

COMMUNICATION STRATEGIES IN PHARMACY

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Learning Objectives

1. Use strategies that develop patient rapport, foster trust, and effectively and efficiently obtain accurate, comprehensive histories, despite potential barriers in communication.
 2. Use assessments of patients' knowledge, health literacy, self-management skills, health beliefs, and attitudes toward medications to tailor educational interventions that will improve adherence and self-efficacy.
 3. Communicate patient care activities and medication-related information effectively to other health care professionals verbally and in writing through the medical record.
 4. Discuss factors and methods used to assess and select appropriate written educational materials intended for the general public.
 5. Describe how to serve as a patient advocate on medication-related issues within and outside the health care system.
- A. The Adherence Estimator questionnaire
 - B. The Morisky questionnaire
 - C. The Background, Affect, Troubling, Handling, Empathy (BATHE) technique
 - D. Motivational Interviewing
3. An older adult male patient correctly completed the calculation in the Newest Vital Sign (NVS) questionnaire. In the package insert dispensed with his prescriptions, he was able to find relevant facts about adverse effects associated with medications he was taking. He is selecting a Medicare D program and is struggling to compare brochures from several companies to identify the best program for him on the basis of his medications. Which National Assessment of Adult Literacy (NAAL) classification is this patient most likely in?
 - A. Below basic
 - B. Basic
 - C. Intermediate
 - D. Proficient

Self-Assessment Questions

Answers and explanations to these questions can be found at the end of the chapter.

1. A Spanish-speaking woman is scheduled for an initial appointment for asthma education today. Two hours before her appointment, the patient's interpreter calls, saying he will not be in until tomorrow because he has a family emergency. The clinic's receptionist, who speaks fluent Spanish, offers to help fill in for the interpreter. Which would be the most appropriate request for the pharmacist to make of the receptionist?
 - A. Step in for the interpreter during the encounter.
 - B. Call the patient to reschedule the appointment.
 - C. Ask the patient to bring a family member or friend.
 - D. Explain to the patient on arrival why the interpreter will not be there.
2. A pharmacist is performing a patient medication history and would like to assess the likely risk of a patient's nonadherence to his or her multidrug diabetes regimen. Which method would be best to use for this purpose?
 - A. The Adherence Estimator questionnaire
 - B. The Morisky questionnaire
 - C. The Background, Affect, Troubling, Handling, Empathy (BATHE) technique
 - D. Motivational Interviewing
3. An older adult male patient correctly completed the calculation in the Newest Vital Sign (NVS) questionnaire. In the package insert dispensed with his prescriptions, he was able to find relevant facts about adverse effects associated with medications he was taking. He is selecting a Medicare D program and is struggling to compare brochures from several companies to identify the best program for him on the basis of his medications. Which National Assessment of Adult Literacy (NAAL) classification is this patient most likely in?
 - A. Below basic
 - B. Basic
 - C. Intermediate
 - D. Proficient
4. A pharmacist is considering whether a commercially developed multimedia presentation would be appropriate to include as part of his institution's comprehensive asthma education program for adults. Which would be the most appropriate method to evaluate the usability of this presentation?
 - A. Ask a multidisciplinary group of colleagues to review the presentation's content.
 - B. Evaluate the presentation by using the Suitability Assessment of Materials (SAM) tool.
 - C. Assess the presentation by using the Patient Education Materials Assessment (PEMAT) tool.
 - D. Use the video in a random class and perform a survey on patient opinions of the video after class.
5. A pharmacist is asked to give a presentation to a group of physical therapists regarding new methods of pain management. Of the topic areas indicated in the following, which would likely be of most interest to this audience?
 - A. Mechanism of action and adverse events
 - B. Cost and formulary status

- C. Pharmacology and pharmacokinetics
 - D. Dosage and administration
6. In performing medication reconciliation for a patient, the pharmacist detected a discrepancy in the dosage of insulin glargine between the prescriber's medication orders and the patient's list. After clarifying the dosage with the prescriber, which would be the most appropriate way to document the correct dose and frequency of insulin in the patient's medical record?
- A. "Inject 15 units daily at bedtime."
 - B. "Inject 15 U QD at HS."
 - C. "Inject 15 units QD at HS."
 - D. "Inject 15 U daily at bedtime."
7. A pharmacist reads an editorial in the newspaper recommending the rejection of the school board's latest policy for required vaccinations of new students. The pharmacist strongly agrees with the school board's plan and carefully writes a 600-word rebuttal to this editorial. Which would be the most effective way to use this rebuttal to advocate for the new policy?
- A. Send the rebuttal as a letter to the school board to voice support.
 - B. Submit the rebuttal as a letter to the newspaper's editor.
 - C. Read the rebuttal at the next open school board meeting.
 - D. Offer the rebuttal to the newspaper as an "op-ed" piece.

I. COMMUNICATING VERBALLY WITH PATIENTS AND CAREGIVERS

- A. General Communication Tips (*Domain 2*)
1. Listen patiently and allow the patient to tell his or her story. If necessary, gently redirect or explain by whom and when the patient's other concerns might be addressed.
 2. Use paraphrased summaries to indicate your understanding or for a transition to the next topic; allow the patient to make additions or corrections.
 3. Use questions appropriately.
 - a. Open ended: Useful to begin a topic. Permits patients to provide their perspectives on what is important. Helps assess patient knowledge and understanding of the situation, medical problem, and medication.
 - b. Use of prompts: After the initial response, prompts help patients continue or complete their train of thought (e.g., "You mentioned [...]; what else do you remember?").
 - c. Probing questions: Ask for more focused or clarifying information. "Tell me more about..." "How did you feel when...?"
 - d. Closed ended: After patients seem to have completed their story, focused or closed-ended questions can screen for other pertinent positives/negatives. "Did you have any diarrhea or cramping?"
 - e. Avoid leading or compound questions.
 - f. Sequence questions in a logical, organized manner to avoid duplication.
 - g. Phrase questions tactfully and respectfully.
 4. Consider your body language. Examples: Make regular eye contact; interviewer is positioned ideally at eye level with body turned toward, and at an appropriate spatial distance from, the patient. Avoid nervous and annoying habits (e.g., playing with a pencil or tapping foot).
 5. Actively listen. Examples: React to ideas (not the person), read the patient's body language, listen to the patient's tone of voice as well as to the patient's words, ask for clarifications as needed, jot notes of follow-up questions to use after the patient finishes talking (do not interrupt), allow the patient to pause before jumping to next question, and permit silence for the patient to gather his or her thoughts.
 6. Enunciate clearly. Modulate tone, volume, and rate of speech.
- B. Developing Relationships and Maintaining Rapport During Patient Interviews (*Domain 2*)
1. Introduction
 - a. Set aside an appropriate time and place for speaking with the patient so that you may devote your full attention to the patient.
 - b. Warmly greet patients by using their preferred mode of address (usually Mr., Ms., or Mrs.). Use their first name only if invited to do so.
 - c. Introduce yourself by name, give your role, and describe the purpose for the interaction.
 - d. Acknowledge what you know about the purpose for their visit. "The receptionist said you had a question about your asthma medication?"
 - e. Establish a mutual agenda for the visit. "So you believe your pain medication is not working well and you need refills on your other medicines. Blood work is due for your diabetes. Anything else?"
 - f. On closing, summarize joint decisions and verify next steps. Provide contact information and offer assistance with future questions or problems.
 2. Incorporate patients' perspectives and concerns
 - a. Provide opportunities for them to voice concerns throughout the encounter (e.g., during the initial introductions, ask the patient what they hope to accomplish; pause to allow patient to voice concerns throughout the encounter).
 - b. Repeat the patient's concerns or perspective with nonjudgmental language. Allow the patient an opportunity to clarify and make additions or corrections.

- c. Describe how you will address their concern. If you cannot address their concern, explain why it cannot be addressed, to whom their concern will be referred, or when their concern might better be addressed.
 - d. Encourage and respond to patient questions. Provide the patient with additional sources of reliable information to support answers to their questions when possible.
 - e. Be transparent when incorporating their perspective. “Because you said taking medication several times a day is difficult to incorporate into your schedule...”
 - f. Ask the patient about requests or goals. “What bothers you most about...?”
 - g. Include patients in decision-making, depending on their degree of interest.
 - i. Offer and explain available options and provide resources for them if they wish to research further.
 - ii. Identify any of their desired support partners. Respect their desire to include (or not include) others in the decision-making process.
3. Handle emotions and be empathetic and respectful. Ignoring emotions can appear uncaring (e.g., sadness, tears, pain) or can escalate if patients think their concerns are not being heard (e.g., anger, frustration, aggressiveness).
- a. Respond to emotions by acknowledging the patient’s verbal and nonverbal cues. “You seem very distracted today. Are you concerned about something?”
 - b. Address the emotion by reflecting back. “You are angry that...”
 - c. Encourage the patient to expand as appropriate. “What frustrates you most about having to...?”
 - d. Redirect the conversation tactfully back to the goal of the encounter when needed. “I will see that the receptionist deals with this billing issue after we finish. Let’s get back to...”
 - e. Offer appropriate apologies. “I am sorry we dropped the ball on your request for... I will make sure that is done today.” In addition, make sure you address all their concerns around a missed item. “Is there anything else that I need to make sure I address that you are concerned about?”
 - f. Maintain composure.
 - g. Offer comfort, compassion, reassurance, or support. “You are worried about how you will do with all of this. I will help you by...”
 - h. Nonverbal cues and empathetic listening can be more genuine and sincere than routine offers of sympathy such as “I am sorry about your loss.”
4. Assessment of pharmacist communication during patient encounters
- a. Several frameworks and instruments have been developed to teach and assess physician communication skills during patient encounter. Among these frameworks, there are differences between the specific criteria and content. Common areas include organization of the interview, development of patient rapport, and general verbal and nonverbal communication skills (Fam Med 2005;37:184-92).
 - b. The Four Habits Model is one of the best-known assessment frameworks of this type (Permanente J 1999;3:79-88).
 - c. A limitation of applying these frameworks to pharmacists is that the terminology, criteria, and examples may not pertain to or be inclusive of pharmacist-patient encounters. In 2012, a pharmacist-specific communication assessment framework, Patient Centered Communication Tools (PaCT), was developed and validated (<https://www.stlcp.edu/health-literacy/pact.html>).

