

CREDENTIALING IN PHARMACY: A RESOURCE PAPER

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The Council on Credentialing in Pharmacy

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Mission: The Council on Credentialing in Pharmacy provides leadership, guidance, public information, and coordination for the profession of pharmacy's credentialing programs.

Vision Statement: The vision of the Council on Credentialing in Pharmacy is that all credentialing programs in pharmacy will meet established standards of quality and contribute to improvement in patient care and the overall public health.

INTRODUCTION

The credentialing of pharmacists and pharmacy technicians is an important topic in the pharmacy profession. Discussions about credentialing, inherently complex, have been further complicated by the lack of a common lexicon. Many different words are used to describe the process by which health care practitioners are educated, trained, licensed, and otherwise recognized for their competence and achievements. In addition, many different organizations, public and private, are involved in assessing pharmacists' and pharmacy technicians' knowledge and skill, granting credentials, and accrediting educational programs and institutions.

As pharmacy becomes more integral to the therapy decision-making and patient monitoring activities within the health care system (institutional and community based), employers, other care providers, patients, and health care payers need to better understand and appreciate the breadth and depth of pharmacist and pharmacy technician education and training and the myriad postgraduate education and training

opportunities available to pharmacists. More importantly, those within and outside the profession must share a common language and understanding of credentials so they can make educated, rational decisions regarding scope of practice, privileging, referral, and eligibility for compensation. A clear understanding of the knowledge, skill, attitudes, and values of contemporary pharmacists and pharmacy technicians and the meaning of the various credentials held by them will lead to a more effective health care workforce deployment, appropriate privileging and responsibility assignments, equitable compensation mechanisms, and improved quality of patient care.

Council on Credentialing in Pharmacy

Founded in 1999, the Council on Credentialing in Pharmacy (CCP) is a coalition of 12 national pharmacy organizations committed to providing leadership, guidance, public information, and coordination for credentialing programs in or relevant to pharmacy. Current CCP member organizations are as follows:

- Academy of Managed Care Pharmacy (AMCP)
- Accreditation Council for Pharmacy Education (ACPE)
- American Association of Colleges of Pharmacy (AAP)
- American College of Apothecaries (ACA)
- American College of Clinical Pharmacy (ACCP)
- American Pharmacists Association (APhA)
- American Society of Consultant Pharmacists (ASCP)
- American Society of Health-System Pharmacists (ASHP)
- Board of Pharmacy Specialties (BPS)
- Commission for Certification in Geriatric Pharmacy (CCGP)
- Institute for the Certification of Pharmacy Technicians (ICPT)
- Pharmacy Technician Educators Council (PTEC)

Purposes of the Resource Paper

This resource paper provides for those within and outside the profession an overview of the spectrum and current status of education and credentialing

¹ The November 2010 version updates and supersedes the version published in July 2006.

activities and processes for pharmacy personnel (pharmacists and pharmacy technicians). It also provides a common frame of reference and understanding for discussions concerning pharmacist and pharmacy technician credentialing and seeks to identify issues to consider as the credentialing of pharmacy professionals evolves and matures.

The resource paper begins with definitions of several terms that are essential to any discussion of credentialing, followed by a short section highlighting the importance of credentialing in pharmacy. The next three sections, which form the body of the paper, discuss in detail the three categories of credentials that pharmacists may earn:

- credentials needed to prepare for practice (i.e., academic degrees);
- credentials needed to enter practice (i.e., licensure) and to update professional knowledge and skill (i.e., re-licensure) under state law; and
- credentials voluntarily earned by pharmacists to document their specialized or advanced knowledge and skill (i.e., postgraduate degrees, certificates, and certification).

Each section contains, as applicable, information about the credential awarded, the training site, whether the credential is voluntary or mandatory, the credentialing body, and the agency that accredits the organization, site, or program. Particular attention is given to pharmacist certification programs, an area that has engendered much of the current interest in pharmacist credentialing.

The paper also includes a brief section on the credentialing of pharmacy technicians. It concludes with six appendices. Appendix A contains a comprehensive glossary of key terms applicable to credentialing. Appendix B is an alphabetic list of the organizations involved in credentialing and the organization, site, or program accreditation. The list contains names, addresses, and URLs (uniform resource locators).

Appendix C provides a tabular overview of various voluntary credentialing programs available to pharmacists as of the last revision of this paper. Appendix D contains the educational outcomes, goals, and objectives for 18 postgraduate year two (PGY2) pharmacy residencies. Appendix E contains a list of the specialties recognized by the Board of Pharmacy Specialties (BPS). Finally, Appendix F provides information on CCP's framework for the education, training, and certification of pharmacy technicians.

A separate resource paper, titled "Scope of Contemporary Pharmacy Practice: Roles, Responsibilities, and Functions of Pharmacists and Pharmacy Technicians," was developed and published by CCP in 2009. This resource paper is available at http://www.pharmacycredentialing.org/ccp/Contemporary_Pharmacy_Practice.pdf.

Taken together, these two resource papers seek to provide the most current and comprehensive description of the interconnected topics of the contemporary scope of practice of the profession and the credentialing framework that supports the practice.

Essential Definitions

Discussions of credentialing are often complicated by a lack of common understanding of key terms and the contexts in which they are used. To clarify these misunderstandings, it is essential to distinguish between processes (e.g., credentialing) and titles (a credential). Distinctions must also be made between processes that focus on individuals (e.g., credentialing and certification) and those that focus on organizations, sites, or programs (accreditation). Finally, it is essential to understand that for practicing pharmacists, some credentials are required (e.g., an academic degree or a state license), whereas others are earned voluntarily (e.g., certification).

Beyond these distinctions, it is also necessary to understand the definitions

of the words that commonly occur in discussions of credentialing and to be able to distinguish the sometimes-subtle differences among them. A comprehensive glossary of such words and their definitions appears in Appendix A. The following definitions are provided because an understanding of these terms is a prerequisite to any meaningful discussion of credentialing in pharmacy.

- **A credential** is documented evidence of professional qualifications. Credentials include diplomas, licenses, certificates, and certifications. Credentials are reflected in a variety of abbreviations that individuals place after their names. For instance, Pharm.D. is used for doctor of pharmacy, which is an earned academic degree, and R.Ph. is for registered pharmacist, which indicates state licensure. Acronyms such as BCNSP are for Board-Certified Nutrition Support Pharmacist, which indicates that an individual has demonstrated advanced knowledge or skill in a specialized area of pharmacy, and CPhT indicates that a pharmacy technician has passed a national certification examination).
- **Credentialing** is (1) the process of granting a credential (a designation that indicates qualifications in a subject or an area) and (2) the process by which an organization or institution obtains, verifies, and assesses an individual's qualifications to provide patient care services. (See also Privileging.)
- **Accreditation** is the process by which an association, organization, or governmental agency grants public recognition to an organization,² site, or program that meets certain established qualifications or standards, as determined through initial and periodic evaluations.

² The term *organization* is used in a broad sense, and it includes, for example, institutions, corporations, universities, colleges, schools, and health systems.

