Chapter 3

Community and Ambulatory Care Pharmacy Practice

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Learning Outcomes

After completing this chapter, you will be able to

- Describe the history of community and ambulatory care pharmacy practices.
- Describe the differences among the various types of practice sites in community and ambulatory care pharmacy practice.
- Describe the importance of the pharmacy technician's role in communicating with patients in the community and ambulatory care pharmacy settings.
- Explain the various steps and responsibilities involved in filling a prescription.
- Identify the trends in community and ambulatory care pharmacy practices.
- Describe the evolving role of the pharmacy technician in community and ambulatory care pharmacy practices.

Key Terms

adverse reaction A bothersome or unwanted effect that results from the use of a drug, unrelated to the intended effect of the drug.

ambulatory care pharmacy A pharmacy generally located within or in close proximity to a clinic, hospital, or medical center that provides medication services to ambulatory patients.

brand name drug A drug that is covered by a patent and is therefore available only from a single manufacturer.

chain pharmacy A pharmacy that is part of a large number of corporately owned pharmacies that use the same name and carry similarly branded OTC products.

clinic pharmacy An ambulatory pharmacy located in a clinic or medical center to serve the needs of outpatients.

community pharmacy Generally a stand-alone pharmacy located within a community that provides medication services to ambulatory patients.

copayment (copay) The portion of the cost of a prescription that the patient is responsible for paying, when a part of the cost is covered by a third-party payer.

dispensing The act of preparing a medication for use by a patient as authorized by a prescription.

drug interactions Effects caused by the combined actions of two or more drugs used simultaneously.

formulary A list of drugs and their tiers that a third-party payer will cover.

generic drug A drug that is no longer covered by a patent and is therefore generally available from multiple manufacturers, usually resulting in a significant reduction in cost.

Health Insurance Portability and Accountability Act (HIPAA) Federal legislation enacted to establish guidelines for the protection of patients' private health information.

independent pharmacy A community pharmacy or small group of pharmacies in a limited geographic area that are owned by a single individual or a small number of individuals.

managed care pharmacy An ambulatory care pharmacy that is owned and operated as part of a managed care system such as a health maintenance organization (HMO).

mail-order pharmacy A pharmacy that functions like a warehouse, with pharmacists and technicians who dispense prescriptions that are mailed to (not picked up by) patients.

medication guides Patient information approved by the FDA to help patients avoid serious adverse effects, inform patients about known serious side effects, and provide directions for use to promote adherence to the treatment. These are available for specific drugs or classes of drugs and must be dispensed with the prescription.

National Drug Code (NDC) Number A unique number assigned to each drug, strength, and package size for the purpose of identification.

over-the-counter (OTC) drugs Drugs that are available without a prescription.

patient counseling The act of educating a patient, by a pharmacist, regarding the proper use of a prescribed drug, at the time of dispensing.

prescription The written or verbal authorization, by an authorized prescriber, for the use of a particular pharmaceutical agent for an individual patient. This term also refers to the physical product dispensed.

reimbursement Money that is collected from a third-party payer to cover partial cost or the entire cost of a prescription for a patient.

third-party payer An entity other than the patient that is involved in paying partial cost or the entire cost of prescriptions for a patient.

Community and ambulatory care pharmacies dispense more medications to more patients than any other practice setting. As our country's population continues to age, the number of prescriptions dispensed in these settings continues to rise. Although the number of pharmacies has increased to meet these needs, the number of prescriptions filled in each pharmacy has also continued to rise. This rise in prescription volume, combined with pharmacist shortages in many parts of the country and financial pressures from third-party payers, has increased the importance of the pharmacy technician's role in community and ambulatory pharmacy practice.

This chapter addresses some of the basic operations that are unique to community and ambulatory pharmacy practice, including the technician's responsibilities in this practice setting. Specifically, it provides a brief history of the community and ambulatory care settings, summarizes the different types of community and ambulatory pharmacies, describes the role of technicians in prescription processing, and addresses evolving trends in community and ambulatory pharmacy practice.

History and Evolution of Community and Ambulatory Care Pharmacy Practice

When most people hear the word "pharmacy," they think of a community or ambulatory care pharmacy. **Community pharmacies** were the first pharmacies, and although today's community and **ambulatory care pharmacies** have significantly evolved from the original "corner drug store," they still share the common purpose of providing pharmaceuticals and accessible health information in the community setting for ambulatory patients. Ambulatory care pharmacies evolved from community pharmacies. They still meet the needs of outpatients, but are usually located in close proximity to clinics, hospitals, or medical centers. Whereas community pharmacies often sell items not related to pharmacy, ambulatory pharmacies generally provide only prescription services and possibly a limited number of over-the-counter medications.

In the early part of our country's history, very few medications were manufactured in their final dosage form, as they are today. Pharmaceutical remedies were limited, so pharmacists prepared, or compounded, these remedies, mostly from natural sources and raw chemicals. There were no regulations on drugs and pharmacists were free to prepare and sell almost anything. Physicians would send patients to pharmacists, who would compound remedies based on the patient's evaluation and diagnosis. Pharmacists would also create remedies based on a patient's symptoms or requests.

