

Credentialing in Pharmacy

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INTRODUCTION

The credentialing of pharmacists and pharmacy technicians is an important topic in the profession of pharmacy. 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. Additionally, many different organizations, public and private, are involved in assessing pharmacists' and pharmacy technicians' knowledge and skills, 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 have the need to better understand and appreciate the breadth and depth of pharmacist and pharmacy technician education and training and the myriad post-graduate education and training opportunities available to pharmacists. Most importantly, those within and outside the profession must share a common language and understanding of credentials so as to make educated, rational decisions regarding scope of practice, privileging, and eligibility for compensation. A clear understanding of the knowledge, skills, attitudes and values of contemporary pharmacists and pharmacy technicians and the meaning of 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 now a coalition of 15 national pharmacy organizations committed to providing leadership, guidance, public information, and coordination for credentialing programs in or relevant to pharmacy. Members of the CCP include the following organizations:

Academy of Managed Care Pharmacy
Accreditation Council for Pharmacy Education
American Association of Colleges of Pharmacy
American College of Apothecaries
American College of Clinical Pharmacy
American Pharmacists Association

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American Society of Consultant Pharmacists
American Society of Health-System Pharmacists
Board of Pharmaceutical Specialties
Commission for Certification in Geriatric Pharmacy
National Association of Boards of Pharmacy
National Council of State Pharmacy Association Executives
Pharmacy Compounding Accreditation Board
Pharmacy Technician Certification Board
Pharmacy Technician Educators Council

Purpose of this Paper

The purpose of this paper is to provide for those within and outside the profession an overview of the current status of the spectrum of education and credentialing activities and processes for pharmacy personnel (pharmacists and pharmacy technicians), to create a common frame of reference and understanding for discussions concerning pharmacist credentialing, and to raise issues to be considered as credentialing of pharmacy professionals evolves and matures. It begins with definitions of several terms that are essential to any discussion of credentialing. A short section highlighting the importance of credentialing to pharmacists follows this. 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 skills (i.e., re-licensure) under state law; and
- credentials that pharmacists voluntarily earn to document their specialized or advanced knowledge and skills (i.e., postgraduate degrees, certificates, certification).

Each of these sections 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 credentialing of pharmacy supportive personnel. It concludes with two appendices. Appendix A contains a comprehensive glossary of key terms relating to pharmacist credentialing. Appendix B is an alphabetical list of organizations involved in pharmacist credentialing and organization, site or program accreditation. The list contains names, addresses, and uniform resource locators (URLs).

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, one must first 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) while others are earned voluntarily (e.g., certification).

Beyond these distinctions, it is also necessary to understand the definitions of the words that commonly come up 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 here because an understanding of these terms is a prerequisite to any meaningful discussion of credentialing in pharmacy.

- A **credential** is documented evidence of qualifications. Pharmacist credentials include diplomas, licenses, certificates, and certifications. For pharmacy technicians, there is only one nationally recognized credential – CPhT - which indicates certification by the Pharmacy Technician Certification Board. Credentials are reflected in a variety of abbreviations that pharmacists place after their names (e.g., Pharm.D. for “doctor of pharmacy,” an earned academic degree; R.Ph. for “registered pharmacist,” which indicates state licensure; and acronyms such as BCNSP for “Board-Certified Nutrition Support Pharmacist,” which indicates that an individual has demonstrated advanced knowledge or skill in a specialized area of pharmacy).
- **Credentialing** is the process by which an organization or institution obtains, verifies, and assesses a pharmacist’s qualifications to provide patient care services.
- **Accreditation** is the process by which a private association, organization or government agency, after initial and periodic evaluations, grants recognition to an organization,² site or program that has met certain established criteria.
- A **certificate** is a document issued to an individual upon successful completion of the 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 following participation in an accredited continuing education program.
- **Certification** is a voluntary process by which a non-governmental 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, skills and/or experience.

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

- **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 the words “creed” and “credence,” derive from the Latin verb *credere*, which means “to trust,” “to entrust,” or “to believe.” A pharmacist's credentials are indicators that he or she holds the qualifications needed to practice the profession of pharmacy and is therefore worthy of the trust of patients, of other health care professionals, and of society as a whole.

In the profession of pharmacy, 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 by 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 and where they practice.

