

**** Materials for this course will be release on 03/17/2021 ****

Oncology Pharmacy Specialty Review Course, Workbook Chapters (No Recert Credit (Cert # L219097)

Teaser: This online Specialty Review Course and Workbook package will help you prepare for the Board of Pharmacy Specialty (BPS) examination. With this course, get comprehensive, practical guidance, with a variety of complex cases, including references for further study.

Tag: Certifications; Oncology



ACPE Numbers: Various – see listing below

Pre-Sale Date: 03/03/2021

Content Release Date: 03/17/2021

Expiration Date: 02/15/2022

Activity Type: Application-based

CE Credits: 25.75 hours (ACPE only)

Activity Fee: \$425 (ASHP member); \$625 (non-member)

Accreditation for Pharmacists



The American Society of Health-System Pharmacists (ASHP) and the American College of Clinical Pharmacy (ACCP) are accredited by the Accreditation Council for Pharmacy Education as a provider of continuing pharmacy education.

Target Audience

These activities are intended for pharmacists who are seeking to update their knowledge and skills commensurate with a board certification examination in the areas listed below.

Activity Overview

This online course provides a robust preparatory curriculum for the pharmacy professional preparing for the Board of Pharmacy Specialties (BPS) Oncology Specialty Certification Examination. Designed based on the domains, tasks, and knowledge statements developed by the BPS for the certification examination, this course will help you prepare for the exam by identifying areas needed for in-depth review of oncology issues by:

- Reviewing pertinent clinical topics and practice skills
- Listing valuable references for further study

This course is **NOT** intended for those obtaining recertification credit. To earn recertification credit, please see courses here: <http://elearning.ashp.org/catalog/onc-recert>

These activities are part of the ASHP and ACCP professional development program.

REVIEW COURSE

This course consists of 20 activities (see table below) and provides up to 25.75 hours of continuing pharmacy education credit. The Review Course includes case-based presentations for application to real-life scenarios and links to the reference sources, and domains, tasks, and knowledge statements.

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Learning Module	ACPE Number	Credit Hours	ACPE Expiration Date
Breast Cancer	0204-9999-21-922-H01-P	2.50	03/17/2024
Gynecologic Malignancies	0204-9999-21-914-H01-P	1.00	03/17/2024
Prostate Cancer	0204-9999-21-916-H01-P	1.00	03/17/2024
Pediatric Malignancies and Supportive Care	0204-9999-21-926-H01-P	1.25	03/17/2024
Upper Gastrointestinal and Hepatocellular Carcinomas	0204-9999-21-924-H01-P	0.75	03/17/2024
Bladder, Renal Cell, and Testicular Cancers	0204-9999-21-929-H01-P	1.00	03/17/2024
Melanoma and Non-Melanoma Skin Cancers	0204-9999-21-915-H01-P	1.00	03/17/2024
Research Design, Statistics, and Evaluating Oncology Literature	0204-9999-21-912-H04-P	2.00	03/17/2024
Adult Acute Leukemias and Myelodysplastic Syndromes	0204-9999-21-928-H01-P	1.50	03/17/2024
Lymphomas	0204-9999-21-925-H01-P	1.25	03/17/2024
Chronic Leukemias	0204-9999-21-917-H01-P	1.50	03/17/2024
Hematopoietic Stem Cell Transplantation	0204-9999-21-921-H01-P	1.25	03/17/2024
Lung Cancer	0204-9999-21-923-H01-P	1.50	03/17/2024
Lower Gastrointestinal and Pancreatic Cancers	0204-9999-21-927-H01-P	1.25	03/17/2024
Head, Neck and Adult Central Nervous System (CNS) Malignancies	0204-9999-21-930-H01-P	1.00	03/17/2024
Cancer-related Infectious Diseases	0204-9999-21-931-H01-P	1.00	03/17/2024
Oncology Practice Management	0204-9999-21-920-H04-P	2.00	03/17/2024
Multiple Myeloma	0204-9999-21-918-H01-P	1.50	03/17/2024
Adult Sarcoma	0204-9999-21-919-H01-P	0.75	03/17/2024
Pharmacogenomics in Oncology	0204-9999-21-913-H01-P	0.75	03/17/2024