In 1938, the Food, Drug, and Cosmetics Act (FDCA) was passed, which began to loosely regulate drugs, requiring pre-market approval for new drugs based on safety, and prohibiting false therapeutic claims for drugs. The law also allowed for the designation of a drug to be available only by prescription, but lacked specific guidelines and left it mostly up to the manufacturer.[1]

In 1951, the Durham-Humphrey Amendment to the Food, Drug, and Cosmetics Act was passed, which more precisely defined the previous guidelines for prescription drugs established in 1938 under the original act. Two categories of drugs were established: legend drugs and **over-the-counter (OTC) drugs**. Any drug that was determined to be a legend drug, based on safety and potential for addiction, required authorization from a doctor before a pharmacist could prepare and dispense the product. OTC drugs were considered safe enough for patients' self-administration and could be purchased without a doctor's authorization. The written or verbal authorization and the dispensed product became known as a **prescription**.

As the pharmaceutical industry continued to grow and more and more drugs were being manufactured in their final dosage forms, the focus of the pharmacist's role began to change from making the drug products to repackaging and **dispensing** them. Information about prescriptions was considered to be limited to doctor-patient relationships and it was mostly considered inappropriate for a pharmacist to discuss drug therapy with a patient.

This philosophy began to change in the 1960s and 1970s, as more and more drugs were developed and patients' individual drug therapies began to include medications with increased risks of **drug interactions** and side effects or **adverse reactions**. Whereas, in the past, pharmacists essentially dispensed prescriptions one by one, many pharmacies began maintaining patient profiles that listed all of the drugs each patient was using. This allowed pharmacists to check for potential problems between drugs when new drugs were prescribed or when patients reported problems. These records became much easier to maintain and utilize as computers began to be used more widely for prescription processing.

By the 1980s, the principle of pharmaceutical care was gaining wider acceptance as a standard model for pharmacy practice, beginning the shift toward a more clinical role for pharmacists. Pharmaceutical care essentially encourages the establishment of the pharmacist as the manager of a patient's drug therapy. Guidelines for this level of care include assisting in the selection of drugs, educating patients, and monitoring adverse reactions and outcomes of drug therapy.

Another change taking place was the involvement of **third-party payers** in **reimbursement** for prescriptions. In the past, most patients paid for their prescriptions with cash, but as the costs of health care and drugs increased, third-party payers began to cover some or all of the costs of patients' medications. These third-parties include government employers, government programs such as Medicaid, employers' health insurance policies, and private insurance purchased by individuals. Since then, the most significant influence of third-party payers has been negotiating continually decreasing reimbursement for community and ambulatory pharmacies. To make up for the revenue lost to low reimbursement from third-party payers, pharmacies have had to trim operating costs, which has resulted in such issues as reduced staff, increased prescription volume, and discontinued services, such as free prescription delivery. Third-party payers also play a role in influencing what drugs physicians prescribe for their patients by restricting the drugs they will cover and controlling what portion of the total cost the patient must pay. Today, most prescriptions are covered at least partially by a third-party payer.

In 1990, the U.S. Congress passed the Omnibus Budget Reconciliation Act (OBRA). Part of this law required pharmacists to perform three functions when filling a prescription for a Medicaid recipient:

1. Prospective Drug Utilization Review (DUR)—To review a patient's medication profile to screen for potential problems with the prescribed drug, such as appropriateness of the drug and dose for the patient, drug interactions, or drug duplications.
2. **Patient counseling**—To talk to a patient about his or her prescription and to answer questions.
3. Patient record maintenance—To keep records of each patient, including all of the drugs the patient is taking.

Under the law, states were required to develop specific standards for patient counseling, such as when counseling must be offered (i.e., new prescriptions and/or refills), who may make the offer to counsel (i.e., pharmacist and/or technician), and what types of information should be included during counseling (e.g., what a drug is used for, directions for use, and possible adverse reactions).[2] As these standards were developed, states required them to be applied to all patients' prescriptions, not just Medicaid recipients. Although many of the OBRA requirements were being followed under the principles of pharmaceutical care, OBRA and the subsequent state regulations now require them, by law, to be applied to every prescription and patient.

The role of the pharmacist in community and ambulatory care pharmacies has generally evolved from preparers of drug products, to dispensers of drug products, and to managers of medication therapies. As the pharmacist's role has changed, pharmacy technicians have assumed many of the important technical functions of the processing of prescriptions that were formerly performed by pharmacists. As technicians' roles and responsibilities have increased, so have the professional standards for technician licensure and certification, as described in Chapter 1: Introduction to Pharmacy.

✔The technician's role has become a very important part of delivering pharmaceutical care to patients. The foundation of medication therapy management by pharmacists is the proper handling and preparation of the actual drug product by technicians.

Practice Sites

There are several types of community and ambulatory care pharmacy settings, or practice sites, including community pharmacies, clinic pharmacies, managed care pharmacies, and mail-order pharmacies.

Community Pharmacies

Community pharmacies are generally broken down into two groups: independent and chain pharmacies. **Independent pharmacies** are generally owned and staffed by one or two individual pharmacists. An independent pharmacy owner may own a small number of pharmacies in a limited geographic area, but they are still generally considered to be independent. Originally, all pharmacies were independent, with chain pharmacies beginning to develop in the 20th century.

