Postgraduate Diploma

Update on Cardiorenal Medicine in Nephrology

tech global university

Postgraduate Diploma
Update on Cardiorenal Medicine in Nephrology

» Modality: **Online**

» Duration: **6 months.**

» Certificate: **TECH Global University**

» Credits: **18 ECTS**

» Schedule: **at your own pace**

» Exams: **online**

Website: **www.techtitute.com/us/medicina/experto-universitario/experto-actualizacion-medicina-cardiorrenal-nefrologia**

Index

01

Introduction

Recent findings on the relationship between the cardiovascular and renal systems have led to significant improvements in medical care. Therefore, a more integrated approach has been adopted, where Nephrology and Cardiology specialists collaborate closely to provide effective and coordinated care to patients. Therefore, it is essential for the nephrologist to keep up to date with the evolution of Cardiorenal Medicine in order to develop a state-of-the-art praxis. Given this situation, TECH has created this program, through which the student will learn the latest techniques for diagnosis and treatment of various cardiorenal conditions. All this, in a 100% online mode, allowing the doctor to optimize his update from home.
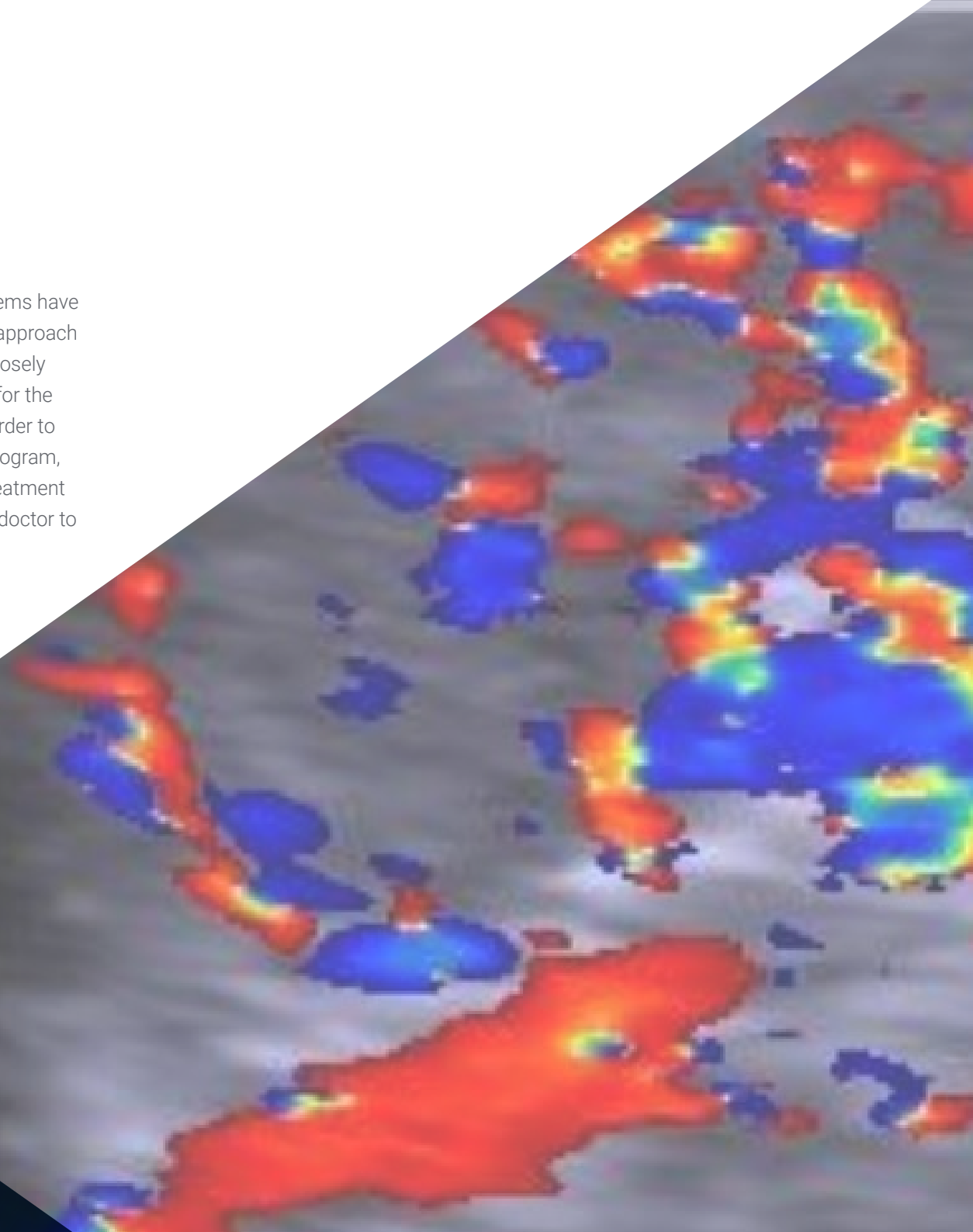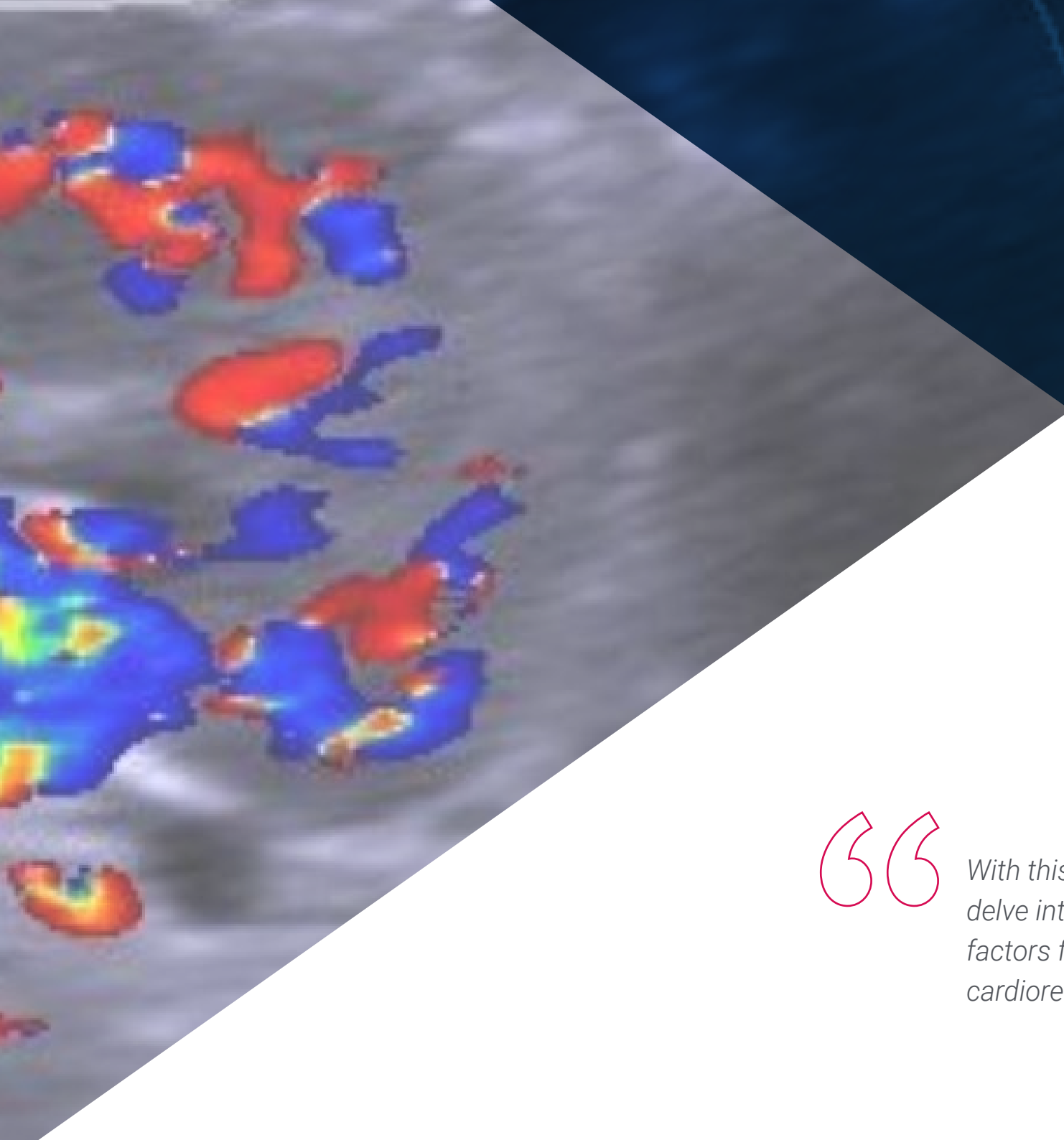
" *With this program, you will delve into the up to date risk factors for the contraction of cardiorenal diseases".*

