

# Postgraduate Certificate

## Administration of Neonatal Medications for Nurses





## Postgraduate Certificate Administration of Neonatal Medications for Nurses

- » Modality: online
- » Duration: 8 weeks
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtute.com/us/nursing/postgraduate-certificate/administration-neonatal-medications-nurses](http://www.techtute.com/us/nursing/postgraduate-certificate/administration-neonatal-medications-nurses)

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# 01

# Introduction

Neonatology is one of the most complex areas of pediatrics, and it requires specialized professionals to be able to care for the newborn patient adequately. For this reason, constant updating of knowledge is essential for the development of the professional. This course is designed to update the professional, in a practical way, in the different routes of administration of drugs used in the newborn.

*The role of the nursing professional is essential in the maintenance of life support in the neonatal patient.*





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*With the Course of Administration of Neonatal Medications for Nurses you have the opportunity to update your knowledge in a practical way and without sacrificing the maximum scientific rigor, to incorporate the latest advances in critical nursing care of the newborn"*

Neonatology is a discipline in constant evolution, which is highly dependent on technology and new pharmacological treatments. This context makes the updating of procedures in neonatal critical care, both those performed in the Neonatal ICU and in other care settings outside the ICU (emergency units, primary care centers...), of paramount importance to maintain the provision of care based on the latest scientific evidence and to ensure the safety of the baby.

This program includes the most important aspects of the use of pharmacology and routes of administration in the newborn patient, with a special interest in contraindications, necessary equipment and access techniques performed by the nursing professional. In addition, it presents an update on neonatal assessment and examination, NICU admission procedures and nursing care.

This Course of Administration of Medications in Neonates for Nurses is oriented to facilitate the update of the most used procedures, in a practical way, to contribute with quality and safety to the recovery of the newborn, to improve its prognosis and to avoid the sequelae of severe pathology.

This **Postgraduate Certificate in Administration of Neonatal Medications for Nurses** contains the most complete and up to date scientific program on the market. The most important features of the course are:

- ♦ Development of clinical cases presented by experts in the different specialties. The graphic, schematic, and eminently practical contents of which they are composed provide scientific and practical information on the disciplines that are essential for professional practice.
- ♦ New developments in nursing care and assessment of the critically ill newborn patient.
- ♦ It includes the most commonly used access techniques in the NICU for medication administration.
- ♦ Algorithm-based interactive learning system for decision-making in the presented clinical situations.
- ♦ 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.



*Improve the care of your newborn patients with the training offered by the Course of Administration of Medications in Neonatology for Nurses"*

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*This course may be the best investment you can make in the selection of a refresher program for two reasons: in addition to updating your knowledge in Administration of Neonatal Medications for Nurses, you will obtain a Postgraduate Certificate from TECH Technological University"*