Chain pharmacies developed when companies began to own larger and larger numbers of pharmacies that all used the same name and logo and carried similarly branded OTC products. As more pharmaceuticals began to be produced by manufacturers, chain pharmacy companies gained a financial advantage by buying in bulk to supply all of their stores. As financial pressures on the pharmacy business have increased, so have the number of chain pharmacies. In fact, although the number of independent pharmacies has been steadily declining, the number of pharmacy chain stores has been steadily increasing. Many independent pharmacies have been sold to chain pharmacies, some of which have combined to form fewer numbers of bigger chains. Chain pharmacies originally were simply large groups of pharmacies, but today other retail chains, such as grocery chains and "big box" retailers, have added pharmacies inside their stores.

Clinic Pharmacies

Clinic pharmacies are ambulatory care pharmacies that are located in clinics or medical centers to serve the needs of outpatients. These pharmacies may be owned and operated by the facility, or owned independently but located in the facility. Clinic pharmacies typically function similarly to community pharmacies, but there is often more direct contact and communication with prescribers and other health care personnel within the facility. As such, clinic pharmacies may be more involved in managing drug therapies and offering other health screening and immunization services. Clinic pharmacies are generally smaller in size and carry a limited amount of OTC medications and other merchandise.

Managed Care Pharmacies

Managed care pharmacies are ambulatory pharmacies that are owned and operated as part of a managed care system, such as a health maintenance organization (HMO). They usually resemble clinic pharmacies but are operated by the managed care company for the patients they serve. As with clinic pharmacies, they would typically be located in proximity to a medical facility. As part of a managed care system, all of the managed care pharmacies within any one organization would likely look similar and offer similar services. There may be even more coordinated communication between managed care pharmacies and other health care professionals in the organization than there would be in clinic pharmacies.

Mail-Order Pharmacies

Although classified as ambulatory pharmacies because they generally serve ambulatory patients, mail-order pharmacies look and operate differently from other types of community and ambulatory care pharmacies. **Mail-order pharmacies** generally fill very large volumes of prescriptions and specialize in maintenance medications. Because of their high prescription volume, the prescription filling process is often highly automated and there is generally less direct contact with patients, except by telephone and electronically via Web sites and the Internet. Mail-order pharmacies are really more like warehouses with pharmacists and technicians. They are unlike typical pharmacies, where patients can walk in and pick up prescriptions.

Technician Responsibilities in Prescription Processing

Within community and ambulatory care pharmacies, pharmacy technicians have a variety of responsibilities, including

- Communicating with patients
- Ensuring patient privacy
- Receiving prescriptions and registering patients
- Transferring prescriptions
- Entering prescriptions in a computer
- Handling restricted-use medications
- Resolving third-party payer issues
- Filling and labeling pharmaceutical products

- Compounding prescriptions
- Collecting payment and offering patient counseling
- Fulfilling miscellaneous responsibilities

Communicating with Patients

Pharmacy technicians spend a larger percentage of their time communicating with patients in community and ambulatory care settings than in any other practice setting, with the exception of mail-order settings. A technician is likely to be the first person to interact with a patient when he or she arrives, and the last before he or she leaves. Technicians also assist patients on the telephone with technical issues regarding their prescriptions. In many cases, patients will actually interact more directly with technicians and other support staff than with pharmacists.

✔When communicating with patients, it is important for staff to act professionally and in a caring manner at all times.

Patients are often at the pharmacy because they do not feel well, and this may affect how they interact with you. It is important to be patient and show concern for their needs. Also, remember to respect patients' privacy when discussing personal information in the presence of other patients and staff. Communication and professionalism are explained in greater detail in Chapter 8: Communication and Teamwork.

Rx for Success

Sometimes confrontations with patients are inevitable, but a calm approach can help to avoid them. If an interaction with a patient seems to be escalating toward confrontation, it is best for the technician to involve the pharmacist.

Ensuring Patient Privacy

In 1996, the **Health Insurance Portability and Accountability Act (HIPAA)** was passed. This important legislation included a "privacy rule" that was established to provide a national standard for protecting individuals' private health information. Essentially, this provides pharmacies with specific guidelines regarding how to handle private patient information. A technician's responsibility mostly involves using care when discussing private patient information and ensuring that any documents that contain private information be placed in the appropriate location for destruction (e.g., never with general refuse).

HIPAA also requires each pharmacy to have a written policy for handling private patient information. This policy must be given to new patients the first time they have a prescription filled, and a reasonable attempt must be made to record the patient's signature to verify their receipt of a copy of the policy.[3] A pharmacy can fulfill this requirement when the prescription is dropped off or when it is picked up. HIPAA and other relevant legislation are described in more detail in Chapter 2: Pharmacy Law.