The exponential evolution of Cardiorenal Medicine has enabled a refined approach to the management of diseases affecting both the heart and kidneys. As a result, physicians can now enjoy diagnostic tools and techniques that help to accurately and early assess cardiac or renal damage. In addition, innovative and multidisciplinary therapies have emerged that improve patient outcomes and quality of life. As such, specialists are under an obligation to identify these advances in order to position themselves at the forefront of healthcare.

With this in mind, TECH has developed this Postgraduate Diploma, which provides physicians with the most up-to-date knowledge in the approach to cardiorenal disorders. Through 450 hours of study, you will delve into the management of biomarkers in the patient suffering from diseases of this nature or identify the cutting-edge procedures for the treatment of acute heart failure in patients with CKD.

This Postgraduate Diploma is developed through a 100% online format, which allows professionals to combine their daily activities with their educational activities, since they will not be subject to a pre-established timetable. Likewise, the program has didactic materials in advanced formats such as explanatory video or simulation of real cases, which allows students to adapt their studies to their learning needs.

This **Postgraduate Diploma in Update on Cardiorenal Medicine in Nephrology** contains the most complete and up-to-date scientific program on the market. Its most notable features are:

- Practical cases presented by specialists in Nephrology and Internal medicine.
- 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 self-assessment can be used to improve learning.
- Its special emphasis on innovative methodologies
- 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

Thanks to this program, you will learn about the latest diagnostic methods that allow the rapid detection of cardiorenal diseases".

" *TECH will offer you the best didactic tools for you to enjoy a dynamic and decisive professional update".*

Explore the advanced utilities of biomarkers in the cardiorenal patient through this program.

The 100% online mode of this program will allow you to study without leaving your home.
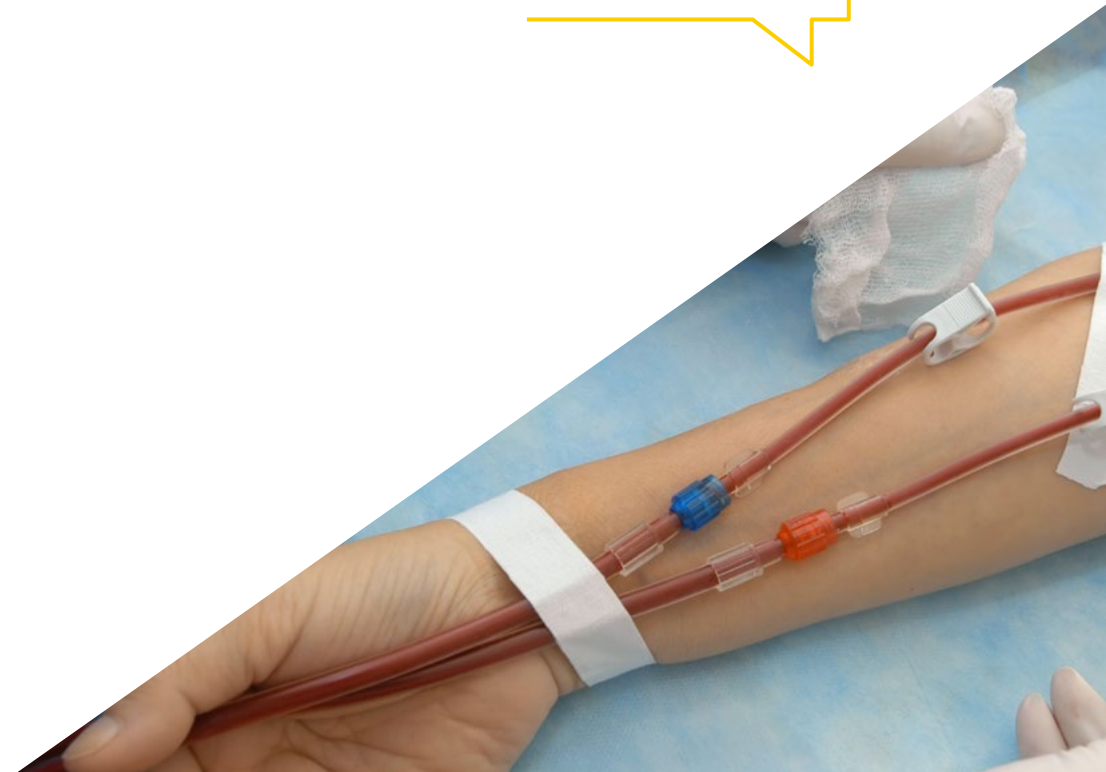
The program's teaching staff includes professionals from the field who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

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

02
Objectives

The objective of this program is to provide the physician with the most up to date knowledge in the integral management of diseases that affect the cardiovascular and renal system. In this way, they will be equipped to offer cutting-edge, personalized and effective medical care to patients with cardiorenal conditions. In addition, you will complete your update online and enjoy first class educational content.

> *Get up to date in Cardiorenal Medicine enjoying the best study facilities in the educational panorama".*

General Objectives

- Care for patients with chronic kidney disease and its most frequent complications.
- Care for patients with acute renal failure and its complications, as well as to understand the objective of initiating renal replacement therapy, its indications and management.
- Have an overview of Nephrology as a specialty with its different branches of knowledge and a global approach to the patient.
- Understand and learn the branches that are emerging within the specialty such as diagnostic and interventional nephrology, onconephrology, or cardionephrology.