- A **certificate** is a document issued to an individual after the successful completion of a predetermined level of performance of a certificate program or of a pharmacy residency or fellowship.
- A **statement of continuing education credit** is a document issued to an individual after the completion of a continuing education (CE) program provided by an organization accredited by the Accreditation Council for Pharmacy Education (ACPE).
- **Certification** is a voluntary process by which a nongovernmental agency or an association grants recognition to an individual who has met certain predetermined qualifications specified by that organization. This formal recognition is granted to designate to the public that the individual has attained the requisite level of knowledge, skill, and/or experience in a well-defined, often specialized, area of the total discipline. Certification usually requires initial assessment and periodic reassessments of the individual's knowledge, skill, and/or experience.
- **Privileging** is the process by which a health care organization, having reviewed an individual health care provider's credentials and performance and found them satisfactory, authorizes that individual to perform a specific scope of patient care services within that organization.

IMPORTANCE OF CREDENTIALS IN PHARMACY

“Credential” and “credentialing,” like “creed” and “credence,” derive from the Latin verb *credere*, which means “to trust,” “to entrust,” or “to believe.” Credentials indicate that a pharmacist or pharmacy technician holds the qualifications needed to practice in the pharmacy profession and is therefore worthy of the trust of patients, other health care professionals, and society as a whole.

In the pharmacy profession, the interest in credentials has been catalyzed in recent years by several factors. First among them are the pace of change and the increasing complexity of health care. A second factor is the pharmacist's expanding patient-centered role. Interest in credentialing has likewise been stimulated by the growing trend toward specialization in pharmacy practice and the need to document the pharmacist's ability to provide specialty care. Another contributing factor has been the need to assure the public, employers, payers, other health providers, and other pharmacists that practitioners are competent no matter where they are in their careers or where they practice.

Finally, economic realities enter the picture. Pharmacists who provide cognitive services or specialized care should receive compensation for their services. Similarly, payers rightfully expect and deserve to receive validation that pharmacists are qualified to provide such services. Credentials, and in many cases, more specifically, certification, can help provide the documentation required by Medicare and Medicaid, managed care organizations, and other third-party payers of pharmacists today and in the future.

OVERVIEW OF CREDENTIALING IN PHARMACY – PHARMACISTS

Introduction

Pharmacist credentials may be divided into three fundamental categories.

- **College and university degrees** are awarded to mark the successful completion of a pharmacist's academic training and education.
- **Licensure** indicates that the pharmacist has met the minimum requirements established by the state in which he or she intends to practice.
- **Postgraduate degrees and certificates** are awarded to pharmacists

who have completed programs of various types (e.g., residencies) that are intended to develop and enhance their knowledge and skill or to those who have successfully documented a specialized level of knowledge and skill through an assessment process.

Figure 1 illustrates these three categories of pharmacist credentialing. The sections that follow provide information on each credential offered in pharmacy; the credentialing, certification, or accreditation body involved; whether the credential is mandatory or voluntary; and other related information.

Preparing for the Pharmacy Profession

- **Credential earned: Doctor of pharmacy degree.** Before June 2004, pharmacy graduates were eligible to sit for state licensing examinations with a bachelor's of science degree in pharmacy or a doctor of pharmacy degree from an accredited professional degree program. Since June 2004, only the doctor of pharmacy degree has been awarded by U.S. colleges and schools of pharmacy. A program leading to the doctor of pharmacy degree is the equivalent of 4 academic years and includes didactic, small group, laboratory, simulation, and experiential instruction. Admission to the doctoral-level program requires not less than 2 years of appropriate pre-professional, collegiate-level study, with some programs requiring a bachelor's of science degree.
 - **Credential awarded by: College or school of pharmacy**
 - **Accreditation body for professional programs in pharmacy: ACPE** (formerly the American Council on Pharmaceutical Education). The U.S. Department of Education has recognized the ACPE accreditation of the professional degree program in pharmacy.
- Until fall 2001, an individual who

wished to become a pharmacist could enroll in a program of study that would lead to one of two degrees: a bachelor's of science degree in pharmacy (B.S. Pharm. or Pharm. B.S.) or a doctor of pharmacy (Pharm.D.) degree.

Standards for the accreditation of programs leading to the Pharm.D. degree as the sole professional degree in pharmacy were adopted in July 1997 and were first effective in July 2000. Accreditation of baccalaureate degree programs in pharmacy ceased in June 2004. The most current accreditation standards for Pharm.D. programs became effective July 1, 2007. Accreditation standards for professional degree programs in pharmacy are revised on a regular basis, normally every 5–7 years.

Pharm.D. programs typically involve 4 academic years of doctoral-level study that follows appropriate collegiate-level, pre-professional study. A few programs offer the professional education over 3 calendar years of full-time education. Some colleges and schools of pharmacy admit students into a 6-year academic program that combines the pre-professional and professional elements of the Pharm.D. degree. The Accreditation Standards and Guidelines for the Professional Program in Pharmacy Leading to the Doctor of Pharmacy Degree may be found at <http://www.acpe-accredit.org/standards/standards1.asp>.

State boards of pharmacy require a Pharm.D. or B.S. degree from a program approved by the boards (usually an ACPE-accredited program) to satisfy the educational requirements for a candidate to be eligible to take the state licensing examination. A listing of accredited professional programs offered by colleges and schools of pharmacy is published by ACPE and is available on the ACPE Web site (www.acpe-accredit.org). Graduates with foreign pharmacy degrees may also be eligible for licensure as a pharmacist through the Foreign Pharmacy Graduate Examination Committee (FPGEC) certification

process of the National Association of Boards of Pharmacy (NABP). Full details of this process may be found on the NABP Web site, www.nabp.net.

Entering Practice and Updating Professional Knowledge and Skill

- Credentials earned: Licensure as an R.Ph.; re-licensure to continue practicing over time
- Credential awarded by: State board of pharmacy
- Licensure process overseen by: State regulatory authorities

Pharmacy, like medicine and the other health professions, is regulated at the state level by state boards of pharmacy. Candidates are licensed to practice after (1) graduating from a college or school of pharmacy approved by the board; (2) completing a minimum number of hours of experience in practice; and (3) passing licensing examinations.

Candidates for licensure in all states must pass the North American Pharmacist Licensure Examination (NAPLEX), a computer-adaptive, competency-based examination that assesses the candidate's ability to apply knowledge gained in pharmacy school to real-life practice situations. Most states also require candidates to take a state-specific pharmacy law examination. Currently, 46 jurisdictions employ the Multistate Pharmacy Jurisprudence Examination (MPJE), a computer-adaptive assessment that tailors each examination to address federal pharmacy law as well as the pharmacy law and regulations of the state in which the candidate is seeking licensure.

Both the NAPLEX and the MPJE are developed by NABP for use by the boards of pharmacy as part of their assessment of competence to practice pharmacy.³ Development of these

3 FPGEC also operates under the auspices of NABP. FPGEC oversees the development of the Foreign Pharmacy Graduate Equivalency Examination (FPGEE) and evaluates the

examinations is directly related to NABP's mission, which is to assist its member boards and jurisdictions in developing, implementing, and enforcing uniform standards for protecting the public health. The NAPLEX and MPJE examinations are administered by appointment, daily, throughout the year at a system of test centers located in all 50 states.

