

CE Activity Announcement

Clinical Skills Certificate for International Pharmacy

ACPE Activity Number(s): 0204-0000-18-726-H01 thru to 0204-0000-18-742-H01

Release Date: September 5, 2018

Expiration Date: September 5, 2021

CE Credit Hour(s) (*no partial credit*): 22.0 hours

Fees: Member: \$395.00 / Nonmember: \$495.00; modules are not available for individual purchase.

Accreditation for Pharmacists



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

Target Audience

This program is intended for pharmacists who are interested in gaining the foundational knowledge necessary to provide clinical pharmacy services in their practice settings. Participants will be assumed to have the required pharmacy content knowledge but not necessarily the education-related knowledge and skills included in this program.

Activity Overview

These modules are designed to teach fundamental concepts of patient-centered clinical skills for pharmacists practicing or trained outside of the United States of America. The curriculum will cover core principles of clinical pharmacy practice and patient care roles of pharmacists. The course will present pharmacist-led activities in key clinical areas. After completing all of the modules, participants will have the foundational knowledge necessary to provide clinical pharmacy services in their practice settings.

Learning Objectives and Schedule of Activities

Activity CE Information	Title, Description, and Learning Objectives
<p>ACPE #: 0204-0000-18-726-H01-P</p> <p>Credit Hours: 2.0</p> <p>Activity Type: Knowledge-based</p>	<p>Title: Orientation to Clinical Pharmacy Practice</p> <p>This module is a general overview of clinical pharmacy practice including the history of hospital pharmacy and an introduction to the roles and responsibilities of acute and ambulatory care clinical pharmacists.</p> <p>Learning Objectives:</p> <ul style="list-style-type: none"> • Describe the history, evolution, and way forward of clinical pharmacy practice. • Explain the standards of practice for a hospital clinical pharmacist in the United States of America. • Discuss how ambulatory care pharmacists address the provision of integrated, accessible healthcare services for ambulatory patients in a wide variety of settings, including community pharmacies, clinic, and physician offices. • Identify the importance of supporting futuristic practice models that support the most effective use of pharmacists as direct patient care providers.

CE Activity Announcement

<p>ACPE #: 0204-0000-18-727-H01-P</p> <p>Credit Hours: 1.5</p> <p>Activity Type: Knowledge-based</p>	<p>Title: Pharmacists as Caregivers</p> <p>This module describes the role of the pharmacist on patient care teams and describes tools used by pharmacists including the electronic health record and drug information resources.</p> <p>Learning Objectives:</p> <ul style="list-style-type: none"> • Describe the role of the clinical pharmacist on the patient care team. • Discuss information obtained from the patient medical record to develop drug therapy recommendations. • Identify drug information resources available to assist clinical pharmacists. • Describe strategies to monitor and document patient response to pharmacotherapy interventions using a patient medical record.
<p>ACPE #: 0204-0000-18-728-H01-P</p> <p>Credit Hours: 2.25</p> <p>Activity Type: Knowledge-based</p>	<p>Title: Evidence-based medicine for clinical decision making</p> <p>This module describes components of evidence-based medicine including biostatistics calculations and reviews how pharmacists can use this information when making clinical decisions.</p> <p>Learning Objectives:</p> <ul style="list-style-type: none"> • Describe the elements of evidence-based medicine. • Evaluate study design for appropriateness and limitations. • Assess clinical practice guidelines for validity and applicability. • Solve biostatistics calculations.
<p>ACPE #: 0204-0000-18-729-H01-P</p> <p>Credit Hours: 0.75</p> <p>Activity Type: Knowledge-based</p>	<p>Title: Pharmacokinetics</p> <p>This module discusses medication pharmacokinetics and pharmacodynamics; a core component of medication dosing, monitoring, and appropriate medication therapy management.</p> <p>Learning Objectives:</p> <ul style="list-style-type: none"> • Describe clinical pharmacodynamics as it relates to medication dosing. • Describe the role of pharmacokinetics in therapeutic drug monitoring in medications such as vancomycin and aminoglycosides. • Discuss the difference between pharmacokinetics and pharmacodynamics.

