

# Postgraduate Diploma

## Orthopedic and Traumatology Surgery for Nursing





## Postgraduate Diploma

### Orthopedic and Traumatology Surgery for Nursing

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

Website: [www.techtute.com/us/nursing/postgraduate-diploma/postgraduate-diploma-orthopedic-traumatology-surgery-nursing](http://www.techtute.com/us/nursing/postgraduate-diploma/postgraduate-diploma-orthopedic-traumatology-surgery-nursing)

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01

# Introduction

Continuous training is nowadays required to achieve professional development and to be fully qualified to face the daily challenges of a constantly changing field such as healthcare. The surgical area is an environment whose characteristics differentiate it from the rest of the services where the majority of nursing professionals habitually develop competencies in their care, management, teaching and research functions.







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*Improve your knowledge 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 practice”*

Each of the wide variety of surgical interventions that are performed requires a specific procedure, a specific technique and the exclusive surgical material for that intervention. One thing they all have in common is a series of steps and rules that all team members should know in detail. They must also know the general functioning of the surgical department in order to prevent and avoid common risks while carrying out professional work.

This postgraduate diploma contains the most complete and updated scientific program on the market, with the main objective of training in generic and specific competencies in a surgical process and facilitates the updating of the professional in a practical way and adapted to their needs. The modules that make up this course are aimed at updating the knowledge of nursing professionals who already perform their functions in the surgical field and for those new professionals who wish to develop their functions in the surgical field where a high qualification is required and increase their professional competence in the provision of surgical nursing care to the patient, before, during and after surgery in a holistic manner.

The innovative educational method, which includes real clinical cases and exercises to bring the development of the program closer to the surgical practice, is based on Problem Based Learning, by means of which the student must try to solve the different professional practice situations that arise during the program. For this reason, you will be assisted by an innovative interactive video system created by renowned and experienced experts in the field of radiology with extensive teaching experience.

This knowledge will facilitate the provision of quality care throughout the surgical process to ensure the safety of the patient and the professional at all times.

The content is based on the latest scientific evidence and is organized in a didactic way to integrate theoretical knowledge into nursing practice. The theoretical-practical elements allow professionals to update their knowledge and help them to make the right decisions in patient care.

This **Postgraduate Diploma in Orthopedic and Traumatology Surgery for Nursing** contains the most complete and up-to-date scientific program on the market. The most important features of the program include:

- ♦ Clinical cases presented by experts in the different specialties. The graphic, schematic, and eminently practical contents with which they are created provide scientific and practical information on the disciplines that are essential for professional practice.
- ♦ Novelties on **Orthopedic and Traumatology Surgery for Nursing**.
- ♦ An algorithm-based interactive learning system for decision-making in the situations presented throughout the course.
- ♦ With special emphasis on evidence-based health and surgical nursing research methodologies.
- ♦ 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.



*Increase your skills in the approach to orthopedic and traumatologic surgery for nursing through this program"*

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*This Postgraduate Diploma 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 orthopedic and traumatologic surgery for nursing, you will obtain a Postgraduate Diploma from TECH Technological University"*

Forming part of the teaching staff is a group of professionals in the world of surgical nursing who bring to this specialization their work experience, as well as a group of renowned specialists, recognised by esteemed scientific communities.

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 training program to train 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 course. For this reason, you will be assisted by an innovative, interactive video system created by renowned and experienced experts in the field of surgical nursing with extensive teaching experience.

*Increase your decision-making confidence by updating your knowledge with this Postgraduate Diploma in Orthopedic and Traumatologic Surgery for Nursing.*

*Don't miss the opportunity to update your knowledge in Orthopedic and Traumatologic Surgery to improve patient care.*





02

# Objectives

The principal objective of the program is the development of both theoretical and practical learning, so that the professional can master, in a practical and rigorous way, the study of orthopedic and traumatologic surgery.