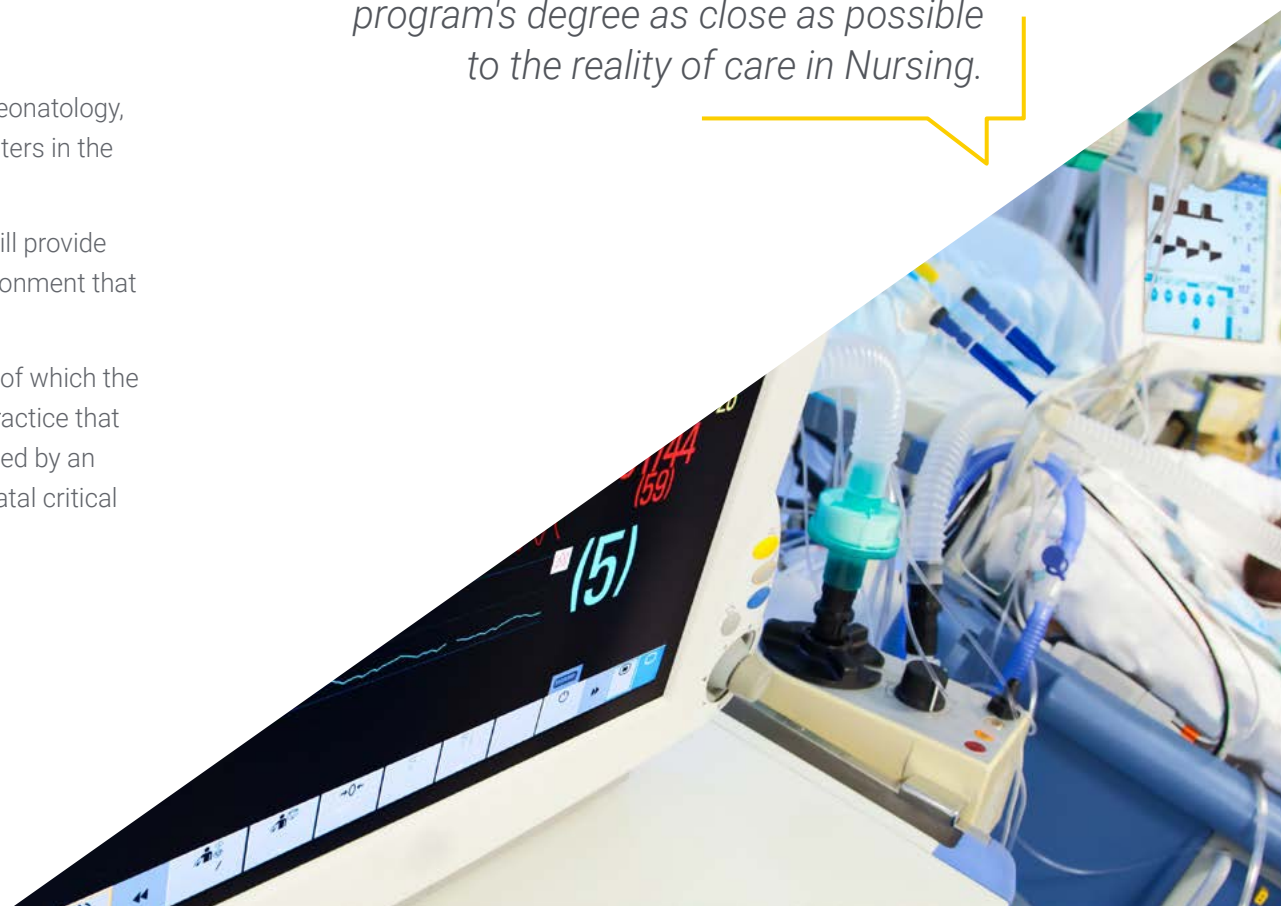
Its teaching staff includes specialists of recognized prestige in the field of neonatology, who bring to this training the experience of their work in the main health centers in the country.

The multimedia content developed with the latest educational technology will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide an immersive training program to train in real situations.

The design of this program is based on Problem-Based Learning, by means of which the nursing professional must try to solve the different situations of common practice that arise throughout the course. For this purpose, the professional will be assisted by an innovative interactive video system developed by renowned experts in neonatal critical patient care and with extensive teaching experience.

*The course allows training in simulated environments, which provide immersive learning programmed to train for real situations.*

*It includes clinical cases to bring the program's degree as close as possible to the reality of care in Nursing.*



# 02 Objectives

This course is oriented to achieve an effective update of the nursing professional's knowledge and procedures for the newborn, in order to provide quality care, based on the latest scientific evidence to ensure patient safety.







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*This refresher program will provide you with the skills to act safely in the provision of neonatal care, which will help you grow both personally and professionally"*



## General Objective

- Update the professional in the use of pharmacology and the main routes of drug administration used in the neonatal patient, as well as the nursing care performed in the neonatal intensive care unit.



