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# **Committee on Health Quality**

**Tuesday, January 8, 2008  
9:00 AM - 10:30 AM  
306 HOB**

**ACTION PACKET**

# COMMITTEE MEETING REPORT

## Committee on Health Quality

1/8/2008 9:00:00AM

Location: 306 HOB

### Attendance:

	<i>Present</i>	<i>Absent</i>	<i>Excused</i>
Gayle Harrell (Chair)	X		
Debbie Boyd	X		
Larry Cretul	X		
Audrey Gibson	X		
D. Alan Hays	X		
Doug Holder	X		
Matt Hudson	X		
Paige Kreegel	X		
Julio Robaina	X		
Robert Schenck	X		
Kelly Skidmore	X		
Darren Soto	X		
<b>Totals:</b>	<b>12</b>	<b>0</b>	<b>0</b>

Committee meeting was reported out: Tuesday, January 08, 2008 11:11:54AM

# COMMITTEE MEETING REPORT

## Committee on Health Quality

1/8/2008 9:00:00AM

Location: 306 HOB

### Workshop

#### HB 243:

##### Appearances:

Aimee Diaz Lyon (Lobbyist) - Opponent

Automated External Defibrillators

*Florida Justice Association*

218 South Monroe Street

Tallahassee FL 32301

Phone:850.224.9403

James Mosteller (State Employee) - Proponent

Automated External Defibrillators

*American Heart Association*

317 E Park Avenue

Tallahassee FL 32301

Phone:850.345.7885

Mac Kemp, Deputy Chief - Information Only

Automated External Defibrillators

*Leon County EMS*

2290 Miccosukee Road

Tallahassee FL 32308

Phone:850.606.2100

Warren Husband (Lobbyist) - Proponent

Automated External Defibrillators

*FL Restaurant & Lodging Association & FL Chamber of Commerce*

PO Box 10909

Tallahassee FL 32302

Phone:850.205.9000

#### HB 275:

##### Appearances:

Larry Gonzalez (Lobbyist) - Proponent

Pharmacy

*FL Society of Health-System Pharmacists*

215 S. Gadsden Street, 2nd Floor

Tallahassee FL 32301

Manny Prieguez (Lobbyist) - Information Only

Pharmacy

*FL Pharmacy Association*

Committee meeting was reported out: Tuesday, January 08, 2008 11:11:54AM

# COMMITTEE MEETING REPORT

## Committee on Health Quality

1/8/2008 9:00:00AM

**Location:** 306 HOB

Michael Schwartz (Lobbyist) - Proponent

Pharmacy

*Walgreens*

410 N Gadsden Street

Tallahassee FL 32301

Phone:850.224.1088

Mike McQuone (Lobbyist) - Proponent

Pharmacy

*Florida Society of Health-System Pharmacists*

2304 Killearn Center Boulevard

Tallahassee FL 32309

Phone:850.906.9333

Patricia Smith, CPhT - Proponent

Pharmacy

*FL Society of Health-System Pharmacists*

1075 SW Jamestown Glen

Lake City FL 32025

Phone:386.754.0480

Committee meeting was reported out: Tuesday, January 08, 2008 11:11:54AM

# COMMITTEE MEETING REPORT

## Committee on Health Quality

1/8/2008 9:00:00AM

**Location:** 306 HOB

**Summary:** No Bills Considered

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## Appendix D. PTCB Exam Content Outline

The pharmacy technician performs activities related to three broad function areas. The specific responsibilities and activities that pharmacy technicians may perform within each function area are:

### I. Assisting the Pharmacist in Serving Patients (66% of exam)

- A. Receive prescription/medication order(s) from patient/patient's representative, prescriber, or other healthcare professional
  1. Accept new prescription/medication order from patient/patient's representative, prescriber, or other healthcare professional
  2. Accept new prescription/medication order electronically (for example, by telephone, fax, or electronic transmission)
  3. Accept refill request from patient/patient's representative
  4. Accept refill authorization from prescriber or other healthcare professional electronically (for example, by telephone, fax, or electronic transmission)
  5. Contact prescriber/originator for clarification of prescription/medication order refill
  6. Perform/accept transfer of prescription/medication order(s)
- B. Assist the pharmacist in accordance with federal rules and regulations in obtaining from the patient/patient's representative such information as diagnosis or desired therapeutic outcome, disease state, medication history (including over-the-counter [OTC] medications and dietary supplements), allergies, adverse reactions, medical history and other relevant patient information, physical disability, and payor information (including both self-pay and third party reimbursement)
- C. Assist the pharmacist in accordance with federal rules and regulations in obtaining from prescriber, other healthcare professionals, and/or the medical record such information as diagnosis or desired therapeutic outcome, disease state, medication history (including [OTC] medications and dietary supplements), allergies, adverse reactions, medical history and other relevant patient information, physical disability, and payor information (including both self-pay and third party reimbursement)
- D. Collect and communicate patient-specific data (for example, blood pressure, glucose, cholesterol levels, therapeutic drug levels, immunizations) to assist the pharmacist in monitoring patient outcomes
- E. Collect and communicate data related to restricted drug distribution programs (for example, thalidomide, isotretinoin, and clozapine)
- F. Collect and communicate data related to investigational drugs
- G. Assess prescription or medication order for completeness (for example, patient's name and address), accuracy, authenticity, legality, and reimbursement eligibility
- H. Update the medical record/patient profile with such information as medication history (including [OTC] medications and dietary supplements), disease states, compliance/adherence patterns, allergies, medication duplication, and/or drug-disease, drug-drug, drug-laboratory, drug-dietary supplement and/or OTC, and drug-food interactions
- I. Assist the patient/patient's representative in choosing the best payment assistance plan if multiple plans are available to patient
- J. Process a prescription/medication order
  1. Enter prescription/medication order information onto patient profile
  2. Select the appropriate product(s) for dispensing (for example, brand names, generic substitutes, therapeutic substitutes, formulary restrictions)
  3. Obtain pharmaceuticals, durable and non-durable medical equipment, devices, and supplies (including hazardous substances, controlled substances, and investigational products) from inventory
  4. Calculate quantity and days supply of finished dosage forms for dispensing
  5. Measure or count quantity of finished dosage forms for dispensing
  6. Process and handle radiopharmaceuticals
  7. Perform calculations for radiopharmaceuticals
  8. Process and handle chemotherapeutic medications commercially available in finished dosage

- forms (for example, Efudex, mercaptopurine)
- 9. Perform calculations for oral chemotherapeutic medications
- 10. Process and handle investigational products
- 11. Package finished dosage forms (for example, blister pack, robotic/automated dispensing vial)
- 12. Affix label(s) and auxiliary label(s) to container(s)
- 13. Assemble patient information materials (for example, drug information sheets, patient package inserts, Health Information Portability and Accountability Act [HIPAA] literature)
- 14. Check for accuracy during processing of the prescription/medication order (for example, National Drug Code [NDA] number, bar code, and data entry)
- 15. Verify the data entry, measurements, preparation, and/or packaging of medications produced by other technicians as allowed by law (for example, tech check tech)
- 16. Prepare prescription or medication order for final check by pharmacist
- 17. Prepare prescription or medication order for final check by pharmacy technician as allowed by law (for example, tech check tech)
- 18. Perform Nuclear Regulatory Commission (NRC) required checks for radiopharmaceuticals
- K. Compound a prescription/medication order:
  - 1. Assemble equipment and/or supplies necessary for compounding the prescription/medication order
  - 2. Calibrate equipment (for example, scale or balance, total parenteral nutrition [TPN] compounder) needed to compound the prescription/medication order
  - 3. Perform calculations required for preparation of compounded IV admixtures
  - 4. Perform calculations for extemporaneous compounds
  - 5. Compound medications (for example, topical preparations, reconstituted antibiotic suspensions) for dispensing according to prescription and/or compounding guidelines
  - 6. Compound medications in anticipation of prescriptions/medication orders (for example, compounding for a specific patient)
  - 7. Prepare sterile products (for example, TPNs, piggybacks, IV solutions, ophthalmic products)
  - 8. Prepare radiopharmaceuticals
  - 9. Prepare chemotherapy
  - 10. Record preparation and/or ingredients of medications (for example, lot number, control number, expiration date, chemotherapy calculations, type of IV solution)
- L. Provide prescription/medication to patient/patient's representative:
  - 1. Store medication prior to distribution
  - 2. Provide medication and supplemental information (for example, package inserts) to patient/patient's representative
  - 3. Package and ship pharmaceuticals, durable and non-durable medical equipment, devices, and supplies (including hazardous substances and investigational products) to patient/patient's representative. Place medication in dispensing system (for example, unit-dose cart, automated systems)
  - 4. Deliver medication to patient-care unit
  - 5. Record distribution of prescription medication
  - 6. Record distribution of controlled substances
  - 7. Record distribution of investigational drugs
  - 8. Record distribution of restricted drugs (for example, isotretinoin, clozapine, thalidomide)
  - 9. Record distribution of prescription/medication to patient's home
- M. Determine charges and obtain reimbursement for products and services
- N. Communicate with third-party payers to determine or verify coverage
- O. Communicate with third-party payers to obtain prior authorizations
- P. Communicate with third-party payers and patients/patient's representatives to rectify rejected third-party claims
- Q. Identify and resolve problems with rejected claims (for example, incorrect days supply, incorrect ID number)
- R. Provide supplemental information (for example, disease state information, CDs) as requested/required

- S. Direct patient/patient's representative to pharmacist for counseling
- T. Perform drug administration functions under appropriate supervision (for example, perform drug/IV rounds, check pumps, anticipate refill of drugs/IVs)
- U. Process and dispense enteral products