Finally, economic realities enter the picture. Pharmacists who are providing cognitive services or specialized care should be compensated for the services they provide. 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 that Medicare and Medicaid, managed care organizations, and other third-party payers require 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** is an indication that the pharmacist has met minimum requirements established by the state in which he or she intends to practice.
- **Post-graduate degrees and certificates** are awarded to pharmacy practitioners who have completed programs of various types (e.g., residencies) that are intended to develop and

enhance their knowledge and skills, or to those who have successfully documented a specialized level of knowledge and skill through an assessment process.

These three categories of pharmacist credentialing are illustrated in Figure 1. The sections that follow provide information on each of the credentials offered in pharmacy, the credentialing 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:** Prior to June 2004, pharmacy graduates were eligible to sit for state licensing examinations with a bachelor of science in pharmacy degree 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 four academic years in length and includes didactic, small group, laboratory, and experiential instruction. Admission to the doctoral-level program requires appropriate pre-professional, collegiate-level study.
- **Credential awarded by:** College or school of pharmacy.
- **Accreditation body for professional programs in pharmacy:** Accreditation Council for Pharmacy Education (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 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 became effective in July 2000. Accreditation of baccalaureate degree programs in pharmacy ceased in June 2004. Pharm.D. programs typically involve four academic years of doctoral-level study that follows appropriate collegiate-level, pre-professional study. A few programs offer the professional education over three calendar years of full time education. 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 (almost always 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).

Entering Practice and Updating Professional Knowledge and Skills

- Credentials earned: Licensure as registered pharmacist (R.Ph.); re-licensure to continue to practice 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 having (1) graduated from a college or school of pharmacy approved by the board; (2) completed a minimum number of hours of experience in practice; and (3) passed a licensing examination.

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, forty-six 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 the National Association of Boards of Pharmacy (NABP) for use by the boards of pharmacy as part of their assessment of competence to practice pharmacy.³ Development of these 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 the purpose of 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 or after graduation, depending upon state requirements.

State licensure is an indication 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." (for "registered pharmacist") or other designation authorized by the board of pharmacy after their names.

³ The Foreign Pharmacy Graduate Examination Committee[™] (FPGEC[®]) also operates under the auspices of the NABP. FPGEC oversees the development of the Foreign Pharmacy Graduate Equivalency Examination[®] (FPGEE[®]), and evaluates the qualifications of foreign pharmacy graduates who apply for FPGEC Certification. FPGEC Certification is one of the pre-requisites for foreign pharmacy graduates wishing to sit for NAPLEX[®] and apply for licensure.

All fifty state boards of pharmacy require that registered pharmacists complete a minimum number of hours or continuing education units (CEUs) before they can renew their licenses. The hours or CEUs must be earned either through participation in a continuing education (CE) program whose provider has been accredited by the Accreditation Council for Pharmacy Education (ACPE – formerly the American Council on Pharmaceutical Education), or through a program or activity which has been otherwise approved by the state board. The ACPE Criteria for Quality and Interpretive Guidelines for Accreditation of Providers of Continuing Pharmacy Education may be found at <http://www.acpe-accredit.org/ceproviders/standards.asp>.

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

Licensure and licensure renewal are mandatory for pharmacists who wish to continue to practice 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 Skills

Pharmacy practitioners who wish to broaden and deepen their knowledge and skills may participate in a variety of postgraduate education and training opportunities. They include the following:

- **Academic Postgraduate Education and Training** -- Pharmacists who wish to pursue a certain field of study in depth may enroll in postgraduate master's or doctor of philosophy (Ph.D.) programs. Common fields of study for master's candidates include business administration, clinical pharmacy, and public health. Common fields for Ph.D. 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.asp?VID=1&CID=71&DID=3078&TrackID>.

B.S.-level pharmacists 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 "non-traditional" 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 residency is an organized, directed postgraduate program in a defined area of pharmacy practice. Pharmacy practice residencies focus on the development by the resident of professional competence in the delivery of patient care and practice management activities. Specialized pharmacy practice residencies focus on the knowledge, skills, and abilities needed to provide care in a specialized area of pharmacy practice (e.g., critical care, drug information, pharmacotherapy, or oncology). Residencies are usually 12 months in duration, although certain specialized residencies require an additional 12 (or continuous 24) months for completion.