Receiving Prescriptions and Registering Patients

When a patient is welcomed to the pharmacy, it is important to first identify him or her. If the patient has been to your pharmacy before, another piece of identifying information, such as date of birth, address, or phone number, should be obtained to confirm the patient's identity. If the patient is bringing a prescription to you for the first time, he or she needs to be registered by providing the following information:

- Correct spelling of name
- Address and phone number(s)
- Insurance information from patient's insurance card
- Date of birth
- Any drug allergies
- Other prescriptions or OTC medications the patient takes regularly
- Significant health conditions

Prescriptions may be received directly from the patient or from the prescriber by telephone, fax, or electronic transmission.

Receiving a prescription includes determining whether the prescription will be filled with generic or brand-name drugs. **Generic drugs** are less expensive alternatives to **brand name drugs** and can significantly drive down the cost of the drug to patients. The FDA regulates generic drugs so that they are equivalent in quality to corresponding brand name drugs. State regulations vary regarding the specifics of when a generic substitute may be used, so technicians should be familiar with their state's regulations. A general question that may be asked when the patient presents a prescription is, "Would you like us to fill your prescription with a less expensive generic alternative, if one is available?" Technicians may offer a generic

drug to a patient only if the prescriber has indicated that substitution is acceptable. Some drugs are not available in generic form, thus should not be offered to the patient.

It is also important for customer service and workflow to ask the patient if he or she will be waiting for the prescription or if he or she will be coming back later. With this information, prescriptions can be processed in the order in which they are due, and when patients expect them to be ready.

Transferring Prescriptions

Prescriptions may be transferred between pharmacies subject to specific state regulations, which vary somewhat among states. Prescription information may be transferred by telephone or electronically between pharmacies within the same chain. A technician may be allowed to assist with prescription transfers made by telephone, but the pharmacist is responsible for the information transferred out and received. In many states, the transfer of a prescription from one pharmacy to another must be accomplished only pharmacist to pharmacist.

If a patient requests to have a prescription transferred from another pharmacy, it is important for the technician to obtain as much information about the prescription as possible, including at least the patient's name and date of birth, the name and telephone number of the other pharmacy, and the prescription number and/or name of the medication. If a patient brings in a prescription container from the other pharmacy, the label can be used to get the necessary information and to double-check the information received by telephone.

Entering Prescriptions in a Computer

There is a wide variety of prescription processing software on the market, so the specific steps for entering information into computers varies among systems. Some software now requires the prescription to be scanned into the system to make the information on the hard copy readily accessible (figure 3–1). Once the prescription has been scanned (if needed), the information on the prescription is entered into the appropriate fields. See Chapter 14: Processing Medication Orders and Prescriptions for more information.

Handling Restricted-Use Medications

There are certain medications that can be prescribed and dispensed only in a community or ambulatory care pharmacy under specific conditions due to special precautions regarding their use. The FDA requires a Risk Evaluation and Mitigation Strategy (REMS) when it determines that a strategy is necessary to ensure the benefits of using the drug outweigh the potential risks. A REMS may require registration and other specific action by the physician, pharmacist, and patient before the medication can be dispensed. It may also apply specifications as to how prescriptions may be written (i.e., limits on how many units may be dispensed or if refills are allowed, and requiring standard stickers or other documentation on the face of the prescription). Examples of drugs with REMS include: alosetron (Lotronex), clozapine (Clozaril, Fazaclo), isotretinoin (Accutane, Amnesteem, Claravis, Sotret), thalidomide (Thalomid), and dofetilide (Tikosyn).

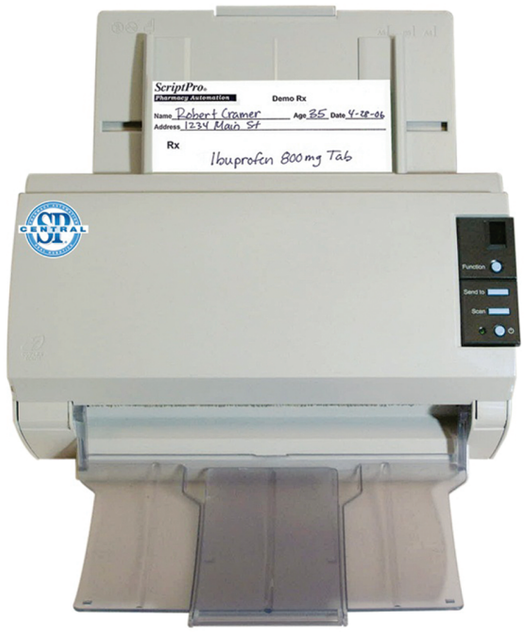

Figure 3–1. Prescription scanner; used to capture an image of the prescription for easy reference and retrieval. Photo courtesy of ScriptPro.