## **II. Maintaining Medication and Inventory Control Systems (22% of exam)**

- A. Identify pharmaceuticals, durable and non-durable medical equipment, devices, and supplies (including hazardous substances and investigational products) to be ordered
- B. Place routine orders for pharmaceuticals, durable and nondurable medical equipment, devices, and supplies (including hazardous substances and investigational products) in compliance with legal, regulatory, formulary, budgetary, and contractual requirements
- C. Place emergency orders for pharmaceuticals, durable and non-durable medical equipment, devices, and supplies (including hazardous substances and investigational products) in compliance with legal, regulatory, formulary, budgetary, and contractual requirements
- D. Receive pharmaceuticals, durable and non-durable medical equipment, devices, and supplies (including hazardous substances and investigational products) and verify against specifications on original purchase orders
- E. Place pharmaceuticals, durable and non-durable medical equipment, devices, and supplies (including hazardous substances and investigational products) in inventory under proper storage conditions while incorporating error prevention strategies
- F. Perform non-patient-specific preparation, distribution, and maintenance of pharmaceuticals, durable and non-durable medical equipment, devices, and supplies (including hazardous substances and investigational products) while incorporating error prevention strategies (for example, crash carts, clinic and nursing floor stock, automated dispensing systems)
- G. Remove from inventory expired/discontinued/slow moving/overstocked pharmaceuticals, durable and nondurable medical equipment, devices, and supplies (including hazardous substances and investigational products)
- H. Remove from inventory recalled pharmaceuticals, durable and non-durable medical equipment, devices, and supplies (including hazardous substances and investigational products)
- I. Dispose of or destroy pharmaceuticals or supplies (for example, hazardous substances, investigational products, controlled substances, non-dispensable products)
- J. Communicate changes in product availability (for example, formulary changes, recalls, shortages) to pharmacy staff, patient/patient's representative, physicians, and other healthcare professionals
- K. Implement and monitor policies and procedures to deter theft and/or drug diversion
- L. Maintain a record of controlled substances ordered, received, and removed from inventory
- M. Maintain a record of investigational products ordered, received, and removed from inventory
- N. Perform required inventories and maintain associated records
- O. Maintain record-keeping systems for repackaging, non-patient specific compounding, recalls, and returns of pharmaceuticals, durable and non-durable medical equipment, devices, and supplies (including hazardous substances and investigational products)
- P. Compound non-patient specific medications in anticipation of prescription/medication orders
- Q. Perform quality assurance tests on compounded medications (for example, end product testing and validation)
- R. Repackage finished dosage forms for dispensing (for example, unit dose, blister pack, oral syringes)
- S. Participate in quality assurance programs related to pharmaceuticals, durable and non-durable medical equipment, devices, and supplies (including hazardous substances and investigational products)

## **III. Participating in the Administration and Management of Pharmacy Practice (12% of exam)**

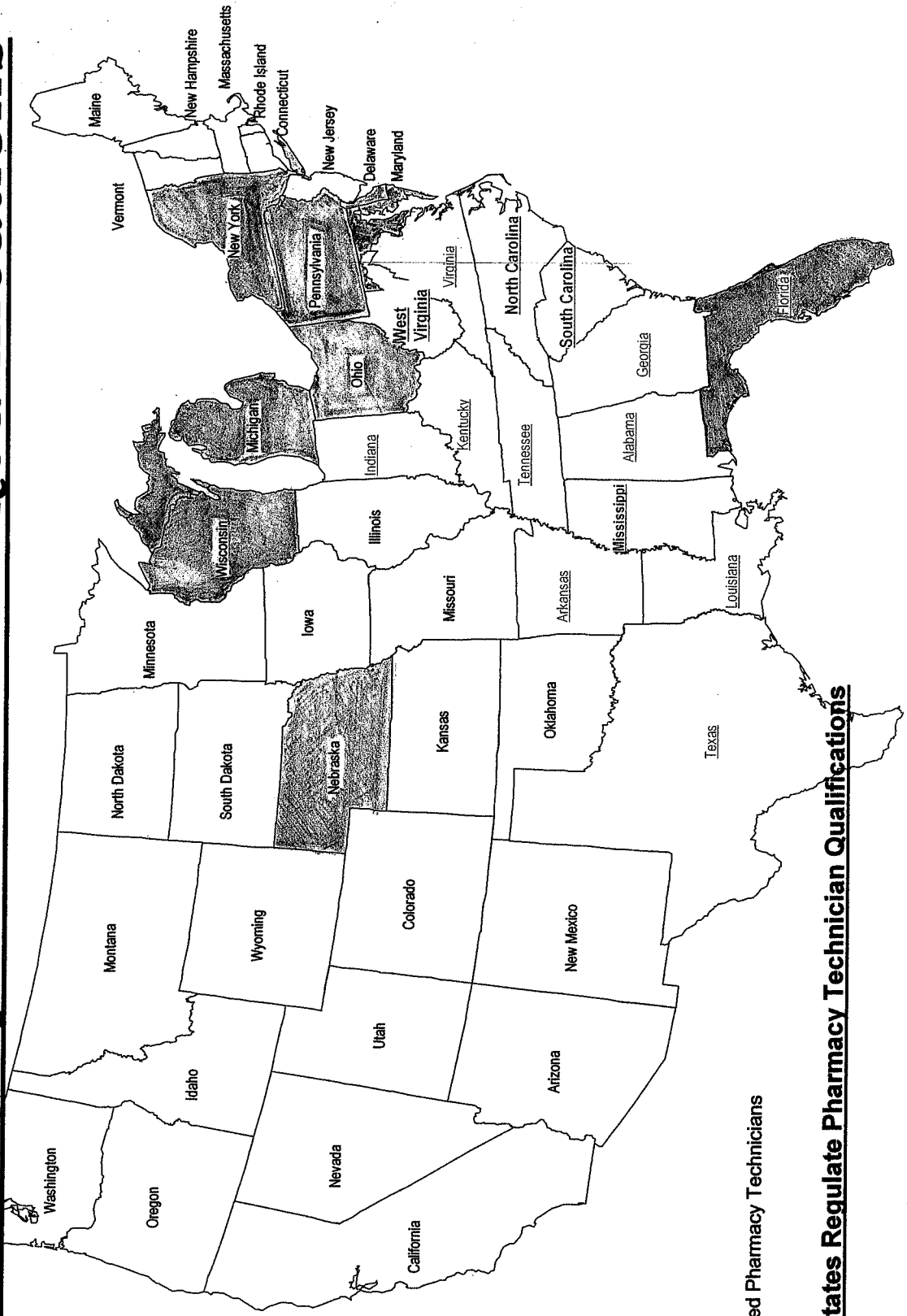
- A. Coordinate written, electronic, and oral communications throughout the practice setting (for example, route phone calls, faxes, verbal and written refill authorizations; disseminate policy and procedure changes)



- B. Update and maintain patient information (for example, insurance information, demographics, provider information) in accordance with federal regulations and professional standards (for example, Health Insurance Portability and Accountability Act [HIPAA])
- C. Collect productivity information (for example, the number of prescriptions filled, fill times, payments collected, rejected claim status)
- D. Participate in quality assurance activities (for example, medication error prevention, customer satisfaction surveys, and internal audits of processes)
- E. Generate quality assurance reports (for example, compile or summarize data collected for evaluation or action plan development, root cause analysis)
- F. Implement and monitor the practice setting for compliance with federal regulations and professional standards (for example, Materials Safety Data Sheet [MSDS], Occupational Safety Health Administration [OSHA], Joint Commission on Accreditation of Healthcare Organizations [JCAHO], United States Pharmacopeia [USP])
- G. Implement and monitor policies and procedures for infection control
- H. Implement and monitor policies and procedures for the handling, disposal, and destruction of pharmaceuticals and supplies (for example, hazardous substances, investigational products, controlled substances, non-dispensable products, radiopharmaceuticals)
- I. Perform and record routine sanitation, maintenance, and calibration of equipment (for example, automated dispensing equipment, balances, TPN compounders, and refrigerator/freezer temperatures)
- J. Update, maintain, and use manual or electronic information systems (for example, patient profiles, prescription records, inventory logs, reference materials) in order to perform job related activities
- K. Use and maintain automated and point-of-care dispensing technology
- L. Perform billing and accounting functions for products and services (for example, self-pay, third-party adjudication, pharmaceutical discount cards, medication reimbursement)
- M. Communicate with third-party payors to determine or verify coverage for products and services
- N. Coordinate and/or participate in staff training and continuing education
- O. Perform and/or contribute to employee evaluations and competency assessments
- P. Participate in the establishment, implementation, and monitoring of the practice setting's policies and procedures

\*Adapted from the Pharmacy Technician Certification Board's *Content Outline*, 2006; [www.ptcb.org](http://www.ptcb.org)

# State Regulations for Pharmacy Technician Qualifications



 Unregulated Pharmacy Technicians

80% of States Regulate Pharmacy Technician Qualifications



**FOR IMMEDIATE RELEASE:**

December 5, 2007, 10:00AM ET

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816-304-8457 (cell)

## **Survey Shows Broad Support Among Americans For Pharmacy Technician Certification**

*73% of Americans Believe Law Requires Certification for Pharmacy Techs,  
91% Support Standards in Every State*

**LAS VEGAS-** A survey released today by the Pharmacy Technician Certification Board (PTCB) shows that Americans have strong misperceptions about the required qualifications of the people helping pharmacists prepare prescriptions in pharmacies. The poll results, released today at the American Society of Health-System Pharmacists' (ASHP) Midyear Clinical Meeting, show that the vast majority of Americans believe that all pharmacy technicians are required to be trained and certified, when in reality, these regulations vary from state to state.

"This data shows without a doubt that American consumers — in fact, 91% of those surveyed — support strong regulations across the country to protect patient safety by requiring that pharmacy technicians be trained and certified," said Melissa Murer Corrigan, R.Ph., Executive Director and CEO of PTCB. "Consumers recognize how important it is to have a standard that they can rely on at their pharmacy, in hospitals, and everywhere that medication is dispensed."