CE Activity Announcement

<p>ACPE #: 0204-0000-18-730-H01-P</p> <p>Credit Hours: 0.5</p> <p>Activity Type: Knowledge-based</p>	<p>Title: Pharmacists' Roles in Transitions of Care</p> <p>This module discusses the role of pharmacists in transitions of care between different settings and explains the steps to complete a medication history and reconciliation at admission and discharge.</p> <p>Learning Objectives:</p> <ul style="list-style-type: none"> • Describe the role of the pharmacist in care transitions between multiple settings. • Explain the steps to complete a medication history and medication reconciliation. • Describe evidence supporting the role of pharmacists in admission and discharge medication reconciliation.
<p>ACPE #: 0204-0000-18-731-H01-P</p> <p>Credit Hours: 1.25</p> <p>Activity Type: Knowledge-based</p>	<p>Title: Infectious Diseases</p> <p>This module explains the role of pharmacist in antimicrobial stewardship programs and covers common infectious diseases and medications, including vancomycin and aminoglycosides.</p> <p>Learning Objectives:</p> <ul style="list-style-type: none"> • Explain the role a hospital clinical pharmacist plays in the management in common infectious diseases. • Discuss antimicrobial medications and protocols directly managed by a pharmacist. • Describe elements of a hospital antimicrobial stewardship program.
<p>ACPE #: 0204-0000-18-732-H01-P</p> <p>Credit Hours: 1.5</p> <p>Activity Type: Knowledge-based</p>	<p>Title: Cardiovascular Pharmacotherapy</p> <p>This module describes the pharmacotherapy and management of acute and chronic cardiovascular disease states including hypertension, dyslipidemia, heart failure, arrhythmias, and stroke.</p> <p>Learning Objectives:</p> <ul style="list-style-type: none"> • Discuss medications used to treat hypertension and dyslipidemia by pharmacologic class. • List first-line medications that are used in Acute Coronary Syndromes (ACS), Cerebrovascular Accident (CVA), and Transient Ischemic Attack (TIA). • Describe rate vs. rhythm control strategies and pharmacological agents used. • Identify differences of anticoagulants used in Venous Thromboembolism (VTE) and Atrial Fibrillation (AFib). • Summarize appropriate pharmacological treatment of acute/chronic heart failure.

CE Activity Announcement

<p>ACPE #: 0204-0000-18-733-H01-P</p> <p>Credit Hours: 2.0</p> <p>Activity Type: Knowledge-based</p>	<p>Title: Fluids and Electrolytes</p> <p>This module discusses the composition of body fluids in adults and properties of intravenous fluids. The activity explains fluid and electrolyte disturbances and recommended pharmacotherapy interventions.</p> <p>Learning Objectives:</p> <ul style="list-style-type: none"> • Describe the distribution of total body fluid in a healthy adult and the expected distribution of various intravenous fluids. • List examples of a hypotonic fluid, isotonic fluid, and hypertonic fluid. • Identify electrolyte abnormalities and recommend pharmacotherapy interventions based on patient criteria.
<p>ACPE #: 0204-0000-18-734-H01-P</p> <p>Credit Hours: 1.0</p> <p>Activity Type: Knowledge-based</p>	<p>Title: Gastrointestinal Disorders</p> <p>This module describes the pharmacotherapy and management of gastrointestinal disorders and disease states including constipation, diarrhea, gastroesophageal reflux disease, and inflammatory bowel disease.</p> <p>Learning Objectives:</p> <ul style="list-style-type: none"> • Identify medications that can cause constipation, diarrhea, and nausea and vomiting. • List medications used to treat constipation, diarrhea, and nausea and vomiting. • Distinguish between different pharmacologic classes of medications used to treat Gastroesophageal Reflux Disease (GERD). • Identify medications used in Inflammatory Bowel Disease (IBD) and list potential adverse effects. • Recognize appropriate treatment for a patient admitted with a Gastrointestinal (GI) Bleed.
<p>ACPE #: 0204-0000-18-735-H01-P</p> <p>Credit Hours: 1.0</p> <p>Activity Type: Knowledge-based</p>	<p>Title: Make Rheum for the Swelling</p> <p>This module describes the overview, main causes, and recommended pharmacotherapy for osteoarthritis, gout, and rheumatoid arthritis.</p> <p>Learning Objectives:</p> <ul style="list-style-type: none"> • Identify the main causes for osteoarthritis, gout, and rheumatoid arthritis. • Describe the most common treatments for osteoarthritis, gout, and rheumatoid arthritis. • Explain clinical rationale for drug selection in patient cases. • Recognize an appropriate treatment for a nothing by mouth (NPO) patient.

CE Activity Announcement

<p>ACPE #: 0204-0000-18-736-H01-P</p> <p>Credit Hours: 0.75</p> <p>Activity Type: Knowledge-based</p>	<p>Title: Diabetes Pharmacotherapy</p> <p>This module describes pharmacotherapy and management of diabetes mellitus. The module discusses Type 1 and Type 2 diabetes, and hyperglycemic crises, including diabetic ketoacidosis, hyperosmolar hyperglycemic state, and hypoglycemia.</p> <p>Learning Objectives:</p> <ul style="list-style-type: none"> • Describe the difference between type 1 and type 2 diabetes. • Identify different classes of medications used to treat diabetes. • Explain how to reduce hypoglycemia and proper treatment of hypoglycemia if needed. • Define Diabetic Ketoacidosis (DKA) and Hyperosmolar Hyperglycemic State (HHS). • List first-line medication treatment for DKA and HHS.
<p>ACPE #: 0204-0000-18-737-H01-P</p> <p>Credit Hours: 1.5</p> <p>Activity Type: Knowledge-based</p>	<p>Title: Neurological Disorders and Pain Management</p> <p>This module discusses the initial assessment and management of neurologic disorders and pain management. The activity describes the role of clinical pharmacists in stroke, mental health, and opioid stewardship.</p> <p>Learning Objectives:</p> <ul style="list-style-type: none"> • Discuss initial assessment and management of acute stroke. • Explain the role of a clinical pharmacist in the management of mental health disorders. • Indicate the role of common analgesics in managing pain for patients in the hospital setting. • Describe the clinical pharmacist's evolving role in pain management (e.g. opioid stewardship, ICU delirium, Naloxone rescue).
<p>ACPE #: 0204-0000-18-738-H01-P</p> <p>Credit Hours: 2.5</p> <p>Activity Type: Knowledge-based</p>	<p>Title: Pulmonary Disorders</p> <p>This module describes the pharmacotherapy and management of pulmonary disorders, including asthma and chronic obstructive pulmonary disease.</p> <p>Learning Objectives:</p> <ul style="list-style-type: none"> • Discuss severity and control for asthma and chronic obstructive pulmonary disease. • Identify safety and tolerability concerns with medications used for asthma and chronic obstructive pulmonary disease. • Select appropriate pharmacotherapy for a patient with asthma and chronic obstructive pulmonary disease.