Learn about the up to date prognostic drugs used in Heart Failure and Chronic Kidney Disease".

Specific Objectives

Module 1. Arterial Hypertension (AH) and Diabetic Kidney Disease

- Know in depth the novelties in the diagnosis and study of Arterial Hypertension.
- Understand in depth the indication for the study of Secondary Arterial Hypertension.
- Understand Diabetic Renal Disease as one of the most frequent causes of CKD
- Learn the management and indication of new nephroprotective drugs.

Module 2. Cardiorenal Medicine

- Expand the knowledge and study of cardiorenal syndrome.
- Learn about the application of ultrasound and biomarkers for the study of patients with cardiorenal syndrome.
- Improve the management of patients with decompensated heart failure, optimization of diuretics.
- Learn the usefulness and criteria for renal replacement therapy in cardiorenal patients.

Module 3. Glomerular Diseases and Systemic Diseases

- Have an in-depth knowledge of the main glomerular diseases, their treatment and management.
- Know in depth how systemic diseases affect the kidney.
- Understand how monoclonal component producing diseases affect the kidney.
- Understand hemolytic uremic syndrome, its differential diagnosis and treatment according to the etiology

03
Course Management

To preserve the educational quality that distinguishes TECH, this program has a faculty composed of experts in Nephrology. These professionals, who actively practice in prestigious hospitals, have extensive skills in the treatment of cardiorenal diseases. Consequently, the knowledge that the student will acquire will be aligned with the latest advances in this field.

"
This teaching staff is made up of experts with extensive experience in the field of Nephrology, with whom you will update your knowledge of Cardiorenal Medicine".

International Guest Director

With an extensive professional career of over 30 years, Dr. David Mount has become a prestigious Nephrologist highly specialized in the area of Renal Medicine. In this sense, his clinical approach focuses on providing personalized clinical programs according to the individual characteristics of patients with chronic and acute conditions. Thanks to the application of multiple innovative techniques, he has managed to optimize both the quality of life of numerous individuals and their long-term recovery prognosis.

In this same line, he has carried out his functions in health institutions of international reference such as the Brigham and Women's Hospital in Massachusetts. Therefore, he has held strategic roles ranging from Renal Area Management or Management of the Inpatient Dialysis Unit to the Head of Clinical Services. In this way, he has focused on improving the standards of care for users with renal diseases, implementing cutting-edge protocols to maximize therapeutic processes such as hemodialysis and minimize the usual associated risks such as the complication of vascular access.

It has also led the Digital Transformation of various healthcare institutions and implemented solutions such as Artificial Intelligence,Big Data and even Intelligent Systems to monitor the status of individuals in real time. These tools have managed to increase the accuracy in diagnoses and treatments of complex Kidney Diseases. Also, this avant-garde vision has made it possible to reduce hospitalization rates, which has improved the functioning of health systems by promoting a more efficient, accessible and high quality care model.

On the other hand, he has balanced these tasks with his facet as a Clinical Researcher. In fact, he has a vast scientific production in areas such as cutting-edge techniques for Renal Transplants, identification of Biomarkers and strategies for the prevention of Renovascular Hypertension.

Dr. Mount, David

- Clinical Chief of the Renal Division at Brigham and Women's Hospital in Massachusetts, United States
- Director of Dialysis Services at Brigham and Women's Hospital, Massachusetts
- System of Care Physician, VA Boston Healthcare System, Massachusetts
- Vanderbilt University Medical Center, Vanderbilt University Medical Center, Vanderbilt
- Nephrology Internship at Brigham and Women's Hospital, Massachusetts
- Internal Medicine Residency at Toronto General Hospital
- Doctor of Medicine from the University of Toronto
- Bachelor of Science in Biochemistry from the University of Ottawa

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

Address

Dr. Ribas Closa, Andrés
- Nephrologist at the Sant Jordi Clinic in Sant Andreu
- Nephrology Del Mar Hospital, Barcelona
- Expert in Clinical Ultrasound at the Francisco de Vitoria University.
- Master's Degree in Infectious Diseases and Antimicrobial Treatment from the CEU Cardenal Herrera University
- Degree in Medicine from the Autonomous University of Barcelona.

Dr. Angulo, Josep María
- Head of Nephrology Service at Fundació Althaia in Manresa
- Head of Nephrology Service at the Hospital de Palamós
- Professor of Nephrology at the International University of Catalonia
- Former President of the Catalan Societies of Nephrology and Arterial Hypertension
- Specialization in Nephrology by the Hospital de Bellvitge
- Postgraduate degree in Basic Nephrology from the University of Minnesota.
- Degree in Medicine and Surgery from the University of Barcelona
- Member of: Spanish Society of Nephrology and Arterial Hypertension

Professors

Dr. Galcerán, Isabel

- Specialist in Nephrology at Del Mar Hospital of Barcelona
- Bachelor in Medicine and Surgery from the Autonomous University of Barcelona

"Learn about the up to date prognostic drugs used in Heart Failure and Chronic Kidney Disease".