The survey, which was administered by Opinion Research Corporation on behalf of PTCB, showed that consumers have high expectations for qualifications of the people who help pharmacists prepare prescriptions. In fact, 45% of those surveyed incorrectly thought that people without formal training were not allowed to help pharmacists prepare prescriptions, and a majority, 58% thought that only licensed pharmacists are involved in dispensing drug prescriptions.

Pharmacy technicians assist pharmacists in dispensing medications. The pharmacy technician is accountable to the supervising pharmacist who is legally responsible through state licensure for the care and safety of patients served by the pharmacy.

"This study shows that consumers expect their state lawmakers to protect them by passing and enforcing strong regulations that require a standard of competence for pharmacy technicians," said Gay Dodson, R.Ph., Executive Director, Texas State Board of Pharmacy. "In Texas, the Legislature and State Board of Pharmacy were the first to require certification of pharmacy technicians as a pre-requisite to registration. This is an important first step for consumer protection and patient safety."

In fact, most respondents in the poll assumed that requirements are already in place across the country. Only 13% of respondents correctly recognized that there are no nationwide requirements for the training and certification of pharmacy technicians.

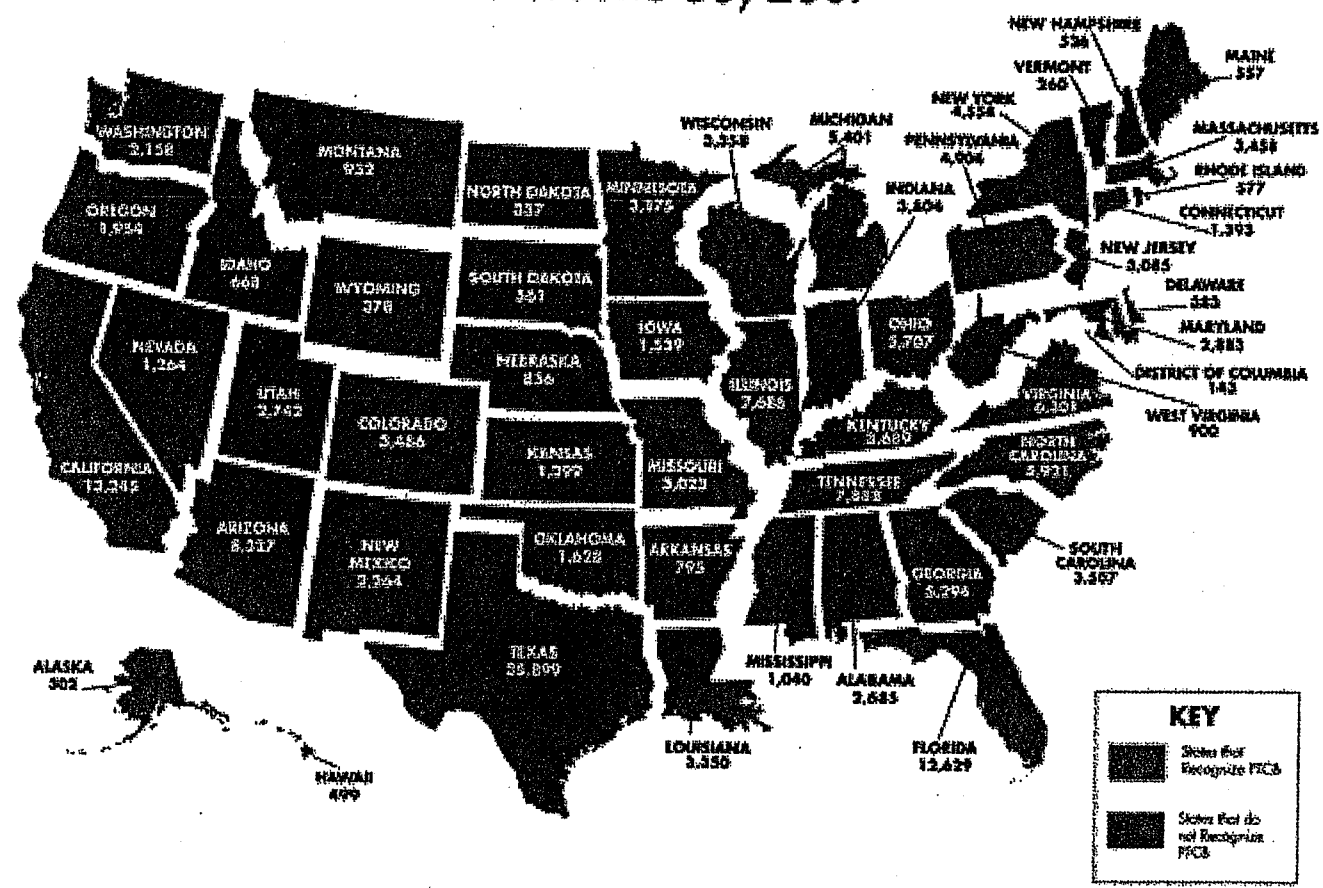
"It is time to live up to what consumers expect," said Douglas J. Scheckelhoff, R.Ph., M.S., FASHP, Vice President, Professional Development, ASHP. "We know patients deserve a high standard of safety when it comes to how their prescription medications are dispensed. Now we know it is what they expect, as well."

### **About the Pharmacy Technician Certification Board (PTCB)**

*PTCB was established in January 1995 and is governed by five pharmacy organizations - the American Pharmacists Association (APhA), the American Society of Health-System Pharmacists (ASHP), the Illinois Council of Health-System Pharmacists (ICHSP), the Michigan Pharmacists Association (MPA) and the National Association of Boards of Pharmacy (NABP). Since PTCB's inception, PTCB has certified over 288,000 pharmacy technicians through the examination and transfer process PTCB's certification program is the only pharmacy technician certification program accredited by the National Commission for Certifying Agencies (NCCA). The goal of the PTCB national certification program is to enable pharmacy technicians to work more effectively with pharmacists to offer safe and effective patient care and service.*

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# Active PTCB Certified Pharmacy Technicians As of June 30, 2007



# ASHP Long-Range Vision for the Pharmacy Work Force in Hospitals and Health Systems

*Ensuring the Best Use of Medicines in Hospitals and Health Systems*

Am J Health-Syst Pharm. 2007; 64:1320-30

## Executive Summary

The ASHP Vision for the Pharmacy Workforce in Hospitals and Health Systems expresses a vision for building the workforce capacity of pharmacy departments in hospitals and health systems to meet the growing challenges related to optimizing the use of medicines in those settings.

## Challenges

The scientific knowledge about drugs and the professional knowledge about pharmacy service delivery expand continuously. Many patients in hospitals and health systems in the United States have serious, complex, and urgent health problems that require advanced diagnostic evaluations, intricate medical procedures, and aggressive care. Medication use in hospitals and health systems is a prominent therapy for virtually all patients, and it is inherently complex and dangerous.

## Pharmacy functions

The objective of the overall pharmacy function in hospitals and health systems is to support sound patient

care through the safe, evidence-based, and cost-beneficial use of medicines. Hospitals and health systems—in part because of demands by the government and external quality bodies—will require that pharmacists and pharmacy technicians possess and maintain sound credentials attesting to their competence to handle the tasks assigned to them. The overall pharmacy function in hospitals and health systems includes:

- Reviewing individual patients' medication orders for safety and effectiveness and taking corrective action as indicated.
- Collaboratively managing medication therapy for individual patients.
- Educating patients and caregivers about medications and their use.
- Leading continuous improvements in the medication-use process.
- Leading the interdisciplinary and collaborative development of medication-use policies and procedures.
- Acquiring quality drug products from trusted supply sources.
- Preparing medications in the doses and dosage forms needed.
- Distribution of medications to inpatients and outpatients.

- Ensuring the availability of quality drug information.
- Influencing drug administration policies, procedures, and the use of related devices.
- Conducting quality reviews of medication utilization in the hospital's or health system's population of patients and seeking improvements where indicated.
- Leading and influencing decisions about medication-related informatics, other technology (including drug administration devices), and automated processes in medication use.

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*Medication use in hospitals and health systems is a prominent therapy for virtually all patients, and it is inherently complex and dangerous.*

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The most effective pharmacy departments coordinate and integrate these functions into a cohesive whole,

Developed through the ASHP Council on Education and Workforce Development and approved by the ASHP Board of Directors on January 11, 2007.

The bibliographic citation for this document is as follows: American Society of Health-System Pharmacists. ASHP long-range vision for the pharmacy work force in hospitals and health systems. *Am J*

*Health-Syst Pharm.* 2007; 64:1320-30.

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DOI 10.2146/ajhp070057

bringing together a team of pharmacists, pharmacy technicians, and others that have differentiated roles in management, patient care, medication-use policy, quality improvement, informatics, and drug product preparation and distribution.

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*Interdisciplinary teams will rely on pharmacist leadership for the safe use of medications.*

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**Vision for teamwork.** Overall medication-use processes (which include prescribing, order review, dispensing, administration, monitoring, and adjusting therapy based on patient response) will be carried out by interdisciplinary teams, and pharmacists will continue to be the only health professionals with the depth and breadth of knowledge about, and the interest to focus their full time leadership attention on, the use of medicines.

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*Licensure alone will be insufficient.*

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**Vision for technology.** Hospitals and health systems will continue to be technology-intensive environments. Shortages of pharmacists and pharmacy technicians qualified for work in hospitals and health systems are expected to be chronic. Technology will not eliminate these shortages. The use of technology will remain incomplete and nonstandardized (an important safety issue in itself) for some time.

**Vision for pharmacists' responsibilities.** Increasingly, pharmacists will apply their time to direct, interdisciplinary patient care to ensure the best use of medicines by individual patients. A growing number of pharmacists will work in highly specialized therapeutic areas. The expanded use of uniformly educated and certified pharmacy technicians will permit a larger portion of a pharmacy department's pharmacist staff to focus on direct patient care activities.