In addition to the NAPLEX and MPJE, some states require a laboratory examination or an oral examination before licensure is conferred. All state boards also require that candidates complete an internship before being licensed. The internship may be completed during the candidate's academic training, after graduation, or as a combination process, depending on state requirements.

State licensure indicates that the individual has attained the basic (entry-to-practice) level of competence necessary to ensure that the public health and welfare will be reasonably well protected. Individuals who have received a license may use the abbreviation R.Ph. or other designation authorized by the board of pharmacy after their names.

All 50 state boards of pharmacy require that registered pharmacists complete a minimum number of hours or continuing education units (CEUs) as a condition for renewing their licenses. The hours or CEUs must be earned either through participating in a CE activity whose provider has been accredited by ACPE or through a program or activity that has been otherwise approved by the state board. The ACPE Accreditation Standards for Continuing Pharmacy Education may be found at <http://www.acpe-accredit.org/ceproviders/standards.asp>.

ACPE accredits *providers* of CE,

qualifications of foreign pharmacy graduates who apply for FPGEC certification. FPGEC certification is one of the prerequisites for foreign pharmacy graduates wishing to sit for NAPLEX and apply for licensure.

not individual CE activities. Hours or CEUs may be obtained by attending accredited or approved educational seminars, teleconferences, and meetings; reading journal articles; or completing traditional home study courses or computer-based educational activities. Achievement of a satisfactory score on an assessment that is created by and submitted to the CE provider is generally required as documentation that a CE activity has been completed. ACPE publishes a directory of accredited providers of continuing pharmacy education (CPE), available on the ACPE Web site (www.acpe-accredit.org).

Licensure and licensure renewal are mandatory for pharmacists who wish to continue practicing their profession. In their regulatory role, state boards of pharmacy are ultimately responsible to the administrative and legislative bodies of the state.

Developing and Enhancing Knowledge and Skill

Pharmacists who wish to broaden and deepen their knowledge and skill may participate in a variety of postgraduate education and training opportunities. They include the following.

- **Academic Postgraduate Education and Training Programs** – Pharmacists who wish to pursue a certain field of study in depth may enroll in a postgraduate master's or doctor of philosophy (Ph.D.) degree program. Common fields of study for master's degree candidates include pharmacy or business administration and public health. Common fields for Ph.D. degree studies include pharmacology, pharmaceuticals, pharmaceutical and medicinal chemistry, pharmacotherapeutics, pharmacy practice, and social and administrative sciences. For more information about graduate programs offered by U.S. colleges and schools of pharmacy, see <http://www.aacp.org/site/page.as>

p?VID=1&CID=71&DID=3078&TrackID.

Pharmacists holding bachelor's of science degrees in pharmacy who have been in the pharmacy workforce may also return to a college or school of pharmacy to earn the Pharm.D. degree. These programs, which are tailored to the individual's background and experience, may follow nontraditional pathways; however, they must produce the same educational outcomes as traditional Pharm.D. degree programs.

Residencies

- Credential earned: Residency certificate
- Credential awarded by: Residency training program
- Program accreditation: The American Society of Health-System Pharmacists (ASHP) (independently or in collaboration with other pharmacy organizations)

A postgraduate year one pharmacy residency (PGY1) training program is an organized, directed, accredited program that builds on the knowledge, skill, attitudes, and abilities gained from an accredited professional pharmacy degree program. The first-year residency program (PGY1) enhances general competencies in managing medication-use systems and supports optimal medication therapy outcomes for patients with a broad range of disease states. The PGY2 program follows a PGY1 pharmacy residency and increases the resident's depth of knowledge, skill, attitudes, and abilities to raise his or her level of expertise in medication therapy management and clinical leadership in a specialized area of focus. In practice areas where board certification exists, graduates are prepared to pursue such certification. Pharmacy residencies occur in a wide variety of settings and are usually 12 months in duration.

ASHP is the recognized accrediting body for residency programs in

pharmacy. The ASHP Commission on Credentialing (COC), which reports to the ASHP Board of Directors, is responsible for developing the standards for residency programs, administering the accreditation process, and making recommendations regarding the granting and continuation of accreditation. The COC consists of 18 appointed pharmacists who have served as residency program directors or preceptors and have represented a wide variety of practice settings, as well as two public members. ASHP has collaborated with several other pharmacy organizations to promote pharmacy residencies and to provide a wide variety of representation from the pharmacy community on the COC. Partner organizations include the Academy of Managed Care Pharmacy (AMCP), the American Pharmacists Association (APhA), the American College of Clinical Pharmacy (ACCP), and the American Association of Colleges of Pharmacy (AACP). Each of these organizations has a dedicated position on the COC.

Further information on accreditation standards for pharmacy residency training is available at <http://www.ashp.org/accreditation/>.

Most pharmacists who pursue residency training complete a PGY1 pharmacy residency. These residencies occur in a wide variety of settings such as hospitals, ambulatory care clinics, community/retail pharmacies, managed care organizations, home care, or long-term care organizations. However, all residents must meet six required outcomes of a PGY1 residency, and they are trained to be generalists in delivering patient-centered care and in providing pharmacy operations. Some of these residents will elect to continue their training and complete a PGY2 pharmacy residency in a specific area of focus (e.g., critical care, oncology, cardiology, pediatrics). Further information is provided in Appendix D.

The Centers for Medicare and

Medicaid Services (CMS), an agency of the federal government, recognizes ASHP in its role as the accrediting body for pharmacy residency training. Some ASHP-accredited residency programs may be eligible for pass-through funding from CMS as part of their cost accounting report for Medicare beneficiaries whose care is provided in hospitals (42 CFR 413.85 Hospital Inpatient Prospective Payment System Rules). The rules and regulations guiding this reimbursement policy are reviewed yearly by CMS and are subject to change.

- **Fellowships⁴**

- Credential earned: Fellowship certificate
- Credential awarded by: Fellowship training program
- Program accreditation: No accreditation body

A fellowship is a directed, highly individualized postgraduate program that prepares the participant to become an independent researcher in an area of pharmacy practice. Fellowship programs, like residencies, usually encompass 1–2 years. The programs are developed by colleges and schools of pharmacy, academic health centers, colleges and universities, and pharmaceutical manufacturers.

There is no accreditation body for fellowship programs; however, the ACCP Guidelines for Clinical Research Fellowship Training Programs provide a framework for peer review that

⁴ Several pharmacy organizations (e.g., AMCP, ACCP, APhA, ASHP) award the honorary title of “Fellow” to selected members as a means of publicly recognizing their contribution to the profession and/or their respective organizations. A “fellow of APhA,” for example, may use the letters “FAPhA” as a designation after his/her name and other credentials. The two differing uses of the word “fellow” – the one denoting an individual participating in a postgraduate research training program and the other denoting the receipt of an honorary title from an organization – should be understood and clearly distinguished.

fellowship programs may adopt voluntarily. The guidelines document is available at <http://www.accp.com/docs/positions/guidelines/pos15.pdf>.