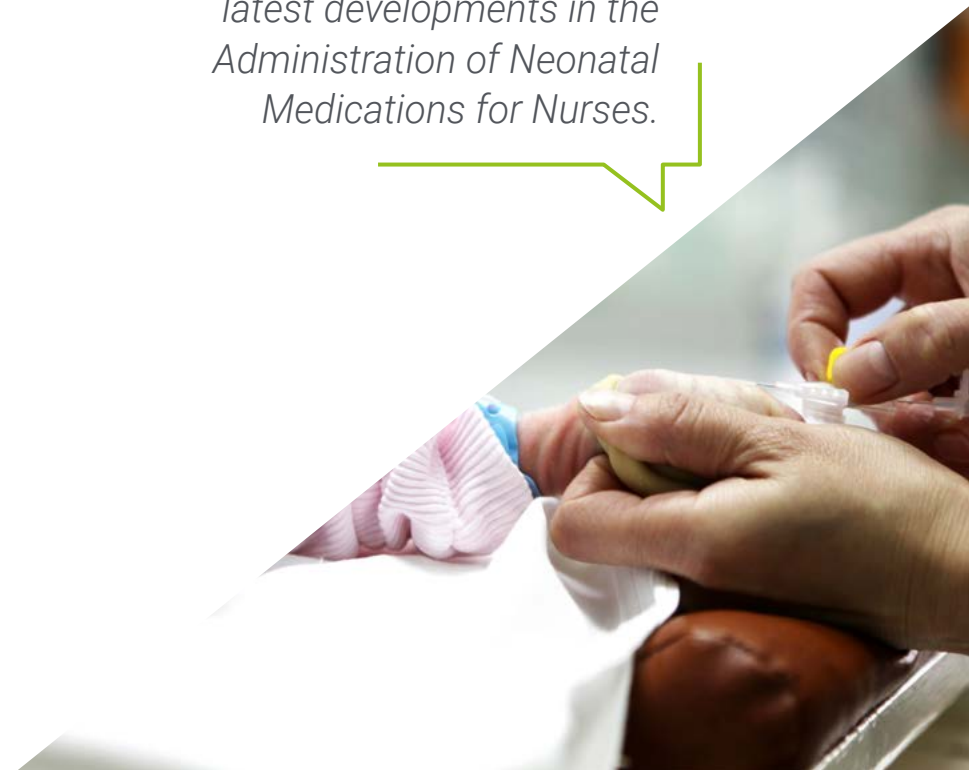
## Specific Objectives

- Update nursing care oriented to the satisfaction of the needs derived from the newborn's health problems and to the prevention of complications, guaranteeing a safe and quality practice.
- Analyze the importance of providing comprehensive care to the newborn from an ethical and legal perspective.
- Update the procedures, diagnostic tests and treatments derived from the different health problems in the newborn taking into account the different levels of care.
- Update the integral care of the neonate with a surgical process to help in the optimal restoration of health and to identify, intervene and/or refer for possible complications.
- Review the indication of medical devices and/or drugs, assessing the expected benefits and associated risks.
- Develop the ability to apply theoretical knowledge in daily practice.
- Identify the differences between the neonate, the child and the adolescent (pediatric ages).



- ♦ Explain the somatometry of the newborn, as well as its morphological and physiological characteristics.
- ♦ Assess the entire examination process, sequence of physical examination and complete physical examination of the newborn, focusing primarily on the head and neck region, the torso and the limbs.
- ♦ Update the procedures for performing the complete neurological examination.
- ♦ Evaluate the structure and organization of the neonatology service, as well as its location, the necessary equipment and materials, and the necessary human resources.
- ♦ Describe the Neonatal Intensive Care Unit (NICU).
- ♦ Calculate the layout of the cribs, physical space requirements, equipment and materials, and human resources needed.
- ♦ Define the profiles and positions of the "nursing team" as well as its operating system: "Primary Nursing"
- ♦ Review the principles of drug administration in the Neonatology Unit, as well as the use of the different routes: enteral, rectal, intramuscular, subcutaneous and intravenous routes.
- ♦ Describe the routes of drug administration, the necessary equipment and its procedure.
- ♦ Update the techniques necessary for the maintenance of the IV, the removal of the IV and the occurrence of possible complications.
- ♦ Record precautions, contraindications, as well as the occurrence of possible complications that may arise with specific forms of drug administration.
- ♦ Update newborn umbilical artery and vein cannulation procedures.
- ♦ Assess the contraindications and the complications of umbilical cannulation.
- ♦ Establish the procedure on how to perform catheter removal, the precautions to be taken, contraindications and complications.