**Credentials**

Licensure alone will be insufficient for pharmacy practice in hospitals and health systems.

**Vision for residencies.** Hospital and health-system employers will expect all entry-level pharmacists to have completed an ASHP-accredited first-year postgraduate pharmacy residency. First-year residency programs in hospitals and health systems concentrate on developing pharmacists that understand the organizational environment, can work in that environment to provide clinical care to individual patients, are capable of interdisciplinary professional work at both an organizational and clinical level, understand the internal and external standards of quality that apply, and are adept at measuring and documenting metrics of success to manage quality.

**Vision for specialty certification.** Second-year ASHP-accredited postgraduate residencies will be required for pharmacists caring for highly specialized and complex patients. These programs prepare pharmacists to effectively interface with specialized physicians and nurses and manage pharmacy services and informatics. Pharmacists who provide services in an area in which specialty certification exists will be expected to be certified in that specialty.

**Vision for leadership.** All hospital and health-system pharmacists will be required to refresh their credentials continuously and to engage actively in personal continuing professional development. Strong leadership will be required to provide and sustain comprehensive professional vision for pharmacy departments. Pharmacy managers will possess credentials appropriate to the scope of services and the size and complexity of the setting, including, in many cases, advanced graduate degrees in pharmacy or nonpharmacy disciplines. Pharmacy departments will be headed by pharmacists; nonpharmacist managers will handle many tasks that do not require the expertise or judgment of a pharmacist.

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*Shortages of pharmacists are expected to be chronic. Technology will not eliminate these shortages.*

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**Vision for pharmacy technicians.** Pharmacy technicians eventually will be defined in laws and regulations as those individuals working under a pharmacist's responsibility that (a) have completed an ASHP-accredited pharmacy technician training program, (b) are certified by the Pharmacy Technician Certification Board, and (c) are registered with state boards of pharmacy.

**Achieving the vision**

ASHP is assessing what it and others need to do to achieve this vision for the pharmacy workforce in hospitals and health systems. Future programs and advocacy of ASHP will be based on this assessment.

## Introduction

Medication use in hospitals and health systems is complex and inherently risky. The American Society of Health-System Pharmacists (ASHP) believes it is inevitable that public policymakers, hospital and health-system administrators, and others will seek to modify the roles and required credentials for the pharmacy work force in those settings to ensure that medication use is safe, effective, and appropriate. ASHP believes the decisions will be best guided by a long-range vision about the pharmacy work force for those settings.

This vision is consistent with the ASHP Vision Statement for Pharmacy Practice in Hospitals and Health Systems,<sup>1</sup> the ASHP Health-System Pharmacy 2015 Initiative,<sup>2</sup> and the future vision of pharmacy practice<sup>3</sup> developed by the Joint Commission of Pharmacy Practitioners. This document serves as

- An expression of ASHP's continuing aim to support the development of competence building, sound credentials, and credentialing and privileging processes for pharmacists and pharmacy technicians in hospitals and health systems,
- A guide for ASHP in its long-term development of policies, education, publications, and activities to help pharmacists and pharmacy technicians develop and maintain the competence and credentials needed to work in hospitals and health systems, and
- An advocacy tool to stimulate public policymakers, external quality standards groups, hospital and health-system trustees and administrators, hospital and health-system pharmacy directors, and leaders in other collaborative health professions to ensure that the pharmacy work force in hospitals and health systems is appropriately competent, has the appropriate credentials, and is appropriately privileged on the basis of credentialing processes.

## Hospitals and health systems

Hospitals and health systems include individual hospitals, multiple-hospital systems, health maintenance organization clinics, hospital-affiliated pre-discharge and post-discharge clinics, hospital-based ambulatory care pharmacies, home care services, rehabilitation facilities, skilled-nursing facilities, and assisted-living facilities. Common to all of these settings are the health-system characteristics of (1) an interdependent and interdisciplinary work force, (2) collaboratively developed and evidence-based medication-use processes, (3) a governance structure that is accountable for safe, effective, and appropriate patient care, (4) multiple levels of care with continuity of care among these levels, and (5) an ongoing assessment of performance using externally established quality standards and accreditation requirements.

**The overall pharmacy function in hospitals and health systems.** Pharmacists and pharmacy departments bear professional and legal responsibility for all medication-use activities in hospitals and health systems. That responsibility is abundantly clear in professional standards, statutes, regulations, court precedents, and external quality standards. The overall pharmacy function in hospitals and health systems will continue to include

- Leading the interdisciplinary and collaborative development of medication-use policies and procedures within the setting, including pharmacy and therapeutics committee policies and therapeutic protocols,
- Reviewing patients' medication orders for safety and effectiveness,
- Collaboratively managing medication therapy for individual patients,
- Educating patients and caregivers about medications and their use,
- Leading continuous improvements in the quality of medication-use processes,

- Acquiring quality drug products from trusted supply sources,
- Preparing medications in the doses and dosage forms needed,
- Distributing medications to inpatients and outpatients,
- Integrating the work of staff in clinical and other functions to ensure coordinated attention to safe, effective, and appropriate care,
- Functioning as a gatekeeper with respect to the quality of drug information available to caregivers throughout the setting as a means to support up-to-date, evidence-based care,
- Influencing drug administration policies and procedures and the use of related devices,
- Conducting quality reviews of medication utilization in the hospital or health system's population of patients, and
- Leading and influencing decisions about medication-related informatics, other technology (including drug administration devices), drug administration, and automated medication-use processes.

## Differentiation and teamwork.

In hospitals and health systems, the overall pharmacy function will be accomplished via a differentiated pharmacy work force that includes managers, pharmacists practicing in direct inpatient and outpatient clinical roles, pharmacists and pharmacy technicians in inpatient and outpatient drug preparation and logistical distribution, pharmacists leading informatics and other technology activities, pharmacy technicians, business and operations managers, and other personnel, including informatics assistants, secretarial and administrative assistants, clerks, stock-handling personnel, and couriers. Differentiation in the pharmacy work force will increase with the size and scope of hospitals and health systems. Differentiation will be most pronounced in academic health centers where there are additional missions of education and research. Overall medication-use

processes will be conducted by interdisciplinary teams. Pharmacists will continue to be the only health professionals with the depth and breadth of knowledge about—and the interest to focus their full-time leadership attention on—the safe, effective, and appropriate use of medicines.

**Technology.** Hospitals and health systems will continue to be technology-intensive environments. Many of the technologies, including those for automated medication delivery, pharmaceutical compounding, pharmaceutical packaging and labeling, automated distribution and vending, bedside verification, drug administration (e.g., infusion pumps), electronic drug information, electronic communications, and electronic patient records, will influence medication use. Automation and information technology will be increasingly integrated into medication-use processes. Pharmacists with technology and informatics expertise will influence the choice and use of technologies to ensure patient safety, effectiveness of care, and efficiency.<sup>4</sup> As new technologies evolve, pharmacists will ensure that these preserve and enhance medication-use safety, effectiveness, and appropriateness.

**Leadership.** Ongoing pharmacy leadership and management will be required to provide and sustain a comprehensive professional vision and evidence-based medication use via an integrated and interdisciplinary work force and to apply limited resources to activities that will be the most effective. Leadership and management will be required at all levels, including clinical practice, to ensure that the overall pharmacy function successfully influences the care of patients. In successful pharmacy departments, middle management positions will exist, and qualified personnel at all levels will be mentored for leadership and advanced-level positions. Hospitals and health systems in which this does not occur will be vulnerable to lapses

in quality when inevitable turnover occurs in top management positions. Therefore, ongoing investment in succession planning will be essential. In large hospitals and multiple-facility systems, some pharmacists will be corporate-level directors (e.g., vice presidents). Some will have responsibility for departments in addition to pharmacy.

Pharmacies and pharmacy departments in hospitals and health systems will continue to be headed by pharmacists. In most cases, major positions below the department head level are currently occupied by pharmacists. However, it is likely that nonpharmacists will increasingly be employed below the department head level to handle various tasks that do not require the expertise or judgment of a pharmacist. These tasks may include secondary management, finance, personnel administration, quality assurance, informatics and technology, and supply and distribution logistics. Nonpharmacist positions of these types may be more common in large, complex hospitals and health systems where a differentiated work force is more necessary and possible.

**Experiential learning.** Hospital and health-system pharmacists and pharmacy technicians will attain their knowledge, skills, and abilities in various ways. All pharmacists and pharmacy technicians will receive on-the-job orientation, training, and experiences that hone their knowledge and skills necessary for specific workplaces. New pharmacy college graduates will continue to be prepared primarily to deliver individual patient care. They will have in-depth knowledge about medications, their pharmacology, and their therapeutic uses. The Accreditation Council for Pharmacy Education's (ACPE's) accreditation standards for doctor of pharmacy degree programs require colleges to include experiential education in community pharmacy, ambulatory care, a hospital or health-

system pharmacy, and inpatient or acute care general medicine.<sup>5</sup> These learning experiences are expected primarily to involve direct patient care rather than learning to navigate and fully influence the interdisciplinary and multidepartmental aspects of medication use within hospitals and health systems. Concerns exist about the capacity of hospitals and health systems to accommodate the growing volume of pharmacy students needing this experiential education. Most new graduates entering hospital and health-system practice will continue to require substantial further education in order to fully function in those settings. As a means to achieve that education, they should—at minimum—complete an ASHP-accredited pharmacy residency. Some hospitals and health systems may create mechanisms for existing staff to enroll in such residencies.

