

Materials for this course will release 06/22/2022

Cardiology Pharmacy Specialty Review Course - includes Workbook (No Recert Credit (Cert # L229235))

Teaser: This online Specialty Review Course, Practice Exam, and Workbook package will help you prepare for the Board of Pharmacy Specialty (BPS) examination. With this course, get comprehensive, practical guidance, with a variety of complex cases, including references for further study.

Tag: Certifications; Cardiology



ACPE Numbers: Various – see listing below

Pre-Sale Date: 05/25/2022

Content Release Date: 06/22/2022

Expiration Date: 05/30/2023

Activity Type: Application-based

CE Credits: 23.75 contact hours (ACPE only)

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

Accreditation for Pharmacists



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

Target Audience

These activities are intended for pharmacists who are seeking to update their knowledge and skills commensurate with a board certification examination in the areas listed below.

Activity Overview

This online course provides a robust preparatory curriculum for the pharmacy professional preparing for the Board of Pharmacy Specialties (BPS) Cardiology Pharmacy Specialty Certification Examination. Designed based on the domains, tasks, and knowledge statements developed by the BPS for the certification examination, this course will help you prepare for the exam by identifying areas needed for in-depth review of cardiology issues by:

- Reviewing pertinent clinical topics and practice skills
- Providing exam practice questions
- Listing valuable references for further study

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

These activities are part of the ASHP and ACCP professional development program.

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REVIEW COURSE

This course consists of 16 activities (see table below) and provides up to 23.75 contact hours of continuing pharmacy education credit. The Review Course includes case-based presentations for application to real-life scenarios, a practice exam along with correct answers, and links to the reference sources, and domains, tasks, and knowledge statements. The practice questions in the same format and rigor to help you prepare for the BPS Specialty Examination.

Learning Activity	ACPE Number	Contact Hours	ACPE Expiration Date
Primary Prevention of Cardiovascular Disease and Public Health	0217-9999-22-094-H01-P	1.5	06/22/25
Dyslipidemia	0217-9999-22-095-H01-P	1.5	
Blood Pressure Management in Adult Patients	0217-9999-22-096-H01-P	1.5	
Stable Atherosclerotic Disease	0217-9999-22-097-H01-P	1.5	
Anticoagulation	0217-9999-22-098-H01-P	1.5	
Arrhythmias	0217-9999-22-099-H01-P	1.5	
Drug-Induced Cardiovascular Disease and Drugs to Avoid in Cardiovascular Disease	0217-9999-22-100-H01-P	1.5	
Chronic Heart Failure	0217-9999-22-101-H01-P	1.5	
Acute Decompensated Heart Failure	0217-9999-22-102-H01-P	1.5	
Heart Transplant and Mechanical Circulatory Support	0217-9999-22-103-H01-P	1.5	
Acute Coronary Syndrome	0217-9999-22-104-H01-P	1.5	
Cardiovascular Emergencies	0217-9999-22-105-H01-P	1.5	
Pulmonary Arterial Hypertension	0217-9999-22-106-H01-P	1.25	
Specialized Topics in Cardiovascular Disease	0217-9999-22-107-H01-P	1.5	
Translation of Evidence into Practice	0217-9999-22-108-H99-P	1.5	
Principles of Cardiology Pharmacy Practice Administration	0217-9999-22-109-H04-P	1.5	

Learning Objectives

At the end of this activity, you will be able to:

Primary Prevention of Cardiovascular Disease and Public Health

ACPE #: 0217-9999-22-094-H01-P

- Identify pharmacotherapeutic agents that reduce the risk of developing cardiovascular disease (CVD).
- Develop a treatment plan that incorporates lifestyle modifications and evidence-based pharmacotherapy to reduce the risk of an index cardiovascular event for a given patient scenario.
- Develop a tobacco cessation treatment plan for a patient who requests assistance for a quit attempt.
- Evaluate a given patient scenario to determine CVD risk and recommend appropriate lipid therapy.
- Determine appropriate patients to recommend initiation of aspirin therapy for the primary prevention of CVD.
- Counsel a patient on appropriate complementary and alternative pharmacotherapeutic agents to optimize CVD risk reduction, including vitamin D and omega-3 fatty acids.

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Dyslipidemia

ACPE #: 0217-9999-22-095-H01-P

- Describe the role of cholesterol and lipoproteins in the development of atherosclerotic cardiovascular disease (ASCVD).
- Evaluate a patient's ASCVD risk by appropriately using the 10-year ASCVD Risk Pooled Cohort Equations and optional risk enhancers.
- Establish goals of therapy for the management of blood cholesterol, including statin intensity, and create a monitoring plan for patients receiving lipid-lowering therapies.
- Develop an appropriate treatment regimen for patients who are statin intolerant or unable to achieve goals of therapy on maximally tolerated statin therapy, according to the 2018 Guideline on the Management of Blood Cholesterol.
- Identify appropriate indications for the use of triglyceride-lowering therapies to manage hypertriglyceridemia.
- Evaluate the needs of special populations (e.g., those with diabetes, older adults, those with kidney disease), and adapt treatment strategies to optimize outcomes.