The American Society of Health-System Pharmacists (ASHP) is the recognized accrediting body for pharmacy practice and specialty residency programs in pharmacy. The ASHP Commission on Credentialing (COC), a committee of the ASHP Board of Directors, is responsible for the development of standards for residency programs, administering the accreditation process and granting accreditation. The COC consists of 14 appointed pharmacists, who have served as residency program directors and who represent a variety of practice settings, as well as two “public” members. ASHP partners with appropriate organizations, including the Academy of Managed Care Pharmacy (AMCP), the American College of Clinical Pharmacy (ACCP), the American Pharmacists Association (APhA), and the American Society of Consultant Pharmacists (ASCP), in developing standards and/or accrediting residency programs of a specialized or practice-setting-specific nature.

The majority of pharmacists who pursue residency training currently do so by completing a pharmacy practice residency. These residencies are usually based in a particular practice setting or practice type, such as a hospital, ambulatory care clinic, community pharmacy, managed care organization, or home or long term care practice. Specialized residency training often involves additional education and training experiences beyond the pharmacy practice year, usually in specialized areas of practice such as pharmacokinetics; the care of specific types of patients (e.g., pediatrics); or a focus on specific diseases (e.g., oncology).

Accreditation standards for residencies in pharmacy practice may be found at

<http://www.ashp.org/rtp/Starting/practice-residencies.cfm?cfid=2202023&CFToken=27475618>.

Accreditation standards for specialized pharmacy residency training may be found at

<http://www.ashp.org/rtp/Starting/specialized-residencies.cfm?cfid=2202023&CFToken=27475618>.

The Centers for Medicare and Medicaid Services (CMS), an agency of the federal government, recognizes residency accreditation bodies within the health professions, including ASHP in its role as the accrediting body for pharmacy residency training. Consequently, ASHP-accredited residency programs are eligible for inclusion by a Medicare “provider” (i.e., usually a hospital) in the calculation of (and reimbursement for) the entity’s costs for providing services to Medicare beneficiaries. The rules and regulations guiding this reimbursement policy are reviewed regularly by CMS and are subject to change.

- **Fellowships⁴**
 - Credential earned: Fellowship certificate
 - Credential awarded by: Fellowship training program
 - Program accreditation: No official accreditation body

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

There is no official accreditation body for fellowship programs; however, an official position statement by ACCP on Guidelines for Clinical Fellowship Training Programs can be found at <http://www.accp.com/position/pos15.pdf>.

- **Certificate Programs**
 - Credential earned: Certificate of Completion
 - Credential awarded by: Educational institutions and companies, pharmacy organizations, and others
 - Provider accreditation: Accreditation Council for Pharmacy Education (ACPE – formerly the American Council on Pharmaceutical Education)

A certificate program is a structured and systematic postgraduate continuing education experience for pharmacists that is smaller in magnitude and shorter in duration than degree programs. In addition to didactic instruction, the design of certificate programs includes practice experiences, simulations, and/or other opportunities for the demonstration of desired professional competencies. The length of any particular certificate program is determined by its stated goals, desired professional competencies, and outcome measures. This generally requires a minimum of 15 contact hours (1.5 CEUs). Certificate programs are designed to instill, expand, or enhance practice competencies through the systematic acquisition of specified knowledge, skills, attitudes, and behaviors. Certificate programs are usually relatively focused; for example, the American Pharmacists Association offers programs in such areas as asthma, diabetes, immunization delivery, and management of dyslipidemias.

Certificate programs are offered by national and state pharmacy organizations and by schools and colleges of pharmacy and other educational groups. The programs are often held in conjunction with a major educational meeting of an organization. ACPE accredits providers of such programs. The Standards and Quality Assurance Procedures for ACPE-Accredited

⁴ Several pharmacy organizations, including the Academy of Managed Care Pharmacy, the American College of Clinical Pharmacy, the American Society of Health-System Pharmacists, and the American Pharmacists Association, award the honorary title of “Fellow” to selected members as a means of publicly recognizing their contributions to the profession. A Fellow of ASHP, for example, may write “FASHP” for “Fellow of the American Society of Health-System Pharmacists,” after his or her name. The two uses of the word “fellow”--one denoting an individual participating in a postgraduate training program and the other denoting receipt of an honorary title--should be clearly distinguished.

Providers of Continuing Pharmacy Education Offering Certificate Programs in Pharmacy are found at <http://www.acpe-accredit.org/pdf/Certificate.pdf>.