*Take advantage of the opportunity and take the step to get up to date on the latest developments in the Administration of Neonatal Medications for Nurses.*



03

# Course Management

This program includes in its teaching staff renowned nursing professionals of neonatal intensive care units, who develop their clinical practice in major hospitals, and who bring to this training the experience of their work. In addition, medical specialists who are members of national and international scientific societies participate in its design and development, complementing the teaching staff in an interdisciplinary manner.





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*Learn from leading professionals the latest advances in neonatal medication management for nurses"*

## Management



### Dr. López Ruiz, María Amparo

- ♦ Degree in Medicine and Surgery from the University of Valencia
- ♦ Doctor of Medicine "Cum Laude" from the University CEU Cardenal Herrera with the Thesis: "Analysis of medication in pediatric population attending an Emergency Department"
- ♦ University expert in Neonatology: "Care in the Preterm Newborn"
- ♦ University Professor of Nursing, Medicine and Pharmacy. Faculty of Biomedical Sciences. CEU Cardenal Herrera University - Moncada (Valencia)
- ♦ Professor of the online Master in Pediatric Emergencies for Nurses. CEU Cardenal Herrera University -- Health Class
- ♦ Professor of the Professional Master's Degree in Advanced Esthetic and Laser Techniques. CEU Cardenal Herrera University - Moncada (Valencia) and NISA Hospitals Foundation (Valencia)
- ♦ Postgraduate course director: "Diploma in neonatal nursing and neonatal intensive care". CEU Cardenal Herrera University - Moncada (Valencia) and NISA Hospitals Foundation (Valencia)
- ♦ Postgraduate course coordinator: "First Aid, Cardiopulmonary Resuscitation and Emergency Situations Course". CEU Cardenal Herrera University - Moncada (Valencia)
- ♦ Erasmus coordinator for Medicine. CEU Cardenal Herrera University
- ♦ Personal tutor for international medical students. CEU Cardenal Herrera University - Moncada (Valencia)
- ♦ Entrepreneurship tutor for Medicine. CEU Cardenal Herrera University - Moncada (Valencia)
- ♦ Practice coordinator for Medicine. CEU Cardenal Herrera University - Moncada (Valencia)
- ♦ Coordinator for Medicine. CEU Cardenal Herrera University - Moncada (Valencia)
- ♦ NESTLÉ Award for Best Oral Communication, XXIV National Congress of the Spanish Society of Outpatient and Primary Care Pediatrics.

## Professors

### **Alfaro Ramírez, Concepción**

- ◆ Diploma in Nursing.
- ◆ Pediatric nurse. NICU and PICU.
- ◆ Nursing supervisor. 9 de Octubre NISA Hospital. Valencia

### **Dr. Bendala Tufanisco, Elena**

- ◆ Degree in Medicine and Surgery
- ◆ Degree in Biology
- ◆ Doctor in Biochemistry and Molecular Biology from the University of Valencia.
- ◆ Professor of the Department of Biomedical Sciences, Faculty of Health Sciences, University Cardenal Herrera-CEU.

### **Dobón García, Ana María**

- ◆ Law Degree
- ◆ Lawyer specializing in Medical and Health Law

### **Iranzo Cobo del Cabo, Rosana**

- ◆ Degree in Nursing
- ◆ Professor of Nursing Degree at the University Cardenal Herrera CEU.

