White paper on pharmacy technicians 2002: Needed changes can no longer wait

**The following organizations have endorsed this document:**
Academy of Managed Care Pharmacy, American Association of Colleges of Pharmacy, American College of Apothecaries, American College of Clinical Pharmacy, American Council on Pharmaceutical Education, American Pharmaceutical Association, American Society of Consultant Pharmacists, American Society of Health-System Pharmacists, Board of Pharmaceutical Specialties, Commission for Certification in Geriatric Pharmacy, Pharmacy Technician Certification Board, and Pharmacy Technician Educators Council

**Am J Health-Syst Pharm.** 2003; 60:37-51

**Introduction**
The counting and pouring now often alleged to be the pharmacist’s chief occupation will in time be done by technicians and eventually by automation. The pharmacist of tomorrow will function by reason of what he knows, increasing the efficiency and safety of drug therapy and working as a specialist in his own right. It is in this direction that pharmaceutical education must evolve without delay.

—Linwood F. Tice, D.Sc., Dean, Philadelphia College of Pharmacy and Science (1966)

Health care and the profession of pharmacy have changed enormously since Dr. Tice articulated this vision more than 35 years ago. The role of the pharmacy technician has likewise undergone substantial change. Technicians have increased in number. They may access a wide array of training opportunities, some of which are formal academic programs that have earned national accreditation. Technicians may now seek voluntary national certification as a means to demonstrate their knowledge and skills. State boards of pharmacy are increasingly recognizing technicians in their pharmacy practice acts.

Nonetheless, Dr. Tice’s vision remains unrealized. Although pharmacy technicians are employed in all pharmacy practice settings, their qualifications, knowledge, and responsibilities are markedly diverse. Their scope of practice has not been sufficiently examined. Basic competencies have not been articulated. Standards for technician training programs are not widely adopted. Board regulations governing technicians vary substantially from state to state.

Is there a way to bring greater uniformity in technician competencies, education, training, and regulation while ensuring that the technician work force remains sufficiently diverse to meet the needs and expectations of a broad range of practice settings? This is the question that continues to face the profession of pharmacy today as it seeks to fulfill its mission to help people make the best use of medications.

The purpose of this paper is to set forth the issues that must be resolved to promote the development of a strong and competent pharmacy technician work force. Helping pharmacists to fulfill their potential as providers of pharmaceutical care would be one of many positive outcomes of such a development. The paper begins with a description of the evolution of the role of pharmacy technicians and of their status in the work force today. The next section sets forth a rationale for building a strong pharmacy technician work force. This document was drafted by Michael J. Rouse, B.Pharm (Hons), M.P.S., Executive Assistant Director, International and Professional Affairs, ACPE.

Address correspondence to Richard J. Bertin, Ph.D., R.Ph., President, Council on Credentialing in Pharmacy, c/o Board of Pharmaceutical Specialties, 2215 Constitution Avenue, NW, Washington, DC 20037-2985 (rbertino@aphanet.org).

Special recognition is given to the following persons for their contributions to this document: Lucinda L. Maine, Ph.D., Executive Vice President, AACP; Melissa M. Murer, R.Ph., Executive Director, PTCB; Peter H. Vlasses, Pharm.D., BCPS, Executive Director, ACPE; and William A. Zellmer, M.P.H., Deputy Executive Vice President, ASHP. Supported by an educational grant from PTCB.

This document is also being published in the Journal of the American Pharmaceutical Association.

Copyright © 2003, American Society of Health-System Pharmacists, Inc. All rights reserved. 1079-2082/03/0101-0037$06.00.
force. The paper then turns to three issues that are key to realizing the pharmacy technician’s potential: (1) education and training, (2) accreditation of training institutions and programs, and (3) certification. Issues relating to state regulation of pharmacy technicians are then discussed. The paper concludes with a call to action and a summary of major issues to be resolved.

Many of the issues discussed in this report were originally detailed in a white paper developed by the American Pharmaceutical Association (APhA) and the American Society of Health-System Pharmacists (ASHP), which was published in 1996. For this reason, this paper focuses primarily on events that have occurred since that time. Other sources used in the preparation of this paper include Institute of Medicine (IOM) reports, a report to the U.S. Congress on the pharmacy work force, and input from professional associations representing pharmacists and technicians as well as from educators, regulators, and consumers.

The pharmacy technician: Past to present

A pharmacy technician is “an individual working in a pharmacy setting who, under the supervision of a licensed pharmacist, assists in pharmacy activities that do not require the professional judgment of a pharmacist.” The technician is part of a larger category of “supportive personnel,” a term used to describe all nonpharmacist pharmacy personnel.

There have been a number of positive developments affecting pharmacy technicians in the past decade, including national certification, the development of a model curriculum for pharmacy technician training, and greater recognition of pharmacy technicians in state pharmacy practice acts. The role of the pharmacy technician has become increasingly well defined in both hospital and community settings. Technicians have gained greater acceptance from pharmacists, and their numbers and responsibilities are expanding. They are starting to play a role in the governance of state pharmacy associations and state boards of pharmacy. Yet more needs to be done. There is still marked diversity in the requirements for entry into the pharmacy technician work force, in the way in which technicians are educated and trained, in the knowledge and skills they bring to the workplace, and in the titles they hold and the functions they perform. The absence of uniform national training standards further complicates the picture. Because of factors such as these, pharmacists and other health professionals, as well as the public at large, have varying degrees of understanding and acceptance of pharmacy technicians and their role in health care delivery.

An awareness of developments relevant to pharmacy technical personnel over the last several decades is essential to any discussion of issues related to current and future pharmacy technicians. Policy statements of a number of national pharmacy associations are listed in the appendix. A summary of key events of the past half century follows.

1950s–1990s. Beginning in the late 1950s, hospital pharmacy and ASHP took the lead in advocating the use of pharmacy technicians (although the term “pharmacy technician” had not yet come into use), in developing technician training programs, and in calling for changes needed to ensure that the role of technicians was appropriately articulated in state laws and regulations. Among the initial objectives was to make a distinction between tasks to be performed by professional and nonprofessional staff in hospital and community settings. This was largely accomplished by 1969.

