

# Postgraduate Diploma Allogeneic HSCT in Pediatrics for Nursing





## Postgraduate Diploma Allogeneic HSCT in Pediatrics for Nursing

Course Modality: **Online**

Duration: **6 months.**

Certificate: **TECH Technological University**

Official N° of hours: **600 h.**

Website: [www.techtitute.com/nursing/postgraduate-diploma/postgraduate-diploma-allogeneic-hsct-pediatrics-nursing](http://www.techtitute.com/nursing/postgraduate-diploma/postgraduate-diploma-allogeneic-hsct-pediatrics-nursing)

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# 01

# Introduction

Hematopoietic Progenitor Transplants have been performed for more than 40 years and have become one of the most common procedures to treat an increasing number of malignant and non-malignant blood diseases in children worldwide. Like any other procedure, it is not without risk and it is the job of nurses to acquire the competencies and skills necessary to comprehensively care for pediatric patients and their families during conditioning for treatment. For this reason, the program in Allogeneic HSCT in Pediatrics for Nurses will allow students to learn this and other concepts of interest for their professional development.



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*Understand and develop your skills  
in the approach and management of  
the complications of hematopoietic  
progenitor transplant patients in the  
short, medium and long term"*

Hematopoietic Progenitor Transplantation has been used as a treatment in several hematological and oncological diseases, being reserved for those patients who have no other treatment possibility. This is not to say that it is a process that is exempt from risk or the development of a stressful situation in pediatric patients. Therefore, the support of the family and the professionals must be counted on so that the children feel secure in this process.

Thus, the Postgraduate Diploma in Allogeneic HSCT in Pediatrics for Nurses will provide students with all the necessary and updated information in this field. It will begin by providing the student with the knowledge and skills necessary for the recognition, management and initial stabilization of pediatric hematological patients who suffer a vital compromise derived from a complication of their underlying disease, an intercurrent process or undesired consequences of their treatment, in an effective, safe and coordinated manner, and integrating their interventions with the rest of the health system services at the hospital level.

In the following modules, you will have a broader view of the process used to identify pediatric patients with hematologic pathology who are candidates for allogeneic hematopoietic stem cell transplantation. In this way, students will acquire the necessary skills to ensure comprehensive patient care during all stages of this procedure.

By the end of the program, the professional will have developed a set of knowledge and skills for the comprehensive approach and management of children and adolescents with severe hematologic pathology and their families. All this, taking into account the facilitating and emotional role of nurses in the field of pediatric hematology.

The teaching team assembled for this Postgraduate Diploma is of recognized prestige and has extensive experience in national and international reference units in the treatment and care of newborns, children and adolescents with hematological disease. The program is 100% online, making it easy for the student to take it comfortably, wherever and whenever they want. All you need is a device with internet access to take your career one step further. A modality according to the current times with all the guarantees to position the nurse in a highly demanded sector.

This **Postgraduate Diploma in Allogeneic HSCT in Pediatrics for Nurses** 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 Pediatric Hematology for Nurses
- ♦ 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
- ♦ 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



*Understand the importance of therapeutic communication in the care of children and adolescents with severe hematologic pathology and their Family”*

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*Attain sufficient knowledge and skills to be able to develop the personal and professional attitudes necessary to welcome children and adolescents and their families who are going to undergo allo-HPT”*

The program's teaching staff includes professionals from the sector who contribute their work experience to this training program, as well as renowned specialists from leading societies and prestigious universities.

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

The design of this Program focuses on Problem-Based Learning, by means of which the professional will have to try to solve the different situations of Professional Practice, which will be posed throughout the Program. For this purpose, the student will be assisted by an innovative interactive video system created by renowned and experienced experts.

*It carries out a comprehensive care plan for children with incurable diseases and their families, following a program supported by an excellent teaching team.*

*It covers the most frequent situations in which the child and adolescent with severe hematologic disease requires intensive care.*



# 02 Objectives

The knowledge acquired in this Postgraduate Diploma allows the student to acquire the necessary skills to update his profession, understanding at all times the most frequent emergency situations in children and adolescents with hematological diseases who are about to undergo a HSCT procedure. In this way, you will be able to develop your full capabilities in a field of medicine that continues to advance. You will also be able to understand the importance of therapeutic communication in the care of children and adolescents with severe hematologic pathology.







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*Identifying the influence of the environment and surroundings on the experience of the disease will help professionals to improve their care"*



## General objectives

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- ♦ Optimize the quality and care of pediatric patients with hematological pathology, providing more qualified healthcare professionals
- ♦ Acquire the essential skills to comprehensively care for children and adolescents with hematological pathology and their families
- ♦ Recognize and assess the physical, psychological, social and spiritual needs of the child and adolescent with hematologic pathology and their family
- ♦ Achieve sufficient knowledge and skills to be able to develop the personal and professional attitudes necessary to treat children and adolescents with hematologic pathology
- ♦ Develop a comprehensive vision of care for children and adolescents with hematological pathologies and their families, in order to promote their well-being, autonomy and dignity at all times
- ♦ Develop problem solving and evidence generation capabilities in the field of Pediatric Hematology to correct knowledge deficiencies and establish standards of excellence in practice



*Recognizing the needs of pediatric patients in need of palliative care to improve their quality of life at all times"*





## Specific objectives

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### Module 1. All together as a team

- ♦ Provide the student with the knowledge and skills necessary for the recognition, management and initial stabilization of pediatric hematological patients who suffer a vital compromise derived from a complication of their underlying disease, an intercurrent process or undesired consequences of their treatment, in an effective, safe and coordinated manner, and integrating their interventions with the rest of the health system services at the hospital level
- ♦ Expose the most frequent emergency situations in children and adolescents with severe hematological disease
- ♦ Explain the most frequent situations in which children and adolescents with severe hematological disease require intensive care
- ♦ Achieve sufficient knowledge and skills to be able to develop the personal and professional attitudes necessary to care for children and adolescents with severe hematologic disease and their families during their stay in a PICU
- ♦ Detail and justify the importance of humanizing PICUs to promote the well-being, autonomy and dignity of children, adolescents and families at all times
- ♦ Broaden knowledge of the psychological care needs of children and adolescents with severe hematological disease and their families
- ♦ Discuss the importance of educational continuity for children and adolescents with severe hematologic disease
- ♦ Emphasize the importance of non-profit associations and volunteers in the comprehensive care of children with severe hematological disease and their families