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*This refresher program will generate a sense of security when nursing, which will help you grow both personally and professionally”*



## General Objectives

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- ◆ Update your knowledge on advanced nursing practice in perioperative care within the different medical-surgical specialities through nursing based on evidence.
- ◆ Promote work strategies based on perioperative patient care, as a reference model in the achievement of healthcare excellence.
- ◆ To encourage the learning of technical skills and abilities, through a powerful audiovisual system, and the possibility of development through online workshops for simulation and/or specific specialization.
- ◆ Encouraging professional development through research and dynamic and up-to-date continuous training.



## Specific Objectives

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- ◆ Define the perioperative surgical process, the three stages involved and identify the different areas in which they take place.
- ◆ Describe the nursing professional's interventions, depending on the point in time of surgery.
- ◆ Acquire skills to control potential anxiety and pain in a patient.
- ◆ Learn the most-used anesthetic techniques, their indications and complications, and control the mechanisms of action and side effects of the administered drugs.
- ◆ Acquire the necessary skills to collaborate with the rest of the surgical team in critical moments.



- ♦ Learn to supervise and participate in patient handling and transfers, ensuring patient comfort and safety.
- ♦ Know how to communicate the necessary information about the patient to the nursing professional who will provide the follow-up care.
- ♦ Explain the legal responsibility of a nurse in surgical practice.
- ♦ Master the surgical technique in arthroscopy, as well as the positioning of the different devices and the layout of the operating room, which is very different from other surgeries in orthopedic and trauma surgery.
- ♦ Differentiate between cemented and uncemented arthroplasties and explain and perform the surgical cementation procedure.
- ♦ List the essential components for each type of prosthesis, according to the joint to be repaired/replaced, and verify the stock of implants before surgery.
- ♦ Be able to act efficiently and quickly in the event of eventualities such as periprosthetic fracture, bleeding, or improvised change of type of prosthesis or osteosynthesis material.
- ♦ Acquire the necessary knowledge to collaborate in surgeries with osteosynthesis.
- ♦ Know how to correctly apply the ischemia technique to the extremities for when it is needed in order to perform surgery.
- ♦ Explain the process of bone donation/reception and learn how the bone bank works.
- ♦ Manage the lavage system and spacer implantation technique when there is an infection in the joint.
- ♦ Know the risks of the frequent use of radiation in orthopedic and trauma surgery operating rooms and the measures to be taken to prevent them.



*Seize the opportunity and take the step to get up-to-date on the latest developments in orthopedic and traumatologic surgery for nursing”*





03

# Course Management

This program includes highly regarded health professionals in the field of healthcare in its teaching staff, who bring the experience of their work to this specialization.

In addition, renowned specialists, members of prestigious national and international scientific communities, are involved in designing and preparing the program.





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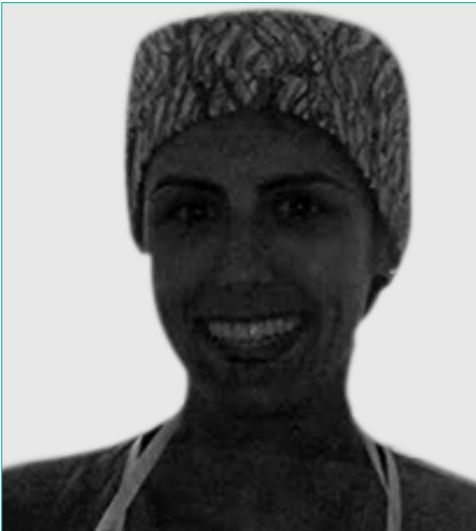
*Learn about the latest advances in orthopedic and traumatologic surgery for nursing from leading professionals”*

## Management



### Guzmán Almagro, María Isabel

- Diploma in Nursing
- Master's Degree in Social Gerontology: Longevity, Health and Quality of Life
- University Expert in Accidents and Emergencies from the Complutense University of Madrid.
- Professional Master's Degree in Comprehensive Nursing Care in Critical and Emergency Situations in Adults
- Surgical Block Nurse at the La Paz University Hospital. Madrid, Spain



