

Postgraduate Diploma

Advances in Anemias,
Spinal Cord Disorders,
Hemostasis Physiology
and Antihemorrhagics



Postgraduate Diploma

Advances in Anemias,
Spinal Cord Disorders,
Hemostasis Physiology
and Antihemorrhagics

Course Modality: **Online**

Duration: **6 months.**

Certificate: **TECH Technological University**

20 ECTS Credits

Teaching Hours: **500 hours.**

Website: www.techtitute.com/medicine/postgraduate-diploma/postgraduate-diploma-advances-anemias-spinal-cord-disorders-hemostasis-physiology-antihemorrhagics

Index

01

Introduction

p. 4

02

Objectives

p. 8

03

Course Management

p. 12

04

Structure and Content

p. 20

05

Methodology

p. 18

06

Certificate

p. 26

01

Introduction

Technological advances make it possible to improve techniques and treatments in different medical fields, so it is of great importance to continue with research in fields such as hematology and hemotherapy. In this case, this specialization aims to train healthcare professionals in the latest advances in anemias, spinal cord disorders, hemostasis physiology and antihemorrhagic agents.



A microscopic image of cells, likely a blood smear, showing several large, irregularly shaped cells with prominent, dark purple nuclei and lighter, pinkish cytoplasm. The background is a light, yellowish-tan color.

“

*Learn about the latest advances in the specialty
and get yourself up to date in order to provide
the best care to your patients”*

Scientific medical advances in the last 10 years have made it easier to change the notion that hematology is confined to mere hematology, so this teaching program aims to focus the professional development of specialists in the many areas of the specialty (hematologic oncology, genetics, immunotherapy, cardiovascular risks, blood transfusions, bone marrow transplants, anticoagulants, anemias, artificial blood) so that excellent care is provided to hematology patients based on access to the most recent and innovative medical advances.

The reasons why hematology and hemotherapy is one of the fastest progressing medical disciplines in terms of knowledge and technology in recent decades lie in the integration of biological and clinical knowledge, which has led to a better understanding of the mechanisms of disease, thereby facilitating the development of more appropriate guidelines for clinical action. All of this has contributed to hematology and hemotherapy reaching a remarkable degree of maturity and justifying its future as an integrated specialty, this being the ideal framework for specialization and improving specialists in this area of medical knowledge.

This Postgraduate Diploma in Advances in Anemias, Spinal Cord Disorders, Hemostasis Physiology and Antihemorrhagics endorses the latest advances in research and the highest scientific evidence, with a robust and didactic format program that positions it as a teaching product of the highest scientific rigor at international level, aimed at health professionals who in their daily clinical practice face a the care of patients or populations with hemorrhagic diseases. In addition, the program is based on a multidisciplinary approach to its subjects, which allows training and professional development in different areas.

This **Postgraduate Diploma in Advances in Anemias, Spinal Cord Disorders, Hemostasis Physiology and Antihemorrhagics** contains the most complete and up-to-date scientific program on the market. The most important features of the specialization are:

- Clinical symptoms cases presented by experts in hematology.
- The graphic, schematic, and eminently practical contents with which they are created provide scientific and practical information on the disciplines that are essential for professional.
- Diagnostictherapeutic developments on assessment, diagnosis, and treatment in hematology patients..
- Practical exercises where the self-assessment process can be carried out to improve learning.
- The Iconography of clinical and diagnostic imaging tests.
- An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course..
- With special emphasis on evidence-based medicine and research methodologies in hematology.
- 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..



This Postgraduate Diploma offers training in simulated environments, which provides an immersive learning experience designed to train for real life situations”

“

With the Postgraduate Diploma in Advances in Anemias, Spinal Cord Disorders, Hemostasis Physiology and Antihemorrhagics, you have the opportunity to expand your knowledge comfortably and without sacrificing scientific accuracy, in order to incorporate the latest advances in the approach to infectious hematologic into your daily medical practice"

It includes clinical cases to bring the program's degree as close as possible to the reality of care in medicine.

The teaching body is made up of respected and renowned professionals with extensive experience in healthcare, teaching, and research, who have work in many countries where these diseases are prevalent.

