

# Postgraduate Certificate

## Arrhythmias in Other Clinical Contexts





## Postgraduate Certificate Arrhythmias in Other Clinical Contexts

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

Website: [www.techtute.com/us/medicine/postgraduate-certificate/arrhythmias-other-clinical-contexts](http://www.techtute.com/us/medicine/postgraduate-certificate/arrhythmias-other-clinical-contexts)

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# 01

# Introduction

As a consequence of the different arrhythmias that exist, it is very difficult to establish a “typical patient” when studying them in general terms. They can also appear in healthy, acute and critical patients, athletes, recently operated, people with congenital heart disease or non-cardiological critically ill patients. Taking into account the situation, this complete program is designed to allow the specialist to delve into the different clinical contexts in which arrhythmias are present. The program has been designed by a group of experts in Cardiology, based on the most modern research and adapting its content to a 100% online format.







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*Expanding their knowledge of other clinical settings in which arrhythmias are common allows the specialist to be more critical when diagnosing and treating”*

The treatment of arrhythmias and their derivatives make up a large part of the patient agenda of Cardiology specialists. However, given the characteristics that make up this condition, its appearance not only affects patients with previous heart disease, risk factors or hereditary factors, but is present in a broad group of people. This pathology is also particularly relevant in healthy patients without any type of structural heart disease, in critical or acute patients, in athletes, in people undergoing surgery and in other groups.

That is why TECH has developed this Postgraduate Certificate in Arrhythmias in Other Clinical Contexts, to allow specialists investigate the different circumstances that can generate an arrhythmia and how to act in each of them. Through a complete program designed and created by a group of specialists in Cardiology, the graduate will be up to date with the advances in the management of arrhythmic storm, the indication and technique of transient pacemaker implantation or the diagnosis, implication and particular management of arrhythmias in patients with congenital heart disease, among other sections.

It is a theoretical journey through this area that will allow you not only to update concepts, but also to broaden your knowledge. TECH includes in each program a series of additional content in which you will find high-quality multimedia material, access to academic articles and real clinical cases for your study.

With this online program, the specialist will be able to organize the academic calendar and adapt it to his own availability. Because, in addition, from the first day you will have all the content in your virtual classroom, being able to download it and work from any device. A perfect opportunity that will not only allow you to broaden your concepts, but will also provide you with more self-assuredness and confidence in the workplace.

This **Postgraduate Certificate in Arrhythmias in Others Clinical Contexts** 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 Cardiology
- 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



*Finding quality content, 100% online and at the forefront of Cardiology is very complicated, however, in TECH you will have at your disposal all this and much more"*

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*In this educational program, you will find entire subjects dedicated to the different clinical contexts in which arrhythmias frequently appear”*

The program includes, in its teaching staff, professionals from the sector who bring to this education the experience of their work, in addition to recognized specialists from prestigious reference societies and universities.

Its multimedia content, developed with the latest educational technology, will allow the professional a situated and contextual learning. In other words, a simulated environment that will provide immersive education programmed to prepare for 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 student will be assisted by an innovative interactive video system created by renowned and experienced experts.

*Recognizing the Atrial Fibrillation that occurs in the postoperative period will allow you to have a greater margin for action.*

*Is it possible to learn everything you need to know about arrhythmias in different clinical contexts in 180 hours? With TECH and its innovative program, yes.*





# 02 Objectives

Although the information on cardiac arrhythmias is extensive and increasingly accurate and safe, it is important that the specialist acts according to the context in which it develops. Therefore, the objective of this program is to enable the graduates to distinguish the different clinical scenarios, allowing them to always act according to the recommendations of each case. In this way, you will be much more successful in your diagnosis, being able to apply the correct treatment in each situation and increasing the patient's life chances.







