

Materials for this course will release 06/22/2022

Infectious Diseases Pharmacy Specialty Review Course for Recertification, Workbook Chapters + RECERT Assessment Package (Cert # L229162)

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

Tag: Certifications; Infectious Diseases



ACPE Numbers: Various – see listing below

Pre-Sale Date: 05/25/2022

Content Release Date: 06/22/2022

Expiration Date: 06/20/2023

Activity Type: Application-based

CE Credits: 25 (BPS and ACPE) contact hours

Activity Fee: \$475 (ASHP member); \$675 (non-member)

Accreditation for Pharmacists



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

Target Audience

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

Activity Overview

This course is intended for BCIDPs 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 15 activities (see table below) and provides up to 25 contact hours of continuing pharmacy education credit and/or recertification credit.

Recertification Credit*

Board certified pharmacists are eligible to receive up to 25 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.

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

These activities are part of the ASHP and ACCP professional development program for BCIDP recertification approved by the 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
Antimicrobial Stewardship	0204-9999-22-960-H01-P	1.50 ACPE
Upper Respiratory Tract Infections	0204-9999-22-961-H01-P	2.00 ACPE
Lower Respiratory Tract Infections	0204-9999-22-962-H01-P	1.50 ACPE
Recertification Assessment Group 1 (TBD% passing score required)		5.0 BPS
HIV Infection and AIDS	0204-9999-22-963-H02-P	2.00 ACPE
Infections of Reproductive Organs and Sexually Transmitted Diseases	0204-9999-22-964-H01-P	1.50 ACPE
Opportunistic Infections in Immunocompromised Patients	0204-9999-22-965-H01-P	1.50 ACPE
Recertification Assessment Group 2 (TBD% passing score required)		5.0 BPS
Gastrointestinal and Intra-abdominal Infections	0204-9999-22-966-H01-P	1.50 ACPE
Viral Hepatitis	0204-9999-22-967-H01-P	2.00 ACPE
Tuberculosis and Other Mycobacterial Infections	0204-9999-22-968-H01-P	1.50 ACPE
Recertification Assessment Group 3 (TBD% passing score required)		5.0 BPS
Cardiovascular Infections	0204-9999-22-969-H01-P	1.50 ACPE
Urinary Tract Infections	0204-9999-22-970-H01-P	1.50 ACPE
Statistics, Evidence-based Medicine, and Research Design	0204-9999-22-905-H04-P	2.00 ACPE
Recertification Assessment Group 4 (TBD% passing score required)		5.0 BPS
Bone and Joint Infections and Skin and Soft Tissue Infections	0204-9999-22-971-H01-P	1.50 ACPE
Central Nervous System Infections	0204-9999-22-972-H01-P	1.50 ACPE
Clinical Microbiology	0204-9999-22-973-H01-P	2.00 ACPE
Recertification Assessment Group 5 (TBD% passing score required)		5.0 BPS

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Learning Objectives

After participating in these CPE activities, learners should be able to:

Antimicrobial Stewardship

ACPE #: 0204-9999-22-960-H01-P

- Outline components of an effective stewardship program.
- Select appropriate resources; relevant accreditation, legal, regulatory, and safety requirements; and quality metrics related to infectious diseases.
- Evaluate institutional treatment policies and pathways for compliance with antimicrobial stewardship guidelines, surveillance data, and best available evidence.
- Assess the effectiveness of infection prevention strategies.
- Identify metrics for evaluating the value of infectious diseases pharmacy services.

Upper Respiratory Tract Infections

ACPE #: 0204-9999-22-961-H01-P

- Assess pharmacotherapies for upper respiratory tract infections.
- Select the most appropriate pharmacotherapeutic plan and monitoring based on patient- and disease-specific information, antibiogram data, and best available evidence.
- Recommend modifications of patient-specific treatment plans based on efficacy and adverse effects.
- Identify recommended immunizations and potential adverse effects.

