Chapter

1 History and Traditional Technician Roles

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CASE STUDY FOR DISCUSSION

Would it be helpful if pharmacists and pharmacy technicians spent some time discussing the training each has undergone? What if they discussed how each would like to operate at the top of their profession? What would each like to be doing to make the best use of his or her education and provide the best service to patients? Is this something individuals can work together to change? Are the professional organizations doing all they should to enable change? Would the conversation go like this?

Technician: *I went to school to learn to be a pharmacy technician. We studied law, drug names, generic names, anatomy, compounding, medical terminology, and a bunch of other stuff. Then I took a certification exam. Why can't I do something besides enter an order in the computer and run the counting machine?*

Pharmacist: *I hear you. I went to college for 8 years to get bachelor's and PharmD degrees, then spent a year in residency, and people think all I can do is call their insurance company and count pills by fives.*

Technician: *Do you think there's anything we can do about it?*

Pharmacist: *Well, if you can pick up some of the compounding for me, I would have more of a chance to counsel patients and make sure they understand their medications. That's in the short run. Our professional organizations need to work together to make sure people understand what we do.*

LEARNING OBJECTIVES

After reading this chapter, students should be able to:

- Explain the differences between training and education.
- Discuss the most common roles filled by pharmacy technicians.
- Explain the differences between compounding and manufacturing.

STATISTICS AND TYPICAL DUTIES

According to the U.S. Department of Labor, pharmacy technicians typically work in retail pharmacies or hospitals. The most recent data, from 2010, show that 54% are employed by pharmacies or drug stores, 19% by other

Table **1-1** **Quick Facts: Pharmacy Technicians**

2012 median pay	$29,320 per year $14.10 per hour
Entry-level education	High school diploma or equivalent
Work experience in a related occupation	None
On-the-job training	Moderate-term on-the-job training
Number of jobs, 2012	355,300
Job outlook, 2012–2022	20% growth (faster than average)
Employment change, 2012–2022	70,700

Reproduced from the Bureau of Labor Statistics, U.S. Department of Labor.

stores, and 18% by hospitals, leaving 9% unexplained.[1] This chapter discusses some of the typical duties and mentions some less well-known aspects of pharmacy technician employment.

The conversation opening the chapter is unlikely to happen between a pharmacist and technician. However, it raises an important issue about the inability of professionals to to use their full capabilities. The only way to raise the level of practice is to work together to increase awareness and opportunities for pharmacists and technicians as a healthcare team.

The Bureau of Labor Statistics[1] lists the typical duties of a pharmacy technician as taking in the information needed to fill a prescription, counting or measuring medications, compounding or mixing medications, packaging and labeling prescriptions, accepting payment, processing insurance claims, and other routine pharmacy tasks such as answering telephone calls.

Historically, pharmacy technicians were first identified as aides or assistants to pharmacists in hospital pharmacies in the 1950s.[2] The American Society of Hospital Pharmacists (which has since changed its name to the American Society of Health-System Pharmacists [ASHP]) was involved in training programs that sought to differentiate the duties of pharmacists and technicians. During that time period there was some backing from chain pharmacies for support personnel, but the National Association of Retail Druggists (which has evolved into the National Community Pharmacist Association [NCPA]) was opposed to the use of technicians. A 1974 policy statement mentioned concern for public safety as one of the reasons for the opposition (reference 2 contains an appendix with a history of policy statements addressing technicians from various pharmacy groups over the years).

Figure 1-1

A hospital pharmacy technician works on stock replacement. ASHP began the push to differentiate pharmacist and pharmacy technician duties in the 1950s. They have continued to be involved in holding meetings and publishing position statements on the importance of the role of pharmacy technicians.

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EXPANSION OF TECHNICIAN ROLES

Although pharmacists have generally supported the addition of pharmacy technicians to their work environments, they have done so with caution. One reason is that pharmacists are seldom completely in control of their own work environments. Usually a company or institution makes the business decisions about the operations of a pharmacy. The concern voiced by some pharmacists is that someone other than the pharmacist could potentially decide the workload and division of labor, removing the professional judgment of the pharmacist. This fear has intensified with the growth of chain pharmacies and for-profit hospital systems. Recently, a legislative debate took place in the state of Florida regarding the pharmacist-to-technician ratio in pharmacies licensed by the Florida Department of Health. A bill increasing the number of technicians that could be supervised by one pharmacist became law in Florida in 2014, and similar legislation may be passed in other states.