Alosetron is a drug used to treat severe diarrhea-predominant irritable bowel syndrome (IBS). Due to serious adverse reactions of the gastrointestinal tract—some necessitate a blood transfusion or surgery, and some even lead to death—alosetron's use is restricted by the Prescription Program for Lotronex (PPL). The program requires physician enrollment, including submission of the Patient-Physician Agreement Form. Prescriptions must be written by the physician and must include a PPL

sticker on the face of the prescription. Refills may be authorized on the prescription.[4]

Clozapine is a drug used to treat patients with schizophrenia. This drug can cause a serious drop in white blood cells, so careful monitoring of these levels must be done regularly, based on the patient's condition and medical history. Pharmacies must register to dispense clozapine and only a specific day supply (1, 2, or 3 weeks depending on the patients' monitoring frequency) may be dispensed at a time. The pharmacy must also receive documentation of blood work showing a normal white blood cell count before each dispensing.[5]

Isotretinoin is a drug used for severe acne. Its use is restricted because it can cause serious birth defects. Doctors, patients, and pharmacies must register with the iPledge Program, which monitors the drug's use. Doctors and patients must meet specific requirements and answer questions with the iPledge Program each time the drug is dispensed. The quantity dispensed is limited and the prescription must be picked up within a specified period of time.[6]

Thalidomide is a drug that is used to treat multiple myeloma (a specific type of cancer) and erythema nodosum leprosum (a specific skin condition). The use of thalidomide is also restricted due to concerns about birth defects. Prescribers, patients, and pharmacies must register with the System for Thalidomide Education and Prescribing Safety (S.T.E.P.S.) program. The pharmacy must verify that the prescriber is registered with S.T.E.P.S. before dispensing the medication.[7]

Dofetilide is used to treat irregular heart rhythms. It can cause serious complications, particularly when therapy is first started, so patients must be hospitalized to initiate therapy. Prescribers and pharmacists must register with the Tikosyn in Pharmacy System (T.I.P.S.) program, and the pharmacy must verify the prescriber's registration with the program before dispensing an outpatient prescription.[8]

The FDA has designated other drugs that are required to be dispensed with **Medication Guides**. A Medication Guide is patient information approved by the FDA to help patients avoid serious adverse events, inform them about known serious side effects, and provide directions for use to promote adherence to the treatment. These are available for specific drugs or classes of drugs and must be dispensed with the prescription.[9] Common examples dispensed in community and ambulatory care pharmacies include non-steroidal anti-inflammatory drugs (NSAIDs) and antidepressants. Pharmacy technicians may be required to help maintain adequate supplies of these Medication Guides and to locate the appropriate guide when completing the prescription filling process.

REMS and Medication Guides are important to address patient safety issues. Additional programs and guides could be mandated by the FDA in the future, as new drugs are developed or new risks associated with drugs already on the market are discovered.

Resolving Third-Party Payer Issues

After a prescription is entered into the computer system, if the patient has prescription coverage by a third-party payer, a claim will be sent electronically to the payer. If the claim is accepted, the payer has agreed to pay the claim, and the appropriate copayment for the claim will be noted. The **copayment**, or copay, is the amount of the cost of the prescription that the patient is responsible for paying. Copays vary among plans, with some charging patients a percentage of the total cost of the prescription, and other plans charging a flat dollar amount per prescription. Three-tier copays are common: in this system, a low copay is charged for most generic drugs, a higher copay is charged for "preferred" brand name drugs, and a still higher copay is charged for "non-preferred" brand name drugs. A **formulary** is a list of drugs and their tiers that a specific third-party payer will cover.

Most claims are now handled by pharmacy benefits managers (PBMs), which are companies that contract with multiple third-party payers to process transactions and help establish and enforce their formularies.

If there is a problem with a claim, the pharmacy will receive a message that the claim has been rejected. Unfortunately, resolving third-party rejections has become a time-consuming part of prescription processing. Rejections may be resolved by simply verifying the information that was submitted, but often they require a telephone call to the third-party payer or PBM. Some of the most common rejections include missing/invalid patient ID number, refill too soon, plan limitations exceeded, and prior authorization required. See Chapter 20: Billing and Reimbursement for more information on resolving rejected claims.

Filling and Labeling Pharmaceutical Products

Today, most drug products are manufactured in their final dosage forms by manufacturers. The prescription filling process involves selecting the correct drug product, packaging the proper quantity in a suitable package,

and then labeling the package. When the prescribed drug product is located and retrieved, care must be taken to select the correct drug, with the correct dose or strength, in the correct dosage form. Tablets, capsules, powder packets, and suppositories may need the specific number of units required by the prescription to be counted, and then packaged in a prescription container before labeling. Likewise, liquid medications may need to be poured from bulk bottles into smaller prescription bottles before labeling. Some manufacturers now package tablets and capsules in commonly dispensed quantities (e.g., 30, 60, or 90). Also, products such as topical preparations, inhalers, and nasal sprays are self-contained in sealed packages, which means they simply require applying the prescription label to the manufacturer's package. When a manufacturer's drug container is labeled, it is important to ensure that expiration date, lot number, and storage requirements are visible.

Safety First

The process of filling and labeling is very important and must be accomplished with great care and accuracy. Any mistake presents a possible danger to the patient if the error is not detected before the patient receives the medication. Even if the error is identified, the process of correcting it takes additional time and obstructs work flow.

After completing the prescription filling and labeling process, the technician should re-check to make sure he or she has prepared the correct drug, with the correct dose or strength, in the correct dosage form. Each unique drug, strength, and package size is assigned a unique **National Drug Code (NDC) number** that is printed on the drug package.

Rx for Success

A product's NDC number can be used as a double check to make sure the correct drug product has been selected for filling.

