

The Patient Interview

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LEARNING OBJECTIVES

- Explain the basic communication skills needed when performing a patient interview.
- Describe the components of the patient interview.
- Conduct a thorough medication history.
- Compare and contrast the different patient interview approaches in various clinical settings.
- Adapt the interview technique based on the needs of the patient.

KEY TERMS

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|------------------------------|-------------------------------|
| • Active Listening | • Pertinent Positive |
| • Rapport | • Pertinent Negative |
| • Empathy | • Past History |
| • Open-Ended Questions | • Medication History |
| • Leading Questions | • Family History |
| • Probing Questions | • Personal and Social History |
| • Nonverbal Communication | • Review of Systems |
| • Chief Complaint | • Physical Exam |
| • History of Present Illness | • QuEST/SCHOLAR-MAC |

INTRODUCTION

The patient interview is the primary way of obtaining comprehensive information about the patient in order to provide effective patient-centered care, and the medication history component is the pharmacist's expertise. A methodological approach is used to obtain information from the patient, usually starting with determining the patient's chief complaint, also known as the reason for the healthcare visit, and then

delving further into an exploration of the patient's specific complaint and problem. A comprehensive patient interview includes inquiring about the patient's medical, medication, social, personal, and family history, as well as a thorough review of systems and possibly a physical examination.

The medication history is the part of the patient interview that provides the pharmacist the opportunity to utilize his or her expertise by precisely collecting each component of the medication history (however, a medication history may also be collected independent of a comprehensive patient interview). The questions that you ask the patient, as well as the technique used, will enable you to learn exactly how, when, and why a patient takes each medication, as well as about any adverse reactions, allergies, or issues with medication cost the patient may have experienced.

The approach to the patient interview and medication history will change based on the setting in which you are practicing. For example, if the setting is a community pharmacy and you are responding to a problem that may allow for self-care, your questions will be directed at meticulously characterizing the patient's complaint and obtaining specific information that will influence your assessment and plan for the patient. However, if you are in a hospital, the focus of the interview may need to be modified based on the patient's condition and the particular unit or department in which he or she is being cared for so that the patient's needs may be met.

Regardless of the setting, your goal during the interview will be to provide patient-centered care; this can be accomplished by combining your pharmacotherapeutic knowledge with a solid foundation of excellent communication and patient-interviewing skills. Excelling in these communication skills is a learned technique that takes time and practice to master. Once these skills are employed in practice, the relationship that is developed with the patient is often stronger, allowing for the patient to have increased confidence and trust in your role as a healthcare provider.

The purpose of this chapter is to describe the various components of the comprehensive health history and to provide an overview of the skills and techniques required when communicating with the patient. This chapter will focus on the best practices to follow when collecting information from the patient.

COMMUNICATION SKILLS

Communication skills are the fundamental link between the pharmacist's expertise about drugs and his or her contribution to providing excellent patient-centered care. Although communicating with a patient may seem like a simple task, it actually takes

practice and knowledge to communicate with the patient in a manner that encourages respect for the healthcare provider and that enables the pharmacist to obtain an accurate and complete history. Some practitioners are able to naturally communicate with patients more effectively, whereas others have difficulty communicating with patients due to a variety of reasons, including their personality, comfort level, and confidence. However, regardless of one's natural abilities, communication skills and questioning techniques, especially when it comes to communicating with patients, are learned and take time to develop. A variety of excellent in-depth resources describe communication skills. This chapter examines the most pertinent skills required to conduct a comprehensive medication history. These skills and questioning techniques include:

- Active listening
- Empathy
- Building rapport
- Open-ended questions
- Closed-ended questions
- Leading questions
- Silence
- “Why” questions
- Nonverbal communication cues

Active Listening

The first communication skill to be mastered is listening, specifically active listening. *Listening* is defined as hearing what is being said, whereas **active listening** is a dynamic process that includes both hearing what is being said as well as processing and interpreting the words that are spoken (and/or unspoken) to understand the complete message that is being delivered. Whereas listening is a passive process, active listening requires the listener to consciously choose to give the patient attention and concentration that is free of distractions and interruptions, both external and internal.

External distractions are the easier of the two to avoid. External distractions include ringing telephones, flickering computer screens, and other infringing personal and/or other duties. These external distractions can be avoided by interacting with your patient in a place that is free of such distractions.

Internal distractions occur for two major reasons: (1) many matters, unrelated to the patient in front of you, may occupy your mind and (2) it is difficult

to perceive what the patient is saying without tainting his or her message with your personal judgment. The first reason can be addressed by making a conscious effort to concentrate solely on your interaction with the patient. This is more difficult to accomplish than it sounds, but, with practice, turning on the “listening switch” in your mind will become easier.¹ The second reason is more difficult to address, because instinct often leads us to judge or evaluate what the patient is saying based on our own frame of reference. Biases, prejudices, and judgments cloud the message that is being delivered by the patient, which, in turn, affect the patient interaction, and possibly clinical outcomes.² For example, as you prepare for a patient who has been referred to you for smoking cessation counseling, you read in several progress notes that the patient “refuses to give up smoking.” As you meet with that patient, in your mind you may be thinking that “it’s so difficult to give up smoking and most people don’t really want to give up smoking” based on your previous encounters with other patients. After reading the patient’s notes, your preconception may be strengthened. Therefore, as your patient is talking about reasons why it is difficult for him to quit smoking, your mind is hearing what is being said but is interpreting it as excuses rather than reasons that you may be able to address with the patient to assist him in quitting smoking. One way to overcome internal distractions is by being present in the moment, during your patient visit, addressing your patient’s current concerns without focusing on your preconceived notions.

Empathy

Empathy is defined as the “intellectual identification with or vicarious experiencing of the feelings, thoughts, or attitudes of another.”³ The terms *empathy* and *sympathy* are often confused. *Sympathy* is when you feel sorry for the patient but do not feel the same emotions or are not in the same situation, whereas *empathy* is when you place yourself in your patient’s situation and respond based on either similar personal experiences or through vicarious understanding. When you express empathy, it allows your patient to feel as though you understand his or her unique experience and that you are applying your expertise to the patient as an individual.

Empathy can be shown in several ways, and each way will depend upon the particular patient as well as the situation. For example, nodding your head, making a statement, or asking a follow-up question can show empathy.² Additionally, it is important to distinguish between an empathetic statement and the assumption that you know exactly what the patient is feeling. For example, saying to your patient who has been

diagnosed with cancer, “I know just how you are feeling. My grandfather had cancer and it was such a shock to all of us. At first, he was just so overwhelmed and upset” may make the patient feel like you are not truly listening to her, but rather assuming that she will respond like anyone else with a cancer diagnosis. It may be better to say, “I know from some personal experiences that finding out about cancer can be very overwhelming. How are you feeling?” Although there is no one way to show empathy, focusing on the key factors of allowing patients to feel understood while maintaining the uniqueness of their experience(s) may allow for a better patient interaction.

Building Rapport

The first impression you make on your patient will weigh on the rest of the patient interview as well as affect your relationship with the patient. Building a good **rapport** sets the tone for the interview and allows the patient to feel comfortable with you, thereby making the lines of communication more open and honest. Patients may sometimes withhold information if they feel uncomfortable or anxious about sharing their complaints because of a lack of feeling respected, feeling as though their words are not being heard, or quite simply not knowing who you are and what your role is in their care. Therefore, starting the interview by greeting the patient by name, making sure you are pronouncing the patient’s name correctly, asking how he or she prefers to be addressed, and adding a title to his or her name, if preferred, will indicate your interest in the patient and show that you care. You should also give your name and title and then briefly describe the purpose of the interview. For example, you could say, “Hello Mrs. Smith, my name is Ankur Kumar. I am the pharmacist who is part of your medical team, and I am here to ask you a few questions about what brought you to the hospital and discuss the medications you have been taking at home.” If there are others in the room, you should greet each person in the room, and then ask your patient for permission to continue with the interview in the presence of others. For example, you may say, “I have a few questions for you, Mrs. Smith. Is it okay for me to speak to you with your family/friends in the room or would you prefer to be alone while we talk?”

