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**Oncology Pharmacy Specialty Review Course for Recertification, Workbook Chapters + RECERT EXAM  
(Cert # L229088)**

**Teaser:** This online course will help you earn BCOP recertification credit. With this course, get comprehensive, practical guidance, with a variety of complex cases, including references for further study

**Tag:** Certifications; Oncology

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**ACPE Numbers:** Various – see listing below

**Pre-Sale Date:** 04/13/2022

**Content Release Date:** 04/27/2022

**Expiration Date:** 04/11/2023

**Activity Type:** Application-based

**CE Credits:** 25.75 (BPS and ACPE) contact hours

**Activity Fee:** \$475 (ASHP member); \$675 (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.

*These activities were recorded during a live educational event on March 3-5, 2022, at ACCP/ASHP's 2022 Live Review & Recertification Courses, Henderson, Nevada. Learners who claimed credit for the live activities should not claim credit for these home study activities.*

**Target Audience**

These recertification activities are intended for board certified pharmacists seeking to update their knowledge and skills in oncology pharmacy.

**Activity Overview**

This course is intended for BCOPs in need of recertification credit and is designed based on the content outline developed by the Board of Pharmacy Specialties (BPS) to provide an overview of recent standards and guidelines that specialists should be familiar with in practice. The course uses a case-based approach to discuss patient care issues. In this series, faculty will:

- Review pertinent clinical topics and practice skills
- List valuable resources for further self-study

This online course consists of 20 activities (see table below) and provides up to 25.75 contact hours of continuing pharmacy education credit and/or recertification credit.

**Recertification Credit\***

Board certified pharmacists are eligible to receive up to 25.75 contact hours of recertification credit for completing this course. To earn recertification credit, learners must review the course content and successfully complete the online

assessments by the deadline. Only completed assessments will be eligible for credit; no partial or incomplete assessments will be processed. You are allowed only one attempt to successfully complete this assessment.

This course is not intended for those preparing to take the BPS Oncology Pharmacy Specialty Examination for Certification. To prepare for the examination, please see courses here: <http://elearning.ashp.org/catalog/onc-review>

These activities are part of the ASHP and ACCP professional development program for BCOP recertification approved by BPS.

*\* Please note: Review Course for Recertification may only be completed for recertification credit up to two times, in nonconsecutive years, during the 7-year recertification cycle.*

Learning Activity	ACPE Number	Contact Hours
Breast Cancer	0204-9999-22-912-H01-P	2.50 ACPE
Gynecologic Malignancies	0204-9999-22-913-H01-P	1.00 ACPE
Prostate Cancer	0204-9999-22-914-H01-P	1.00 ACPE
Pediatric Malignancies and Supportive Care	0204-9999-22-915-H01-P	1.25 ACPE
<b>Recertification Assessment Group 1 (TBD% passing score required)</b>		5.75 BPS
Upper Gastrointestinal and Hepatocellular Carcinomas	0204-9999-22-916-H01-P	0.75 ACPE
Bladder, Renal Cell, and Testicular Cancers	0204-9999-22-929-H01-P	1.00 ACPE
Melanoma and Non-Melanoma Skin Cancers	0204-9999-22-917-H01-P	1.00 ACPE
Research Design, Statistics, and Evaluating Oncology Literature	0204-9999-22-918-H04-P	2.00 ACPE
<b>Recertification Assessment Group 2 (TBD% passing score required)</b>		4.75 BPS
Adult Acute Leukemias and Myelodysplastic Syndromes	0204-9999-22-919-H01-P	1.50 ACPE
Lymphomas	0204-9999-22-920-H01-P	1.25 ACPE
Chronic Leukemias	0204-9999-22-921-H01-P	1.50 ACPE
Hematopoietic Stem Cell Transplantation	0204-9999-22-922-H01-P	1.25 ACPE
<b>Recertification Assessment Group 3 (TBD% passing score required)</b>		5.50 BPS
Lung Cancer	0204-9999-22-923-H01-P	1.50 ACPE
Lower Gastrointestinal and Pancreatic Cancers	0204-9999-22-924-H01-P	1.25 ACPE
Head, Neck, Adult Central Nervous System (CNS), and Thyroid Malignancies	0204-9999-22-930-H01-P	1.00 ACPE
Cancer-related Infectious Diseases	0204-9999-22-931-H01-P	1.00 ACPE
<b>Recertification Assessment Group 4 (TBD% passing score required)</b>		4.75 BPS
Oncology Practice Management	0204-9999-22-925-H04-P	2.00 ACPE
Multiple Myeloma	0204-9999-22-926-H01-P	1.50 ACPE
Adult Sarcomas	0204-9999-22-927-H01-P	0.75 ACPE
Pharmacogenomics in Oncology	0204-9999-22-928-H01-P	0.75 ACPE
<b>Recertification Assessment Group 5 (TBD% passing score required)</b>		5.0 BPS

