

# Postgraduate Certificate

## Acute Phase Diagnosis and Management of Arrhythmias and Cardiac Pacemakers

Veloc: 25 mm/s    Miemb: 10 mm/mV    Prec.: 10,0 mm/mV



## Postgraduate Certificate

### Acute Phase Diagnosis and Management of Arrhythmias and Pacemakers

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Credits: 12 ECTS
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/medicine/postgraduate-certificate/acute-phase-diagnosis-management-arrhythmias-cardiac-pacemakers](http://www.techtute.com/us/medicine/postgraduate-certificate/acute-phase-diagnosis-management-arrhythmias-cardiac-pacemakers)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 16*

05

Methodology

---

*p. 20*

06

Certificate

---

*p. 28*

# 01

# Introduction

The monitoring of patients with cardiovascular pathology in a critical situation is a very common occurrence, both in emergency departments as well as coronary units, ICU and in post-surgery patients with underlying heart disease.





“

*Improve your knowledge in Acute Phase Diagnosis and Management of Arrhythmias and Cardiac Pacemakers through this program, where you will find the best didactic material with real clinical cases. Learn here about the latest advances in the specialty to be able to perform a quality medical practice"*

This Course in Arrhythmias and Cardiac Pacing Devices Diagnosis and Management in Acute Phase in the field of cardiology is one of the areas of great research activity, which frequently leads to the emergence of new studies, reviews, clinical practice guidelines, etc. that modify or should modify the management of the patient with acute heart disease.

Updating in this area is essential for non-cardiologists who work in a setting where they have to treat this patient profile, for cardiologists who are not in day-to-day contact with the acute patient but need to be competent in it, or for cardiologists interested in developing specific training in it.

This **course in Acute Phase Diagnosis and Management of Arrhythmias and Cardiac Pacemakers** contains the most complete and up to date scientific program on the market. The most important features of the course are:

- ♦ Development of more than 75 clinical cases presented by experts Acute Phase Diagnosis and Management of Arrhythmias and Cardiac Pacemakers.
- ♦ The graphic, schematic, and eminently practical contents of which they are composed provide scientific and practical information on the disciplines that are essential for professional practice.
- ♦ New diagnostic and therapeutic developments on assessment, diagnosis and intervention in Acute Phase Diagnosis and Management of Arrhythmias and Cardiac Pacemakers.
- ♦ It contains practical exercises where the self-evaluation process can be carried out to improve learning.
- ♦ Algorithm-based interactive learning system for decision-making in the presented clinical situations.
- ♦ With special emphasis on evidence-based medicine and research methodologies in Acute Phase Diagnosis and Management of Arrhythmias and Cardiac Pacemakers.
- ♦ All this will be complemented by 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 course may be the best investment you can make in the selection of a refresher program for two reasons: in addition to updating your knowledge in Acute Phase Diagnosis and Management of Arrhythmias and Cardiac Pacemakers, you will obtain a course certificate from TECH Global University"*

Its teaching staff includes professionals belonging to the field of microbiota who bring to this training the experience of their work, in addition to recognized specialists belonging to reference 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 an immersive training program to train in real situations.

The design of this program is based on problem-based learning, by means of which the student must try to solve the different professional practice situations that arise throughout the course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts in the field of Acute Phase Diagnosis and Management of Arrhythmias and Cardiac Pacemakers with extensive teaching experience.

*Increase your confidence in decision making by updating your knowledge through this course.*

*Take the opportunity to learn about the latest advances in Acute Phase Diagnosis and Management of Arrhythmias and Cardiac Pacemakers, and improve the training of your students.*



# 02 Objectives

The **Course in Acute Phase Diagnosis and Management of Arrhythmias and Cardiac Pacemakers** is aimed at facilitating the physician's actions in all types of patients with acute cardiological problems





“

*This course is oriented to update your knowledge in Acute Phase Diagnosis and Management of Arrhythmias and Cardiac Pacemakers, with the use of the latest educational technology, to contribute with quality and safety to the decision making process with your patients"*



## General Objective

---

- Be fluent in the diagnostic arsenal available in a tertiary center for the management of critically ill cardiovascular patients.
- Identify the patient in serious or potentially serious short-term situation due to cardiovascular causes.
- Explain the indications for treatment and therapeutic options in critically ill cardiovascular patients.
- Lead a team attending an urgent or emergent situation for an acute cardiovascular cause and guide other colleagues in the treatment of critically ill patients.