Even if you have met the patient before, you may want to remind the patient of your role, especially if you are in a hospital setting where the patient may be overwhelmed by the many providers participating in his or her care.⁴ Making appropriate introductions, interacting respectfully with the patient, and making the patient feel comfortable will build excellent rapport, leading to a strong foundation for the patient–pharmacist relationship.

Open- and Closed-Ended Questions

Open-ended questions are questions that require the patient to answer with more than a simple yes or no or nod of the head, whereas **closed-ended questions** generally limit the patient's response to either a yes or no or a nod of the head. In general, open-ended questioning is the preferred technique to use during patient interviews to compel the patient to provide more in-depth and insightful responses. Because open-ended questions do not limit the patient to responding with a yes or no, they encourage the patient to disclose more information. For example, you can start the interview by asking an open-ended question, such as "How are you feeling today?" or a closed-ended question, such as "Are you feeling well today?" The first approach allows for the patient to answer in free form and possibly give you more detail about the condition of his or her health, whereas the second way leads the patient to answer with either a yes or no, thereby limiting the information that you obtain from the patient.² This, in turn, may lead to a rapid sequence of more closed-ended questions.

For example, if you ask the patient a closed-ended question such as, "Do you take your medications as directed by your physician?" you will most likely receive a response of "yes." Although the patient may indeed be taking each medication as directed by his or her physician, you may be missing the opportunity to discover how the patient is actually taking each medication. Instead, if you ask the patient an open-ended question, such as "How are you taking this medication?" the answer will likely include more details, such as the dose and frequency of the medication. By gathering more information with open-ended questioning, you may learn that there are discrepancies between how the patient is actually taking the medication and how it has been prescribed. Oftentimes, a patient answers, "Yes, I am taking it as directed," but you then discover that this is not the case, perhaps as a result of dishonesty but more likely because the patient believes that he or she is taking the medication correctly. The use of open-ended questions enables you to gather more information from the patient and to be more complete and accurate in your assessment; this, in turn, leads to appropriate patient-specific care.

Closed-ended questions do play a role in communicating with a patient; however, the use of close-ended questions should be specific to the information you want to collect. For example, if you would like to know whether the patient took his or her blood pressure medication in the morning to more accurately assess his or her blood pressure reading, you might ask, "Did you take your blood pressure medications this morning?"

Additionally, you can use open-ended questions to determine the presence or absence of certain symptoms or to further explore a symptom that the patient is experiencing. For example, after asking an open-ended question such as "What symptoms

are you currently experiencing?” and hearing the response “My head hurts,” an appropriate closed-ended follow-up question would be “Is the pain behind your eyes?”

Leading Questions

Leading questions are those that suggest a particular answer. These questions lead a patient to provide a response that he or she perceives to be the answer that the interviewer wants to hear. An example of a leading question is “You do not miss any doses of your medication, do you?” By phrasing the question in this manner, the patient feels obliged to say, “No, I don’t” because the question implies that the patient should not be missing doses, and, rather than contradicting your expectation, the patient merely agrees. Therefore, to obtain an accurate response to your questions, leading questions should be avoided.

Silence

The role of silence during your interaction with the patient is more significant than you may realize. By allowing moments of silence after asking a question, the patient is able to reflect upon your question and provide a more thoughtful and accurate response. However, silence may also indicate that the patient has not understood your question. Nonverbal cues will help you determine the difference. You can use nonverbal cues to gauge each patient independently to determine the appropriate length of time to be silent and/or when to break the silence. Determining the appropriate length of silence to use is definitely an art. In general, the silence should be long enough to provide the patient a chance to gather his or her thoughts but not so long as to make the patient feel uncomfortable.

“Why” Questions

As you are interviewing your patient, avoiding “why” questions may prevent the patient from feeling as though he needs to defend his choices and actions. Although it may be necessary to learn the reasoning behind the patient’s choices and actions, the wording that you use may impact the response. For example, if you desire to learn why a patient is missing doses of hydrochlorothiazide, instead of asking “Why do you miss your doses?” you might ask “What causes you to miss your doses?” or “What are some reasons for missing your doses of the hydrochlorothiazide?” The difference is subtle, but it may be enough to affect the way the patient perceives the question. With the “why” method, the patient may feel the need to defend him- or herself, whereas

the “what” method allows the patient to reflect on his or her reasons without feeling as though you are offering judgment.

Nonverbal Communication

Nonverbal communication is the sending of messages to or from your patient without the use of words. This type of communication plays an important role in your interactions with your patients because it can be as powerful as the words that are spoken. Nonverbal communication includes tone of voice, choice of language, facial expressions, body posture and position, gestures, eye contact, appearance, and overall behavior.¹ A patient’s perception of nonverbal communication may be influenced by individual and cultural differences. Therefore, you should be sensitive to cultural differences prior to making inferences about the patient based on nonverbal communication. **Table 1.1** describes the various types of nonverbal communication and provides examples for tone of voice, choice of language, and facial expression.

The Issue of Reliability

During the patient interview, you must assess the reliability of the information that is being conveyed to you. Many factors may affect a patient’s reliability, including certain psychiatric conditions, impaired cognitive function, inadequate memory recall, or even a lack of understanding of the questions being asked. Therefore, it is important to assess the patient’s reliability during the interview. Listening for and recognizing clues that the patient may not be relaying accurate information, no matter the reason, takes experience. One way to address potential unreliability is to cross-reference the information from a variety of sources, including the patient’s profile, medical records, and information from the pharmacy. In some cases, it may be necessary to include a caregiver or family member in the interview session. This would need to be done in a manner that is consistent with the HIPAA procedures at your institution.

THE PATIENT INTERVIEW

The patient’s story is considered to be the key to the medical interview, and asking the right questions and actively listening to the patient can best obtain this story. As you interview the patient, you will come to realize that an organized approach provides a solid foundation, but you must follow the patient’s story in the order it is being told versus the patient answering your questions in a predetermined order. This being said, it is necessary to know the core elements of the systematic approach to

TABLE 1.1 Types of Nonverbal Communication

Nonverbal Communication	Description	Example
Tone of voice	One may speak in a tone that is persuasive, assertive, passive, condescending, kind, patient, impatient, confident, or unconfident. Although the words that are spoken are important, the tone in which they are spoken may influence the patient's interpretation of what is being said. Similarly, you may be able to assess how a patient is feeling or reacting based on his or her tone of voice. A patient may speak in a tone that sounds encouraged, dejected, sad, excited, angered, or confused. By understanding the patient's tone, you may be able to adjust your interaction with the patient to improve communication.	<p>"Smoking is harmful to your health."</p> <p>Practice saying this in various tones. The patient's interpretation will vary based on your tone of voice. A condescending tone may cause the patient to feel as though you are talking "down" to him or her, such that the patient may not want to discuss this any further with you, which, in turn, may make you miss an opportunity for smoking cessation counseling. In contrast, saying this in a confident and assertive tone may cause the patient to at least hear what you are saying versus being offended by the way you have said it.</p>
Choice of language	The language used may be simple or complex, clear or confusing, or easy or difficult to follow. The meaning of the words may be influenced by the language used.	<p>"Detrimental effects on health have been caused by tobacco use. The studies have shown that smoking leads to death, cancer, and hypertension. Choosing to cease smoking may lead to improvements in your well-being."</p> <p>The use of complex language that is more difficult to follow may not only cause the patient to be confused about the message that is being conveyed, but also to feel as though he or she cannot connect with you, leading the patient to believe that you are disinterested in his or her care.</p> <p>The following statement is better: "Smoking causes harm to the body, including high blood pressure, cancer, and even death. Choosing to quit smoking will help your health be better."</p>

(Continues)

TABLE 1.1 Types of Nonverbal Communication (*Continued*)