C. History Taking (*Domains 1, 2*)

1. Current problem and chief concern for visit
 - a. Opening question: Usually is open ended (“Tell me about your stomach problem”).
 - b. The **PQRST** (Provocative/Palliative, Quality/Quantity, Region/Radiation, Severity, Timing/Temporal relationship) method after the patient’s opening story encourages a comprehensive description of the problem. Commonly used for pain but also suitable for a variety of problems.
 - i. **Provocative or palliative**: “What makes the problem better (or worse)?”
 - ii. **Quality or quantity**: “How many times...?” “Describe the sensation.”
 - iii. **Region or radiation**: “Point to where you feel...”
 - iv. **Severity**: “On a scale of 1–10, with 10 the worst, how bad is this?” “How does this compare to usual (state of health)?” “How bothered are you by this problem?”
 - v. **Timing/Temporal relationship**: “What time did this start?” “How long after you started exercising did...?”
 - c. A variant used for hospice palliative health is the **OPQRSTUV** method. The additional portions may be useful in other situations as well.
 - i. **Onset of the problem**
 - ii. **Provoking/palliating**
 - iii. **Quality**
 - iv. **Region/radiation**
 - v. **Severity**
 - vi. **Treatment**: “What have you tried so far?” “What has been the effect?” “Has this treatment caused any problems?” “What have you used in the past?”
 - vii. **Understanding impact on you**: “How is this affecting your daily activities?” “What has been the impact on your family?” “What do you believe is causing this problem?”
 - viii. **Value**: “What is your goal for this problem?” “What would be an acceptable level for this problem?”
 - ix. (www.fraserhealth.ca/media/SymptomAssessmentRevised_Sept09.pdf)
 - d. Follow-up or other visits without a chief concern, start with open-ended questions to begin dialogue about what patient hopes to accomplish at this visit.
 - e. The Background, Affect, Troubling, Handling, Empathy (**BATHE**) method can be useful to gather data and the patient’s perspective on problems that have an emotional component or that affect quality of life. For example, identify how a patient is coping with a new diagnosis (Prim Care Companion J Clin Psychiatry 1999;1:35-8).
 - i. **Background**: Use an open-ended question similar to the standard question to elicit the chief concern.
 - ii. **Affecting**: Solicit feelings or effect on quality of life. “How do you feel about this?” or “How is this problem affecting your life?”
 - iii. **Troubling**: Identify the relative importance or specific areas of concern. “What troubles you the most about...?”
 - iv. **Handling**: “How are you dealing/coping with this problem?”
 - v. **Empathy**: Reflect back the concern and/or emotion. “You seem frustrated by the lack of...”
 - vi. The **BATHE** method should be used in severe situations (e.g., when the patient is in extreme pain, when the patient is psychotic or suicidal).
 - (a) The **BATHE** technique is a psychotherapeutic procedure, meaning it seeks to empower patients to trust themselves and others, confirm their positive feelings about themselves, and enhance their ability to control the circumstances of their lives.
 - (b) This method will also serve as a rough screening test for anxiety, depression, and situational stress disorders.

Patient Cases

Questions 1 and 2 pertain to the following case.

The pharmacist is meeting today with a 78-year-old man who presents to the pharmacy today with a chief concern of new-onset back pain.

1. Which would be the most appropriate way to begin a discussion about his chief concern?
 - A. When did this back pain start, and what have you done for it so far?
 - B. How has your back pain been affecting your daily activities?
 - C. Tell me in your own words about the back pain you are experiencing.
 - D. Describe your back pain, including other symptoms.

2. This man has returned twice in 6 months with the same concern. His physician has changed his pain medication each time. He currently describes his pain intensity at 3 or 4 (on a 10-point scale, with 10 as the worst). He is able to work, but he limits some of his desired daily activities because of pain. Today, he asks about having back surgery. Instead, his physician prescribes a third pain medication and gives him a referral for physical therapy. After the physician leaves, the man turns to the pharmacist and bursts out: "When my brother had back surgery, it helped the pain right away! If I had better insurance, she would do the surgery." Which would be the best initial response to the patient?
 - A. "Surgery is serious, so it is done only if medication and physical therapy don't work."
 - B. "The physician was trying to explain that your back pain is not severe enough for surgery just yet."
 - C. "It is common to try two or three medications to find the right one at the right dose."
 - D. "You suspect that she is treating your problem differently because she will not get paid as much."

2. Components of an initial medication history: History should be correct (drug, dose, frequency, route), clear (not missing any information), complete (all drugs including over-the-counter [OTC], supplements, vitamins, natural products, herbs, physician samples), and current (include all recent changes).
 - a. Prescription medications include the following:
 - i. Oral and other routes such as topical, injectable, and inhalation.
 - ii. Both routine and as-needed medications: Note the dose, route, frequency, approximate starting date, and indication for each medication.
 - iii. Home oxygen: Note if continuous or intermittent (e.g., for exercise or during sleep) and the rate (in liters per minute).
 - iv. Past medications, especially those used to treat current problems: Inquire about when the medication was started or stopped (approximately) and for what reason (e.g., lack of effect, problem now resolved, adverse event).
 - v. Vaccinations: Check for specific vaccinations depending on the patient's age (pediatric, adolescent, adult, or elderly) or current problems (e.g., diabetes). For each, ask for the date of the initial vaccination and any boosters. If patient has not received vaccination, ask the reason why. Obtain a copy of a vaccination card if the patient has one or check your state vaccine registry.
 - vi. Drugs from other sources: Ask about samples, medications from patient assistance programs or clinical research studies, or use of another's prescription medications. Drugs from these sources are often not documented in the common places (e.g., medical records, community pharmacy profiles, electronic databases from pharmacy benefit managers).
 - b. OTC medications: Include vitamins, topical products, and herbal and nutritional supplements. Inquire about the frequency of use: Routine, seasonal, or as needed (often patients do not consider these as medications and therefore may omit them when gathering a medication history).

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- c. Other pharmaceuticals: If a patient is coming from another institution, inquire about recent use of diagnostic, contrast, and radioactive agents; blood derivatives; and intravenous solutions, including any additives.
 - d. Adverse reactions and allergies
 - i. Differentiate between adverse effects and true allergic reactions.
 - ii. Document any known details, such as the date it occurred, the specific reaction, and its severity.
 - e. Medication-related social history
 - i. Street drugs: Consider the potential connotations of other terms such as *illicit*, *illegal*, or *recreational drugs*. Inquire about oral, inhaled, and injectable forms.
 - ii. Tobacco products: Phrasing the question as “Do you smoke?” or “Do you use cigarettes?” may narrow the response to exclude non-cigarette forms of tobacco (e.g., pipes, cigars), routes of tobacco (e.g., snuff, chewing tobacco), or nicotine products (e.g., vaporized, patch, lozenges). Ask age at initiation, discontinuation, and average frequency of use per day, week, or month. Calculate pack-year history of cigarettes. Ask the patient if he or she would like to quit smoking/determine his or her readiness to quit.
 - iii. Alcohol: Ask about the amount (ounces), type of alcohol (e.g., beer, wine), and number of drinks per day, week, or month. Note the pattern of use (e.g., seven beers per week could be either one drink daily or seven beers on Saturday night).
 - iv. Medical or other sources of marijuana: Amount, frequency, age at initiation, purpose for use, and source
 - f. Adherence. Inquire about the following:
 - i. The number of specific doses missed per week in a nonjudgmental fashion. “How often in a typical week do you miss one of your medicines?” Adherence patterns may vary according to the medication, a specific disease, or the time of day. “When is the last time you missed taking this medicine?”
 - ii. Whether the patient has a specific method or system to assist in taking daily medications (e.g., pillbox, timer, calendar) or tracking the doses and frequency of as-needed medications (e.g., journal or logbook). If the patient misses more than a few doses, ask the patient or caregiver what they have tried in the past and what seems to work the best for them to remember doses.
 - iii. The most recent dose of medication taken: This may be important to correctly schedule the next dose when patients are being transferred, admitted, or discharged.
3. Using the medication history as part of medication reconciliation
 - a. A standardized process should be used for reviewing a patient’s specific medication regimen at transition points in care. Discrepancies should be identified and resolved. The correct regimen should be clearly documented and communicated to all who are involved in care.
 - b. A pictorial tool, Medication Reconciliation Review of Systems Subject (MR ROSS), has been used to increase the number of medications identified by the patient during medication reconciliation (J Am Pharm Assoc 2013;53:652-8).
 - c. The Joint Commission includes medication reconciliation in its National Patient Safety Goals (http://www.jointcommission.org/assets/1/6/2015_npsg_hap.pdf).
 - d. The Joint Commission does not specify procedures or recommend best practices. A suggested procedure is included in Table 1.

Table 1. Process for Medication Reconciliation

Collect information from available sources	Patient/caregiver verbal history Any written medication lists from the patient Medical records from the provider, discharge lists, or admission lists
Identify discrepancies	Check for the following: Completeness: All prescription, over-the-counter, and as-needed medications and supplements Clear instructions: For example, dose, route, frequency, therapy duration Currency: Up to date with all new orders and dosage changes; all discontinued medications are deleted Duplicate therapy: Same drug or in same drug class (e.g., brand names or combination products) Compare/verify information from additional sources Family members or caregivers, if appropriate Community pharmacies medication profile(s) Prescriber records Electronic sources with data from pharmacy benefit managers (e.g., Capture Rx, Surescripts, RxHub)
Resolve discrepancies	Identify the cause/reason for the discrepancy. For example: A more recent order for a dosage change, for a new drug, or for discontinuing a drug Formulary substitutions (hospital drug formulary, insurance coverage, etc.) Patient misunderstanding or confusion Changes in patient status (e.g., renal function, worsening disease, laboratory values, patient improvement, weight loss) Make recommendations according to the cause of the discrepancy Obtain prescriber approval
Communicate changes	Have a methodical process for following up with pending discrepancies until ultimately resolved Document order changes in the medical record Update the medication list Transmit the updated list to other providers as needed Educate ambulatory patients on the reconciled regimen, emphasizing any changes Provide the reconciled list to ambulatory patients; a chart organizing the medications by administration times may be preferred Encourage the patient to maintain a complete and up-to-date list and to bring it to each provider visit

D. Assessing Patient-Specific Needs When Tailoring Educational Sessions (*Domain 2*)

1. Health literacy: Defined as the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions (Institute of Medicine 2004).
 - a. The National Assessment of Adult Literacy (NAAL) categorizes health literacy into four performance levels (Kutner 2006).
 - i. **Below basic (level 1):** Around 14% of the population or about 40 million Americans. These adults may be able to interpret short, simple text to perform routine tasks. However, those at level 1 have trouble matching information or identifying numbers touse in mathematical problems.