Learning Objectives

At the end of the presentations, the pharmacist should be able to:

Breast Cancer

ACPE #: 0204-9999-21-922-H01-P

- Design an appropriate patient-specific treatment, supportive care, and monitoring plan taking into consideration efficacy and safety outcomes from clinical trials and current treatment guidelines for patients with breast cancer.
- Discuss short- and long-term treatment goals, including post-therapy and survivorship, with a patient with breast cancer and her or his caregiver.
- Determine appropriate pharmacotherapy for a patient with breast cancer based on genomic test results.
- Identify appropriate diagnostic and prognostic tests related to breast cancer.
- Select relevant information and guidance for the public regarding breast cancer-related issues (e.g., cancer risk factors, prevention, screening).

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Gynecologic Malignancies

ACPE #: 0204-9999-21-914-H01-P

- Design an appropriate patient-specific treatment, management, and monitoring plan taking into consideration efficacy and safety outcomes of clinical trials and current treatment guidelines for a patient with a gynecologic malignancy.
- Discuss short and long-term goals, including post-therapy and survivorship, for a patient with a gynecologic malignancy and her caregiver.
- Compare and contrast the efficacy and toxicity of different routes of drug administration, including IP chemotherapy, in the treatment of ovarian cancer.
- Select relevant information and provide guidance for the public regarding gynecologic malignancy-related issues (e.g., risk factors, prevention and screening).

Prostate Cancer

ACPE #: 0204-9999-21-916-H01-P

- Design an appropriate patient-specific treatment, supportive care, and monitoring plan taking into consideration efficacy and safety outcomes from clinical trials and current treatment guidelines for patients with prostate cancer.
- Identify appropriate diagnostic, prognostic, and monitoring tests for a patient with prostate cancer.
- Discuss short- and long-term treatment goals, including post-therapy and survivorship, with a patient with prostate cancer and his caregiver.
- Select relevant information and guidance for the public regarding prostate cancer-related issues (e.g., risk factors, prevention, screening).

Pediatric Malignancies and Supportive Care

ACPE #: 0204-9999-21-926-H01-P

- Design an appropriate patient-specific treatment, supportive care, and monitoring plan taking into consideration efficacy and safety outcomes from clinical trials and current treatment guidelines for pediatric patients with cancer.
- Assess the prognostic impact of relevant cancer-related molecular biology testing for a pediatric patient with cancer.
- Discuss with a pediatric patient who has cancer and his or her caregiver the short- and long-term treatment goals, including post-therapy and survivorship.
- Assess the impact of pharmacogenomics on the efficacy and toxicity of relevant anticancer and supportive-care agents for a pediatric patient with cancer.
- Assess the regulatory, ethical, and patient rights issues related to conducting research, including informed consent and confidentiality.

Upper Gastrointestinal and Hepatocellular Carcinomas

ACPE #: 0204-9999-21-924-H01-P

- Design an appropriate patient-specific treatment, management, and monitoring plan taking into consideration efficacy and safety outcomes from clinical trials and current treatment guidelines for patients with esophageal, gastric, or hepatic malignancies.
- Assess the impact of pharmacogenomics on the efficacy and toxicity of relevant anticancer agents used for gastrointestinal malignancies.
- Develop an appropriate plan for preventing, monitoring, and treating radiation recall and other complications of radiation therapy.

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Bladder, Renal Cell, and Testicular Cancers

ACPE #: 0204-9999-21-929-H01-P

- Design an appropriate patient-specific treatment, supportive care, and monitoring plan taking into consideration efficacy and safety outcomes from clinical trials and current treatment guidelines for patients with bladder, renal, or testicular cancer.
- Discuss short- and long-term treatment goals, including post-therapy and survivorship, with a patient with bladder, renal, or testicular cancer and his or her caregiver
- Develop an appropriate plan for preventing, monitoring, and treating adverse reactions associated with the treatment with tyrosine kinase inhibitors and mTOR inhibitors.