In the community pharmacy sector, chain pharmacies supported the use of pharmacy technicians and favored on-the-job training. By contrast, the National Association of Retail Druggists (NARD, now the National Community Pharmacist Association [NCPA]), in 1974, stated its opposition to the use of technicians and other “subprofessionals of limited training” out of concern for public safety.

Largely because of its origins, technician practice was initially better defined and standardized in hospitals than in community pharmacies. As the need for technicians in both settings became increasingly apparent, however, many pharmacists and pharmacy educators began to call for collaborative discussions and greater standardization on a number of issues related to pharmacy technicians, and in recent years, progress has been made toward this goal.

The pharmacy technician work force today. Based on Pharmacy Technician Certification Board (PTCB) and Bureau of Labor Statistics (BLS) estimates, there are as many as 250,000 pharmacy technicians in the United States. This is a significant increase over the 1996 estimate of 150,000. BLS predicts that pharmacy technician employment will grow by 36% or more between 2000 and 2010. This percentage of growth is “much faster than the average for all occupations,” but in line with a majority of other supportive personnel in the health care sector.

Pharmacy technicians work in a wide variety of settings, including community pharmacies (approximately 70% of the total work force), hospitals and health systems (approximately 20%), long-term-care facilities, home health care agencies, clinic pharmacies, mail-order pharmacies, pharmaceutical wholesalers, managed care organizations, health insurance companies, and medical computer software companies. The 2001 Schering Report found that 9 out of 10 community pharmacies employ pharmacy technicians. Recent studies conducted in acute care settings indicate that this figure is nearly 100% for the hospital sector.

What functions do technicians...
perform? Their primary function today, as in decades past, is to assist with the dispensing of prescriptions. A 1999 National Association of Chain Drug Stores (NACDS)/Arthur Andersen study revealed that, in a chain-pharmacy setting, pharmacy technicians’ time was spent on dispensing (76%), pharmacy administration (3%), inventory management (11%), disease management (<1%), and miscellaneous activities, including insurance-related inquiries (10%). Surveys conducted by PTCB have yielded similar results. The nature of dispensing activities may be different in a hospital than in a community pharmacy. In hospitals, technicians may perform additional specialized tasks, such as preparing total parenteral nutrition solutions, intravenous admixtures, and medications used in clinical investigations and participating in nursing-unit inspections.

In the past, pharmacists have traditionally been reluctant to delegate even their more routine work to technicians. The 2001 Schering Report concluded that, in the past five years, pharmacists have become more receptive to pharmacy technicians. Indeed, much has changed in the scope of potential practice activities for pharmacy technicians and pharmacy’s perception of the significant role technicians might play.

New roles for pharmacy technicians continue to emerge as a result of practice innovation and new technologies. Despite their expanded responsibilities, many technicians believe that they can do more. For example, one study reported that 85% of technicians employed in chain pharmacies, compared with 58% of those working in independent pharmacies, felt that their knowledge and skills were being used to the maximum extent.

Pharmacy technicians: The rationale

Several developments in health care as a whole, and in pharmacy in particular, have combined to create an increasing demand for pharmacy technicians. Three of significant importance are the pharmacist work force shortage, the momentum for pharmaceutical care, and increased concern about safe medication use.

Pharmacist work force shortage. In 1995, a report by the Pew Health Professions Commission predicted that automation and centralization of services would reduce the need for pharmacists and that the supply of these professionals would soon exceed demand. The predicted oversupply has failed to materialize; in fact, there is now a national shortage of pharmacists. A 2000 report of the federal Health Resources and Services Administration (HRSA) stated, “While the overall supply of pharmacists has increased in the past decade, there has been an unprecedented demand for pharmacists and pharmaceutical care services, which has not been met by the currently available supply.”

The work force shortage is affecting all pharmacy sectors. Ongoing studies (by the Pharmacy Manpower Project and others) indicate that the pharmacy personnel shortages will not be solved in the short term. For pharmacy practitioners, the results of the work force shortage are clear: more work must be done with fewer pharmacist staff. Between 1990 and 1999, the number of prescriptions dispensed in ambulatory care settings increased by 44%, while the number of active pharmacists per 100,000 people increased by only about 5%. Chain pharmacists now fill an average of 86 prescriptions during a normal shift—a 54% increase since 1993. NACDS and IMS HEALTH estimate that, between 1999 and 2004, the number of prescriptions will increase by 36% while the number of pharmacists will increase by only 4.5% (Figure 1).

Faced with greater numbers of prescriptions to dispense, pharmacists have less time to counsel patients. Working conditions and schedules have deteriorated, and job-related stress has risen. Professional satisfaction has diminished. Perhaps most ominous, fatigue and overwork increase the potential for medication errors.

Increased use of technicians is one obvious way of reducing workload pressures and freeing pharmacists to spend more time with patients.
white paper issued in 1999 by APhA, NACDS, and NCPA emphasized the need for augmenting the pharmacist’s resources through the appropriate use of pharmacy technicians and the enhanced use of technology.28

The situation in pharmacy is not unique. A report from the IOM concluded that the health care system, as currently structured, does not make the best use of its resources.9 Broader use of pharmacy technicians, in itself, will not solve the pharmacist work force crisis. It would ensure, however, that the profession makes better use of existing resources.

Momentum for pharmaceutical care. More than a decade ago, Hepler and Strand29 expressed the societal need for pharmaceutical care. Since that time, the concept has been refined, and its impact on the health care system and patient care has been documented. Studies have shown that pharmaceutical care can improve patient outcomes, reduce the incidence of negative therapeutic outcomes, and avoid the economic costs resulting from such negative outcomes.30-33 Nonetheless, other studies indicate that pharmacists continue to spend much of their time performing routine product-handling functions.19,20 Widespread implementation of pharmaceutical care, a goal for the entire profession, has been difficult to achieve thus far.

Technicians are instrumental to the advancement of pharmaceutical care. As Strand34,35 suggested, prerequisites to successful implementation of pharmaceutical care include enthusiastic pharmacists, pharmacy supportive personnel willing to work in a pharmacy where dispensing is done by technicians rather than pharmacists, and a different mindset i.e., the pharmacist will no longer be expected to "count and pour" but to care for patients.

