

# Postgraduate Diploma

Acute, Postoperative and  
Musculoskeletal Pain Management.  
Rehabilitation and Physical Activity





## Postgraduate Diploma Acute, Postoperative and Musculoskeletal Pain Management. Rehabilitation and Physical Activity

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

Website: [www.techtute.com/pk/nursing/postgraduate-diploma/postgraduate-diploma-acute-postoperative-musculoskeletal-pain-management-rehabilitation-physical-activity](http://www.techtute.com/pk/nursing/postgraduate-diploma/postgraduate-diploma-acute-postoperative-musculoskeletal-pain-management-rehabilitation-physical-activity)

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# 01

# Introduction

In this pain assessment and treatment program, the student will learn to recognize and treat the different types of pain, specializing in acute and postoperative pain, musculoskeletal pain, as well as rehabilitation and physical activity.

Throughout these months of the program, you will learn from professionals the most advanced techniques for the treatment of pain in different areas, allowing you to improve the quality of patient care and treatment.





“*Improve your knowledge in Acute, Postoperative and Musculoskeletal Pain Management. Rehabilitation and Physical Activity through this program, where you will find the best teaching material with real clinical cases”*

Pain is one of the most frequent symptoms of disease presentation and is one of the main causes of consultation to the health system. Moreover, as health professionals, it can be found in its most varied manifestations in any job that is developed within the health system. This is why an adequate knowledge of its causes and management can be an excellent working tool in the development of daily professional activity.

The design of this program is based on learning based on up-to-date contents and practical cases that allow professionals to learn in an eminently practical environment. Throughout this program, you will address all the non-pharmacological tools for nursing practice in pain management.

Thanks to this program you will acquire the necessary knowledge for the holistic management of different types of pain in all care contexts, the ability to assess, evaluate, diagnose and intervene with a care plan, as well as autonomy in the patient's decisions and quality of life in the treatment of pain.

Take the opportunity and study this program in a 100% online format, without having to give up your obligations, from the comfort of your own home. Update your knowledge and study a program to continue growing personally and professionally.



*Take the opportunity to learn about the latest advances in this field and apply it to your daily practice"*

This **Postgraduate Diploma in Acute, Postoperative and Musculoskeletal Pain Management. Rehabilitation and Physical Activity** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ The development of more than 75 clinical cases presented by experts in Acute, Postoperative and Musculoskeletal Pain Management. Rehabilitation and Physical Activity
- ♦ 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
- ♦ Diagnostic and therapeutic novelties on evaluation, diagnosis and intervention in Acute, Postoperative and Musculoskeletal Pain Management. Rehabilitation and Physical Activity
- ♦ Practical exercises where the self-assessment process can be carried out to improve learning
- ♦ Clinical iconography and diagnostic imaging tests
- ♦ An algorithm-based interactive learning system for decision-making in the clinical situations presented throughout the course
- ♦ Special emphasis on the research methodology used in Acute, Postoperative and Musculoskeletal Pain Management. Rehabilitation and Physical Activity
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ♦ Access to content from any fixed or portable device with an Internet connection

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*This program may be the best investment you can make in selecting a refresher program for two reasons: in addition to updating your knowledge in used in Acute, Postoperative and Musculoskeletal Pain Management. Rehabilitation and Physical Activity, you will obtain a qualification from TECH Technological University”*

Its teaching staff includes health professionals from the main areas of pain, who bring to this program the experience of their work, as well as recognized 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 an immersive training experience designed to train for real-life situations.

This program is designed around Problem-Based Learning, whereby the nurse must try to solve the different professional practice situations that arise throughout the program. For this purpose, the specialist will be assisted by an innovative interactive video system developed by renowned experts with extensive experience in therapeutic personal training.

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

*This program in Acute, Postoperative and Musculoskeletal Pain Management. Rehabilitation and Physical Activity will help you keep up to date in order to provide comprehensive quality care to your patients.*



# 02 Objectives

The main objective of the program is the development of theoretical and practical learning, so that the nurse is able to master in a practical and rigorous way advanced knowledge in Acute, Postoperative and Musculoskeletal Pain Management. Rehabilitation and Physical Activity.