Melanoma and Non-Melanoma Skin Cancers

ACPE #: 0204-9999-21-915-H01-P

- Design an appropriate patient-specific treatment, supportive care, and monitoring plan taking into consideration efficacy and safety outcomes from clinical trials and current treatment guidelines for patients with melanoma or non-melanoma skin cancer.
- Identify relevant cancer-related molecular biology testing for a patient with melanoma.
- Discuss short-term and long-term treatment goals, including post-therapy and survivorship, with a patient with melanoma or non-melanoma skin cancer and his or her caregiver.
- Select relevant information and guidance for the public regarding melanoma and non-melanoma skin cancer-related issues (e.g., risk factors, prevention, screening).
- Develop an appropriate plan for preventing, monitoring, and treating adverse reactions associated with the treatment of melanoma and non-melanoma skin cancers, including thyroid level monitoring for chemotherapy agents, immune-mediated toxicities, and toxicity from BRAF inhibitors.

Research Design, Statistics, and Evaluating Oncology Literature

ACPE #: 0204-9999-21-912-H04-P

- Evaluate the oncology literature, including study design, identification of sources of bias, methodology, statistical analysis, and applicability of results to clinical practice for the oncology patient population.
- Interpret the validity and results of various types of oncology studies (e.g., meta-analyses, noninferiority trials).
- Interpret findings from the use of study endpoints (e.g., objective response, time to progression, adverse events, quality of life, overall survival) in oncology research.
- Interpret sensitivity, specificity, positive and negative predictive values, measures of effect, correlation, and regression for an oncology study.

Adult Acute Leukemias and Myelodysplastic Syndromes

ACPE #: 0204-9999-21-928-H01-P

- Design an appropriate patient-specific treatment, supportive care, and monitoring plan taking into consideration efficacy and safety outcomes from clinical trials and current treatment guidelines for adults with acute leukemia or myelodysplastic syndrome.
- Assess the prognostic impact of relevant cancer-related molecular biology testing for an adult with acute leukemia or myelodysplastic syndrome.
- Develop an appropriate plan for preventing, monitoring, and treating adverse reactions from pharmacotherapy for acute leukemia and myelodysplastic syndrome in an adult, including tumor lysis syndrome, neurotoxicity, differentiation syndrome, and cardiac toxicity from arsenic trioxide, and other agents as appropriate.
- Determine appropriate pharmacotherapy for acute leukemia or myelodysplastic syndrome in an adult based on genomic test results.

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Lymphomas

ACPE #: 0204-9999-21-925-H01-P

- Design an appropriate patient-specific treatment, supportive care, and monitoring plan to include effectiveness, toxicities and outcomes, based on the most current guidelines for patients with lymphoma.
- Assess the prognostic impact of relevant cancer-related molecular biology testing.
- Develop an appropriate plan for preventing, monitoring, and treating adverse reactions associated with pharmacotherapy for lymphoma and other cancers, including chemotherapy-induced pulmonary toxicities and extravasation.

Chronic Leukemias

ACPE #: 0204-9999-21-917-H01-P

- Design an appropriate patient-specific treatment, supportive care, and monitoring plan taking into consideration efficacy and safety outcomes from clinical trials and current treatment guidelines for patients with chronic leukemia.
- Assess the prognostic impact of relevant cancer-related molecular biology testing in a patient with chronic leukemia.
- Determine appropriate pharmacotherapy based on genomic test results in a patient with chronic leukemia.
- Develop an appropriate plan for preventing, monitoring, and treating infusion-related reactions from monoclonal antibodies used in the treatment of hematologic malignancies.
- Develop an appropriate plan for preventing, monitoring, and treating adverse reactions associated with pharmacotherapy for the treatment of cancers, including toxicities from tyrosine kinase inhibitors used to treat hematologic cancers.