In other words, implementation of pharmaceutical care requires a fundamental change in the way pharmacies operate. Pharmacists must relinquish routine product-handling functions to competent technicians and technology. This is a difficult shift for many pharmacists to make, and pharmacists may need guidance on how to do it. For example, they may need training in how to work effectively with technicians. Recognizing this need, some practice sites have developed successful practice models of pharmacy technicians working with pharmacists to improve patient care. Several of these sites have been recognized through PTCB’s “Innovations in Pharmaceutical Care Award.”36

Safe medication use. Used inappropriately, medications may cause unnecessary suffering, increased health care expenditures, patient harm, or even death.33 Ernst and Grizzle37 estimated that the total cost of drug-related morbidity and mortality in the ambulatory care setting in 2000 was more than $177 billion—more than the cost of the medications themselves. They stressed the urgent need for strategies to prevent drug-related morbidity and mortality.

The problems associated with inappropriate medication use have received broad publicity in recent years. For example, To Err Is Human: Building a Safer Health System drew attention to medical errors.3 It criticized the silence that too often surrounds the issue. Many members of the public were shocked to realize that the system in which they place so much trust was far from perfect.

Sometimes pharmacists have been implicated in medication errors. Technicians, too, have not escaped culpability.38-43 Several studies, most of which were performed in hospitals, have, however, demonstrated that appropriately trained and supervised pharmacy technicians can have a positive effect on equalizing the distributive workload, reducing medication errors, allowing more time for clinical pharmacy practice, and checking the work of other technical personnel.44,45 One study found that pharmacy technicians, when specially trained for the purpose, were as accurate as pharmacists in checking for dispensing errors.46 The United States Pharmacopeia Medication Errors Reporting Program (USPM ERP) has noted the contributions that pharmacy technicians can make to medication error prevention through their involvement in inventory management (e.g., identifying problems relating to “look-alike” labeling and packaging).47 USPM ERP also affirms that a “team approach” and “proactive attitudes” of pharmacists and technicians are important elements in reducing medication errors. The National Coordinating Council for Medication Error Reporting and Prevention advocates that a series of checks be established to assess the accuracy of the dispensing process and that, whenever possible, an independent check by a second individual (not necessarily a pharmacist) should be made.48

Reports such as these call for an expanded role for pharmacy technicians in a much-needed, systematic approach to medication error prevention.

Preparing pharmacy technicians for practice

Historical overview. Originally, all pharmacy technicians received informal, on-the-job training. The majority of pharmacy technicians are probably still trained this way.8,18,49,50 Nevertheless, formal training programs, some of which are provided at the work site, are becoming more widespread. As state regulations, medications, record-keeping, and insurance requirements have become more complex, there has been a move toward more formal programs.51 Some employers have found that formal training improves staff retention and job satisfaction.18,52 Another advantage of a formal training program is that it can confer a sense of vocational identity.49

Formal training programs for
Transitions

pharmacy technicians are not new; they were introduced in the armed forces in the early 1940s, and more structured programs were developed by the military in 1958. In the late 1960s, the Department of Health, Education, and Welfare recommended the development of “pharmacist aide” curricula in junior colleges and other educational institutions. The first formal hospital-based technician training program was initiated around this time. Training programs proliferated in the 1970s as the profession sought to meet the need for a differentiated pharmacy workforce. Many of these programs were established in response to requests from hospital pharmacy administrators; at that time there was little interest in formally trained technicians in community pharmacies who continued to train technicians on the job.

In the 1980s, ASHP issued training guidelines intended to help hospital pharmacists develop their own training programs. ASHP recommended minimum entry requirements for trainees and a competency evaluation that included written, oral, and practical components. The guidelines were used not only by hospitals but by vocational schools and community colleges that wanted to develop certificate and associate degree programs.

Acknowledging the importance of a common body of core knowledge and skills for all pharmacy technicians that would complement site-specific training, NACDS and NCPA developed a training manual, arranged into nine instructional sections and a reference section. Each section has learning objectives, self-assessment questions, and competency assessment for the supervising pharmacist to complete. The manual focuses on the practical, legal, and procedural aspects of dispensing prescriptions, sterile-product compounding, patient interaction, and reimbursement systems. APhA and ASHP also produce technician training manuals and resource materials for pharmacy technicians.

To date, most programs have referred to the “training” rather than the “education” of pharmacy technicians. Further discussion of the need for clarification of the education and training needs of pharmacy technicians is provided below.

Academic training programs. In 2002, approximately 247 schools and training institutions in 42 states offered a range of credentials, including associate degrees, diplomas, and certificates, to pharmacy technicians. The military also continues to provide formal training programs for pharmacy technicians.

Formal technician training programs differ in many respects, one of which is length. The Accrediting Commission of Career Schools and Colleges of Technology School Directory lists 36 “pharmacy” programs. These programs vary in length from 540 to 2145 contact hours (24–87 weeks), with a median of 970 hours. ASHP, which accredits technician training programs, requires that programs have a minimum of 600 contact hours and a minimum duration of 15 weeks. The Pharmacy Technicians Educators Council (PTEC), an association representing pharmacy technician educators, supports the ASHP minimum requirements.

The minimum acceptable length of the program is a matter of debate. Some pharmacy technician educators deplore a move within the education system to get people into the workforce quickly. They believe that the pharmacy profession should make it clear that, while workforce shortages and the needs of the marketplace are important considerations, rapid-training strategies do not seem appropriate for health care personnel whose activities directly affect the safe and effective use of medications. There should be a clear relationship between the nature and intensity of education, training, and the scope of practice.

Entrance requirements for training programs also vary. Some have expressed concern that a substantial number of trainees may lack the necessary basic skills and aptitude to perform the functions expected of technicians. The fact that about 30% of a certified pharmacy technician’s time is spent performing tasks that require mathematical calculations reinforces the importance of suitably qualified training applicants. ASHP acknowledged the need for minimum qualifications for training program applicants more than 20 years ago, but the issue continues to be a matter of debate.

Progress toward standardization: The model curriculum. The absence of national training standards and the resultant variations in program content, length, and quality are barriers to the development of a strong technician workforce. The problem is not unique to pharmacy technician training; other occupations in the health care sector also lack national standards. Nonetheless, it is ironic that persons in certain other occupations whose services have far less impact on public safety than do those of pharmacy technicians (e.g., barbers and cosmetologists) have training programs that, on average, are longer and less diverse than pharmacy technician programs. Reflecting a common sentiment on this issue, a 1999 PTEC survey concluded that “Expansion of the role of pharmacy technicians must be in tandem with standardization training and establishment of competencies. Increased responsibilities should be commensurate with increased education.” Likewise, there was a consensus at the Third PTCB Stakeholders’ Forum, held in June 2001, that national standards for pharmacy technician training are needed.

