



FOUNDATIONS OF

**Pediatric
Hematology/Oncology
Nursing**

**A Comprehensive Orientation
and Review Course, 3rd Edition**

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Program History

This course is designed to give participants an overview of nursing practice matters in caring for children, adolescents, and young adults with cancer and blood disorders. Common pediatric hematological and oncological diagnoses are presented, along with the clinical nurse's role in implementing treatment approaches. Supportive care principles are also introduced. Case studies providing clinical scenarios are included to enhance the learning process. Knowledge check questions are included in each module to assist the nurse educator in measuring the effectiveness of the program and learning outcomes.

The idea for the first edition of this course occurred in 2001 when then-APHON member and past president of APHON Joetta D. Wallace, MSN RN FNP-C CPON®, invited

nursing educators and advanced practice nurses from several institutions across Southern California to join her in forming an educational consortium. The impetus for this project was Joetta Wallace's observation that, at any one time, most institutions have only a limited number of nurses requiring a formalized pediatric hematology/oncology orientation program or refresher course; nevertheless, it is incumbent on each institution to meet the educational needs of these nurses. She believed that pooling resources would be possible to provide a high-quality program that would meet the educational needs of these nurses while at the same time reducing the investment of resources required by individual institutions to provide ongoing educational programs. Therefore, the goal of the educational consortium was to develop a comprehensive, standardized pediatric hematology/oncology orientation course that would be

helpful both for nurses new to pediatric hematology/oncology and for current pediatric hematology/oncology nurses who want to refresh their knowledge.

The original APHON *Foundations of Pediatric Hematology/Oncology Nursing: A Comprehensive Orientation and Review Course* consisted of an 18.5-hour course comprised of 19 modules, offering 22.2 nursing continuing education units (CEUs), which provided the basis for pediatric hematology/oncology nursing practice. Now in the third edition, the program has grown to a recommended 20.7-hour course of 21 modules with the new addition of the Immunology

module. The number of continuing nursing education (CNE) contact hours offered for the program will depend on the total number of hours of presentation time.

The modules are provided in Microsoft PowerPoint® presentations and are available by downloading the files from the APHON ACE Center once purchased. The modules are accompanied by extensive notes and references for the nurse educator/instructor's use. Nurse educators/instructors may provide a course syllabus of the PowerPoint® handouts for each module.

The modules ideally would be taught by an experienced pediatric hematology/oncology nurse but can also be used as an independent self-study program.

Table of Contents

This course contains 21 modules that can be used as individual lectures or as part of a comprehensive course taught by a nurse educator/instructor. They appear in the recommended order of presentation as a 2–3-day course. Contributing authors and suggested teaching times are indicated for each module. The actual length of each module can be modified depending on the audience, presentation detail, and discussion degree.

1 The Big Picture: Hematologic & Oncologic Diseases in Children 46 Slides | 45 Minutes to Teach

Author <i>Christine S. Yun, MSN PNP CPON®</i>	Learning Objectives <ul style="list-style-type: none">Identify the most common blood disorders and pediatric malignanciesDescribe the major differences between cancer in adults and childrenIdentify professional and clinical trial organizations for pediatric hematology and oncology nurses
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2 Nursing Assessment in Pediatric Oncology 55 Slides | 75 Minutes to Teach

Author <i>Kimberly Duback, MS APRN PCNS-BC CPN CPHON®</i>	Learning Objectives <ul style="list-style-type: none">Recognize abnormal assessment and laboratory findings and associated nursing implicationsDiscuss the special aspects of the role of the nurse in caring for infants, children, and adolescents and young adults with a suspected cancer and their familiesImplement practices designed to improve the quality of life for patients and families affected by childhood cancer
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3 Childhood Leukemias 118 Slides | 150 Minutes to Teach

