦ Graduate in Medicine and Surgery from the Universidad de Navarra
- ♦ Specialist in Family and Community Medicine
- ♦ Diploma of Advanced Studies from the University of La Coruña
- ♦ Member of SEMES (board of directors)

Dr. Miguens Blanco, Iria

- ♦ Doctor at the Emergency Department of the Gregorio Marañón General University Hospital
- ♦ Specialist in Prehospital Emergency Medicine in the Emergency Service of the Community of Madrid-SUMMA
- ♦ Specialist in Family and Community Medicine
- ♦ Graduate in Medicine and Surgery from the University of Santiago de Compostela
- ♦ Master's Degree in Emergency Medicine from the Complutense University of Madrid.
- ♦ Master's Degree in Teaching and Digital Skills in Health Sciences by Cardenal Herrera CEU University
- ♦ Master's Degree in Healthcare Law and Bioethics from the University of Castilla-La Mancha
- ♦ SEMES national board member and director of Mujeres SEMES

Dr. Maza Vera, María Teresa

- ♦ Undersecretary of Accreditation and Quality of SEMES
- ♦ Specialist in Hospital Emergency Medicine at the Álvaro Cunqueiro Hospital of Vigo
- ♦ Member of the Toxicology Working Group of SEMES Galicia
- ♦ Coordinator of the Scientific Committee of the XXIV Autonomic Congress SEMES Galicia
- ♦ Specialist in Family and Community Medicine
- ♦ Diploma of Advanced Studies in Health Sciences from the University of Vigo.

Mr. Rodríguez Domínguez, José María

- ♦ .TEDAX-NRBQ Specialist in the TEDAX-NRBQ Unit of the National Police.
- ♦ TEDAX-NRBQ teacher for national and international organizations
- ♦ Degree in Biology from the University of Santiago de Compostela





Dr. Suárez Gago, María del Mar

- ◆ Assistant Physician of the Emergency Department of the Verín Hospital
- ◆ Member of the Toxicology Working Group of SEMES Galicia
- ◆ Specialist in Internal Medicine
- ◆ VMER (Medical Emergency and Resuscitation Vehicle) accreditation of the Training Center of the National Institute of Medical Emergencies of Oporto (INEM)
- ◆ Degree in Medicine and Surgery University of the Basque Country

Mr. Carnero Fernandez, César Antonio

- ◆ Deputy Inspector of National Police
- ◆ Specialist in narcotic poisoning in the TEDAX-NRBQ Unit



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

04

Structure and Content

This academic program, developed 100% online, offers the ease of choosing the best time and place to study. Thanks to the modern technology and teaching methodology that TECH has, with just a device with an Internet connection and the best disposition they will advance towards the goal in just 6 weeks. Therefore, the graduate will have a broad documentary source of all the new trends and contextualization of the Therapeutic Management of the Poisoned Patient.



“

A 100% online academic program with the most up-to-date content in Therapeutic Management of the Poisoned Patient”

Module 1. Therapeutic Management of the Poisoned Patient: Specific Treatment

- 1.1. The Three Phases of the Specific Treatment of Poisoning
- 1.2. Decrease Toxin Absorption
 - 1.2.1. Digestive Decontamination
 - 1.2.1.1. Emetics
 - 1.2.1.2. Gastric lavage
 - 1.2.1.3. Activated Carbon
 - 1.2.1.4. Cathartics
 - 1.2.1.5. Whole Bowel Irrigation
 - 1.2.2. Skin Decontamination
 - 1.2.3. Ocular Decontamination
 - 1.2.4. Prevention of Parenteral Absorption
 - 1.2.5. Prevention of Pulmonary Absorption
 - 1.2.6. Endoscopy and Surgery
 - 1.2.7. Dilution
 - 1.2.8. Conclusions and Key Points
- 1.3. Increasing Toxicant Elimination
 - 1.3.1. Kidney Cleanse
 - 1.3.1.1. Forced Diuresis
 - 1.3.1.2. Alkaline Diuresis
 - 1.3.2. Extrarenal Purification
 - 1.3.2.1. Dialysis
 - 1.3.2.2. Hemoperfusion, Hemofiltration, Hemodiafiltration
 - 1.3.2.3. Plasmapheresis and Exchange Transfusion
 - 1.3.2.4. Conclusions and Key Points
- 1.4. Antidotes
 - 1.4.1. Main Antidotes
 - 1.4.1.1. Indications, Contraindications, Side Effects and Precautions
 - 1.4.1.2. Dose
 - 1.4.2. Minimum Stock of Antidotes Depending on the Type of Hospital or Health Center
 - 1.4.3. Conclusions and Key Points
- 1.5. Antidotes



- 1.5.1 Nasogastric or Orogastic Tube Placement Technique and Gastric Lavage
- 1.5.2 Skin and Ocular Decontamination Techniques