The methodological design of this Postgraduate Diploma, developed by a multidisciplinary team of e-learning experts, integrates the latest advances in educational technology for the creation of numerous multimedia educational tools 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 Diploma that each of the contents generated, as well as the videos, self-evaluations, clinical cases and exams, have been thoroughly reviewed, updated, and integrated by the team of experts that make up the faculty, to ensure that the learning process is orderly and instructive in order to achieve the program's objectives.



02

Objectives

The main objective of this Postgraduate Diploma is to improve healthcare professionals, through the acquisition of the most up-to-date and innovative scientific knowledge in the field of hematology and hemotherapy that will allow them to develop the skills that will turn their daily clinical practice into a representation of the best available scientific evidence, with a critical, innovative, multidisciplinary, and integrative approach.



BLOOD

“

This program will provide you with a sense of confidence in your medical practice, which will help you grow personally and professionally”



General Objective

Update the specialist's knowledge through the latest scientific evidence in the diagnosis and treatment of hematological diseases, in order to develop measures to prevent, diagnose, treat, and rehabilitate hematological diseases, with a multidisciplinary and integrative approach that supports medical care with the highest quality standards for managing and monitoring hematology patients..



Specific Objectives

- ♦ Provide students with advanced, in-depth, up-to-date, and multidisciplinary information that allows them to comprehensively approach the hematological health/disease process, ensuring proper treatment and the use of all appropriate therapeutic procedures.
- ♦ Provide training and - practical/theoretical improvement that will ensure a reliable clinical diagnosis supported by the efficient use of diagnostic methods.
- ♦ Explain the complex pathophysiologic and etiopathogenic interrelationships in the mechanisms of hematologic disease onset.
- ♦ Emphasize the role of the rational use of diagnostic technologies when studying these patients.
- ♦ Describe the most important elements of the absorption, transportation, distribution, metabolism, and excretion of drugs used to treat these diseases.
- ♦ Address, in detail and depth, the most up-to-date scientific evidence on the mechanisms of action, adverse effects, dosage, and use of drugs to treat these diseases.
- ♦ Explain the pathophysiological and pathogenic interrelationships between each of these diseases in morbidity and mortality.
- ♦ Discuss the importance of a comprehensive and integrated care approach among all specialties involved in caring for these patients.
- ♦ An in-depth look at the most innovative and developing alternatives offered when caring for these patients.



“

Don't miss the opportunity and get up to date on Advances in Anemias, Spinal Cord Disorders, Hemostasis Physiology and Antihemorrhagics disorders to incorporate them into your daily medical practice"

03

Course Management

Renowned and recognized medical specialists with numerous publications, teaching experience, and professional experience in many countries, where many of the diseases studied have a high morbimortality, participate in the teaching program. The teaching team is made up of a multidisciplinary faculty from various medical specialties, such as hematology, internal medicine, pediatrics, gynecology and obstetrics, pathological anatomy, and pharmacology who are involved in the care of these patients.





“

Learn about the latest advances in hematology and hemotherapy from leading professionals”

Guest Director



Dr. Joaquín Martínez-López

- ♦ Head of the Hematology Department at the 12 de Octubre Hospital, Madrid.
- ♦ PhD in Medicine from the Complutense University of Madrid.
- ♦ Hematology Medical Specialist
- ♦ Director of the translational research group and the early clinical trials unit in hematology at 12 de Octubre Hospital.
- ♦ 140 publications in international scientific journals.
- ♦ President of AltumSequencing.

Co-Direction



Dr. Hechavarría Nápoles, Maiyelin

- ♦ Degree in Medicine and Surgery from the University of Havana. Cuba.
- ♦ First Degree Specialist in Family Medicine.
- ♦ First Degree Specialist in Hematology from the National Institute of Hematology. Havana. Cuba.
- ♦ Professor of the Medicine Degree and of the specialty at the Faculty of Medical Sciences, Isla de la Juventud.
- ♦ Diploma in Diagnostic Ultrasound.
- ♦ Member of the Cuban Society of Hematology.