Hematopoietic Stem Cell Transplantation

ACPE #: 0204-9999-21-921-H01-P

- Design an appropriate patient-specific treatment, supportive care, and monitoring plan taking into consideration efficacy and safety outcomes from clinical trials and current guidelines for patients undergoing hematopoietic stem cell transplantation (HSCT).
- Apply appropriate strategies to prevent toxicity from chemotherapy agents employed in HSCT conditioning regimens.
- Create a plan for prevention and management of acute and chronic graft-versus-host disease (GVHD) using appropriate systemic and ancillary therapies.
- Discuss short- and long-term treatment goals, including post-therapy and survivorship, with the patient undergoing HSCT and his or her caregiver.

Lung Cancer

ACPE #: 0204-9999-21-923-H01-P

- Design an appropriate patient-specific treatment, supportive care, and monitoring plan taking into consideration efficacy and safety outcomes from clinical trials and current treatment guidelines for patients with lung cancer.
- Identify relevant cancer-related molecular biology testing for a patient with lung cancer.
- Assess the impact of pharmacogenomics on the efficacy and toxicity of relevant anticancer and supportive-care agents for a patient with lung cancer.
- Select relevant information and guidance for the public regarding lung cancer-related issues (e.g., risk factors, prevention, screening).
- Develop an appropriate plan for preventing, monitoring, and treating adverse reactions associated with pharmacotherapy for lung cancer.
- Develop a prevention and management strategy for chemotherapy-induced nausea and vomiting for patients with any type of cancer.

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Lower Gastrointestinal and Pancreatic Cancers

ACPE #: 0204-9999-21-927-H01-P

- Design an appropriate patient-specific treatment, supportive care, and monitoring plan taking into consideration efficacy and safety outcomes from clinical trials and current treatment guidelines for patients with lower gastrointestinal (GI) or pancreatic cancers.
- Discuss short- and long-term treatment goals, including post-therapy and survivorship, with a patient with lower GI or pancreatic cancers and his or her caregiver.
- Assess the impact of pharmacogenomics on the efficacy and toxicity of relevant anticancer and supportive-care agents for a patient with lower GI or pancreatic cancers.
- Select relevant information and guidance for the public regarding lower GI and pancreatic cancer-related issues (e.g., risk factors, prevention, screening).
- Develop an appropriate plan for preventing, monitoring, and treating adverse reactions associated with pharmacotherapy for lower GI or pancreatic cancers, including chemotherapy-induced diarrhea, hand-foot syndrome, hand foot skin reaction, neurotoxicity from oxaliplatin, and dermatologic toxicities from epidermal growth factor receptor inhibitors.

Head, Neck and Adult Central Nervous System (CNS) Malignancies

ACPE #: 0204-9999-21-930-H01-P

- Design an appropriate patient-specific treatment, management and monitoring plan taking into consideration efficacy and safety outcomes from clinical trials and current treatment guidelines for patients with head, neck, adult central nervous system (CNS) malignancies, or thyroid cancers.
- Select relevant information and guidance for the public regarding head and neck cancer-related issues (e.g., risk factors, prevention, and screening).
- Develop an appropriate plan for preventing, monitoring, and treating adverse reactions associated with the treatment of cancers including cachexia, mucositis, and xerostomia.

Cancer-related Infectious Diseases

ACPE #: 0204-9999-21-931-H01-P

- Design an appropriate patient-specific management and monitoring plan to address potential infection-related problems that may arise during and following cancer treatment based on current guidelines for treating cancer-related infectious diseases.
- Discuss short- and long-term treatment goals, including post-therapy, with a patient with cancer-related infectious disease and his or her caregiver.