- ♦ Describe the different digital teaching resources (ICT-E-health) that we can use and recommend to children and adolescents with severe hematological disease and their families
- ♦ Learn about new technologies applied to care management and nursing visibility

### Module 2. Towards Healing: Allogeneic HSCT in pediatrics

- ♦ Identify pediatric patients with hematologic pathology who are candidates for allogeneic hematopoietic stem cell transplantation (allo-HCT)
- ♦ Explain the different phases from the donation of hematopoietic progenitors to the infusion of these progenitors to the patient
- ♦ Attain sufficient knowledge and skills to be able to develop the personal and professional attitudes necessary to welcome children and adolescents and their families who are going to undergo allo-HPT
- ♦ Acquire the essential skills to comprehensively care for children and adolescents and their families during conditioning for allo-TPH
- ♦ Know and acquire competence to carry out the process of hematopoietic progenitor infusion, as well as to address and manage possible complications during this process
- ♦ Understand and develop competence in the approach and management of short-, medium- and long-term complications in the hematopoietic stem cell transplanted patient
- ♦ Update knowledge in the treatment of acute GVHD in post hematopoietic stem cell transplant patients
- ♦ Explain the most frequent emergency situations in children and adolescents transplanted with hematopoietic progenitors
- ♦ Describe the mid- and long-term nursing care of children and adolescents after hematopoietic stem cell transplantation
- ♦ Increase knowledge of the psychological care needs of children and adolescents undergoing allo-HPT and their families



### Module 3. When the Response to Treatment is not Adequate

- ♦ Describe the concept of relapse, treatment options and the reception and accompaniment of children, adolescents and parents
- ♦ Identify the scientific and ethical basis of clinical trials in pediatric hematology
- ♦ Present the molecular-biological basis of immunotherapy treatment
- ♦ Know the types and different phases of clinical trials in pediatric hematology
- ♦ Explain the practical aspects of conducting a clinical trial in pediatric hematology
- ♦ Identify the professionals involved and the role of nursing in clinical trials in pediatric hematology
- ♦ Describe the nursing care of the pediatric patient with hematologic disease included in a clinical trial
- ♦ Discuss expectations in the management of the pediatric patient with severe hematologic disease
- ♦ Conceptualizing Pediatric Palliative Care
- ♦ Acquire the essential skills to provide comprehensive care for children and adolescents in need of palliative care and their families
- ♦ Recognize the needs of pediatric patients in need of palliative care
- ♦ Know the fundamental aspects of symptom control in palliative care in pediatric hematology
- ♦ Carry out a comprehensive plan of care for children with incurable diseases and their families
- ♦ Examine the ethical issues applicable to child health and their use in making difficult decisions in palliative care situations
- ♦ Expose what is an appropriate end of life in symptom control and accompaniment, to promote and ensure well-being and dignity at all times

### Module 4. Welcoming, Caring and Accompanying in Pediatric Hematology

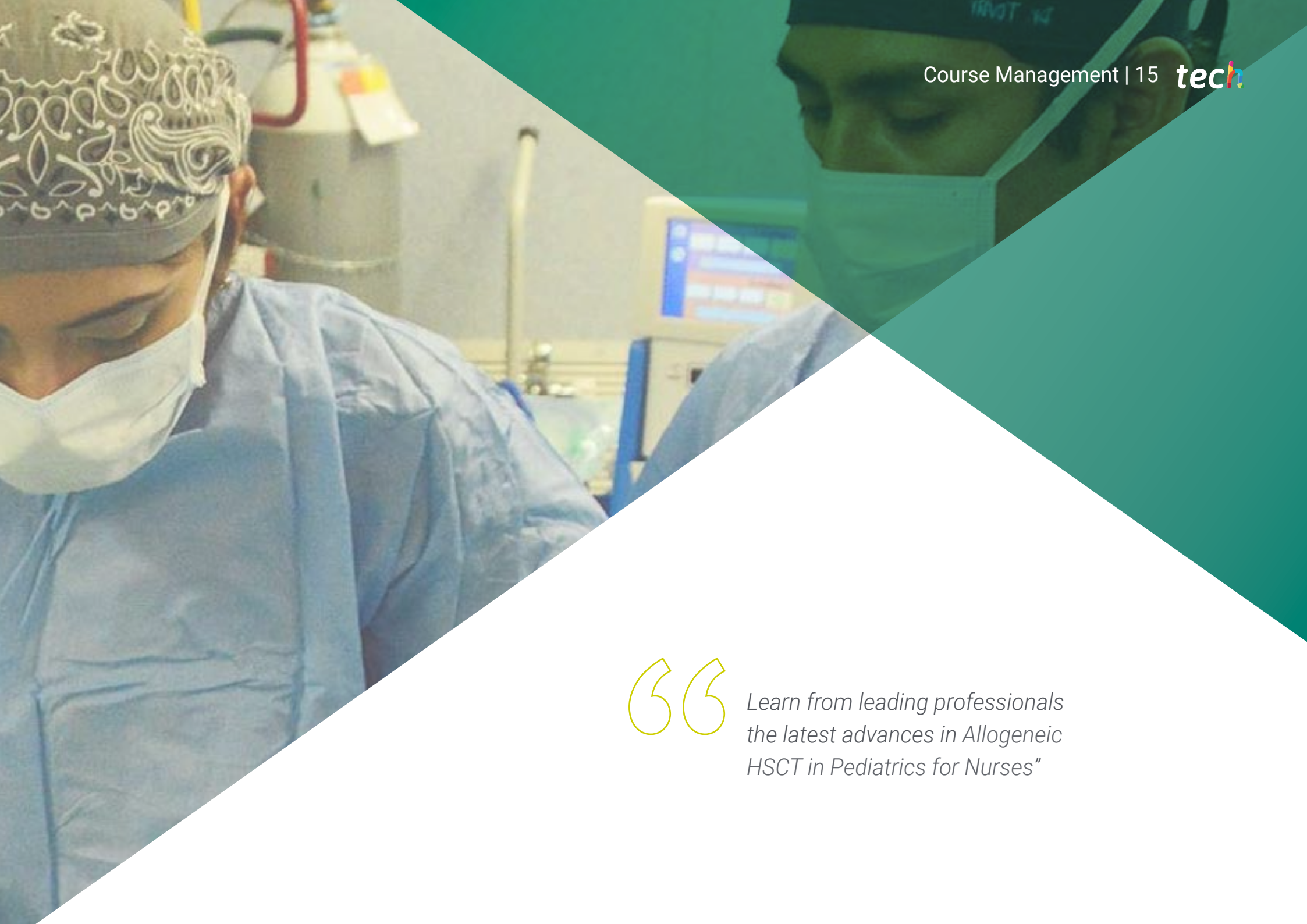
- ♦ Develop in nursing professionals the set of knowledge and skill competencies for the comprehensive approach and management of children and adolescents with severe hematologic pathology and their families
- ♦ Identify the theoretical foundations of nursing that approach the integral vision of care
- ♦ Describe the facilitating role and emotional competency profile of pediatric hematology nurses
- ♦ Understand the importance of therapeutic communication in the care of children and adolescents with severe hematologic pathology and their families
- ♦ Identify the influence of the environment and surroundings on the experience of the disease
- ♦ Acquire skills in the accompaniment of the family system in pediatric hematology
- ♦ Attain sufficient knowledge and skills to be able to develop the personal and professional attitudes necessary to care for children and adolescents with severe hematologic pathology and their families in the different stages of development