- ii. **Basic (level 2):** An additional 22% (about 50 million American adults) can solve routine mathematical problems or make simple inferences. However, people with level 1 or level 2 skills would find it difficult to interpret a dose chart on an OTC cold medication to calculate the correct dose for a child (Institute of Medicine 2004).
 - iii. **Intermediate (level 3):** About 53% of the population can summarize text, find and apply facts from denser text, and identify and apply information to solve arithmetic calculations.
 - iv. **Proficient (level 4):** Only 12% of the population can analyze and integrate several pieces of information or solve more abstract or multistep mathematical problems.
- b. Four major health literacy domains have been identified (Health Promot Int 2005;20:195-203).
- i. Fundamental domain includes reading, writing, speaking, and basic numeracy. This is what most would think of as general literacy.
 - ii. Scientific domain includes the ability to understand basic scientific concepts. Examples include knowledge of the basic purpose and function of various organs, understanding of biologic concepts behind medical tests, and application of higher mathematical concepts such as trends, risk, and statistics.
 - iii. Cultural domain incorporates beliefs, customs, and social identity into personal decision-making.
 - iv. Civic domain requires applying health information to make decisions regarding general public policy. Examples include school board members making policy decisions regarding a nutritious diet for school lunch programs or voters deciding whether tobacco use should be banned in public.
- c. Risk factors for low or inadequate health literacy
- i. Include age older than 65 years, less than a high-school education, low income, those for whom English is a second language, and immigrants. However, the largest group numerically consists of white individuals (Institute of Medicine 2004).
 - ii. The presence of risk factors alone does not reliably identify low or inadequate health literacy.
 - iii. Assessment tools have been developed for research or clinical settings. Information regarding common screening tools for low health literacy is summarized in Table 2.

Table 2. Summary of Common Health Literacy Assessment Screening Tools

Tool	Description	Comments
REALM	A brief (3–6 minutes) tool; adults pronounce a list of 66 common words related to anatomy or illnesses	Commonly used in research studies Does not directly measure comprehension of health information but has been highly correlated with reading comprehension (i.e., reading-grade level) Primarily assesses reading skills but not numeracy or mathematical ability Identifies those with inadequate health literacy REALM-R is a shorter version (eleven words) but is not as widely validated
TOFHFLA	Consists of 50 reading and 17 numeracy items involving common medical situations; takes up to 22 minutes to administer	Commonly used in research studies A shorter version (s-TOFHFLA) uses 36 of the reading questions and takes only 7 minutes Results are categorized into inadequate, marginal, or adequate levels of health literacy Spanish versions available for both the full and shorter versions of the TOFHFLA; these are not as widely studied as the English version; scores between men and women varied on the shorter version

Table 2. Summary of Common Health Literacy Assessment Screening Tools (*continued*)

Tool	Description	Comments
NVS	Contains six questions regarding interpretation of a standard nutritional label; takes 3 minutes to administer	Assesses both literacy and numeracy (includes arithmetic calculations) Validated in English and Spanish Both versions correlate with the TOFHLA Has been tested in primary care settings
SILS	Is only one item: “How often do you need to have someone help you when you read instructions, pamphlets, or other written material from your doctor or pharmacy?”	Response scale is from 1 (never) to 5 (all of the time); response of more than 2 (sometimes, often, always) has a 54% sensitivity and 83% specificity for identifying inadequate health literacy Very brief; easy to integrate into clinical practice Other (individual) questions have also been tested Developed initially and validated in Veterans Affairs clinics but has also been tested in primary care population More reliably identifies those at risk of low/inadequate health literacy compared with confirming those with adequate health literacy; stronger correlation with s-TOFHLA and REALM in detecting inadequate compared with marginal health literacy Does not assess numeracy
SAHLSA-50	Involves reading 50 words; choice between two distractors is used to indicate understanding	Based on the REALM (but is not a Spanish translation of REALM)

NVS = Newest Vital Sign; REALM = Rapid Estimate of Adult Literacy in Medicine; SAHLSA-50 = Short Assessment of Health Literacy for Spanish Adults; SILS = Single Item Literacy Screener; TOFHLA = Test of Functional Health Literacy in Adults.

Institute of Medicine (IOM). Health Literacy: A Prescription to End Confusion. Washington, DC: National Academies Press, 2004:66-8.

North Carolina Program on Health Literacy. Literacy Assessment Instruments. Available at www.nchealthliteracy.org/instruments.html. Accessed September 26, 2014.

Weiss BD, Mays MZ, Martz W, et al. Quick assessment of literacy in primary care: the Newest Vital Sign. *Ann Fam Med* 2005;3:514-22.

Morris NS, MacLean CD, Chew LD, et al. The Single Item Literacy Screener: evaluation of a brief instrument to identify limited reading ability. *BMC Fam Pract* 2006;7:21.

Consumer Health Informatics Research Resource. Health Literacy. Available at <http://chirr.nlm.nih.gov/health-literacy.php>. Accessed September 29, 2014.

2. Topic-specific educational needs: With complex diseases (e.g., diabetes, asthma, hypertension), even patients with good health literacy may lack the necessary knowledge, understanding, or skills to optimally care for their condition at home. Educational needs can be assessed by asking the patient open-ended questions such as “Tell me what you know so far about...” or “What do you still need/want to know about...?” Patients may have questions regarding the following:
 - a. Disease or disease process and what they can expect (e.g., prognosis for a cure or developing complications, need for ongoing testing and monitoring).
 - b. Specific medications: For example: How to take them, why they are needed, how they work together, how long they might be necessary, and what options are available.
 - c. Nondrug therapy and lifestyle changes, including healthy eating habits and physical activity levels; role of surgery or physical therapy; and pulmonary, cardiovascular, or poststroke rehabilitation programs.
3. Health beliefs: Pharmacists should be alert for aspects of patients’ belief systems that may affect participation in care and adherence to medications and other treatments. Examples include the following:
 - a. General health-related attitudes such as trust in or skepticism about organized or Western medicine, openness to complementary and alternative medications, relative safety or efficacy of prescription versus OTC medications, importance of self-care and healthy lifestyles, or causes of disease.

- b. The Health Belief Model uses four constructs to predict whether a patient will participate in disease prevention or treatment. Identifying an individual’s disease-specific beliefs may help identify barriers to adherence and assist in tailoring effective educational messages (Champion 2008). See Table 3.

Table 3. Using the Health Belief Model to Identify Issues and Tailor Educational Messages

Construct	Description	Patient Case Example	Tailored Educational Message
Perceived susceptibility	Individuals’ beliefs about their likelihood of contracting the disease or condition	A 35-year-old woman is not interested in learning about how she can prevent type 2 diabetes mellitus; she says, “I will worry about it if it ever happens.”	Explaining her many risk factors, such as obesity, history of gestational diabetes, and significant family history may help her understand the high likelihood of her developing diabetes
Perceived severity	Concern regarding the seriousness of the condition	She says, “Diabetes is not that big of a deal; all my family has it and they are just fine.”	A tailored message might include the many complications of diabetes and connecting information from her family history (mother’s heart attack at 55 years of age) to a complication from diabetes
Perceived benefits	Belief that making a suggested change can have an important impact	“There is nothing I can do about my genes; I am going to get diabetes regardless; I’ll just take the pills like my mother.”	Explaining how losing weight, eating a healthy diet, and becoming more active can delay or even prevent the onset of diabetes might increase her motivation to change her lifestyle
Perceived barriers	Beliefs about the negative aspects of change	“Cooking healthy food with my crazy work schedule would be too hard; I don’t like vegetables and salad.”	Help her brainstorm about possible foods that she likes, that are healthier, and that can be successfully integrated into her schedule
Cues to action	Factors that trigger action	“I’ve only gained a little bit of weight; it’s not that big of a deal.”	Point out the connection between her continued weight gain and the rise in her blood glucose into the prediabetic range; reassure her that even small changes in her diet or activity level can help decrease her risk of developing diabetes
Self-efficacy	Confidence that one can perform the behavior to reach the desired outcome	“There is no way I am going to lose 50 pounds, and I can’t afford a gym.”	Explain that coaching and assistance will be available to help her identify affordable resources, develop a specific plan, and successfully implement it (see more on self-efficacy in Table 7)

4. Religious or moral beliefs and value systems affecting medication use include medications from human cell lines (e.g., vaccinations), use of contraceptives, abortion-inducing and psychotropic medicines, decisions related to advanced directives, and practices affecting diet, such as religious fasting and vegetarianism.

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5. Adherence
- a. Terminology (Horne 2005)
 - i. Compliance: The degree to which a patient's behavior is consistent with the prescriber's recommendations
 - ii. Adherence: The degree to which a patient's behavior meets the agreed plan from the prescriber. This is the generally accepted term in the literature in the United States.
 - (a) Persistence: Whether the patient continues a medication beyond the first refill. In general, taking 80% or more of prescribed doses is considered "acceptable" adherence but may vary depending on the prescription medication (e.g., insulin).
 - (b) Primary nonadherence: Patient never fills, or fills but does not initiate the medication or behavior change.
 - (c) Secondary nonadherence (or nonpersistence): Patient begins but subsequently discontinues a medication or behavior change.
 - (d) Improper use: Patient continues to take the medication but in a manner inconsistent with the prescriber instructions (e.g., different dose or frequency, takes intermittently).
 - iii. Concordance: Prescriber and patient in consultation agree on decisions incorporating their respective views. This process begins at prescribing but continues with patient support for taking the medication.
 - (a) This term (i.e., *concordance*) is more recent and is primarily promoted in the United Kingdom; it describes a higher-level therapeutic partnership between patient and prescriber.
 - (b) It should not be confused with patient coercion (e.g., providing the patient with information in such a way as to influence the outcome).
 - b. Measurement
 - i. Indirect methods include calculating the proportion of days covered (PDC) or the medication possession ratio from prescription refill history. Of these, generally the PDC is the preferred method, because it provides a more conservative estimate of adherence (<http://ep.yimg.com/ty/cdn/epill/pdcmpr.pdf>).
 - ii. More direct methods, such as pill counts, are generally too labor intensive for routine assessment of adherence. Like the indirect methods, pill counts only infer the degree of adherence. Even if the appropriate number of doses are missing, one cannot assume that the patient is adherent to prescription instructions; for example, the patient could be taking at different intervals or different amounts.
 - c. Assessing risk of future nonadherence: The medication history or review of the pharmacy patient profile can retrospectively identify nonadherence. It would be helpful to prospectively identify the risk of nonadherence and its potential causes when tailoring educational messages.
 - i. The Adherence Estimator can be used to prospectively assess the likelihood that a patient will adhere to a newly prescribed medicine (Curr Med Res Opin 2009;25:215-38).
 - (a) Scoring: Three questions are answered by the patient by using a 6-point scale from agree completely to disagree completely. Scores range from zero (low risk of nonadherence) to 36 (high risk of nonadherence). See Table 4.
 - (b) Usefulness: This tool is easy to use and quick to administer and to calculate the score. Assesses risk of nonadherence to an individual drug (not to a particular disease regimen or an entire regimen).
 - (c) Targeted messages can be provided to the patient's specific issue(s). Note that the tool measures patients' perceptions of the drug rather than its actual toxicity, efficacy, or cost.