Nonverbal Communication	Description	Example
Facial expressions	<p>Many facial expressions are possible: smiling/frowning, looks of astonishment, disappointment, disapproval, surprise, shock, anger, fear, happiness, and sadness. These expressions may happen involuntarily and convey strong messages. As a patient is speaking, it may be appropriate to smile, which could mean you are encouraging the patient to continue speaking, <i>or</i> it could indicate that you are amused. One may also look perplexed, indicating that either the patient or you need more clarity.</p>	<p>Now, not only are the words clearer, but the patient's ability to connect with you, because of increased understanding, may improve as well.</p> <p>A patient says, "Sometimes, I take my mom's blood pressure medications when I have a headache because that's how I know that my pressure's up."</p> <p>Upon hearing this, you may feel surprise, shock, and/or disapproval. Although these feelings may be justified, allowing your facial expression to show these feelings may discourage the patient from divulging information to you because of embarrassment and chagrin. In contrast, looking perplexed as you ask the patient why he or she thinks a headache means that his or her blood pressure is high may encourage the patient to respond by explaining his or her reasoning to you.</p>
Body posture and position	<p>Sitting straight or slumped, relaxed or tense, and/or with hands crossed over body may indicate one's desire to be a part of the conversation or it may reflect feeling nervous, anxious, or defensive. Sitting straight may convey confidence. In addition, the distance or space between you and the patient may indicate the balance between respect for personal space and being close enough to comfortably speak with the patient without barriers. Typically, finding a place to sit where you are close enough to reach the patient but not touching the patient is a good distance.</p>	<p>If the pharmacist is sitting slumped in a chair, the patient may perceive that there is a lack of interest on the part of the practitioner to be present at the patient visit. In the same vein, if the patient is slouching, it may indicate a lack of interest, and therefore rather than just continuing to give information to the patient, it may be better to pause, and ask the patient a reflective question such as, "What do you think about starting these new medications?"</p>

TABLE 1.1 (Continued)

Gestures/ movements	The use of gestures such as hand movements or nodding to show encouragement/understanding may be appropriate to complement your words; however the overuse of gestures, tapping of feet, or moving around may be distracting. If your patient is moving around too much or acting restless, it may indicate nervousness or discontent. In addition, touching a patient on the shoulder may show empathy or go together with making a point; however, some patients may feel uncomfortable with this. You need to assess the patient's reaction to the touch to know the difference.	If you are a practitioner that lightly touches your patient's shoulder or arm to emphasize a point or show empathy, and your patient pulls back or looks at you nervously, it may mean they are not comfortable with touch and therefore you should avoid touching the patient in the future. Additionally, if your patient appears to be moving around too much, you can ask the patient a question such as, "You seem to be pacing the room—what is on your mind?"
Eye contact	If you keep glancing at your computer screen or your phone, it appears to the patient that you are not interested in what he or she is saying; however, maintaining continuous eye contact may make the patient uncomfortable. Additionally, certain cultures consider eye contact to be a sign of respect whereas others think it is more respectful to not make direct eye contact. Therefore, you should take nonverbal cues from your patient to maintain the right amount of eye contact, understanding that a lack of eye contact does not necessarily indicate dishonesty.	As computerized medical records are becoming more prevalent, if you are reviewing and documenting information as the patient is speaking, it may make the patient feel as though you are not actively listening. During the visit, you can start by telling your patient that you will be documenting in the computerized medical record throughout the visit to prepare the patient. On the other hand, when the patient is answering your questions, you should make eye contact and document this information at a later time.

a patient interview to ensure that all of the components are addressed and eventually documented and/or communicated in an organized manner that is recognized by all healthcare professionals. It has been well documented in the medical field that effective communication with patients leads to better diagnosis and treatment, as well as an improved provider–patient relationship.⁵ Although most of this research is related to

physician–patient communications, it can easily translate to communications between the pharmacist and the patient. This is because pharmaceutical care, like the care provided by a physician, involves (1) curing a patient’s disease, (2) eliminating or reducing a patient’s symptoms, (3) arresting or slowing a disease process, and (4) preventing a disease or symptoms.⁶ Even though a pharmacist does not make disease diagnoses like physicians do, a pharmacist must nonetheless evaluate the information obtained from the patient interview, including the possibility of certain diagnoses, to appropriately create an assessment and plan, which may include a referral to the patient’s physician or an emergency room for further evaluation.

Components of the Health History

Chief Complaint

The **chief complaint (CC)** is the issue or issues that the patient is presenting with and the primary reason for the visit. This is typically documented in the patient’s own words and is therefore quoted in the written or oral presentation. One way to determine the patient’s chief complaint is by asking, “What brings you here today?” Some patients may have an actual complaint, while at other times they may be visiting for a general reason, such as to pick up a new or refill prescription or for a follow-up visit. In the case of no overt complaint, the chief complaint may be goal-oriented, such as “I am here to pick up my refills,” “I am here to discuss my labs,” or “My doctor told me to see you about my sugars.”⁴ At times, the patient’s chief complaint may seem relatively minor compared to the assessment; however, regardless of the final diagnosis, the chief complaint should be the patient’s primary complaint. For example, a patient may come in complaining of “being out of his furosemide” and, upon evaluation, it may be determined that the patient is experiencing acute heart failure. This assessment and the subsequent plan will be discussed elsewhere in your documentation.

History of Present Illness

The **history of present illness (HPI)** is the story of the illness.⁷ The pharmacist will further explore the chief complaint as well as any other potential problems by asking questions about any recent or remote history that may be related to the current illness. The goal of the HPI is to ascertain a complete, accurate, and chronological account of the illness from the patient. Seven attributes need to be addressed to obtain a well-characterized description of the complaint or symptom: location, quality, quantity or severity, timing, setting, factors that aggravate or relieve the symptoms, and associated manifestations.² **Table 1.2** describes each attribute in more detail and provides an

TABLE 1.2 Seven Attributes of a Symptom

Attribute	Exploration	Example for Chief Complaint of Swelling
Location	Specifics about where the symptom is occurring. In some cases, it is important to ask the patient if it is okay for you to inspect the area.	"Where is the swelling located?"
Quality	Describe the symptom in terms of characterization. For example, if the patient is in pain, characterize the pain by using descriptive adjectives, such as <i>stinging</i> , <i>shooting</i> , or <i>crushing</i> .	"Describe the swelling. How much worse is it now than it normally is?"
Quantity/severity	Quantify the severity of the symptom. If the symptom is pain, ask the patient to rate the pain on a scale of 1 to 10.	"Would you say that this swelling is causing your leg to be twice its normal size?"
Timing	Find out when the symptom started and if there was anything occurring at the time to link it to the onset of the symptom. Also clarify how long the symptom has been occurring and the frequency of occurrence; that is, is it constant or intermittent?	"When did the swelling start? How long does it last? Is it worse at certain times during the day?"
Setting	This includes addressing the possible cause of the symptom.	"Have you noticed what causes the swelling?"
Factors that aggravate or relieve the symptom	Determine what makes the symptom better or worse. Ask about any medications or nonpharmacologic therapies used to relieve the symptoms and their efficacy. Ask questions to find out what makes the symptom worse. For example, the symptom may be worsened by certain environmental conditions, exertion, or stress.	"What makes the swelling worse or better? Do you notice a difference in the morning versus when you have been on your feet during the day? What did you try for the swelling? How did it work?"
Associated manifestations	Note any other symptoms the patient is experiencing. Also ask about symptoms that may be a consequence of the primary symptom.	"What other symptoms do you have? Are you experiencing any shortness of breath or trouble walking?"

example. As you talk with the patient, the flow of the HPI may depend on what the patient wants to tell you; however, most of the time all seven attributes of a symptom must be addressed to completely characterize the patient's complaint and to develop the HPI. For example, if a patient complains of a cough, it is not necessary to ask about the "location" of the cough. However, if a patient complains of a headache, specifying the exact "location" of the pain (i.e., front, back, or side of the head) will assist in the assessment.