Professors

Dr. Rodríguez Rodríguez, Mario

- ◆ Specialist in Thrombophilia and Hemostasis consultation and in basic and special coagulation laboratory at the 12 de Octubre University Hospital. Since June 2017.
- ◆ Graduate in Medicine and Surgery from the Complutense University of Madrid. Class of 2006 - 2012.
- ◆ Hematology on-call duty as an attending physician (FEA). Since June 2017.
- ◆ Resident Medical Intern in Hematology and Hemotherapy at the 12 de Octubre University Hospital (21/05/2013 - 21/05/2017).
- ◆ Participation in quality work for ENAC accreditation in the coagulation laboratory at the 12 de Octubre University Hospital.
- ◆ Usability study/evaluation of the cobas t711 coagulometer, Roche Diagnostics.
- ◆ Participation in the following publications: "Evaluation of The MD Anderson Tumor Score for Diffuse Large B-cell Lymphoma in the Rituximab Era", "Clinical course and risk factors for mortality from COVID-19 inpatients with haematological malignancies" and "Thrombosis and antiphospholipid antibodies in patients with SARS-COV-2 infection (COVID-19)", among others.

Dr. Paciello Coronel, María Liz

- ◆ Specialist in Hematology and Hemotherapy. 12 de Octubre University Hospital. Since 2008.
- ◆ Graduate in Medicine and Surgery. National University of Asunción, Paraguay.
- ◆ Collaborator in clinical trials as principal investigator and sub-investigator.



Dr. Sánchez Pina, José María

- ♦ Attending Physician in the area of hospitalization and hematopoietic transplantation. Member of the cell therapy group. Since 2017
- ♦ Degree in Medicine. University of Alcalá. 2006-2012
- ♦ TECH Master's Degree in Hematopoietic Transplantation, 4th edition, University of Valencia
- ♦ Resident intern of Hematology and Hemotherapy at 12 de Octubre University Hospital in Madrid. 2013-2017
- ♦ Teaching collaborator in the TECH Master's Degree in Translational Medicine. The Complutense University of Madrid; and TECH Master's Degree in Organ and Tissue Transplants. European University of Madrid.

Dr. Carreño Gómez-Tarragona, Gonzalo

- ♦ Specialist physician at the 12 de Octubre University Hospital.
- ♦ Degree in Medicine. Autonomous University of Madrid. 2013.
- ♦ TECH Master's Degree in Hematopoietic Transplantation. University of Valencia. 2019
- ♦ Cytology Course in Myelodysplasia. Del Mar Hospital. 2017.
- ♦ Teaching collaborator for the following subjects: Hematology and Hemotherapy, Degree of Medicine (Complutense University of Madrid); and Advances in Vascular Function, Degree of Medicine (Autonomous University of Madrid).
- ♦ Participation in the Clinical Research Ethics Committee at the 12 de Octubre University Hospital. 2019.
- ♦ Participation in national and international conferences.
- ♦ Distinction as Best Scientific Communication. VII National Research Conference for Undergraduate Students in Health Sciences. Complutense University of Madrid. 2013.

Dr. Terra Infante, Anielka

- ♦ Degree in Medicine and Surgery from the University of Havana. Cuba.
- ♦ First Degree Specialist in Hematology from the National Institute of Hematology. Havana. Cuba.
- ♦ Physician attending the regenerative medicine and stem cell program at the Roberto Pérez Municipal Blood Bank, Isla de la Juventud. Cuba.
- ♦ Professor of the Medicine Degree and of the specialty at the Faculty of Medical Sciences, Isla de la Juventud.
- ♦ Member of the Cuban Society of Hematology.
- ♦ National course on oncologic emergencies.
- ♦ Hematologist in Merida, Mexico.

Dr. Quintero Casanova, Jesús

- ♦ Degree in Medicine and Surgery from the Medical University of Havana. Cuba.
- ♦ Specialist in Internal Medicine. Héroes del Baire Hospital.
- ♦ TECH Master's Degree in Tropical Diseases and Clinical Infectious Diseases from the Pedro Kuori Institute, Havana. Cuba.
- ♦ Head of the Department of Infectious Diseases of the Héroes del Baire Hospital.
- ♦ Member of the Cuban Society of Internal Medicine and the Cuban Society of Teachers.
- ♦ Medical specialist in Africa (Chad) and Venezuela in 2009, 2013-15.
- ♦ Professor on the Medicine Degree and Internal Medicine Specialty at the Faculty of Medical Sciences of Isla de la Juventud.
- ♦ Professor in the Master's Degree in Infectious Diseases TECH Master's Degree at the Faculty of Medical Sciences of Isla de la Juventud.
- ♦ Member of state examining boards for the medicine degree and internal medicine.