03

# Course Management

In order to provide a quality education, it is necessary to have a teaching staff that can provide all the theoretical and practical information that will help students to develop optimally in any work environment. Thus, TECH has a large team specialized in the care of patients who are about to receive a treatment for PHPT. In this way, students have the best tools to develop all their theoretical and practical skills in their profession. This is the best way to execute in a real environment all the knowledge acquired in this program.





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*Learn from leading professionals  
the latest advances in Allogeneic  
HSCT in Pediatrics for Nurses”*

## Management



### Ms. Coronado Robles, Raquel

- Specialist Nurse in Pediatric Nursing
- Pediatric Oncohematologic unit, Vall d'Hebron Hospital, Barcelona.
- Associate Professor and coordinator of the Childhood Mention of the Nursing Degree at the Autonomous University of Barcelona (UAB)

## Professors

### Ms. Ariño Ariño, Ingrid

- ♦ Neonatology Unit. Vall d'Hebron Barcelona Hospital Campus

### Ms. Bonfill Ralló, Marina

- ♦ Psycho-oncologist Pediatric Oncohematologic Unit Vall d'Hebron Barcelona Hospital Campus

### Ms. Bustelo Almeida, Eugenia

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### Ms. Congil Ortega, Jordana

- ♦ Neonatology Unit. Vall d'Hebron Barcelona Hospital Campus

### Ms. Cuevas González, Cristina

- ♦ Specialist Nurse in Pediatric Nursing. Vall d'Hebron Barcelona Hospital Campus

### D. Díaz Martín, Gonzalo

- ♦ Specialist Nurse in Pediatric Nursing. Vall d'Hebron Barcelona Hospital Campus

### Ms. Fernández Angulo, Verónica

- ♦ Day Hospital Pediatric Oncohematologic Unit Vall d'Hebron Hospital in Barcelona



**Ms. Hladun Álvaro, Raquel**

- ♦ Medical specialist and head of Clinical Trials at the Pediatric Oncohematologic Unit of Vall d'Hebron Barcelona Hospital Campus

**Ms. Martínez González, Ester**

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- ♦ Co-director of SEER (Emotional Health and Educational).

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**Ms. Ridao Manonellas, Saida**

- ♦ Specialist Nurse in Pediatric Nursing
- ♦ Immunodeficiency nursing consultation

**Ms. Rodríguez Gil, Raquel**

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- ♦ Neonatology unit supervisor. Vall d'Hebron Barcelona Hospital Campus

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- ♦ Psycho-oncologist Pediatric Oncohematologic Unit Vall d'Hebron Barcelona Hospital Campus

**Toro Guzmán, Antonio**

- ♦ Pediatric Oncohematologic unit, Vall d'Hebron Hospital, Barcelona.
- ♦ Associate Professor of the Degree in Nursing at the Autonomous University of Barcelona (UAB)

**Ms. Vidal Laliena, Miriam**

- ♦ Ph.D cell biology, immunology and neuroscience at IDIBAPS- UB
- ♦ Clinical Data Manager-study coordinator Pediatric Oncohematologic unit Vall d'Hebron Barcelona Hospital Campus (2016-2017)
- ♦ Currently: at CatSalut. Catalan Health Service



*Recognize the needs of pediatric patients in need of palliative care to improve their quality of life at all times"*

# 04

# Structure and Content

To ensure that students meet the requirements of nursing applied to pediatric patients who will receive allogeneic HSCT treatment, a syllabus has been developed whose modules offer a broad perspective of this field of action, allowing the student to achieve sufficient knowledge and skills to be able to develop the personal and professional attitudes necessary to care for children and adolescents and their families who are going to undergo allo-HPCT. From module 1, students will see their knowledge broadened, which will enable them to develop professionally, knowing that they can count on the support of a team of experts.





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*Identifies the facilitating role and emotional competency profile of pediatric hematology nurses following a program supported by the experience of an excellent faculty”*