Table 4. The Adherence Estimator

Question	Issue	Score
Worry the prescription will do more harm than good?	Is concerned that the risk of harm exceeds the medication's potential benefit	0 (strongly disagree), 4, or 14 (strongly agree) points
Convinced of the prescription's importance?	Committed to take the medication because it is necessary	0 (strongly agree), 7, or 20 (strongly disagree) points
Perception of financial burden?	The cost is perceived to be affordable	0 or 2 (strongly disagree) points
Scoring		0 points = low risk of nonadherence 2–7 points = medium risk of nonadherence 8–36 points = high risk of nonadherence

McHorney CA. The Adherence Estimator: a brief proximal screener for patient propensity to adhere to prescription medications for chronic disease. *Curr Med Res Opin* 2009;25:215-38.

- ii. The Morisky questionnaire is a predictive adherence measurement tool available in four- and eight-question formats. It can be used to screen for patient knowledge gaps and motivational issues that may affect adherence. Questions ask about missing doses, stopping medication, or cutting back on medication because of adverse effects or disease control. An advantage is that a single questionnaire can be used to screen a disease-specific regimen involving several drugs (e.g., hypertension). It is also available in languages other than English, including French and Chinese.

Patient Cases

Questions 3–5 pertain to the following case.

A pharmacist is initially counseling a 75-year-old, lower-middle-class man of Middle Eastern descent on sliding-scale insulin. He is a native-born American who, after completing high school, worked 40 years as a security officer. He says his wife most often reads the medical information for him that he brings home. The prescriber's instructions are to take 2 units of insulin for every 100 mg/dL that his blood glucose concentration is higher than 100 mg/dL. To check his understanding, the pharmacist asks him how much insulin he would take if his blood glucose were 300 mg/dL. The man takes several minutes but correctly calculates the dose.

3. Using NAAL levels and interpreting the patient's response to the Single Item Literacy Screener (SILS), what is the best assessment of this patient's health literacy?
 - A. At risk of inadequate health literacy according to SILS; likely NAAL level 2.
 - B. Adequate health literacy according to SILS; likely NAAL level 3.
 - C. At risk of inadequate health literacy according to SILS; likely NAAL level 3.
 - D. Adequate health literacy according to SILS; likely NAAL level 2.
4. Which is most likely a risk factor for low health literacy in this man?
 - A. His educational level
 - B. His race/ethnicity
 - C. His income level
 - D. His age

Patient Cases (*continued*)

5. When the patient returns 3 months later, the pharmacist wants to assess the likelihood of his continued adherence moving forward to the insulin sliding-scale regimen to identify further educational needs. Which would be the best method to make this assessment?
 - A. Check his profile for aspart refill dates to calculate his medication possession ratio.
 - B. Scan his blood glucose log to see how many times he has used insulin aspart correctly.
 - C. Ask him to complete the Adherence Estimator questionnaire regarding insulin aspart.
 - D. Use the Health Belief Model to assess his perception of the importance of insulin aspart.

E. Providing Educational Messages (*Domain 2*)

1. When starting with a new patient or beginning a new topic, a “universal precautions” approach is recommended (i.e., all patients should be considered at risk of low health literacy until a patient-specific assessment can be made of the individual’s knowledge and skills) (AHRQ 2010).
 - a. Health literacy screening tools (e.g., SILS or REALM) are better at identifying those at risk and are less reliable for assessing the adequacy of an individual’s actual health literacy. Example: In response to the SILS question, a patient responds that he always reads medical information himself. This response normally implies good health literacy. However, someone with low health literacy may make the same response if he has no one to help him.
 - b. Even those with generally good (general) health literacy may have topic-specific misconceptions or gaps in knowledge or skills.
2. Start with an open-ended question to assess the patient’s baseline knowledge.
 - a. Indian Health Service Prime (medication) questions (www.ihs.gov/healthcommunications/documents/toolkit/Tool9.pdf)
 - i. What did your prescriber tell you the medication was for?
 - ii. How did your prescriber tell you to take the medication?
 - iii. What did your prescriber tell you to expect?
 - b. To assess baseline knowledge of a disease state, another open-ended question appropriate for the situation may be used. “What has the diabetes educator reviewed with you so far?” “What do you want to learn most about...?”
 - c. From the patient’s responses, the provider can reinforce correct knowledge and make an initial assessment of the patient’s needs to clarify misunderstandings, address misperceptions, fill in information gaps, or demonstrate needed skills.
3. Communicating clearly. See techniques in Table 5.

Table 5. Techniques to Communicate Clearly

Technique	Comments
Use plain, nonmedical language	Listen and reflect back terms used by the patient for medical and nonmedical terms (e.g., menopause vs. change of life, dinner vs. supper) Use plain language and avoid medical jargon. Consult the <i>Plain Language Thesaurus</i> for suggested medical and nonmedical terms to avoid and for better alternatives to these words Avoid abbreviations (e.g., “Use your ICS medication...”) Be specific: “Take this medication at least 2 hours after eating” vs. “Take on an empty stomach” Give examples: “Dairy includes milk, cheese, ice cream, and yogurt” Use the consistent terms recommended by disease guidelines (e.g., <i>quick relief</i> and <i>long-term controller</i> inhalers for asthma medications)

Table 5. Techniques to Communicate Clearly (*continued*)

Technique	Comments
Limit content	<p>Prioritize key points</p> <p>Limit verbal information to three to five key points; if more, provide written instructions</p> <p>Provide information that can be digested in the time available; this may mean scheduling additional educational sessions</p>
Use visual aids	<p>Draw or show pictures</p> <p>Use dimensional models or placebo devices</p> <p>Explain and demonstrate skills (e.g., respiratory device technique, use of home blood pressure monitor)</p>
Tailor the message	<p>Adapt to the patient’s motivational or interest levels (e.g., provide sources for additional information if interested, shorten the topic to essential information if less interested)</p> <p>Explain the relevance of the information to the patient’s own situation</p> <p>Provide information in the patient’s preferred style, if possible: “There is a pamphlet I can give you, but there is a great website, or I could show you a video. Which would you prefer?”</p>
Increase patient participation	<p>Use familiar analogies to explain concepts</p> <p>Encourage questions</p> <p>“What questions do you have?” “What parts would you like me to go over again?” “That would be a great question to ask your doctor at your visit today”</p> <p>More formal methods can be used to encourage patient questions such as the following:</p> <p>Ask Me 3 (www.ihs.gov/healthcommunications/documents/AskMe_8-pg_NatAmer.pdf)</p> <p>What is my main problem?</p> <p>What do I need to do?</p> <p>Why is it important?</p> <p>The “Questions Are the Answer” tool on the Agency for Healthcare Research and Quality website helps patients articulate their own questions regarding medications or other therapies (www.ahrq.gov/patients-consumers/patient-involvement/ask-your-doctor/index.html?utm_source=buffer&utm_campaign=Buffer&utm_content=buffer31ff3&utm_medium=twitter)</p> <p>Ask the patient to personalize the information: “It is important to take this at the same time each day. What is something you do at the same time every day?”</p>
Assess knowledge and skills	<p>Use the teach-back method to assess understanding</p> <p>In the initial teach-back question, the provider accepts responsibility for communicating clearly and correctly: “To be sure I included everything, tell me how you will...” or “I want to be sure I was clear; when will you...?”</p> <p>Acknowledge correct information</p> <p>If necessary, clarify, supplement, or correct information, and then repeat the teach-back process</p> <p>Many teach-back “loops” may be necessary until the patient understands</p> <p>Use the “show-me” technique as appropriate: “Show me which column you would record this blood glucose number in” or “Show me how many pills you would take tomorrow morning.”</p> <p>Have patient demonstrate each skill (e.g., coding the glucometer, checking the memory, obtaining a blood sample)</p> <p>Provide situation-based “what if” examples: “What would you do if your blood glucose were 70?”</p>

Table 5. Techniques to Communicate Clearly (*continued*)

Technique	Comments
Chunk and check	Break down complex topics into manageable sections Assess knowledge at the end of each section
Emphasize key points	Summarize at the end of the session Write down complex information or provide health literacy–friendly handouts Point out the instruction booklet and any “quick-start guides” for devices Provide patients with disease-specific care plans (e.g., written asthma action plan with instructions based on red-yellow-green zones) Provide a call back number, e-mail, or other form of contact if questions arise after the patient leaves.

Centers for Disease Control and Prevention. Plain Language Thesaurus. Atlanta, GA: CDC, U.S. Department of Health and Human Services, 2007. Available at http://depts.washington.edu/respcare/public/info/Plain_Language_Thesaurus_for_Health_Communications.pdf. Accessed September 26, 2014.

F. Specific Topics (*Domains 2, 4*)

1. Medication labels are often misinterpreted (*Am J Health Syst Pharm* 2006;63:1048-55). Common issues include the following:
 - a. Several instructions included in one sentence are complex and easily misread. For example: “Take 1 tablet by mouth twice daily for seven days or as directed.”
 - b. Instructions can be vague or misunderstood: For example, “take two tablets daily” could mean two tablets in the morning, one tablet every 12 hours, or one tablet in the morning and evening.
 - c. Words within instructions are commonly misread. For example, teaspoon versus tablespoon or 1 versus 2 versus ½ tablet.
 - d. For patients with low literacy, the ability to correctly read the label may not mean full comprehension of instructions.
 - e. Misinterpretation of warning labels is a potential issue. Many patients ignore all warning labels. Labels with many instructions may be written at the 12th-grade reading level. (Goal is fifth-grade reading level.) Pictograms may be misunderstood.
 - f. Labeling does not eliminate the need for verbally reviewing instructions with the patient and assessing patient understanding. Use either the teach-back or the show-me method, as appropriate, to verify comprehension.
 - g. In 2010, the United States Pharmacopeia initially released recommendations for standardizing and improving prescription labeling. See Table 6.
 - h. In the area of labeling, pharmacists can be advocates for patient safety by doing the following:
 - i. Working with the appropriate corporate or institutional committees to implement the United States Pharmacopeia labeling recommendations and developing clear medication instructions as the default settings on computerized physician order entry programs.
 - ii. Verbally clarifying instructions during patient education. Pharmacists should be aware of their state board of pharmacy’s regulations regarding pharmacists’ ability to actually change written labeling. Verbally clarifying the medication label instructions from “take twice daily” to “take every 12 hours” may be done during education. Changing the label instructions may require a verbal order from the prescriber.
 - iii. When prescribing or taking verbal orders, write prescriptions consistent with the United States Pharmacopeia labeling recommendations.