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*This program will allow you to update your knowledge in Acute, Postoperative and Musculoskeletal Pain Management. Rehabilitation and Physical Activity with the use of the latest educational technology, to contribute with quality and confidence to decision-making"*



## General Objectives

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- ♦ Manage up-to-date knowledge about pain in any of its types focused on daily care practice
- ♦ Provide all the necessary tools to nursing professionals to assess, diagnose and intervene in the patient's pain in a holistic context
- ♦ Identify pain, its consequences and the best intervention according to the situation and needs of the patient
- ♦ Identify and plan care using all necessary nursing techniques
- ♦ Specialize in the most up-to-date pain management in a multidisciplinary context and from the nursing discipline



*Take the step to get up to date on the latest developments in Acute, Postoperative and Musculoskeletal Pain Management. Rehabilitation and Physical Activity”*





## Specific Objectives

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### Module 1. Acute and Postoperative Pain for Nursing

- ◆ Provide up-to-date knowledge of acute and post-surgical pain with a practical and care approach
- ◆ Deepen in pain prevention strategies in the context of surgery, pre-surgical care
- ◆ Contextualize the nursing work in the multidisciplinary team
- ◆ Achieve specialization in all aspects of patient safety in the surgical environment

### Module 2. Musculoskeletal Pain for Nursing

- ◆ Assess the patient with pain
- ◆ Identify the type of pain: know its physiopathology and clinical characteristics
- ◆ Specialize in the main pathologies in which this type of pain occurs
- ◆ In-depth knowledge of the different treatments in their approach
- ◆ Provide health education to patients and families on the management of musculoskeletal pain

### Module 3. Pain Management through Rehabilitation and Physical Activity for Nursing

- ◆ Define clinical reasoning
- ◆ In-depth knowledge of the pathobiological mechanisms of pain
- ◆ In-depth knowledge of the characteristics, implications and treatments of nociceptive pain
- ◆ Learn more about the characteristics, prognosis and treatments of neuropathic pain
- ◆ Define and know how to manage fear of movement
- ◆ Learn and acquire expertise in the pillars of treatment from physical activity and rehabilitation: manual therapy, education and exercise
- ◆ Holistic approach to complex chronic pain: characteristics, theories and treatments

03

# Course Management

The program includes in its teaching staff renowned experts in Acute, Postoperative and Musculoskeletal Pain Management. Rehabilitation and Physical Activity bring work experience to this educational course. Additionally, other recognized experts have participated in its design and preparation, complementing the program in an interdisciplinary manner.



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*Leading professionals in the field have come together to teach you the latest advances in Acute, Postoperative and Musculoskeletal Pain Management. Rehabilitation and Physical Activity”*

## International Guest Director

With nearly two decades of professional experience, Jay Horton has devoted his career to **Palliative Care for Nursing**. In this branch of care, the expert holds a **doctorate** that endorses the quality of his practice and healthcare competencies.

Specifically, the specialist has researched the impact of these **techniques in the hospital environment** and the intensity with which these treatments should be applied in **patients with serious illnesses**. Likewise, he has mastered the methodologies for assisting terminally ill geriatric cases. At the same time, he holds **several licenses of activity** among which a Certificate in **Executive Nursing Practice** granted by the **American Organization for Leadership in Nursing** stands out.

He is also accredited in **Safety and Quality** by the **Institute for Healthcare Improvement**. She also holds an **Advanced Hospice and Palliative Care Certificate** from the Hospice and Palliative Care Nurses Association. He has also been recognized by the **American Nurses Credentialing Center** as a **Family Nurse Practitioner**.

All these recognitions to his work are the result of his excellent management of nursing methodologies for the approach of Chronic Pain in patients and the implementation of the most innovative strategies in **Mental Health**. Horton also stands out for her knowledge of **administration and management** of hospital environments.

Among other responsibilities, Dr. Horton has served as **Director of Palliative Care Nursing** at **Mount Sinai Beth Israel Hospital**. He is also an academic assistant at the Icahn School of Nursing and the Mount Sinai Phillips School of Nursing. In this space, he contributes to the development of accelerated training programs for nurses. In addition, he is a collaborator at Columbia University and has been part of the care team at **New York Presbyterian Hospital**.



## Dr. Horton, Jay

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- Director of Palliative Care Nursing, Mount Sinai Beth Israel Hospital
- Director of Safety, Quality and Nursing Performance Improvement, Mount Sinai Hospital Network
- Assistant at Icahn Mount Sinai Mount Sinai Hospital School of Nursing
- Assistant at Mount Sinai Phillips Hospital School of Nursing
- Adjunct Faculty Assistant at Columbia University School of Nursing
- Nurse Assistant, New York Presbyterian Hospital, New York
- PhD in Nursing Research and Theoretical Development from NYU Rory Meyers School of Nursing
- Masters in Family, Pain Management and Palliative Care Nursing from Yale University
- Master's degree in Health Policy and Administration from Yale School of Public Health
- Fellowship at Memorial Sloan-Kettering Cancer Center
- Bachelor's degree in Microbiology from the University of Iowa
- Certifications: Executive Nurse Practice from the American Organization for Leadership in Nursing, Advanced Certificate from the American Hospice and Palliative Association, Family Nurse Practitioner by the American Nurses Credentialing Center and Accreditation in Safety and Quality by the Institute for Healthcare Improvement