04
Structure and Content

This program offers a complete syllabus that covers a wide range of relevant concepts in the field of Cardiorenal Medicine. In this sense, it will present innovative content that includes areas such as hypertensive urgency and emergency, renal replacement therapy or the management of Acute Heart Failure in patients with CKD. In addition, its 100% teaching allows physicians to perfectly combine their daily obligations with their update.
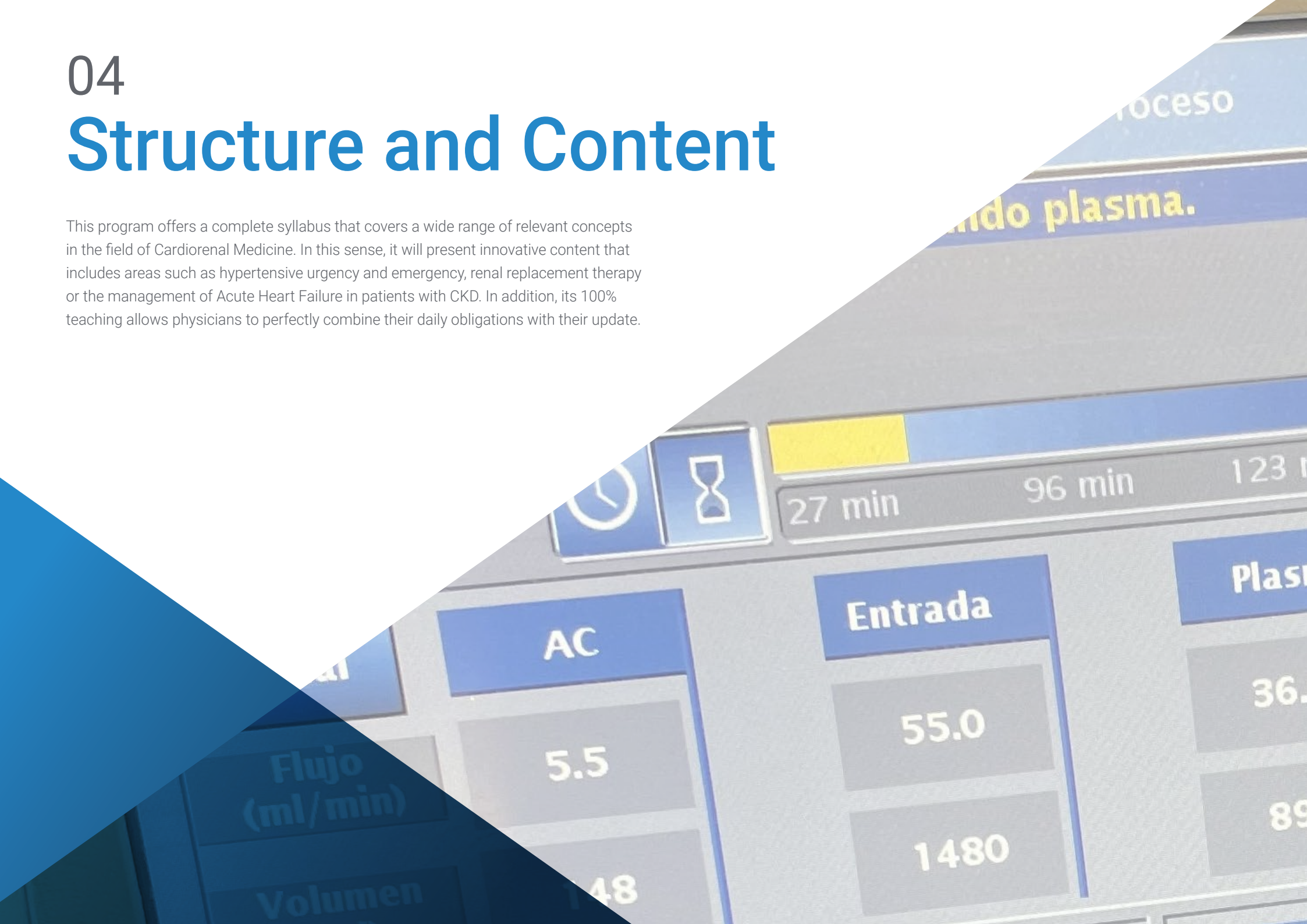
It has the most up to date content on Cardiorenal Medicine in the educational panorama".