- **Traineeships** -- Traineeships, in contrast to certificate programs, are defined as intensive, individualized, structured postgraduate programs intended to provide the participant with the knowledge and skills needed to provide a high level of care to patients with various chronic diseases and conditions. Traineeships are generally of longer duration (about five days) and involve smaller groups of trainees than certificate programs do. Some are offered on a competitive basis, with a corporate sponsor or other organization underwriting participants' costs. Pharmacy organizations currently offering traineeships include the American College of Apothecaries, the American Society of Consultant Pharmacists, and the American Society of Health-System Pharmacists' Research and Education Foundation.
- **Certification**
 - Credential earned: certification in area of practice
 - Credential awarded by: Board of Pharmaceutical Specialties; Commission on Certification in Geriatric Pharmacy; National Institute for Standards in Pharmacist Credentialing
 - Provider accreditation: No official accrediting body

Certification is a credential granted to pharmacists and other health professionals who have demonstrated a level of competence in a specific and relatively narrow 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. The certification process is undertaken and overseen by the Board of Pharmaceutical Specialties, the Commission on Certification in Geriatric Pharmacy, and the National Institute for Standards in Pharmacist Credentialing.

The development of a certification program includes the following steps: (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.* The first step is to 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 who are practicing in that field.
- *Development of content outline.* On the basis of responses to the survey, a content outline for the certification program is developed.
- *Preparation of examination.* The written examination component of the certification program is developed on the basis of the content outline.
- *Other activities.* Appropriate measures are taken to ensure that security and confidentiality of the testing process are maintained, that the examination and eligibility criteria are

appropriate, and that the knowledge and skills of those who are certified do, in fact, reflect competence.

A professional testing company typically assists in the development of the role delineation and the examination to ensure that the examination meets professional standards of psychometric soundness and legal defensibility.

Certifying Agencies for Pharmacists Only -- Three groups, the Board of Pharmaceutical Specialties, the Commission for Certification in Geriatric Pharmacy, and the National Institute for Standards in Pharmacist Credentialing, offer certification to pharmacists.

Board of Pharmaceutical Specialties (BPS) <http://www.bpsweb.org/>

Established in 1976 by the American Pharmacists Association (then the American Pharmaceutical Association), BPS certifies pharmacists in five specialties: nuclear pharmacy, nutrition support pharmacy, oncology pharmacy, pharmacotherapy, and psychiatric pharmacy. Descriptions of each specialty area are provided in Appendix C. Pharmacists who wish to retain BPS certification must be recertified every seven years.

The recognition of each specialty is the result of a collaborative process between the Board and one or more pharmacy organizations, which develop a petition to support and justify recognition of the specialty. This petition must meet written criteria established by the BPS.

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

BPS examinations are administered with the assistance of an educational testing firm, resulting in a process that is psychometrically sound and legally defensible. Each of the five specialties has its own eligibility criteria, examination specifications, and recertification process. All five examinations are given on a single day once a year in approximately 25 sites in the United States and elsewhere.

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 currently approved by BPS.

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

In 1997, the American Society of Consultant Pharmacists (ASCP) Board of Directors voted to create the CCGP to oversee a certification program in geriatric pharmacy practice. CCGP is a non-profit 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 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 five 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; it also meets nationally recognized standards. The CGP certification exams 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.

National Institute for Standards in Pharmacist Credentialing (NISPC)

<http://www.nispcnet.org/index1.html>

The NISPC was founded in 1998 by the American Pharmacists Association (then the American Pharmaceutical Association), the National Association of Boards of Pharmacy (NABP), the National Association of Chain Drug Stores, and the National Community Pharmacists Association. The purpose of NISPC is to “promote the value and encourage the adoption of National Association of Boards of Pharmacy disease-specific examinations as the consistent and objective means of documenting the ability of pharmacists to provide disease state management services.”

NISPC offers certification in the management of diabetes, asthma, dyslipidemia, and anticoagulation therapy. At the time of its founding, the organization's immediate objective was to design a process that would document the competence of pharmacists providing care for patients with these disease states. The NISPC credential was first recognized in the state of Mississippi, where it was used to enable pharmacists to qualify for Medicaid reimbursement as part of a pilot project in that state. NABP developed the competency assessment examinations and oversees their administration. The NISPC tests are administered nationally as computerized examinations, but are currently suspended as they are undergoing re-evaluation.