Oncology Practice Management

ACPE #: 0204-9999-21-920-H04-P

- Evaluate oncology pharmacy services for compliance with established regulations, professional practice standards, and procedures for safe handling, administration, and disposal of hazardous drugs.
- Select quality-improvement activities that enhance the safety and effectiveness of the medication-use process in oncology patient care.
- Explain national accreditation and federal regulatory requirements for the care of cancer patients receiving chemotherapy or other hazardous drugs.
- Explain medication reimbursement and patient assistance programs to optimize drug availability for oncology patients.
- Evaluate policies and procedures related to conducting research involving investigational drugs, including drug management in patients with cancer.

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Multiple Myeloma

ACPE #: 0204-9999-21-918-H01-P

- Design an appropriate patient-specific treatment, supportive care, and monitoring plan taking into consideration efficacy and safety outcomes from clinical trials and current guidelines for patients with multiple myeloma.
- Evaluate oncology pharmacy services for compliance with established REMS regulations and standards.
- Develop an appropriate plan for preventing, monitoring, and managing common problems associated with the treatment of cancers, including bone metastases in multiple myeloma patients and thromboembolism, hypercalcemia of malignancy, and spinal cord compression in all oncology patients.

Adult Sarcoma

ACPE #: 0204-9999-21-919-H01-P

- Design an appropriate patient-specific treatment, management, and monitoring plan taking into consideration efficacy and safety outcomes from clinical trials and current treatment guidelines for adult patients with sarcoma.
- Adjust treatment and monitoring plans as needed based on the tumor genetics and pharmacokinetics of anticancer and supportive-care agents (e.g., methotrexate).
- Develop an appropriate plan for preventing, monitoring, and managing common problems associated with the treatment of adult patients with cancer, including neurotoxicity from ifosfamide and hemorrhagic cystitis.

Pharmacogenomics in Oncology

ACPE #: 0204-9999-21-913-H01-P

- Identify appropriate considerations for genetic interpretation in both the germline and somatic settings utilizing a variety of next generation sequencing techniques.
- Apply the results from somatic genetic testing into therapy recommendations based on prognostic, predictive and patient characteristics.
- Recognize the place in therapeutic decision making for companion diagnostic testing.

Faculty

Jessica Auten, Pharm.D., BCPS, BCOP
Clinical Pharmacy Specialist, Acute Care Malignant Hematology
UNC Medical Center
Chapel Hill, North Carolina

John Bossaer, Pharm.D., BCPS, BCOP
Associate Professor
Gatton College of Pharmacy at ETSU
Johnson City, Tennessee

Courtney Cavalieri, Pharm.D., BCOP*
Clinical Oncology Pharmacist
Huntsman Cancer Institute at the University of Utah
Salt Lake City, Utah

Brette Conliffe, Pharm.D., BCOP
Clinical Oncology Pharmacist
University of Louisville Health/Brown Cancer Center
Louisville, Kentucky

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Karen Fancher, Pharm.D., BCOP*
Assistant Professor of Pharmacy Practice
Dusquesne University School of Pharmacy
Pittsburgh, Pennsylvania

Christopher Fausel, Pharm.D., M.H.A., BCOP
Clinical Manager - Oncology Pharmacy
Indiana University Health
Indianapolis, Indiana

Kelly Fritz, Pharm.D., BCOP
Oncology Clinical Coordinator
Huntsman Cancer Institute at University of Utah
Salt Lake City, Utah

Lauren Ice, Pharm.D., BCOP, BCPS
Clinical Pharmacy Specialist
Spectrum Health
Grand Rapids, Michigan

Elyse MacDonald, Pharm.D., M.S., BCPS
Assistant Director, Pharmacy Services, Investigational Drug Service
Stanford Health Care
Palo Alto, California

Janelle Mann, Pharm.D., BCOP
Clinical Oncology Pharmacist / Manager, Clinical Pharmacy Services
Alvin J. Siteman Cancer Center / Washington University School of Medicine in St. Louis
St. Louis, Missouri

Anthony Perissinotti, Pharm.D., BCOP
Clinical Pharmacist Specialist, Hematology
University of Michigan - Michigan Medicine
Ann Arbor, Michigan