Progress toward standardization has been facilitated by the Model Curriculum for Pharmacy Technician Training. Having taken the initia-
Pharmacy technicians

tive and the leadership role, ASHP collaborated with several other pharmacy associations (APhA, the American Association of Pharmacy Technicians, PTEC, the American Association of Colleges of Pharmacy [first edition only], and NACDS [second edition only]) to develop the Model Curriculum. The first edition, released in 1996, was based on the findings of the 1992–94 Scope of Pharmacy Practice Project.67 Many of the revisions in the second edition, released in 2001, were based on a 1999 PTCB task analysis and accounted for changes in the scope of activities of today’s pharmacy technicians as well as changes expected to occur over the next five years.21,22

Significant changes were made, for example, in sections dealing with the technician’s role in enhancing safe medication use, assisting with immunizations, and using “tech–check–tech” (a system in which pharmacy technicians are responsible for checking the work of other technicians with minimal pharmacist oversight).

The organizations that developed the model curriculum do not expect that every training program will cover every goal and objective of the curriculum; rather, the curriculum should be seen as a “menu” of possible learning outcomes. The model curriculum provides a starting point for identifying core competencies for pharmacy technicians.22 It acknowledges the need for a level of understanding of basic therapeutics, anatomy, physiology, and pharmacology. The curriculum does not include recommendations regarding the relative amount of time that should be allotted to each module, but such guidelines are under consideration.68

The future preparation of pharmacy technicians: Education versus training. Virtually all the consensus-development meetings and studies that have investigated training requirements for pharmacy technicians have called for the development of standardized training in some form.51,69 APhA and ASHP concur with this position.20,71

Such a recommendation would best be accompanied by two important caveats. The first is that any national standards for education and training of pharmacy technicians will not eliminate the need for additional, site-specific training that focuses on local policies and procedures.52,65 Second, standards-based education or training can conceivably be delivered successfully in a variety of different settings.

However, what exactly is meant when the terms education and training are applied to pharmacy technicians? They have tended in the past to be used somewhat interchangeably. However, a distinction needs to be made and a balance between the two needs to be reached to ensure that pharmacy technicians are adequately and appropriately prepared to perform, in a safe and efficient manner, the functions and responsibilities that are assigned to them—both now and in the future. As has already been noted in this paper, the roles and responsibilities of pharmacy technicians have evolved and expanded in recent years. While, in the main, pharmacy technicians perform routine tasks that do not require the professional judgment of a pharmacist, state pharmacy practice acts now recognize that pharmacy technicians are being assigned new and different functions in the practice setting, some of which may require a higher level of judgment or extensive product knowledge and understanding.

Training involves learning through specialized instruction, repetition and practice of a task or series of tasks until proficiency is achieved. Education, on the other hand, involves a deeper understanding of a subject, based on explanation and reasoning, through systematic instruction and teaching. People may be proficient in performing a task without knowing why they are doing it, why it is important, or the logic behind the steps being performed. While education (as described above) may involve a training component, both are vital to the learning (or preparation) of the technician. Barrow and Milburn72 give a useful treatise on this subject. The education and training of pharmacy technicians and other supportive personnel must be commensurate with the roles they are performing.

To ensure quality, both the education and training components should be standards based.

Accreditation of pharmacy technician education and training

The Council on Credentialing in Pharmacy (CCP) defines accreditation as “the process by which a private association, organization, or government agency, after initial and periodic evaluations, grants recognition to an organization that has met certain established criteria.” Accreditation is an integral aspect of ensuring a quality educational experience.

For pharmacy technician education and training, there are two types of accreditation: programmatic (also referred to as specialized) and institutional. Programmatic accreditation focuses specifically on an individual program, whereas institutional accreditation evaluates the educational institution as a whole, with less specific attention paid to the standards of individual programs offered by the institution. Institutional accreditors operate either on a regional or national basis; the latter usually has a more focused area of interest. A system of dual accreditation, in which institutional accreditation is conducted by regional accreditors and programmatic accreditation is conducted by the American Council on Pharmaceutical Education (ACPE), has worked well for schools and colleges of pharmacy since the 1930s.

Based on information obtained from published directories, it is estimated that only 43% of the 247
schools and training institutions referred to earlier are accredited by bodies specializing in technical, allied health, and paraprofessional education; 36% have their programs accredited by ASHP; and 12% are accredited by both ASHP and one or more of the institutional accrediting bodies specializing in technical, allied health, and paraprofessional education.

Institutional accreditation. For institutions offering pharmacy technician training, national institutional accreditation is carried out by at least four agencies: the Accrediting Commission of Career Schools and Colleges of Technology (ACCSCCT), the Accrediting Bureau of Health Education Schools (ABHES), the Council on Occupational Education (COE), and the Accrediting Council for Independent Colleges and Schools (ACICS). All of these agencies are recognized by the U.S. Department of Education. None has a formal national affiliation with the profession of pharmacy.

Because there are no nationally adopted standards for pharmacy technician training, it is difficult for institutional accrediting bodies to set detailed program requirements. ACCSCCT standards require programs to have an advisory committee, the majority of whose members represent employers in the field of training.74 ABHES has a suggested curriculum outline for pharmacy technician programs. In an effort to improve the quality of their programs, COE and ABHES plan to switch from institutional to program accreditation.75 Of some concern is the fact that such accreditation systems (for pharmacy technician training programs) would be outside the pharmacy profession and would not be based on national standards recognized by the profession.

Program accreditation. Program accreditation for technician training is offered by ASHP. ASHP accreditation of technician training programs began in 1982 at the request of hospital pharmacists. Many hospital-based technician training programs were already using ASHP’s guidelines and standards, but they expressed a need for a more formal method of oversight to ensure the quality of training. ASHP had already accredited pharmacy residency programs and moving into technician accreditation seemed a logical step.