Although tablets and capsules are still hand-counted and packaged in many pharmacy settings, technology is now available to assist in some or all of the filling and labeling functions. Counting devices use a scale to count units based on their weight (figure 3–2) or light beams to count units as they are poured through a machine (figure 3–3). Other machines store the most commonly used drugs in bulk quantities in "cells" that dispense the required number of units into a vial to be labeled. Some also place the label on the vial (figure 3–4). When a pharmacy utilizes technology as part of the dispensing process, technicians are required to fill, clean, and maintain the equipment so it performs correctly.

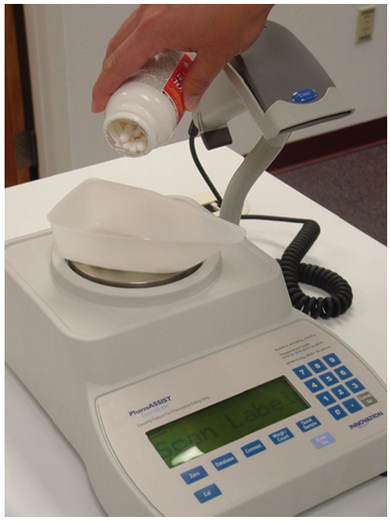

Figure 3–2. Scale counter. Photo courtesy of Innovation.

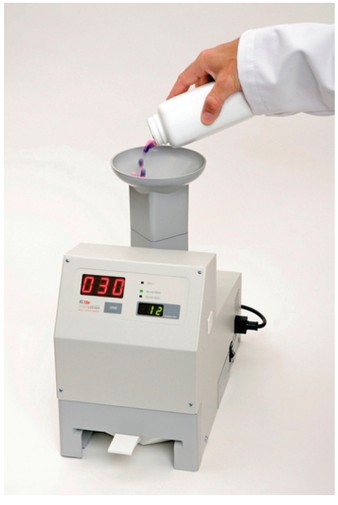

Figure 3–3. Counting device that utilizes light beams to quickly and accurately count tablets or capsules. Photo courtesy of Kirby Lester, LLC.

Figure 3–4. Robotic dispensing machine fills and labels prescriptions. Photo courtesy of Kirby Lester, LLC.

Compounding Prescriptions

Although most drug products are now manufactured by the pharmaceutical industry, there are still times when a special formulation must be prepared. Often these are simple mixtures of liquids or creams, but they may be more complicated mixtures of ingredients, such as preparing a liquid form of a medication that is available only as a tablet or capsule. Some states allow technicians to prepare compounded formulations under a pharmacist's supervision. Most pharmacies have a "recipe book" containing the ingredients, directions for preparing, and storage requirements for compounds commonly prepared by the pharmacy. A technician must receive proper instruction before attempting to compound a prescription.

Many states require a log to be maintained in which all prescriptions that are compounded are documented, including information (such as who was involved in the preparation) and verification of the compounding process. The log may also be required to include ingredient names, quantities, lot numbers, and expiration dates. Drug compounding is more fully described in Chapter 15: Nonsterile Compounding and Repackaging.

Collecting Payment and Patient Counseling

Technicians are usually involved in point-of-sale (POS) transactions, which involve checking out patients and collecting payment when prescription orders are complete. There are four important aspects to this task. First, the patient's name and some other identifying information (e.g., date of birth, address, phone number) must be verified to ensure that the correct medication is being given to the correct patient. Second, legal requirements must be met regarding patient counseling. State laws vary regarding whether new prescriptions and refills require patient counseling, and whether technicians are allowed to offer counseling. It is important to make sure all legal requirements are met. Also, patient counseling by the pharmacist is an important part of the dispensing process to ensure that the patient understands how to safely and effectively use his or her medication. Third, new patients must be given a copy of the pharmacy's patient privacy policy in compliance with HIPAA regulations. Finally, collecting patients' signatures is required by HIPAA when they receive the pharmacy privacy policy, by some states if they refuse patient counseling, and by some third-party payers when the patient takes possession of the prescription.

Safety First The patient's name and some other identifying information (e.g., date of birth, address, phone number) must be verified to ensure that the correct medication is being given to the correct patient.

Fulfilling Miscellaneous Responsibilities

In addition to duties related to prescription processing, technicians may perform other duties in the pharmacy. Other common responsibilities include managing inventory, managing pharmacy records, and helping patients locate OTC drugs, including the sale of products containing pseudoephedrine.

Managing inventory is an important part of pharmacy operations. The need to maintain adequate quantities of commonly used medications to meet patient needs must be balanced with the need to control operating expenses, i.e., avoiding tying up money in excessive inventory. Many community and ambulatory pharmacies' inventories are controlled by automatic inventory software systems that are incorporated into the prescription dispensing systems to reorder drugs as they are

dispensed. Although these can be very efficient, human intervention is still necessary to ensure that quantities in the inventory system reflect the actual inventory in stock. Also, special orders often need to be entered manually. The topics of purchasing and managing inventory are more fully covered in Chapter 19: Purchasing and Inventory.

Pharmacy law requires accurate maintenance of pharmacy records. In addition to sequencing, sorting, and proper storage of prescription hard copies, other records that require regular maintenance include drug supplier invoices, particularly for controlled substances, insurance signature logs, patient counseling logs, and HIPAA signature logs. Inaccurate or incomplete maintenance of these records can result in disciplinary action or fines in the event of an audit by the state board of pharmacy, federal Drug Enforcement Administration (DEA), third-party payer, or other government agencies.