### Bárzano Saiz, Mª Estela

- Diploma in Nursing
- Diploma in Physiotherapy
- Master's Degree in Counselling by the San Camilo Health Humanization Center.
- Operating room nurse with several years of experience in Orthopaedic and Traumatological Surgery, Plastic Surgery and General Surgery operating rooms at University Hospital La Paz. Madrid, Spain

## Management



### Alba López, Alicia

- Diploma in Nursing.
- Operating room nurse with several years of experience in Orthopaedic and Traumatological Surgery, Plastic Surgery and General Surgery operating rooms at University Hospital La Paz. Madrid, Spain

## Professors

### **Carrero Villareal, Mercedes**

- Operating room nurse in traumatology, plastic surgery and cardiothoracic surgery.
- Lecturer in Nursing Degree at the University of Albacete

### **García Enciso, M<sup>a</sup> Carmen**

### **López Quesada, Teresa**

### **Martín, Cristina**

### **Palomares Gracia, Vanesa**

- Operating room nurse in orthopaedic and trauma surgery and plastic surgery since April 2014 at University Hospital "La Paz" in Madrid

### **Rodríguez, Mercedes**

**Valero Villar, Ana Maria**

- ♦ Operating room nurse since 2008 in the specialities of traumatology and plastic surgery at Gregorio Marañón University hospital and La Paz University Hospital in Madrid. Posgraduate Diploma in surgical nursing, anaesthesia and resuscitation. Posgraduate Diploma in community health promotion. UNED Business School 2010

**Valverde Girón, Laura**

- ♦ Surgical nurse with 9 years of experience in the specialities of orthopaedic and trauma surgery, general surgery, plastic surgery and gynaecological surgery, in La Paz University Hospital, Cantoblanco Hospital and Santa Cristina University Hospital in Madrid.







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*This specialization will provide you with a sense of security in nursing practice, which will help you grow personally and professionally ”*

04

# Structure and Content

The structure of the contents has been designed by a team of professionals who recognise the implications of training in the daily praxis of the nurse, aware of the relevance of current specialization to be able to implement a suitable use of surgical nursing and are committed to quality teaching using new educational technologies.





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*A unique syllabus that will be of great use in nursing care”*



## Module 1. Perioperative Surgical Process

- 1.1. Definition Perioperative Surgical Process.
  - 1.1.1. Perioperative Nurse.
  - 1.1.2. Importance of Information Between the Patient/ Family and the Healthcare Team.
  - 1.1.3. Control Anxiety in a Patient.
- 1.2. Pre-Surgery Surgical Process.
  - 1.2.1. Recovery Room.
  - 1.2.2. Preoperative Nursing Interventions.
    - 1.2.2.1. Welcoming the Patient/ Family.
    - 1.2.2.2. Preparing the Patient for Surgery.
    - 1.2.2.3. Nursing Measures in the Immediate Preoperative Period.
    - 1.2.2.4. Transferring the Patient to the Operating Room.
- 1.3. Intraoperative Surgical Process.
  - 1.3.1. Surgical Area.
  - 1.3.2. Different Anesthetic Techniques.
  - 1.3.3. Most Commonly Used Drugs.
  - 1.3.4. Nursing Interventions Before the Patient enters the Operating Room.
    - 1.3.4.1. Welcoming the Patient in the Pre-Anesthesia Room (Before the Operating Room).
    - 1.3.4.2. Specific Interventions of the Circulating Nurse and the Instrumentalist Nurse.
  - 1.3.5. Nursing Interventions in the Operating Room.
    - 1.3.5.1. Specific Interventions of the Circulating Nurse and the Instrumentalist Nurse.
  - 1.3.6. Potential Intraoperative Complications.
  - 1.3.7. Transfer of the Patient to the Recovery Unit.
- 1.4. Post-Surgery Surgical Process.
  - 1.4.1. Concept of Recovery Unit.
  - 1.4.2. Nursing Interventions.
    - 1.4.2.1. In the immediate postoperative period.
    - 1.4.2.2. In the Postoperative Period.
  - 1.4.3. Potential Post-Operative Complications.
  - 1.4.4. Transfer of the Patient to the Ward Unit.
  - 1.4.5. Postoperative Care in the Ward Unit.