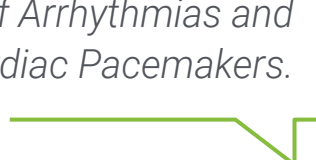


## Specific Objectives

---

- Describe the types of tachycardia and their differential diagnosis based on characteristic electrocardiogram findings.
- Identify the pharmacological and invasive treatment options in the acute setting and the scientific basis for each of them.
- Explain the expected and most frequent electrical alterations according to the patient profile and the underlying cardiac or extracardiac pathology.
- Explain the types of bradyarrhythmias and their risk of progression to cardiac arrest due to asystole.

*Update your knowledge through the program in Acute Phase Diagnosis and Management of Arrhythmias and Cardiac Pacemakers.*



03

# Course Management

The program's teaching staff includes leading specialists in Acute Phase Diagnosis and Management of Arrhythmias and Cardiac Pacemakers, who bring the experience of their work to this training. In addition, other specialists of recognized prestige participate in its design and elaboration, completing the program in an interdisciplinary manner.



“

*Learn from leading professionals the latest advances in procedures in the field of Acute Phase Diagnosis and Management of Arrhythmias and Cardiac Pacemakers”*

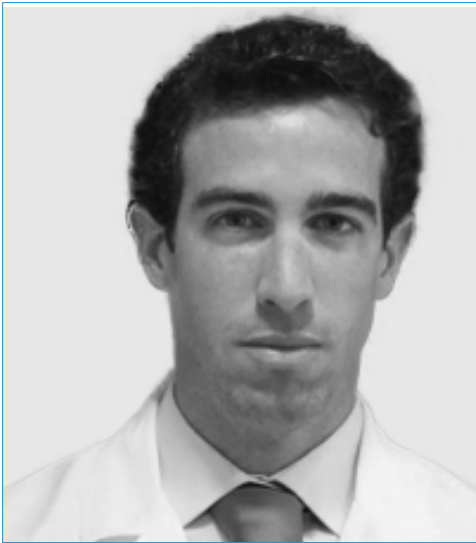
## Management



### Dr. Zamorano Gómez, José Luis

- ♦ Head of the Cardiology Services. Ramón y Cajal University Hospital Madrid .
- ♦ Doctor en Medicine – Cum Laude .
- ♦ Executive Management and Health resources (ESADE, Madrid) .
- ♦ National Qualification as Professor of Medicine .
- ♦ Member of the First European Echocardiography Accreditation Committee of the European Association of Echocardiography.
- ♦ Honorary Fellow American Society of Echocardiography.
- ♦ Chairman of the Clinical Guidelines Committee of the European Society of Cardiology.
- ♦ President of the National Cardiovascular Panel FIS, Instituto Carlos III.
- ♦ Member of the Editorial Board of the journal Española de Cardiología.
- ♦ Member of the Editorial Board of the European Journal of Echocardiography.
- ♦ Member of the Editorial Board of the American Society of Echocardiography.
- ♦ Member, International Relations Task Force of the American Society of Echocardiography.
- ♦ Associate Editor of the European Heart Journal Cardiovascular Imaging.
- ♦ Author of more than 20 books, more than 500 articles in scientific journals and more than 400 communications to National / International Congresses. Impact Factor > 1500. IH 84. Citations > 40000

## Management



### Dr. Daniel Rodríguez Muñoz

- ♦ Cardiologist specializing in Electrophysiology and Arrhythmias, University Hospital Ramón y Cajal.
- ♦ Doctor in Health Sciences, Universidad de Alcalá .
- ♦ Master in Pacemakers, Defibrillators and Resynchronizers.
- ♦ Master in Medical Education.
- ♦ Master in Diagnostic and Therapeutic Cardiac Electrophysiology.
- ♦ Fellow of the European Society of Cardiology (FESC).
- ♦ Member of the European Heart Rhythmia Association (EHRA).
- ♦ Member of the Spanish Society of Cardiology (SEC).
- ♦ Member of the Arrhythmia and Electrophysiology Section of the SEC.