Multidisciplinary Certification Programs -- Some certification programs are available to professionals from many health disciplines, including pharmacists. Areas in which such certification is available include diabetes education, anticoagulation therapy, pain management, and asthma education. Some of these programs are still in the early stages of development. Several of these providers are listed in Appendix B; however, the information is not intended to be exhaustive.

OVERVIEW OF CREDENTIALING IN PHARMACY -- PHARMACY TECHNICIANS

A pharmacy technician is an individual who assists in pharmacy activities that do not require the professional judgment of a pharmacist. For example, pharmacy technicians may accept orders from patients, prepare labels, enter drug information into 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 described above. As pharmacists assume an increasing number of patient-centered roles, pharmacy technicians are taking more and more responsibility for 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 nonjudgmental activities of their practice. Pharmacy technicians always work under the supervision of a licensed pharmacist. The education and training, certification, and continuing education of pharmacy technicians are similar in some ways to those of pharmacists. There is, however, more inter-state variation in the regulation of and requirements 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 and more individuals are enrolling in formal training programs. These programs are generally affiliated with a community college, a four-year college, a 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 the accreditation body for pharmacy technician training programs. Technician Training Programs Accreditation Regulations and Standards can be found at <http://www.ashp.org/technician/techregs.pdf>. Accreditation of training programs is voluntary in the majority of states.

In early 2003, at the request of the Council on Credentialing in Pharmacy (CCP), the Accreditation Council for Pharmacy Education (ACPE – formerly the American Council on Pharmaceutical Education) initiated a profession-wide dialog concerning the possible development of national standards and an accreditation process for pharmacy technician education and training. A compilation of written submissions and a summary of the comments made at the ten open hearings are posted on the CCP website

Regulation

State boards of pharmacy oversee the regulation of practice of pharmacy technicians. Practices differ substantially among the states. Approximately 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. It is anticipated that further changes in the regulation of pharmacy technicians will be made.

Certification

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 - the American Pharmacists Association (APhA), the American Society of Health-System Pharmacists (ASHP), the Illinois Council of Health-System Pharmacists (ICHP), the Michigan Pharmacists Association (MPA), and the National Association of Boards of Pharmacy (NABP).

In collaboration with testing experts, the PTCB developed 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. Information about PTCB and the PTCE may be found at www.ptcb.org.

Currently, the Board administers the PTCE four times a year at more than 120 sites across the nation. However, plans are underway to transition this examination from a paper-pencil format to a computer-based environment by late 2006/early 2007. A technician who passes the PTCE is designated as a Certified Pharmacy Technician (CPhT). Pharmacy technicians must renew their certification every two years. To qualify for recertification, they must participate in at least 20 hours of approved pharmacy-related continuing education that includes an hour of pharmacy law.

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

CREDENTIALING – THE FUTURE

The pharmacy profession is continuing to evolve in response to a changing health care system in the U.S. This evolution creates opportunities for pharmacists to provide an expanded scope of services within their defined scope 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, skills, attitudes and values to safely and competently perform those services. It is through an established and widely understood system of credentialing, including licensure to practice and recognition of skills evolved beyond general practice to specialty practice in defined areas, that this will be accomplished.

Figure 1. U.S. Pharmacy Credentials and Oversight Bodies (oversight bodies are described in text)

<u>Education</u>	<u>Entry into Practice</u>	<u>Practice</u>
<p>Pharmacists</p> <div data-bbox="198 390 511 558" style="border: 1px solid black; padding: 5px;"> <p>Doctor of Pharmacy (Pharm.D.) Degree (ACPE)</p> </div>	<div data-bbox="630 390 940 558" style="border: 1px solid black; padding: 5px;"> <p>Licensure (R.Ph.) (State Boards of Pharmacy)</p> </div>	<div data-bbox="1010 390 1419 558" style="border: 1px solid black; padding: 5px;"> <p>License Renewal (State Boards of Pharmacy) state-specific criteria may include mandatory continuing education (ACPE)</p> </div> <div data-bbox="1010 604 1419 936" style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Postgraduate Education (optional) Advanced Degrees M.S., Ph.D. (College/schools of pharmacy) Postgraduate Training (optional) Residency (ASHP) Traineeship (ASHP) Fellowship (ACCP, ASHP) Certificate Programs (ACPE) Continuing Education (ACPE)</p> </div> <div data-bbox="1010 987 1419 1178" style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Certification (optional) Specialty (BPS) Non-specialty (CCGP) Disease management (NISPC) Multidisciplinary (various)</p> </div>
<p>Pharmacy Technicians*</p> <div data-bbox="198 1337 511 1482" style="border: 1px solid black; padding: 5px;"> <p>Education/Training (ASHP/State Boards of Pharmacy)</p> </div>	<div data-bbox="630 1337 940 1482" style="border: 1px solid black; padding: 5px;"> <p>Registration/Licensure in some states (Boards of Pharmacy)</p> </div>	<div data-bbox="1010 1337 1419 1482" style="border: 1px solid black; padding: 5px;"> <p>Certification (PTCB) Generally optional</p> </div>