Blood Pressure Management in Adult Patients

ACPE #: 0217-9999-22-096-H01-P

- Develop an optimal pharmacologic treatment plan for a patient with hypertension (HTN) according to practice guidelines and clinical trial evidence.
- Demonstrate appropriate drug selection and blood pressure goals for the treatment of HTN according to concomitant conditions and compelling indications.
- Devise an evidence-based treatment strategy for resistant HTN to achieve blood pressure goals.
- Construct appropriate drug therapy plans for the treatment of hypotension and/or antihypertensive drug related adverse events.

Stable Atherosclerotic Disease

ACPE #: 0217-9999-22-097-H01-P

- Recommend patient-specific pharmacologic therapy for the management of stable ischemic heart disease (SIHD).
- Differentiate between the antianginal options for a patient with refractory angina.
- Develop an optimal pharmacologic regimen and monitoring plan for patients with peripheral arterial disease (PAD) considering individual patient symptomatology and characteristics.
- Develop an evidence-based pharmacologic regimen for secondary prevention of ischemic stroke and transient ischemic attack (TIA).
- Recommend risk factor modification strategies to prevent a recurrent event for patients with SIHD, PAD, and ischemic stroke/TIA.

Anticoagulation

ACPE #: 0217-9999-22-098-H01-P

- Recommend a patient-specific pharmacotherapy plan to reduce the risk of stroke in patients with atrial fibrillation (AF).
- Devise an evidence-based pharmacotherapy plan for preventing and treating venous thromboembolism (VTE).
- Analyze the need for anticoagulation in patients with AF or VTE.
- Determine appropriate reversal strategies for patients at risk of bleeding, or actively bleeding while receiving anticoagulation therapy.
- Determine appropriate selection and dosing of anticoagulant therapy on the basis of patient-specific factors and drug interactions.
- Evaluate literature and clinical implications of data for patients receiving anticoagulant agents.

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Arrhythmias

ACPE #: 0217-9999-22-099-H01-P

- Describe the principles of basic electrocardiogram (ECG) interpretation.
- Distinguish risk factors and etiologies, clinical features, signs and symptoms, and goals of therapy of sinus bradycardia, atrial fibrillation (AF), supraventricular tachycardia (SVT) (including Wolff-Parkinson-White syndrome [WPW]), premature ventricular complexes (PVCs), and ventricular tachycardia (VT).
- Compare and contrast appropriate pharmacologic and nonpharmacologic treatment options for the management of sinus bradycardia, AF, SVT, PVCs, and VT.
- Compare and contrast the mechanisms of action of drugs used for ventricular rate control and conversion to and maintenance of sinus rhythm in patients with AF.
- Recommend strategies to improve transitions of care between inpatient and outpatient settings for patients on antiarrhythmic drugs.
- Develop evidence-based patient-specific pharmacotherapy plans for patients with symptomatic sinus bradycardia, AF, SVT (including WPW), PVCs, and VT.
- Assess common and important drug-drug interactions and adverse effects associated with drugs used for the management of arrhythmias and their complications.

Drug-Induced Cardiovascular Disease and Drugs to Avoid in Cardiovascular Disease

ACPE #: 0217-9999-22-100-H01-P

- Identify potential drug-induced cardiovascular diseases.
- Analyze a medication list to determine causative agents for common drug-induced cardiovascular diseases.
- Evaluate potential medications that can contribute to the development of torsades de pointes.
- Review anticancer therapies that cause cardiovascular toxicities.
- Evaluate patient characteristics and laboratory values to assess the risk of heparin-induced thrombocytopenia and develop an appropriate treatment plan.

Chronic Heart Failure

ACPE #: 0217-9999-22-101-H01-P

- Given a patient with heart failure (HF), describe the classifications, staging, clinical presentation, etiologies, and diagnostic considerations.
- Describe the pathophysiology of HF, focusing on the role that neurohormonal and other vasoactive agents play in HF progression.
- Given a patient with chronic HF, devise an appropriate pharmacologic and nonpharmacologic therapeutic plan, with an emphasis on guideline-directed therapy and management.
- Given a patient with chronic HF and several comorbidities, devise an appropriate evidence-based pharmacotherapy plan addressing specific comorbidities related to HF.

Acute Decompensated Heart Failure

ACPE #: 0217-9999-22-102-H01-P

- Classify a patient with acute decompensated heart failure (ADHF) into a hemodynamic subset based on signs/symptoms, laboratory values, and hemodynamic measures obtained via pulmonary artery catheter (PAC) monitoring.
- Design an initial pharmacotherapeutic treatment and monitoring plan for a patient with ADHF based on hemodynamic subset.
- Devise a modified treatment and monitoring plan in a patient with ADHF and diuretic resistance.
- Compare and contrast the use of intravenous (IV) vasodilators and positive inotropes in the treatment of ADHF, and among the agents within each drug class.
- List strategies for reducing the risk of heart failure (HF) readmission among patients recovering from ADHF.