Asking questions during the HPI is akin to putting together a puzzle. A patient who is telling you parts of his or her story may not realize which parts are pertinent. For example, the patient may not know how and what information needs to be relayed to you so that you can make a complete assessment. It is like a puzzle in that you may know what the completed puzzle will look like; however, you have to pick up each piece; examine its shape and color for hints, such as having a flat side, which indicates that it is a border piece; and then place it near other "like" pieces until you are able to fit all the pieces together. You, as the pharmacist, should start thinking of various questions to ask the patient so that the patient's responses, or the puzzle pieces, may be put together to ascertain or rule out certain assessments. It is important to ask open-ended questions and appropriately follow up in order to obtain the right pieces of information to put together the HPI. In the case of the patient interview, you will be assessing each piece of information for its reliability, completeness, and relevance to the problem.⁷ As the details of the problem are further explored, you need to process and evaluate this information to find the link among symptoms so appropriate assessment may occur.⁷

One way to ascertain this information is by focusing on pertinent positives and negatives, which may be thought of as the hints that will lead to you putting the puzzle together. In addition to asking the patient open-ended and focused questions to learn the characterizations of his or her chief complaint or symptom, the HPI may include additional questions that focus on the presence or absence of certain symptoms that could be related to your differential diagnosis or the patient's medical condition. You may need to assess a patient's medical condition during the patient interview even if the patient does not have any complaints regarding that medical condition. For example, in a patient who has heart failure (HF), you may need to ask about the presence or absence of certain symptoms to determine whether the patient's HF is controlled or if the patient is experiencing an exacerbation. Therefore, you may ask the patient about symptoms that are pertinent to the assessment of HF, such as the presence or absence of edema, the use of extra pillows at night to avoid lying flat, and shortness of breath. If the patient has any of the aforementioned symptoms, they would be termed **pertinent positives**, or the presence of symptoms that are related to the medical

condition that is being assessed. In contrast, if these symptoms are absent, they would be termed **pertinent negatives**, or the absence of symptoms related to the medical condition being assessed. Asking these focused questions about pertinent positive and negative symptoms contributes to the assessment of heart failure in this patient.

Another way to use the technique of asking about pertinent positives and negatives is to rule out or rule in possible diagnoses. For example, to determine a possible cause for the polyuria (increased urination) a patient is experiencing, you will need to ask focused questions. First, you consider the most common causes of polyuria, which include, but are not limited to, diabetes or a urinary tract infection (UTI). To further explore the reason behind the polyuria, you will ask about symptoms that are present in either diabetes or a UTI, including polydipsia (increased thirst) and polyphagia (increased hunger) or dysuria (painful urination) and hematuria (blood in the urine), respectively. Additionally, pertinent positives or negatives are not limited to symptoms but may include other information obtained from the family history or past medical history. For example, in a patient with polyuria, it will be pertinent to find out if the family history is significant for diabetes or if the patient's past medical history (PMH) includes recurrent UTIs. In order to accurately make a diagnosis, in collaboration with a medical professional, these findings from the patient interview would need to be coupled with diagnostic tests, including blood work and/or urine analysis. The purpose of this example is to illustrate the use of questions to discover either the presence or absence of pertinent findings that assist in painting an accurate and complete picture of the patient's story.

Past History

The **past history** includes the past medical history, surgical history, history of childhood illnesses, and obstetric/gynecologic history. Aspects of health maintenance, such as immunizations and screening tests, should be included as well.⁴ When interviewing the patient, all of these aspects fall under the umbrella of past history; however, upon documentation, these sections may be separated by type of past history, such as PMH, surgical history, or health maintenance/immunizations. Each of the components of the past history should include the information discussed below. As pharmacists, we do not usually obtain a complete past history from a patient; rather, we rely on the information documented by a medical student, resident, or physician. However, sometimes it is appropriate to ask the patient about parts of his or her past history and/or to use any information gathered previously to determine the appropriate care for the patient. Therefore, it is vital to know the components of the past history and the questions that need to be asked.

Past Medical History The PMH includes chronic as well as past acute medical conditions, including diabetes, hypertension, hyperlipidemia, hepatitis, and asthma, as well as any history of pneumonia, cancer, or Lyme disease. One way to ask patients about their PMH is, “What medical conditions do you have or have you been told you have?” You may notice that a particular patient may have several conditions documented, but upon further questioning determine that the patient is not including all of them. To ensure completeness, you may need to ask the question in various ways and, at times, gently probe. For example, if you notice that the patient is not sure what you mean by “medical conditions,” you might ask, “Do you have any medical conditions, such as diabetes or high blood pressure?” Or, if you note that the patient has albuterol in his or her medication profile but has not mentioned any pulmonary-related conditions, you might ask, “What are you taking the albuterol for?”

Surgical History The surgical history should include the type of operation, when it occurred, and the indication for the operation. You might ask the patient, “What surgeries have you had?” and “When did you have this surgery?” Examples of the surgical history that would be pertinent to pharmacists would be an assessment of uncontrolled pain from a recent knee replacement surgery or the determination of which vaccines should be avoided in the patient who has had a splenectomy.

Childhood Illnesses Pertinent childhood illnesses include measles, mumps, whooping cough, chickenpox, rheumatic fever, scarlet fever, and polio. You could ask the patient, “What childhood illnesses, such as measles or chickenpox, did you have as a child?”

Obstetric/Gynecologic History The obstetric history includes the number of pregnancies, including deliveries, miscarriages, and terminations, as well as the year, months gestation, complications, and infant weight for each pregnancy. The gynecologic history includes onset of menstruation, date of last period, use and type of birth control, and sexual function. Although the pharmacist does not typically gather this history, some of this information may be pertinent to patient care provided by the pharmacist. For example, knowledge of an infant’s birth weight can help you determine whether the mother has a risk factor for diabetes, which, in turn, may influence whether you would recommend diabetes screening for the patient. One way to gather this information would be to ask directly, for example, “There are many risk factors for diabetes, including the birth weight of your children. How much did your children weigh when they were born?” or “Did any of your children weigh 9 or more pounds when they were born?”

Another example of asking questions related to the gynecologic history is in the community setting when a patient requests Plan B One-Step, and you must determine whether Plan B One-Step is appropriate and what other counseling may be necessary. In this situation, you might ask the patient questions such as, “When did the unprotected sex happen?” “To ensure that you are not pregnant now, when was the date of your last period?” or “Unprotected sex carries the risk of sexually transmitted diseases, and Plan B One-Step will not prevent this. Are you worried about this?” Such questions enable you to assess the appropriateness of Plan B One-Step and the possible need for the patient to seek medical attention.

Health Maintenance/Immunizations

This part of the medical history includes information on what immunizations the patient has received, such as influenza, pneumococcal, tetanus, and hepatitis B, as well as the dates they were obtained. Based on this information, you can then recommend any new or booster immunizations the patient may need. The dates and results of screening tests, such as mammograms, Pap smears, and tuberculin tests, should also be included. Information on diabetes and cholesterol screenings may also be included in this section, even though these tests are part of the objective data. These screening tests typically occur because of recommendations from guidelines and are meant to allow for preventative treatments and early diagnosis; therefore, asking the patient about this during the past history component of the patient interview enables you to make recommendations based on the information you have gathered.

Family History

The **family history (FH)** is health information about the patient’s immediate relatives. These relatives include parents, grandparents, siblings, children, and grandchildren. Because many medical conditions have a genetic component, the purpose of the family history is to determine potential risks factors for the patient’s current and future health. Typically, relatives such as cousins, aunts, and uncles are not included in the family history; however, for certain medical conditions that carry a high genetic link questions about the patient’s family history may be appropriate.⁷

When inquiring about family history, you should ask whether the person whose history is being provided is alive or deceased; determine the presence or absence of medical conditions such as hypertension, coronary artery disease, hyperlipidemia, diabetes, pulmonary diseases, cancers, or thyroid disorders; and gather information on that person’s psychiatric history, addictions, or allergies. In addition, if the person is

deceased, ascertain the age at death and the cause of death.⁴ It is important to include this specific information because it may determine certain risk factors a patient may carry. For example, if a patient's father died at the age of 45 secondary to a myocardial infarction, the patient then has a risk factor for coronary artery disease. This risk factor, in conjunction with other pertinent history, will determine the patient's goal low density lipoprotein (LDL) and drug therapy necessary to achieve this goal. One way to determine the patient's family history is to ask, "Are your parents and grandparents alive? What was the cause of death? At what age did they pass away?" A general question, such as "What health conditions do or did your parents/grandparents/children have?" may be sufficient, but sometimes it may be necessary to ask a more focused question, such as "Do or did your parents or grandparents have heart disease or diabetes?"