## Module 1. All Together as a Team

- 1.1. Emergency Nursing Care in the Pediatric Patient with Hematologic Pathology
    - 1.1.1. Definition of Urgency in the Child with Severe Hematologic Pathology
    - 1.1.2. Most Common Emergencies in Children with Severe Hematologic Pathology
      - 1.1.2.1. According to Etiology
      - 1.1.2.2. According to Affected Organs
    - 1.1.3. Most Frequent Reasons for Admission to the Emergency Department in Children with Severe Hematologic Pathology
    - 1.1.4. Performance in the Most Common Emergencies
      - 1.1.4.1. Hyperleukocytosis.
      - 1.1.4.2. Febrile Neutropenia
      - 1.1.4.3. Immune Reconstitution Inflammatory Syndrome (IRS)
      - 1.1.4.4. Cytokine Release Syndrome
      - 1.1.4.5. Severe Pain
      - 1.1.4.6. Acute Methotrexate Toxicity
      - 1.1.4.7. Transfusion Reactions
      - 1.1.4.8. Extravasations
      - 1.1.4.9. Intrathecal Chemotherapy Side Effects
    - 1.1.5. Management of Oxygen Therapy, Fluid Therapy, Main Drugs and Electromedicine Devices and Administration of drugs.
    - 1.1.6. Emergency response
    - 1.1.7. Cardiorespiratory Arrest Trolley
    - 1.1.8. Training of the Assistance Team
    - 1.1.9. Communication with the Family and the Child/Adolescent
  - 1.2. Nursing Care of Pediatric Patients With Hematologic Diseases and Their Family, Admitted to the PICU(I)
    - 1.2.1. Initial Assessment of the PICU Patient
    - 1.2.2. Common Complications Requiring Intensive Care
      - 1.2.2.1. Complications Related to the Underlying Disease and its Treatment
        - 1.2.2.1.1. Respiratory Insufficiency
        - 1.2.2.1.2. Cardiac Alterations
        - 1.2.2.1.3. Alteration of the Hematological System
          - 1.2.2.1.4. Acute Kidney Failure
          - 1.2.2.1.5. Metabolic Alterations
          - 1.2.2.1.6. Hepatic Toxicity
        - 1.2.2.2. Complications Related to the Postoperative Period in Neurosurgery
  - 1.2.3. Basic Nursing Care in the Pediatric Patient Admitted to the PICU
  - 1.2.4. Nutritional Aspects of the PICU Patient
  - 1.2.5. Special Situations in the Oncologic Patient
    - 1.2.5.1. Patient Requiring Continuous Renal Replacement Therapy (CRRT)
    - 1.2.5.2. Patient Subjected to High Frequency Mechanical Ventilation (HFMV)
- 1.3. Nursing Care of the Pediatric Patient with Hematologic Disease and Family, Admitted to the PICU (II)
  - 1.3.1. Initial Comprehensive Care for the Family of the Hematologic Patient Admitted to the PICU
  - 1.3.2. Psychological Aspects in Children with Hematologic Pathology Requiring Intensive Care
    - 1.3.2.1. Pain Management
    - 1.3.2.2. Treatment Anxiety
    - 1.3.2.3. Fear of Death
  - 1.3.3. Bereavement in the Oncologic Patient Admitted to the PICU
  - 1.3.4. Special Situations of the Oncologic Patient Admitted to the PICU
    - 1.3.4.1. Communication with the Oncology Patient Subjected to Mechanical Ventilation
    - 1.3.4.2. Rehabilitation (Respiratory and Motor Physiotherapy)
  - 1.3.5. Medical Information and Care Team-Family Unit Communication
  - 1.3.6. End-of-Life Care for Oncology Patients
- 1.4. Pediatric Intensive Care Unit (PICU). Humanization Projects
  - 1.4.1. General Criteria for Admission of Hematologic Patients to the PICU
  - 1.4.2. Family Repercussions of Admission to the PICU
  - 1.4.3. Humanistic Vision of Critical Care
  - 1.4.4. Care Model: Family-Centered Care
    - 1.4.4.1. Family Empowerment
    - 1.4.4.2. Emotional Well-Being
  - 1.4.5. Characteristics of the Care Team in a Humanistic PICU
  - 1.4.6. Humanizing Strategies in an Open-Door PICU

- 1.5. Psychological Support of of the Child with Severe Hematologic Pathology
    - 1.5.1. Developmental Stage of Childhood
    - 1.5.2. The Child with Severe Hematologic Disease
      - 1.5.2.1. Specific Characteristics
      - 1.5.2.2. Psychological Care for Children and Families
        - 1.5.2.2.1. General Aspects
        - 1.5.2.2.2. According to the Stage of the Disease
    - 1.5.3. Survivors of Childhood Hematologic Malignant Hematologic Disease and Quality of Life
    - 1.5.4. Death in Childhood
      - 1.5.4.1. Palliative Care
      - 1.5.4.2. Grief
  - 1.6. Psychological Support for Adolescents During the Process of Living with a Serious Hematological Disease
    - 1.6.1. Adolescent Developmental Stage
    - 1.6.2. The Adolescent with Severe Hematologic Disease
      - 1.6.2.1. Specific Characteristics of the Adolescent with Severe Hematologic Disease
      - 1.6.2.2. Psychological Care in the Phases of the Disease
        - 1.6.2.2.1. Diagnosis
        - 1.6.2.2.2. Treatment
        - 1.6.2.2.3. Post Treatment
    - 1.6.3. Survivors in Adolescence and Quality of Life
    - 1.6.4. Death in Adolescence
  - 1.7. Foundations and Associations of Parents of Children with Hematologic Pathology and other NGOs
    - 1.7.1. Spanish Federation of Parents of Children with Cancer (FEPNC)
      - 1.7.1.1. The Federation
      - 1.7.1.2. Member Associations
      - 1.7.1.3. The Example of AFANOC-Association of Relatives and Friends of Children with Oncology in Catalonia
    - 1.7.2. Spanish Association of Primary Immune Deficits
    - 1.7.3. Barcelona PID Foundation
    - 1.7.4. Other Associations and/or Foundations
      - 1.7.4.1. El somni dels Nens Foundation
      - 1.7.4.2. Enriqueta Villavecchia Foundation
      - 1.7.4.3. Spanish Fanconi Anemia Association
      - 1.7.4.4. Association of affected Blackfan Diamond Spain
      - 1.7.4.5. Spanish Hemophilia Foundation
  - 1.7.5. Volunteering in Pediatric OncoHematology Units
    - 1.7.5.1. The Importance and Coordination of Volunteerism
    - 1.7.5.2. Lines of Volunteer Work in Pediatric Oncology
    - 1.7.5.3. Volunteer Training
  - 1.7.6. Regulatory Framework for Volunteering
- 1.8. Educational Continuity in Children and Adolescents with Hematologic Pathology
  - 1.8.1. Educational Care as a Right; Principles of Educational Care for Students with Illnesses
  - 1.8.2. Requirements and Procedures
  - 1.8.3. Academic Coverage During the Sickness Process
    - 1.8.3.1. In-Hospital. Hospital Classrooms (AAHH)
    - 1.8.3.2. Home-Based Educational Support Service
- 1.9. Information and Communication Technologies (ICTs) and Humanization
  - 1.9.1. Use of ICT and E-health for Parents
    - 1.9.1.1. Decalogue for the Good use of ICTs
    - 1.9.1.2. ICTs as a Method of Distraction and Relief from Pain and Anxiety in Children and Adolescents
    - 1.9.1.3. ICTs as a Method of Communication and Learning
  - 1.9.2. Use of ICT and e-Health for Parents
    - 1.9.2.1. Information Needs
    - 1.9.2.2. Communication Needs
    - 1.9.2.3. Development and Prescription of Apps and Websites in Pediatric Oncology
    - 1.9.2.4. Use of Social Networks
  - 1.9.3. Use of ICTs and e-Health in Health Professionals
    - 1.9.3.1. New Technologies and New Challenges for the Nursing Professional
    - 1.9.3.2. Application of New Technologies in Health Care
    - 1.9.3.3. Useful Applications for Pediatric Hematology Nurses
    - 1.9.3.4. ICT Applications in the Healthcare of the Future