Table 6. Recommendations of the United States Pharmacopeia on Prescription Labels

Recommendation	Comments
Organization of the label	Include only the patient information critical for understanding and safe use
Simplify the language	Wording should be concise Information should be clear, using common terms Do not use Latin terms or medical jargon
Use explicit terms for instructions regarding dosage and interval	Use specific frequency intervals (e.g., morning and evening, every 12 hours) Use numbers rather than words (e.g., “take 2 tablets” is preferred to “take TWO tablets”)
Include the purpose for use	When possible, the prescriber should include the indication for the medication in lay language (e.g., high blood pressure)
Provide labeling in the patient’s preferred language	Translations should be available, especially for those with low English proficiency Use high-quality process for translation
Improve readability	Lettering should be in a minimum of 12-point and sans serif font, such as Arial Sentence punctuation should be used; do not use all capital letters
Include supplemental information	Auxiliary labels should be limited to evidence-based information that is necessary and important Information should be supplied in a standardized manner
Standardize directions	Use consistent language in e-prescribing programs

United States Pharmacopeia. USP Advisory Panel Recommends Standardizing Prescription Container Labeling to Improve Patient Understanding of Medication Instructions. Available at <http://us.vocuspr.com/ViewAttachment.aspx?EID=2WSh2u7neSplu2bXW1HJ5VQ48HGFAOGH1NdNBeuPwJE%3d>. Accessed September 26, 2014.

2. Building skills and self-efficacy: Self-efficacy is a patient’s confidence in or perception of his or her ability to correctly perform a behavior, and it is one of the concepts in the Health Belief Model (Health Educ Q 1986;13:73-91).
 - a. Self-efficacy varies by a particular behavior, but it is also situationally dependent. For example, a patient may be confident in managing a hypoglycemic reaction normally but may be worried about managing reactions when at work or away from home.
 - b. Low self-efficacy may have the following effects:
 - i. Discourage a patient from learning new skills or changing behaviors
 - ii. Decrease the amount of time or effort a patient would spend attempting to learn a new skill
 - iii. Be a source of anxiety or depression or cause avoidance in dealing with a medical problem
 - c. Methods to improve self-efficacy: See Table 7.

Table 7. Methods to Improve Self-Efficacy

- | |
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| <ul style="list-style-type: none"> • Break complex skills into manageable tasks • Arrange tasks in a series of logical, progressively difficult steps • Implement changes slowly over time as patient is successful • Use frequent follow-up to address questions or problems • Show that progress is being made (e.g., small weight loss, slight improvement in blood pressure) • Acknowledge and encourage even small initial steps in implementing the plan • Attribute successes to an improvement in the patient's abilities • Assist in setting patient-specific and achievable short- and long-term goals • Brainstorm with the patient to identify personalized methods to implement the plan • Analyze lapses or problem situations for lessons learned; identify potential solutions for avoiding or dealing with that situation in the future • Identify peer coaches, mentors, or role models for ongoing support |
|--|

3. Self-management of medications requires the patient to have the ability to optimally integrate the series of steps to independently implement a drug regimen at home (Image J Nurs School 1991;23:231-5).
 - a. *Medication management* is a term that encompasses a series of steps, starting with obtaining the medications (initially and then refills), remembering to take the medications, correctly interpreting labels and instructions, integrating several label instructions to develop a personal medication schedule, correctly measuring and preparing dosages, following supplemental administration instructions, and monitoring for efficacy and toxicity.
 - b. Problems with medication management are more common in patients with low executive functioning or low health literacy, those receiving complex medical regimens, or those who are elderly. Poor medication management skills may result in unintentional nonadherence.
 - c. Methods have been developed to assess individuals' capacity to manage their own medications. Tools such as the Drugs Regimen Unassisted Grading Scale (DRUGS) may be useful in identifying patients who need more assistance in handling their medication regimen at home (Ann Pharmacother 2008;42:1026-36).
 - d. Pill boxes, medication organizers and reminder aids, automatic refills, and prescription delivery may address only some types of medication management issues.
 - e. Patients with low medication management skills may need extra assistance with the following.
 - i. Correctly interpreting label instructions
 - ii. Developing a simple regimen with the minimal number of administration times
 - iii. Integrating any medication changes into their current regimen (e.g., adding new medicines, making dosage changes, and discontinuing medications)
 - iv. Updating and maintaining a current medication list
4. Addressing adherence behaviors: Often, health care professionals narrowly view nonadherence as unintentional (i.e., the patient did not understand the instructions, has trouble remembering to take medications, or cannot afford the regimen). However, much nonadherence is actually intended and is often logical from the patient perspective. Some of these adherence factors and behaviors are outlined in Table 8.

Table 8. Adherence Factors and Behaviors

Adherence Factors	Adherence Behaviors	Patient Case Examples
Physical factors	<p>Medications are judged “effective” or “ineffective” by whether or not the patient’s desired physical response, such as control of symptoms (e.g., pain relief) or activity level, is reached</p> <p>Medications are discontinued or adjusted according to the patient’s desired goal</p> <p>Regimens are modified to avoid adverse reactions, which are not reported to their provider</p>	<p>A middle-aged man with diabetes is nonadherent to both diet and oral medications; he takes the medication when his blood glucose concentration is high enough to cause polyuria and discontinues it when urination becomes less frequent; he understands and appears unconcerned that a hemoglobin A1C of 13.5% puts him at high risk of a future heart attack or kidney failure; he begins to take his medication regularly when he understands that his erectile dysfunction and painful neuropathy will more likely worsen when his diabetes is poorly controlled.</p>
Economic aspects	<p>Medications are continued, discontinued, or adjusted according to the patient’s perception of cost to the perceived benefit</p> <p>The actual cost of the medication may not be as important as the perceived financial distress</p> <p>Generic medications may be perceived as less effective</p> <p>Less value may be placed on medications when there is little or no cost to patients; adherence may be better when there is a co-pay</p>	<p>A middle-aged woman is nonadherent to two generic medications for asymptomatic hypertension (\$5 co-pay each). She is willing to pay \$60 each month for a third-tier pain medication that improves her back pain. She becomes somewhat more adherent to the blood pressure medications when shown her systolic blood pressure was 20 mm Hg lower when taking her medication. She was encouraged to do home blood pressure monitoring monthly to see the benefit from the medication.</p>
Psychological aspects and self-regulation	<p>Testing: Patients test for the continued need for therapy by stopping or adjusting medications</p> <p>Control: Medications are adjusted because of the patient’s perception of control or dependence</p>	<p>A woman’s cholesterol concentration was well controlled with a low-dose statin; she stopped taking it because she thought her cholesterol was cured; she was willing to restart it after her cholesterol increased 40 points after stopping the medication.</p> <p>A woman resisted taking insulin twice daily because the regimen was perceived as too rigid for her lifestyle; she was actually more adherent to a more complex regimen requiring several injections and carbohydrate counting because she could adjust it to her variable mealtimes and food intake.</p>

Table 8. Adherence Factors and Behaviors (*continued*)

Adherence Factors	Adherence Behaviors	Patient Case Examples
Psychological aspects and self-regulation	Stigmatization: The patient may perceive having the disease or taking medication as a stigma; taking medication may be an acknowledgment to patients or others that they have an illness	An adolescent with a seizure disorder is resistant to taking his medications; he becomes more adherent when he realizes he can take his driver’s license test like his friends when he has been seizure-free for 2 years.
	Being practical: Medications are adjusted to diminish the perceived disruption in the patient’s lifestyle	An elderly woman with heart failure wanted to discontinue her diuretic while on a vacation because she did not want to worry about finding a bathroom while on the side tours; it was explained that if she stopped it, her heart failure would worsen and she would not have the energy to go sightseeing.
	Gambling: The perception that short-term “costs” exceed the long-term “gains” of therapy	A man in his 40s smoking 2 packs of cigarettes per day is unconcerned regarding the long-term health risks: “Not everyone who smokes dies from it;” he cut back to 1 pack/day when he realized that his early morning cough was an early indication of COPD.
	Medication as a resource: Adherence may improve when therapy is perceived as a resource or when it allows patients to accomplish desired goals	An elderly woman with severe COPD refused to use oxygen when outside of her home; she began to use it when she realized that it could give her enough energy to visit and play with her grandchildren.

COPD = chronic obstructive pulmonary disease.

Morris L, Schulz RM. Medication compliance: the patient’s perspective. *Clin Ther* 1993;15:593-606.

5. Techniques to improve motivation

- a. Motivation theory: Many patients lack motivation to make lifestyle changes or adhere to medication on the basis of proposed health benefits alone. Motivational theory proposes that everyone has one or more primary need. Expressing messages in terms of those primary needs may open individuals to hearing messages and implementing behavior changes. One framework of motivational theory is the Open Management Concept (Kafka 1990). Table 9 describes the five “needs” in this framework. Examples are given of tailored messages in the context of a patient’s specific motivating need.

Table 9. Use of the Open Management Concept

The pharmacist asks patients to describe what they dislike most about using tobacco; listening carefully, pharmacists tailor their response to the patient according to their assessment of the individual’s likely motivator	
Motivator	Patient Case Examples
Need for economic or financial security	Patient: “Cigarettes are now more than \$3.50 a pack, and most of that is taxes! Years ago, they were only a buck.” Pharmacist: “So you spend more than \$2500 per year; I bet you could find a better use for that money! What would you do with an extra \$50 a week?”

Table 9. Use of the Open Management Concept (*continued*)

Motivator	Patient Case Examples
Need for control	<p>Patient: “Sometimes I wonder who is in charge, me or the cigarettes. I can’t even sit through a movie without going out for a cigarette. After break at work, I start watching the clock to my next cigarette at lunch.”</p> <p>Pharmacist: “Wouldn’t it be nice to sit with your girlfriend through the movie or just go through the day without wondering when you can smoke the next cigarette?”</p> <p>Note: If the patient believes that tobacco helps him deal with stress, his need for control could be a barrier to quitting</p>
Need for recognition	<p>Patient: “I used to think that smoking was cool in high school; now I am conscious that my clothes smell and I use tooth whiteners.”</p> <p>Pharmacist: “You are right! It used to be really acceptable to smoke, but you don’t see as many people smoking in public anymore; smoking not only yellows your teeth but also causes early tooth loss.”</p>
Need to belong	<p>Patient: “At Thanksgiving or Christmas dinner, my sister makes me go outside by myself because she says it stinks.”</p> <p>Pharmacist: “So you are the only one in the family left who smokes?”</p> <p>Patient: “Yes, they all stopped; even my brother...”</p> <p>Note: If key family, friends, or colleagues use tobacco, the desire to belong can be a barrier to quitting</p>
Need for personal self-worth	<p>Patient: “I have three children who hate my smoking.”</p> <p>Pharmacist: “How old are they?”</p> <p>Patient: “The oldest boy is 13; my daughter is 10; the youngest boy is 6.”</p> <p>Pharmacist: “In general, young children dislike cigarettes. In the preteen years, peer pressure begins; young girls often start smoking because they’ve heard the myth that smoking keeps one thin. What a great example you would be to your children if you chose to stop.”</p>

Kafka VW, Schaefer JH. Working Relationships: Everyone’s Guide to Working with People. Moraga, CA: Effective Learning Systems Press, 1990.

- b. Motivational interviewing: When providers try to convince patients to change, it may cause patients to justify why change for them is not possible (i.e., the “righting reflex”). Motivational interviewing uses a series of strategies to encourage the patient (instead of the provider) to articulate/explore reasons for changing behavior (Berger 2013; Rollnick 2008). Some key motivational interviewing concepts are briefly outlined in Table 10.