Legal requirements for pharmacy technicians vary from state to state, but the National Association of Boards of Pharmacy (NABP) states that 80% or more of the states in the United States have some form of licensure or certification of technicians. Over the past several years, NABP task forces have recommended that state boards of pharmacy adopt uniform standards for pharmacy technician training and education programs.

TRAINING AND EDUCATION

It is interesting to note that most programs for education of technicians are specifically referred to as training programs. Box 1-1 contains the Merriam-Webster definitions of *training* and *educating*. Training involves practicing a skill, and can be used in preparing for sporting events, as well as the requirements of a job. The definition of *educating* is both broader and deeper. It includes the technical aspects, but also development of critical thinking skills.

While training is part of education, it seems to be only a part. A shift in thinking to place more emphasis on educating technicians has marked the evolution of the position from one that is occupational in nature to a profession. Other changes leading to the professionalization of technicians involve certification changes. Two organizations currently administer national certification examinations for pharmacy technicians: the Pharmacy Technician Certification Board (PTCB) and the Institute for the Certification of

Box 1-1 **Definitions:**

TRAINING:
(http://www.merriam-webster.com/dictionary/trained)
: to make prepared (as by exercise) for a test of skill

EDUCATING:
(http://www.merriam-webster.com/dictionary/educate)
: to provide schooling for <chose to *educate* their children at home>
: to train by formal instruction and supervised practice especially in a skill, trade, or profession
: to develop mentally, morally, or aesthetically especially by instruction
: to provide with information :INFORM <*educating* themselves about changes in the industry>
: to persuade or condition to feel, believe, or act in a desired way <*educate* the public to support our position>

Pharmacy Technicians (ICPT). The PTCB standards for certification and recertification are undergoing changes that will be phased in over the next 7 years. According to its executive director and CEO, Everett B. McAllister, MPA, RPH, the PTCB is elevating the certification requirements "in order to meet the demands of the evolving health care system."[3] One of the changes implemented in 2014 requires 1 hour of medication safety continuing education (CE) as part of the 20 hours of CE required for recertification. By 2020, the PTCB will require candidates for initial certification to have completed an ASHP-accredited education program that includes both didactic coursework and practical experience. Several states require similar education prior to initial certification.

Surveys conducted by the National Association of Chain Drug Stores and the PTCB have shown that most of a pharmacy technician's time is spent assisting in the dispensing of prescriptions.[2] Much of the curriculum of pharmacy technician training programs deals with teaching skills related to dispensing, including generic and trade name identification, therapeutic uses for drugs, compounding, and pharmacy law.

Both pharmacists and pharmacy technicians have voiced their concern that they are not fully utilizing their skills or education. Students in both technician and pharmacy schools sometimes believe that they are learning things they do not need for the current practice of pharmacy. Educators believe that training and educating students for the future of the profession is part of what moves the profession forward. Educating both pharmacists

and technicians to think critically and prepare for changes to the provision of health care can lay the groundwork for those changes.

Pharmacist shortages over the years have influenced duties performed by technicians. However, the most recent shortage of pharmacists has produced increases in both the number of pharmacy schools and the number of pharmacists graduating from existing schools. This growth in the number of pharmacists may be mitigated by a growth in the number of patients, due to aging baby boomers and health care reform, as well as retirement of baby boomer pharmacists.[4] However, the potential surplus of pharmacists may affect the job market for both pharmacists and technicians in the near future. At this time, most pharmacists and technicians would agree that appropriate use of technicians in the workforce can extend time spent by pharmacists on patient counseling and cognitive clinical services. Education beyond the current practice and communication between pharmacists and technicians can maximize the use of the skill sets of both.

COMPOUNDING

One of the traditional technician roles receiving media attention recently is that of compounding. In compounding, several components are added together to create a finished product. This may be as simple as adding a liquid to a powdered antibiotic suspension, or as complex as creating an intravenous (IV) parenteral nutrition solution that contains 10 or more ingredients and must be sterile to be delivered directly into the patient's bloodstream. A general description of compounding involves preparing a medication product for a particular patient to fill a prescription written by a licensed prescriber.