Dr. Batista Valladares, Adrián

- ♦ Degree in Medicine and Surgery from the University of Havana. Cuba.
- ♦ Specialist in Family and Community Medicine.
- ♦ Master's Degree in Clinical Infectology.
- ♦ Diploma in Diagnostic Ultrasound.
- ♦ Diploma in Healthcare Management.
- ♦ Head of Senior Citizen Services in Isla de la Juventud. Cuba.
- ♦ Member of the Cuban Society of Family Medicine.
- ♦ Professor of the medicine and family medicine degrees at the Faculty of Medical Sciences in Isla de la Juventud.
- ♦ Professor of the TECH Master's Degree in Infectious Diseases in the Faculty of Medical Sciences in Isla de la Juventud.

Dr. Dávila, Henry Luis

- ♦ Degree in Medicine and Surgery from the University of Havana. Cuba.
- ♦ Specialist in Gynecology and Obstetrics at Héroes del Baire Hospital. Cuba.
- ♦ TECH Master's Degree in Comprehensive Care for Women.
- ♦ Head of the Neck Pathology Service at Héroes del Baire Hospital.
- ♦ Member of the Cuban Society of Gynecology and Obstetrics.
- ♦ Member of the Cuban Society of Teachers.
- ♦ Professor on the Medicine Degree in the Faculty of Medical Sciences in Isla de la Juventud.

Dr. Jiménez Valdés, Erlivan

- ◆ Degree in Medicine and Surgery from the University of Havana. Cuba.
- ◆ Pediatrician. Héroes del Baire Hospital.
- ◆ Master's Degree in comprehensive childcare.
- ◆ Member of the Cuban Society of Pediatrics.
- ◆ Professor in the Medicine Degree and Pediatrics Specialty in the Faculty of Medical Sciences in Isla de la Juventud.

Dr. Cantalapiedra Torres, Alejandro

- ◆ Degree in Medicine and Surgery from the University of Havana. Cuba.
- ◆ Pediatrician. Héroes del Baire Hospital.
- ◆ Master's Degree in Infectious Diseases.
- ◆ Diploma in Medical Teaching.
- ◆ Diploma in Health Management.
- ◆ Member of the Cuban Society of Pediatrics.
- ◆ Professor in the Medicine Degree and Pediatrics Specialty in the Faculty of Medical Sciences in Isla de la Juventud.



Dr. De la Garza Amaro, Ernesto

- ♦ Degree in Medicine and Surgery from the University of Havana. Cuba.
- ♦ Specialist in Family Medicine, Pediatrics, and Intensive Care. Héroes del Baire Hospital.
- ♦ Master's Degree in Infectious Diseases.
- ♦ Head of the Pediatric Intensive Care Unit at the Héroes del Baire Hospital.
- ♦ Member of the Cuban Society of Pediatrics and the Cuban Society of Intensive Care.
- ♦ Member of the Cuban Society of Teachers.
- ♦ Professor on the Medicine Degree and Internal Medicine Specialty at the Faculty of Medical Sciences of Isla de la Juventud.
- ♦ Professor of the TECH Master's Degree in Infectious Diseases in the Faculty of Medical Sciences in Isla de la Juventud.

Dr. Matos Rodríguez, Zaskia

- ♦ First Degree Specialist in Gynecology and Obstetrics of Héroes del Baire General Teaching Hospital.
- ♦ Professor of the Medicine Degree and of the specialty at the Faculty of Medical Sciences, Isla de la Juventud.
- ♦ Member of the Cuban Society of Gynecology and Obstetrics.
- ♦ Participation in several research projects and publication of scientific articles in national and international journals in Cuba, Spain, Mexico, Chile, Colombia, United States, and United Kingdom.

Dr. Serrano Amador, Alexander

- ♦ 1st Degree Specialist in General Medicine.
- ♦ Assistant Professor of the Medical Sciences Branch in Isla de la Juventud.
- ♦ Diploma in Higher Medical Education.
- ♦ Diploma in Direction and Management of Medical Services.
- ♦ Head of the Municipal Teaching Department of General Comprehensive Medicine and Public Health of the Medical Sciences Branch in Isla de la Juventud.
- ♦ Member of the Cuban Society of General Medicine.