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

## Management



### Dr. Cano García, Laura

- Rheumatology Nurse Expert and UCGI Coordinator
- Nurse expert in Rheumatology and coordinator of UCGI
- Rheumatology ICU Care Coordinator in the Andalusian Health Service
- Nurse at the Regional University Hospital of Malaga
- President of OPEN REUMA
- Doctor in Health Sciences and Oncology at the University of Malaga
- Master's Degree in Health Sciences Current Events
- Member of: Spanish Society of Rheumatology, Working Group on Autoimmune Diseases and Continuity of Care of the Ministry of Health

## Professors

### Ms. Rodríguez Vargas, Ana Isabel

- ♦ Rheumatology consultation nurse at the University Hospital of Tenerife
- ♦ Nursing Care Technician at the Conselleria de Sanitat Universal i Salut Pública, Valencia
- ♦ Collaborator of the III SER Workshop of Specialized Nursing in Rheumatology by the Spanish Society of Rheumatology

### Mr. Such Sanz, Arturo

- ♦ Director of the Movement and Health Physiotherapy Center
- ♦ Secretary of the Spanish Society of Physiotherapy and Pain
- ♦ Degree in Physiotherapy from the University of Valencia
- ♦ Member of: Spanish Society of Physiotherapy and Pain, Physiotherapy Association Without Network and Spanish Association of Hand Therapists





# 04

# Structure and Content

The structure of the contents has been designed by a team of professionals from the best educational institutions and universities in the country, who are aware of the relevance of up-to-date, innovative training and are committed to quality teaching using new educational technologies.





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*A comprehensive teaching program, structured in well-developed teaching units, oriented towards efficient and swift learning that is compatible with your personal and professional life"*

## Module 1. Acute and Postoperative Pain for Nursing

- 1.1. Types of Acute Pain
- 1.2. Units of Acute Pain
  - 1.2.1. Infrastructure
  - 1.2.2. Care Models
- 1.3. Nursing Intervention in Acute Pain
  - 1.3.1. Assessment of Acute Pain
  - 1.3.2. Pharmacological Interventions for Acute Pain
  - 1.3.3. Non-Pharmacological Interventions for Acute Pain
- 1.4. Acute Postoperative Pain
  - 1.4.1. Definition
  - 1.4.2. Incidence and Prevalence of Acute Postoperative Pain
  - 1.4.3. Evaluation of Acute Postoperative Pain
- 1.5. Treatment of Postoperative Pain
  - 1.5.1. Prevention of Postoperative Pain
  - 1.5.2. Types of Treatment for Postoperative Pain
  - 1.5.3. Medical Treatment
  - 1.5.4. Non-Pharmacological Treatment
- 1.6. Safety of the Surgical Patient
- 1.7. Postoperative Morbidity
  - 1.7.1. Causes: Pain and Interventionism
  - 1.7.2. Solutions
- 1.8. Surgical Nursing and Pain
  - 1.8.1. Topic Update
  - 1.8.2. Protocols and Interventions Evaluated
- 1.9. Perioperative Nursing in Anxiety and Pain
- 1.10. Latest Trends and Improvements in Acute Pain Management for Nursing
  - 1.10.1. Innovation in Acute Pain
  - 1.10.2. Innovation in Postoperative Pain

## Module 2. Musculoskeletal Pain for Nursing

- 2.1. Introduction and Concepts
  - 2.1.1. Concept of Musculoskeletal Pain
  - 2.1.2. Epidemiology and Impact of the Processes
  - 2.1.3. Pathophysiology
  - 2.1.4. Clinical Characteristics
  - 2.1.5. Classification
- 2.2. Nurse Assessment of Pain
  - 2.2.1. Verbal Assessment Methods
  - 2.2.2. Behavioral Assessments
  - 2.2.3. Physiological Measurements
- 2.3. Inflammatory Pain
  - 2.3.1. Features
  - 2.3.2. Epidemiology
  - 2.3.3. Inflammatory Arthropathies
- 2.4. Mechanical Pain
  - 2.4.1. Features
  - 2.4.2. Epidemiology
  - 2.4.3. Degenerative Arthropathies
  - 2.4.4. Soft Tissue Alteration
- 2.5. Musculoskeletal Pain in Bone Diseases
  - 2.5.1. Characteristics of Bone Diseases
  - 2.5.2. Epidemiology
  - 2.5.3. Pain in Osteoporosis
  - 2.5.4. Pain in Paget's Disease
  - 2.5.5. Osteoarticular Pain
- 2.6. Musculoskeletal Pain Due to Metabolic and Endocrine Disorders
  - 2.6.1. Definition of Metabolic and Endocrine Disorders
  - 2.6.2. Epidemiology
  - 2.6.3. Classification
  - 2.6.4. Pain Due to Metabolic and Endocrine Disorders
- 2.7. Muscular Pain
  - 2.7.1. Introduction
  - 2.7.2. Features
  - 2.7.3. Epidemiology
  - 2.7.4. Myofascial Pain
  - 2.7.5. Fibromyalgia