The regulation of compounding for individual patients is done by state boards of pharmacy. In addition to rules created by the state boards, technicians and pharmacists are regulated by Chapters <795> (nonsterile) and <797> (sterile) of the United States Pharmacopeia. The U.S. Pharmacopeia and National Formulary (USP–NF) is a compendium of public pharmacopeial standards. It contains standards for chemical and biological drug substances, dosage forms, compounded preparations, excipients, medical devices, and dietary supplements.[5] Chapters numbered 1000 and higher are considered to be for guidance and informational use, only. Those numbered below 1000 (including <795> and <797>) are enforceable by law. Since 2008, considerable time, effort, and resources have been devoted to ensuring compliance with these standards. Several compounding pharmacies have been

cited for preparing products that were not sterile and resulted in harm to patients.

Compounding is different from manufacturing of products. The difference deals with both the scale and the intention of the preparation. Manufacturing typically is done in large quantities, and the resulting preparations are sold in bulk. Compounding is usually done in smaller quantities and in response to an individual prescription for an individual patient. Infusion pharmacies compound specialty products and IV products for administration in a patient's own home. They receive a prescription for an individual patient and prepare the medication based on that prescription. With the increase in the number of specialty drugs for chronic diseases, and the expansion of health insurance due to health care reform in the United States, there is a likely need for an increase in this type of pharmacy.

Figure 1-2

Compounding is defined as preparing a medication in response to a prescription for an individual patient. This is a task that may be performed by a pharmacist or pharmacy technician under the supervision of a pharmacist. Preparing of bulk quantities for sale is considered manufacturing, and is regulated by the Food and Drug Administration.

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The compounding pharmacies that recently received negative media attention were preparing such large quantities of prescription products that it is unlikely they were being produced in response to prescriptions for individual patients. They were more likely bulk preparations for sale to practitioners and institutions. The manufacturing of large quantities by pharmaceutical manufacturers is regulated by the U.S. Food and Drug Administration (FDA). The fact that these compounding pharmacies were, in effect, manufacturing fell through the regulatory cracks. As a result, in 2015, the Compounding Quality Act was passed to close the gap and give the FDA more power to oversee compounding pharmacies. Hospital pharmacies have requested that they receive some exemptions due to special circumstances (i.e., the need to prepare some medications in anticipation of their need, especially IV drips that might be needed in emergencies). At the time of this writing, the enforcement of this legislation is still being debated.

NONTRADITIONAL TECHNICIAN ROLES

Some of the nontraditional roles technicians are filling are in medication reconciliation, managed care, specialty compounding, nuclear pharmacy, and the pharmaceutical industry. Technicians have also recently become involved in monitoring compliance with laws and regulations. Five states currently have pharmacy technicians serving on their state boards of pharmacy.[6] Information on some of these roles can be obtained from the websites of the PTCB, the American Pharmacists Association, the American Association of Pharmacy Technicians, and the ASHP. See Chapter 14 for more details on inventory management and information and technology roles.

In a 2007 document published by Walgreens, Don Huonker, the corporate vice president of pharmacy services, stated: "The tech-managed pharmacy is a concept . . . It's a possibility for the distant future—not a current reality. But it's an idea that excites us and merits further exploration."[7] At that time, most chain pharmacies employed a business manager who handled much of the administration of the pharmacy, and a pharmacy manager who managed the "behind-the-counter" activities. The idea behind the concept of a tech-managed pharmacy is that a technician who understands the business aspects of a pharmacy, as well as its prescription filling operations, would make a good store manager, able to manage all the administrative activities of the pharmacy. As of 2015, however, Walgreens online job portal did not identify any management opportunities for pharmacy technicians.[8]

CHAPTER SUMMARY

Technicians typically work in hospitals or community pharmacies. The career has evolved from pharmacist assistants who learned on the job, to trained certified technicians. The role of the technician continues to grow, as both pharmacists and technicians take on more responsibility for the care of patients.

QUESTIONS FOR DISCUSSION

1. Are pharmacy technicians professionals?
2. What can technicians do to be recognized as professionals?
3. What can be done to increase job satisfaction of pharmacy technicians?
4. What impact would a surplus of pharmacists have on the market for technician jobs?

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ASSIGNMENT

Write a reflection on the types of duties you would like to perform in your career as a pharmacy technician. Think about the setting in which you would like to work, the role you would like to have, and whether you would consider management or training of other technicians. What would give you satisfaction in your job and your career?

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