Table 10. Motivational Interviewing

Concept	Patient Case Example	Explanation
Roll with resistance	<p>“You are reluctant to give little Billy an asthma controller medicine every day because you don’t think his asthma is bad enough to need a medicine every day. Tell me a little more about that...”</p>	<p>Accept the patient’s reluctance by paraphrasing the concern; encourage the patient to discuss his or her concerns further; a better understanding of the situation may help the provider answer questions, address concerns, or clarify misperceptions</p>

Table 10. Motivational Interviewing (*continued*)

Concept	Patient Case Example	Explanation
Express empathy	“So you are concerned about the cost and the long-term effects of a daily medicine on a 6-year old; is that right?”	Reflect back the patient’s concern in a nonjudgmental manner; empathy does not necessarily mean expressing agreement
Avoid arguing	“There are no generic controller inhalers, so the controller seems expensive every month” (restate patient concern); May I tell you of my concerns about Billy’s asthma? (ask permission); You said he awakens often at night; when he has an asthma episode, he misses school, and we give him large doses of prednisone for several days to control his asthma; I think asthma is affecting Billy’s schoolwork (voice medical perspective in context of patient concern); What do you think?” (listen to response)	Arguing may just reinforce patients’ reluctance to change; ask permission before challenging their opinions, perceptions, or concerns; then, inform them of your concerns from a medical perspective; listen to their response
Develop discrepancy	“You want him to do well at school and give him the least amount of medicine; every episode requires lots of albuterol and prednisone, and the emergency visit is expensive; he is also not keeping up at school; giving a controller medicine in a tiny dose every day might actually expose him to less medication and help him do better at school...Is that worth a try?”	Explore their ambivalence about change; help them see inconsistencies between their goals and their behavior
Support self-efficacy	“I can show you how to track his albuterol use and nighttime asthma episodes, so we can see if his asthma improves during the next several weeks. Do you think that you would be willing to track this information to see if there is any improvement?”	Table 7 lists items to build and support self-efficacy

- c. Transtheoretical model
 - i. This is another method for tailoring the patient intervention according to patients’ readiness to change their behavior.
 - (a) The pharmacist assesses the patient’s stage of change and provides an appropriate intervention to encourage or maintain change.
 - (b) Potential interventions include the following:
 - (1) Providing timely information
 - (2) Identifying and emphasizing personal motivators
 - (3) Recognizing progress and encouraging further change
 - (4) Building self-efficacy (see Table 7)
 - (5) Troubleshooting lapses and encouraging continued efforts
 - ii. Definitions of the stages (or constructs) and examples are listed in Table 11.

Table 11. Transtheoretical Model

Stage of Change	Definition	Patient Case Example	Explanation of Pharmacist Response
Pre-contemplation	No plan to implement change in the next 6 months	A middle-aged, overweight, sedentary woman develops prediabetes; her pharmacist reviews her latest laboratory results and the health benefits of weight loss	The pharmacist seeks the patient's permission and, with this, explores her potential motivators and attitudes toward healthy eating habits and exercise; he offers to help her whenever she is ready; afterward, she begins to think about her daughter's wedding next fall
Contemplation	Thinking of changing in the next 6 months, but usually does not have a specific plan	At her next visit, she tells the pharmacist that she is looking at mother-of-the-bride dresses with her daughter but that losing weight seems too hard; she has spotted ads for community-based weight-loss support groups	The pharmacist helps her explore and evaluate her resources; he explains how small changes in diet and gradual increases in activity can make a significant difference over time; he offers to help her develop a realistic, successful plan
Preparation	Plans to make a change in the next 30 days and has usually taken some steps toward change	At the next visit, she tells the pharmacist she plans to join the support group at work that is forming next month; she liked the trial session at her friend's gym, but the monthly fee seems too expensive	The pharmacist brainstorms with her some affordable alternatives for increasing activity
Action	Has overtly changed behavior for less than 6 months	Six weeks later, she has switched a daily afternoon soda to plain iced tea; her daughter offered to pay for the gym membership, she did not like the one aerobics class she tried; the pharmacist congratulates her on making the diet change and notes the 1-kg weight loss	The pharmacist recommends trying out a variety of activities at the gym and to inquire if a personal trainer is available; because she is doing so well with the beverage change, he asks what small diet change she would like to try next; any roadblocks or setbacks are addressed
Maintenance	Has changed behavior for more than 6 months	She has lost 5 kg during 6 months; she has kept up with several small diet changes and exercises routinely twice weekly; she is a little discouraged that she regained 1 kg at Thanksgiving	The pharmacist is upbeat regarding her overall progress; he notes that her repeated blood glucose reading is just under the goal of 100 mg/dL; they briefly discuss why she regained weight (holiday baking) and how she might avoid that at Christmas
Termination	No temptations or lapses and is confident that change can be maintained	Her weight loss has leveled off at 8 kg during 8 months; she is happy maintaining her current diet and exercise plan at this time	The pharmacist monitors her weight at each visit and reviews her blood glucose results with her periodically

Prochaska O, Redding CA, Evers KE. Transtheoretical model and stages of change. In: Glanz K, Rimer BK, Viswanath K, eds.

Health Behavior and Health Education: Theory, Research, and Practice, 4th ed. San Francisco: John Wiley & Sons, 2008:97-119.

- iii. Patients may exit and re-enter the model at any stage before successfully reaching the maintenance/termination stage.

G. Special Populations (*Domain 2*)

1. Older adult patients

- a. May have different medical educational needs (Centers for Disease Control and Prevention 2009)
 - i. Have complex medical problems that call for higher health literacy and better medication management skills
 - ii. Are less likely to use the Internet and other sources to obtain health information; so are more dependent on family, friends, and providers for health information
 - iii. In general, process information more slowly and have more trouble recalling information later
 - iv. Are less confident and more easily confused
 - v. Are more likely to have impairments to learning information such as less dexterity or visual or hearing problems
- b. Cognitive decline may impair the executive functioning necessary for management of their medications.
- c. General tips for counseling older adults are listed in Table 12.

Table 12. Tips for Educating Older Adult Patients

Clear communication strategies are especially important, such as the following:

- Using plain language
- Demonstrating and allowing patients to practice skills
- Documenting patient understanding by using the teach-back and show-me techniques to verify understanding

Use briefer educational sessions

Keep information focused and organized

Pause often, and allow the patient more time to process information

Information may need to be repeated more often, both during a session and over time

Use more face-to-face communication to permit more interaction

Use more personal examples for relevancy

Follow up more often and at shorter intervals when implementing new plans

Develop and use personalized decision-making tools (e.g., disease-related care plans)

Ideally, use educational materials designed specifically for older adults (e.g., written material should be large print; high contrast between the print color and paper; essential points should be bulleted or in list formats)

Be alert for physical (vision, hearing, and dexterity) and cognitive impairments that might diminish medication management skills; assess medication management capacity as needed

Assist in maintaining an accurate medication list

Provide medication charts to organize administration times

Inquire about support systems and difficulties with activities of daily living

Assess for low self-efficacy, and implement strategies as needed

Centers for Disease Control and Prevention. Improving Health Literacy for Older Adults: Expert Panel Report 2009. Atlanta: U.S. Department of Health and Human Services, 2009. Available at www.cdc.gov/healthliteracy/pdf/olderadults.pdf. Accessed November 23, 2016.

2. Low literacy: For these patients:

- a. Introduce new concepts more slowly.
- b. Use teach-back more often throughout the session.
- c. Use more visual aids.
- d. Inquire if they have a preferred family member or friend to assist them.

3. Use of interpreters (<https://www.aamc.org/students/download/70338/data/interpreter-guidelines.pdf>)
 - a. The qualifications for a medical interpreter involve more than being bilingual. Interpreters are trained in the expectations of both cultures so that they can anticipate the potential for misunderstandings, be knowledgeable about medical terminology and jargon, and agree to abide by a code of ethics.
 - b. The National Culturally and Linguistically Appropriate Services (CLAS) Standards in Health and Health Care require that timely language assistance be provided to those with limited English proficiency without charge (<https://www.thinkculturalhealth.hhs.gov/content/clas.asp>).
 - c. Even patients who initially appear bilingual may not comprehend the complexities of a medical interview or educational session. The services of an interpreter should be used if there is any concern that the patient may not fully understand. The Team Strategies and Tools to Enhance Performance and Patient Safety (TeamSTEPPS) program has training materials for enhancing safety for patients with limited English proficiency (<http://teamstepps.ahrq.gov/>).
 - d. Tips for speaking to patients through interpreters. A similar process is used whether the interpreter is used for a different language or for hearing impairment. See Table 13.

Table 13. Tips for Speaking to Patients with Interpreters

<p>Brief the interpreter about the purpose and goals for the encounter</p> <p>Verify that the interpreter will function in a conduit manner (i.e., interpret in the first person without revising, adding, or deleting any of the message)</p> <p>Face the patient, make eye contact with the patient, and talk by using the first person</p> <p>Use a normal speaking tone and volume</p> <p>Expect that the interpreter will do the following:</p> <ul style="list-style-type: none"> • Greet the patient and introduce himself or herself at the beginning of the encounter • Transmit any exhibited emotion (by you or the patient) • “Step out” of the interpreter role to ask his or her own questions of you or the patient if the interpreter does not understand what is being said • Stand off to the side so that the facial expressions of both parties can be seen <p>Use normal good communicate strategies; for example:</p> <p>Use lay language; the interpreter will not simplify your words</p> <p>Check patient understanding by using the teach-back or show me techniques</p> <p>Be aware of the policies in your institution for using bilingual colleagues as interpreters; asking colleagues to function outside their normal training and responsibilities can be problematic (e.g., asking a receptionist to translate a diabetes education session)</p> <p>Avoid using family members or friends of the patient to interpret</p> <ul style="list-style-type: none"> • They may have conflicts of interest or trouble being objective • They may have difficulty understanding the information to be translated • Document the patient’s requests to use the interpreter of his or her choice • If a family member or friend functions as an interpreter, first assess his or her English proficiency with informal conversation; then, assess his or her health literacy with a basic question related to the encounter • Be specific with expectations for accurate, complete translation of words from both the patient and the provider • Use minors only in emergencies <p>Document in the medical record that an interpreter was used, together with his or her name and that of his or her company</p>