- **Certificate Programs** (now officially referred to as practice-based CPE activities)

- Credential earned: Certificate of completion
- Credential awarded by: Educational institutions and companies, pharmacy organizations, and others
- Provider accreditation: ACPE

Under the supplementary accreditation standards in place from 1999 to 2008, ACPE defined a certificate program for pharmacists as a structured and systematic postgraduate CE experience that was smaller in magnitude and shorter in duration than degree programs. When ACPE implemented new accreditation standards for CPE in January 2009, the term *certificate program* was officially replaced with *practice-based CPE activities*, but providers were permitted to continue using the term for activities that met the criteria. In addition to didactic instruction, the design of certificate programs or practice-based CPE activities includes practice experiences, simulations, and/or other opportunities for demonstrating desired professional competencies. The length of any such activity is determined by its stated goals, desired professional competencies, and outcome measures, but it requires a minimum of 15 contact hours (1.5 CEUs). These activities are designed to instill, expand, or enhance practice competencies through the systematic acquisition of specified knowledge, skill, attitudes, and behaviors. Usually, they are relatively focused; for example, APhA offers programs in areas such as immunization delivery, medication therapy management, and the management of dyslipidemias, diabetes, and over-the-counter medications.

Practice-based CPE activities, often still referred to as certificate programs, are offered by national and state pharmacy organizations and by schools and colleges of pharmacy and other educational groups. These programs are often held in conjunction with the main educational meeting of an organization. ACPE accredits providers of such activities. The Accreditation Standards for Continuing Pharmacy Education are found at <http://www.acpe-accredit.org/ceproviders/standards.asp>.

- **Traineeships** – Traineeships, in contrast to certificate programs, are defined as intensive, individualized, structured postgraduate programs intended to equip the participant with the knowledge and skill needed to provide a high level of care to patients with various chronic diseases and conditions. Traineeships are generally of longer duration (about 5 days) and involve smaller groups of trainees than certificate programs. Some are offered on a competitive basis, with a corporate sponsor or other organization underwriting participants’ costs. Pharmacy organizations that offer traineeships include the American College of Apothecaries, the American Society of Consultant Pharmacists (ASCP), and ASHP’s Research and Education Foundation.

- **Certifications**

- Credential earned: Certification in area of practice
- Credential awarded by: BPS; Commission for Certification in Geriatric Pharmacy (CCGP)
- Provider accreditation: National Commission for Certifying Agencies (NCCA)

Certification is a credential granted to pharmacists and other health professionals who have demonstrated a level of competence in a specific and

relatively focused area of practice that exceeds the minimum requirements for licensure. Certification is granted on the basis of successful completion of rigorously developed eligibility criteria that include a written examination and, in some cases, an experiential component. Certification processes targeted exclusively to pharmacists are undertaken and overseen by BPS and CCGP.

The development of a certification program includes the following: (1) defining the area in which certification is offered (role delineation); (2) creating and administering a psychometrically valid examination; (3) identifying other criteria for awarding the credential (e.g., experience); and (4) identifying recertification criteria.

- *Role delineation.* First, define the area in which certification is to be offered. This is done through a process called role delineation or task analysis. An expert panel of individuals in the proposed subject area develops a survey instrument to assess how practitioners working in the area rate the importance, frequency, and criticality of specific activities in that practice. The instrument is then sent to a sample of pharmacists practicing in that field.
- *Development of content outline.* On the basis of responses to the survey, develop a content outline for the certification program.
- *Preparation of examination.* Develop the written examination component of the certification program on the basis of the content outline.
- *Other activities.* Take appropriate measures to ensure that the security and confidentiality of the testing process are maintained, that the examination and eligibility criteria are appropriate, and that the knowledge and skill of those who are certified do, in fact, reflect competence.

A professional testing company typically assists in developing both the role delineation and the examination to

ensure that the examination meets the professional standards of psychometric soundness and legal defensibility.

Certifying Agencies for Pharmacists Only—Two groups, BPS and CCGP, offer certification exclusively to pharmacists.

Board of Pharmacy Specialties (<http://www.bpsweb.org/>) — Established in 1976 by the APhA (then the American Pharmaceutical Association), the Board of Pharmacy Specialties (BPS) certifies pharmacists in six specialties: ambulatory care pharmacy, nuclear pharmacy, nutrition support pharmacy, oncology pharmacy, pharmacotherapy, and psychiatric pharmacy. Descriptions of each specialty area are provided in Appendix E. Pharmacists wishing to retain BPS certification must undergo recertification every 7 years. Since 2008, NCCA has accredited BPS specialty certification programs.

A new specialty is recognized by BPS after its review of a petition, usually submitted by one or more pharmacy organizations, which supports and justifies recognition of the specialty. This petition must meet criteria established by BPS. In making its decision, BPS obtains input from the profession and the public through a series of open hearings and other opportunities for comment.

An 11-member board that includes eight pharmacists, two health professionals who are not pharmacists, and one public/consumer member directs the work of BPS. A specialty council of six specialist members and three pharmacists not in the specialty directs the certification process for each specialty.

BPS examinations are administered with the assistance of an educational testing firm in a process that is psychometrically sound and legally defensible. Each of the six specialties has its own eligibility criteria, examination specifications, and recertification process. All six examinations occur on a single day once a year in about 50 sites worldwide.

In 1997, BPS introduced a method designed to recognize focused areas within recognized pharmacy specialties. A designation of “added qualifications” denotes that an individual has demonstrated an enhanced level of training and experience in one segment of a BPS-recognized specialty. Added qualifications are conferred on the basis of a portfolio review to qualified individuals who already hold BPS certification. Within the specialty of pharmacotherapy, infectious diseases and cardiology are the two areas of added qualifications approved by BPS.

Commission for Certification in Geriatric Pharmacy (<http://www.ccgp.org/>)

— In 1997, the ASCP Board of Directors voted to create CCGP (the Commission for Certification in Geriatric Pharmacy) to oversee a certification program in geriatric pharmacy practice. CCGP is a nonprofit corporation that is autonomous from ASCP. It has its own governing board of commissioners. The CCGP Board of Commissioners includes five pharmacist members, one physician member, one payer/employer member, one public/consumer member, and one liaison member from the ASCP Board of Directors.

To become certified, candidates are expected to be knowledgeable about the principles of geriatric pharmacotherapy and the provision of pharmaceutical care to the elderly. Pharmacists who meet CCGP’s requirements are entitled to use the designation Certified Geriatric Pharmacist, or CGP. Pharmacists who wish to retain their CGP credential must recertify every 5 years by successfully completing a written examination.

CCGP contracts with a professional testing firm to assist in conducting the role delineation or task analysis and in developing and administering the examination. The resulting process is psychometrically sound and legally defensible. CCGP is currently pursuing recognition of its examination and processes

by NCCA. The CGP certification examinations are administered twice a year at multiple locations in the United States, Canada, and Australia. CCGP publishes a candidate handbook that includes the content outline for the examination, eligibility criteria for taking the examination, and the policies and procedures of the certification program.