Initially, nearly all ASHP-accredited programs were hospital based. This is no longer the case; of the 90 technician training programs currently accredited by ASHP, only 3 are hospital based. Over 90% of programs are located at vocational, technical, or community colleges.76

The objectives, standards, and regulations of the accreditation program, as well as a directory of accredited programs, are available on the ASHP Web site.61,76-78 The accreditation standards are geared toward preparing technicians for all practice settings and require that pharmacy technicians be trained in a wide variety of practice environments and complete laboratory exercises before beginning their experiential training.

While accreditation is voluntary for both pharmacy degree programs and technician training programs, an important distinction exists. State boards of pharmacy and the National Association of Boards of Pharmacy (NABP) have recognized ACPE accreditation as an eligibility requirement for the North American Pharmacy Licensure Examination (NAPLEX).79 Completion of an accredited program is not usually a prerequisite for employment, registration, or certification as a pharmacy technician. However, accreditation does bring a number of benefits. For the program, the benefits include enhanced recruitment potential for trainees, improved marketing, and the opportunity for peer review and quality improvement. For employers, completion of an accredited program may be an indication of the level of competence of a technician. Most importantly, accreditation provides all stakeholders with an objective, external, and independent evaluation of the quality of the education or training experience.

Employers have a strong interest in the quality of training of their employees, not least of which is in terms of potential liability issues if the employer provides the training. Therefore, it would appear to be in the best interest of employers for the onus of quality assurance to rest with an independent party.

A new role for ACPE? ASHP recognizes that the education, training, and utilization of pharmacy technicians now have broader professional implications than when it introduced its accreditation program in 1982. For this reason, ASHP has asked ACPE to explore assuming responsibility for this function. Many people now believe that accreditation is best left to an independent agency that has no direct or indirect interest in the provision of training or in the activities of the graduates of the training program.80

Involving ACPE might have an additional advantage, should a decision be made to develop national training standards. ACPE, which has broad experience spearheading collaborative efforts to develop educational standards for pharmaceutical education, could be an appropriate organization to lead the process of developing uniform national standards for technician education and training. Responses to a 2000 ACPE survey indicate that more than 80% of respondents support further exploration of an ACPE role in this area.

Certification of pharmacy technicians

Certification is the process by which a nongovernmental agency or association grants recognition to an individual who has met certain predetermined qualifications specified
Pharmacy technicians

by that agency or association. For pharmacy, the PTCB, created in 1995, has been one of the most positive developments of the past decade.

“Certified pharmacy technician” (CPhT) is the only national credential available to pharmacy technicians. A credential is documented evidence of an individual’s or program’s qualifications or characteristics. Credentials may include diplomas, licenses, certificates, and certifications. CCP was established in 1999. The development and application of credentialing standards for the pharmacy profession are integral components of CCP’s vision and mission statements. PTCB was one of CCP’s founding organizations. For a pharmacy technician, certification is an indication of the mastery of a specific core of knowledge. Certification is mainly voluntary, although some state boards of pharmacy now require certification of technicians.

The PTCB examination is based on a task analysis that defined the work of pharmacy technicians nationwide: 64% of the exam is based on knowledge required to assist the pharmacist in serving patients, 25% on medication distribution and inventory control systems, and 11% on the administration and management of pharmacy practice. By the end of 2001, more than 100,000 technicians had been certified with this program. CPhTs must renew their certification every two years and complete at least 20 hours of pharmacy-related continuing education (including 1 hour of pharmacy law) during that period of time.

For many technicians, achieving PTCB certification is an important part of their professional development. Many pharmacy chains have recognized the value of certification and provide assistance and incentives to staff to achieve certification, including reimbursement of costs, advancement to a higher grade, and a salary increase. Studies have revealed that certified technicians remain in practice longer than do noncertified technicians. Staff turnover, including both pharmacists and technicians, has decreased in pharmacies that employ certified technicians. Improved staff morale, higher productivity, reduced errors, and higher levels of customer satisfaction have also been noted. Additional benefits for employers include improved risk management, reduced technician training times, and lower training costs. Some pharmacists feel more confident delegating dispensing activities to certified technicians than to technicians who are not certified.

PTCB recognizes the need to reassess and modify its policies and procedures, as well as the examination, in response to the changing needs of pharmacy practice, the profession, and trends in the marketplace. To make such assessments, PTCB conducts research and seeks input from its stakeholders. PTCB also reviews its eligibility criteria for candidates who wish to sit for the certification examination. Under consideration are specialty certification assessments in areas such as preparation of intravenous admixtures and third-party-payment systems.

Regulation of pharmacy technicians

For many years, most state boards of pharmacy, often reflecting the attitudes of pharmacists, opposed recognizing technicians and expanding the scope of their activities. As pharmacists’ roles changed and use of supportive personnel expanded, these attitudes began to shift. Over the past five years, a majority of states have revised their pharmacy practice acts in areas related to technicians. Today, Ohio is the only state that does not formally address pharmacy technicians in state statutes or regulations. NABP regularly surveys state pharmacy practice acts. The results of these surveys are bellwethers of change at the state level; collectively, they reveal trends. The most recent survey was conducted in 2001. To highlight changes that have taken place since the publication of the 1996 “White Paper on Pharmacy Technicians,” the results of NABP’s 1996–1997 and 2001–2002 surveys were compared. NABP also appoints task forces to study and make recommendations on major issues. The deliberations of these task forces have resulted in, among other things, a call for formal recognition of pharmacy technicians, simplified state registration procedures, site-specific training, a national technician competency examination, and a disciplinary clearinghouse. Key developments in regulation, as evidenced in the NABP surveys and in recent NABP task force recommendations and actions, are summarized below.


Terminology. In the 1996–1997 NABP survey, at least 11 terms were used to describe pharmacy supportive personnel. At that time, 24 states used the term “pharmacy technician.” By 2001, 38 states had adopted this designation.

Technician registration. In its “model act,” designed to provide boards of pharmacy with model language that can be used when developing state laws or board rules, NABP advocates that pharmacists be licensed and that pharmacy technicians be registered. “Registration” is defined as the process of making a list or being included on a list. It carries no indication or guarantee of the registrant’s knowledge or skills. “Licensure” is the process by which an agency of government grants permission to an individual to engage in a given occupation upon finding that the applicant has attained the minimal degree of competency necessary to ensure that the public health, safety, and welfare will be reasonably well protected. Like NABP, ASHP and APhA support registration and oppose licensure of pharmacy technicians. APhA and ASHP believe that licensed pharma-
cists must retain responsibility and accountability for the quality of service in a pharmacy.2,7,18

By 2001, 24 states required registration and 5 required licensure of pharmacy technicians, in accordance with NABP’s recommendations. Although the term “license” is used in these regulations, in some cases the process would appear to more closely resemble “registration” in terms of the definitions used in this paper. The increase in the number of states (up from 14 in 1996) that now require either registration or licensure of pharmacy technicians is noteworthy.