## Professors

### Dr. Castillo Orive, Miguel

- ♦ Cardiology Specialist in Hospitalization Unit and Cardio-diabetes Unit.
- ♦ Ramón y Cajal University Hospital Madrid

### Dr. Fernández-Golfín Lobán, Covadonga

- ♦ Cardiac Imaging Unit Coordinator.
- ♦ Ramón y Cajal University Hospital Madrid

### Dr. Sanmartín Fernández, Marcelo

- ♦ Head of Acute Coronary Syndrome Department.
- ♦ Ramón y Cajal University Hospital, Madrid

### Dr. Sionis Green, Alessandro

- ♦ Head of Cardiac Intensive Care Unit, Cardiology Department.
- ♦ Santa Creu and Sant Pau Hospital Barcelona

# 04

# Structure and Content

The structure of the contents has been designed by a team of professionals from the best educational centers, universities and leading companies in the national territory, aware of the relevance of current training to intervene in the training and support of students, and committed to quality teaching through new educational technologies.







“

*This Course in Acute Phase Diagnosis and Management of Arrhythmias and Cardiac Pacemakers contains the most complete and up to date scientific program on the market"*

**Module 1. Arrhythmias and Cardiac Pacing Devices: Diagnosis and Management in Acute Phase**

- 1.1. Taquiarritmias supraventriculares
  - 1.1.1. Common and Atypical Atrial Flutter.
  - 1.1.2. Atrial Fibrillation.
  - 1.1.3. Paroxysmal Supraventricular Tachycardias.
- 1.2. Ventricular Tachyarrhythmias.
  - 1.2.1. Ventricular Tachycardia in the Ischemic Patient.
  - 1.2.2. Ventricular Tachycardia in the Non-ischemic Patient.
  - 1.2.3. Idiopathic Ventricular Tachycardia.
  - 1.2.4. Polymorphic Ventricular Tachycardia and ventricular Fibrillation.
- 1.3. Bradiarritmias
  - 1.3.1. Sinus Dysfunction.
  - 1.3.2. Atrioventricular Conduction Disorders.
- 1.4. Cardiac Pacing Devices.
  - 1.4.1. Transitory and Permanent Pacemaker:
    - 1.4.1.1. Implant.
    - 1.4.1.2. Programming.
  - 1.4.2. Resynchronizer and Automatic Defibrillator:
    - 1.4.2.1. Programming.
    - 1.4.2.2. Problem-solving.
    - 1.4.2.3. Adjustment for Surgery.
    - 1.4.2.4. Magnetic Resonance Imaging,





“

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

05

# Methodology

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

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



“

*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 an abundance of 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 course you will have access to the best educational material, prepared with you in mind:



### Study Material

After a complex production process, we transform the best content into high-quality educational and audiovisual multimedia. We select the best syllabus and make it available to you. Everything you need to acquire in-depth knowledge of a discipline, from A to Z. Lessons written and chosen by specialists in each of the disciplines.



### Surgical techniques and clinical procedures on video

We bring you closer to the newest techniques, to the latest scientific advances, to the forefront of doctor news. 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.