#### Pharmacists' responsibilities

In hospitals and health systems, all pharmacists will be responsible for error prevention, patient safety, and patient outcomes related to medication therapy. Many will work at various supervisory and management levels in the acquisition, preparation, and dispensing of drug products, operating facilities and equipment for those activities, ensuring the supply and integrity of drug products, providing evidence-based drug information to other professionals and patients, managing the technology applied to medication use, monitoring the quality of pharmacy services, and conducting medication-use-safety activities. Some pharmacists will be engaged in sterile compounding. Some will influence the selection and management of technology and information systems for medication use. Depending on the role of the hospital and health system in education, some pharmacists will educate and train pharmacy students, residents, and pharmacy technicians. All pharmacists will appropriately bal-



ance their roles as employees of the setting and their autonomous public professional obligations on behalf of patients.

Increasingly, and dependent partly on the expanded use of uniformly trained and educated pharmacy technicians certified by the Pharmacy Technician Certification Board (PTCB), pharmacists will apply their time to direct, interdisciplinary, and collaborative drug therapy to ensure that the medication therapy of individual patients is effective, evidence based, safe, and cost-effective.<sup>6</sup> Some pharmacists will work in highly specialized clinical areas. Specialists will train and support generalist pharmacists. To ensure a high level of coordination by all components of the pharmacy function in hospitals and health systems and appropriate medication use and safety, the work of clinical pharmacists will be integrated with other aspects of the overall medication-use process. Depending on the volume of clinical work required, most pharmacists will have some ongoing work assignments and responsibilities in medication distribution. Hospitals and health systems will require that all clinical pharmacists and faculty of colleges of pharmacy working in their facilities be credentialed through the routine processes used for all other pharmacy staff and be managed by the department of pharmacy.

Throughout the work setting, the acquisition of patient medication histories and the provision of discharge medication information to patients and downstream caregivers will be managed by pharmacists. This will facilitate continuity of care, reconciliation of medication regimens, and avoidance of medication-related problems. Pharmacists will ensure that necessary clinical monitoring of laboratory test values occurs pertinent to medication use for individual patients. They will engage in disease prevention activities on behalf of patients. Pharmacists will influ-

ence the selection of authoritative, evidence-based drug information that is made available to all caregivers in the workplace. They will engage in interdisciplinary development of systemwide policies, procedures, and therapeutic protocols about medication use. They will engage in medication-related public health activities on behalf of their communities.

**Medication-use process.** Pharmacists will continuously improve and collaboratively redesign medication-use processes to optimize patient safety and improve patients' health-related quality of life. They will ensure that medication-use processes incorporate system characteristics of interdependency, checks, and immediate safety feedback mechanisms. In addition to caring for individual patients, pharmacists will ensure that the outcomes of medication therapy are assessed and managed on both a systemwide and patient population basis.

**Interpersonal skills.** Pharmacists in hospitals and health systems will possess exceptional interpersonal skills, work well in interdisciplinary teams, and lead the development of medication-use policies and procedures to meet patients' needs. They will possess competence in caring for and effectively interacting with patients from a variety of cultures. They will engage in behavior and activities that promote the pharmacy profession and will represent the profession in a positive light and promote its goals.

#### **Proliferation of potent and complex medications**

The scientific knowledge about drugs and the professional and managerial knowledge about pharmacy service delivery expand continuously. Further, many patients in hospitals and health systems in the United States have serious, complex, and urgent health problems that require advanced diagnostic evaluations, intricate medical procedures, and aggressive care. Even for nonurgent

care, medication use in hospitals and health systems is a prominent (or at least adjunct) therapy for virtually all patients, and it is inherently complex and dangerous. The medications used are among the most potent, and many require complex administration procedures. Many of these medications are injectable products that pose both inherent pharmacologic and infection-control challenges and must be handled by individuals in multiple disciplines, some of whom have little education and training about medications. Even more potent and riskier medications are anticipated in the future, and medication use in hospitals and health systems is expected to become even more intense and complex. Medications for patient groups with specific genomic characteristics will evolve.

#### **Public demand**

Medication-use problems (particularly errors) are well documented,<sup>7-25</sup> but the public is not yet sufficiently aware that there is available a professional (the pharmacist) with the expertise and interest to help prevent those problems and better ensure optimum medication therapy in hospitals and health systems.<sup>26-34</sup> However, an increasing public awareness and debate is evolving about medication-use safety and costs, including the cost of preventable errors.<sup>35-44</sup> This will ultimately function as an important driver of public demand that pharmacists and pharmacy technicians in hospitals and health systems be competent to achieve (and manage the achievement of) desired patient outcomes with respect to medication use.

#### **Sound credentials required for pharmacy personnel in hospitals and health systems**

ASHP believes that every pharmacist and pharmacy technician working in hospitals and health systems will be required to possess and maintain sound credentials attest-

ing to their competence. Hospitals and health systems will engage in ongoing systematic assessments of the credentials and experience of all pharmacists and pharmacy technicians.<sup>45,46</sup> Some local policies may, with good reason, allow privileges for some pharmacists and pharmacy technicians who lack specific formal credentials; some of these practitioners may have well-documented experience and competence. As an ongoing investment in the safety and evidence-based effectiveness of medication use, hospitals and health systems will develop incentives to stimulate pharmacy staff to obtain desired credentials. Mechanisms will exist for acquisition of necessary credentials by entry-level pharmacists and pharmacy technicians and those in practice that aspire to expand their roles.

**Residencies.** ASHP believes that a variety of sound credentials will exist for pharmacists who practice in hospitals and health systems. ASHP-accredited postgraduate residency training exists to equip entry-level practitioners with the knowledge and skills they need to function safely and effectively and to successfully influence medication-use policies and procedures in their workplaces. First-year ASHP-accredited postgraduate residency programs in hospitals and health systems concentrate on developing pharmacists who (1) understand that organizational environment, (2) can work in that environment to provide clinical care to individual patients, (3) understand the academic health center environment (if the residency is conducted there), (4) are capable of interdisciplinary professional work at both an organizational and clinical level, (5) understand both the internal and external standards of quality that apply, and (6) are adept at measuring and documenting the metrics of success that are necessary for the management of quality in hospitals and health systems.<sup>47-49</sup>

Second-year ASHP-accredited postgraduate residencies are of several types. Some develop pharmacists capable of the care of highly specialized and complex patients, capable of effectively interacting with specialized physicians and nurses and conducting collaborative research. Others focus on hospital and health-system pharmacy management or informatics.<sup>50,51,a</sup>

Individuals enrolled in ASHP-accredited residency programs are licensed pharmacists. Similar to residencies in medicine, pharmacy residencies are intense, structured, "learn-by-doing" experiences that involve close work with preceptors and mentors. Pharmacy residents are fully accountable for the outcomes of their clinical and operational actions. Residencies are not "learn-by-observing" experiences, and they differ from internships, which are intended only to bring learners to a minimal competency for academic graduation or licensure. Among the benefits of residency training is the development of clinical skills and competency for work and leadership in hospitals and health systems. It is conceivable that future medication-use residencies may evolve that enroll pharmacists, physicians, and nurses and are conducted in an interdisciplinary fashion.

Hospital and health-system employers will expect new entry-level pharmacists in hospitals and health systems to have completed an ASHP-accredited first-year postgraduate pharmacy residency. ASHP believes that licensure alone will be insufficient for practice in hospitals and health systems.

**Specialty credentials.** For some roles, pharmacists will be required to have completed ASHP-accredited second-year postgraduate pharmacy residencies for specialized clinical activities, informatics, and top management positions. Pharmacists who spend the majority of their time practicing clinical specialties for which

there is available certification by the Board of Pharmaceutical Specialties (BPS) or the American Society of Consultant Pharmacists (ASCP) Commission for Certification in Geriatric Pharmacy will be expected to be certified or to be working with appropriate promptness to become certified.<sup>52,b</sup> They will be expected to maintain the certification. Other sound certification credentials may evolve.

**Continuous professional development.** Hospital and health-system administrators, public policymakers, and pharmacists will insist that up-to-date, evidence-based medication use occurs in hospitals and health systems. Effective, evidence-based interdisciplinary care of hospital and health-system patients requires currentness in professional knowledge and skills. Therefore, all pharmacists will be required to refresh their credentials continuously and to engage actively in personal continuing professional development. Professionally motivated pharmacists will seek out some of the updating of their knowledge and skills on their own. In order to sustain pharmacy work force competence, hospitals and health systems will financially support staff development and will allow paid work time for it. The extent to which pharmacists and pharmacy technicians engage in activities to sustain and expand their competence will be a factor in ongoing local assessments of their credentials and their continued employment.

**Evolving credentials.** Additional competence-building mechanisms will evolve to educate and train pharmacists for specific tasks in hospitals and health systems, including those involving complex and high-risk services for which in-depth knowledge is necessary. Sound credentials will evolve for those tasks, and pharmacists will be expected to obtain those credentials to do that work. Examples of special certification roles include diabetes education, advanced cardiac

life support, emergency department care, handling of biological products and products hazardous to workers, sterile compounding, distribution logistics, informatics, and clinical research.

Current sound credentials specific for pharmacists include the following:

- Doctor of pharmacy degrees awarded by colleges of pharmacy accredited by ACPE. The current entry-level degree awarded by all colleges of pharmacy is the Doctor of Pharmacy degree. Until recently, colleges of pharmacy awarded bachelor of science degrees as the entry-level degree, which also are sound credentials,
- Graduate degrees in pharmacy,
- National Association of Boards of Pharmacy License Examination for state board of pharmacy licensure,
- Certification by BPS,<sup>b</sup>
- Certification by the ASCP Commission for Certification in Geriatric Pharmacy,<sup>b</sup> and
- Graduation from an ASHP-accredited pharmacy residency program.