### **Juan Hidalgo, Alicia**

- ◆ Degree in Psychology
- ◆ Clinical Psychologist
- ◆ Professor, Faculty of Psychology, University of Valencia.



**Dr. Julve Chover, Natalia**

- ◆ Degree in Medicine and Surgery
- ◆ Doctor of Medicine, University of Valencia
- ◆ Specialist in Child Neurology
- ◆ Associate Doctor of the Pediatrics Service and PICU-Neonatal. NISA.
- ◆ Postgraduate in Neonatology

**Dr. López Peña, Rafael**

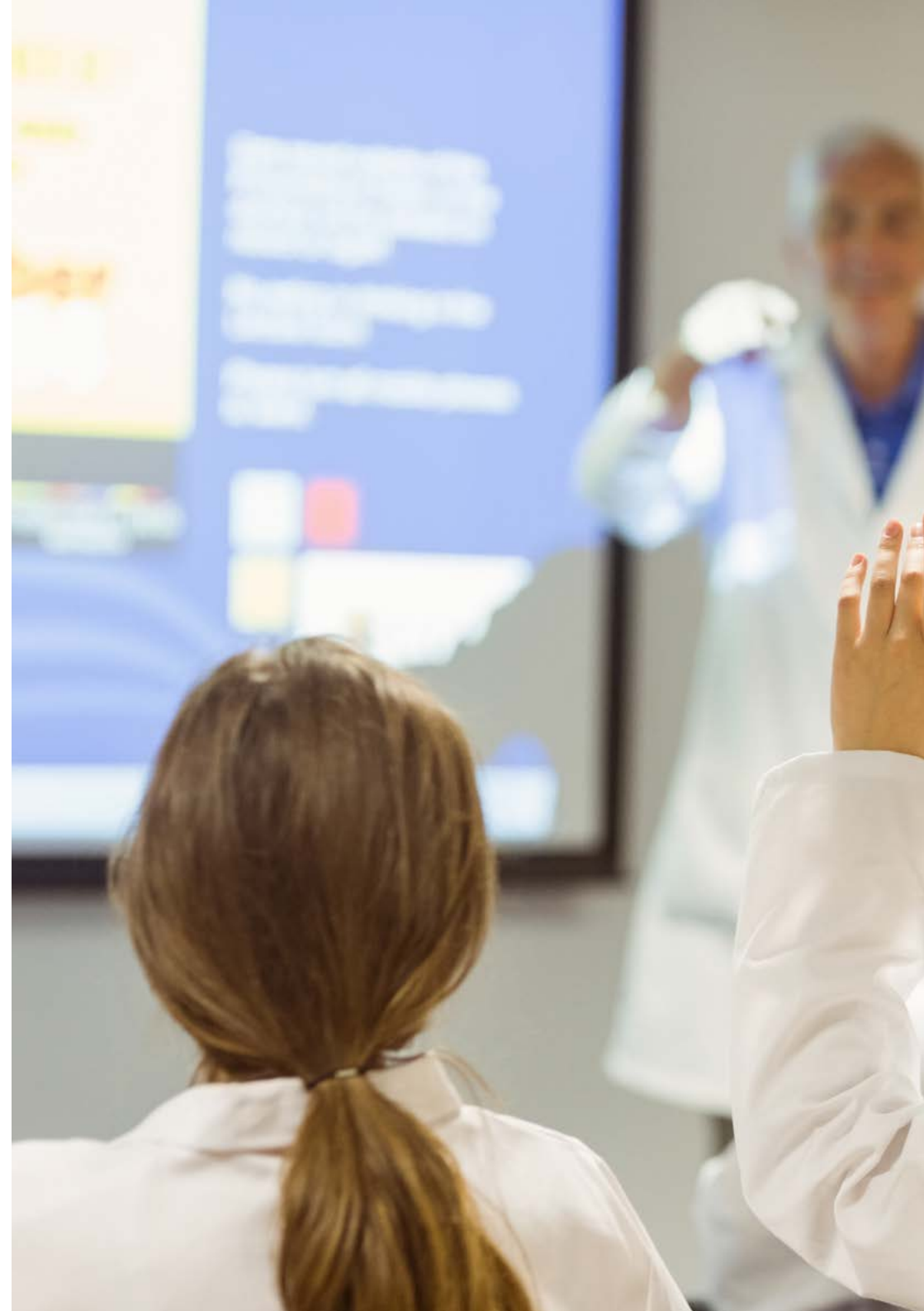
- ◆ Degree in Medicine and Surgery
- ◆ PhD in Medicine from the University of Valencia
- ◆ Medical Specialist in Pediatrics, Subspecialist in PICU and NICU.
- ◆ Postgraduate in Neonatology