Authors <i>Kathleen B. Adlard, MN RN CNS CPON®</i> <i>Sue Zupanec, MN NP</i> <i>Christine S. Yun, MSN PNP CPON®</i>	Learning Objectives <ul style="list-style-type: none">Describe the clinical presentation of acute leukemias in infants, children, and adolescentsList the laboratory and diagnostic tests commonly used in the diagnostic work-up for childhood leukemiasDiscuss the high-risk features associated with acute lymphoblastic leukemia (ALL) and acute myeloid leukemia (AML) in infants, children, and adolescentsProvide the treatment modalities used in ALL, AML, and chronic myeloid leukemia (CML)Discuss the supportive care of infants, children, and adolescents receiving treatment for acute and chronic leukemias
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4 Childhood Lymphomas 75 Slides | 75 Minutes to Teach

Authors <i>Sharon Bergeron, BSN RN CPON®</i> <i>Lindsay Vander Woude, DNP CPNP-PC</i>	Learning Objectives <ul style="list-style-type: none">Describe the differences between Hodgkin lymphoma and non-Hodgkin lymphomaIdentify primary modalities of lymphoma treatmentDescribe essential elements of nursing care for children and adolescents with lymphoma
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5 CNS Tumors in Children, Adolescents, and Young Adults 78 Slides | 90 Minutes to Teach

Authors <i>Kasey Rangan, MSN CPNP CPHON®</i> <i>Kaaren Waters, DNP RN CPNP CPHON®</i>	Learning Objectives <ul style="list-style-type: none">Identify the classic symptoms associated with childhood CNS tumorsList common types, locations, and anatomies of CNS tumors that occur in children and adolescents and young adults (AYA)Understand basic components of CNS nursing assessment and neurological examDiscuss primary modalities of diagnosis and treatment of CNS tumorsDiscuss the role of the nurse in the care of the child, adolescent, or young adult with a CNS tumor
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The actual length of lectures can be changed, depending on the audience, detail of presentation, and degree of discussion.

6 Neuroblastoma 50 Slides | 60 Minutes to Teach

Author <i>Jennifer Saggio, MSN CRNP</i>	Learning Objectives <ul style="list-style-type: none">Describe neuroblastoma and the factors affecting prognosisDiscuss the clinical presentation and diagnostic procedures specific to neuroblastomaDefine current multimodal strategies utilized in the treatment of neuroblastoma with regards to staging and risk
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7 Pediatric Solid Tumors 96 Slides | 120 Minutes to Teach

Authors <i>Margaret Bottcher, MN RN CPNP-PC CPON®</i> <i>Colleen Nixon, MSN RN CPHON®</i>	Learning Objectives <ul style="list-style-type: none">Identify the most common pediatric solid tumor malignanciesState characteristics of common solid tumors in childrenDiscuss treatment modalities for common pediatric solid tumorsDiscuss complications associated with common pediatric solid tumors and treatment
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8 Hematologic Diseases of Childhood 105 Slides | 120 Minutes to Teach

Author <i>Beth Savage, PhD CPNP CPON®</i>	Learning Objectives <ul style="list-style-type: none">Discuss care of children and adolescents with hematologic conditionsIdentify abnormal laboratory results and associated nursing implicationsRecognize common hematologic emergencies
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9 Research and Treatment Protocols 41 Slides | 45 Minutes to Teach

Author <i>Sharon Bergeron, BSN RN CPON®</i>	Learning Objectives <ul style="list-style-type: none">Discuss the impact of research on the survival of children with cancerDescribe the specialized nursing role in the development and ongoing monitoring of pediatric oncology clinical trialsInterpret a therapy delivery map (TDM), also known as a “roadmap,” utilized for a child enrolled on a clinical trialDescribe the ethical principles governing the conduct of pediatric oncology researchDiscuss the implications of nursing research and evidence-based nursing practice to advance the clinical care of children with cancer
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10 Immunology in Pediatric Hematology and Oncology 65 Slides | 75 Minutes to Teach

Author <i>Elaine Kulm, BSN MS CRNP CPNP-PC CPHON®</i>	Learning Objectives <ul style="list-style-type: none">Identify and describe the three parts of the immune systemIdentify the main cell markers used in the TBNK and correlate the markers with their respective cellsDiscuss why hem/onc/HSCT nurses need a knowledge base in immunology
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11 Principles of Chemotherapy and Biotherapy 64 Slides | 60 Minutes to Teach

Author <i>Mary Lynn Rae, MSN RN NPD-BC BMTCN® CPHON®</i>	Learning Objectives <ul style="list-style-type: none">Define the history of chemotherapy and biotherapyDescribe how chemotherapy and biotherapy workDiscuss the classifications of chemotherapeutic agents and biotherapy agents and their mechanisms of action
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The actual length of lectures can be changed, depending on the audience, detail of presentation, and degree of discussion.