Tim Peterson, Pharm.D., BCOP
Clinical Pharmacy Specialist
Memorial Sloan Kettering Cancer Center
New York, New York

Danielle Roman, Pharm.D., BCOP*
Manager, Oncology Clinical Pharmacy Services
Allegheny Health Network
Pittsburgh, Pennsylvania

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Christine Walko, Pharm.D., BCOP, FCCP*
Associate Member, Personalized Medicine Specialist
DeBartolo Family Personalized Medicine Institute
H. Lee Moffitt Cancer Center
Tampa, Florida

Jennifer Young, Pharm.D., BCOP
Clinical Pharmacy Specialist - Pediatric Oncology
Cincinnati Children's Hospital Medical Center
Cincinnati, Ohio

**Content Matter Experts*

Reviewers

Courtney Alexander, Pharm.D., BCPS, BCOP
Jaime Anderson, BCOP, CMQ
Carrie Beckman, Pharm.D., BCPS, BCOP
Laura Bobolts, Pharm.D. BCOP
Salvatore Bottiglieri, Pharm.D., BCOP
Theresa Brown, Pharm.D. BCOP CPP
Joseph Bubalo, Pharm.D., BCOP, BCPS
Ryan Bycroft, Pharm.D., BCOP
Brandon Chang, Pharm.D., BCPS, BCOP
Jill Comeau, Pharm.D., BCOP
Vanessa Copeland, Pharm.D., BCOP
Wendy Covert, Pharm.D., BCOP
Sara DeHoll, Pharm.D., BCOP
Bryna Delman Ewachiw, Pharm.D., BCOP
Seema Ganatra, Pharm.D., BCPS, BCOP
Sarah Gifford, Pharm.D, BCOP
Sean Green, Pharm.D., BCOP
Alyssa Heiden, Pharm.D., BCOP
Hansen Ho, Pharm.D. BCOP
Mitchell Hughes, Pharm.D., BCPS, BCOP
Ashley Johns, Pharm.D., M.S., BCOP, BCPS
Lindsay Kaster, Pharm.D., BCOP
Jodi Lech, Pharm.D., BCOP
Matthew Lei, Pharm.D., BCOP
Samantha Luk, Pharm.D., BCOP
Morgan Mace, Pharm.D., BCOP
Lisa Modelevsky, Pharm.D., BCOP
Donald Moore, Pharm.D., BCPS, BCOP, DPLA
Nancy Nix, Pharm.D., BCPS, BCOP
Terry Pak, Pharm.D., BCOP
Jeremy Pappacena, Pharm.D., BCOP
Seon Jo Park, Pharm.D., BCOP
Jennifer Piccolo, Pharm.D., BCOP
Melvin Rivera, BCOP
Shreya Shah, Pharm.D., BCOP

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Anne Spengler, Pharm.D., BCOP
Zane Waite, Pharm.D., BCOP
Robert Wilkinson, Pharm.D., M.S., BCOP, BCPS
Lily Yan, Pharm.D., BCOP
Mark Zangardi, Pharm.D., BCOP

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- Karen Fancher is Consultant, AstraZeneca, LP; Consultant, Merck & Co.
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Methods and CE Requirements

Activities can be completed in any order. Each activity consists of audio, video, and/or PDFs and evaluations. Learners must review all content and complete the evaluations to receive continuing pharmacy education credit for each activity. Follow the prompts to claim, view, or print the statement of credit within 60 days after completing the activity.

System Technical Requirements

Courses and learning activities are delivered via your Web browser and Acrobat PDF. For all activities, you should have a basic comfort level using a computer and navigating web sites.

View the [minimum technical and system requirements](#) for learning activities.

Development

These activities were developed by ASHP and ACCP.

To maintain its strict, independent standards for certification, BPS does NOT endorse or provide review information, preparatory courses, or study guides for Board Certification Examinations.