Examination Specifications
Cardiology Pharmacy
Board of Pharmacy Specialties

Name of Credential	BPS Board-Certified Cardiology Pharmacist
Certification-Issuing Body	Board of Pharmacy Specialties
Designation Awarded	BCCP
Level of Proficiency	Specialty Certification
Target Population	Pharmacists who specialize in direct patient care to ensure safe and effective use of medications in patients with cardiovascular disease, as members of interprofessional health care teams
Program Purpose	To validate that the pharmacist has the advanced knowledge and experience to optimize patient outcomes by focusing on cardiovascular disease prevention and treatment
Examination Length	150 items, which includes 125 scored items and 25 unscored items
Administration Time	3 Hours and 45 Minutes
ECO Creation Date	May 2021

This document serves as examination specifications and certification scheme according to the respective requirements of the NCCA and ISO-IEC 17024 standards. For more information about the BCCP examination program, please refer to the candidates guide on the BPS website: www.bpsweb.org.

Eligibility Requirements

An individual must meet all three requirements listed:

- Graduation from a pharmacy program accredited by the Accreditation Council for Pharmacy Education (ACPE) or a program outside the U.S. that qualifies the individual to practice in the jurisdiction.
- A current, active license/registration to practice pharmacy in the U.S. or another jurisdiction.
- One of the following within the past 7 years:
    - At least 4 years of Cardiology Pharmacy practice experience[1], with at least 50% of time spent in the scope defined by the exam content outline
    - Successful completion of PGY1 pharmacy residency[2], plus at least 2 years of Cardiology Pharmacy practice experience[1] with at least 50% of time spent in the scope defined by the exam content outline
    - Successful completion of PGY2 pharmacy residency[2] in Cardiology Pharmacy

[1]All practice experience must be completed post-licensure/registration as a pharmacist. All applicants intending to demonstrate eligibility for any BPS certification examination utilizing the practice experience pathway must provide an attestation from their employer, on company letterhead, that verifies this experience accurately represents at least 50% of time spent in some or all of the activities defined by the applicable certification content outline. In addition, this practice experience must have occurred within the seven years immediately preceding the application. For more information, click here. A sample employer verification letter is available here.

[2]Residency programs must be accredited by or deemed candidate status by the American Society of Health-System Pharmacists (ASHP) for PGY1, PGY2, and International Pharmacy Practice Residency Programs, or accredited by the Canadian Pharmacy Residency Board (CPRB) for year-1 programs.

The rationale for the appropriateness of the requirements for BPS certification programs are based upon the following:

- *BPS recognizes individuals who graduate from a recognized school or college of pharmacy within the candidate's jurisdiction. Those jurisdictions recognize and evaluate programs on the extent to which it accomplishes its stated goals and is consistent with the concept that pharmacy is a unique, personal service profession in the health science field. In the United States, the responsibility for recognizing schools and colleges of pharmacy falls to the Accreditation Council for Pharmacy Education (ACPE).*
- *The rationale for requiring licensure or registration of pharmacists within their jurisdiction is based upon the fact that for public protection, all pharmacists must be licensed or registered. This is considered a baseline requirement to be a pharmacist specialist. In the United States, BPS recognizes the licensure process administered by the National Association of Boards of Pharmacy (NABP). The National Association of Boards of Pharmacy (NABP) aims to ensure the public's health and safety through its pharmacist license transfer and pharmacist competence assessment programs. NABP's member boards of pharmacy are grouped into eight districts that include all 50 United States, the District of Columbia, Guam, Puerto Rico, the Virgin Islands, Bahamas, and all 10 Canadian provinces.*
- *The experiential component is required to help assure practical application of components of the specialty knowledge being certified. There are multiple pathways to meet the practice experience requirement. The faster eligibility pathways recognize accredited residencies through the American Society of Health System Pharmacists (ASHP). The ASHP residency accreditation program identifies and grants public recognition to practice sites having pharmacy residency training programs that have been evaluated and found to meet the qualifications of one of the ASHP's residency accreditations standards. Thus, accreditation of a pharmacy residency program provides a means of assurance to residency applicants that a program meets certain basic requirements and is, therefore, an acceptable site for postgraduate training in pharmacy practice in organized health care.*
- *Passing the BPS pharmacy specialty examination helps assure knowledge consistent with the validated content outline for the BPS specialty.*

The appropriateness of the BPS program requirements are consistent with the Council on Credentialing in Pharmacy's Resource Paper titled: Scope of Contemporary Pharmacy Practice: Roles, Responsibilities, and Functions of Pharmacists and Pharmacy Technicians.