**Dr. Moreno, Lucrecia**

- ◆ Degree in Pharmacy
- ◆ Vice-Dean of Pharmacy, University Cardenal Herrera CEU.
- ◆ Doctor in Pharmacy from the University of Valencia.
- ◆ Professor at Cardenal Herrera CEU University.

**Dr. Navarro Marí, Rosa María**

- ◆ Degree in Medicine and Surgery
- ◆ Pediatrician.
- ◆ Associate Doctor of the Pediatrics Service and PICU-Neonatal. NISA.
- ◆ Postgraduate in Neonatology





**Ribes Roldán, Sandra**

- ◆ Degree in Nursing
- ◆ Nurse in Accident and Emergency department.
- ◆ 9 de Octubre NISA Hospital. Valencia, Spain

**Dr. Rojas Otero, Lucila**

- ◆ Degree in Medicine and Surgery
- ◆ Medical Specialist in Pediatrics, Subspecialist in PICU and NICU.
- ◆ Postgraduate in Neonatology

**Roldán del Amo, Adela**

- ◆ Diploma in Nursing.
- ◆ Pediatric nurse. NICU and PICU.
- ◆ 9 de Octubre NISA Hospital. Valencia, Spain

**Dr. Sanahuja Santafé, M<sup>a</sup> Amparo**

- ◆ Degree in Pharmacy
- ◆ Professor at Cardenal Herrera CEU University.
- ◆ Doctor in Pharmacy from the University of Valencia.

**Silvestre Castelló, Dolores**

- ◆ Graduate in Chemistry
- ◆ Associate Professor of Nutrition and Bromatology at the University Cardenal Herrera CEU.
- ◆ Doctor in Chemical Sciences from the University of Valencia.
- ◆ Diploma in Food Technology Spanish National Research Council ( Superior Council for Scientific Research).
- ◆ Postgraduate Degree in Nutrition, Dietetics and Diet Therapy from the University of Navarra.

04

# Structure and Content

The structure of the contents has been designed by the team of professionals knowledgeable about the implications of training in daily nursing practice in the neonatal intensive care unit, aware of the relevance of current training in the professional, ensuring the approach of the main issues in the current development of care for the critical newborn patient.



A close-up photograph of a newborn baby's face, showing the forehead, nose, and mouth. The baby's eyes are closed, and the skin appears soft and slightly wrinkled. The image is partially obscured by a diagonal green overlay that covers the top right and bottom right portions of the page.