Parallel with these sound credentials there likely will be purported "credentials" that are based on unsound approaches lacking ensured validity and depth. ASHP supports only sound credentials. In their own quality and liability interests, hospitals and health systems will come to understand that there is a quality spectrum of pharmacy credentials and will insist on sound credentials for their pharmacy staff. The multiorganizational Council on Credentialing in Pharmacy (CCP) has created guiding principles for sound certification programs in pharmacy.<sup>53</sup>

Additional sound credentials in pharmacy may be recognized in the future, particularly for clinical specialties. BPS now certifies pharmacists in five specialties: pharmacotherapy (plus two "added qualifications" in infectious diseases and cardiology), nuclear pharmacy, nutrition support

pharmacy, psychiatric pharmacy practice, and oncology pharmacy practice.<sup>c</sup> More BPS added qualifications may evolve. Hospitals and health systems will require pharmacists working in those areas to attain them. The Department of Veterans Affairs has established a mechanism for credentialing and privileging pharmacists to perform some tasks, including medication prescribing.<sup>54-57</sup> Privileging is defined as

the process by which an oversight body of a health care organization or other appropriate provider body, 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 setting.<sup>45</sup>

It is conceivable that legislatures and regulatory bodies may establish additional required pharmacist licenses for specific activities.

**Leadership credentials.** All pharmacy managers (whether pharmacists or nonpharmacists) will possess credentials appropriate to the scope of services and the size and complexity of the setting. Some pharmacists, particularly in large and complex settings and multiple-facility organizations, will have corporate-level administrative appointments higher than the department head level. Individuals with that authority will have sufficient management experience to have developed the skills and talents for that role and will possess appropriate advanced credentials, which may include graduation from an ASHP-accredited second-year postgraduate residency in management or advanced graduate degrees in pharmacy or nonpharmacy disciplines. The ASHP Research and Education Foundation has created a Center on Health-System Pharmacy Leadership. It is possible that this may lead to an available certification

for pharmacy leaders in hospitals and health systems.

### Pharmacy technicians

In the pharmacy profession and in laws and regulations, pharmacy technicians eventually will be defined as those individuals working under a pharmacist who (1) have completed an ASHP-accredited pharmacy technician training program,<sup>58-60</sup> (2) are certified by PTCB, and (3) are registered with state boards of pharmacy. Other support staff will be employed in pharmacies in hospitals and health systems, but they will not be defined in laws and regulations as pharmacy technicians. All pharmacy technicians will be required to participate in continuing education offered by accredited providers of such continuing education. ACPE conducts a process to accredit such providers.

**Role of technicians.** Most pharmacy technicians will be engaged in drug-product acquisition, preparation, dispensing, and distribution under the physical supervision of pharmacists. Some pharmacy technicians will manage aspects of product acquisition and supply logistics. Some will manage the use of technology and quality assurance activities. Some will supervise other pharmacy technicians. Some will assist pharmacists in collecting and screening routine patient-specific clinical laboratory data and routine screening of clinical monitoring data to identify out-of-range findings that warrant pharmacist attention. Some will manage aspects of informatics.

**Technician credentials.** Additional competence-building mechanisms will evolve to educate and train pharmacy technicians for specific tasks in hospitals and health systems, including those involving complex and high-risk services for which in-depth knowledge is necessary. Hospitals and health systems will require pharmacy technicians to obtain those credentials to do that work. Pharmacy technicians will continue to work

under the supervision of pharmacists and will not be sanctioned to work independently. Although legislatures and regulatory bodies may establish licenses for pharmacy technicians, these will not be licenses for independent, unsupervised practice. Telepharmacy arrangements may evolve in which a supervising pharmacist may be physically remote from a pharmacy technician.

Sound credentials for pharmacy technicians currently include graduation from an ASHP-accredited pharmacy technician training program and certification by PTCB.

For pharmacy technicians, there also exists a spectrum in the quality of education and training available (some of which is unsound). Hospitals and health systems will be diligent in insisting on sound credentials. All pharmacy technicians will be registered with state boards of pharmacy.

#### Entry-level staff

Some entry-level staff will lack all the competencies and credentials needed to work fully in hospitals and health systems. Employers will require them to build competence and acquire appropriate credentials promptly. The initial work assignments of entry-level staff may be somewhat restricted until completion of the necessary competence building and acquisition of credentials.

#### Assumptions and expectations

This vision is based on the following assumptions and expectations:

1. As scientific pharmacologic advances increase, mortality from various diseases will decrease. People will live longer and will have chronic conditions and more temporary acute conditions for which they will increasingly use hospital and health-system services. They will use more medications, necessitating greater numbers of qualified pharmacists and pharmacy technicians.
2. For reasons of quality assurance and compliance with accreditation requirements (such as Joint Commission standards<sup>61</sup>), hospitals and health systems will insist that pharmacists and pharmacy technicians demonstrate that they are competent to perform the tasks set forth in their job descriptions.
3. Hospitals and health systems will establish systematic and ongoing processes to assess the competence and credentials of pharmacists and pharmacy technicians. Many hospitals and health systems will develop their own tools for assessing employee competence and credentials. Some will use external validation methods, such as BPS certification and graduation from an ASHP-accredited residency.
4. The quality of patient care in hospitals and health systems will be enhanced by pharmacists and pharmacy technicians with appropriate credentials.
5. To ensure safe, effective, and coordinated patient care, clinical and other pharmacy activities in hospitals and health systems will be staffed, conducted, and managed in an integrated fashion.
6. The public will increasingly wish to be able to distinguish pharmacists who are qualified to provide medication therapy management services from those who are not.
7. Governments and quality-standards organizations, such as the Joint Commission, will eventually insist on appropriate credentials for pharmacists and pharmacy technicians in hospitals and health systems.
8. Medicare provider status will evolve for pharmacists with appropriate credentials, enabling payment to hospitals and health systems for their medication therapy management. Medicare payments to hospitals and health system will be contingent on active local credentialing and privileging processes for all major health care workers in hospitals and health systems, including pharmacists.
9. Specialization will increase, and hospitals and health systems will look to sound credentials as indications of pharmacists' specialized competencies.
10. BPS will be urged to develop additional clinical credentialing processes in cooperation with professional associations.
11. In the face of shortages of qualified pharmacists and pharmacy technicians for hospital and health-system work, and in the face of the increasing need for qualified workers, accreditation bodies for hospitals and health systems will become increasingly insistent that the pharmacists and pharmacy technicians in those settings have appropriate credentials.
12. Compared with the chronic shortage of pharmacists across the entire pharmacy profession, the shortage of pharmacists competent to work in hospitals and health systems will continue to be more severe.<sup>62-68</sup>
13. The demographics of the pharmacy work force in hospitals and health systems are changing, and hospital and health-system employers will need to respond resourcefully and creatively to adjust to those changes.<sup>69</sup>
14. State laws and regulations will continue to require that pharmacists be graduates of colleges accredited by ACPE. However, some hospital and health-system employers in the United States will consider hiring graduates of foreign pharmacy schools. A process exists for foreign graduates to achieve a foreign pharmacy graduate equivalency certification.<sup>70</sup> Given that licensure alone will not be sufficient for successful work in hospitals and health systems, and given the advanced credentials needed for hospital and health-system work, this avenue for recruitment will not likely be very effective for those settings.
15. Graduation from an ASHP-accredited pharmacy residency will become a minimum requirement by employers for pharmacists to work in hospitals and health systems.<sup>d</sup>
16. Graduation from an ASHP-accredited pharmacy technician training pro-

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gram, certification by PTCB, and registration with a state board of pharmacy will become minimum requirements for pharmacy technicians to practice in hospitals and health systems.<sup>6</sup>

17. Greater quality and consistency in the education and training of pharmacy technicians will allow for expanded roles for pharmacy technicians, similar to those seen in U.S. military facilities and to the legal allowances for the work of pharmacy technicians in several European and Nordic countries.
18. The demand for qualified pharmacy technicians with appropriate credentials will increase in the United States. State requirements for the credentials of pharmacy technicians are advancing rapidly.
19. Hospital and health-system pharmacy departments will continue to employ supportive personnel who are not legally defined as pharmacy technicians and are not legally authorized to perform the same functions as pharmacy technicians.
20. Technology will not eliminate pharmacy work-force shortages in hospitals and health systems. Moreover, the use of technology will remain incomplete and nonstandardized (an important safety issue in itself) for some time.
21. As health care becomes increasingly collaborative and multidisciplinary, pharmacists' knowledge about medications will continue to be different from and more complete than that of other health care professionals.

### Some implications

Embedded in the following implications are numerous priorities that will influence ASHP's ongoing and long-term actions with respect to the pharmacy work force in hospitals and health systems. Other actions will evolve as well.

- Hospital and health-system trustees, administrators, and human resource, risk-management, and legal depart-

ments must be helped to understand that only qualified pharmacists and pharmacy technicians with appropriate credentials must comprise the pharmacy work force in hospitals and health systems.

- Mechanisms must be developed to help hospital and health-system employers readily discern sound pharmacy credentials from unsound ones.<sup>53,71</sup>
- Model local credentialing and privileging processes must be developed and implemented to assist hospitals and health systems in assessing whether pharmacists and pharmacy technicians possess the necessary credentials for the functions assigned to them.
- Colleges of pharmacy and pharmacies in hospitals and health systems must better articulate and integrate their respective roles in preparing graduates for ASHP-accredited pharmacy practice residencies.
- Since patient care in hospitals and health systems is inherently interdisciplinary, the education of pharmacists must be conducted in a more interdisciplinary manner.
- Sound credentials are needed for various subdepartment-level activities within hospitals and health systems (e.g., sterile compounding). ASHP and CCP should lead a prompt identification of the primary activities and develop a time-certain call for the profession to develop corresponding training and credentials for those activities.
- Public policymakers must be helped to understand the need for qualified pharmacists and pharmacy technicians within hospitals and health systems and to support mechanisms to educate and train practitioners for those roles.
- In cooperation with professional associations, BPS should expand the credentials for pharmacy practice and the number of pharmacists certified.
- Pharmacy technicians must receive uniform education and training before becoming PTCB certified.