A technician's contact with patients will periodically involve responding to patients' inquiries about OTC medications. Care must be taken when responding to these inquiries. If a patient simply asks for the location of a specific product (e.g., aspirin) or type of product (e.g., pain relievers), a technician may help with these types of requests; however, if a patient has a question that requires clinical knowledge or judgment, such as which product to use for a specific condition, such inquiries must be referred to a pharmacist. If there is any question whether or not a technician is qualified to respond to an inquiry, the pharmacist should be consulted.

✔If a patient has a question that requires clinical knowledge or judgment, such as which OTC product to use for a specific condition, the pharmacist should be consulted.

A specific area of concern is with the decongestant pseudoephedrine. Federal and state laws regulate the quantity of OTC medications containing pseudoephedrine that a person may purchase. These laws were passed because pseudoephedrine can be converted into illegal stimulants (i.e., methamphetamine, amphetamines). State laws vary somewhat, but generally patients are required to show valid photo identification, such as a driver's license, to purchase any of these products. Laws also limit the number of packages that an individual may buy per purchase and per month, based on the total amount of pseudoephedrine contained in each package. The pharmacy is required to keep these products behind the pharmacy counter and restrict sales based on these regulations. They are also required to keep records of who buys how much of which products. Technicians are allowed to process the transactions under these guidelines. See Chapter 2: Pharmacy Law for more information.

Part 1

Practice Trends

As community and ambulatory pharmacy practice continues to evolve, pharmacies are finding new ways to serve their patients, while also generating revenue to offset the financial pressures from reduced third-party payer reimbursement. Newer practice trends include providing disease state management, health screenings, immunizations, dietary supplements, and specialty compounding. Providing one or more of these services may give a pharmacy or pharmacy chain a competitive advantage in the marketplace.

Disease State Management

As community and ambulatory care pharmacies have evolved from a focus on dispensing to a focus on clinical management of medication therapies, many pharmacists have developed specialties in disease state management. The ability of skilled technicians to assume many of the important dispensing functions that were previously performed by pharmacists has allowed pharmacists to participate in medication therapy management. Pharmacists collaborate with prescribers and other health care providers to monitor patients and make adjustments or changes to medications related to a specific disease. Disease state management is most common in the management of chronic conditions such as hypertension, hyperlipidemia, asthma, and anticoagulant therapy. Initially, third-party payers were reluctant to pay pharmacists for these services; however, as pharmacists have been able to demonstrate and document cost savings related to their services, more payers have been willing to cover at least some of the costs of these services. A pharmacist generally completes special training to become certified to provide disease state management. Technicians may also be involved in disease state management by helping collect and manage the data and records necessary for pharmacist monitoring.

Health Screenings

Another way for pharmacies to help patients monitor their health is to offer health screenings. This service is less involved than disease state management and can entail

taking blood pressure measurements or checking blood glucose levels. Such services can be offered to patients as a free service or for a nominal fee. Pharmacies may also pay an agency to come in periodically to offer more complex screenings such as cholesterol panels or bone density scans. Providing health screenings is a way for a pharmacy to distinguish itself from its competitors by offering a unique and accessible service to its patients, while also increasing access to health care for many patients. Technicians may be trained to administer some screenings to collect data for the pharmacist to review with the patient.

Immunizations

Many pharmacies now provide immunizations for the prevention of various conditions. The influenza vaccine or the "flu shot" is probably the most common vaccine offered by pharmacies. Other examples may include shingles, pneumonia, and travel vaccines. In addition to being one of the most accessible members of the health care team, pharmacists have the opportunity to help identify patients who have certain risk factors that make them good candidates for specific vaccines. Most states now allow pharmacists with special training to administer vaccines themselves. Other pharmacies simply contract with an outside service to provide immunizations on the pharmacy's premises. Technicians may assist with immunizations by registering patients, ordering, storing and preparing vaccine doses, and keeping required records.

Dietary Supplements

With the decline in reimbursement from third-party payers for prescription drugs, many pharmacies have found an opportunity by specializing in dietary supplements, which generally include vitamins and minerals, amino acids, and herbs. Although supplements have become increasingly popular for patients to use to help or prevent various conditions, supplements remain loosely regulated and are often sold in health food stores and other non-pharmacy outlets where staff may have little or no medical training. Much of the information available to consumers about supplements is exaggerated or inaccurate, which can lead to overuse or misuse. Pharmacists have a unique opportunity to help their patients make reasonable decisions regarding supplement use. More and more medically credible resources are becoming available to help pharmacists make informed recommendations and provide important warnings. As with OTC drugs, pharmacy technicians should be familiar with the products that the pharmacy stocks and be able to help patients locate specific products they may request. It may also be appropriate to direct a patient to the pharmacist for more information or to answer questions about a product.