Pharmacist-to-technician ratios. Since 1996, at least 25 states have liberalized their pharmacist-to-technician ratios (from a norm of 1:1 or 1:2 to 1:2 or 1:3). Some states further relaxed ratios in sites where certified pharmacy technicians are employed. In their 1996 white paper, APhA and ASHP called for a reassessment of mandated arbitrary pharmacist-to-technician ratios.2 This stance reflects the organizations’ conviction that pharmacists should be responsible and accountable for pharmacy technicians under their charge.70,71 NACDS believes that each practice setting should be allowed to determine its own optimal ratio.67 Following the recommendation of a 1999 Task Force on Standardization of Technicians’ Roles and Competencies,68 NABP encouraged states to modify or eliminate ratios in pharmacy settings with quality assurance programs in place.

Standard training requirements. Between 1996 and 2001, the number of states that had incorporated training requirements into their regulations rose by 34% (from 19 to 26). Training requirements had been recommended in 1996 by an NABP task force.

The training requirements that state boards have put in place are, in some cases, minimal. Many states require nothing more than a training manual; there are no detailed minimum requirements. California, Kansas, Indiana, and Washington, on the one hand, have enacted competency-based regulations or well-defined standards for training program assessment. Some states require continuing education for renewal of registration or licensure; others are considering such a requirement.

Technician certification. Louisiana, New Mexico, Texas, Utah, Virginia, and Wyoming have made certification a requirement for registration or licensure. Texas was the first to introduce the requirement in 1996. The law was implemented in January 2001; a provision exists, however, for certain technicians to be exempted.89 In Utah, the licensing authority has defined compliance with minimum training standards, as well as certification and the passing of a law examination, as requirements for licensure.90 Alaska, Arizona, Kentucky, Massachusetts, Michigan, Minnesota, North Carolina, Oregon, Tennessee, and Texas have altered pharmacist-to-technician ratios, responsibilities, supervision, or other requirements on the basis of a technician’s certification status.

Levels of personnel and scope of practice. Based on findings of its 1999 task force, NABP has recognized two levels of supportive personnel: pharmacy technician and certified pharmacy technician, and specified the scope of practice that would be allowed for technicians working under the supervision of a pharmacist.91 Activities that cannot be performed by a pharmacy technician include drug utilization review, clinical conflict resolution, prescriber contact concerning prescription drug order clarification or therapy modification, patient counseling, dispensing-process validation, prescription transfer, and compounding. The following activities cannot be performed by a certified pharmacy technician: drug utilization review, clinical conflict resolution, prescriber contact concerning prescription drug order clarification or therapy modification, patient counseling, dispensing-process validation, and receipt of new prescription drug order when communicating by telephone or electronically unless the original information is recorded so the pharmacist can review the order as transmitted. The task force had recommended a third, and higher, level of supportive personnel—the pharmacist assistant—but NABP did not adopt this recommendation. APhA and ASHP likewise oppose the creation of this category of supportive personnel.70,71

Many of the changes in state regulations are reflected in the functions that technicians perform. For example, the number of states allowing a pharmacy technician to call a physician for refill authorization increased by 41% (from 25 to 36) in hospital and institutional settings and by 47% (from 24 to 36) in a community setting between 1996 and 2001. Few states have traditionally allowed pharmacy technicians in any work setting to accept called-in (new) prescriptions from a physician’s office, and there was little change in this area over the past five years. There was also little change in the dispensing-related activities that pharmacy technicians perform; however, the percentage of states allowing these activities was already high (>85% in 1996). The only dispensing-related activity to show a more than 15% increase (in the number of states that allow it) in the past five years is the reconstitution of oral liquids, which increased by 22% (from 41 to 51) in hospitals and by 23% (from 40 to 50) in community settings. In hospital and institutional settings, the number of states allowing technicians to compound medications for dispensing increased by 33% (from 34 to 46); the number increased by 24% (from 34 to 43) in the community setting.

Competency assessment. In May 2000, NABP resolved that it would (1) develop a national program to assess the competencies necessary for technicians to safely assist in the prac-
Pharmacy technicians face a serious work shortage at a time when the public and health care providers alike are looking to pharmacists to assume expanded responsibility for better medication use. Better use of human resources is essential. When pharmacists limit their direct involvement in the technical aspects of dispensing, they can fully concentrate on the services for which they are uniquely educated and trained. Only then will Dr. Tice's vision of the future become reality.

The utilization, education, training, and regulation of pharmacy technicians have changed dramatically in the past five years. National certification has played a particularly important role in these changes. Nonetheless, many challenges remain. Because these challenges are interrelated, resolving them requires a coordinated approach. The profession needs a shared vision for pharmacy technicians and other supportive personnel. This vision will provide the framework within which further necessary change can take place. Beginning with that much-needed vision, the major issues to be discussed and resolved might be expressed as follows:

1. Vision
   a. Define a vision for pharmacy technicians as an integral part of the vision and mission of the profession of pharmacy.
   b. Develop goals, objectives, and strategies to realize this vision, including determining who will lead the process and the specific roles, present and future, of all parties.
   c. Communicate the vision and goals to all stakeholders, including policymakers and the public.

2. Roles, responsibilities, and competencies
   a. Define the different levels of pharmacy supportive personnel and the responsibilities or functions appropriate for individuals at each level.
   b. Determine the competencies required for high-level performance at each level.

3. Education and training
   a. Establish standards (including eligibility criteria) for the education and training of each level of pharmacy supportive personnel.
   b. Establish requirements for maintenance of competence, where applicable, and create the systems to achieve this.
   c. Consider the cost implications of any new training model, and devise appropriate strategies to address cost concerns.

4. Credentialing and accreditation
   a. Develop or enhance appropriate credentials, in collaboration with PTCB and CCP, to reflect what is happening and required in practice.
   b. Determine what the most appropriate systems of accreditation for education and training programs for pharmacy technicians are and who should lead this process on behalf of the profession.