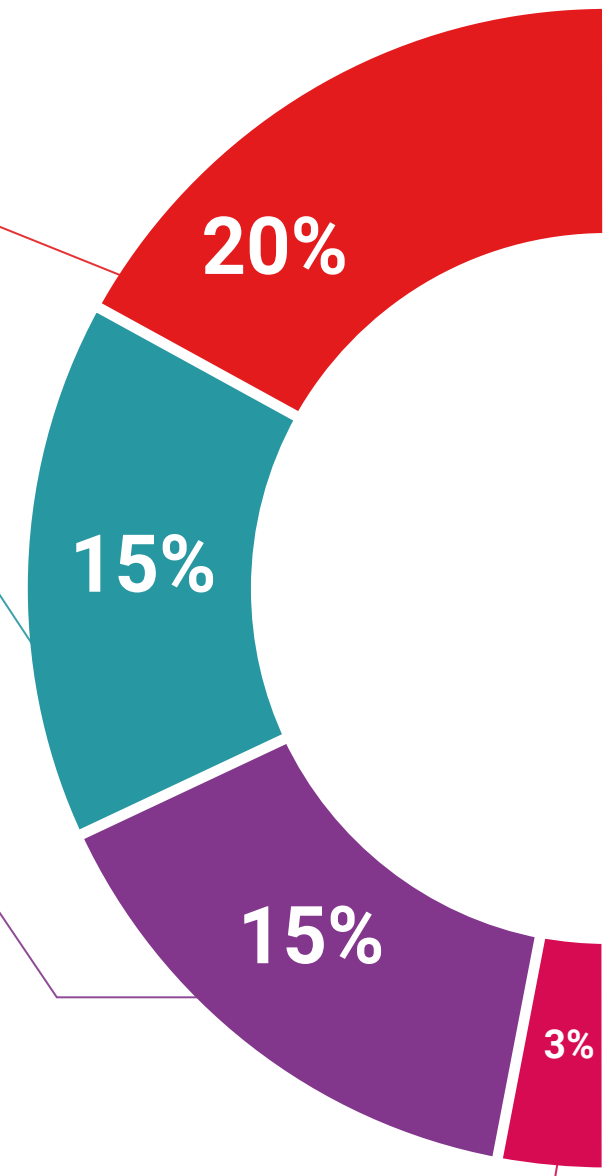
### Interactive Summaries

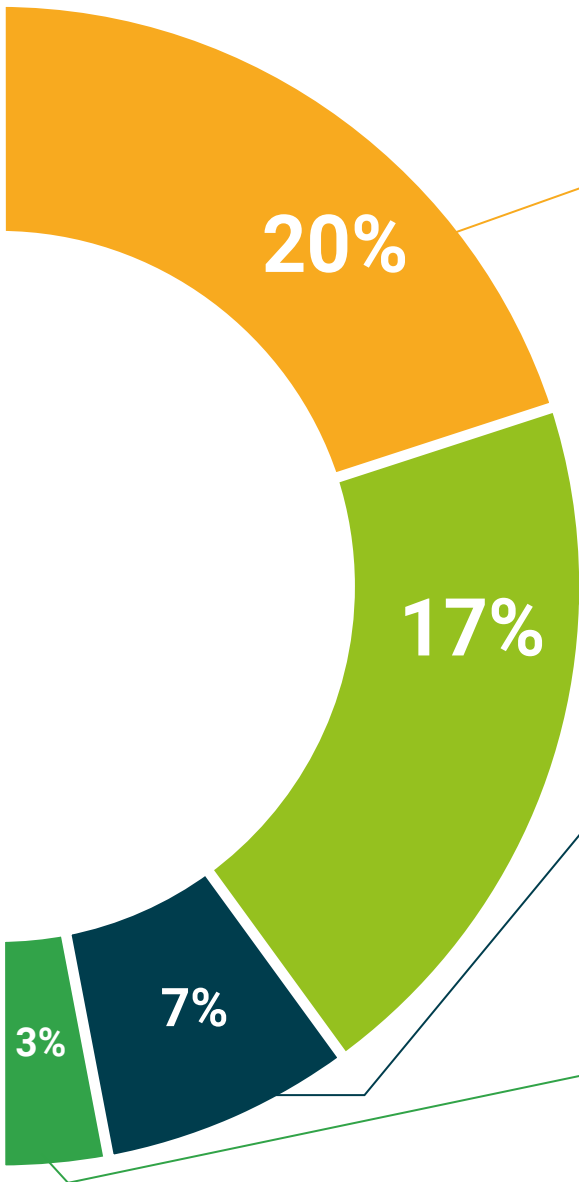
We present the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge. This unique multimedia content presentation training system was awarded by Microsoft as a "European Success Story".



### 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

Through the narratives of expert professionals, it is possible to acquire a high degree of understanding of the most frequent problematic situations. The professional's healthcare practice is not alien to the context in which it takes place. If we want to train ourselves to improve our professional practice, this training must be situated within the context in which it takes place.