Lower Respiratory Tract Infections

ACPE #: 0204-9999-22-962-H01-P

- Assess pharmacotherapies for lower respiratory tract infections, including antimicrobial spectrum of activity, pharmacokinetics, and pharmacodynamics.
- Select the most appropriate pharmacotherapeutic plan and monitoring based on patient- and disease-specific information, antibiogram data, and best available evidence.
- Interpret signs, symptoms, and laboratory and other relevant diagnostic test results.
- Recommend the most appropriate modifications of patient-specific treatment plans based on efficacy, adverse effects, and follow-up assessment.
- Interpret biomedical literature with regard to study design and methodology, significance of reported data and conclusions, limitations, and applicability of study results to patients with lower respiratory tract infections.

HIV Infection and AIDS

ACPE #: 0204-9999-22-963-H02-P

- Assess pharmacotherapies for HIV-infection and AIDS, including opportunistic infections.
- Select the most appropriate pharmacotherapeutic plan and monitoring based on patient- and disease-specific information, antibiogram data, and best available evidence.
- List recommended immunizations and screening guidelines for patients with HIV.
- Recommend modifications of patient-specific treatment plans based on efficacy, drug interactions, immunologic or virologic response, and adverse effects.
- Interpret signs, symptoms, and laboratory and other relevant diagnostic test results related to HIV infection.
- Evaluate a plan to facilitate transitions of care.

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Infections of Reproductive Organs and Sexually Transmitted Diseases

ACPE #: 0204-9999-22-964-H01-P

- Assess pharmacotherapies for infections of reproductive organs and sexually transmitted diseases.
- Select the most appropriate pharmacotherapeutic plan and monitoring based on patient- and disease-specific information, antibiogram data, and best available evidence.
- Identify recommended screening guidelines for sexually-transmitted diseases.
- Recommend modifications of patient-specific treatment plans based on efficacy, immunologic response, and adverse effects.
- Interpret signs, symptoms, and laboratory and other relevant diagnostic test results.
- Summarize key considerations in effective patient and caregiver education and counseling techniques.

Opportunistic Infections in Immunocompromised Patients

ACPE #: 0204-9999-22-965-H01-P

- Assess the advantages and disadvantages of pharmacotherapies for opportunistic infections in immunocompromised patients, including antimicrobial spectrum of activity, pharmacokinetics, and pharmacodynamics.
- Select the most appropriate pharmacotherapeutic plan and monitoring based on patient- and disease-specific information and best available evidence.
- Interpret signs, symptoms, and laboratory and other relevant diagnostic test results.
- Recommend modifications of patient-specific treatment plans based on efficacy, immunologic response, and adverse effects.
- Identify preventative therapies in immunocompromised patients.

Gastrointestinal and Intra-abdominal Infections

ACPE #: 0204-9999-22-966-H01-P

- Assess pharmacotherapies for gastrointestinal and intra-abdominal infections, including antimicrobial spectrum of activity, pharmacokinetics, and pharmacodynamics.
- Select the most appropriate pharmacotherapeutic plan and monitoring based on patient- and disease-specific information, antibiogram data, and best available evidence.
- Interpret signs, symptoms, and laboratory and other relevant diagnostic test results.
- Recommend modifications of patient-specific treatment plans based on efficacy, immunologic response, and adverse effects.

Viral Hepatitis

ACPE #: 0204-9999-22-967-H01-P

- Assess pharmacotherapies for viral hepatitis, including relevant pharmacology and spectrum of activity.
- Select the most appropriate pharmacotherapeutic plan and monitoring based on patient- and disease-specific information, virus and genotype, and best available evidence.
- Interpret signs, symptoms, laboratory and other relevant diagnostic test results.
- Recommend modifications of patient-specific treatment plans based on efficacy, adverse effects, and drug interactions.
- Summarize key considerations in effective patient and caregiver education and counseling techniques.
- Identify screening guidelines and preventive therapies for viral hepatitis.

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Tuberculosis and Other Mycobacterial Infections

ACPE #: 0204-9999-22-968-H01-P

- Select the most appropriate pharmacotherapeutic plan and monitoring based on patient- and disease-specific information, antibiogram data, and best available evidence.
- Interpret signs, symptoms, laboratory and other relevant diagnostic test results.
- Recommend modifications of patient-specific treatment plans based on efficacy, adverse effects, and drug interactions.
- Outline key considerations in effective patient and caregiver education and counseling techniques.
- Identify screening guidelines and preventive therapies for tuberculosis and other mycobacterial infections.