- Pharmacy technicians must be registered with state boards of pharmacy.
- The National Association of Boards of Pharmacy should establish model laws and regulations to support state requirements for uniform education and training for pharmacy technicians and for PTCB certification of all pharmacy technicians.

### Definitions

In this document, the following definitions apply, as published in 2006 by CCP.<sup>71</sup>

- **Accreditation:** Process by which a private association, organization or government agency, after initial and periodic evaluations, grants recognition to an organization, site or program that has met certain established criteria.
- **Certification:** Voluntary process by which a nongovernmental agency or an association grants recognition to an individual who has met certain predetermined qualifications specified by that organization. This formal recognition is granted to designate to the public that the individual has attained the requisite level of knowledge, skill, and/or experience in a well-defined, often specialized, area of the total discipline. Certification usually requires initial assessment and periodic reassessments of the individual's knowledge, skills and/or experience.
- **Credential:** Documented evidence of qualifications. Pharmacist credentials include diplomas, licenses, certificates, and certifications. For pharmacy technicians . . . CPhT . . . 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:** Process by which an organization or institution obtains, verifies, and assesses a pharmacist's qualifications to provide patient care services. [Similarly, credentialing can be applied to pharmacy technicians.]

\*Federal funding is available to help support ASHP-accredited first-year residencies in hospitals caring for Medicare patients. To address the growing need in hospitals and health systems for pharmacists with advanced credentials, ASHP is seeking similar funding (which previously existed) for ASHP-accredited second-year residencies. ASHP is the accrediting body for pharmacy residencies. In early 2007, there were 714 ASHP-accredited postgraduate residency programs (481 first-year programs and 233 second-year programs). These programs graduate approximately 1400 residents per year. More ASHP-accredited residencies and residency graduates are needed to fulfill the work-force needs in hospitals and health systems.

†The processes used by BPS and ASCP for designating specialties and assessing the knowledge of individuals applying for certification are different.

‡As of early 2007, BPS is engaged in a practice analysis in ambulatory care, which could lead to a sixth designation or "added qualifications."

§While this evolves to become a requirement by employers, a natural transition period will exist when pharmacists and pharmacy technicians who have achieved competence and successful experience in hospitals and health systems will continue to be employed.

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

THE FOLLOWING ORGANIZATIONS HAVE ENDORSED THIS DOCUMENT:  
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COUNCIL ON PHARMACEUTICAL EDUCATION, AMERICAN PHARMACEUTICAL ASSOCIATION,  
AMERICAN SOCIETY OF CONSULTANT PHARMACISTS, AMERICAN SOCIETY OF HEALTH-SYSTEM  
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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)<sup>1</sup>

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. Tech-

nicians 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

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Special recognition is given to the following persons for their contributions to this document: Lucinda L. Maine, Ph.D., Executive Vice

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Supported by an educational grant from PTCB.

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

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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.<sup>2</sup> 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,<sup>3,4</sup> a report to the U.S. Congress on the pharmacy work force,<sup>5</sup> 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."<sup>6</sup> The technician is part of a larger category of "supportive personnel," a term used to describe all non-pharmacist pharmacy personnel.<sup>7</sup>

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.<sup>8-11</sup> 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.<sup>12,13</sup> 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.<sup>14,15</sup> 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.<sup>16</sup> 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.<sup>14,17</sup>

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.<sup>14</sup>

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.<sup>8,18</sup> This is a significant increase over the 1996 estimate of 150,000.<sup>2</sup> BLS predicts that pharmacy technician employment will grow by 36% or more between 2000 and 2010.<sup>8</sup> 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.<sup>8</sup> The 2001 Schering Report found that 9 out of 10 community pharmacies employ pharmacy technicians.<sup>10</sup> Recent studies conducted in acute care settings indicate that this figure is nearly 100% for the hospital sector.<sup>19</sup>

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%).<sup>21</sup> Surveys conducted by PTCB have yielded similar results.<sup>18,21</sup> 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.<sup>22</sup>

In the past, pharmacists have traditionally been reluctant to delegate even their more routine work to technicians.<sup>14</sup> 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.<sup>10,22</sup> New roles for pharmacy technicians continue to emerge as a result of practice innovation and new technologies.<sup>9,11</sup> 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.<sup>10</sup>

### 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.

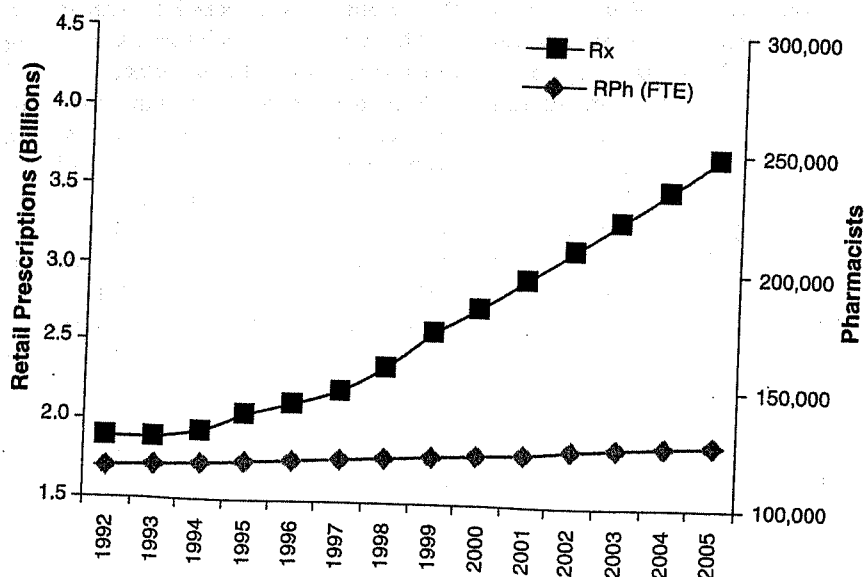
**Pharmacist work force shortage.** In 1995, a report by the Pew Health Professions Commission predicted that automation and centralization of services would reduce the need for pharmacists and that the supply of these professionals would soon exceed demand.<sup>23</sup> The predicted oversupply has 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."<sup>25</sup> 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.<sup>24</sup>

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%.<sup>5</sup> Chain pharmacists now fill an average of 86 prescriptions during a normal shift—a 54% increase since 1993.<sup>25</sup> 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).<sup>26</sup>

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.<sup>10</sup> Professional satisfaction has diminished. Perhaps most ominous, fatigue and overwork increase the potential for medication errors.<sup>5,27</sup>

Increased use of technicians is one obvious way of reducing workload pressures and freeing pharmacists to spend more time with patients. A

**Figure 1.** Community prescriptions and pharmacists, 1992–2005. Rx = prescriptions, RPh (FTE) = registered pharmacist (full-time equivalent). Reprinted, with permission, from reference 26.



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.<sup>28</sup>

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.<sup>4</sup> 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 Strand<sup>29</sup> 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.<sup>30-33</sup> Nonetheless, other studies indicate that pharmacists continue to spend much of their time performing routine product-handling functions.<sup>19,20</sup> 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 Strand<sup>34,35</sup> 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 re-

linquish 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."<sup>36</sup>

**Safe medication use.** Used inappropriately, medications may cause unnecessary suffering, increased health care expenditures, patient harm, or even death.<sup>33</sup> Ernst and Grizzle<sup>37</sup> 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.<sup>3</sup> 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.<sup>38-43</sup> 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.<sup>44,45</sup> One study found

that pharmacy technicians, when specially trained for the purpose, were as accurate as pharmacists in checking for dispensing errors.<sup>46</sup> The United States Pharmacopeia Medication Errors Reporting Program (USPMERP) 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).<sup>47</sup> USPMERP 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.<sup>48</sup>

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.<sup>8,18,49,50</sup> 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.<sup>51</sup> Some employers have found that formal training improves staff retention and job satisfaction.<sup>18,52</sup> Another advantage of a formal training program is that it can confer a sense of vocational identity.<sup>49</sup>

Formal training programs for

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.<sup>14</sup> 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 work force.<sup>53</sup> 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.<sup>54</sup>

In the 1980s, ASHP issued training guidelines intended to help hospital pharmacists develop their own training programs.<sup>7</sup> 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.<sup>49</sup>

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.<sup>55</sup> 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.<sup>56-60</sup>

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.<sup>12</sup> 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.<sup>61</sup> The Pharmacy Technicians Educators Council (PTEC), an association representing pharmacy technician educators, supports the ASHP minimum requirements.<sup>62</sup>

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 work force quickly. They believe that the pharmacy profession should make it clear that, while work force 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.<sup>51</sup> 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.<sup>51</sup> 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.<sup>21</sup> 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.<sup>7</sup>

**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 work force. 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 are pharmacy technician programs.<sup>63</sup> 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 standardizing training and establishment of competencies. Increased responsibilities should be commensurate with increased education."<sup>64</sup> Likewise, there was a consensus at the Third PTCB Stakeholders' Forum, held in June 2001, that national standards for pharmacy technician training are needed.<sup>65</sup>

Progress toward standardization has been facilitated by the *Model Curriculum for Pharmacy Technician Training*.<sup>66</sup> Having taken the initia-

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*.<sup>67</sup> 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.<sup>21,22</sup> 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.<sup>22</sup> 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.<sup>68</sup>

**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.<sup>51,69</sup> APhA and ASHP concur with this position.<sup>2,70,71</sup>

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.<sup>52,65</sup> 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 im-

portant, 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 Milburn<sup>72</sup> 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."<sup>73</sup> 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 accrediting bodies 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 (ACCSCT), 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. ACCSCT standards require programs to have an advisory committee, the majority of whose members represent employers in the field of training.<sup>74</sup> 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.<sup>75</sup> 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.<sup>76</sup>

The objectives, standards, and regulations of the accreditation program, as well as a directory of accredited programs, are available on the ASHP Web site.<sup>61,76-78</sup> 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).<sup>79</sup> 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 in-

dications 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 began 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.<sup>80</sup>

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

by that agency or association.<sup>2</sup> 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.<sup>73</sup> 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.<sup>2</sup> 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.<sup>21</sup> By the end of 2001, more than 100,000 technicians had been certified with this program.<sup>37</sup> 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.<sup>18</sup> 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.<sup>18</sup> Studies have revealed that certified technicians remain in practice

longer than do noncertified technicians.<sup>81,82</sup> 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.<sup>84</sup> Some pharmacists feel more confident delegating dispensing activities to certified technicians than to technicians who are not certified.<sup>10,21</sup>

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.<sup>52,14</sup> 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.<sup>13</sup> To highlight changes that have taken place since the publication of the 1996 "White Paper on Pharmacy Technicians,"<sup>2</sup> the results of NABP's 1996–1997<sup>84</sup> and 2001–2002<sup>13</sup> 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.