Module 1. Arterial Hypertension (AH) and Diabetic Kidney Disease

1.1 Pathogenesis of Arterial Hypertension and cardiovascular risk

    1.1.1. Renin angiotensin system

    1.1.2. Cardiac remodeling in patients with hypertension

1.2 New developments in the diagnosis of AH

    1.2.1. ACC/AHA, ESC/ESH Guidelines

    1.2.2. Diagnostic Procedures in Arterial Hypertension

    1.2.3. Usefulness of the ABPM and the AMPA

1.3 Arterial Hypertension in Special Situations

    1.3.1. Resistant and refractory AH

    1.3.2. Spurious AH

    1.3.3. AH in Chronic Kidney Disease

1.4 Secondary Arterial Hypertension

    1.4.1. When is the study indicated? Etiologies

    1.4.2. Complementary examinations in secondary hypertension

    1.4.3. Secondary hyperaldosteronism Diagnosis

    1.4.4. Treatment in secondary hyperaldosteronism Updates

1.5 Hypertensive Emergency and Urgency

    1.5.1. Diagnosis of Hypertensive Emergency

    1.5.2. Management of hypertensive emergency/hypertensive emergency

1.6 Therapeutic developments in AH

    1.6.1. Renal Denervation in patients with AH refractory to treatment.

    1.6.2. New aldosterone receptor antagonists

    1.6.3. PCSK9 Inhibitors

1.7 Diabetic Kidney Disease

    1.7.1. Definition. Histological Classification

    1.7.2. New developments in the Pathophysiology of Diabetic Kidney Disease

1.8 New Treatments in Diabetic Kidney Disease

    1.8.1. Inhibitors of sodium-glucose cotransporter type 2 (iSGLT-2) Utility and practical aspects Diabetic and non-diabetic patients

