

Postgraduate Certificate Locoregional Anesthesia in Upper Limbs





Postgraduate Certificate Locoregional Anesthesia in Upper Limbs

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

Website: www.techtute.com/us/medicine/postgraduate-certificate/locoregional-anesthesia-upper-limbs

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

Locoregional Anesthesia in Upper Limbs is essential for pain management in surgical procedures and treatment of diseases, such as carpal tunnel syndrome, which affects more than 3% of the population. In order to approach this clinical challenge, TECH has designed a complete program, with the purpose of updating healthcare professionals in the mastery of the latest techniques in anesthesia and pain management in arms and hands. The syllabus is taught in a 100% online format, using the Relearning pedagogical methodology, which allows for a personalized and adaptive educational base. Furthermore, it has a teaching staff with extensive experience in this important medical field.



“

With this 100% online postgraduate certificate, you will have access to to the latest developments in Locoregional Anesthesia in Upper Limbs”

The upper limbs, being essential for daily activities, are constantly affected by various conditions, such as trauma, repetitive strain injuries and degenerative diseases, among others. The increasing demand for surgical procedures in the upper extremities, including the treatment of conditions such as carpal tunnel syndrome, fractures and sports injuries, has generated the need to train professionals in locoregional anesthesia techniques. This approach improves pain control, reduces the use of opioids and accelerates the patient's recovery.

In this context, TECH has created the Postgraduate Certificate in Locoregional Anesthesia in Upper Limbs, whose main objective is to provide medical professionals, especially anesthesiologists, with a solid update in the mastery of anesthetic techniques for the management of pain in arms and hands. The program covers topics such as anatomy, physiology, pharmacology and specific techniques of locoregional anesthesia, both in surgical procedures and in the treatment of diseases and injuries of the upper extremities.

This program is offered in a 100% online format, using the Relearning. pedagogical methodology. This innovative methodology allows for adaptive and personalized learning, adjusting to the pace and level of each student. Moreover, the teaching staff is composed of professionals widely experienced in the field of locoregional anesthesia, which guarantees high quality teaching based on clinical experience.

Upon completion of this Postgraduate Certificate, students will be at the forefront of the latest advances in this field of medicine to safely and effectively apply the most advanced techniques of Locoregional Anesthesia in Upper Limbs, in this way improving pain management and quality of life of their patients.

This **Postgraduate Certificate in Locoregional Anesthesia in Upper Limbs** contains the most complete and up-to-date scientific program on the market. The most important features include:

- Case studies presented by experts in Locoregional Anesthesia in Upper Limbs
- 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



Approach the possible complications of locoregional anesthesia techniques and how to prevent them, ensuring the safety and well-being of your patients"

“

Increase your understanding of anatomical references, postures and puncture sites for each type of blockage, improving the accuracy and effectiveness of your techniques”

The program's teaching staff includes professionals from sector 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. This will be done with the help of an innovative system of interactive videos made by renowned experts.

It deals with real clinical cases and practical situations, promoting a deep and applied understanding of upper limb anesthetic techniques.

It delves into the anatomy of the brachial plexus and its importance in the development of locoregional anesthesia techniques.



02 Objectives

The main objective of the program in Locoregional Anesthesia in Upper Limbs is to update and enrich the knowledge of health professionals in the area of Locoregional Anesthesia in Upper Extremities. This includes mastery of anatomy, proper selection of blocks according to clinical needs, use of technologies such as neurostimulation and ultrasound, and identification and prevention of complications. Upon completion of the program, students will be better prepared to provide optimal pain management in surgical procedures and treatment of upper extremity related diseases, improving the quality of life of their patients and promoting faster recovery.





“

Boost your professional growth and enrich your skills in Locoregional Anesthesia in Upper Limbs with TECH”



General Objectives

- ♦ Know in depth the fundamentals that allow us to perform procedures with regional anesthesia
- ♦ Become familiar with anatomy, physiology and pharmacology as applied to regional anesthesia. regional anesthesia
- ♦ Study specifically the types of central blocks, as well as their indications, contraindications, technical aspects and complications
- ♦ Study specifically the types of peripheral blocks, as well as their indications, contraindications, technical aspects and complications
- ♦ Review limb, head, neck, chest and abdominal blocks, as well as those useful for difficult airway management. as well as those useful for difficult airway management
- ♦ Review the basic fundamentals of electrostimulation and ultrasound and apply them to the execution of the and apply them to the execution of blockades
- ♦ Be familiar with the equipment necessary to perform the blocks
- ♦ Know and understand the current clinical practice guidelines for the preoperative management of patients who require regional anesthesia
- ♦ List the particularities of outpatient surgery requiring regional anesthesia





Specific Objectives

- ◆ Identify the different blocks that can be performed on the upper limbs and their main indications and contraindications
- ◆ Instruct in the different responses to neurostimulation obtained in the different upper limb blockades
- ◆ Become familiar with the ultrasound image obtained in the different upper limb blockades



A program that will allow you to stand out in a field of great demand in medicine such as the Upper Limbs”

03

Course Management

The teaching staff of the Postgraduate Certificate in Locoregional Anesthesia in Upper Limbs is composed of highly qualified and experienced experts in the field of locoregional anesthesia. These professionals, with extensive clinical and academic backgrounds, bring to the program a solid base of theoretical knowledge and practical skills, ensuring excellence in teaching and a realistic approach. These faculty members are committed to guiding and supporting students throughout their learning process, sharing their experiences and clinical cases, encouraging active participation and the exchange of ideas to facilitate the development of skills and competencies in the management of the most advanced anesthetic techniques.