04

Structure and Content

The teaching program has been created by a group of professors and medical professionals from various 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 in hematology and hemotherapy to ensure training and professional development to improve the daily clinical practice of professionals.



anemia

“

We have the most complete and up-to-date academic program in the market. We strive for excellence and for you to achieve it too”

Module 1. Anemia Update

- 1.1. Mechanism of Erythropoiesis, Erythroid Differentiation and Maturation:
 - 1.1.1. Biopathology and Physiopathology of Erythrocytes.
 - 1.1.2. Structure and Types of Hemoglobin.
 - 1.1.3. Functions of Hemoglobin.
- 1.2. Classification of Erythrocyte Disorders and Clinical Manifestations:
 - 1.2.1. Classification of Erythrocyte Disorders.
 - 1.2.2. Symptoms and Signs of Anemia by Organ Systems.
- 1.3. Pure Red Cell Aplasia:
 - 1.3.1. Concept.
 - 1.3.2. Etiology.
 - 1.3.3. Clinical Manifestations
 - 1.3.4. Diagnosis
 - 1.3.5. Current Treatment Alternatives.
- 1.4. Congenital Dyserythropoietic Anemias:
 - 1.4.1. Concept.
 - 1.4.2. Etiology.
 - 1.4.3. Clinical Manifestations
 - 1.4.4. Diagnosis
 - 1.4.5. Current Treatments.
- 1.5. Iron Deficiency Anemia and Alterations in Iron Metabolism and Iron Overload: Current Management.
 - 1.5.1. Concept.
 - 1.5.2. Classification and Etiology.
 - 1.5.3. Clinical Picture.
 - 1.5.4. Staged Diagnosis of Iron Disorders.
 - 1.5.5. Treatment Variants of Iron Disorders.
- 1.6. Megaloblastic Anemias: Recent Advances.
 - 1.6.1. Concept.
 - 1.6.2. Classification and Etiology.
 - 1.6.3. Clinical Picture.
 - 1.6.4. Diagnostic Approach.
 - 1.6.5. Current Treatment Schemes and Recommendations.



- 1.7. Hemolytic Anemias: From Laboratory to Clinic.
 - 1.7.1. Concept.
 - 1.7.2. Classification and Etiology.
 - 1.7.3. Clinical Picture.
 - 1.7.4. Diagnostic Challenges.
 - 1.7.5. Treatment Alternatives.
- 1.8. Hemoglobin Disorder Anemias:
 - 1.8.1. Concept.
 - 1.8.2. Classification and Etiology.
 - 1.8.3. Clinical Picture.
 - 1.8.4. Analytical Diagnostic Challenges.
 - 1.8.5. Treatment Variants.

Module 2. Scientific Developments in Spinal Cord Disorders

- 2.1. Medullary Aplasia
 - 2.1.1. Definition.
 - 2.1.2. Epidemiology and Etiology.
 - 2.1.3. Clinical Manifestations
 - 2.1.4. Clinical and Staged Diagnosis according to Diagnostic Tests.
 - 2.1.5. Latest Treatment Recommendations
- 2.2. Myelodysplastic Syndromes: Latest Classifications.
 - 2.2.1. Definition.
 - 2.2.2. Epidemiology.
 - 2.2.3. Clinical Manifestations
 - 2.2.4. Diagnosis and Current Classifications.
 - 2.2.5. Current Review of the Treatment and Use of Hypomethylating Therapy.
- 2.3. Updated Approach to Agranulocytosis:
 - 2.3.1. Definition.
 - 2.3.2. Epidemiology and Etiology.
 - 2.3.3. Clinical Manifestations
 - 2.3.4. Diagnostic Complexities.
 - 2.3.5. New Developments in Treatment.