    1.8.2. GLP-1-Agonists:

1.9 Carotid Ultrasound

    1.9.1. Intima-media thickness

    1.9.2. Atheroma plaques

    1.9.3. Cardiovascular risk according to carotid ultrasound findings

1.10 Renovascular Arterial Hypertension

    1.10.1. Renal Artery Stenosis

    1.10.2. Renal Doppler Indications

    1.10.3. Arteriography and angioplasty indications

Module 2. Cardiorenal Medicine

2.1 Pathophysiology of Cardiorenal Syndrome

    2.1.1. Physiological interactions between the heart and the kidney

    2.1.2. Risk factors in heart-kidney interaction

    2.1.3. Congestive phenotypes in the cardiorenal patient

2.2 Vexus Protocol in the Cardiorenal Patient

    2.2.1. Stratification of systemic congestion

    2.2.2. Portal venous Doppler

    2.2.3. Suprahepatic venous Doppler

    2.2.4. Renal venous Doppler

2.3 Pleuropulmonary Ultrasound in Cardiorenal Patients

    2.3.1. Normal Pulmonary Ultrasound A lines pattern

    2.3.2. Pleural sliding and pleural effusion

    2.3.3. Blue Protocol for dyspnea study

2.4 Basic Echocardiography in the Cardiorenal Patient

    2.4.1. Basic echocardiographic planes

    2.4.2. Assessment of valvulopathies

    2.4.3. Ventricular function. TAPSE, MAPSE

    2.4.4. Diastolic alterations in the chronic renal patient.

2.5 Biomarkers in the Cardiorenal Patient

    2.5.1. Usefulness of CA125. Usefulness of Nt-ProBNP

    2.5.2. Management of biomarkers in the cardiorenal patient
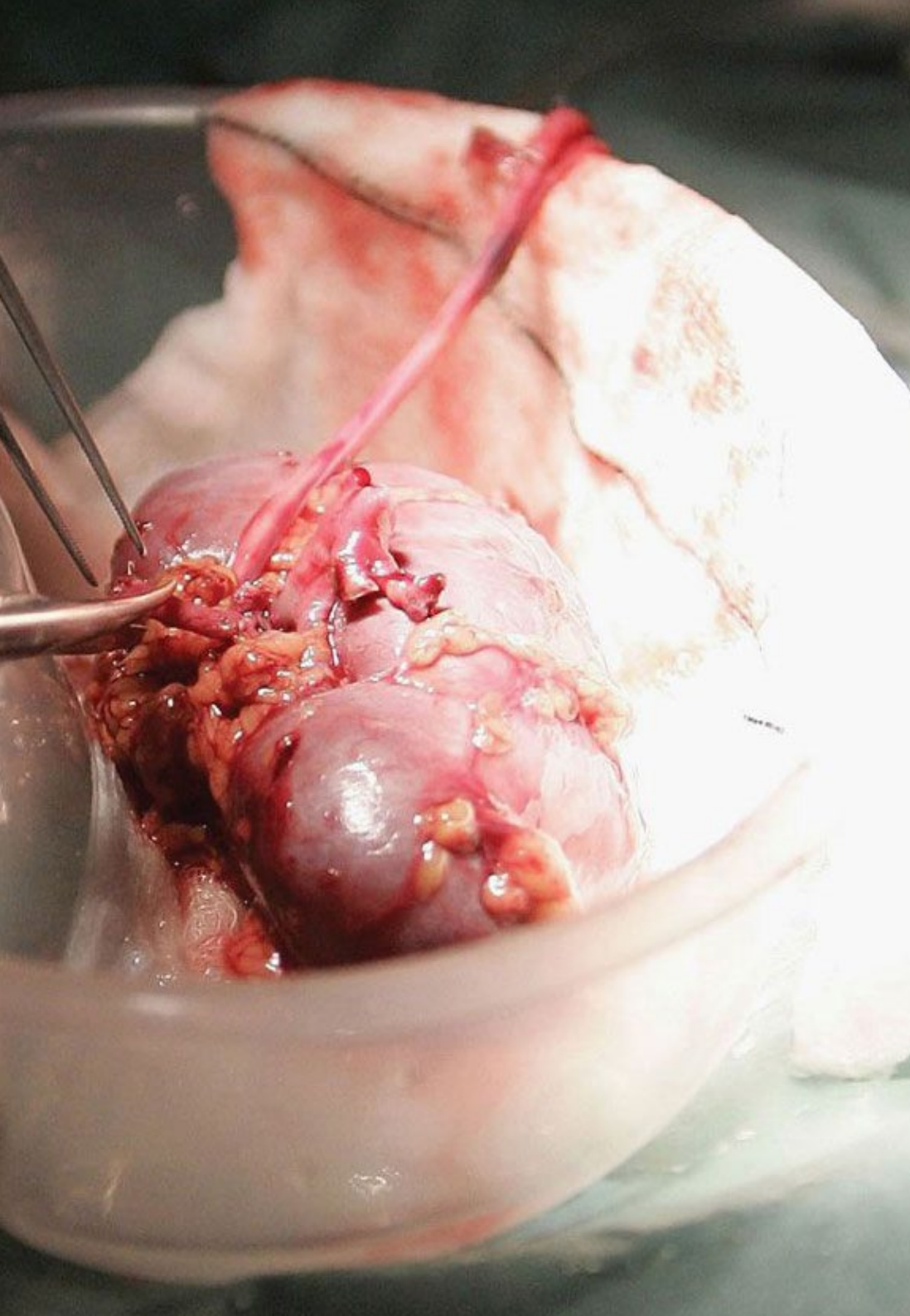
    2.5.3. Resistance to diuretics Mechanisms. Treatment

Module 3. Glomerular Diseases and Systemic Diseases

With TECH's Relearning method, you will avoid investing long hours in studying and you will be able to focus on the key concepts of the syllabus in an efficient way."

05
Methodology

This 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 sustainable over time.

With TECH you will experience a way of learning that is shaking the foundations of traditional universities around the world.
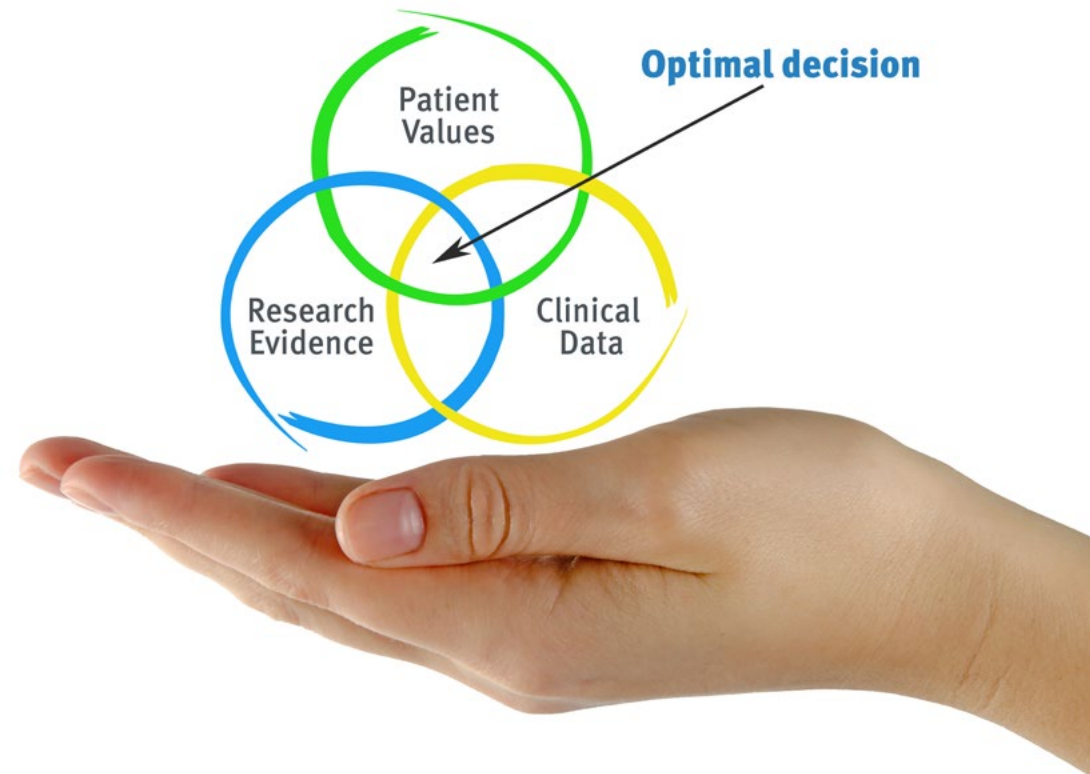
According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that 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 assess 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