“

Learn under the guidance of an experienced faculty who will share with you their knowledge and experience in the field of locoregional anesthesia”

Management



Dr. Burgueño González, María Dolores

- ♦ FEA in Anesthesiology and Resuscitation at the HU La Paz
- ♦ Anesthesia Coordinator of Cantoblanco Hospital
- ♦ Responsible for Surgical Patient Safety at Cantoblanco Hospital
- ♦ Specialist Physician at the Virgen del Mar Hospital
- ♦ MIR in Anesthesiology, Resuscitation and Pain Therapy at the University Hospital La Paz
- ♦ Master PROANES: Official Updating Program in Anesthesiology, Resuscitation and Pain Therapy by the Catholic University of Valencia
- ♦ Postgraduate Diploma in Airway Management by the Catholic University of Valencia

Professors

Dr. Canser Cuenca, Enrique

- ♦ FEA of Anesthesiology and Resuscitation at El Escorial Hospital
- ♦ Specialist in Anesthesiology and Resuscitation at the University Hospital La Paz
- ♦ Residency in the Department of Anesthesiology and Resuscitation at the University Hospital La Paz
- ♦ PhD in "Neurosciences: Morphofunctional organization of the nervous system"
- ♦ Master in Pathophysiology and Treatment of Pain by the Autonomous University of Barcelona
- ♦ Master's Degree in Palliative Medicine and Supportive Care of the Cancer Patient

Dr. Vallejo Sanz, Irene

- ♦ FEA in Anesthesiology and Resuscitation at the HU La Paz
- ♦ Collaborator in Clinical Simulation workshops
- ♦ MIR in Anesthesiology, Resuscitation and Pain Therapy
- ♦ European Diploma of Anaesthesiology and Intensive Care, EDAIC part I
- ♦ Member of the Illustrious Official College of Physicians of Madrid
- ♦ Member of the Spanish Society of Anesthesiology and Pain Treatment (SEDAR)

Dr. Zurita Copoví, Sergio

- ♦ FEA of Anesthesiology and Resuscitation at the University Hospital La Paz
- ♦ Specialist Physician at the Virgen del Mar Hospital
- ♦ Resident Tutor at the University Hospital La Paz
- ♦ Clinical teaching collaborator at the Autonomous University of Madrid
- ♦ Master's Degree in Clinical Management, Medical and Health Care Management
- ♦ Master in Patient Management
- ♦ European Postgraduate Certificate in Anesthesia and Critical Care
- ♦ Member of the Spanish Society of Anesthesiology and Pain Treatment (SEDAR)

Dr. Rodríguez Roca, María Cristina

- ♦ FEA of Anesthesiology and Resuscitation at the University Hospital La Paz
- ♦ Teaching and research experience in several university centers
- ♦ PhD from the Autonomous University of Madrid
- ♦ European Postgraduate Certificate in Anesthesia and Critical Care (EDAIC)
- ♦ Member of the Spanish Society of Anesthesiology and Pain Treatment (SEDAR)
- ♦ Member of the working group of Chronic Pain of the Spanish Society of Anesthesiology and Resuscitation

Dr. Martín Martín, Almudena

- ♦ FEA in Anesthesiology and Resuscitation at the HU La Paz
- ♦ Clinical Teaching Collaborator of the University Hospital La Paz
- ♦ MIR in Anesthesiology, Resuscitation and Pain Therapy at the University Hospital La Paz
- ♦ Master of Continuing Education in "Patient Management"

Dr. Sancho De Ávila, Azahara

- ♦ Free practice anesthesiologist at La Zarzuela Hospital
- ♦ FEA of Anesthesiology and Resuscitation at the University Hospital of La Paz
- ♦ Free practice anesthesiologist at the University Hospital of La Luz
- ♦ Free practice anesthesiologist at Nuestra Señora del Rosario Hospital
- ♦ Doctor in Medicine and Surgery from the University of La Laguna
- ♦ Specialist in Anesthesiology, Resuscitation and Pain Therapy by MIR examination at the University Hospital Nuestra Señora de la Candelaria

Dr. Salgado Aranda, Patricia

- ♦ FEA in Anesthesiology and Resuscitation at the HU La Paz
- ♦ Teaching and research experience
- ♦ Clinical Teaching Collaborator of the University Hospital La Paz
- ♦ PhD from the Autonomous University of Madrid
- ♦ Degree in Medicine from the University of Alcalá, Spain
- ♦ Master's Degree in Infectious Diseases in Intensive Care
- ♦ Member of the Illustrious Official College of Physicians of Madrid

04

Structure and Content

The content of the syllabus has been designed so that the Medical professional can delve into the upper limbs and their anesthetic process. The specificity of the medical and surgical intervention procedure requires a detailed structural breakdown, as in this program. As a result, at the end of the course, the student will be able to effectively apply the latest techniques and developments in Locoregional Anesthesia related to the Upper Limbs. All of this in 180 hours of intensive study through a 100% online platform.