12 Radiation Therapy

42 Slides | 45 Minutes to Teach

Authors

Michael Diaz, RN
Desirae Clark, BSN RN CPHON®

Learning Objectives

- List the types of radiation therapy and various treatment modalities
- Describe the basic radiobiology principles of radiation therapy
- Discuss side effects and supportive care approaches for patients undergoing radiation therapy
- Recognize late effects associated with radiation therapy for cancer in childhood

13 Hematopoietic Stem Cell Transplant (HSCT) and Chimeric Antigen Receptor (CAR) T-Cell Therapy

76 Slides | 90 Minutes to Teach

Authors

Misty D. Evans, DNP APRN CPNP-AC BMTCN®
Nancy Tena, MSN RN CNS-BC BMTCN® CPHON®

Learning Objectives

- Describe the differences between autologous and allogeneic HSCTs and the indications for each
- Discuss the complications related to conditioning regimens, infections, and alloreactivity
- Discuss the special aspects of the role of the nurse in the care of the child, adolescent, or young adult undergoing HSCT
- Describe immune effector cellular therapy and specifically chimeric antigen receptors (CAR T cells) for treatment in B cell malignancies

14 Central Venous Access Devices

52 Slides | 145 Minutes to Teach

Authors

Mary Lynn Rae, MSN RN NPD-BC BMTCN®
CPHON®

Learning Objectives

- Identify appropriate central venous access devices (CVADs) for different clinical situations and diagnoses
- Describe key nursing interventions in the care of CVADs
- Discuss complications and management of CVADs, including infections, occlusions, and mechanical obstruction
- List the key elements of the central line-associated bloodstream infection (CLABSI) prevention insertion and maintenance bundles

15 Management of Treatment Side Effects: Supportive Care Issues

72 Minutes | 90 Minutes to Teach

Authors

Nancy King, MSN RN CPNP CPON®

Learning Objectives

- Recognize the potential side effects of cancer treatment in infants, children, and adolescents
- Identify supportive care approaches related to toxicities of therapy
- Discuss the special aspects of the role of the nurse in caring for infants, children, or adolescents with cancer and their families

16 Oncologic Emergencies

76 Slides | 90 Minutes to Teach

Author

Colleen Nixon, MSN RN CPHON®

Learning Objectives

- Identify the most common oncologic emergencies and important nursing interventions
- Understand the pathophysiology and clinical presentation including abnormal laboratory results
- Recognize risk factors and interventions for prevention and treatment

The actual length of lectures can be changed, depending on the audience, detail of presentation, and degree of discussion.

17 Pain Management

85 Slides | 90 Minutes to Teach

Author

Amy Haskamp, MSN RN PCNS-BC CHPPN
CPON®

Learning Objectives

- Describe pain and its effects if inadequately managed
- List components of a thorough pediatric pain assessment
- Describe key components of both nociceptive and neuropathic pain
- Identify pharmacological therapies used to relieve pain

18 Pediatric Palliative Care and End-of-Life Issues

63 Slides | 60 Minutes to Teach

Author

Amy Haskamp, MSN RN PCNS-BC CHPPN
CPON®

Learning Objectives

- Describe the philosophy of pediatric palliative care (PPC)
- Compare and contrast pediatric palliative and hospice care
- Describe key components of Section 2302 of the Patient Protection and Affordable Care Act (ACA), known as Concurrent Care for Children
- Describe physical, emotional, social, and spiritual symptoms experienced in palliative care and describe appropriate care for children and their families
- Explain the role of the nurse in end-of-life care