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*When you work with the heart, your goal is to save lives. Let TECH and its experts advise you and increase your chances of success in the diagnosis and treatment of Arrhythmias"*



## General Objectives

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- Update general knowledge as well as the most innovative aspects of cardiological processes involving cardiac rhythm disorders
- Delve into the clinical management and indications of the different procedures performed for the diagnosis and treatment of these cardiac conditions
- Delve into the diagnosis and treatment of arrhythmias based on clinical and electrocardiographic aspects, as well as invasive techniques and electrophysiological studies
- Broaden knowledge in the operation, monitoring and implantation technique of the main implantable devices used for the treatment of arrhythmias
- Delve deeper into the problems in cardiac rhythm disorder that can arise across the spectrum of patients
- Achieve a mastery of the rhythm disorder problems present in the various scenarios faced by the cardiologists in their routine clinical practice







## Specific Objectives

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- Review the most common arrhythmias in patients without heart disease and in athletes
- Review the most common arrhythmias in the critically ill cardiac patient. Know their epidemiology, diagnosis and management
- Know in detail the therapeutic algorithm of arrhythmic storm
- Review the indications and technique of transient pacemaker implantation
- Review the most frequent arrhythmias in the non-cardiac critical patient, after cardiac surgery and after TAVI, with special attention to their management
- Review, in general, the most prevalent arrhythmias in patients with congenital heart disease, as well as their fundamental implications and particularities of management



*Our goal is for specialists to finish their educational program satisfied and aware that they have enhanced their professional career"*

# 03

## Course Management

With the aim of offering a closer, more real and professional point of view, the management and teaching team of this Postgraduate Certificate will be composed of specialists in the area of Cardiology from different referral hospitals. A staff with extensive experience in both the treatment of heart disease and cardiac disorders, as well as in research related to the cardiovascular context. In this way, TECH guarantees an academic experience not only of quality, but with the security and commitment that its team will allow the specialist to obtain the best results.







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*A team of experts with an unmatched human and professional quality will accompany you during this educational program"*

## International Guest Director

Awarded the “Outstanding Patient Experience Award” on multiple occasions for his excellence in patient care, Dr. Konstantinos Aronis has become a prestigious **Cardiac Electrophysiologist**. In this sense, his clinical specialty is based on the **Invasive Management of Arrhythmias** in patients suffering from **Adult Congenital Heart Disease**.

He has developed his professional work in health institutions of international reference, including the **Johns Hopkins Hospital** in Maryland or the **Beth Israel Deaconess Medical Center** in Massachusetts. In this way, he has contributed to optimizing the quality of life of numerous individuals suffering from diseases ranging from **Atrial Fibrillation** or **Ventricular Tachycardia** to **Structural Malformations of the heart**. To do so, he has employed a variety of advanced technological tools such as **Computational Modeling**, **Holder Monitors** and even **Magnetic Resonance Imaging**.

Among his main contributions, he has promoted the **Complex Ablation Program for Congenital Heart Diseases**. This has consisted in the use of **computed tomography** images to create **3D printed models** of hearts with complicated anatomies, which has made it possible to plan medical interventions with greater precision and efficiency. It has also carried out the first **intraoperative excision** for **Atrial Tachycardia**, performing the procedure in real time during cardiac surgery. This innovation made it possible to address cardiac rhythm disturbances that could not be treated conventionally without damaging nearby critical structures.

On the other hand, he balances this work with his role as a **Clinical Researcher** in Cardiac Electrophysiology. In fact, he has published numerous **scientific articles** in high-impact specialized journals. His clinical findings have contributed to the advancement of the knowledge of health professionals in areas such as **Atrial Fibrillation**, **Resynchronization** therapies or personalized **Cardiac Prototypes**.



