Postgraduate Certificate Thoraco-abdominal Interfascial Blocks in Locoregional Anesthesia





## Postgraduate Certificate Thoraco-abdominal Interfascial Blocks in Locoregional Anesthesia

- » Modality: online
- » Duration: 6 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Acceso web: www.techtitute.com/us/medicine/postgraduate-certificate/thoraco-abdominal-interfascial-blocks-locoregional-anesthesia

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Certificate

# 01 Introduction

The purpose of Locoregional Anesthesia is to numb a body area to make way for a surgical procedure. This anesthetic technique is minimally invasive, however, it does relieve a large number of patients who require these surgeries to lead a peaceful life, noticing an improvement in their daily lives, or even having saved their lives in the process. For this reason, TECH has decided to create a degree that allows medical professionals to deepen their medical knowledge base and update them in the latest advances to perform Locoregional Anesthesia in the area of Interfascial Blocks in the thoraco-abdominal area. A 100% online program, completely flexible and of high quality.



With this complete Postgraduate Certificate you will be able to achieve greater acuity in your knowledge regarding Locoregional Anesthesia to carry out surgical procedures at the forefront of the latest postulates"

## tech 06 | Introduction

Taking anesthetic methods as a tool of medicine, it is plausible to think that the palliative care referred to some patients require this application, first of all, as a painkiller, not necessarily as a surgical method. However, Locoregional Anesthesia techniques work at a general level to enable surgical intervention as a definitive solution to patients. Thus, the Interfacial Block is directly applied to perform some of these interventions with definitive solution in the thoraco-abdominal area.

Recent advances in the area of anesthesiology have made it possible to classify the anesthetic models as follows: 1) general, which renders the patient unconscious; 2) regional, which numbs a wide area of the body; and 3) local, with a focused effect on a small area, for faster and more efficient interventions. Thus, with the latter, several nerves in the area to be treated are numbed, so as to facilitate the procedure without discomfort for the patient, who remains conscious. Thus, the Interfascial Block works through Locoregional Anesthesia located only in the thoraco-abdominal area.

In order to train in this important area of medicine, TECH offers this Postgraduate Certificate in Thoraco-abdominal Interfascial Blocks in Locoregional Anesthesia to update graduates in this medical specialty. Throughout the curriculum, students will be able to address the anatomy of the thoracic and abdominal wall, the BRILMA block technique and incisional analgesia, among others.

With the advantage of the 100% online modality of this program, students will have the opportunity to take classes from the comfort of their personal device and without fixed schedules. This added to the Relearning methodology, which allows a slow and efficient learning based on repetition, makes this Postgraduate Certificate the ideal option for the medical professional to stay at the forefront in this field.

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

- The development of case studies presented by experts in Thoraco-abdominal Interfascial Blocks in Locoregional Anesthesia
- 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



Take the next step in your career by getting up to speed on the latest advances in thoraco-abdominal locoregional anesthesia"

### Introduction | 07 tech

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Save lives by becoming a leading medical professional focused on a high-demand area and set your career on a course for career success" Get updated on the most efficient methods to perform intercostal blocks without complications, through this 100% online program.

Deepen in the anatomy of the chest and abdominal wall to apply blocks effectively with the latest 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.

Its 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 education programmed to learn in real situations.

The design of this program focuses on Problem-Based Learning, by means of which the professional must try to solve the different professional practice situations that are presented throughout the academic course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.

# 02 **Objectives**

Designed for the professional to master the latest medical advances in this field, the Postgraduate Certificate in Thoracic-Abdominal Interfascial Blocks in Locoregional Anesthesia aims to provide the lawyer with an acute deepening in the medical issues that concern him, and has as its basis, as far as Interfascial Blocks that occur in the intrathoracic abdomen are concerned. Therefore, upon completion of the degree, the professional will be able to have a complete and updated notion of this method and thus apply it effectively in their professional work.



A program that aims to expand your skills in interpectoral blocks, such as PEC I and PEC II, and their clinical applications"

## tech 10 | Objectives



### **General Objectives**

- Learn in depth the fundamentals that allow us to perform procedures with regional anesthesia
- Familiarize with the anatomy, physiology and pharmacology applied to regional anesthesia
- Specifically study the types of central blocks, as well as their indications, contraindications, technical aspects and complications
- Specifically study the types of peripheral blocks, as well as their indications, contraindications, technical aspects and complications
- Review limb, head, neck, thoracic and abdominal blocks, as well as those useful for difficult airway management
- Review the basic fundamentals of electrostimulation and ultrasound and apply them to the performance of blocks
- Being familiar with the equipment necessary to perform the blocks
- Know in depth the current clinical practice guidelines for the preoperative management of patients requiring regional anesthesia
- List the particularities of outpatient surgery requiring regional anesthesia. Specifically study the types of Peripheral blocks, as well as their indications, contraindications, technical aspects and complications