“

*This Postgraduate Certificate in Administration of Neonatal Medications for Nurses contains the most complete and up to date scientific program on the market"*

## Module 1. Important Aspects of Neonatology

1. 1. Differences between Newborn, Child and Adolescent.
1. 2. Neonatal Stages.
  1. 2.1. Neonatal Stages at Gestational Age.
  1. 2.2. Neonatal Stages for Birthweight.
  1. 2.3. Preterm Newborn.
  1. 2.4. Post Term Newborn.
1. 3. Anatomical and Physiological Characteristics of a Normal Newborn.
  1. 3.1. Newborn Somatometry.
  1. 3.2. Morphological Characteristics.
  1. 3.3. Physiological Characteristics.
1. 4. Complete Physical Examination of the Newborn.
  1. 4.1. Physical Examination Process.
  1. 4.2. General Observation.
  1. 4.3. Head and Neck Region.
  1. 4.4. Torso Region.
  1. 4.5. Limb Region.
  1. 4.6. Neurological Examination
1. 5. Structure and Organisation of the Neonatal Service.
  1. 5.1. Location of the Neonatology Service.
  1. 5.2. Equipment and Materials.
  1. 5.3. Human Resources
  1. 5.4. Concept of Neonatal Intensive Care Unit (NICU).
    1. 5.4.1. Calculation and Layout of Crib.
    1. 5.4.2. Physical Space in the Neonatal Intensive Care Unit.
    1. 5.4.3. Equipment and Material in the Neonatal Intensive Care Unit.
    1. 5.4.4. Human Resources in the Neonatal Intensive Care Unit.
    1. 5.4.5. Profiles and Roles: "Nursing Team"
    1. 5.4.6. Operating System "Primary Nursing"



## Module 2. Principles of Drug Administration and Vascular Access in Neonatology.

- 2.1. Principles of Drug Administration in the NICU.
  - 2.1.1. Enteral Route.
  - 2.1.2. Rectal Route.
  - 2.1.3. Intramuscular Route.
  - 2.1.4. Subcutaneous Route.
  - 2.1.5. Intravenous Route.
- 2.2. Specific Ways to Administer Drugs I: Rapid Intravenous Route.
- 2.3. Specific Ways to Administer Drugs II: Intravenous Route with a Specific Infusion Rate.
- 2.4. Specific Ways to Administer Drugs III: Continuous Intravenous Route.
- 2.5. Specific Ways to Administer Drugs IV: Peripheral Venous Route.
  - 2.5.1. Necessary Equipment.
  - 2.5.2. Procedure.
  - 2.5.3. Maintaining the Line.
  - 2.5.4. Removing the Line.
  - 2.5.5. Possible Complications that Could Arise.
- 2.6. Specific Ways of Administering Drugs V: Percutaneous Venous Route.
  - 2.6.1. Indications.
  - 2.6.2. Necessary Equipment.
  - 2.6.3. Procedure.
  - 2.6.4. Precautions.
  - 2.6.5. Contraindications.
  - 2.6.6. Complications.
- 2.7. Specific Ways to Administer Drugs VI: Cannulation of the Umbilical Artery and Vein.
  - 2.7.1. Indications.
  - 2.7.2. Necessary Equipment.
  - 2.7.3. Preparation.
  - 2.7.4. Common Procedure for the Umbilical Artery and Umbilical Vein.
  - 2.7.5. Contraindications.
  - 2.7.6. Complications.
- 2.8. Specific Ways to Administer Drugs VII: Cannulation of the Peripheral Artery.
  - 2.8.1. Indications.
  - 2.8.2. Necessary Equipment.
  - 2.8.3. Procedure.
  - 2.8.4. Extraction of a Catheter.
  - 2.8.5. Precautions.
  - 2.8.6. Contraindications.
  - 2.8.7. Complications.



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

05

# Methodology

This specialization 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.