Multidisciplinary Certification Programs – An evolving array of certification programs is available to professionals from many health disciplines, including pharmacists. Areas in which such certification is available include diabetes education, anticoagulation therapy, pain management, lipid management, HIV/AIDS care, and asthma education. Some of these programs are in early stages of development.

Appendix C provides a listing of available pharmacist-specific and multidisciplinary certification programs available at the time of publication of this resource paper.

OVERVIEW OF CREDENTIALING IN PHARMACY – PHARMACY TECHNICIANS

A pharmacy technician assists in pharmacy activities that do not require the professional judgment of a pharmacist. For example, pharmacy technicians may accept prescription orders from patients, prepare labels, enter information in the pharmacy's computer system, and retrieve medications from inventory. The term *pharmacy technician* is used in a majority of states; however, other terms are also used to describe pharmacy support personnel carrying out functions similar to those previously described. As pharmacists assume a larger number of patient-centered roles, pharmacy technicians are increasingly responsible, under pharmacist supervision, for technical and distributive functions in pharmacies in all settings.

The exact functions and responsibilities of pharmacy technicians are defined by state laws and regulations and are also determined by the willingness of pharmacists to delegate the activities of their practice that do not require professional judgment. Pharmacy technicians always work under the supervision of a licensed pharmacist. The education and training, certification, and CE processes for pharmacy technicians are broadly similar in approach to those of pharmacists. There is, however, much wider variation among states in the regulation of and requirements for pharmacy technicians. There is also, at least presently, substantially less standardization in the education and training processes for pharmacy technicians than for pharmacists.

Education and Training

Most pharmacy technicians today have been trained on the job, either formally or informally. As the responsibilities of pharmacy technicians grow, however, more individuals are enrolling in formal training programs. These programs are generally affiliated with a vocational school, a community college, or a university, hospital, or another health care organization. Graduates of these programs may be awarded an associate's degree or a certificate of completion.

Not all states have education and training requirements for pharmacy technicians, but some states require board of pharmacy approval of the training program. ASHP is recognized within the pharmacy profession as offering programmatic accreditation of training programs for pharmacy technicians. Academic institutions that offer technician training programs are usually accredited by one or more institutional accreditors.

ASHP's Technician Training Programs Accreditation Regulations and Standards can be found at <http://www.ashp.org/technician/techregs.pdf>. Accreditation of technician training programs is voluntary in most states.

Regulation

State boards of pharmacy regulate the practice/work activities of pharmacy technicians. Regulatory approaches differ substantially among the states. Around 60% of states currently require registration or licensure of pharmacy technicians by the board of pharmacy. Virtually all state boards of pharmacy have amended their pharmacy practice acts and regulations in recent years, allowing an expanded role for pharmacy technicians in the delivery of pharmacy services. Further changes in the regulation of pharmacy technicians will inevitably occur as the practice of pharmacy continues to evolve.

Certification

• Pharmacy Technician Certification Board

The Pharmacy Technician Certification Board (PTCB) was established in 1995 as a national voluntary certification program for pharmacy technicians. It is governed by five organizations—APhA, ASHP, the Illinois Council of Health-System Pharmacists, the Michigan Pharmacists Association, and NABP.

In collaboration with testing experts, PTCB administers a national examination, the Pharmacy Technician Certification Examination (PTCE). The examination is designed to assess the candidate's knowledge and skill base for activities that are most commonly performed by a pharmacy technician, as determined by a national task analysis. Since 2006, the PTCB technician certification program has been accredited by NCCA.

PTCB administers the PTCE year-round Monday through Friday at Pearson Professional Centers nationwide. A technician who passes the PTCE is designated a Certified Pharmacy Technician (CPhT). To maintain PTCB certification, pharmacy technicians must recertify every 2 years. To

qualify for recertification, they must participate in at least 20 hours of approved pharmacy-related CE that includes 1 hour of pharmacy law. Information about PTCB and the PTCE is available at www.ptcb.org.

CREDENTIALING – THE FUTURE

The pharmacy profession continues to evolve in response to changing patient needs and an increasingly complex health care system in the United States. This evolution creates opportunities for pharmacists to provide an expanded range of services within their defined and authorized scopes of practice. It is incumbent on the profession to assure the public, as well as employers, payers, other health professionals, regulatory agencies, and governmental agencies, that pharmacists and pharmacy technicians who provide specific services possess the knowledge, skill, attitudes, and values to safely and competently perform those services. Through an established and widely understood system of credentialing, including licensure to practice and recognition of skill evolved beyond general practice to specialty practice in defined areas, this assurance will be accomplished.

• Institute for the Certification of Pharmacy Technicians

In 2005, the Exam for the Certification of Pharmacy Technicians (ExCPT) was launched. This examination is offered in a computer-based format using on-demand testing at proctored test centers and is given more than 300 times a year at more than 550 locations across the country. The examination is designed to recognize pharmacy technicians who demonstrate proficiency in the knowledge and skill needed to assist pharmacists in safely, accurately, and efficiently preparing and dispensing prescriptions. The examination, which achieved NCCA accreditation in 2008, is based on a national job task analysis conducted on a regular basis, most recently in 2010. More information on the ExCPT examination is available at www.nationaltechexam.org.

A growing number of states require pharmacy technicians to be certified, and/or these states recognize certification in other ways in their regulations.

CCP has provided substantial leadership to the profession during the past 2 years with respect to technician education training, regulation, and certification. CCP's framework for consideration and use by organizations, regulatory bodies, and others appears in Appendix F of this document. It is also published separately on the CCP Web site at the following Web site:

http://www.pharmacycredentialing.org/ccp/Files/CCP%20technician%20framework_08-09.pdf.

Figure 1: U.S. Pharmacy Credentials and Oversight Bodies^a

<u>Education</u>	<u>Entry into Practice</u>	<u>Practice</u>
<p>Pharmacists</p> <div data-bbox="97 289 416 457" style="border: 1px solid black; padding: 5px;"> <p>Doctor of pharmacy (Pharm.D.) degree (ACPE)</p> </div>	<div data-bbox="501 289 820 457" style="border: 1px solid black; padding: 5px;"> <p>Licensure (R.Ph.) (state boards of pharmacy)</p> </div>	<div data-bbox="895 289 1445 457" style="border: 1px solid black; padding: 5px;"> <p>License renewal (state boards of pharmacy) State-specific criteria, including mandatory continuing education (ACPE)</p> </div> <div data-bbox="895 474 1445 894" style="border: 1px solid black; padding: 5px;"> <p>Postgraduate education (optional) Advanced degrees M.S., Ph.D. (colleges/schools of pharmacy) Postgraduate training (optional) PGY1 & PGY2 residency (ASHP) Traineeship (ASHP) Fellowship (ACCP, ASHP) Certificate programs (ACPE)^b Continuing education (ACPE)</p> </div> <div data-bbox="895 911 1445 1100" style="border: 1px solid black; padding: 5px;"> <p>Certification (optional) Specialty (BPS) Non-specialty (CCGP) Multidisciplinary (various)</p> </div>
<p>Pharmacy technicians^c</p> <div data-bbox="97 1251 416 1522" style="border: 1px solid black; padding: 5px;"> <p>Education/Training: Certificate of completion or associate's degree in some states (ASHP/state boards of pharmacy)</p> </div>	<div data-bbox="501 1251 820 1440" style="border: 1px solid black; padding: 5px;"> <p>Registration/licensure in some states (boards of pharmacy)</p> </div>	<div data-bbox="887 1251 1273 1335" style="border: 1px solid black; padding: 5px;"> <p>Certification (PTCB, ICPT)</p> </div>

^aOversight bodies are described in text.