II. SELECTING WRITTEN PATIENT EDUCATIONAL MATERIALS

- A. Written Patient Health Educational Materials: Only effective when used as part of your overall patient education strategy (e.g., use in combination with spoken instructions) (*Domain 2*)
- B. Understandability: Suitability Assessment of Materials (SAM) (Doak 1996) (*Domain 3*)
1. Useful tool to qualitatively evaluate materials under consideration for health literacy and understandability
 2. Can be used to quantitatively compare different materials by ranking each factor on a 3-point scale: 0 (not suitable) to 2 (superior). The maximum score is 2 points times the number of factors considered.
 3. Areas to be evaluated (each area may include one or more factors)
 - a. The purpose is clear, the scope is limited to the purpose, and a summary is provided.
 - b. Literacy demand
 - i. Reading level (<https://www.cms.gov/Outreach-and-Education/OutreachWrittenMaterialsToolkit/>)
 - (a) The desired level for the average population is about the fifth-grade reading level.
 - (b) Various methods, including Flesch-Kincaid, Fry Readability Formula, and Simple Measure of Gobbledygook (SMOG), are available to calculate reading level. One should be aware of the advantages and limitations of the various methods. The calculated reading-grade level can vary depending on the method used (e.g., the Flesch-Kincaid method often results in a lower calculated reading level than other methods). In addition, “reading level” is not a precise concept.
 - (c) Follow the instructions for using the specific tool (e.g., the minimum number of words in the sample to be analyzed).
 - (d) Be cautious when interpreting the results (e.g., the calculation is based on the length of the words and sentences; the assumption that longer words are harder to read and understand is not always true; in addition, the reading level can vary across the document).
 - ii. Writing style: An active voice, using a conversational style and short, simple sentences, is preferred.
 - iii. Vocabulary: Common words are ideally used. Technical words should be limited to keywords that patients should learn. Jargon should be avoided. Examples or definitions should be given for any technical words used.
 - iv. Sentence structure should provide the context for the new information before providing the new information. For example, “To see if your heart function is normal (*context*), your doctor may perform a test to check (*new information*)...”
 - v. Content should be organized under headers.
 - c. Graphics
 - i. Type: Illustrations should be real and use familiar images but not distract from the message. Pictures should also be age appropriate.
 - ii. Relevance: Illustrations should present key messages. Borders, backgrounds, and colors should support, rather than distract from, the message.
 - iii. Tables, graphs, charts should have the following:
 - (a) Step-by-step instructions, with examples
 - (b) Captions to identify and explain the figure
 - d. Layout should be inviting and easy to read. For example:
 - i. The flow and sequence of the material should be logical.
 - ii. There should be adequate white space. Two (shorter) column texts are preferred to a single (lengthy) column of more than 50 characters in width.
 - iii. Visual cues are used to highlight key points (e.g., arrows, insert boxes).
 - iv. Use low (or no) gloss paper with high contrast to the text.
 - v. Chunk information with bullets and headers, but use no more than five bullets per subheading.

- e. Typography
 - i. Use sentence case (capitalize only the first word of a sentence). Do not use all capital letters.
 - ii. Font should be readily legible and consistent (e.g., 12-point sans serif font, such as Arial).
 - (a) Boldface or larger font can be used for emphasis.
 - (b) Colored fonts can also be used if they are in sufficient contrast to the paper and not distracting.
 - f. Cultural appropriateness: Images are positive and realistic. Logic, language, and ideas are familiar to the target audience.
- C. Other Factors to Consider That Are Not Included in SAM Tool (*Domain 3*)
- 1. Content: Aspects of content other than health literacy including the following:
 - a. Source is credible.
 - i. The author has suitable expertise or training (e.g., credentials, experience).
 - ii. The sponsoring organization is easily identifiable (e.g., pharmaceutical company, health foundation, or government agency/grant).
 - iii. Facts are easily verified from tertiary sources such as disease guidelines.
 - iv. Ideally, cites the sources and references for the content
 - b. Potential biases are limited and identifiable.
 - i. Any opinions are separate from the evidence and clearly labeled as such.
 - ii. Source of funding, if different from the sponsor, is included (e.g., a foundation grant).
 - iii. Promotes all products in drug class fairly and in similar frequency
 - (a) Appearance in pictures/visuals
 - (b) Inclusion in discussion and examples
 - (c) Discussion in studies and evidence
 - (d) Identifies drugs by generic name with reference to brand name(s) with ®
 - c. Information is current.
 - i. Ideally, lists the date the information was most recently reviewed or updated
 - ii. Dates of the references are within the past 5 years.
 - iii. Content is consistent with current disease guidelines or standards of care.
 - iv. Materials should be reviewed initially and periodically for continued currency.
 - 2. Selecting materials for a comprehensive disease program
 - a. Materials are age appropriate for the target audience.
 - b. Have available a variety of materials for different literacy levels (e.g., low literacy, basic, and high literacy) and across a variety of learning styles (e.g., visual, auditory).
 - c. Select materials across a range of topics. Match content of materials to the desired teaching objectives.
 - d. Consider a focus group from the target audience to provide feedback on the usability of the information.
- D. Other Assessment Tools for Content and Literacy (*Domain 2*)
- 1. Other variations of, and scoring sheets for, the SAM tool are available on the Internet. For example:
 - a. Materials Assessment Tool (MAT): https://extension.umd.edu/sites/default/files/_images/programs/insure/Materials%20Assessment%20Tool%204-29-13.pdf

- b. The Patient Education Materials Assessment Tool (PEMAT). This recently published tool contains many criteria similar to those of SAM, such as understandability, layout, and design (www.ahrq.gov/professionals/prevention-chronic-care/improve/self-mgmt/pemat/pemat-av.html).
 - i. Has an additional domain called “actionability,” which addresses whether the materials encourage, describe, or provide tools for the patient to implement health-related skills and activities
 - ii. Can be used to compare written materials and audiovisual educational materials, such as multimedia presentations
2. The Medical Library Association has published a user’s guide for evaluating medically related websites for the lay public (www.mlanet.org/resources/userguide.html).

III. ALTERNATIVE METHODS OF COMMUNICATING WITH PATIENTS

A. Telephone Tips (*Domain 2*)

1. Ask for the patient’s preferred phone number and contact him or her at that number.
2. Before discussing specific patient information, do the following:
 - a. Verify the identity of the caller.
 - b. Ask if this is a convenient time (e.g., if patient is alone and able to talk).
 - c. Protect patient privacy.
 - i. Leave very limited messages. “This is _____, the pharmacist at XYZ pharmacy, with a message for (patient name). Please call me back at (number).”
 - ii. Be aware of whether the telephone number is for a general home phone, personal cell phone, or work phone.
3. Use the teach-back method to verify the correct understanding of messages.
4. For efficiency and consistency, consider developing documentation templates for common encounters in the electronic medical record (e.g., requests for refills, anticoagulation test results).
5. Document the content and results of the interaction in the patient’s medical record.

B. E-mail Etiquette (*Domain 2*)

1. For extra privacy and security, communicating to an individual’s personal account on a Web-based corporate system is preferred to using a patient’s personal e-mail account (i.e., patients send and access messages to and from their health team by a stand-alone personal account on the health system’s website by using a password).
2. Follow the general communication tips in Table 5 (e.g., use plain language, limit amount of content, tailor the message).
3. Apply appropriate criteria from the SAM tool (in section II). For example:
 - a. Literacy demand: Reading level, sentence structure, active voice, and so forth
 - b. Layout: If several points, chunk information with headers and bullets instead of using a paragraph
4. Ask patient to verify by responding to the message. Avoid using request delivery or read receipts. Use teach-back if appropriate.
5. General e-mail etiquette is outlined in Table 14.

Table 14. General E-mail Etiquette

<p>Balance conciseness with clarity</p> <p>Answer patient questions and anticipate additional questions</p> <p>Be professional</p> <ul style="list-style-type: none"> • Use correct spelling, punctuation, and grammar • Respond in a timely manner (usually within 24-48 hours) • Do not use medical or texting abbreviations • Restrict to essential information; avoid confidential details • Use complete signature with credentials, organization, position, and contact information • Watch tone to avoid the appearance of being curt or abrupt or the impression that the patient is bothersome • Provide a closure that encourages a follow-up for questions <p>Reread e-mail before sending it</p> <p>Use a clear, meaningful subject in the subject line</p> <p>Do not use e-mail when personal contact is more appropriate</p> <p>Ensure e-mail is compliant with privacy standards before sending any type of information related to a person's health (e.g., secure send out of information)</p>

Silberman L. 25 Tips for Perfecting Your Email Etiquette. Available at www.inc.com/guides/2010/06/email-etiquette.html. Accessed September 26, 2014.

Email Etiquette. Available at www.emailreplies.com/. Accessed September 26, 2014.

IV. COMMUNICATING WITH OTHER HEALTH CARE PROFESSIONALS

A. Making Interventions to Implement Medication-Related Recommendations for Patients (*Domain 2*)

1. Do your homework before making the recommendation.
 - a. Hypothesize the reasons that this situation occurred. Is this likely an oversight or an intended choice by the prescriber? Identifying the possible reasons will help you to anticipate and respond to questions or requests for additional information.
 - b. Is additional information needed to assess the situation, such as blood work or information from the patient history?
 - c. Identify and weigh therapeutic alternatives to identify the best recommendation to resolve the situation. What is the strength of the evidence to support each recommendation? How might the recommendation change depending on the additional patient information requested?
 - d. Consider to whom you will be communicating the recommendation. Knowing your audience will be helpful in framing your recommendation. What will they know or want to know?
 - i. Discipline: Physicians, nurse practitioners, and physician assistants will generally have a different level of knowledge of therapeutics and evidence-based medicine.
 - ii. Generalist versus specialist: Is this therapeutic recommendation within or outside their area of specialty?
 - iii. Academic versus nonacademic provider: Academicians may have a greater interest in detailed rationales and the results of clinical research, and they may be open to new evidence. However, they may also be more skeptical of suggestions from those outside their discipline or specialty.
 - iv. Personality of the provider (e.g., confidence in their ability, openness to new ideas)
 - v. Differences in communication styles: According to cultural or ethnic background, age, sex, or generational differences
 - e. Choose an appropriate time: What is the level of urgency? When is a good time to talk? (e.g., "Is this a busy time for you?")