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### Learning Objectives

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

#### Breast Cancer

ACPE #: 0204-9999-22-912-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).

#### Gynecologic Malignancies

ACPE #: 0204-9999-22-913-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, with a patient with a gynecologic malignancy and her caregiver.
- Select relevant information and provide guidance for the public regarding gynecologic malignancy-related issues (e.g., risk factors, prevention, and screening).

#### Prostate Cancer

ACPE #: 0204-9999-22-914-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.
- 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 #: 0204-9999-22-915-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 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 regulatory, ethical, and patient rights issues related to conducting research, including informed consent and confidentiality.

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### Upper Gastrointestinal and Hepatocellular Carcinomas

ACPE #: 0204-9999-22-916-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.

### Bladder, Renal Cell, and Testicular Cancers

ACPE #: 0204-9999-22-929-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 carcinomas.
- Discuss short- and long-term treatment goals, including post-therapy and survivorship, with a patient with bladder, renal, or testicular carcinomas 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 #: 0204-9999-22-917-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 melanoma or non-melanoma skin cancer.
- Discuss short- and long-term 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 #: 0204-9999-22-918-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.

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### Adult Acute Leukemias and Myelodysplastic Syndromes

ACPE #: 0204-9999-22-919-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.

### Lymphomas

ACPE #: 0204-9999-22-920-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 #: 0204-9999-22-921-H01-P

- Design an appropriate patient-specific treatment, supportive care, and monitoring plan taking into consideration relevant molecular biology testing, genomic information, efficacy and safety outcomes from clinical trials, and current treatment guidelines for patients 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 #: 0204-9999-22-922-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 guidelines for patients undergoing hematopoietic stem cell transplantation (HSCT).
- Apply appropriate strategies to prevent and treat 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.

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### Lung Cancer

ACPE #: 0204-9999-22-923-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.
- 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.

### Lower Gastrointestinal and Pancreatic Cancers

ACPE #: 0204-9999-22-924-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.
- 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, Adult Central Nervous System (CNS), and Thyroid Malignancies

ACPE #: 0204-9999-22-930-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), or thyroid cancers.
- Select relevant information and guidance for the public regarding head and neck 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 cancers including cancer cachexia, mucositis, and xerostomia.

### Cancer-related Infectious Diseases

ACPE #: 0204-9999-22-931-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.

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### Oncology Practice Management

ACPE #: 0204-9999-22-925-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.

### Multiple Myeloma

ACPE #: 0204-9999-22-926-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 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, thromboembolism, hypercalcemia of malignancy, and spinal cord compression.

### Adult Sarcomas

ACPE #: 0204-9999-22-927-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 #: 0204-9999-22-928-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 and germline genetic testing into therapy recommendations based on prognostic, predictive and patient characteristics.
- Recognize the place in therapeutic decision making for companion diagnostic testing.

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An ineligible company is any entity producing, marketing, re-selling, or distributing health care goods or services consumed by, or used on, patients. The presence or absence of relevant financial relationships will be disclosed to the activity audience.

The following persons in control of this activity's content have relevant financial relationships:

- Karen Fancher is Consultant, AstraZeneca, LP; Consultant, Merck & Co.
- Anthony J. Perissinotti is Consultant, Amgen; consultant, Pfizer; consultant, Servier

All other persons in control of content do not have any relevant financial relationships with an ineligible company.

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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

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.