## Module 2. Towards Healing: Allogeneic HSCT in Pediatrics

- 2.1. Introduction and Indications for Allogeneic Hematopoietic Progenitor Transplantation
  - 2.1.1. Hematopoietic Progenitors (HP) and PHT
  - 2.1.2. The Histocompatibility System (HLA or MHC)
  - 2.1.3. The History Hematopoietic Progenitor Transplantation
  - 2.1.4. Types of Hematopoietic Progenitor Transplantation
    - 2.1.4.1. Depending on the Donor
    - 2.1.4.2. According to the Source of the Hematopoietic Progenitor Cells
  - 2.1.5. Indications for Allogeneic HSCT
    - 2.1.5.1. Patients with Hematologic Malignancies
      - 2.1.5.1.1. Leukemias
      - 2.1.5.1.2. Myelodysplastic Syndromes
      - 2.1.5.1.3. Lymphomas
    - 2.1.5.2. Patients with NO Malignancies
      - 2.1.5.2.1. Erythrocyte Alterations
      - 2.1.5.2.2. Primary Immunodeficiencies
      - 2.1.5.2.3. Congenital Spinal Insufficiencies
      - 2.1.5.2.4. Others
- 2.2. From Donor Selection to Infusion of Hematopoietic Progenitors
  - 2.2.1. Donor Selection
    - 2.2.1.1. Related Donors
    - 2.2.1.2. Search for Unrelated Donors
    - 2.2.1.3. Choice of Donor
  - 2.2.2. PH Collection Techniques
    - 2.2.2.1. Cord Blood Progenitor Procurement and Handling
    - 2.2.2.2. Mobilization and Collection of Peripheral Blood Progenitor Cells
    - 2.2.2.3. Bone Marrow Progenitor Cell Harvesting by Direct Bone Marrow Aspiration
  - 2.2.3. Transportation of PHs (from Hospital of origin to Receiving Hospital)
    - 2.2.3.1. Bag Labeling
    - 2.2.3.2. Container Labeling
    - 2.2.3.3. Documentation
    - 2.2.3.4. Temperature
  - 2.2.4. PH Management and Conservation
    - 2.2.4.1. Quality Control of Cell Processing
    - 2.2.4.2. Handling Prior to Cryopreservation
    - 2.2.4.3. Cryopreservation
    - 2.2.4.4. Defrosting
    - 2.2.4.5. Transport to the Hospital TPH Unit for Infusions
- 2.3. Nursing During the Conditioning of the Child/Adolescent Undergoing Allo-PHPT
  - 2.3.1. Patient and Family Welcome
  - 2.3.2. Patient Assessment
  - 2.3.3. Conditioning Regimes
    - 2.3.3.1. Total Body Irradiance (TBI)
    - 2.3.3.2. Chemotherapy
  - 2.3.4. Prophylaxis of Graft-Versus-Host Disease (GVHD)
    - 2.3.4.1. Methotrexate
    - 2.3.4.2. Infliximab and Rituximab
    - 2.3.4.3. Cyclosporine
    - 2.3.4.4. Mycophenolate
    - 2.3.4.5. ATG
    - 2.3.4.6. Cyclophosphamide
    - 2.3.4.7. Corticoids
    - 2.3.4.8. Nonspecific Immunoglobulins
  - 2.3.5. Prophylaxis of Sinusoidal Obstructive Syndrome (SOS)
  - 2.3.6. Infection Prophylaxis
    - 2.3.6.1. Protected Environment Settings
    - 2.3.6.2. Low Bacterial Diet
    - 2.3.6.3. Pharmacological Prophylaxis
  - 2.3.7. Patient and Family Accompaniment
- 2.4. Day 0. Infusion of Hematopoietic Progenitors
  - 2.4.1. Day 0
  - 2.4.2. Patient Preparation
  - 2.4.3. Parent's Reception
  - 2.4.4. Progenitor Infusion
  - 2.4.5. Potential Complications



- 2.4.6. Post Infusion Care of Progenitors
  - 2.4.6.1. Patient Care
  - 2.4.6.2. Family Care
- 2.5. Phase of Medullary Aplasia. Nursing care
  - 2.5.1. Duration of the Spinal Cord Aplasia Phase
  - 2.5.2. Potential Complications of the Spinal Cord Aplasia Phase
    - 2.5.2.1. Directly Derived from the Conditioning Treatment
    - 2.5.2.2. Produced by the Situation of Aplasia
      - 2.5.2.2.1. Infections
      - 2.5.2.2.2. Nausea and Vomiting
      - 2.5.2.2.3. Diarrhea
      - 2.5.2.2.4. Mucositis
      - 2.5.2.2.5. Hemorrhages
      - 2.5.2.2.6. Respiratory Problems
  - 2.5.3. Nursing Assessment and Interventions
- 2.6. Mid-Term Nursing Care of the Transplanted Child/Adolescent and his or her Family
  - 2.6.1. Duration of the Post-Transplant Phase in the Medium Term
  - 2.6.2. Potential Complications of the Post-Transplant Phase in the Medium Term
    - 2.6.2.1. Infections
    - 2.6.2.2. Graft-Versus-Host Disease
    - 2.6.2.3. Implant and Pre-Implant Syndrome
    - 2.6.2.4. Implant/Graft Failure
    - 2.6.2.5. Other complications
      - 2.6.2.5.1. Hemorrhagic Cystitis
      - 2.6.2.5.2. Renal Dysfunction
      - 2.6.2.5.3. Thrombotic Microangiopathy
      - 2.6.2.5.4. Idiopathic Pneumonia Syndrome (IPS)
      - 2.6.2.5.5. Diffuse Alveolar Hemorrhage
  - 2.6.3. Nursing Assessment and Interventions
- 2.7. Most Relevant Emergencies in Post-Transplant Patients
  - 2.7.1. Introduction
  - 2.7.2. Sepsis and Septic Shock
  - 2.7.3. Mucositis Grade III-IV
  - 2.7.4. Implant Syndrome