**Module 2. Orthopaedic Surgery and Traumatology**

- 2.1. Particularities in OST.
  - 2.1.1. Specific Aspects to Consider in Each Surgery.
    - 2.1.1.1. Anatomical Review in the Different Intervention Areas.
    - 2.1.1.2. Apparatus, Expendable Material and Instruments.
    - 2.1.1.3. Anesthesia of Choice
    - 2.1.1.4. Patient Positioning.
    - 2.1.1.5. Surgical Care of the Patient
  - 2.1.2. Specific Nursing Training in Traumatology.
    - 2.1.2.1. Ischemia.
    - 2.1.2.2. X-Ray-Dosimeter.
    - 2.1.2.3. Intraoperative Blood Salvage.
    - 2.1.2.4. Bone Deficit Repair.
      - 2.1.2.4.1. Autologous: Iliac Crest Bone Graft Extraction.
      - 2.1.2.4.2. Allograft: Bone Bank.
      - 2.1.2.4.3. Bone Substitute.
- 2.2. MMSS Primary Prosthesis and Surgical Cementation.
  - 2.2.1. Shoulder Arthroplasty Anatomical and Inverted.
  - 2.2.2. Elbow Arthroplasty.
  - 2.2.2. Wrist Arthroplasty.
  - 2.2.4. Metacarpal Arthroplasty.
- 2.3. Lower Limb Primary Prostheses.
  - 2.3.1. Partial Hip Prosthesis.
  - 2.3.2. Total Hip Prosthesis.
  - 2.3.2. Total Knee Prosthesis.
  - 2.3.4. Debridement, Surgical Lavage and Placement of Spacers in Infectious Processes.
- 2.4. Replacement of Primary Prostheses, Surgical Washing and Spacers.
  - 2.4.1. Hip.
  - 2.4.2. Knee.
- 2.5. Osteosynthesis 1: Consolidation, Reduction and Stability.
- 2.6. Osteosynthesis 2: Fracture Fixation.
- 2.7. Osteosynthesis 2: Peri-implant Osteosynthesis, Removal of Osteosynthesis Material and O-ARM.
- 2.8. Osteosynthesis in Axial Skeleton.
- 2.9. Arthroscopy of Joints and Repair of Tendon Structures.
- 2.10. Tumor Surgery and Experimental Surgery.
  - 2.10.2. Resection and Reconstruction.
  - 2.10.2. Tailor-Made Tumor Prostheses.



*A unique, key, and decisive master's degree experience to boost your professional development"*

05

# Methodology

This training provides you with a different way of learning. Our methodology uses a cyclical learning approach: ***Re-learning***.

This teaching system is used 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.