## Objectives | 11 tech





### Specific Objectives

- Know in depth the anatomy of the thoracic and abdominal wall, distinguishing what we will block with each regional technique
- \* Learn to visualize, by ultrasound, the different muscle groups
- Be trained in the performance of interfascial blocks, knowing the puncture site and the site where we will place our local anesthetic
- Decide what type of block our patient needs according to the type of aggression that is going to be performed or has been performed on him/her
- Intercostal, interpectoral, erector spinae, serratus plane, TAP, semilunar, quadratus lumborum, ilioinguinal and iliohypogastric blocks will be part of our repertoire of analgesic techniques
- \* Know the efficacy and effectiveness of infiltration of the surgical wound itself

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Project yourself as a medical professional of reference and give your career the direction you were looking for with this Postgraduate Certificate"

# 03 Course Management

In its commitment to provide exceptional education, TECH has assembled for this Postgraduate Certificate a highly qualified teaching team with extensive experience in the field of locoregional anesthesia and pain management. These experts are dedicated to providing the tools and knowledge necessary for medical professionals to acquire a solid and up-to-date foundation in these areas, improving their skills and competencies in their daily practice.

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An exclusive teaching staff that will put you at the forefront in the management of incisional analgesia with local anesthetic infiltration and continuous administration systems"

## tech 14 | Course Management

#### Management



#### Dr. Burgueño González, Mª Dolores

- Anesthesia Coordinator of Cantoblanco Hospital
- Responsible for Surgical Patient Safety at Cantoblanco Hospital
- Specialist Physician at Virgen del Mar Hospital
- Degree in Medicine and Surgery from the Complutense University of Madrid
- MIR in Anesthesiology, Resuscitation and Pain Therapy at 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

- 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"
- Degree in Medicine from the Faculty of Salamanca
- 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. Rodríguez Roca, María Cristina

- Teaching and research experience in several university centers
- PhD from the Autonomous University of Madrid
- Degree in Medicine and Surgery from the University of Large
- 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

### Course Management | 15 tech

#### Dr. Sancho De Ávila, Azahara

- Clinical Teaching Collaborator of the University Hospital La Paz
- Doctor in Medicine and Surgery from the University of La Laguna
- Degree in Medicine from the Autonomous University of Madrid. Madrid
- Specialist in Anesthesiology, Resuscitation and Pain Therapy by MIR examination at the University Hospital Nuestra Señora de la Candelaria

#### Dr. Zurita Copoví, Sergio

- 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
- Degree in Medicine and Surgery from the University of Valencia
- 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. Vallejo Sanz, Irene

- Collaborator in Clinical Simulation workshops
- Degree in Medicine from the Autonomous University Madrid
- 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. Salgado Aranda, Patricia

- 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

#### Dr. Martín Martín, Almudena

- Anaesthesiology and resuscitation at the the Light Hospital
- Anaesthesiology and resuscitation at the Virgen del Mar Hospital
- Clinical Teaching Collaborator of the University Hospital La Paz
- Degree in Medicine from the Autonomous University Madrid
- MIR in Anesthesiology, Resuscitation and Pain Therapy at the University Hospital La Paz
- Master of Continuing Education in "Patient Management"

# 04 Structure and Content

The syllabus of this academic program addresses the most relevant contents to deepen the medical field of Locoregional Anesthesia, focused on surgical procedures in the thoracoabdominal area. In this way, graduates will acquire a broad knowledge of the latest advances in this area, including Locoregional Anesthesia and practical online simulations. Thus, they will not only address the anatomy of the thoracic and abdominal wall, the current methods and materials for the surgical application of the Locoregional Anesthesia technique and its operation.

Structure and Content | 17 tech

With a curriculum developed by recognized experts in Anesthesiology, you will deepen your knowledge of ilioinguinal and iliohypogastric blocks and their application in abdominal surgery"

## tech 18 | Structure and Content

#### Module 1. Thoraco-abdominal interfascial blocks

- 1.1. Interfascial blocks
  - 1.1.1. What is an interfascial block?
  - 1.1.2. History & evolution
  - 1.1.3. Advantages and Disadvantages
- 1.2. Anatomy of the thoracic wall
  - 1.2.1. Musculoskeletal Component
  - 1.2.2. Nervous Component
  - 1.2.3. Cutaneous innervation
- 1.3. Intercostal Blockages
  - 1.3.1. Blockade of the anterior cutaneous branches of the intercostal nerves (BCRA) or pectointercostal blockade

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- 1.3.1.1. Introduction
- 1.3.1.2. Indications and Contraindications
- 1.3.1.3. Position and Patient Preparation
- 1.3.1.4. Materials
- 1.3.1.5. Anatomical vs. ultrasound image
- 1.3.1.6. Blockage under ultrasound vision
- 1.3.1.7. Complications

#### 1.3.2. BRILMA

- 1.3.2.1. Introduction
- 1.3.2.2. Indications and Contraindications
- 1.3.2.3. Position and Patient Preparation
- 1.3.2.4. Materials
- 1.3.2.5. Anatomical vs. ultrasound image
- 1.3.2.6. Blockage under ultrasound vision
- 1.3.2.7. Complications
- 1.3.2.8. Modified BRILMA
- 1.4. Interpectoral blocks
  - 1.4.1. PEC I
    - 1.4.1.1. Introduction
    - 1.4.1.2. Indications and Contraindications
    - 1.4.1.3. Position and Patient Preparation