Specialty Compounding

As stated above, most pharmacies will prepare *simple* compounds, such as mixing two creams together or crushing tablets and suspending them in liquid, but many are no longer equipped to handle more complicated formulations with multiple ingredients or that require special equipment. These formulations may involve dosage forms in which a particular drug is not available, or for a drug that is no longer available in any form other than as a raw chemical. Some pharmacies meet this need by offering specialty compounding. This may involve making capsules, suppositories, transdermal gels, and topical preparations. Compounding supply companies provide the equipment and bulk chemicals used by compounding specialists, along with formulations and stability information for compounded products. In most states, technicians are allowed to assist in the compounding process under pharmacist supervision. For more information see Chapter 6: Specialty Pharmacy Practice and Chapter 15: Nonsterile Compounding and Repackaging.

Summary

In community and ambulatory care pharmacies, there continues to be a steady increase in the number of patients requiring prescriptions, the number of prescriptions required by each patient, the number of drugs available both as prescriptions and as OTC drugs, and the complexity of drugs and of drug therapies. This has increased the importance of the pharmacist's role as a manager of drug therapies, which in turn makes the role and responsibilities of the technician even more important. It is vital that technicians be conscientious in efficiently and accurately assisting in the prescription processing function, as well as treating patients in a professional manner at all times. It is likely that as these conditions continue to evolve, the technician's roles and responsibilities will continue to evolve as well.

Self-Assessment Questions

1. The practice of community and ambulatory care pharmacy has evolved from
   a. Preparing to dispensing to clinical
   b. Dispensing to preparing to clinical
   c. Preparing to clinical to dispensing
   d. Compounding to preparing to clinical
2. The term pharmaceutical care refers to
   a. The proper storage of pharmaceutical products
   b. The careful handling of private patient information
   c. The role of the pharmacist as a manager of drug therapy
   d. Patient counseling requirements for each prescription dispensed
3. Most community pharmacies are
   a. Independent
   b. Chain
   c. Mail-order
   d. Managed care
4. When communicating with patients, it is important to be all of the following, except
   a. Patient
   b. Caring
   c. Professional
   d. Quick
5. HIPAA regulates
   a. Guidelines for patient counseling
   b. Proper storage of drug products
   c. Rules for generic substitution
   d. Handling of private patient information
6. Which of the following questions may a technician answer for a patient?
   a. What can I take for a cold?
   b. Where can I find the aspirin?
   c. What is the best thing for pain?
   d. Can I take this drug if I have high blood pressure?
7. During a point-of-sale (POS) transaction, important technician functions include all of the following, except
   a. Verifying the patient's identity
   b. Meeting requirements for offering patient counseling by the pharmacist
   c. Collecting payment
   d. Answering a patient's questions about his or her prescription
8. In addition to the prescription filling process, a technician may be responsible for all of the following, except
   a. Managing inventory
   b. Managing pharmacy records
   c. Helping patients choose OTC drugs
   d. Preparing compounded drugs
9. With regard to the sale of OTC products containing pseudoephedrine:
   a. A pharmacy technician may process the transaction
   b. All products must be kept behind the pharmacy counter, but may be sold only by a pharmacist
   c. Patients are required to show photo identification, but are not limited to the number of packages they may purchase
   d. The pharmacy is not required to maintain a record of who buys how much of which products
10. Which of the following statements is true?
    a. Technicians play a critical role in the process of medication therapy management
    b. Technicians have less direct contact with patients in community and ambulatory care pharmacies than in other pharmacy practice settings
    c. Accuracy is not an important responsibility for a pharmacy technician during the prescription filling process because all prescriptions must be checked for accuracy by a pharmacist
    d. Technicians are not allowed to prepare compounded medications

Self-Assessment Answers

1. a. Pharmacists began their practice by preparing medications. As pharmaceutical companies began to manufacture more drugs, pharmacists shifted their focus to dispensing. As drug therapies became more complicated, pharmacists began to assume the clinical role of drug therapy managers.
2. c. The term "pharmaceutical care" describes a model that emphasizes the pharmacist's role as a drug therapy manager.
3. b. Originally, all community pharmacies were independent pharmacies, but due to financial pressures in the industry, the number of independent pharmacies has steadily declined and now most community pharmacies are chain pharmacies. Mail-order and managed care pharmacies aren't considered community pharmacies.
4. d. Patience, caring, and professionalism are important priorities at all times when taking care of patients in the pharmacy.
5. d. HIPAA regulates the handling of patients' private information in written, spoken, and electronic forms.
6. b. Technicians may direct patients to a particular product or type of product, but questions regarding clinical judgment should be referred to the pharmacist.
7. d. Questions about a patient's prescription require clinical knowledge and should be referred to the pharmacist.
8. c. Technicians may help a patient find OTC drugs, but should not give advice regarding which one to choose.
9. a. A technician may process a transaction for the sale of OTC products containing pseudoephedrine as long as they follow relevant federal and state laws. The number of packages purchased is limited by law. The pharmacy is required to record who buys these products.
10. a. An important part of medication therapy management is the proper handling and preparation of the actual drug product by technicians. Technicians have more communication with patients in community and ambulatory care pharmacy settings. Accuracy *is* an important responsibility for a pharmacy technician during the prescription filling process. Technicians may prepare compounded medications under pharmacist supervision.

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