- 2.4. Polycythemia Vera
 - 2.4.1. Definition.
 - 2.4.2. Epidemiology.
 - 2.4.3. Clinical Manifestations
 - 2.4.4. Diagnosis
 - 2.4.5. Current Treatment Alternatives.
- 2.5. Essential Thrombocythemia
 - 2.5.1. Definition.
 - 2.5.2. Epidemiology.
 - 2.5.3. Clinical Manifestations
 - 2.5.4. Diagnosis
 - 2.5.5. Treatment Review.
- 2.6. Chronic Idiopathic Myelofibrosis:
 - 2.6.1. Definition.
 - 2.6.2. Epidemiology.
 - 2.6.3. Clinical Manifestations
 - 2.6.4. Diagnosis
 - 2.6.5. Therapeutic Approaches.
- 2.7. Hypereosinophilic Syndrome
 - 2.7.1. Definition.
 - 2.7.2. Epidemiology.
 - 2.7.3. Clinical Manifestations
 - 2.7.4. Diagnostic Complexities.
 - 2.7.5. Treatment: Literature Review.
- 2.8. Mastocytosis
 - 2.8.1. Definition.
 - 2.8.2. Epidemiology.
 - 2.8.3. Clinical Manifestations.
 - 2.8.4. Use of Diagnostic Tests.
 - 2.8.5. Alternative Treatments.

Module 3. Current Events in Hemostasis Physiology

- 3.1. Update on the Biopathology of Hemostasis Types:
 - 3.1.1. Primary Hemostasis.
 - 3.1.2. Secondary Hemostasis.
- 3.2. Advances in Vascular Endothelium Biology and Functions:
 - 3.2.1. Vascular Endothelium Biology.
 - 3.2.2. Vascular Endothelium Functions.
 - 3.2.3. Main Vascular Endothelial Mediators.
 - 3.2.4. Endothelial Dysfunction.
- 3.3. Platelets and their Role in Coagulation: Recent Discoveries:
 - 3.3.1. Platelet Formation.
 - 3.3.2. Platelet Functions and Mediators.
 - 3.3.3. Platelets in Hemostasis.
- 3.4. Plasma Factors and the Coagulation Cascade: From Research to the Clinic.
 - 3.4.1. Synthesis and Structure of Coagulation Factors.
 - 3.4.2. Functions of Plasma Coagulation Factors in the Coagulation Cascade.
 - 3.4.3. Coagulation Factor Deficiency.
- 3.5. Cofactors Necessary for Blood Coagulation:
 - 3.5.1. Vitamin K and Coagulation.
 - 3.5.2. Prekallikrein.
 - 3.3.3. High Molecular Weight Cininogen.
 - 3.4.4. Von Willebrand Factor.
- 3.6. Physiological Inhibitors of Coagulation:
 - 3.6.1. Antithrombin.
 - 3.6.2. Protein C-Protein S System.
 - 3.6.3. Antitrypsins.
 - 3.6.4. Antiplasmins.
 - 3.6.5. Other Coagulation Inhibitor Proteins.

- 3.7. Current Events in Pregnancy and Hemostasis:
 - 3.7.1. Hemostasis Changes during Pregnancy.
 - 3.7.2. Fibrinolysis Changes during Pregnancy.
- 3.8. New Developments in Hemostasis in Hepatic Insufficiency and Renal Insufficiency:
 - 3.8.1. Acute Hepatic Insufficiency and Hemostatic Disorders.
 - 3.8.2. Chronic Hepatic Insufficiency and Hemostatic Disorders.
 - 3.8.3. Hemostasis in Chronic Kidney Disease.
 - 3.8.4. Hemostasis in Patients with Renal Function Replacement Treatment.

Module 4. Update on Antihemorrhagics

- 4.1. Antihemorrhagic Drugs
 - 4.1.1. Definitions.
 - 4.1.2. Main Drugs.
 - 4.1.3. Mechanism of Action.
 - 4.1.4. Main Indications.
- 4.2. Use of Vitamin K in Hemorrhagic Disorders.
 - 4.2.1. Indication of Vitamin K in Hemorrhagic Disorders.
 - 4.2.2. Pharmacokinetics and Pharmacodynamics.
 - 4.2.3. Presentation and Dosage.
- 4.3. Coagulation Factor Concentrate:
 - 4.3.1. Treatment Indications.
 - 4.3.2. Pharmacokinetics and Pharmacodynamics.
 - 4.3.3. Presentation and Dosage.
- 4.4. Use of Fresh Frozen Plasma and Protamine Sulfate:
 - 4.4.1. Treatment Indications.
 - 4.4.2. Pharmacokinetics and Pharmacodynamics.
 - 4.4.3. Presentation and Dosage.
- 4.5. Latest Recommendations for the Use of Platelets:
 - 4.5.1. Treatment Indications.
 - 4.5.2. Pharmacokinetics and Pharmacodynamics.
 - 4.5.3. Presentation and Dosage.
- 4.6. Platelet Aggregation Inhibitors: The Reality of Use.
 - 4.6.1. Treatment Indications.
 - 4.6.2. Pharmacokinetics and Pharmacodynamics.
 - 4.6.3. Presentation and Dosage.
- 4.7. Capillary Protective and Hemostatic Vasoconstrictor Drugs:
 - 4.7.1. Treatment Indications.
 - 4.7.2. Pharmacokinetics and Pharmacodynamics.
 - 4.7.3. Presentation and Dosage.
- 4.8. Antifibrinolytics
 - 4.8.1. Treatment Indications.
 - 4.8.2. Pharmacokinetics and Pharmacodynamics.
 - 4.8.3. Presentation and Dosage.