^bEffective January 2008, certificate programs are referred to as practice-based CPE activities in ACPE standards.

^cState differences exist; refer to the main text.

Appendix A: Glossary⁵

Accreditation: The process whereby an association or agency grants public recognition to an organization, site, or program that meets certain established qualifications or standards, as determined through initial and periodic evaluations

Certificate: A certificate is a document issued upon successful completion of the predetermined level of performance of a certificate program or of a pharmacy residency or fellowship. (See also Statement of Continuing Education Credit.)

Certificate program: A structured, systematic education and CE experience that is generally smaller in magnitude and shorter in duration than a degree program. Certificate programs are designed to instill, expand, or enhance practice competencies through the systematic acquisition of specific knowledge, skill, attitudes, and performance behaviors. In ACPE accreditation standards, this term has been officially replaced with the term *practice-based CPE activities*; the former term, however, is still often used.

Certification: The voluntary process by which a nongovernmental agency or an association grants recognition to an individual who has met certain predetermined qualifications specified by that organization. This formal recognition is granted to designate to the public that this person has attained the requisite level of knowledge, skill, and/or experience in a well-defined, often specialized, area of the total discipline. Certification usually requires initial assessment and periodic reassessments of the individual's knowledge, skill, and/or experience.

Certified: Adjective used to describe an individual who holds certification that is incorporated into the name of the credential awarded that person. For example, someone who has earned BPS certification in oncology is a Board-Certified Oncology Pharmacist. A pharmacy technician who has passed a national certification examination is a CPhT.

Clinical privileges: Authorization for a pharmacist to provide a specific range of patient care services (See Privileging.)

Competence: The ability of the individual to perform his/her duties accurately, make correct judgments, and interact appropriately with patients and colleagues. Professional competence is characterized by good problem-solving and decision-making abilities, a strong knowledge base, and the ability to apply knowledge and experience to diverse patient care situations.

Competency: A distinct knowledge, skill, attitude, or value that is essential to the practice of a profession. Individual competencies might include mastery of aseptic technique and achievement of a thought process that enable the person to identify therapeutic duplications. A pharmacist or pharmacy technician must master a variety of competencies to gain competence in his or her profession.

Continuing education: CE for the pharmacy profession is a structured educational activity designed or intended to support the continuing development of pharmacists and/or pharmacy technicians to maintain and enhance their competence. CPE should promote problem solving and critical thinking and be applicable to the practice of pharmacy.

Continuing professional development: The lifelong process of active participation in learning activities that assists individuals in developing and maintaining continuing competence, enhancing their professional practice, and supporting achievement of their career goals

Credential: Documented evidence of professional qualifications. Academic degrees, state licensure, residency certificates, and certification are all examples of credentials.

Credentialing: (1) The process of granting a credential (a designation that indicates qualifications in a subject or an area) and (2) the process by which an organization or institution obtains, verifies, and assesses an individual's qualifications to provide patient care services (See also Privileging.)

Fellowship: A directed, highly individualized postgraduate program designed to prepare a pharmacist to become an independent researcher

License: A credential issued by a state or federal body indicating that the holder is in compliance with the minimum mandatory governmental requirements necessary to practice in a particular profession or occupation

Licensure: The process of granting a license

Pharmacy technician: An individual who, under the supervision of a licensed pharmacist, assists in pharmacy activities not requiring the professional judgment of the pharmacist

Privileging: The process by which a health care organization, having reviewed an individual health care provider's credentials and performance and found them satisfactory, authorizes that person to perform a specific scope of patient care services within that organization

Registered: Adjective used to describe a pharmacist or pharmacy technician who has met state requirements for licensure and whose name has been entered on a state registry of practitioners who are licensed to practice in that jurisdiction

Residency: An organized and directed postgraduate training program in a defined area of pharmacy practice

PGY1 residency: The first year of postgraduate pharmacy residency training is an organized, directed, accredited program that builds on the knowledge, skill, attitudes, and abilities gained from an accredited professional pharmacy degree program. The first-year residency program enhances general competencies in managing medication-use systems and supports optimal medication therapy outcomes for patients with a broad range of disease states.

PGY2 residency: The second year of pharmacy residency training is an organized, directed, accredited program that builds on the competencies established in the PGY1 program. The second-year residency program is focused in a specific area of practice. The PGY2 program increases the resident's depth of knowledge, skill, attitudes, and abilities to raise the resident's level of expertise in medication therapy management and clinical leadership in the area of focus. In practice areas where board certification exists, graduates are prepared to pursue such certification.

⁵ These definitions have been collaboratively developed over several years by a variety of organizations involved in pharmacy credentialing and are generally accepted by those involved in both policy and operational management of the enterprise.

Scope of practice: The boundaries within which a health professional may practice. The scope of practice is generally established by the board or agency that regulates the profession in a given state or organization.

Statement of CE credit: A document issued to an individual upon completion of a CE activity provided by an organization accredited by ACPE or a comparable organization

Traineeship: A short, intensive, clinical, and didactic postgraduate educational program intended to equip the pharmacist with the knowledge and skill needed to provide a high level of care to patients with specific diseases or conditions

Appendix B: Referenced Pharmacy Organizations and Certification Bodies

Pharmacy organizations

Academy of Managed Care Pharmacy
(AMCP)

100 North Pitt Street, Suite 400

Alexandria, VA 22314

(800) 827-2627

www.amcp.org

Accreditation Council for Pharmacy
Education (ACPE)

20 North Clark Street, Suite 2500

Chicago, IL 60602-5109

(312) 664-3575

www.acpe-accredit.org

American Association of Colleges of
Pharmacy (AACP)

1727 King Street

Alexandria, VA 22314

(703) 739-2330

www.aacp.org

American College of Apothecaries (ACA)
P.O. Box 341266

Memphis, TN 38184

(901) 383-8119

www.acainfo.org

American College of Clinical Pharmacy
(ACCP)

13000 West 87th Street Parkway, Suite 100

Lenexa, KS 66215-4530

(913) 492-3311

www.accp.com

American Pharmacists Association (APhA)
2215 Constitution Avenue NW

Washington, DC 20037-2985

(202) 628-4410

www.aphanet.org

American Society of Consultant
Pharmacists (ASCP)