Module 2. Therapeutic Management of the Poisoned Patient: Additional Aspects

- 2.1. General Outline of Additional Aspects to Consider
- 2.2. The Suicidal Patient and Toxicology. Psychiatric Assessment
 - 2.2.1. Introduction
 - 2.2.2. Risk Factors for Self-Harming Behavior
 - 2.2.3. Determining the Severity of Self-Harm Attempts
 - 2.2.4. Suicidal Patient Management
 - 2.2.5. Conclusions and Key Points
- 2.3. Medical and Legal Aspects of Toxicological Care
 - 2.3.1. Introduction
 - 2.3.2. Report to the Court
 - 2.3.3. Medical and Legal Autopsy
 - 2.3.4. Sampling of the Patient Corpse
 - 2.3.5. Informed Consent and Voluntary Discharge of the Poisoned Patient
 - 2.3.6. The Extraction of Blood Samples for Toxicological Studies in the Emergency Room
 - 2.3.7. Conclusions and Key Points
- 2.4. Protective Measures for Health Care Personnel
 - 2.4.1. Introduction
 - 2.4.2. Personal Protective Equipment (PPE)
 - 2.4.3. Poison Prevention Measures for Healthcare Personnel
 - 2.4.4. Conclusions and Key Points
- 2.5. General Criteria for Admission to an Intensive Care Unit
 - 2.5.1. Introduction
 - 2.5.2. Criteria Table
 - 2.5.3. Conclusions and Key Points
- 2.6. Toxicant-Induced Rhabdomyolysis
 - 2.6.1. Introduction
 - 2.6.2. Definition and Pathophysiology
 - 2.6.3. General Etiology and Toxicological Causes of Rhabdomyolysis
 - 2.6.4. Clinical Manifestations, Laboratory Tests and Complications
 - 2.6.5. Treatment
 - 2.6.6. Conclusions and Key Points
- 2.7. Toxicant-Induced Methemoglobinemia
 - 2.7.1. Introduction
 - 2.7.2. Pathophysiology
 - 2.7.3. Etiology of Methemoglobinemia
 - 2.7.4. Clinical Manifestations
 - 2.7.5. Suspected, Differential and Confirmatory Diagnosis
 - 2.7.6. Treatment
- 2.8. Hypersensitivity and Anaphylaxis Secondary to Poisonings by Animal Stings or Bites
 - 2.8.1. Introduction
 - 2.8.2. Etiology
 - 2.8.3. Hypersensitivity Types
 - 2.8.4. Clinical Manifestations
 - 2.8.5. Diagnosis
 - 2.8.6. Treatment Management
 - 2.8.7. Conclusions and Key Points
- 2.9. Emergencies Associated with Psychotropic Drugs
 - 2.9.1. Introduction
 - 2.9.2. Neuroleptic Malignant Syndrome.
 - 2.9.2.1. Definition and Risk Factors
 - 2.9.2.2. Clinical Manifestations and Differential Diagnosis
 - 2.9.2.3. Treatment
 - 2.9.3. Serotonin Syndrome
 - 2.9.3.1. Causes
 - 2.9.3.2. Clinical Manifestations and Differential Diagnosis
 - 2.9.3.3. Treatment
 - 2.9.4. Acute Dystonia
 - 2.9.5. Drug-Induced Parkinsonism
 - 2.9.6. Conclusions and Key Points

05

Methodology

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

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





“

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

At TECH we use the Case Method

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

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



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

“

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

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

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



Relearning Methodology

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

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

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



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

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

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

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

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



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



Study Material

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

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



Surgical Techniques and Procedures on Video

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



Interactive Summaries

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

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



Additional Reading

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





Expert-Led Case Studies and Case Analysis

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



Testing & Retesting

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



Classes

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



Quick Action Guides

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



06

Certificate

The Postgraduate Certificate in Therapeutic Management of the Poisoned Patient guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.





“

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

This **Postgraduate Certificate in Therapeutic Management of the Poisoned Patient** contains the most complete and up-to-date scientific program on the market.

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

This diploma contributes in a relevant way to the development of the professional's continuing education and provides a high university curricular value to their training, and is 100% valid in all public examinations, professional career and labor exchanges of any Spanish Autonomous Community.

Title: **Postgraduate Certificate in Therapeutic Management of the Poisoned Patient**

Official No. of Hours: **275 hours**.



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



Postgraduate Certificate
Therapeutic Management of
the Poisoned Patient

- » Modality: online
- » Duration: 6 months.
- » Certificate: TECH Technological University
- » Dedicated: 16 hours a week
- » Schedule: at your own pace
- » Exams: online

PostgraduateCertificate

Therapeutic Management of the Poisoned Patient



BALÓN PILOTO