A unique, key, and decisive master's degree experience to boost your professional development"

05

Methodology

This training program provides you with a different way of learning. Our methodology uses a cyclical learning approach: *Re-learning*.

This teaching system is used 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 Re-learning, 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

In a given situation, what would you do? Throughout the program you will be presented with multiple simulated clinical cases based on real patients, where you will have to investigate, establish hypotheses and, finally, resolve the situation. There is abundant scientific evidence on the effectiveness of the method. Specialists learn better, faster, and more sustainably over time.

With TECH you can 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 potential 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 professional medical 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 grasp concepts, but also develop their mental capacity by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on 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.



Re-Learning Methodology

At TECH we enhance the Harvard case method with the best 100% online teaching methodology available: Re-learning.

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.

The physician 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 Re-learning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best Spanish-speaking online university (Columbia University).

With this methodology we have trained more than 250,000 physicians with unprecedented success, in all clinical specialties regardless of the surgical load. All this in a highly demanding environment, where the students have a strong socio-economic profile and an average age of 43.5 years.

Re-learning 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 (we learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

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



In this program you will have access to the best educational material, prepared with you 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.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.



Latest Techniques and Procedures on Video

We introduce you to the latest techniques, to the latest educational advances, to the forefront of current medical techniques. All this, in first person, with the maximum rigor, explained and detailed for your assimilation and understanding. And best of all, you can watch them as many times as you want.



Interactive Summaries

We present 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, international guides. in our virtual library you will have access to everything you need to complete your training.





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 & Re-testing

We periodically evaluate and re-evaluate your knowledge throughout the program, through assessment and self-assessment activities and exercises: so that you can see how you are achieving your goals.



Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an expert strengthens knowledge and memory, and generates confidence in our future difficult decisions.



Quick Action Guides

We offer you the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help you progress in your learning.



06 Certificate

The **Postgraduate Diploma in Advances in Anemias, Spinal Cord Disorders, Hemostasis Physiology and Antihemorrhagics** guarantees you, in addition to the most rigorous and updated specialisation, access to a university degree issued by **TECH Technological University**.



“

Successfully complete this specialisation and receive your university degree without travel or laborious paperwork"

This **Postgraduate Diploma in Advances in Anemias, Spinal Cord Disorders, Hemostasis Physiology and Antihemorrhagics** contains the most complete and up-to-date scientific program on the market.

After the student has passed the evaluations, they will receive by mail with acknowledgment of receipt his/her corresponding Postgraduate Diploma issued by **TECH Technological University**.

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

Title: **Postgraduate Diploma in Advances in Anemias, Spinal Cord Disorders, Hemostasis Physiology and Antihemorrhagics**

ECTS: 20

Official Number of Hours: 500



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

future
health confidence people
education information tutors
guarantee accreditation teaching
institutions technology learning
community commitment
personalized service innovation
knowledge present
development languages
virtual classroom



Postgraduate Diploma

Advances in Anemias,
Spinal Cord Disorders,
Hemostasis Physiology
and Antihemorrhagics

Course Modality: Online

Duration: 6 months.

Certificate: TECH Technological University

20 ECTS Credits

Teaching Hours: 500 hours.

Postgraduate Diploma

Advances in Anemias,
Spinal Cord Disorders,
Hemostasis Physiology
and Antihemorrhagics