- 2.7.5. Capillary Hyperpermeability Syndrome (CLS)
- 2.7.6. Acute GVHD and Chronic GVHD
- 2.7.7. Hemorrhagic Cystitis
- 2.7.8. Sinusoidal Obstructive Syndrome of the Liver (SOS)
- 2.7.9. Posterior Reversible Encephalopathy Syndrome (PRES)
- 2.7.10. Acute Kidney Failure
- 2.7.11. Respiratory Failure Post-HPT
  - 2.7.11.1. Idiopathic Pneumonia Syndrome (IPS)
  - 2.7.11.2. Diffuse Alveolar Hemorrhage (HAD)
  - 2.7.11.3. Organizational Cryptogenic Pneumonia (COP)
  - 2.7.11.4. Bronchiolitis Obliterans Syndrome (BOS)
- 2.7.12. Post-TPH Thrombotic Microangiopathy (MAT)
- 2.7.13. Cardiac Toxicity
- 2.7.14. Multiorgan Dysfunction Syndrome (SDMO)
- 2.7.15. Transfer the Intensive Care Unit
- 2.8. Follow-Up HPT Nursing Consultation
  - 2.8.1. La TPH nursing consultation
  - 2.8.2. Nursing Care in the Pre-Hematopoietic Progenitor Transplant Consultation
    - 2.8.2.1. Information About the Process
    - 2.8.2.2. Welcome to the TPH Unit and Basic Recommendations for Operation
    - 2.8.2.3. Anthropometric Measurements and Vital Signs
    - 2.8.2.4. Peripheral Blood Analysis Pre-TPH
    - 2.8.2.5. Presentation of the Multidisciplinary Team
    - 2.8.2.6. Emotional Support to the Patient and Family
    - 2.8.2.7. Resolution of Doubts
  - 2.8.3. Nursing Care in Post-HPCT Follow-up Consultations
    - 2.8.3.1. Short-Term
      - 2.8.3.1.1. Review of Information Provided at Discharge from Hospitalization
      - 2.8.3.1.2. Surveillance Signs and Symptoms, Information on Warning Signs, Early Detection of Complications
      - 2.8.3.1.3. Information on Measures to Avoid Infection: Avoid Contact with People with Flu-like Symptoms, Avoid Crowded Indoor Spaces
      - 2.8.3.1.4. Dietary and Nutritional Recommendations
      - 2.8.3.1.5. Vascular Access Care and Monitoring: PAC, PICC
      - 2.8.3.1.6. Care and Monitoring of Nutritional Support Devices: SNG, Gastric Button
      - 2.8.3.1.7. Pain Assessment
      - 2.8.3.1.8. Activity Evaluation
      - 2.8.3.1.9. Health Education
      - 2.8.3.1.10. Information About Day Hospital Circuits
      - 2.8.3.1.11. Emotional Support to the Patient and Family
    - 2.8.3.2. In the long term
      - 2.8.3.2.1. Monitoring Signs and Symptoms
      - 2.8.3.2.2. Early Detection of Toxicity Complications
      - 2.8.3.2.3. Coordination with other Specialists: Cardiology, Endocrinology and Traumatology
      - 2.8.3.2.4. Chronic Follow-Up: Symptomatic Treatments, Emotional Support, Adherence to Treatment
      - 2.8.3.2.5. Follow-Up Immunizations Post-TPH
      - 2.8.3.2.6. Health Education on Healthy Habits for Children and Adolescents
- 2.9. New Therapies in the Treatment of Post allo-HPT Complications
  - 2.9.1. Donor CD34+ Progenitor Infusion for the Treatment of Implant Failure Secondary to Allogeneic HPT
    - 2.2.1.1. Candidate Patients
    - 2.2.1.2. Procedure
  - 2.9.2. Extracorporeal Photopheresis for the Treatment of GVHD
    - 2.2.2.1. Candidate Patients
    - 2.2.2.2. Procedure
  - 2.9.3. Mesenchymal Stem Cell Infusion for the Treatment of GVHD
    - 2.2.3.1. Candidate Patients
    - 2.2.3.2. Procedure
  - 2.9.4. Donor Lymphocyte Infusion. Immunotherapy in Patients Relapsing after allogeneic HSCT
    - 2.9.4.1. Candidate Patients
    - 2.9.4.2. Procedure



### Module 3. When the response to treatment is not adequate

#### 3.1. Introduction

- 3.1.1. Response to Disease
- 3.1.2. Definition of Survival
- 3.1.3. Definition of Recurrence
- 3.1.4. Diseases or Situations with Higher Likelihood of Recurrences
- 3.1.5. Treatment Options
- 3.1.6. Welcoming and Accompanying in the Recurrence of the Disease
  - 3.1.6.1. Parents
    - 3.1.6.1.1. Emotional Reactions
    - 3.1.6.1.2. Facing
  - 3.1.6.2. Emotional Reactions and Coping with Relapse in Children and Adolescents

#### 3.2 Concept, Rationale and Need for Clinical Trials in Pediatric Hematology

- 3.2.1. What is a Clinical Trial?
- 3.2.2. Historical Background, Legislation and Ethics of Experimentation with Drugs
  - 3.2.2.1. "The Canon of Medicine" Avicenna (Ibn Sina)
  - 3.2.2.2. First Clinical Trial in History. James Lind
  - 3.2.2.3. Experiments on Children in the Auschwitz Concentration Camp (Josef Mengele)
  - 3.2.2.4. Nuremberg Code (1946)
  - 3.2.2.5. Ethically Questionable Clinical Trials after the Nuremberg Code
  - 3.2.2.6. Declaration of Helsinki (1964)
  - 3.2.2.7. Good Clinical Practice Guidelines (1995)
- 3.2.3. Why are CCS Necessary in Pediatric Hematology?
  - 3.2.3.1. Increase Overall Survival of Patients with Poor Prognosis.
  - 3.2.3.2. Decrease Long-Term Sequelae