Personal and Social History

The **personal and social history (SH)** is the part of the interview where we learn about the patient's life, including health behaviors and personal choices. The basic social history consists of asking the patient about past and present use of tobacco, alcohol, and illicit substances. If these are currently consumed, you should inquire as to how much and how often each is utilized. In addition, if a patient is a former user of any of these substances, it is vital to ask the patient at subsequent visits if he or she remains abstinent or if relapse has occurred. Because many of these questions can be very personal and some patients may be reluctant to share such information, either out of embarrassment or fear of being judged, you should ask these questions with sensitivity and respect. However, it is important to be direct so that patients realize these questions are important with regard to their care.

Tobacco Use You should ask patients if they currently smoke or if they have smoked in the past. For both former and current tobacco users, you should ask at what age they started (and quit); what form of tobacco they use or used, including cigarettes, chewing tobacco, and/or cigars; and quantify the amount. For cigarette smokers, you should ask how many cigarettes or packs they smoke (or smoked) per day. One way to ask this question is, "How often do you use tobacco products?" By asking this question in an open-ended manner, patients who consider themselves social smokers may be more likely to disclose information about their tobacco use. Had you asked, "Do you smoke?" these same patients may be more likely to say no because they do not smoke often.

Alcohol Use Similar to tobacco use, you want to ask a patient, "How often do you drink alcohol?" You also want patients to quantify the amount they drink and how often

they drink. It is necessary to ask specific questions, because although one drink is technically considered to be 12 ounces of beer, 5 ounces of wine, or 1.5 ounces of liquor, a patient's definition of "one drink" may vary. You could ask the patient, "What do you typically drink?" "How much wine/beer/liquor do you have every day?" or "How many days a week do you drink?" To gather more information about what one drink means to the patient, specifically ask, "How much liquor do you put in one drink?"

Illicit Substances Use Patients may hesitate to answer questions about illicit drug use honestly because they are afraid of negative consequences. It will help if you are straightforward and nonjudgmental when asking about illicit substance use. One way to ask this question is, "Do you currently take, or have you taken in the past, any illicit drugs? If so, which ones?" Remind the patient that he or she should feel comfortable disclosing this information to you because you are seeking this information for the purpose of providing patient care and that you will not report the use of any illicit drugs to law enforcement authorities.

In addition to past and present tobacco, alcohol, and illicit substances use, a more complete personal history also includes educational level, composition of the family of origin and the current household, personal interests, and additional lifestyle information, such as dietary habits, caffeine intake, exercise habits, and an assessment of the activities of daily living (ADL) to determine baseline function, especially in disabled or older patients.⁴

Review of Systems⁴

The **review of systems (ROS)** is a systematic, head-to-toe evaluation of the presence or absence of symptoms. It includes the presence of any symptom, even one that the patient may not have deemed to be significant or may have forgotten because of his or her focus on the chief complaint. Generally, the medical student, resident, or physician completes the comprehensive ROS questioning; however, pharmacists may need to ask a patient about the presence or absence of pertinent symptoms related to the present illness. Because of this, it is necessary to understand what is included in the ROS. Additionally, pharmacists may also be part of a medical team, and therefore should be aware of all of the components of a patient interview even if they are not the ones asking the questions. Prior to starting this part of the interview, let the patient know that you will be asking several questions to assess any potential symptoms he or she may be experiencing. Oftentimes, some of these systems may be addressed concurrently with another part of the interview. For example, after checking the patient's blood pressure, you may ask if the patient has had any dizziness or palpitations.

Physical Examination

The comprehensive **physical examination (PE)** is most often completed by a medical student, resident, or physician. They are taught to develop their own systematic approach to ensure a thorough and accurate physical exam. The comprehensive physical exam includes measurement of vital signs such as height, weight, temperature, blood pressure, and pulse, as well as the observation, inspection, and palpation of the patient's body from head to toe. Although physicians often complete this part of the patient assessment, pharmacists are also skilled at completing parts of the physical exam. These parts include, but are not limited to, measuring vital signs and inspecting and palpating parts of the body related to the patient's complaint. For example, a pharmacist may assess the severity of lower leg edema by inspecting and palpating the area of swelling. Additionally, pharmacists may conduct mental status examinations or assess the effects of a stroke by examining the patient for facial droop, arm drift or strength, and speech abnormalities.⁸

MEDICATION HISTORY

The **medication history** is a vital component to the patient interview and is the area where the pharmacist will dedicate the most time. Medications include prescription and over-the-counter (OTC) drugs as well as herbal products. The medication history provides insight into the patient's current and past medications, adverse drug reactions or allergies, adherence, the patient's own understanding about his or her medications, and any other concerns a patient may have regarding his or her medications.⁹ Asking pertinent questions with a systematic approach, utilizing appropriate technique, and actively listening to the patient will enable you to collect a thorough and accurate medication history. This, in turn, will enable you to identify, prevent, and/or resolve any active or potential drug-related problems. Additional reasons to obtain an accurate medication history include the following:¹⁰

- Ruling in or out a drug-related adverse effect
- Preventing drug–drug, drug–food, or drug–disease interactions
- Monitoring for clinical signs that may be masked due to a drug
- Evaluating laboratory findings appropriately, as certain drugs may affect the results
- Preventing prescribing errors

Additionally, the inclusion of a thorough OTC medication and herbal product history is vital for the following reasons:

- It verifies that the patient is choosing the appropriate OTC medication or herbal agent and that it is being taken correctly.

- It gives you the opportunity to assess for any drug–drug or drug–disease interactions that may be occurring with an OTC or herbal product.
- It will give you the opportunity to counsel and educate the patient about OTC medications and herbal products, because some carry more risks than benefits.

For example, a patient who is taking warfarin may also tell you she is taking ibuprofen 200 mg twice daily for arthritis pain. This information provides you with an opportunity to assess the patient’s arthritis pain and inquire about what other agents have been tried to treat the pain. After evaluating the patient, you may determine that acetaminophen is the more appropriate drug for this patient. You would then counsel regarding the increased risk of bleeding associated with concomitant warfarin and ibuprofen use, as well as recommend acetaminophen, being sure to include all the components of self-care counseling described later in this chapter.

Components of a Medication History

To effectively and efficiently conduct a medication history, appropriate training, education, and practice are necessary. You should know all the questions that need to be asked, the various ways in which the questions may be asked, the appropriate use of interview techniques, and the many sources of information that should be utilized.⁹

It is necessary to know the contents and significance of the various components of a medication history. This section provides examples of how to ask the questions related to the medication history along with the explanation of each component; however, it is important to realize that these examples demonstrate just one way to ask questions, and you might find that your own communication style lends itself to a different way of asking the questions. You must find a way of having a natural discussion with the patient that works for you, and this will take a lot of practice.

Introduction

Prior to starting the medication history, you should introduce yourself by telling the patient and/or caregiver your name and title. Be sure to confirm the patient’s identity with at least one patient identifier, such as the patient’s birthday, telephone number, or home address. Additionally, you should describe the purpose of the medication history, tell the patient the amount of time you expect that it will take to conduct the medication history, and obtain permission to collect the information.

The following is a sample dialogue for the introduction: “Hello, my name is Shaan Smith, and I am a pharmacy student. Before we get started, I would like to make sure I am speaking with the right person. May I get your full name and address, please?”

Once the patient's identity has been confirmed, you could continue by saying, "I will be taking a medication history from you today. This means that I will be asking you questions about all the medications you are currently taking and get some information about medications you may have taken in the past and any side effects or allergies you may have. All of this should take about 10 to 15 minutes. Would that be alright with you?"