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Heart Transplant and Mechanical Circulatory Support

ACPE #: 0217-9999-22-103-H01-P

- Evaluate levels of risk in the heart transplant candidate.
- Derive rational peri- and postoperative rejection mitigation strategies in heart transplant recipients.
- Devise effective thromboprophylactic strategies for patients receiving percutaneous ventricular assist device support.
- Construct safe and effective drug therapy regimens for patients receiving extracorporeal membrane oxygenation support.
- Design effective treatment plans for patients with complications of durable left ventricular assist device therapy.

Acute Coronary Syndrome

ACPE #: 0217-9999-22-104-H01-P

- Distinguish between reperfusion strategies for acute coronary syndrome (ACS): ST-segment elevation myocardial infarction (STEMI) and non-ST-segment elevation (NSTEMI) ACS.
- Devise a pharmacotherapeutic treatment plan for a patient with STEMI undergoing primary percutaneous coronary intervention (PCI) and for a patient with NSTEMI-ACS undergoing an early invasive or ischemia-guided approach.
- Differentiate between the best possible pharmacologic options for preventing thrombotic events in the acute management of ACS.
- Analyze differences in evidence, pharmacology, pharmacokinetics, drug-drug interactions, monitoring, and adverse events between the P2Y₁₂ inhibitors and anticoagulants used in ACS management.
- Devise an individualized evidence-based treatment plan for patients in need of secondary prevention post-ACS, including mortality-reducing therapies.

Cardiovascular Emergencies

ACPE #: 0217-9999-22-105-H01-P

- Choose appropriate management pathways/treatment for a patient with cardiac arrest according to patient presentation.
- Differentiate between the various categories of shock.
- Select the optimal management strategies for the various types of shock.
- Construct a pharmacotherapy regimen for the various hypertensive crises.
- Select an appropriate management plan for a patient presenting with acute aortic syndrome.
- Design a pharmacotherapy plan for the management of acute ischemic stroke.

Pulmonary Arterial Hypertension

ACPE #: 0217-9999-22-106-H01-P

- Describe the classification of pulmonary hypertension and implications for treatment.
- Discuss the importance of pulmonary arterial hypertension (PAH) pathobiology and the role of various pathways as treatment targets in the development of PAH-specific treatment.
- Define treatment goals for the management of PAH.
- Outline targeted medications for PAH, including indications, dosing, monitoring, and their place within current treatment algorithms.
- Identify common adverse effects and drug interactions associated with PAH medications.
- Highlight appropriate treatment approaches for the management of decompensated PAH.
- Design a treatment plan for a patient with PAH.

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Specialized Topics in Cardiovascular Disease

ACPE #: 0217-9999-22-107-H01-P

- Recommend empiric antibiotic therapy for patients with suspected infective endocarditis (IE).
- Develop a therapeutic plan regarding medication therapy for patients with IE or patients requiring prophylactic therapy for IE prevention.
- Identify patients who require IE prophylactic therapy.
- Develop a treatment plan for patients with pericarditis.
- Recommend appropriate therapy for patients with myocarditis.
- Plan a medication therapy regimen for patients with valvular heart disease.

Translation of Evidence into Practice

ACPE #: 0217-9999-22-108-H99-P

- Identify different types of data (nominal, ordinal, continuous) to determine the appropriate type of statistical test (parametric vs. nonparametric).
- Select appropriate statistical tests based on the anticipated sample distribution, data type, and study design.
- Identify the most appropriate study design to answer a given research question.
- Describe the key tenets of internal and external validity of cardiovascular-related trials.
- Describe the advantages and disadvantages of surrogate and composite outcomes in cardiovascular studies.

Principles of Cardiology Pharmacy Practice Administration

ACPE #: 0217-9999-22-109-H04-P

- Develop policies, procedures, and clinical protocols related to the medication use process.
- Identify formulary management activities to improve the prescribing of safe, effective, and affordable treatments in an organization.
- Describe strategies to plan for and respond safely and efficiently to drug product shortages.
- List high-risk medications and medication-related processes that are suited for a medication use evaluation (MUE) and be capable of managing the MUE process.
- Describe national quality initiatives and regulatory requirements aimed at improving health care delivery and patient health outcomes.
- Review pharmacoeconomic principles and their application to patient care.
- Compare a medication error, adverse drug event (ADE), adverse drug reaction (ADR), and preventable ADE.
- Design an ADE reporting program, including committee structure, committee reporting mechanisms, and methods of detecting, reporting, and managing ADEs.

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

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TBD

Disclosures

In accordance with our accreditor's Standards of Integrity and Independence in Accredited Continuing Education, ASHP requires that all individuals in control of content disclose all financial relationships with ineligible companies. An individual has a relevant financial relationship if they have had a financial relationship with an ineligible company in any dollar amount in the past 24 months and the educational content that the individual controls is related to the business lines or products of the ineligible company.

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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.

TBD

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

ACCP and ASHP collaborate on cardiology pharmacy activities.

To maintain its strict, independent standards for certification, BPS does NOT endorse or provide review information, preparatory courses, or study guides for Board Certification Examinations.