TECH effectively combines the Case Study methodology with a 100% online learning system based on repetition, which combines 8 different teaching elements in each lesson.

We enhance the Case Study with the best 100% online teaching method: Relearning.

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.

01 learning from evidence

02 relearning from evidence

03 testing

04 learning from an expert

05 neurocognitive context dependent learning

06 Von-Restorff effect

07 case based learning through storytelling

08 competencies testing (retesting)

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 prepared with unprecedented success in all clinical specialties regardless of surgical load. Our educational 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 adapted in 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.

20%

15%

15%

3%

20%

17%

7%

3%

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 assess and re-assess 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.

Certificate

The Postgraduate Diploma in Update on Cardiorenal Medicine in Nephrology guarantees students, in addition to the most rigorous and up-to-date education, access to a certificate 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 **Postgraduate Diploma in Update on Cardiorenal Medicine in Nephrology** 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.
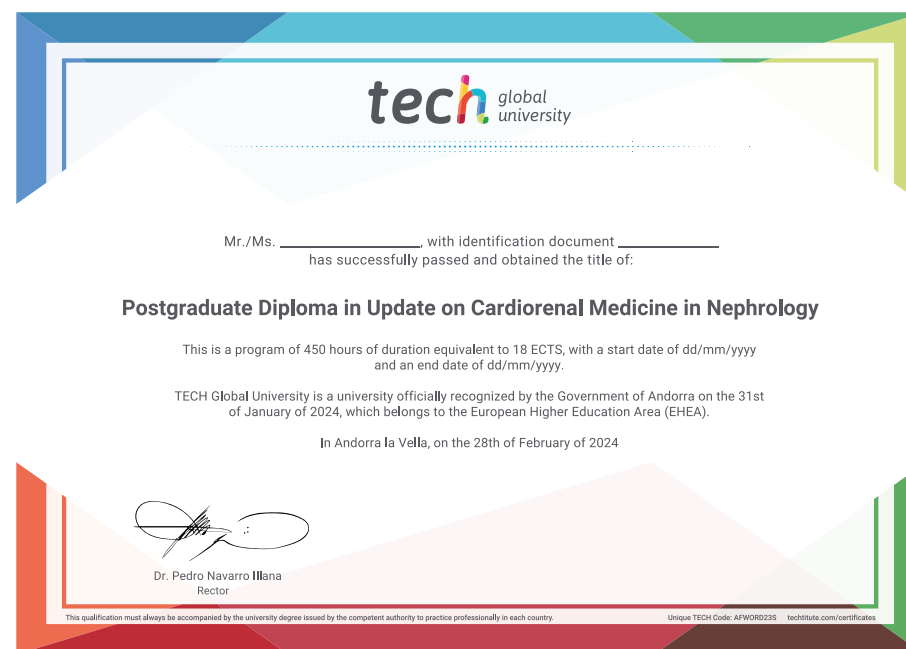
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Diploma in Update on Cardiorenal Medicine in Nephrology**

Modality: **online**

Duration: **6 months**

Accreditation: **18 ECTS**

tech global university

Mr./Ms. _____, with identification document _____
has successfully passed and obtained the title of:

Postgraduate Diploma in Update on Cardiorenal Medicine in Nephrology

This is a program of 450 hours of duration equivalent to 18 ECTS, with a start date of dd/mm/yyyy and an end date of dd/mm/yyyy.

TECH Global University is a university officially recognized by the Government of Andorra on the 31st of January of 2024, which belongs to the European Higher Education Area (EHEA).

In Andorra la Vella, on the 28th of February of 2024

Dr. Pedro Navarro Illana
Rector

This qualification must always be accompanied by the university degree issued by the competent authority to practice professionally in each country. Unique TECH Code: AFWORD23S techtitute.com/certificates

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

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university

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Medicine in Nephrology

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