Medication History

After the introduction, you will need to obtain information on all of the prescription and OTC medications as well as any herbal products the patient is currently taking. Additionally, you may need to specifically ask the patient about inhalers, injections, OTC products, and herbal medications, because patients oftentimes forget to mention these things because they tend to only think of "pills" when asked about their medications.

For each medication, you will need to determine the product's name, strength, dose, indication, frequency, timing of administration, duration of use, and the prescribing physician. The information can be gathered in a number of different ways, and the method you use may depend on the clinical setting. The best way to obtain this information in a planned encounter is via the "brown bag" method. Prior to your planned meeting, ask the patient to bring in all of his or her medication bottles, including prescription and OTC medications and herbal supplements. During the meeting, ask about the dose, indication, frequency, timing of administration, and duration of the use. By looking at the bottles, you will already know the name and strength of the medication as well as the prescribing physician. Even though the directions are written on the label, you should ask the patient how he or she is taking a particular medication, because there may be discrepancies between the written directions and how the patient actually takes the medication.

Another method is to look at a written list of medications that is either kept by the patient or found in the medical chart. Sometimes a patient may say, "I am taking everything that you have on your list" when you start asking them questions about their medications. One way to address this is by explaining the purpose of the medication history. For example, you could tell the patient, "Although I do have the medications listed in my chart, it would be good to go through each medication one by one to ensure that my list is accurate and truly shows what you are taking now."

Another option is to simply ask the patient about all the medications he or she is taking. Unfortunately, patients do not always remember the names, doses, or how they are taking their medication; accordingly, this method may not produce the most

complete medication history. With the patient's permission, you can call the patient's pharmacy or primary care physician to obtain the most current medication list, or you can even call the patient's home to speak with someone who can read the information from the medication bottles.

If a patient is presenting to the emergency room or is in a hospital where it is not possible to look at the patient's medical chart, you should ask the patient, family member, or caregiver if he or she has a written list. If such a list is not available, obtain permission to call the pharmacy, primary care physician, and/or the patient's home, as discussed previously.

Regardless of the method utilized to complete a medication history, the information that needs to be collected is the same. The various components of the medication history are listed below. These components are the same for each medication, including prescription and OTC medications and herbal products.

Medication Name The name of the medication can be located on the label or the medication list. One way to obtain this information is to ask, "What are the names of the medications that you are currently taking?" When obtaining this information, make sure to determine if the medication is extended release (ER), long acting (LA), sustained release (SR), or immediate release (IR), and whether the patient is taking the brand name or generic version. For example, if a patient states that he or she is taking metoprolol, you must determine if it is tartrate or succinate. With regard to generic versus brand name, for some medications with narrow therapeutic indexes, such as levothyroxine or warfarin, changing between manufacturers may cause fluctuations in drug levels in the blood; therefore, including manufacturer information is beneficial. If a patient does not know this information, another way to ask this question is, "Does your levothyroxine tablet look the same as it always has?"

Strength and Dose Information for strength and dose is also found on the label or on a medication list. You can also ask the patient, "What is the dose of the medication you are taking?" Make sure to include information for both the strength and its corresponding units. For example, levothyroxine 50 mcg or metoprolol ER 50 mg.

Frequency Although this information is often included in the directions written on the label, you should ask the patient, "How often do you take this medication?" In some cases, the patient may be taking the medication differently than written on the label. This could occur for several reasons. For example, a patient may have been told by his or her physician to double or lessen the dose, or the patient may have misread the directions or be confused about the correct way to take it.

Frequency of a PRN Medication Obtaining the actual frequency of a PRN (i.e., as needed) medication enables you to assess whether the patient is taking the medication appropriately and whether the disease state is being managed effectively. One way to determine this frequency is to ask the patient, “In a typical day (or week), how many times do you take this medication?” or “How many tablets do you take at a time and how often do you take them?” For example, if a patient states that he or she is taking albuterol most days of the week for shortness of breath, it is important to ask the patient what causes the shortness of breath, how many inhalations are taken at one time, how many times a day the medication is taken, and what the time interval is between doses. This enables you to ensure that the patient is at or below the maximum dosage and potentially assess the severity of the patient’s asthma, which, in this example, may warrant additional medications.

Timing To determine the timing of medication administration, you can ask the patient, “When do you take this medication?” If it is a medication requiring dosing at multiple times during the day, be certain to ascertain the amount of time between doses. For example, if a patient says that he or she takes a twice-daily medication with breakfast and dinner, you should ask, “What time is breakfast and dinner?” because the medication may require 12 hours between doses but the amount of time between the patient’s breakfast and dinner may be only 8 hours. Another reason that timing is key is because some medications need to be taken at certain times of day or in relation to a meal. For example, some statins are most effective when taken in the evening, whereas other medications need to be given on an empty stomach or separated from other drugs.

Determination of timing is especially important for a patient who is being admitted to the hospital. It is necessary to obtain the timing of each medication so that this same schedule can be followed in the hospital. Also, the time of the last dose of each medication is vital to ensure that a patient does not receive an additional dose of a medication on the day of admission that he or she may have already taken that morning at home. One way to avoid this is to have the prescriber specify when the first dose of each medication is due when writing the initial medication orders on admission.

Indication Inquiring about the indication for each medication enables you to assess the patient’s understanding of his or her medications and to provide patient-specific education. You can determine the indication by asking the patient, “What are you taking this medication for?”

Adverse Reactions Adverse reactions are also known as *side effects* or *intolerances*. Ask the patient, “What side effects are you experiencing with any of your medications?”

You can also use a closed-ended question, such as “Do you think any of your medications are causing you to feel anything out of the ordinary?” Sometimes a patient may complain of a symptom that is actually an adverse reaction. Other times, a patient may link the start of an adverse effect with the start of a medication. Asking this question in a general way allows the patient to reflect on or mention any way he or she may have been feeling differently without realizing that a medication could be causing the reaction. Additionally, it is important to get detailed information about the adverse reaction so that you can assess the severity of the adverse reaction and determine the next course of action, which may include discontinuing the medication, adding a medication to counteract the adverse effects, and/or obtaining laboratory tests or recommending further testing to determine the cause or severity of the adverse reaction.

Past Medication Use At times, it can be helpful to find out what medications the patient has taken in the past. For example, certain patients with diabetes need to be on an angiotensin-converting enzyme inhibitor (ACE-I) such as lisinopril. After conducting the medication history, you may discover that the patient is not taking an ACE-I even though the guidelines recommend this. Prior to discussing this with the patient’s physician, you should inquire whether the patient has taken an ACE-I in the past. For example, you might ask a **probing question**, such as “Have you taken any medications for blood pressure or for your kidneys in the past?” or “Have you taken a blood pressure medication in the past that may sound like there is a ‘pril’ at the end of the name, such as lisinopril or enalapril?” Another way to examine past medications is by cross-referencing the information that the patient has given you with his or her pharmacy and/or medical chart. You may discover that the patient may not be on an ACE-I due to an adverse reaction in the past or because of cost issues. However, you might also discover that the patient has never been on an ACE-inhibitor, in which case you would evaluate for any contraindications and potentially discuss adding such a medication with the patient’s physician.

Medication Adherence A key component to the medication history is an assessment of medication adherence. As the saying goes, a medication only works well if it is being taken. Assuming that a patient is taking the medication is not always a safe assumption. Therefore, it is important to ask the patient how many doses of each medication are missed, what the reasons are for missing doses, and what the patient does if a dose is missed. You could ask the patient, “How often do you miss doses of any of your medications?” or “In the last week, how many doses did you miss of your medications? Which medications? What caused you to miss those doses? What did

you do when you realized that you forgot to take the medication?” By asking these questions, you are learning how adherent a patient is to the medication regimen and what may be causing the patient to miss doses.

The information you gain about adherence will enable you to better target your medication counseling. For example, you may learn that a patient is taking a daily medication every other day because of the high cost or because of feelings of dizziness whenever he or she takes it. Once you understand the patient’s reasoning, you can make appropriate adjustments to the regimen, if necessary. For example, if the patient is unable to afford the drug, you may be able to recommend a less expensive therapeutic alternative; if the reason for missed doses is due to an adverse reaction, further evaluation is warranted to determine whether the adverse reaction is truly because of the medication or possibly due to another reason. Additionally, you may learn that a patient merely forgets to take the evening dose of a twice-daily medication. In this case, you can see if a once-daily option is available or provide suggestions to improve the patient’s ability to remember the dose, such as using a cell phone alarm or leaving the medication next to the bed.