19 Childhood Cancer Survivorship: Long-Term Effects of Treatment

58 Slides | 60 Minutes to Teach

Author

Meredith Foxx, MSN MBA APRN PCNS-BC
PPCNP-BC NEA-BC CPON®

Learning Objectives

- Recognize late effects associated with treatment for cancer in childhood/adolescence
- Discuss the special aspects of the role of the nurse in long-term follow-up care after childhood/adolescent cancer treatment
- Implement practices designed to improve the quality of life in childhood/adolescent cancer survivors
- Recognize the risk factors for late effects associated with treatment for cancer in childhood/adolescence

20 Fertility Preservation

41 Slides | 45 Minutes to Teach

Author

Barbara Lockart, DNP APRN PC/AC CPHON®

Learning Objectives

- Describe types of therapy that have the potential to affect fertility
- Discuss fertility preservation options available to pre- and post-pubertal patients
- Implement nursing practices designed to improve the knowledge of patients and families regarding the effect of treatment on fertility

21 AYAs with Cancer

29 Slides | 45 Minutes to Teach

Authors

Kristin Stegenga, PhD RN CPON®
Lisa Bashore, PhD APRN CPNP-PC CPON®

Learning Objectives

- List common types of cancers occurring in the adolescent and young adult population
- Recognize unique needs of AYAs diagnosed with cancer
- Identify practices that improve quality of life and care in the AYA population

The actual length of lectures can be changed, depending on the audience, detail of presentation, and degree of discussion.



CNE Eligibility

Each 60 minutes of educational content is worth a total of 1 CNE contact hour and is eligible to claim through the participant's continuing education provider system. APHON is not the provider of continuing education credits for this program.

The Association of Pediatric Hematology/Oncology Nurses (APHON)

APHON is the professional organization for pediatric hematology/oncology nurses and other pediatric hematology/oncology healthcare professionals. Its members are dedicated to promoting optimal nursing care for children, adolescents, and young adults with cancer and blood disorders, and their families. APHON's mission is to support and advance nurses in optimizing outcomes for children, adolescents, young adults, and their families throughout the continuum of care for their blood disorders and cancers. APHON provides and promotes expertise in pediatric hematology/oncology nursing practice to its members and the public through educational conferences, the bimonthly *Journal of Pediatric Hematology/Oncology Nursing*, the quarterly newsletter *APHON Counts*, textbooks, patient-family educational materials, an online community that shares practice-related questions, and more. To learn more about APHON membership, products, and services, visit aphon.org, e-mail info@aphon.org, or call 855.202.9760 (US residents only) or 847.375.4724.

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Structures Arising from Embryonal Tissues

Ectoderm

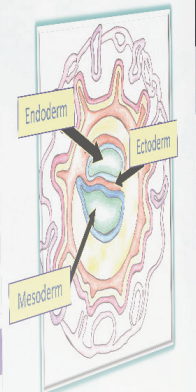
- CNS (brain, spinal cord), meninges
- SNS (adrenal)

Mesoderm

- Blood
- Lymphatics
- Bone
- Muscle
- Heart
- Kidney
- Gonads

Endoderm

- Epithelium
- GI tract
- Thyroid



System Requirements

The lectures are presented in Microsoft PowerPoint® format. Extensive notes and references accompany the lectures for the instructor’s use and are in PowerPoint® files. The current version of Microsoft Office is recommended for the optimal experience. Viewing the files with a previous version of PowerPoint® may result in formatting errors and reduced functionality.

Printing Handouts

The presentation files may be distributed to participants as handouts. Follow the steps below to print the handouts:

1. Open the module file.
2. Select “File,” then select “Print.”
3. Under the “Slides” section, select the preferred option

Handouts



1 Slide



2 Slides



3 Slides



4 Slides Horizontal



6 Slides Horizontal



9 Slides Horizontal



4 Slides Vertical



6 Slides Vertical



9 Slides Vertical

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