1321 Duke Street

Alexandria, VA 22314-3563

(703) 739-1300

www.ascp.com

American Society of Health-System
Pharmacists (ASHP)

7272 Wisconsin Avenue

Bethesda, MD 20814

(301) 657-3000

www.ashp.org

National Alliance of State Pharmacy
Associations (NASPA)

2530 Professional Road, Suite 202

Richmond, VA 23235

(804) 285-4431

National Association of Boards of
Pharmacy (NABP)

700 Busse Highway

Park Ridge, IL 60068

(847) 698-6227

www.napb.net

National Association of Chain Drug
Stores (NACDS)

413 North Lee Street, P.O. Box 1417-D49

Alexandria, VA 22313-1480

(703) 549-3001

www.nacds.org

National Community Pharmacists
Association (NCPA)

100 Daingerfield Road

Alexandria, VA 22314

(703) 683-8200

www.ncpanet.org

Pharmacy Compounding Accreditation
Board

c/o 2215 Constitution Avenue NW

Washington, DC 20037-2985, and

P.O. Box 282

Algona, IA 50511

(515) 341-1250

Pharmacy Technician Educators Council
(PTEC)

P.O. Box 10118

Santa Ana, CA 92711-0118

(202) 567-7832

www.rxptec.org

Certification bodies for pharmacists or pharmacy technicians (May be multidisciplinary)

Anticoagulation Forum

88 East Newton Street, E-113

Boston, MA 02118-2395

(617) 638-7265

www.acforum.org

Board of Pharmacy Specialties (BPS)

2215 Constitution Avenue NW

Washington, DC 20037-2985

(202) 429-7591

www.bpsweb.org

Commission for Certification in Geriatric
Pharmacy (CCGP)

1321 Duke Street

Alexandria, VA 22314-3563

(703) 535-3038

www.ccgp.org

Institute for the Certification of Pharmacy
Technicians (ICPT)

2536 South Old Highway 94, Suite 224

St. Charles, MO 63303

(314) 442-6775

www.icpt.org

National Asthma Educator Certification
Board

American Lung Association

1740 Broadway

New York, NY 10019-4374

(212) 315-8865

www.lungusa.org

National Certification Board for Diabetes
Educators (NCBDE)

330 East Algonquin Road, Suite 4

Arlington Heights, IL 60005

(847) 228-9795

www.ncbde.org

Pharmacy Technician Certification Board
(PTCB)

2215 Constitution Avenue NW

Washington, DC 20037

(202) 429-7576

www.ptcb.org

Appendix C: Credentialing Programs for Pharmacists

CERTIFICATION PROGRAMS AVAILABLE TO PHARMACISTS^{1,2}

Program	Certification Body	Credential Earned	Certification Body Accredited By
Ambulatory Care Pharmacy	Board of Pharmacy Specialties (BPS)	Board Certified Ambulatory Care Pharmacist (BCACS) ^{3,4}	National Commission for Certifying Agencies (NCCA)
Anticoagulation Care	National Certification Board for Anticoagulation Providers (NCBAP)	Certified Anticoagulation Care Provider (CACP)	
Asthma Education	National Asthma Educator Certification Board (NAECB)	Certified Asthma Educator (AE-C)	
Cardiology (Pharmacotherapy Added Qualifications)	Board of Pharmacy Specialties (BPS)	Board Certified Pharmacotherapy Specialist (BCPS) with Added Qualifications in Cardiology ³	National Commission for Certifying Agencies (NCCA)
Cardiovascular/Life Support	American Heart Association	Advanced Cardiovascular Life Support (ACLS)	
	American Heart Association	Pediatric Advanced Life Support (PALS)	
Clinical Pharmacology	American Board of Clinical Pharmacology (ABCP)	Accredited in Applied Pharmacology (AP)	
Diabetes Education	National Certification Board for Diabetes Educators (NCBDE)	Certified Diabetes Educator (CDE)	
Diabetes Management - Advanced	American Nurses Credentialing Center (ANCC)	Board Certified-Advanced Diabetes Management (BC-ADM)	
Geriatric Pharmacy	Commission for Certification in Geriatric Pharmacy (CCGP)	Certified Geriatric Pharmacist (CGP) ³	
Health Information Technology	Health IT Certification	Certified Professional in Electronic Health Records (CPEHR)	
	Health IT Certification	Certified Professional in Health Information Technology (CPHIT)	
	Health IT Certification	Certified Professional in Health Information Exchange (CPHIE)	
HIV/AIDS	American Academy of HIV Medicine (AAHIVM)	HIV Expert (AAHIVE) ⁵	
	American Academy of HIV Medicine (AAHIVM)	HIV Specialist (AAHIVS) ⁵	
Infectious Diseases (Pharmacotherapy Added Qualifications)	Board of Pharmacy Specialties (BPS)	Board Certified Pharmacotherapy Specialist (BCPS) with Added Qualifications in Infectious Diseases ³	National Commission for Certifying Agencies (NCCA)
Lipids	Accreditation Council for Clinical Lipidology	Clinical Lipid Specialist (CLS)	
Nuclear Pharmacy	Board of Pharmacy Specialties (BPS)	Board Certified Nuclear Pharmacist (BCNP) ³	National Commission for Certifying Agencies (NCCA)
Nutrition Support Pharmacy	Board of Pharmacy Specialties (BPS)	Board Certified Nutrition Support Pharmacist (BCNSP) ³	National Commission for Certifying Agencies (NCCA)
Nutrition Support	National Board of Nutrition Support Certification (NBNSC)	Certified Nutrition Support Clinician (CNSC)	
Oncology Pharmacy	Board of Pharmacy Specialties (BPS)	Board Certified Oncology Pharmacist (BCOP) ³	National Commission for Certifying Agencies (NCCA)
Pain Education	American Society of Pain Educators (ASPE)	Certified Pain Educator (CPE)	
Pain Management	American Academy of Pain Management (AAPM)	Credentialed Pain Practitioner (CPP)	
Pharmacotherapy	Board of Pharmacy Specialties (BPS)	Board Certified Pharmacotherapy Specialist (BCPS) ³	National Commission for Certifying Agencies (NCCA)
Poison Information	American Association of Poison Control Centers	Certified Specialist in Poison Information (CSPI)	
Psychiatric Pharmacy	Board of Pharmacy Specialties (BPS)	Board Certified Psychiatric Pharmacist (BCPP) ³	National Commission for Certifying Agencies (NCCA)
Toxicology	American Board of Applied Toxicology (ABAT)	Diplomat of the American Board of Applied Toxicology (DABAT)	

Notes:

1. Inclusion of a certification program in the above table does not necessarily indicate endorsement of the credential by CCP
2. CCP believes that information is correct at time of publication; all information should, however, be confirmed with the applicable certification body
3. Pharmacist-only certification
4. Under development; anticipated first administration 2011; certification is ineligible for NCCA coverage until 2012
5. Pilot program 2008-2010

Appendix D: PGY2 Pharmacy Residencies

ASHP has developed educational outcomes, goals, and objectives for the following areas of PGY2 training:

- Ambulatory Care Pharmacy (PGY2)
- Cardiology Pharmacy (PGY2)
- Critical Care Pharmacy (PGY2)
- Drug Information (PGY2)
- Geriatric Pharmacy (PGY2)
- Health-System Pharmacy Administration (PGY2)
- Infectious Diseases Pharmacy (PGY2)
- Internal Medicine Pharmacy (PGY2)
- Medication-Use Safety (PGY2)
- Nuclear Medicine Pharmacy (PGY2)
- Nutrition Support Pharmacy (PGY2)
- Oncology Pharmacy (PGY2)
- Pain Management and Palliative Care (PGY2)
- Pediatric Pharmacy (PGY2)
- Pharmacotherapy Informatics (PGY2)
- Psychiatric Pharmacy (PGY2)
- Pharmacy Residency Training in an Advanced Area of Practice (PGY2)
- Solid-Organ Transplant Pharmacy (PGY2)

Appendix E: Specialties Recognized by BPS

I. Ambulatory care pharmacy practice is the provision of integrated, accessible health care services by pharmacists who are accountable for addressing medication needs, developing sustained partnerships with patients, and practicing in the context of family and community. The ambulatory care pharmacist accomplishes these services through direct patient care and medication management for ambulatory patients, long-term relationships, coordination of care, patient advocacy, wellness and health promotion, triage and referral, and patient education.

Domains of the BPS Ambulatory Care Pharmacy specialty examination include:

Domain 1: Direct Patient Care (50% of the examination)

Domain 2: Practice Management (20% of the examination)

Domain 3: Public Health (5% of the examination)

Domain 4: Retrieval, Generation, Interpretation, and Dissemination of Knowledge (15% of the examination)

Domain 5: Patient Advocacy (10% of the examination)

II. Nuclear pharmacy seeks to improve and promote the public health through the safe and effective use of radioactive drugs for diagnosis and therapy. A nuclear pharmacist, as a member of the nuclear medicine team, specializes in procurement, compounding, quality assurance, dispensing, distribution, and monitoring of radiopharmaceutical drugs. In addition, the nuclear pharmacist monitors patient outcomes and provides information and consultation regarding health and safety issues, as well as the use of non-radioactive drugs and patient care.

Domains of the BPS Nuclear Pharmacy specialty examination include:

Domain 1: Drug Order Provision (66% of the examination)

Domain 2: Health and Safety (24% of the examination)

Domain 3: Drug Information Provision (10% of the examination)

III. Nutrition support pharmacy addresses the care of patients who receive specialized nutrition support, including parenteral and enteral nutrition. The nutrition

support pharmacist is responsible for promoting the maintenance and/or restoration of optimal nutritional status, designing and modifying treatment according to the needs of the patient. This specialist in nutrition support pharmacy is responsible for direct patient care and often functions as a member of a multidisciplinary nutrition support team.

Domains of the BPS Nutrition Support Pharmacy specialty examination include:

Domain 1: Clinical Practice/Provision of Individualized Nutrition Support to Patients (68% of the examination)

Domain 2: Management of Nutrition Support Operations (20% of the examination)

Domain 3: Advancement of Nutrition Support Practice (12% of the examination)

IV. Oncology pharmacy specialists recommend, design, implement, monitor, and modify pharmacotherapeutic plans to optimize outcomes in patients with malignant diseases. The oncology pharmacist specialist recommends, designs, implements, monitors, and modifies pharmacotherapeutic plans to optimize outcomes in patients with malignant diseases.

Domains of the BPS Oncology Pharmacy specialty examination include:

Domain 1: Clinical Skill and Therapeutic Management (60% of the examination)

Domain 2: Generation, Interpretation, and Dissemination of Information (20% of the examination)

Domain 3: Guidelines, Policies, and Standards (15% of the examination)

Domain 4: Public Health and Advocacy (5% of the examination)

V. Pharmacotherapy is the pharmacy specialty responsible for ensuring the safe, appropriate, and economical use of drugs in patient care. The pharmacotherapy specialist is responsible for direct patient care, often functions as a member of a multidisciplinary treatment team, may conduct clinical research, and is often a primary source of drug information for other health care professionals.

Domains of the BPS Pharmacotherapy specialty examination include:

Domain 1: Patient-Specific Pharmacotherapy (55% of the examination)

Domain 2: Retrieval, Generation, Interpretation, and Dissemination of Knowledge in Pharmacotherapy (30% of the examination)

Domain 3: Health System-Related Pharmacotherapy (15% of the examination)

The term *added qualifications* is used by BPS to denote the demonstration of an enhanced level of training and experience and to document further differentiation of practitioners within specialties that BPS has already recognized. BPS's creation of this process in 1997 was in response to requests from several segments of the profession in view of the growing complexity of the profession and the needs of health care systems. As of June 2010, two areas of Added Qualifications had received approval within the Pharmacotherapy specialty: **Cardiology** and **Infectious Diseases**.

VI. Psychiatric pharmacy addresses the pharmaceutical care of patients with psychiatric disorders. As a member of a multidisciplinary treatment team, the psychiatric pharmacist specialist is often responsible for optimizing drug treatment and patient care by conducting patient assessments, recommending appropriate treatment plans, monitoring patient response, and recognizing drug-induced problems.

Domains of the BPS Psychiatric Pharmacy specialty examination include:

Domain 1: Clinical Skill and Therapeutic Management (65% of the examination)

Domain 2: Education and Dissemination of Information (25% of the examination)

Domain 3: Clinical Administration (10% of the examination)

Appendix F: CCP Pharmacy Technician Credentialing Framework

The following elements comprise the CCP framework for the education, training, certification, and regulation of pharmacy technicians.

See http://www.pharmacycredentialing.org/ccp/Files/CCP%20technician%20framework_08-09.pdf for the complete resource paper.

1. One valid national task analysis of entry-level pharmacy technicians in all pharmacy work settings will be used as the foundation for technician education, training, examination, and certification. This task analysis should be performed with the input and participation of all interested stakeholders in accordance with nationally accepted standards, and it should be administered and revised on a regular basis to ensure that its content reflects contemporary practice.
2. Educational outcomes and competencies based on the task analysis will be established for use in the education, training, examination, and certification of pharmacy technicians.
3. A model curriculum for the education and training of entry-level pharmacy technicians will be developed and adopted based on the outcomes and competencies identified from the national task analysis. The educational preparation will include both didactic and experiential components.
4. A national programmatic accreditation system will evaluate pharmacy technician education and training programs against the nationally established standards.
5. State boards of pharmacy will regulate pharmacy technicians and require them to complete a nationally accredited education and training program and pass a competency-based examination that is psychometrically sound, nationally accredited, and based on the task analysis.
6. State boards of pharmacy will develop a “pharmacy technician in training” category.
7. State boards of pharmacy will require pharmacy technicians to maintain their competency through ongoing and approved education, training, and development.
8. State boards of pharmacy will develop a method of reciprocity between states for pharmacy technicians.