CE Activity Announcement

<p>ACPE #: 0204-0000-18-739-H01-P</p> <p>Credit Hours: 0.5</p> <p>Activity Type: Knowledge-based</p>	<p>Title: Coping with Chemotherapy</p> <p>This module discusses the identification and management of chemotherapy side effects, including chemotherapy induced nausea and vomiting, dermatologic toxicities from epithelial growth factor receptors, and immune-mediated toxicities.</p> <p>Learning Objectives:</p> <ul style="list-style-type: none"> • Identify the risk of chemotherapy induced nausea and vomiting (CINV) based on emetogenic potential and patient risk factors. • Discuss guideline-based recommendations for management of chemotherapy side effects including: chemotherapy induced nausea and vomiting, dermatologic toxicities from epithelial growth factor receptors (EGFRs), immune mediated toxicities. • Explain clinical rationale for side effect management in clinical cases.
<p>ACPE #: 0204-0000-18-740-H01-P</p> <p>Credit Hours: 0.25</p> <p>Activity Type: Knowledge-based</p>	<p>Title: Dermatologic Disorders</p> <p>This a module describes pathology, pharmacotherapy, and patient counseling topics for common skin disorders, including psoriasis, dermatitis, acne, and drug induced skin disorders.</p> <p>Learning Objectives:</p> <ul style="list-style-type: none"> • Describe the pathology of common skin disorders. • List medications for common skin disorders. • Discuss topics to cover when counseling patients about dermatologic skin products. • Select appropriate skin care products based on patient symptoms.
<p>ACPE #: 0204-0000-18-741-H01-P</p> <p>Credit Hours: 1.25</p> <p>Activity Type: Knowledge-based</p>	<p>Title: Special Populations</p> <p>This module describes considerations for medication management in special populations, including pediatrics, geriatrics, women, and men.</p> <p>Learning Objectives:</p> <ul style="list-style-type: none"> • Describe the differences in pharmacokinetics in geriatric populations. • Describe the differences in pharmacokinetics in pediatric populations. • List medications on the BEERs criteria. • Describe age-related dosing in pediatric populations. • Discuss pregnancy and lactation drug references and resources.



CE Activity Announcement

<p>ACPE #: 0204-0000-18-742-H01-P</p> <p>Credit Hours: 1.5</p> <p>Activity Type: Knowledge-based</p>	<p>Clinical Pharmacist Mindset: I am a Leader</p> <p>This module explains the importance of leadership in individual professional development, achieving the organization’s strategic priorities, and advancing the profession of pharmacy.</p> <p>Learning Objectives:</p> <ul style="list-style-type: none">• Explain the reasons for identifying top strategic priorities in your organization.• Describe opportunities to advance pharmacy technician roles.• Identify an opportunity for professional development to be a more influential and effective leader.
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Faculty Information

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Disclosures

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A **commercial interest** is any entity producing, marketing, re-selling, or distributing healthcare goods or services consumed by, or used on, patients. The Standards for Commercial Support do not consider providers of clinical services directly to patients to be commercial interest.

All planners, presenters, reviewers, and staff report no financial relationships relevant to this activity.



CE Activity Announcement

Methods and CE Requirements

This online activity consists of a combined total of 17 learning modules. Pharmacists are eligible to receive a total of 22.0 hours of continuing education credit by completing all 17 modules within this certificate program.

Participants must participate in the entire activity and complete the evaluation to earn continuing pharmacy education credit. Follow the prompts online at the ASHP eLearning portal (<http://elearning.ashp.org>) to claim credit and view statements of credit within 60 days of completing the activity. Credits will be reported directly to CPE Monitor. To verify that you have completed the required steps and to ensure your credits hours have been reported to CPE Monitor, we encourage you to check your NABP eProfile account to validate your credits were transferred successfully before the ACPE 60-day deadline. After the 60 day deadline, ASHP will no longer be able to award credit.

System Technical Requirements

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

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

Acknowledgements of Support

This activity was planned and developed by The American Society of Health-System Pharmacists.