In any case, prior to making any recommendations, it is important to thoroughly explore a patient’s level of adherence and reasons for lack of adherence. In addition, when asking about adherence, you want to make sure the patient does not feel like he or she is being scolded or reprimanded. Be sure to ask without judgment and avoid leading questions such as “You don’t miss any doses, right?”

Allergies Inquiring about any allergies the patient may have experienced at any point in his or her life is just as important as learning about all the medications the patient is taking. Ask the patient about any allergies to medications or foods and to describe what type of reaction occurred. You must determine the allergy trigger; the type of reaction, including its severity; and how the allergic reaction was resolved. This information will help you determine whether the reaction is truly an allergy or rather an adverse effect. You could ask the patient, “What allergies do you have?” A closed-ended question would be, “Do you have any allergies to any medications you have taken or any foods?” Once you determine which allergies the patient has, you should ask, “What happened when you took that medication? What did you need to do to make the reaction go away?” By documenting all of this information, you can determine which medications to avoid in the future based on cross-reactivity that may occur between different classes of drugs or because of the severity of the reaction. For example, if a patient says that she is allergic to amoxicillin and refuses to take it ever again in the future because of the stomachache she experienced, then in the future you may be likely to recommend a cephalosporin; however, if the reaction

to the amoxicillin was anaphylaxis, you would most likely avoid cephalosporins due to the risk of cross-reactivity.

Closing the Interview

As with all patient interactions, closing the medication interview includes assessing the patient's understanding, providing an opportunity for the patient to ask you questions, and discussing any follow-up plans. Because the purpose of the medication history is primarily for you to gather information, assessing the patient's understanding will only occur if issues were identified during the medication history and counseling was provided. If this occurred, you may choose to utilize the teach-back method, which means you ask the patient to repeat the education that you have provided so that you can assess the patient's understanding and correct any misunderstandings the patient may have had.

Always ask if the patient has any questions. Even if questions were asked throughout the interview, it is still necessary to give the patient a chance to ask any other questions that may have arisen or that may have been left unanswered.

After addressing any questions, let the patient know whether follow-up is necessary. This will depend on what occurred during the medication history and the setting where the session took place. For example, if changes were made to the patient's medication regimen, you may need to schedule a follow-up appointment. If you were conducting a medication history at a health fair, you may tell the patient to follow up with his or her physician in a specified amount of time or phone the physician if you have a medication concern that cannot wait. Additionally, if a medication history occurred in the hospital, you should document your findings in the medical record so that the medical team has your complete medication history and can address any issues and discuss follow-up needs during the discharge process. If you will be involved in the patient's care at the hospital or in a setting that the patient may need to get in touch with you, be sure to include your contact information.

The following is an example of how you might close an interview: "Thank you for all the information you have given me. I will be sure to document this in your medical record. Before you go, I just wanted to make sure that we discussed how to take your albuterol inhaler properly. Would you mind showing me how you will use your inhaler when you get home?" The patient should then show you his or her technique. You should then make any necessary corrections and have the patient demonstrate usage once again to ensure that the technique is being performed correctly. You could then ask, "What questions do you have for me?" After addressing all of the patient's questions, you might say, "Well, it was great meeting you. Please call the pharmacy

if you have any questions. Our number is on your label.” If you are at the hospital and you are only having a one-time interaction with your patient, you can say, “Well, thank you again for completing the medication history. I will be sure to share this information with the medical team. If any questions come up, please be sure to ask someone on the medical team.”

THE PATIENT INTERVIEW IN THE COMMUNITY SETTING

Many patients present to a community pharmacy with self-care complaints seeking recommendations for an OTC medication. Prior to making a recommendation, the pharmacist must first speak with the patient about his or her chief complaint so that an appropriate plan can be determined.

The patient encounter in the community setting generally occurs in one of two ways: either the patient presents to the pharmacy counter seeking advice or the pharmacist or pharmacy student notices the patient perusing the aisles and approaches him or her. In either case, the patient interview that should take place is the same in order to appropriately assess the situation and create a complete plan. First, the pharmacist or pharmacy student should introduce himself or herself, ask for permission to assess the problem and provide advice, and/or tell the patient that he or she will be asking questions prior to making any recommendations. Second, many questions must be asked in order to properly assess the patient. In contrast to an ambulatory care setting, both the pharmacist and patient are usually restricted in the amount of time they can spend exploring the complaint and discussing the recommendation in a community pharmacy setting. However, even with the time constraints, appropriate questioning must occur in order to advise the patient appropriately. Several methods have been developed and mnemonics created to assist the pharmacist in asking questions about the patient’s chief complaint in a methodological manner.

Mnemonics include WWHAM, AS METTHOD, CHAPS-FRAPS, Basic 7, PQRST, and QuEST/SCHOLAR-MAC (Table 1.3).^{11,12} Although each of these approaches is valuable in providing a methodological means of patient assessment, unfortunately none of them include all the questions that need to be addressed. For example, many of the methods do not include a determination of who the patient actually is, which is important because in some cases the individual asking you a question about a medication is not the person who will actually be taking it. In addition, the only method that describes what to do following the assessment is the **QuEST/SCHOLAR-MAC** method.¹¹

For example, say you have a patient who presents to the counter with a bottle of acetaminophen and asks, “How many should I take for my pain?” Prior to answering

TABLE 1.3 Mnemonics to Assess a Patient’s Self-Care Complaints

Mnemonic	Information Gathered
WWHAM	<p>Who is the patient?</p> <p>What are the symptoms?</p> <p>How long have the symptoms been present?</p> <p>Action already been taken by the patient?</p> <p>Medication already been taken by the patient?</p>
AS METHOD	<p>Age</p> <p>Self or someone else?</p> <p>Medications</p> <p>Exact symptom</p> <p>Time or duration of symptoms</p> <p>Taken anything?</p> <p>History of diseases</p> <p>Other symptoms</p> <p>Doing anything to worsen or alleviate condition?</p>
CHAPS-FRAPS	<p>Chief complaint</p> <p>History of present illness</p> <p>Allergies</p> <p>Past medical history</p> <p>Social history</p> <p>Familial history</p> <p>Revue of other symptoms</p> <p>Assessments</p> <p>Plan</p> <p>SOAP (Subjective, Objective, Assessment, Plan)</p>
Basic 7	<p>Where</p> <p>What</p>

TABLE 1.3 Mnemonics to Assess a Patient's Self-Care Complaints (Continued)

Mnemonic	Information Gathered
	Quality
	Severity
	Timing
	Context
	Modifying factors
	Associated symptoms
PQRST	P alliation and provocation
	Q uality and quantity
	R egion and radiation
	S igns and symptoms
	T emporal relations
QuEST	Q uickly and accurately assess the patient
	E stablish that the patient is an appropriate self-care candidate
	S uggest appropriate self-care strategies
	T alk with the patient
SCHOLAR-MAC	S ymptoms
	C haracteristics
	H istory
	O nset
	L ocation
	A ggravating factors
	R emitting factors
	M edications
	A llergies
	C onditions

Sources: Buring SM, Kirby J, Conrad WF. A structured approach for teaching students to counsel self-care patients. *Am J Pharm Educ.* 2001;71(1):8; Berardi RR, McDermott JH, Newton GD, et al. *Handbook of nonprescription drugs: An interactive approach to self-care.* 14th ed. Washington, DC: American Pharmacists Association; 2004.

with the dosing information, it is your duty to ascertain that the patient is selecting the correct medication. You can do this by saying, “Hello, my name is Ari Jones, and I am the pharmacy student working here. Before I answer your question, would you mind if I ask you a few questions to ensure that the medication you have selected is the most appropriate medication for you?” Once permission has been granted to continue with the interview, you need to ask who the medication is for, because the person who are speaking with may have come to the pharmacy to seek advice for someone else, such as a child, parent, or friend. Therefore, you should ask, “Who is this for?”