“

You will be at the forefront of the latest advances in the application of peripheral blocks to the shoulder, elbow, wrist and hand, expanding your repertoire of anesthetic techniques”

Module 1. Upper Limbs

- 1.1. Brachial Plexus Anatomy
 - 1.1.1. Anatomy
 - 1.1.2. Nerve territory and exploration
 - 1.1.3. Cutaneous and motor distribution of brachial plexus nerves
- 1.2. Superficial and Deep Cervical Block
 - 1.2.1. Anatomy
 - 1.2.2. Indications
 - 1.2.3. Contraindications
 - 1.2.4. Anatomical references, posture and puncture sites
 - 1.2.5. Material
 - 1.2.6. Response to Neurostimulation
 - 1.2.7. Blockage by Ultrasound
 - 1.2.8. Complications
- 1.3. Interscalene Block
 - 1.3.1. Anatomy
 - 1.3.2. Indications
 - 1.3.3. Contraindications
 - 1.3.4. Anatomical references, posture and puncture sites
 - 1.3.5. Material
 - 1.3.6. Response to Neurostimulation
 - 1.3.7. Blockage by Ultrasound
 - 1.3.8. Complications
- 1.4. Infraclavicular Block
 - 1.4.1. Anatomy
 - 1.4.2. Indications
 - 1.4.3. Contraindications
 - 1.4.4. Anatomical references, posture and puncture sites
 - 1.4.5. Material
 - 1.4.6. Demand Response
 - 1.4.7. Blockage by Ultrasound
 - 1.4.8. Complications
- 1.5. Infraclavicular Block
 - 1.5.1. Anatomy
 - 1.5.2. Indications
 - 1.5.3. Contraindications
 - 1.5.4. Anatomical references, posture and puncture sites
 - 1.5.5. Material
 - 1.5.6. Response to Neurostimulation
 - 1.5.7. Blockage by Ultrasound
 - 1.5.8. Complications
- 1.6. Axillary Block
 - 1.6.1. Anatomy
 - 1.6.2. Indications
 - 1.6.3. Contraindications
 - 1.6.4. Anatomical references, posture and puncture sites
 - 1.6.5. Material
 - 1.6.6. Response to Neurostimulation
 - 1.6.7. Blockage by Ultrasound
 - 1.6.8. Complications
- 1.7. Blockages in the humeral canal (mid-humeral block)
 - 1.7.1. Anatomy
 - 1.7.2. Indications
 - 1.7.3. Contraindications
 - 1.7.4. Anatomical references, posture and puncture sites
 - 1.7.5. Material
 - 1.7.6. Response to Neurostimulation
 - 1.7.7. Blockage by Ultrasound
 - 1.7.8. Complications



- 1.8. Peripheral Blockages
 - 1.8.1. Blockages at Shoulder Level
 - 1.8.1.1. Supraclavicular Nerve Block
 - 1.8.1.2. Suprascapular Nerve Block
 - 1.8.1.3. Lateral Cutaneoanterior Brachial Nerve Blockage
 - 1.8.1.4. Medial Cutaneoanterior Brachial Nerve Blockage
 - 1.8.2. Isolated blockages at the Elbow
 - 1.8.2.1. Median Nerve Block
 - 1.8.2.2. Radially Nerve Block
 - 1.8.2.3. Cubital Nerve Block
 - 1.8.3. Isolated blockages at the Elbow
 - 1.8.3.1. Median Nerve Block
 - 1.8.3.2. Radially Nerve Block
 - 1.8.3.3. Cubital Nerve Block
 - 1.8.3.4. Distal Blocks
- 1.9. Intravenous Regional Anesthesia of the Upper Limb
 - 1.9.1. Indications
 - 1.9.2. Contraindications
 - 1.9.3. Material
 - 1.9.4. Methodology
- 1.10. Infiltrations in the Upper Limb
 - 1.10.1. General Aspects
 - 1.10.2. Indications
 - 1.10.3. Contraindications
 - 1.10.4. Materials and Drugs
 - 1.10.5. Methodology
 - 1.10.6. Adverse Effects
 - 1.10.7. Shoulder level infiltrations
 - 1.10.8. Infiltrations at elbow level
 - 1.10.9. Infiltrations at hand level

05

Methodology

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

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



“

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

At TECH we use the Case Method

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

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



According to Dr. 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.

“

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 Locoregional Anesthesia in Upper Limbs guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate 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 Certificate in Locoregional Anesthesia in Upper Limbs** 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 Locoregional Anesthesia in Upper Limbs**

Modality: **online**

Duration: **6 weeks**

Accreditation: **6 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.



Postgraduate Certificate
Locoregional Anesthesia
in Upper Limbs

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

Postgraduate Certificate Locoregional Anesthesia in Upper Limbs