### Structure and Content | 19 tech

- 1.4.1.4. Materials 1.4.1.5. Anatomical vs. ultrasound image 1.4.1.6. Blockage under ultrasound vision 1.4.1.7. Complications 1.4.2. PEC II 1.4.2.1. Introduction 1.4.2.4. Materials 1.4.2.7. Complications 1.5. Other Thoracic wall blocks 1.5.1. Erector spinae block 1.5.1.1. Introduction 1.5.1.4. Materials 1.5.1.7. Complications 1.5.2. Serratus plane block 1.5.2.1. Introduction 1.5.2.4. Materials 1.5.2.7. Complications Anatomy of the Abdominal Wall 1.6. 1.6.1. Musculoskeletal Component 1.6.2. Nervous Component 1.6.3. Cutaneous innervation
  - 1.4.2.2. Indications and Contraindications 1.4.2.3. Position and Patient Preparation 1.4.2.5. Anatomical vs. ultrasound image 1.4.2.6. Blockage under ultrasound vision 1.5.1.2. Indications and Contraindications 1.5.1.3. Position and Patient Preparation 1.5.1.5. Anatomical vs. ultrasound image 1.5.1.6. Blockage under ultrasound vision 1.5.2.2. Indications and Contraindications 1.5.2.3. Position and Patient Preparation 1.5.2.5. Anatomical vs. ultrasound image 1.5.2.6. Blockage under ultrasound vision

## tech 20 | Structure and Content

1.7. Transversus Abdominis Plane block (TAP Block

1.7.1. Introduction

- 1.7.2. Indications and Contraindications
- 1.7.3. Position and Patient Preparation
- 1.7.4. Materials
- 1.7.5. Anatomical vs. ultrasound image
- 1.7.6. Blockage under ultrasound vision
- 1.7.7. Complications
- 1.7.8. Variants of TAP block
  - 1.7.8.1. Subcostal TAP
  - 1.7.8.2. Posterior TAP
- 1.8. Ilioinguinal e Iliohypogastric Block

1.8.1. Introduction

- 1.8.2. Indications and Contraindications
- 1.8.3. Position and Patient Preparation
- 1.8.4. Materials
- 1.8.5. Anatomical image vs. ultrasound image
- 1.8.6. Blockage under ultrasound vision
- 1.8.7. Complications
- 1.9. Other abdominal wall blocks
  - 1.9.1. Locking of the Rectus Sheath
    - 1.9.1.1. Introduction
    - 1.9.1.2. Indications and Contraindications
    - 1.9.1.3. Position and Patient Preparation

1.9.1.4. Materials

- 1.9.1.5. Anatomical vs. ultrasound image
- 1.9.1.6. Blockage under ultrasound vision
- 1.9.1.7. Complications





### Structure and Content | 21 tech

1.9.2. Semilunar block 1.9.2.1. Introduction 1.9.2.2. Indications and Contraindications 1.9.2.3. Position and Patient Preparation 1.9.2.4. Materials 1.9.2.5. Anatomical vs. ultrasound image 1.9.2.6. Blockage under ultrasound vision 1.9.2.7. Complications 1.9.3. Lumbar Square Blockage 1.9.3.1. Introduction 1.9.3.2. Indications and Contraindications 1.9.3.3. Position and Patient Preparation 1.9.3.4. Materials 1.9.3.5. Anatomical vs. ultrasound image 1.9.3.6. Blockage under ultrasound vision 1.9.3.7. Complications 1.10. Incisional analgesia 1.10.1. Infiltration of local anesthetic in surgical wound 1.10.2. Continuous analgesia administration systems Incisional catheters 1.10.3. Infusion rates 1.10.4. Efficacy and safety

> Advance with TECH in your career with a Relearning methodology and 100% online access, without fixed schedules"

# 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"

## tech 24 | Methodology

#### 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. 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.

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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:

 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.
- 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.



## tech 26 | Methodology

#### **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.



### Methodology | 27 tech

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.



## tech 28 | Methodology

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.

20%

15%

3%

15%

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.

## Methodology | 29 tech



#### **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.

20%

7%

3%

17%



#### **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.



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 Thoraco-abdominal Interfascial Blocks in Anesthesia guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Certificate issued by TECH Technological University.



Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork"

## tech 32 | Certificate

This **Postgraduate Certificate in Thoraco-abdominal Interfascial Blocks in Locoregional Anesthesia** contains the most complete and up-to-date program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Certificate** issued by **TECH Technological University** via tracked delivery\*.

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

Title: Postgraduate Certificate in Thoraco-abdominal Interfascial Blocks in Locoregional Anesthesia

Official Nº of hours: 150 h.



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

technological university Postgraduate Certificate Thoraco-abdominal Interfascial Blocks in Locoregional Anesthesia » Modality: online » Duration: 12 months » Certificate: TECH Technological University » Dedication: 16h/week » Schedule: at your own pace » Exams: online

Postgraduate Certificate Thoraco-abdominal Interfascial Blocks in Locoregional Anesthesia