The next few questions will be related to finding out what the symptom is and characterizing it. Most likely you will start by asking, “What symptoms do you have?” Once the patient tells you which symptoms are present, it will be your responsibility to determine whether you need to ask more probing questions to determine the characteristics of the particular symptom and any other associated symptoms. Returning to the acetaminophen example, if the patient states that the medication is for him and that he needs it for pain, you will need to ask a few more questions. These questions might include the following:

“Where is the pain located?”

“How long has the pain been going on?”

“When did the pain start?”

“Is the pain radiating to anywhere else?”

“Does anything make the pain better or worse?”

“What have you tried for the pain already? How much did it help?”

“On a scale of 1 to 10, with 1 being the least pain and 10 being the worst pain, how would you rate your pain?”

These questions should be asked one by one and altered depending on the patient’s answer.

Additionally, you are also responsible for understanding the disease process of the symptom and what pertinent positives and negatives you need to assess. For example, if the patient states that his pain is in his head, you need to know the questions to ask to either rule in or rule out a headache due to a migraine. Appropriate questions in this situation could include, but are not limited to, “Do you have any sensitivity to light?” and “Do you have any other symptoms, such as nausea?”

You will also need to determine other patient-specific factors, such as age, sex, weight (especially for a child), PMH, allergies, pregnancy status, and breastfeeding status. Keep in mind that collecting information for all of these factors is not necessary for every patient or every complaint; however, one has to have the knowledge to determine which factors are pertinent to collect in each specific situation.

After asking all of the questions to assess the patient's self-care complaint, you need to determine the next course of action for your patient. The QuEST mnemonic includes each part of the self-care counseling process.¹¹ The first part of the mnemonic, *Qu*, stands for "quickly and accurately assessing the patient." You may do this by assessing the seven attributes of a symptom, as discussed in the HPI section. Similarly the SCHOLAR method is also used to obtain more detail about the patient's complaint. The mnemonic stands for **s**ymptoms, **h**istory, **o**nset, **l**ocation, **a**ggravating factors, and **r**emitting factors.

The next letter in QuEST, *E*, stands for "establish that the patient is an appropriate self-care candidate." This occurs by utilizing the information the patient has given you and combining it with your own knowledge about disease state management. For example, if a patient has asthma and is complaining of a cold that is causing shortness of breath, you should establish that this patient is a candidate for self-care.

The *S* stands for "suggest appropriate self-care strategies." Once it has been determined that the patient is a self-care candidate, meaning that the patient will be able to treat the condition completely or at least partly without a referral to another healthcare provider, self-care strategies should be formulated.

The *T* stands for "talk with the patient." As obvious as this may seem, it is an important step to recognize, because talking with the patient actually includes providing comprehensive patient education. Such education will include the self-care strategy, including both nonpharmacologic and pharmacologic agents; the appropriate dose, frequency, and maximum duration of the drug regimen; how to administer and store the drug; adverse effects and what to do in case they occur; when and how much relief can be expected; and finally, what the patient should do if the condition worsens or does not improve. Similar to other patient encounters, the patient's understanding of the instructions should be assessed and questions from the patient should be solicited and answered.¹² Additionally, regardless of which method you choose to utilize for assessing the patient's self-care complaint in the community setting, you need to ensure that you are asking all the pertinent questions, even if they are not in the mnemonic.

THE PATIENT INTERVIEW IN THE ACUTE CARE SETTING

The patient interview in the acute care setting includes the same elements as a comprehensive patient health history and medication history. The difference is in how the interview is conducted, which will be determined by a few setting- and patient-specific factors, including the hospital area in which the interview is taking place, such as an emergency room (ER), a general medicine floor, or an intensive care unit, as well as

the patient's level of alertness. Therefore, your role in the patient interview process as well as the patient's condition will determine how you will be able to conduct the interview and on which elements you will focus.

In the acute care setting, it is important to tailor the interview based on its purpose. For example, in the ER the pharmacist's purpose of performing a medication history may be to determine whether the cause of the visit to the ER is drug-related. Therefore, you will need to focus on learning all the medications that the patient has taken by asking the patient and/or caregiver or family member about the patient's medications as well as by looking at a list of medications that the patient may have brought with him or her or calling the pharmacy to obtain this information. Depending on the situation, the exact strengths, dosing, and adherence may not be as important if the patient is in critical condition; however, once the patient has stabilized and is either being sent home or to another part of the hospital, it may be necessary to complete a thorough medication history to ensure that medication errors do not occur. For example, if a patient with a history of asthma arrives at the ER complaining of shortness of breath, you should ask the patient which medications he or she is currently taking for asthma as well as determine the patient's adherence to the regimen. Adherence in this case is important because it enables you to assess the possible causes of the asthma exacerbation, including the lack of adherence or improper use of an inhaler. In contrast, if a patient comes to the ER complaining of chest pain, you should not ask whether the patient has been adherent to her statin therapy or if she is currently smoking, because although the lack of adherence to a lipid-lowering agent and/or smoking may have contributed to the patient's possible heart attack, this would not be the time to address it. However, once the patient's chest pain has been addressed and treated, assessments and counseling about tobacco use and medication adherence should occur.

If the patient is in the intensive care unit, you may need to obtain a complete medication history to ensure that all of the patient's medical conditions are being addressed. However, after the initial comprehensive medication history, which may be obtained from either a family member or caregiver or by calling the pharmacy, your interactions with the patient may be more focused on specific patient care measures. For example, if the patient is being given pain medication and is conscious and alert, your interview may focus on further exploring how the patient's pain is being managed and what symptoms he or she is experiencing that are related to the pain and the pain medication.

If the patient is on the general floor of the hospital, your interview will be different based on the day of hospitalization and your role in the patient's care. For example, on the first day the patient is admitted to the hospital, the medical team will have conducted a comprehensive health history, and it may be your role to complete a comprehensive

medication history. On subsequent days, you may be interacting with your patient to discuss ongoing treatments and to address any current complaints. Even if a medication history is not conducted on the first day of admittance, it is vital that a comprehensive medication history is obtained and documented at some point during the hospital stay.

CHAPTER SUMMARY

The patient interview, including the comprehensive health and medication history, is fundamental in providing excellent and accurate patient care. The learning and application of communication skills and techniques will allow for a patient encounter that is characterized by respect as well as offer you the opportunity to learn about patient-specific problems, thereby making your assessment, plan, and approach uniquely patient-centered. Additionally, use of a structured approach and framework to obtain all the pertinent information from the patient enables you to rely on a set foundation even as you direct the conversation according to the unique nuances of each particular patient. Awareness of the setting in which you are conducting the patient interview and knowing the purpose of the interview will enable you to gather the information you need to make an accurate assessment and plan, which is essential to providing high-quality, patient-centered care.

Take Home Messages

- Communication skills are the fundamental link between the pharmacist's expertise about drugs and his or her contribution to providing excellent patient-centered care; these communication skills must be learned and developed.
- Utilizing the various structured approaches to obtain information from the patient allows for you to assure that all the pertinent information has been gathered. Simultaneously, actively listening during the patient interview will give you the opportunity to learn about patient-specific problems.
- The approach to the patient interview in a community setting may be brief versus a comprehensive visit that occurs in the ambulatory or acute care setting; however pertinent information must be collected to provide an appropriate assessment and plan.
- The health history of a patient remains the same regardless of the patient-care setting; however the differences are in how the interview is conducted, patient-specific factors, and setting-specific factors. It is necessary to modify your approach to the patient interview in order to provide appropriate patient care in any setting.

REVIEW QUESTIONS

1. What are the components of the comprehensive patient interview?
2. What are the components of the medication history?
3. Describe the QuEST/SCHOLAR-MAC method.
4. What is the difference between a leading question and a probing question?
5. Describe the differences between conducting a medication history for a patient in the emergency room versus the patient in an intensive care unit versus the patient on a general medicine floor.

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