

**** Materials for this course will be released on 06/26/2019 ****

Infectious Diseases Pharmacy Specialty Review Course PACKAGE (No Recert Credit (Cert # L199171))

Teaser: This online course will help you earn BCIDP recertification credit. With this course, you will 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: 05/29/2019

Content Release Date: 06/26/2019

Expiration Date: 06/23/2020

Activity Type: Application-based

CE Credits: 25.00 (ACPE)

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

Accreditation for Pharmacists



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

Target Audience

This activity is part of the ASHP Infectious Diseases Pharmacy Specialty Review Course, which is designed for pharmacists seeking to update their knowledge and skills in preparation for board certification.

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

This online course consists of 15 activities (see table below) and provides up to 25 hours of continuing pharmacy education credit.

For full program information, please visit <http://elearning.ashp.org/catalog/ID-review>

Learning Activity	ACPE Number	Credit Hours	ACPE Expiration Date
Infectious Diseases Pharmacy Specialty Review Course: Antimicrobial Stewardship	0204-9999-19-959-H01-P	1.50	6/26/2022
Infectious Diseases Pharmacy Specialty Review Course: Upper Respiratory Tract Infections	0204-9999-19-969-H01-P	2.00	
Infectious Diseases Pharmacy Specialty Review Course: Lower Respiratory Tract Infections	0204-9999-19-966-H01-P	1.50	
Infectious Diseases Pharmacy Specialty Review Course: HIV Infection and AIDS	0204-9999-19-972-H02-P	2.00	
Infectious Diseases Pharmacy Specialty Review Course: Infections of Reproductive Organs and Sexually-Transmitted Diseases	0204-9999-19-965-H01-P	1.50	
Infectious Diseases Pharmacy Specialty Review Course: Opportunistic Infections in Immunocompromised Patients	0204-9999-19-960-H01-P	1.50	
Infectious Diseases Pharmacy Specialty Review Course: Gastrointestinal and Intra-abdominal Infections	0204-9999-19-964-H01-P	1.50	
Infectious Diseases Pharmacy Specialty Review Course: Viral Hepatitis	0204-9999-19-971-H01-P	2.00	
Infectious Diseases Pharmacy Specialty Review Course: Tuberculosis and Other Mycobacterial Infections	0204-9999-19-968-H01-P	1.50	
Infectious Diseases Pharmacy Specialty Review Course: Cardiovascular Infections	0204-9999-19-961-H01-P	1.50	
Infectious Diseases Pharmacy Specialty Review Course: Urinary Tract Infections	0204-9999-19-970-H01-P	1.50	
Statistics, Evidence-based Medicine, and Research Design	0204-9999-19-908-H04-P	2.00	
Infectious Diseases Pharmacy Specialty Review Course: Bone and Joint Infections and Skin and Soft Tissue Infections	0204-9999-19-967-H01-P	1.50	
Infectious Diseases Pharmacy Specialty Review Course: Central Nervous System Infections	0204-9999-19-962-H01-P	1.50	
Infectious Diseases Pharmacy Specialty Review Course: Clinical Microbiology	0204-9999-19-963-H01-P	2.00	

Learning Objectives

After participating in this CPE activity, learners should be able to:

Antimicrobial Stewardship

ACPE # 0204-9999-19-959-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 and control strategies.
- Identify metrics for evaluating the value of infectious disease pharmacy services.

Upper Respiratory Tract Infections

ACPE # 0204-9999-19-969-H01-P

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

Lower Respiratory Tract Infections

ACPE # 0204-9999-19-966-H01-P

- Assess available 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 # 0204-9999-19-972-H02-P

- Assess available 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.
- Identify recommended immunizations and screening guidelines for patients with HIV.
- Recommend appropriate modifications of patient-specific treatment plans based on efficacy, drug interactions, immunologic 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.

Infections of Reproductive Organs and Sexually-Transmitted Diseases

ACPE # 0204-9999-19-965-H01-P

- Assess available 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 appropriate 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.
- Outline key considerations in effective patient and caregiver education and counseling techniques.

Opportunistic Infections in Immunocompromised Patients

ACPE # 0204-9999-19-960-H01-P

- Assess the advantages and disadvantages of available 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, antibiogram data, and best available evidence.
- Interpret signs, symptoms, and laboratory and other relevant diagnostic test results.
- Recommend appropriate modifications of patient-specific pharmacotherapeutic plans based on efficacy, immunologic response, and adverse effects.
- Identify preventative therapies in immunocompromised patients.

Gastrointestinal and Intra-abdominal Infections

ACPE # 0204-9999-19-964-H01-P

- Assess available 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 appropriate modifications of patient-specific treatment plans based on efficacy, immunologic response, and adverse effects.

Viral Hepatitis

ACPE # 0204-9999-19-971-H01-P

- Assess available 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 appropriate 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 viral hepatitis.

Tuberculosis and Other Mycobacterial Infections

ACPE # 0204-9999-19-968-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 appropriate 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 # 0204-9999-19-961-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 # 0204-9999-19-970-H01-P

- Assess available 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, 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 # 0204-9999-19-908-H04-P

- Given an excerpt from a study, determine quality and appropriateness of the excerpt, with specific attention to:
 - Study design
 - Statistical analysis
 - Internal/external validity
 - Sources of bias/confounders
 - Quality of conclusions
 - Interpretation of graphs from given studies
- Determine clinical and statistical significance based on specified excerpts of studies
- Determine why a statistical test is appropriate or not, given the sample distribution, data type, and study design
- Interpret statistical significance for results from commonly used statistical tests
- Describe 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)
- Define and evaluate odds ratio (OR), risk/incidence rate, relative risk (RR), number needed to treat (NNT), number needed to harm (NNH), and other risk estimates
- Determine whether the study applies to a specified patient population

Bone and Joint Infections and Skin and Soft Tissue Infections

ACPE # 0204-9999-19-967-H01-P

- Assess the advantages and disadvantages of available 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 # 0204-9999-19-962-H01-P

- Assess available 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 # 0204-9999-19-963-H01-P

- Characterize 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.

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- Angela Huang: Consultant, Shionogi; Research grant recipient and Consultant, Merck & Company
- Jason J. Schafer: Advisory Board, Theratechnologies; Research grant recipient, Merck & Company
- Samuel L. Aitken: Advisory board, Gram Negative Advisory Panel, Merck & Company
- Kevin W. Garey: Research grant recipient, Merck & 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

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Infectious Diseases Pharmacy Specialty
Review Course Package



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