2020 Infectious Diseases Pharmacy Preparatory Review and Recertification Course

Learning Objectives

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

Antimicrobial Stewardship
ACPE Number: 0204-9999-20-946-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 Number: 0204-9999-20-947-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 Number: 0204-9999-20-948-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
0204-9999-20-949-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.
- Identify recommended immunizations and screening guidelines for patients with HIV.

- Recommend 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
0204-9999-20-950-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.
- Outline key considerations in effective patient and caregiver education and counseling techniques.

Opportunistic Infections in Immunocompromised Patients
0204-9999-20-951-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
0204-9999-20-952-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
0204-9999-20-953-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.
- 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
0204-9999-20-954-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
0204-9999-20-955-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 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
0204-9999-20-956-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
0204-9999-20-908-H04-P
- Evaluate quality and appropriateness, with specific attention to study design, statistical analysis, internal/external validity, source of bias/confounders, and quality of conclusions and 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.
- Determine whether the study applies to a specified patient population.

Bone and Joint Infections and Skin and Soft Tissue Infections
0204-9999-20-958-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 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
0204-9999-20-959-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
0204-9999-20-960-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.