Cardiovascular Infections

ACPE #: 0204-9999-22-969-H01-P

- Select the most appropriate pharmacotherapeutic plan and monitoring based on patient- and disease-specific information, antibiogram data, and best available evidence.
- Identify drug-related problems associated with the therapeutic plan.
- Recommend appropriate modifications of patient-specific pharmacotherapeutic plans based on efficacy and adverse effects.
- Interpret biomedical literature with regard to study design and methodology, significance of reported data and conclusions, limitations, and applicability of study results to patients with cardiovascular infections.

Urinary Tract Infections

ACPE #: 0204-9999-22-970-H01-P

- Assess pharmacotherapies for urinary tract infections, including antimicrobial spectrum of activity, pharmacokinetics, and pharmacodynamics.
- Select the most appropriate pharmacotherapeutic plan and monitoring based on patient- and disease-specific information, antibiogram data, and best available evidence.
- Interpret signs, symptoms, laboratory and other relevant diagnostic test results.
- Identify infectious diseases for which notification of the Centers for Disease Control and Prevention is required.

Statistics, Evidence-based Medicine, and Research Design

ACPE #: 0204-9999-22-905-H04-P

Given an excerpt from a study:

- Evaluate quality and appropriateness of the excerpt, with specific attention to:
 - study design,
 - statistical analysis,
 - internal/external validity
 - source of bias/confounders
 - quality of conclusions,
 - interpretation of graphs.
 - Explain why a statistical test is appropriate or not appropriate, based on the sample distribution, data type, and study design.
 - Interpret clinical and statistical significance for results from commonly used statistical tests.
 - Explain the strengths and limitations of different types of measures of central tendency (mean, median, and mode) and data spread (standard deviation, standard error of the mean, range, and interquartile range).
 - Evaluate odds ratio, risk/incidence rate, relative risk, number needed to treat, number needed to harm, and other risk estimates.
 - Assess whether the study applies to a specified patient population.
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Bone and Joint Infections and Skin and Soft Tissue Infections

ACPE #: 0204-9999-22-971-H01-P

- Assess the advantages and disadvantages of pharmacotherapies for bone and joint infections and skin and soft tissue infections, including antimicrobial spectrum of activity, pharmacokinetics, and pharmacodynamics.
- Select the most appropriate pharmacotherapeutic plan and monitoring based on patient- and disease-specific information, antibiogram data, and best available evidence.
- Identify drug-related problems associated with the therapeutic plan.
- Interpret signs, symptoms, and laboratory and other relevant diagnostic test results.
- Recommend appropriate modifications of patient-specific pharmacotherapeutic plans based on efficacy and adverse effects.
- Describe the etiology, diagnosis, and treatment of acute bacterial osteomyelitis and septic arthritis in pediatric patients.

Central Nervous System Infections

ACPE #: 0204-9999-22-972-H01-P

- Assess pharmacotherapies for central nervous system infections, including antimicrobial spectrum of activity, pharmacokinetics, and pharmacodynamics.
- Select the most appropriate pharmacotherapeutic plan and monitoring based on patient- and disease-specific information, antibiogram data, and best available evidence.
- Interpret signs, symptoms, and laboratory and other relevant diagnostic test results.
- Identify preventive therapies for central nervous system infections.

Clinical Microbiology

ACPE #: 0204-9999-22-973-H01-P

- Explain the mechanisms of antimicrobial resistance among various pathogens.
- Identify basic microbiology laboratory procedures.
- Interpret laboratory and other diagnostic test results relevant to the diagnosis, management, and monitoring of patients with infectious diseases.
- Evaluate biomedical literature with regard to study design and methodology specific to infectious diseases.

Faculty (<https://www.rxcertifications.org/Infectious-Diseases/Course-Faculty>)

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Disclosures

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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.

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

- Kevin Garey: Research grant, Paratek Pharmaceuticals
- David Koren: Advisor, Gilead; Independent Contractor, Abbvie
- Jason Schafer: Advisor/research grant, Merck; Research grant, Gilead
- Kayla Stover: Advisory Board, Cidara Therapeutics

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

As required by the Standards of Integrity and Independence in Accredited Continuing Education, all relevant financial relationships have been mitigated prior to the CPE activity.

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

ASHP collaborates with ACCP on infectious diseases activities.