## Dr. Aronis, Konstantinos

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- Physician at Johns Hopkins Hospital, Maryland, United States
- Cardiovascular Disease and Clinical Cardiac Electrophysiology Investigator at Johns Hopkins Hospital
- Translational Investigator at Beth Israel Deaconess Medical Center, Massachusetts
- Internal Medicine Residency at Boston University Medical Center, Massachusetts
- Internship in Computational Electrophysiology at the Institute of Computational Medicine at Johns Hopkins Hospital
- Doctorate in Internal Medicine, University of Patras
- Degree in Medical Sciences from the University of Patras
- American College of Cardiology
- American Heart Association
- Heart Rhythm Society

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

## Management



### Dr. Jiménez Sánchez, Diego

- ◆ Assistant specialist in Cardiology at the University Hospital El Escorial
- ◆ Attending Doctor Specialist at Unit of the Puerta De Hierro University Hospital
- ◆ Degree in Medicine and Surgery from the Autonomous University of Madrid
- ◆ Residency in the specialty of Cardiology at the Puerta de Hierro University Hospital
- ◆ Fellowship in electrophysiology at the Arrhythmia Unit of the Puerta de Hierro University Hospital
- ◆ University Master's Degree in Diagnostic and Therapeutic Cardiac Electrophysiology at San Pablo CEU University



### Dr. Vázquez López-Ibor, Jorge

- ◆ Assistant Cardiology Specialist at University Hospital El Escorial
- ◆ Assistant Cardiology Specialist at the Heart Failure Unit of the Puerta de Hierro Hospital
- ◆ Degree in Medicine and Surgery from the Complutense University of Madrid
- ◆ Residency in the specialty of Cardiology at the Puerta de Hierro University Hospital
- ◆ Theoretical and practical Master in Critical and Advanced Heart Failure (MICCA) at the Gregorio Marañón Hospital
- ◆ Theoretical and practical training in Cardiovascular Research at the National Center for Cardiovascular Research (CNIC)
- ◆ Fellowship in Advanced Heart Failure, Heart Transplantation and Pulmonary Hypertension at the Puerta de Hierro University Hospital





### **Dr. Castro Urda, Víctor**

- ♦ Assistant Specialist in the Arrhythmia Unit of the Cardiology Service of the Puerta de Hierro Hospital
- ♦ Degree in Medicine and Surgery from the Complutense University of Madrid
- ♦ Residency in the specialty of Cardiology at the Puerta de Hierro University Hospital
- ♦ Internship at the Electrophysiology and Cardiology Department of the Hospital UZ Brussel, Belgium
- ♦ Master's Degree in Diagnostic and Therapeutic Cardiac Electrophysiology at the Complutense University of Madrid

## **Professors**

### **Dr. Parra Esteban, Carolina**

- ♦ Assistant Cardiology Specialist at the Coronary Care Unit of the Puerta de Hierro Hospital
- ♦ Degree in Medicine and Surgery from the Autonomous University of Madrid
- ♦ Residency in the specialty of Cardiology at the Puerta de Hierro University Hospital
- ♦ Lecturer in the course Simulation in the Integral Management of the Patient in Cardiogenic Shock organized by the Cardiology Service of the University Hospital
- ♦ Puerta de Hierro and the Foundation for Biomedical Research of the Puerta de Hierro University Hospital

# 04

## Structure and Content

TECH develops the content of all its titles following the guidelines of the relearning methodology. In this way, it will not be necessary to memorize terms and concepts, but the specialist will gradually become familiar with them. In addition, following the e-learning guidelines, you will be able to access the content wherever and whenever you want. All this, together with a program created by our experts in Cardiology and additional material selected exhaustively, make this Postgraduate Certificate the best offer in the market.