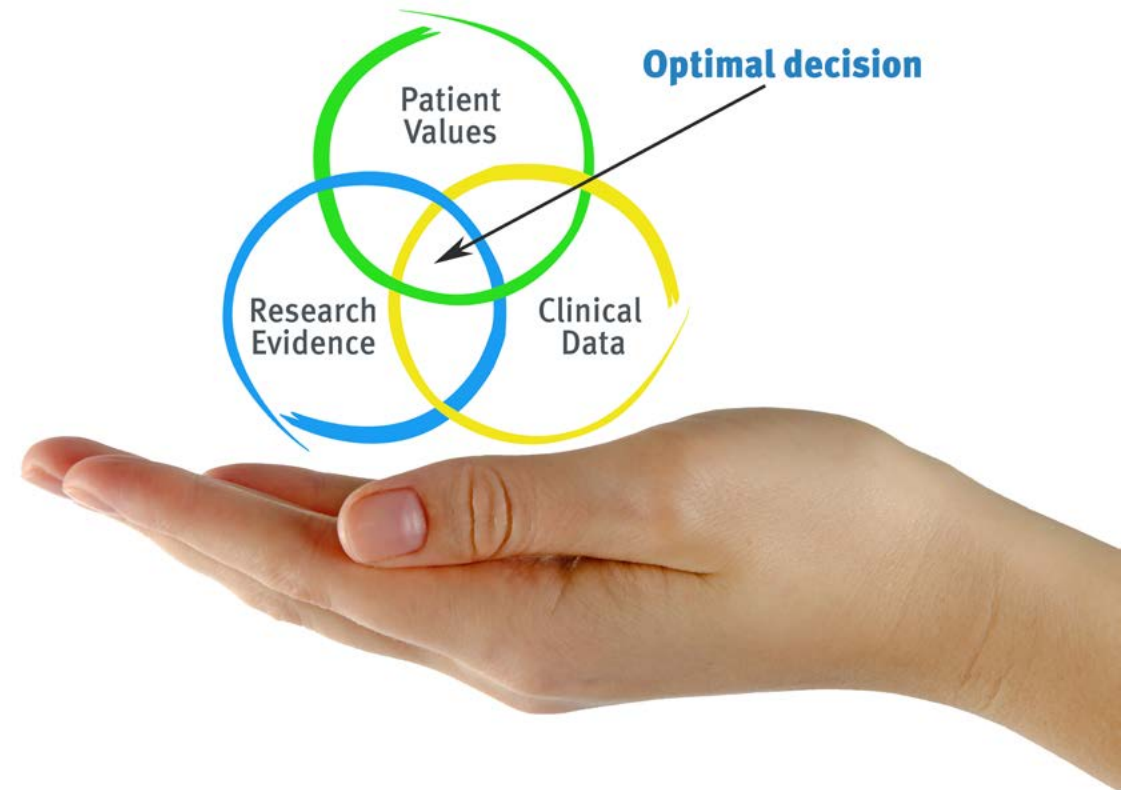
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*Discover Re-learning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## At TECH Nursing School we use the Case Method

In a given clinical 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 abundant 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 university program.



## 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 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 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 175,000 nurses with unprecedented success, in all specialties regardless of from the workload. 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 program you will have access to the best educational material, prepared with you 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.

This content is then adapted in an audiovisual format that will create our way of working online, with the latest techniques that allow us to offer you high quality in all of the material that we provide you with.



### Nursing Techniques and Procedures on Video

We introduce you to the latest techniques, to the latest educational advances, to the forefront of current nursing procedures and techniques. 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**

Effective learning ought to be contextual. Therefore, we will present you with real case developments in which the expert will guide you through 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 your knowledge throughout the program, through assessment and self-assessment activities and exercises: so that you can see how you are achieving your 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 our future difficult decisions.



**Quick Action Guides**

We offer you the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help you progress in your learning.



06

# Certificate

The Postgraduate Diploma in Orthopedic and Traumatologic Surgery for Nursing guarantees, in addition to the most rigorous and updated specialization, access to a university title of Postgraduate Diploma issued by TECH Technological University.





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*Successfully complete this specialisation and receive your university degree without travel or laborious paperwork”*

This **Postgraduate Diploma in Orthopedic and Traumatology Surgery for Nursing** contains the most complete and up-to-date scientific program on the market.

After passing the assessments, students receive their **Postgraduate Diploma** issued by **TECH Technological University** posted by certified mail.

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

Title: **Postgraduate Diploma in Orthopedic and Traumatologic Surgery for Nursing**

Official Number of Hours: **400 hours**



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



**Postgraduate Diploma**  
Orthopedic and Traumatology  
Surgery for Nursing

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