#### 3.3. Design, Preparation and Implementation of a Clinical Trial

- 3.3.1. Design of a Clinical Trial
- 3.3.2. Phases of Clinical Trials
- 3.3.3. Identification and Selection of Participating Centers
- 3.3.4. Role of the Competent Authorities: CEIm and AEMPSCE
- 3.3.5. Medication and Hospital Pharmacy Service

#### 3.3.6. Sample Analysis Laboratories

#### 3.3.7. Economic Aspects of the Clinical Trial

#### 3.3.8. Archive

#### 3.4. Development of an Open Clinical Trial in a Center and Professionals Involved

##### 3.4.1. Initiation Visit

##### 3.4.2. Monitoring Visit

##### 3.4.3. Closing Visit

##### 3.4.4. Investigators File

##### 3.4.5. Management of Adverse Events

##### 3.4.6. Trial Medication

##### 3.4.7. Inclusion of Patients

##### 3.4.8. Trial Drug Administration, Disease Evaluation and Follow-Up

##### 3.4.9. Professionals Involved in a Clinical Trial

###### 3.4.9.1. Professionals in the Hospital Field

###### 3.4.9.2. Pharmaceutical Company Professionals

#### 3.5. Role of the Nursing Professional in EECC in Pediatric Hematology

##### 3.5.1. Nurse in the Clinical Trials team in Pediatric OncoHematology

##### 3.5.2. Specific Training Requirements

###### 3.5.2.1. Training in Good Clinical Practices

###### 3.5.2.2. Training in Handling and Shipping of Biohazard Samples

###### 3.5.2.3. Training Specific to Each Clinical Trial

##### 3.5.3. Responsibilities

##### 3.5.4. Delegated Clinical Trial Activities

###### 3.5.4.1. Material Management

###### 3.5.4.1.1. Fungibles

###### 3.5.4.1.2. Non-Expendable

###### 3.5.4.2. Management of Local Laboratory Samples

###### 3.5.4.3. Central Laboratory Sample Management

###### 3.5.4.4. Nursing Techniques

###### 3.5.4.5. Drug Administration

###### 3.5.4.6. Source Records

###### 3.5.4.7. Electronic Data Collection Notebook

- 3.5.5. Nursing care
  - 3.5.5.1. Basic Needs Care
  - 3.5.5.2. Accompaniment
- 3.6. Current status and Future of Pediatric Hematology. Personalized Medicine
  - 3.6.1. Science and Economics
  - 3.6.2. Fundamentals of Translational Research
  - 3.6.3. Definition Personalized Medicine
  - 3.6.4. High-Throughput Sequencing Techniques
  - 3.6.5. Data Analysis
  - 3.6.6. Bio markers
  - 3.6.7. Preclinical Models
- 3.7. Introduction, Objectives and Stages of the Therapeutic Approach in Pediatric PCPCs
  - 3.7.1. History of Palliative Care
  - 3.7.2. Difficulties in the Application of the CCPPs in the Pediatric Population. The Challenge of Pediatric Palliative Care
  - 3.7.3. Definition of Pediatric Palliative Care
  - 3.7.4. Pediatric Palliative Care Care Groups
  - 3.7.5. Peculiarities of Pediatric Palliative Care
  - 3.7.6. Universal Principles of the CCPP
  - 3.7.7. Objectives of the Palliative Approach
  - 3.7.8. Advanced Disease Situation. Turning Point
  - 3.7.9. Stages of the Therapeutic Approach
  - 3.7.10. Place of Care: Hospital vs. Domiciliary
- 3.8. Symptom Management in Pediatric Hematology (including pain) in CCPP
  - 3.8.1. Diagnosis and Evaluation of the Symptoms
  - 3.8.2. General Principles of Symptom
  - 3.8.3. Symptoms to Alleviate
    - 3.8.3.1. Main Symptom to Alleviate: Pain
    - 3.8.3.2. General Symptoms
    - 3.8.3.3. Constitutional Symptoms
    - 3.8.3.4. Respiratory Symptoms
    - 3.8.3.5. Digestive Symptoms





- 3.8.3.6. Neurological Symptoms
- 3.8.3.7. Other Symptoms
- 3.8.4. Prevention and Treatment
  - 3.8.4.1. Non-pharmacological methods
  - 3.8.4.2. Pharmacological Measures
- 3.9. Total Pain and Ethical Issues in Pediatric PPACs
  - 3.9.1. Total Pain
    - 3.9.1.1. Cicely Saunders
    - 3.9.1.2. Concept of Total Pain
    - 3.9.1.3. Pain Threshold
    - 3.9.1.4. Basic Principles of Total Pain Relief
    - 3.9.1.5. Pain, Suffering and Death
    - 3.9.1.6. Barriers in the Management of Total Pain in Pediatric OncoHematology
    - 3.9.1.7. Dying with Dignity
  - 3.9.2. Ethical Aspects
    - 3.9.2.1. Definition of Ethics and Bioethics
    - 3.9.2.2. Basic Principles of Bioethics
    - 3.9.2.3. Ethical Issues and Legal Rights of Children undergoing Pediatric Palliative Care
    - 3.9.2.4. Legislation Applied to Minors
    - 3.9.2.5. Communication and Decision Making
    - 3.9.2.6. Deliberation in Decision Making
    - 3.9.2.7. Health Care Ethics Committees
- 3.10. Nursing Care During the Terminal Phase and Last-Day Situation in Pediatric PCPCs
  - 3.10.1. Diagnostic Principles of the Terminal Phase
  - 3.10.2. Agony Phase or Last Days Situation (LDS)
    - 3.10.2.1. Concept
    - 3.10.2.2. Signs and Symptoms of the Dying Phase
    - 3.10.2.3. Therapeutic Objectives
    - 3.10.2.4. Symptom Control
    - 3.10.2.5. Family Care
    - 3.10.2.6. Palliative Sedation
    - 3.10.2.7. Adjustment of Pharmacological Treatment
  - 3.10.3. Palliative Sedation