#### Testing & Retesting

We periodically evaluate and re-evaluate your knowledge throughout this program through activities and evaluative exercises.



#### Classes

There is scientific evidence suggesting that observing third-party experts can be useful. Learning from an expert strengthens knowledge and recall, and generates confidence in our future difficult decisions.



#### Quick Action Guides

One of the most important functions of our team is to select those contents considered essential and present them in the form of worksheets or quick action guides to facilitate their understanding.



# 06 Certificate

The Course in Arrhythmias and Cardiac Pacing Devices Diagnosis and Management in Acute Phase guarantees you, in addition to the most rigorous and updated training, access to a course certificate issued by TECH Global University.





“

*Successfully complete this training and receive your diploma without the hassle of travel or paperwork.”*

This program will allow you to obtain your **Postgraduate Certificate in Acute Phase Diagnosis and Management of Arrhythmias and Cardiac Pacemakers** endorsed by **TECH Global University**, the world's largest online university.

**TECH Global University** is an official European University publicly recognized by the Government of Andorra ([official bulletin](#)). Andorra is part of the European Higher Education Area (EHEA) since 2003. The EHEA is an initiative promoted by the European Union that aims to organize the international training framework and harmonize the higher education systems of the member countries of this space. The project promotes common values, the implementation of collaborative tools and strengthening its quality assurance mechanisms to enhance collaboration and mobility among students, researchers and academics.

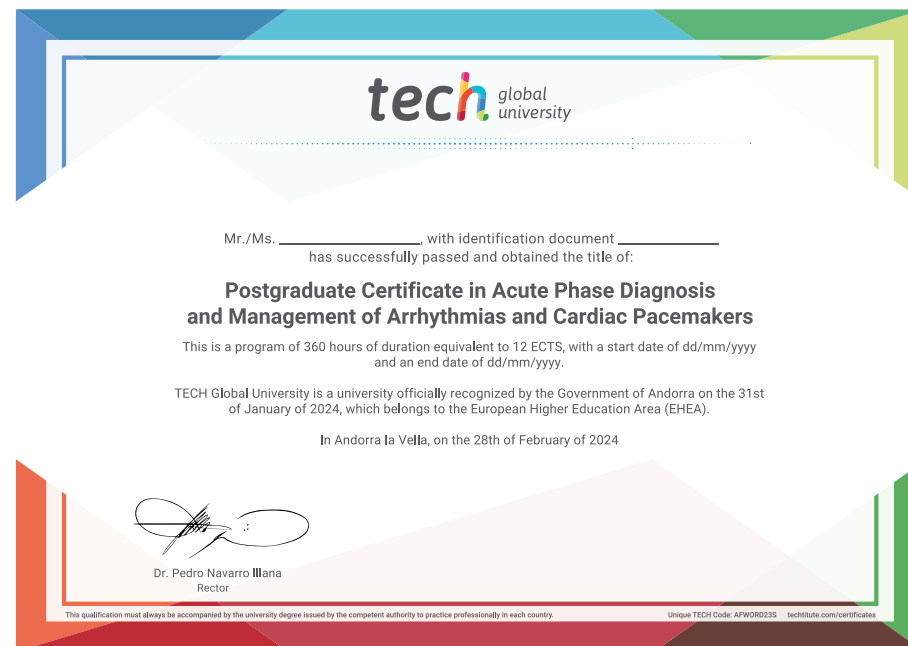
This **TECH Global University** title is a European program of continuing education and professional updating that guarantees the acquisition of competencies in its area of knowledge, providing a high curricular value to the student who completes the program.

Title: **Postgraduate Certificate in Acute Phase Diagnosis and Management of Arrhythmias and Cardiac Pacemakers**

Modality: **online**

Duration: **6 weeks**

Accreditation: **12 ECTS**



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

health future  
confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning



**Postgraduate Certificate**  
Acute Phase Diagnosis  
and Management of Arrhythmias  
and Pacemakers

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Global University
- » Credits: 12 ECTS
- » Schedule: at your own pace
- » Exams: online

# Postgraduate Certificate

## Acute Phase Diagnosis and Management of Arrhythmias and Cardiac Pacemakers