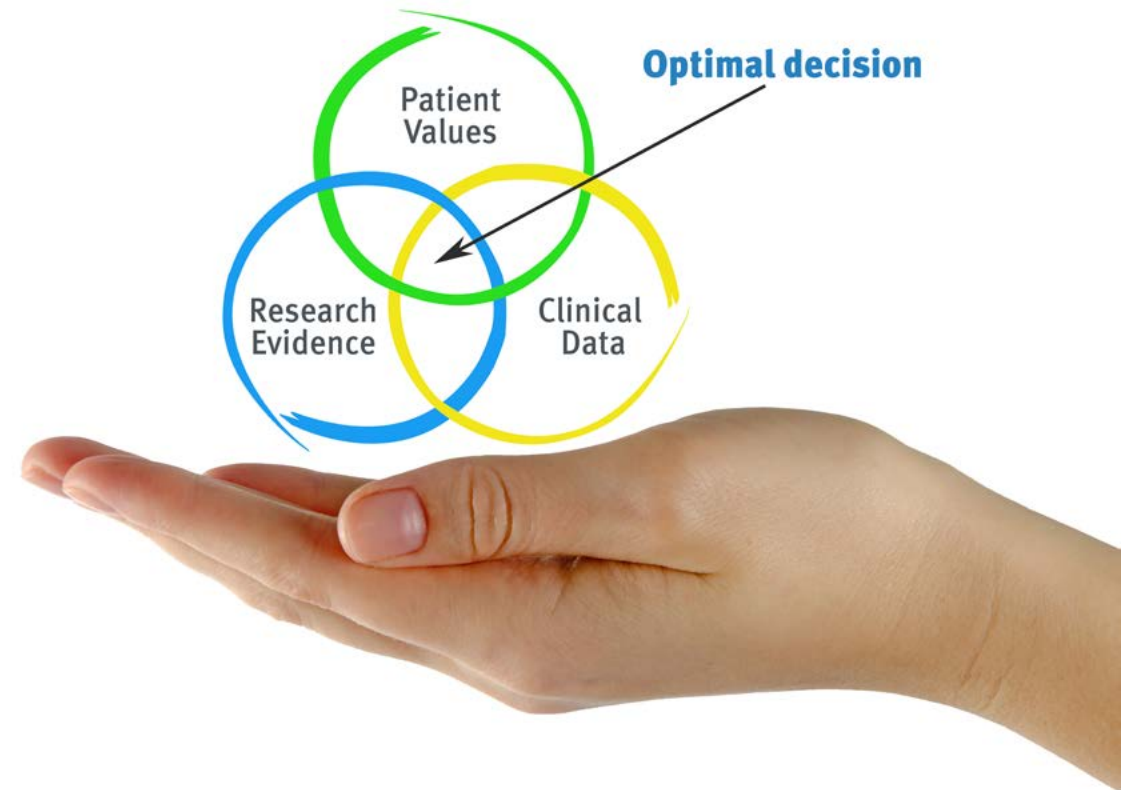
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*Discover Re-learning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## 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 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. 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, in an attempt to recreate the real conditions in professional nursing 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. 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 specialities regardless of practical 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 specialization system for presenting multimedia content 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 specialization.





**Expert-led case studies and case analysis**

Effective learning ought to be contextual. That is why we will present you with real case developments in which the expert will guide you through the development of attention and the resolution of different situations: a clear and direct way to achieve the highest degree of understanding.



**Testing & Re-Testing**

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 on the usefulness of third-party expert observation. Learning from an expert strengthens knowledge and memory, and generates confidence in our difficult future 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 Certificate in Administration of Neonatal Medications for Nurses** guarantees you, in addition to the most rigorous and up to date training, access to a course degree issued by **TECH Technological University**.





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

This **Postgraduate Certificate in Administration of Neonatal Medications for Nurses** contains the most complete and up to date scientific program on the market.

After the student has passed the evaluations, they will receive their corresponding **Postgraduate Certificate** issued by **TECH Technological University** by tracked mail.

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

Title: **Postgraduate Certificate in Administration of Neonatal Medications for Nurses**

Nº Hours: **175**



\*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.



future  
health confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present quality  
development languages  
classroom



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Administration of Neonatal  
Medications for Nurses

- » Modality: **online**
- » Duration: **8 weeks**
- » Certificate: **TECH Technological University**
- » Dedication: **16h/week**
- » Schedule: **at your own pace**
- » Exams: **online**

# Postgraduate Certificate

## Administration of Neonatal Medications for Nurses