Examination Content Outline

1	**Patient Care and Therapeutics** *Comprehensive management of a patient with, or at risk for, chronic and/or acute cardiovascular disease including collecting, interpreting, and integrating pertinent data; and designing, implementing, monitoring, and modifying patient-specific plans of care in collaboration with the multidisciplinary healthcare team*	**70%**
1.1	Collect, analyze, and integrate patient-specific information necessary to design a pharmacotherapeutic plan for a patient with or at risk for cardiovascular disease	
1.2	Design, modify, recommend, and implement a patient-specific pharmacotherapeutic plan for an individual with or at risk for cardiovascular disease based on previously collected, analyzed, and integrated patient-specific information as well as clinical evidence	
1.3	Educate patients and caregivers on and assess their comprehension of the patient-specific cardiovascular pharmacotherapeutic plan	
1.4	Facilitate transitions of care between inpatient and outpatient settings for the patient with or at risk for cardiovascular disease	
2	**Translation of Evidence into Practice** *Analysis, prioritization, interpretation, and application of knowledge relative to patients with, or at risk for, cardiovascular disease*	**20%**
2.1	Apply knowledge of the appropriate design and conduct of clinical trials involving patients with or at risk for cardiovascular disease	
2.2	Evaluate and critique cardiovascular literature including study design and methodology, statistical analysis, significance of reported data, and conclusions and applicability of results to patients with or at risk for cardiovascular disease.	
2.3	Identify and evaluate landmark clinical trials and apply the results to patients with or at risk for cardiovascular disease	
2.4	Interpret and apply pertinent cardiovascular guideline recommendations to patients with or at risk for cardiovascular disease	
3	**Practice Management and Population Health** *establishing, implementing, maintaining, and evaluating systems and policies to optimize the care of patient groups with, or at risk for, cardiovascular disease*	**10%**
3.1	Develop, implement, review, and modify policies, procedures, clinical pathways, protocols, and formulary decisions used in the care of patients with or at risk for cardiovascular disease	
3.2	Participate in the establishment and utilization of data management systems (e.g., electronic health records, data warehouses) to ensure the safe and effective use of cardiovascular medications in groups or populations of patients	
3.3	Promote and ensure the appropriate use of cardiovascular medications	
3.4	Apply pharmacoeconomic principles to optimize clinical and humanistic outcomes for patients with or at risk for cardiovascular disease	
3.5	Educate and guide the public regarding health services, avoidance and management of risk factors, and/or lifestyle modifications for the prevention of cardiovascular disease	

The examination content outline is a product of a job analysis (aka role delineation study) that includes facilitation of discussions with a representative panel of 15-20 subject matter experts who identify competencies required for safe and effective pharmacy practice in this specialty area as well as a validation survey soliciting endorsement of the identified competencies from certified pharmacists in this specialty area. The job analysis process is conducted every 5 years to help ensure that the competencies in the examination content outline reflect current pharmacy practice in the specialty area.