5. Regulation
   a. Determine the appropriate regulatory framework under which pharmacy technicians can optimally contribute to the achievement of pharmacy's mission.
b. Work to bring about further changes in state pharmacy practice acts and regulations in order to achieve the desired regulatory framework.

c. Work to bring about the development and adoption of standardized definitions and terminology for pharmacy support personnel.

Conclusion

Change does not come easily, and it is seldom embraced by everyone. As Kenneth Shine,94 put it, when discussing the need for change in the health system: “The issue ... will be whether these needed changes occur only begrudgingly as a reaction to external forces, or whether they occur proactively as a result of professional leadership.” The profession of pharmacy is changing in response to internal as well as external influences. Both pharmacists and pharmacy technicians are, therefore, part of an evolving partnership. Pharmacy must respond to the changes that are already taking place and be sufficiently creative and flexible to anticipate and accommodate future developments. The need to address the issues surrounding pharmacy technicians in a timely manner cannot be overemphasized. Proper preparation of pharmacy technicians to work with pharmacists is important in the promotion of public health and better use of medication. CCP, on behalf of its member organizations, offers this paper to provide a stimulus for profession-wide action that can no longer wait.

References

18. Pharmacy Technician Certification Board: published and unpublished research, surveys, and employer consultations.
26. IMS HEALTH and NACDS Economics Department. Used with permission.
Pharmacy technicians

63. Rouse MJ. Analysis of 36 pharmacy technician programs, 36 barbering and styling programs, and 34 cosmetics and styling programs listed in the ACCSCT Directory: 2001 Nov.
68. Rouse MJ. Personal communication with Nimmo CM, model curriculum committee leader. 2001 Oct.
70. American Pharmaceutical Association Policy statements.
75. Rouse MJ. (Letters to Eaton CJ, Associate Executive Director, Accrediting Bureau of Health Education Schools, and Puckett G, Associate Executive Director, Council on Occupational Education.) 2001 Nov.
85. Gans JA, Manasse HR. Memorandum to G, Associate Executive Director, Accrediting Bureau of Health Education Schools, and Puckett G, Associate Executive Director, Council on Occupational Education.) 2001 Nov.
88. Texas State Board of Pharmacy. Rule


Policies On Supportive Personnel

2001.pdf

AboutAACP/4308_CumulativePolicies,1980-

www.aacp.org/Docs/AACPFuntions/

Pharmacy

(h) The Pharmacy Technicians Educators

(g) The National Pharmacy Technician Asso-

(f) The National Community Pharmacists As-

(e) The American Society of Health-System

(d) The American Association of Colleges of

(c) The American Pharmaceutical Association

(b) The American Association of Pharmacy

(a) The American Association of Colleges of

Appendix—Policy statements of national associations

The following statements are published with the permission of the respective organizations and were accurate as of March 2002, with the exception of (d), which was accurate as of June 2002.

(a) The American Association of Colleges of Pharmacy

SPECIAL FEATURE Pharmacy technicians

The American Association of Pharmacy Technicians

www.pharmacytechnician.com/

Code of Ethics for Pharmacy Technicians

Preamble

Pharmacy Technicians are healthcare professionals who assist pharmacists in providing the best possible care for patients. The principles of this code, which apply to pharmacy technicians working in any and all settings, are based on the application and support of the moral obligations that guide the pharmacy profession in relationships with patients, healthcare professionals and society.

Principles

- A pharmacy technician's first consideration is to ensure the health and safety of the patient, and to use knowledge and skills to the best of his/her ability in serving patients.
- A pharmacy technician supports and promotes honesty and integrity in the profession, which includes a duty to observe the law, maintain the highest moral and ethical conduct at all times and uphold the ethical principles of the profession.
- A pharmacy technician assists and supports the pharmacists in the safe and efficacious and cost effective distribution of health services and healthcare resources.
- A pharmacy technician respects and values the abilities of pharmacists, colleagues and other healthcare professionals.
- A pharmacy technician maintains competency in his/her practice and continually enhances his/her professional knowledge and expertise.
- A pharmacy technician respects and supports the patient's individuality, dignity, and confidentiality.
- A pharmacy technician respects the confidentiality of a patient's records and discloses pertinent information only with proper authorization.
- A pharmacy technician never assists in dispensing, promoting or distribution of medication or medical devices that are not of good quality or do not meet the standards required by law.
- A pharmacy technician does not engage in any activity that will discredit the profession, and will expose, without fear or favor, illegal or unethical conduct of the profession.
- A pharmacy technician associates with and engages in the support of organizations, which promote the profession of pharmacy through the utilization and enhancement of pharmacy technicians.

The American Pharmaceutical Association

www.aphanet.org

2001 Automation and Technical Assistance

APhA supports the use of automation for prescription preparation and supports technical and personnel assistance for performing administrative duties and facilitating pharmacist's provision of pharmaceutical care.

1996 Control of Distribution System (Revised 2001)

The American Pharmaceutical Association supports the pharmacists' authority to control the distribution process and personnel involved and the responsibility for all completed medication orders regardless of practice setting. (J Am Pharm Assoc. NS36:396. June 1996)

1996 Technician Licensure and Registration

1. APhA recognizes, for the purpose of these policies, the following definitions:

(a) Licensure: The process by which an agency of government grants permission to an individual to engage in a given occupation upon finding that the applicant has attained the minimal degree of competency necessary to ensure that the public health, safety, and welfare will be reasonably well protected. Within pharmacy, a pharmacist is licensed by a State Board of Pharmacy.

(b) Registration: The process of making a list or being enrolled in an existing list.

2. APhA supports the role of the State Boards of Pharmacy in protecting the public in its interaction with the profession, including the Boards' oversight of pharmacy technicians, through their control of pharmacists and pharmacy licenses.

3. In States where the Board of Pharmacy chooses to exercise some direct oversight of technicians, APhA recommends a registration system.

4. APhA reaffirms its opposition to licensure of pharmacy technicians by statute or regulation. (J Am Pharm Assoc. NS36:396. June 1996)
1971 Sub-professionals: Functions, Standards and Supervision

The committee recommends that APHA endorse the use of properly supervised supportive personnel in pharmacy practice as a positive step toward improving the quality and quantity of pharmaceutical services provided by the profession.