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*You will enjoy content at the forefront of Cardiology research, high quality audiovisual material and interactive summaries of each unit so you won't miss a thing"*



## Module 1. Arrhythmias in Other Clinical Contexts

- 1.1. Arrhythmias in the Population without Heart Disease
- 1.2. Arrhythmias in Athletes
- 1.3. Arrhythmias in the Critically Ill Cardiac Patient
  - 1.3.1. Epidemiology
  - 1.3.2. Study and Clinical Management
  - 1.3.3. Management of Arrhythmic Storm
  - 1.3.4. Transient Pacemaker Indications and Implantation Technique
- 1.4. Out-of-Hospital Cardiac Arrest Care
- 1.5. Arrhythmias in the Non-Cardiac Critically Ill Patient
- 1.6. Arrhythmias in Patients Undergoing Cardiac Surgery and after TAVI
- 1.7. Arrhythmias in Infantile Congenital Cardiopathies
- 1.8. Arrhythmias in Adult Congenital Heart Diseases







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*This is your moment. Choosing TECH is betting on a quality program and a group of professionals committed to your personal and professional improvement”*

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.







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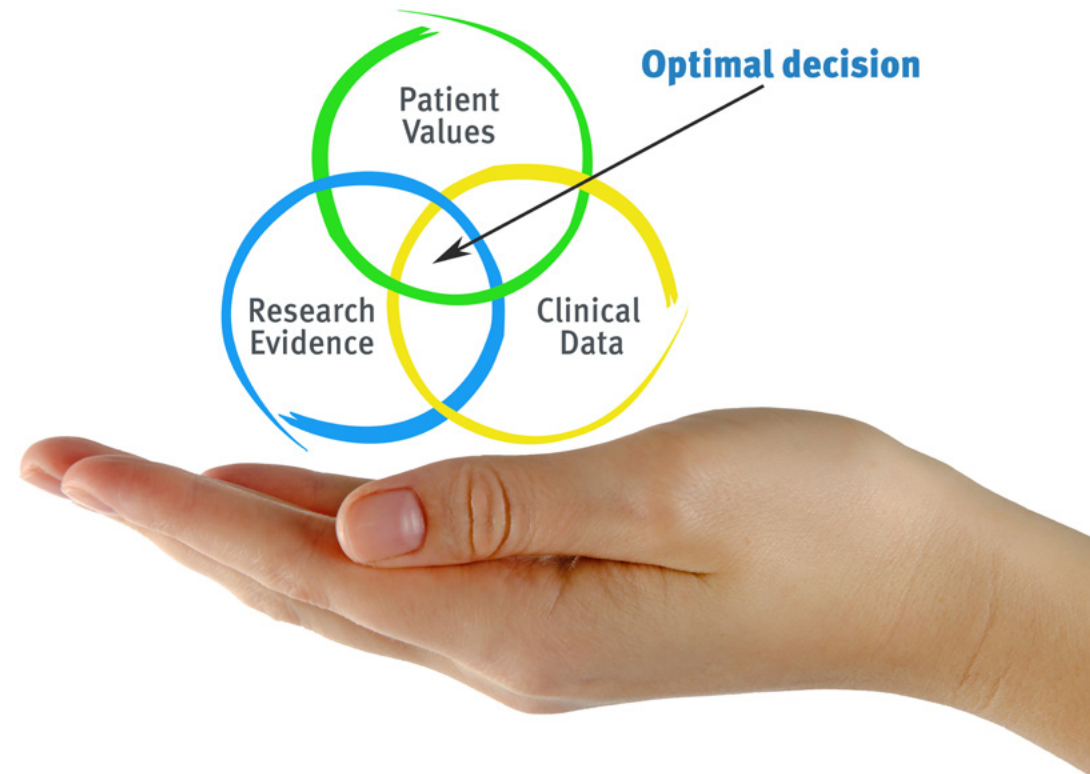
*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*



## At TECH we use the Case Method

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

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



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

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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. 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 Arrhythmias in Other Clinical Contexts 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 private qualification will allow you to obtain a **Postgraduate Certificate in Arrhythmias in Other Clinical Contexts** 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** private qualification 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 Arrhythmias in Other Clinical Contexts**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 ECTS**





future

health confidence people

education information tutors

guarantee accreditation teaching

institutions technology learning

community commitment

innovation

personalized service

knowledge present

online training

development language

virtual classroom

**tech** global  
university

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