Secondary Classification Scheme: Associated Knowledge Areas

1	**Patient Care and Therapeutics**
1.1	Epidemiology, pathophysiology, risk factors, diagnosis, and treatment of chronic and/or acute cardiovascular disease states, such as atherosclerotic disease, dysrhythmias, heart failure
1.1.1	*Diagnostic testing*
1.1.2	*Lifestyle modifications*
1.1.3	*Patient-specific clinical and socioeconomic considerations*
1.1.4	*Therapeutic monitoring*
1.1.5	*Risk stratification scores*
1.1.6	*Transitions of care*
1.2	Pharmacotherapeutics for patients with, or at risk for, cardiovascular disease
1.2.1	*Pharmacokinetics*
1.2.2	*Pharmacodynamics*
1.2.3	*Efficacy and safety monitoring*
1.2.4	*Drug interactions*
1.2.5	*Pharmacogenomics*
1.3	Interdisciplinary communication, patient counseling and education techniques
1.4	Complementary and alternative medicines and their effects on cardiovascular health
2	**Translation of Evidence into Practice**
2.1	Primary, secondary, and tertiary sources of cardiovascular-related literature
2.2	Research design and methodology of cardiovascular-related trials
2.3	Biostatistical methods used in cardiovascular-related trials
2.4	Internal and external validity of cardiovascular-related trials
2.5	Benefits, limitations, and rationale for the selection of cardiovascular-related study endpoints
2.6	Landmark clinical trials evaluating pharmacotherapy for the management or prevention of cardiovascular diseases
2.7	Evidence-based guidelines for the management or prevention of cardiovascular diseases
2.8	Hierarchy of evidence related to the management or prevention of cardiovascular diseases
3	**Practice Management and Population Health**
3.1	Methods of developing, implementing, and evaluating clinical pathways, order sets, protocols, and/or policies
3.2	Techniques and methods to improve safety (e.g., incident reports, root cause analysis)
3.3	Formulary development and management, including strategies for managing drug shortages
3.4	Formatting, capabilities, limitations, and appropriate use of population-based electronic reports for clinical decision-making and quality improvement initiatives in cohorts of patients
3.5	Accreditation, legal, regulatory and safety requirements related to the care of cardiovascular patients (e.g., The Joint Commission, ASHP, Center for Medicare and Medicaid Services, National Committee for Quality Assurance, State Boards of Pharmacy, US Food and Drug Administration)
3.6	Processes supporting restrictions and contraindications of high-risk cardiovascular medications (e.g., initiation of antiarrhythmic medications, critical drug interactions between narrow therapeutic index medications, approval criteria of high-cost or high-risk medications)
3.7	Assessment of value of cardiovascular medications (e.g., relative impact on clinical outcomes, quality adjusted life year, incremental cost effectiveness ratio)
3.8	Cardiovascular screening techniques, health promotion, disease prevention, and risk reduction

Maintenance of Certification

Recertification Requirements	Credential-holders will be required to maintain their certification over a 7-year period by completing one of the following recertification pathways:
	
	Option One: Recertification Examination
	• BCCP with certification cycle beginning January 1, 2023 or earlier: Achieve a passing score on the examination
	• BCCP with certification cycle beginning January 1, 2024 or later: Achieve a passing score on the specialty certification examination and report 20 units of continuing professional development (CPD) (assessed CPE can also satisfy this requirement) by the end of the 7-year recertification cycle
	
	Option Two: Professional Development Program
	• BCCP with certification cycle beginning January 1, 2023 or earlier: Complete 100 units of BPS-approved, assessed continuing pharmacy education (CPE) provided by the professional development programs offered by:
	  ○ The American College of Clinical Pharmacy (ACCP) in collaboration with the American Society of Health-System Pharmacists (ASHP)
	• BCCP with certification cycle beginning January 1, 2024 or later: Earn 100 units, comprised of at least 80 units of assessed CPE from BPS-approved professional development programs and up to 20 units of self-reported CPD (assessed CPE can also satisfy this requirement), by the end of the 7-year recertification cycle. Assessed CPE is provided by the professional development programs offered by:
	  ○ The American College of Clinical Pharmacy (ACCP) in collaboration with the American Society of Health-System Pharmacists (ASHP)
	
	To maintain an active certification in good standing, a minimum of two units of BPS-approved, assessed CPE or self-reported CPD must be reported each year. Credential-holders may participate in recertification from any BPS-approved programs identified for the credential.

Ethics and Professionalism	The Board of Pharmacy Specialties ascribes to the belief that certification carries an obligation for ethical behavior and professionalism necessary in all conduct. Candidates or certificants who are found to have exhibited unethical behavior or lack of professionalism may be prevented from pursuing certification or may be subject to suspension or withdrawal of certification, at the discretion of the Board of Pharmacy Specialties. Please refer to the BPS Ethics and Professionalism Policy: https://www.bpsweb.org/wp-content/uploads/2015/11/ethics.pdf