## Module 4. Welcoming, Caring and Accompanying in Pediatric Hematology

- 4.1. Comprehensive View of the Care of the Child with Hematologic Pathology and their Family
  - 4.1.1. A Comprehensive Look at Human Health
    - 4.1.1.1. Physical Health
    - 4.1.1.2. Mental Health
    - 4.1.1.3. Emotional Health
    - 4.1.1.4. Social Health
    - 4.1.1.5. Spiritual Health
  - 4.1.2. The Nurse's Eye
    - 4.1.2.1. Emotions, Beliefs and Professional Development
    - 4.1.2.2. Welcoming, Caring and Accompanying
    - 4.1.2.3. Biomedical Model
    - 4.1.2.4. Salutogenic Model
  - 4.1.3. Systemic Approach to Care
    - 4.1.3.1. Consistency of the Person
    - 4.1.3.2. System Consistency
    - 4.1.3.3. Consistency of the "Soul"
  - 4.1.4. Welcoming, Caring for and Accompanying in a Comprehensive Manner
    - 4.1.4.1. Nursing Roles and Competencies
    - 4.1.4.2. The Interdisciplinary Work of Professionals
    - 4.1.4.3. Transdisciplinary Challenges for the Nurse Practitioner
- 4.2. Theories and Models That Approach the Integral Vision of Nursing
  - 4.2.1. The Salutogenic Model Applied to Care
    - 4.2.1.1. Welfare Assets
    - 4.2.1.2. Development of Personal Assets
    - 4.2.1.3. Development of System Assets
    - 4.2.1.4. Development of Institutional Assets
  - 4.2.2. Development of Personal Assets
  - 4.2.3. Helping Relationship Model: Hildegard Peplau
  - 4.2.4. Health Promotion Model: Nola Pender
  - 4.2.5. Diversity Theory and Universality of Care: Madeleine Leininger
  - 4.2.6. Human Care Theory: Jean Watson
  - 4.2.7. Comfort Theory: Katharine Kolcaba
  - 4.2.8. Marie Françoise Collière. Promoting Life
- 4.3. The Facilitating Role of Nursing in Pediatric Hematology
  - 4.3.1. The role of the Facilitator
  - 4.3.2. The Nursing Perspective
  - 4.3.3. Facilitating Care from the Different Nursing Roles
  - 4.3.4. Humanization of Care
  - 4.3.5. Assistance Orders
- 4.4. Emotional Competency Profile of Pediatric Hematology Nurses
  - 4.4.1. The Need to Promote the Social-Emotional Development of the Nursing Professional
  - 4.4.2. Nursing Emotional Competency Model
  - 4.4.3. Everything that Can Be Done with an Emotion
  - 4.4.4. Health in Nursing Pediatric Hematology
- 4.5. Therapeutic Communication in Pediatric Hematology
  - 4.5.1. Specific Skills for Effective and Affective Communication
  - 4.5.2. Key Ideas in Relation to the Child and the Family
  - 4.5.3. Key Ideas in Relation to the Times of Illness
  - 4.5.4. Key Ideas in Relation to Intra- and Interprofessional Practice
- 4.6. The Influence of the Environment and the Surroundings in the Accompaniment of the Child with Hematologic Pathology
  - 4.6.1. Occupational Health and Work Teams
  - 4.6.2. Space Architecture
  - 4.6.3. Responsible Environment with a Rights Perspective
  - 4.6.4. The Significance of Spaces
- 4.7. Family System Accompaniment in Pediatric Hematology
  - 4.7.1. Family as a System
  - 4.7.2. Caring for the Caregiver
  - 4.7.3. Accompanying Processes of High Emotional Impact
  - 4.7.4. Parenting Support
  - 4.7.5. Barriers to Care
  - 4.7.6. Coping with Illness
  - 4.7.7. Systemic Support

- 4.8. Psychomotor and Affective Development of Infants and Preschoolers with Hematologic Pathology
  - 4.8.1. Accompany the Specific Characteristics in the Infant
  - 4.8.2. Accompany the Specific Characteristics of the Preschool Child
  - 4.8.3. Psychomotor and Affective Development during the Illness
    - 4.8.3.1. Psychomotor Development (Physical Health)
    - 4.8.3.2. Language and Emotional Comfort (Mental and Emotional Health)
    - 4.8.3.3. Socialization (Social Health)
    - 4.8.3.4. Meaning of Life
      - 4.8.3.4.1. Love and Contact
      - 4.8.3.4.2. Growing Up Playing
- 4.9. Emotion, Storytelling and Meaningful Play in School-Age Children with Hematological Pathology
  - 4.9.1. Accompany the Specific Characteristics of the School-Age Child
  - 4.9.2. Personality Development During Illness
    - 4.9.2.1. Coping (Emotional Health)
    - 4.9.2.2. The Importance of Storytelling (Mental Health)
    - 4.9.2.3. Socialization (Social Health)
  - 4.9.3. Meaning of Life
    - 4.9.3.1. Self-Esteem, Self-Image and Self-Concept
    - 4.9.3.2. Pedagogical Support
    - 4.9.3.3. Meaningful Play
- 4.10. Emotion, Narrative and Socialization in Adolescents with Hematologic Pathology
  - 4.10.1. To Follow the Specific Characteristics of the Adolescent
  - 4.10.2. Personality Development During Illness
    - 4.10.2.1. Coping (Emotional Health)
    - 4.10.2.2. The Importance of Storytelling (Mental Health)
    - 4.10.2.3. Socialization (Social Health)
  - 4.10.3. Meaning of Life
    - 4.10.3.1. Self-Esteem, Self-Image and Self-Concept
    - 4.10.3.2. Pedagogical and Social Support
    - 4.10.3.3. Affective-Sexual Development



*Acquires the indispensable skills to accompany the family system in pediatric hematology"*

05

# Methodology

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

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



“

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

## At TECH 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. 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.



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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 Harvard 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 high 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 multimedia content presentation training Exclusive system 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

The student's knowledge is periodically assessed and re-assessed throughout the program, through evaluative and self-evaluative activities and exercises: in this way, students can check how they are doing in terms of 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 Allogeneic HSCT in Pediatrics for Nurses guarantees you, in addition to the most rigorous and updated training, access to a Postgraduate Diploma issued by TECH Technological University.



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

This **Postgraduate Diploma in Allogeneic HSCT in Pediatrics for Nurses** contains the most complete and updated scientific program on the market.

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

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

Title: **Postgraduate Diploma in Allogeneic HSCT in Pediatrics for Nursing**

Official N° of hours: **600 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.





**Postgraduate Diploma**  
Allogeneic HSCT in  
Pediatrics for Nursing

Course Modality: Online

Duration: 6 months.

Certificate: TECH Technological University

Official N° of hours: 600 h.

Postgraduate Diploma  
Allogeneic HSCT in  
Pediatrics for Nursing