6110 Pharmacy technicians

To support the optimal use of well trained, certified pharmacy technicians under the supervision of licensed pharmacists; further, To oppose the creation of a category of licensed personnel in pharmacy such as “Pharmacist Assistant” that would have legal authority to perform independently those professional pharmacy functions that are currently restricted to licensed pharmacists.

The National Association of Chain Drug Stores

www.nacds.org

Issue Brief—Pharmacy Technicians (Issued October 2001; updated April 2002)

The Issue

Registration, training and certification of pharmacy support personnel (pharmacy technicians) and maximizing the duties that such pharmacy technicians can perform.

Background

Allowing pharmacy technicians to be utilized to the fullest extent possible without any ratio will:

- Enhance pharmacists availability to counsel patients and to confer with other health professionals;
- Improve overall service to patients;
- Ease workload and improve professional satisfaction for pharmacists; and,
- Enhance efficiency and improve resources available for meeting the increased prescription volume and addressing the pharmacist shortages.

Certification of pharmacy technicians

- Certification should be voluntary and not mandatory;
- “Certification” exams should be effective tools for evaluating pharmacy technicians at the various pharmacy practice sites, such as community retail pharmacies, hospital pharmacies, and other practice settings;
- If pharmacy technicians decide to be certified
they should be permitted to perform expanded duties and responsibilities.

- Pharmacy technicians, even if not certified, should be permitted to do routine nonjudgmental dispensing functions including, but not limited to, handling nonjudgmental third party and other payment issues, offering the patient the availability of the pharmacist for counseling, placing telephone calls to prescribers for refill requests, taking phone calls from prescribers' offices authorizing refill prescriptions, and preparing prescriptions for pharmacist's final review.

**Pharmacy technician training and examinations**

- Boards of Pharmacy should allow for employer-based pharmacy technician training programs and examination pursuant to a Pharmacy Technician Training Manual.
- Boards of Pharmacy should recognize that employer-based technician training programs prepare technicians to work in their own particular practice setting, and that technician training programs should be designed to teach competencies relevant to the particular practice setting.
- Chain pharmacy technician training programs and examinations should receive Board approval.

**NACDS position**

- Continue to permit an unlimited number of technicians and allow each practice setting to determine their optimal ratio.
- Allow technicians to perform non-judgmental tasks...those duties that do not require the expertise of a pharmacist.
- Allow technician training tailored to the pharmacy and to the company operations and standards.
- Allow certification to remain voluntary.
- Allow certified pharmacy technicians to perform additional duties and responsibilities commensurate with their competencies.
- Approve employer based training and examination pharmacy technician programs and recognize the importance of practice site specific training and examination programs such as community pharmacy based programs.
- Recognize the NACDS pharmacy technician training and examination program for certification of pharmacy technicians.

The National Community Pharmacists Association

www.ncpanet.org

NCPA supports the use of pharmacy technicians in community pharmacies to enhance the pharmacist's role in the provision of quality pharmacist care. NCPA believes the proper training and supervision of technicians by the pharmacist is critical to the health and safety of patients.

Technician Support and Technology:

Recognizing the current environment of regional shortages of pharmacists and the projected increase in prescription volume due to potential Medicare prescription drug benefit coverage and an aging population, NCPA recommends enhancing patient care and addressing manpower issues through the more efficient utilization of technician support and technology. NCPA strongly opposes the creation of any category of supportive personnel, which is not under the direct supervision of a licensed pharmacist.

The National Pharmacy Technician Association

www.pharmacytechnician.org/

Key Professional Issues

Medication Errors:

NPTA feels that the use of highly trained, educated and certified pharmacy technicians in the pharmacy profession will assist in efficiently and effectively reducing the occurrence of medication errors.

Technician Liability:

NPTA feels that with the emergence of national technician certification, producing increased roles and responsibilities, the issue of technician liability will become an evermore-present factor. Currently, NPTA does not have a position statement on technician liability.

Technician Education and Training:

NPTA fully supports formalized education and training programs at institutions of higher education. NPTA feels strongly that at some point, pharmacy technicians should be required to obtain a degree/certificate to be allowed to practice as a pharmacy technician. At this point, NPTA does not have a position statement on technician liability.

Technician Certification, Regulation and Credentialing:

National Certification:

NPTA fully supports legislated requirements of certification by pharmacy technicians

Across the United States, national certification is an appropriate and effective first step towards the educational and training goals for pharmacy technicians of the future.

Continuing Education:

NPTA strongly believes that an independent organization should be set up to accredit and monitor providers of pharmacy technician level continuing education programs. NPTA feels that while certified pharmacy technicians should be allowed to utilize ACPE CE Programs, that no organization (local, state or national) should make ACPE programs a requirement, since currently all ACPE programs are designed at the pharmacist's level.

The Pharmacy Technicians Educators Council

NPTA strongly believes that an independent organization should be set up to accredit and monitor providers of pharmacy technician level continuing education programs. NPTA feels that while certified pharmacy technicians should be allowed to utilize ACPE CE Programs, that no organization (local, state or national) should make ACPE programs a requirement, since currently all ACPE programs are designed at the pharmacist's level.

**SPECIAL FEATURE** Pharmacy technicians

PTEC Recommendations and Goals

PTEC strongly recommends that all pharmacy education and programs seek ASHP accreditation.

PTEC strongly recommends that all pharmacy technician-training programs have a minimum of 600 contact hours, in accordance with ASHP accreditation standards.

In the short term, PTEC will:

- Work with AACP to design and implement programs which would provide step-wise technician training curriculum credits which could be used towards pharmacist training and education.
- Advocate a PTEC representative attend AACP board meetings, and invite AACP officers to attend PTEC board meetings.

PTEC advocates that:

- Within 5 years, all technician-training programs have a minimum of 600 contact hours; and
- Within 10 years, all technician-training programs evolve into 2-year associate degree programs.

PTEC recognizes the need for, and supports the development and introduction of, appropriate credentials for pharmacy technicians, including at the specialty level.

PTEC will work with AACP to design and implement programs which would provide step-wise technician-training curriculum credits that could be used towards pharmacist training and education.

The PTEC recommended pharmacy technology program content is published on its website: www.rxptec.org/rptpc.html