- 2.8. Musculoskeletal Pain in Connective Tissue Diseases
  - 2.8.1. Definition in Connective Tissue Diseases
  - 2.8.2. Epidemiology
  - 2.8.3. Classification
  - 2.8.4. Pain in Connective Tissue Diseases
- 2.9. Treatment of Musculoskeletal Pain
  - 2.9.1. Oral Treatment
  - 2.9.2. Topical treatment
  - 2.9.3. Nerve Blocks and Infiltration Techniques
  - 2.9.4. Radiofrequency Techniques
  - 2.9.5. Neuromodulation Techniques
- 2.10. Roles of the Nurse in the Management of the Patient with Musculoskeletal Pain

### Module 3. Pain Management through Rehabilitation and Physical Activity for Nursing

- 3.1. Introduction to Pain
  - 3.1.1. Introduction to Pain
  - 3.1.2. Definition of Pain
  - 3.1.3. Pain Models
  - 3.1.4. Clinical Implications in Each Model
- 3.2. Introduction to Clinical Reasoning
  - 3.2.1. Definition of Clinical Reasoning
  - 3.2.2. Clinical Reasoning Models
  - 3.2.3. Hypothesis Categories
- 3.3. Pathobiological Mechanisms of Pain
  - 3.3.1. Mature Organism Model
  - 3.3.2. Input: Nociceptive Pain
  - 3.3.3. Inflammatory Pain
  - 3.3.4. Peripheral Neuropathic Pain
  - 3.3.5. Processing: Maladaptive Pain
  - 3.3.6. Output: Organism Response
- 3.4. Nociceptive Pain
  - 3.4.1. Clinical Characteristics
  - 3.4.2. Characteristics of the Tissues
  - 3.4.3. Healing Ability
  - 3.4.4. Basic Principles of Treatment
  - 3.4.5. Clinical Implications
- 3.5. Neuropathic Pain
  - 3.5.1. Clinical Features: Negative Signs vs. Positive Symptoms
  - 3.5.2. Physiology of Nerve Injury
    - 3.5.2.1. Prognosis
    - 3.5.2.2. Treatment Principles
- 3.6. Complex Chronic Pain
  - 3.6.1. Clinical Characteristics
  - 3.6.2. Pain Identifiers
  - 3.6.3. Theories of Complex Chronic Pain
  - 3.6.4. Specificity vs. Peripheral Pattern
  - 3.6.5. Neuromatrix Theory
  - 3.6.6. Relevance Theory
  - 3.6.7. Dynamic Connectome Theory
- 3.7. Risk Factors for Chronicity
  - 3.7.1. Psychosocial Factors
  - 3.7.2. Social and Cultural Factors
- 3.8. Fear of Movement
  - 3.8.1. Fear-Avoidance Model
- 3.9. Treatment
  - 3.9.1. Manual Therapy
  - 3.9.2. Education
  - 3.9.3. Exercise
- 3.10. Treatment of Complex Chronic Pain
  - 3.10.1. Pain Education
  - 3.10.2. Gradual Exposure to Movement
  - 3.10.3. Behavioral Changes

# 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 Nursing School we use the Case Method

In a given situation, what should a professional do? 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. Nurses learn better, faster, and more sustainably over time.

*With TECH, nurses can experience a learning methodology 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, in an attempt to recreate the real conditions in professional nursing 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. Nurses 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 nursing professional to better integrate knowledge acquisition into the hospital setting or primary care.
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 case studies with a 100% online learning system based on repetition combining a minimum of 8 different elements in each lesson, which is a real revolution compared to the simple study and analysis of cases.



*The nurse 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 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 we have trained more than 175,000 nurses with unprecedented success in all specialities regardless of practical workload. 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 really 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.



### Nursing Techniques and Procedures on Video

We introduce you to the latest techniques, to the latest educational advances, 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 them as many times as you want.



### 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 suggesting that observing third-party experts can be useful.

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 Diploma in Acute, Postoperative and Musculoskeletal Pain Management. Rehabilitation and Physical Activity guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Technological University.





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

This **Postgraduate Diploma in Acute, Postoperative and Musculoskeletal Pain Management. Rehabilitation and Physical Activity** contains the most complete and up-to-date scientific on the market.

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

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

Title: **Postgraduate Diploma in Acute, Postoperative and Musculoskeletal Pain Management. Rehabilitation and Physical Activity**

Official N° of Hours: **450 h.**



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





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

# Postgraduate Diploma

Acute, Postoperative and  
Musculoskeletal Pain Management.  
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