*State differences exist; refer 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.⁶

Certificate Program: A structured, systematic postgraduate education and continuing education experience for pharmacists 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, skills, attitudes, and performance behaviors.

Certified: Adjective that is used to describe an individual who holds certification and that is incorporated into the name of the credential awarded that individual. For example, someone who has earned BPS certification in oncology is a “Board-Certified Oncology Pharmacist.”

Certificate: A certificate is a document issued to a pharmacist 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.”

Certification: The voluntary process by which a non-governmental 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 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, skills and/or experience.

Clinical privileges: Authorization to provide a specific range of patient care services. *See* Privileging.

Competence: The ability to perform one’s duties accurately, make correct judgments, and interact appropriately with patients and with 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 for pharmacists include, for example, mastery of aseptic technique and achievement of a thought process that enables one to identify therapeutic duplications. A pharmacist must master a variety of competencies in order to gain competence in his or her profession.

⁵ These definitions have been developed by a variety of organizations involved in credentialing and are generally accepted by those in the pharmacist credentialing arena.

⁶ The term “organization” is used in a broad sense and includes, for example, institutions, corporations, universities, colleges, schools, and health-systems.

Continuing education: Continuing education for the profession of pharmacy is a structured process of education designed or intended to support the continuous development of pharmacists to maintain and enhance their professional competence. Continuing education should promote problem-solving and critical thinking and be applicable to the practice of pharmacy.

Credential: Documented evidence of professional qualifications. For pharmacists, academic degrees, state licensure, and Board certification are all examples of credentials.

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

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 that indicates that the holder is in compliance with 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 individual to perform a specific scope of patient care services within that organization.

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

Registered: Adjective used to describe a pharmacist 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.

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

Statement of Continuing Education Credit: A document issued to an individual upon completion of a continuing education program provided by an organization accredited by the Accreditation Council for Pharmacy Education (ACPE – formerly the American Council on Pharmaceutical Education).

Traineeship: A short, intensive, clinical and didactic postgraduate educational program intended to provide the pharmacist with knowledge and skills 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

American Association of Colleges of Pharmacy
(AACP)
1426 Prince Street
Alexandria, VA 22314-2841
(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)
3101 Broadway, Suite 650
Kansas City, MO 64111-2446
(816) 531-2177
www.accp.com

Accreditation Council for Pharmacy Education
(ACPE – formerly American Council on
Pharmaceutical Education)
20 North Clark Street, Suite 2500
Chicago, IL 60602-5109
(312) 664-3575
www.acpe-accredit.org

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 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 N. Lee Street, P.O. Box 1417-D49
Alexandria, VA 22313-1480
(703) 549-3001
www.nacds.org

National Alliance of State Pharmacy
Associations (NASPA)
5501 Patterson Avenue, Suite 200
Richmond, VA 23226
(804) 285-4145

National Community Pharmacists Association
(NCPA)
205 Daingerfield Road
Alexandria, VA 22314
(703) 683-8200
www.ncpanet.org

Pharmacy Compounding Accreditation Board
c/o 2215 Constitution Ave. NW
Washington, DC 20037-2985, and
PO Box 282
Algona, IA 50511
515-341-1250

Pharmacy Technician Educators Council
(PTEC)
800 Robin Hill Drive
San Antonio, TX 78230
(800) 798-3247
www.rxpotec.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 Pharmaceutical 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

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

National Institute for Standards in Pharmacist
Credentialing (NISPC)
2215 Constitution Ave., NW
Washington, DC 20037
(202) 429-4112
www.nispcnet.org