**Changes in state regulations: 1996–2001.** *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.<sup>85</sup> "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.<sup>2</sup> 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.<sup>72,73,86</sup>

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.<sup>2</sup> This stance reflects the organizations' conviction that pharmacists should be responsible and accountable for pharmacy technicians under their charge.<sup>70,71</sup> NACDS believes that each practice setting should be allowed to determine its own optimal ratio.<sup>87</sup> Following the recommendation of a 1999 Task Force on Standardization of Technicians' Roles and Competencies,<sup>88</sup> 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, Kan-

sas, Indiana, and Washington, on the other 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.<sup>89</sup> 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.<sup>90</sup> Alaska, Arizona, Kentucky, Massachusetts, 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.<sup>91</sup> 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.<sup>70,71</sup>

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-



tice of pharmacy, (2) review existing technician certification programs to determine whether the development of its competence assessment program should be a cooperative effort with other groups, and (3) urge state boards to use this program as one criterion in determining the eligibility of technicians to assist in the practice of pharmacy.<sup>92</sup> NABP has now joined PTCB on the national certification program for pharmacy technicians and will work with state boards of pharmacy to encourage acceptance of the PTCB certification program as a recognized assessment tool for pharmacy technicians.<sup>93</sup> The use of the PTCB certification program will also be incorporated into NABP's *Model State Pharmacy Act and Model Rules*.

**The need for regulation.** The difficulties stemming from lack of regulatory oversight over pharmacy technicians go further than one might initially foresee. For example, if state regulations do not recognize a class of personnel (through registration or licensure), it is difficult to discipline such personnel in the event of misconduct. Several state boards have reported that the absence of such regulation is creating problems (Rouse MJ, personal communication, 2001 Oct and Nov). For example, in the absence of adequate controls, pharmacy technicians who have committed an act of misconduct, such as drug diversion, can move from site to site, or state to state, without being traced or being held accountable. NABP and many state executives and pharmacists have called for better systems of control and measures to track disciplinary actions. By 2000, at least 25 states had incorporated disciplinary procedures for technicians in their regulations.<sup>92</sup>

Among the regulatory issues that remain in flux, none is more important than defining the roles and responsibilities of supportive personnel and the titles they are assigned. Pharmacy supportive personnel per-

form a wide array of services. Some state regulations recognize this and have differentiated levels of supportive personnel; some states have specific requirements for technicians-in-training. Multiple levels of pharmacy supportive personnel may continue to be required in the future, and the levels may vary among and within practice settings. The profession needs to determine what these levels should be and to define the role and function, competencies, education, training, and level of supervision appropriate for each.

#### Time for action

Pharmacy faces a serious work force 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, delegate this responsibility to pharmacy technicians working under their supervision, and increase the use of automated dispensing technology, 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 supportive personnel.

### Conclusion

Change does not come easily, and it is seldom embraced by everyone. As Kenneth Shine,<sup>94</sup> 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.

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**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
- (b) The American Association of Pharmacy Technicians
- (c) The American Pharmaceutical Association
- (d) The American Society of Health-System Pharmacists
- (e) The National Association of Chain Drug Stores
- (f) The National Community Pharmacists Association
- (g) The National Pharmacy Technician Association
- (h) The Pharmacy Technicians Educators Council

**The American Association of Colleges of Pharmacy**

[www.aacp.org/Docs/AACPFuntions/AboutAACP/4308\\_CumulativePolicies,1980-2001.pdf](http://www.aacp.org/Docs/AACPFuntions/AboutAACP/4308_CumulativePolicies,1980-2001.pdf)

*Policies On Supportive Personnel*

- AACP supports inclusion in the professional pharmacy curriculum of didactic and experiential material related to the supervision and management of supportive personnel in pharmacy practices. (Source: *Professional Affairs Committee, 1990*)
- Training for technicians in pharmacy must be based on competencies derived from tasks that are deemed appropriate by the profession and currently performed by technical personnel. (Source: *Professional Affairs Committee, 1989*)

- Pharmacy schools should offer their assistance to supportive personnel training programs to assure that programs meet appropriate educational objectives. (Source: *Professional Affairs Committee, 1987*)
- Training for supportive personnel in pharmacy must be based on sound educational principles with clearly established competency objectives. (Source: *Professional Affairs Committee, 1987*)

**The American Association of Pharmacy Technicians**

[www.pharmacytechnician.com/](http://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](http://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*)

## SPECIAL FEATURE Pharmacy technicians

### 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. (*J Am Pharm Assoc.* NS11:277, May 1971)

### 1966 Sub-professionals

The committee would be opposed to any assumption of the pharmacist's professional functions by sub-professionals or technicians. There is a need to determine exactly what these functions are and the relative position of the pharmacy intern. Under no circumstance should a sub-professional program in pharmacy create an individual such as the former "qualified assistant" still practicing in some states. (*J Am Pharm Assoc.* NS6:332, June 1966)

### The American Society of Health-System Pharmacists

[www.ashp.org](http://www.ashp.org)  
See also [www.ashp.org/public/hq/](http://www.ashp.org/public/hq/) (accessed 2002 Apr 4).  
See also [www.ashp.org/public/hq/policy/2001PolicyPositions.pdf](http://www.ashp.org/public/hq/policy/2001PolicyPositions.pdf) (accessed 2002 Apr 4).

### 0224

#### Credentialing of pharmacy technicians

Source: *Council on Legal and Public Affairs*

To advocate and support registration of pharmacy technicians by state boards of pharmacy (registration is the process of making a list or being enrolled in an existing list; registration should be used to help safeguard the public by interstate and intrastate tracking of the technician workforce and preventing individuals with documented problems from serving as pharmacy technicians); further,

To advocate and support mandatory certification of all current pharmacy technicians and new hires within one year of date of employment (certification is the process by which a nongovernmental agency or association grants recognition to an individual who has met certain predetermined qualifications specified by that agency or association); further,

To advocate the adoption of uniform standards for the education and training of all pharmacy technicians to ensure competency; further,

To oppose state licensure of pharmacy technicians (licensure is the process by which an agency of government grants permission to an individual to engage in a given occupation upon a 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); further,

To advocate that licensed pharmacists should be held accountable for the quality of pharmacy services provided and the actions of pharmacy technicians under their charge.

### 0212

#### Pharmacy technician training

Source: *Council on Educational Affairs*

To support the goal that technicians entering the pharmacy work force have completed an accredited program of training; further,

To encourage expansion of accredited pharmacy technician training programs.

### 0211

#### Image of and career opportunities for pharmacy technicians

Source: *Council on Educational Affairs*

To promote the image of pharmacy technicians as valuable contributors to health care delivery; further,

To develop and disseminate information about career opportunities that enhance the recruitment and retention of qualified pharmacy technicians.

### 0209

#### Substance abuse and chemical dependency

Source: *Council on Educational Affairs*

To collaborate with appropriate professional and academic organizations in fostering adequate education on substance abuse and chemical dependency at all levels of pharmacy education (i.e., schools of pharmacy, residency programs, and continuing-education providers); further,

To support federal, state, and local initiatives that promote pharmacy education on substance abuse and chemical dependency; further,

To advocate the incorporation of education on substance abuse and chemical dependency into the accreditation standards for Doctor of Pharmacy degree programs and pharmacy technician training programs.

### 0025

#### Opposition to creation of "pharmacist assistant" category of licensed pharmacy personnel

Source: *House of Delegates*

To reaffirm the following statement in the "White Paper on Pharmacy Technicians" (April 1996) endorsed by ASHP and the American Pharmaceutical Association:

"Although there is a compelling need for pharmacists to expand the purview of their professional practice, there is also a need for pharmacists to maintain control over all aspects of drug product handling in the patient care arena, including dispensing and compounding. No other discipline is as well qualified to ensure public safety in this important aspect of health care."

Further,

To note that some interest groups in pharmacy have advocated for the creation of a new category of licensed personnel called "Pharmacist Assistant" that would have (a) less education and training than pharmacists and (b) independent

legal authority to perform many of the functions that are currently restricted to licensed pharmacists; further,

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.

### 8610

#### Pharmacy technicians

Source: *Council on Legal and Public Affairs*

To work toward the removal of legislative and regulatory barriers preventing pharmacists from delegating certain technical activities to other trained personnel.

*This policy was reviewed in 1997 by the Council on Legal and Public Affairs and by the Board of Directors and was found to still be appropriate.*

#### The National Association of Chain Drug Stores

[www.nacds.org](http://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 whether this degree should be one or two year degree, when this policy should be implemented, or an appropriate approach for those already practicing. The requirement of formal education for pharmacy technicians, which is not present in most states, will be an integral part of the advancement of pharmacy practice, patient safety and a more efficient/effective health-care system.

#### 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 setup 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**  
www.rxptec.org/

#### 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](http://www.rxptec.org/rptpc.html)