Pharmacy Technician Certification Board
(PTCB)
1100 Fifteenth Street, NW
Suite 730
Washington, DC 20005-1707
(202) 429-7576
www.ptcb.org

Appendix C: Specialties Recognized by the Board of Pharmaceutical Specialties

I. 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 development of radiopharmaceuticals. In addition, the nuclear pharmacist monitors patient outcomes and provides information and consultation regarding health and safety issues. Specifically, the nuclear pharmacist:

- procures radiopharmaceuticals and other drugs, supplies, and materials necessary for his/her practice;
- compounds radiopharmaceuticals necessary to his/her practice;
- assures the quality of radiopharmaceuticals and of instruments, equipment, and devices necessary for his/her practice;
- dispenses radiopharmaceuticals and other drugs necessary to his/her practice;
- distributes radiopharmaceuticals, other drugs, and other materials necessary to his/her practice;
- assures the health and safety of him/herself, co-workers, patients, and the public as related to his/her practice;
- provides information and consultation related to his/her practice;
- provides pharmaceutical care to patients and assures optimal patient outcomes within the scope of his/her practice;
- conducts research and development as necessary for his/her practice.

II. Nutrition support pharmacy addresses the care of patients who receive specialized nutrition support, including parenteral and enteral nutrition. The nutrition support pharmacist has responsibility for promoting maintenance and/or restoration of optimal nutritional status, designing and modifying treatment according to the needs of the patient. The nutrition support pharmacist has responsibility for direct patient care and often functions as a member of multidisciplinary nutrition support team. The nutrition support pharmacist specialist is responsible for the following specialized services:

- provides individual nutrition support care to patients through patient assessment activities and the development, monitoring, and management of a therapeutic plan;
- manages nutrition support services;
- advances nutrition support pharmacy practice.

III. Oncology pharmacy addresses the pharmaceutical care of patients with cancer. The oncology pharmacist specialist recommends, designs, implements, monitors and modifies pharmacotherapeutic plans to optimize outcomes in patients with malignant diseases. In providing his or her specialized scope of services, the oncology pharmacist specialist:

- collaborates with other health professionals in pursuing optimal drug therapy for patients with cancer. This requires that the oncology pharmacist collect and interpret pertinent clinical data and recommend, design, implement, monitor and modify patient-specific therapeutic plans;

- interprets, generates and disseminates knowledge in oncology as it applies to oncology pharmacy practice;
- collaborates with other professionals, patients, and the public to recommend, design, implement, monitor, and modify systems and policies to optimize the use of drugs in patients with cancer;
- collaborates with other professionals and the public in addressing risk factors, prevention, screening, and issues associated with cancer survivorship as they relate to oncology pharmacy practice.

IV. Pharmacotherapy is that area of pharmacy responsible for ensuring the safe, appropriate, and economical use of drugs in patient care. The pharmacotherapy specialist has responsibility for direct patient care, often functions as a member of a multidisciplinary treatment team, may conduct clinical research, and is frequently a primary source of drug information for other health care professionals. In providing his or her specialized scope of services, the pharmacotherapy specialist:

- collects and interprets data to design, recommend, implement, monitor, and modify patient-specific pharmacotherapy in collaboration with other health care professionals to optimize drug therapy;
- interprets, generates, and disseminates knowledge in pharmacotherapy;
- designs, recommends, implements, monitors, and modifies system-specific policies and procedures in collaboration with other professionals and administrators to optimize health care.

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 in which practitioners focus on specific patient populations or diseases. Creation of this process by BPS in 1997 responded 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 September 2003, two areas of Added Qualifications have been approved within the Pharmacotherapy specialty: **Cardiology** and **Infectious Diseases**.

V. 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. In providing his or her specialized scope of services, the psychiatric pharmacist specialist:

- collaborates with other health professionals in pursuing optimal drug therapy for neuropsychiatric patients. This requires that the psychiatric pharmacist collect and interpret pertinent clinical data and recommend, design, implement, monitor and modify patient-specific therapeutic plans;
- interprets, generates, and disseminates knowledge in neuropsychiatric pharmacy;
- collaborates with other professionals and administrators to recommend, design, implement, monitor, and modify systems and policies to optimize the use of drugs in the treatment of neuropsychiatric patients.