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- f. What is the optimal method of delivery (e.g., written, verbal, or electronic)? Ideally, verbal recommendations should still be documented as a note in the patient's medical record.
 2. Delivering the message: Be clear, complete, concise, timely, professional, and organized.
 - a. Introduction
 - i. Greet the provider by the preferred method of address. Always use a formal greeting (e.g., Doctor) if a third party is present.
 - ii. Identify yourself and your role, if necessary.
 - iii. The opening should catch the provider's attention and signal the level of urgency. What do you want the provider to do?
 - b. Define the problem or issue. Support the assessment with patient-specific data.
 - c. Clarify the problem or request additional information. Be prepared to modify your recommendation according to this new information.
 - d. Suggest a solution (with any acceptable alternatives) to the problem. If there are several suitable alternatives, present them objectively.
 - e. Use an appropriate verb according to the strength of your recommendation (e.g., recommend, suggest, consider).
 - f. Provide the rationale and offer evidence to support the recommendation. Clearly separate opinion from published evidence or guidelines.
 - g. Develop rapport while delivering the interventional message. Watch the terminology, tone, and body language.
 - i. If the message is delivered verbally, choose a time that is as convenient as possible (e.g., if nonurgent, wait for the provider to finish current task or ask to speak with the provider after rounds are completed).
 - ii. The message should be patient focused rather than about organizational policy (e.g., explain why your recommendation [based on this policy] would improve the care of this patient).
 - iii. Be calm, respectful, and assertive, but not aggressive. Include patient data to support recommendation.
 - iv. Be tactful. Phrase the recommendation positively. How would this change benefit the patient?
 - v. Be persuasive, but do not overstate the case for change.
 - vi. Use of correct medical terminology, pronunciation, and confident body language will add to credibility. Avoid nervous mannerisms.
 - vii. Revise delivery according to the cues and body language of the provider (e.g., shorten the conversation if the provider appears stressed or hurried).
 - h. Be prepared to modify your recommendation in response to new information or challenges from the provider.
 - i. Answer questions and offer further explanation. Elaborate on justification.
 - ii. Collaborate to identify the best alternative. Sometimes, the best solutions are completely different from the initial recommendations and arise from the synergy between the pharmacist and the provider.
 - iii. If the recommendation is partly accepted or rejected, advise whether further or more frequent monitoring might be necessary to avoid future problems.
 3. Closure
 - a. Use the check-back technique: Repeat the change in plan or new orders (TeamSTEPPS program) (www.ahrq.gov/professionals/education/curriculum-tools/teamstepps/instructor/essentials/pocketguide.pdf).
 - b. Offer to provide additional information (e.g., copy of clinical study, institutional policy, clinical protocol) or to do a further information search.
 - c. Thank provider for his or her time.

4. Acronym for organized message delivery: **SBAR** (situation, background, assessment, recommendation) (<http://www.saferhealthcare.com/sbar/what-is-sbar/>)
 - a. **S:** Situation – Briefly describe the situation or the patient problem.
 - b. **B:** Background – Add necessary information to understand the problem.
 - c. **A:** Assessment – Provide an assessment of the problem, such as cause and severity.
 - d. **R:** Recommendation – Make recommendations to address or resolve the problem.

Table 15. Use of SBAR to Organize a Patient-Specific Recommendation

	Patient Case Example
Situation	“Dr. Jones, regarding Mrs. Smith: I am concerned about her potential for hyperkalemia.”
Background	“Her furosemide dose was cut back by one-half to 20 mg daily today because her edema is better; her current potassium concentration is normal; however, she is still receiving lisinopril 40 mg daily with potassium 20 mEq twice daily, and her estimated creatinine clearance is estimated to be 30 mL/minute/1.73m2.”
Assessment	“At her age and with her renal function, her potassium concentration could rise pretty quickly during the next several days; there are no current orders to monitor potassium values.”
Recommendation	“I recommend decreasing her potassium dose to 20 mEq once daily and checking her concentration in 3 days and then again early next week.”

SBAR = situation, background, assessment, recommendation.

Agency for Healthcare Research and Quality (AHRQ) [homepage on the Internet]. TeamSTEPPS® Program. Rockville, MD: AHRQ. Available at <http://teamstepps.ahrq.gov/>. Accessed September 26, 2014.

5. Special situations
 - a. Dealing with anger, irritation, or frustration
 - i. Stay calm and assertive.
 - ii. Reflect back the emotion (e.g., “So you are feeling frustrated because...”).
 - iii. Keep the focus of conversation on what is best for the patient (vs. personalities).
 - iv. Accept alternative viewpoints. Respect decision-making authority.
 - v. Offer to pass on concerns regarding policies or procedures to those in authority.
 - b. When recommendations are rejected or partly accepted
 - i. Document the initial recommendation made, the provider’s decision, and a brief rationale for the decision.
 - ii. If concerned about the plan, propose compromises to limit the potential for adverse outcomes (e.g., “Because current therapy is to be continued, strongly suggest rechecking potassium in 3 days to be sure it is not still rising”).
 - c. Assertively communicate concerns about safety: TeamSTEPPS program recommends using the CUS technique to structure messages to other team members about potential safety issues. CUS is an acronym for concern, uncomfortable, safety. For example: “I am concerned about... I am uncomfortable that this could... This is a safety issue.” (<http://teamstepps.ahrq.gov/>)
- B. Providing Health and Educational Programming for Other Health Care Professionals (*Domain 3*)
 1. Tailoring the presentation to the audience
 - a. Content: Specific objectives to be addressed
 - b. Disciplines and level of training of the attendees
 2. Logistics: Includes location, room size, available audiovisual equipment, whether the presentation will be recorded, the exact time allotted, deadlines for any slides or handouts, arrival time, reimbursement for travel or expenses, number of attendees

3. Format for the presentation. Examples: Lecture, round table, panel discussion, interactive cases, and question and answer
4. Special circumstances include the following:
 - a. Additional requirements if attendees are to receive continuing education credit
 - b. Whether the presentation is part of a larger conference. Know the topics and credentials of the other presenters. How does this presentation fit in with the other presentations?
 - c. Any particular reasons this topic is of interest to the audience, such as the development of new programs or policies and procedures or the result of a patient care problem

V. DOCUMENTING IN THE MEDICAL RECORD

- A. References That Outline Effective Medical Documentation (*Domain 2*)
 1. Medical Insurance Exchange of California. Medical Record Documentation for Patient Safety and Physician Defensibility (www.miec.com/Portals/0/pubs/MedicalRec.pdf)
 2. Psychiatry (Edgmont) 2004;1:26-8 (www.ncbi.nlm.nih.gov/pmc/articles/PMC3010959/pdf/PE_1_3_26.pdf)
- B. Notes Documented in the Medical Record Should Have the Following Features. (*Domain 2*)
 1. Be clear and concise yet complete. Note should not require further verbal explanation (e.g., “Renewed lisinopril 10 mg daily for 3 months” is better than “Refilled lisinopril x 3”).
 2. Be appropriate for all likely target audiences (e.g., prescribers, nurses, physical therapists, dietitians).
 3. Include the necessary information to be interpreted within the short- and long-term time context in which they were written. For example, “Pending the return of cultures, the empiric antibiotics started are...”; “Awaiting information from the family to clarify drug dose”; “Current first-generation cephalosporin on formulary is...”; “According to the Third Expert Panel Report on Asthma guidelines, suggest...”
 4. Include the time and date of the note (unless already electronically time stamped).
 5. Write tactfully and persuasively. Document the patient’s concerns, health beliefs, and reasons for declining therapy in a nonjudgmental manner. Objectively document the results of interactions with other health professionals; do not be critical.
 6. Use professional terminology and format.
 - a. Avoid abbreviations, especially of drug names. Do not use any abbreviations on The Joint Commission’s “Do Not Use List” (http://www.jointcommission.org/facts_about_do_not_use_list/) and avoid the use of abbreviations on Institute for Safe Medication Practices (ISMP)’s error-prone abbreviation list when possible (available at www.ismp.org/Tools/errorproneabbreviations.pdf).
 - b. Follow the institutional or corporate norms and conventions. Many institutions use a subjective-objective-assessment-plan (i.e., SOAP) format. However, this format has many variations. For example, all disease/problem assessments may be written together, followed by the disease plans for all problems, or alternatively, the assessment and plan for each problem may be grouped together.
 7. Document in a timely manner.
 - a. Ideally, charting should be completed at the end of each patient visit or as soon as the encounter has ended. Notes become increasingly less credible the longer the time between the encounter and the writing of the note. It is easy to forget or confuse details regarding the encounter.
 - b. Payment claims may be rejected if submitted 24 hours or more after the encounter.
 - c. In paper charts, notes should immediately follow the most recent note. Do not leave room for others to write their notes.

8. Be transparent when making addendums, corrections, or changes.
 - a. Reasons for addendums, updates, or changes to the chart should be explained (e.g., “Dose of atorvastatin was clarified with community pharmacy as 20 mg daily [not 10 mg daily].”)
 - b. Errors or modifications
 - i. In paper charts
 - (a) For small errors: Draw a single line through the error and continue writing. Do not use correction fluid, heavily cross out, write over, or erase.
 - (b) For larger modifications: If a note has already been completed, an addendum (or a revised note) may need to be generated. The original note is left in the chart, perhaps with a comment showing the date of the revised note. Provide an explanation, if needed (e.g., started note in wrong patient chart).
 - (c) Initial and date the correction. Even if the error was made at the time of the entry, the correction should be initialed and dated.
 - ii. In electronic charts, a separate addendum is generally required.
 - c. Late notes in paper charts: Start the note after the most recent note currently written in the chart, even if that patient encounter occurred after yours. Include not only the date and time of the actual encounter but also the time the note was actually written. Do not insert pages into the chart.
9. Record formal names and the disciplines of the colleagues involved (e.g., “Referred to S. Jones, RD, for diabetes diet instruction”).
10. Include documentation of even brief interactions, such as telephone calls.
11. Write legibly in paper charts. Be especially careful with writing numbers and inserting decimal points. Rather than squeezing in information, start a new page.
12. Tips for electronic charting
 - a. Developing and using practitioner-specific templates for common types of patient encounters can assist in the efficiency and completeness of documentation.
 - b. Be cautious when routinely cutting and pasting information and assessments from previous notes. For example, do not recopy physical findings unless the physical examination was actually repeated or the actual date of the finding is documented.
 - c. Reread notes carefully before submitting to avoid addendums. Do not rely on automatic spell-check.
 - d. Institutions may encourage practitioners to begin or complete patient notes during the patient encounter to improve the efficiency and timeliness of documentation. However, using the computer during the encounter should not impede patient-practitioner communication (e.g., decrease eye contact, increase physical distance between practitioner and patient).

Patient Case

6. A pharmacist is documenting a patient order change for morphine sulfate in her medical record. Which method of writing the order would be most consistent with the Joint Commission’s recommendations?
 - A. “Morphine sulfate 10.0 mg IV q 6 hours for pain.”
 - B. “MSO4 10 mg IV every 6 hours for pain.”
 - C. “Morphine sulfate 10 mg intravenously every 6 hours for pain.”
 - D. “MSO4 10.0 mg intravenously q 6 hours for pain.”

C. Documenting Educational Assessments and Interventions (*Domain 2*)

1. Subjective data obtained from patient interviews, medication histories, and results of medication reconciliation should be documented in the medical record as discussed previously (e.g., adherence behaviors, results of SILS or other health literacy assessments, misperceptions, personal goals and health beliefs about medications, preferred learning styles).
2. List the educational content, skills taught, and verification of the patient's understanding at the highest level appropriate for that content.
 - a. "Patient verbalized/indicated understanding of..." is generally an inadequate verification of understanding. "Indicated" could merely mean the patient nodded, said "I understand," or just did not have any questions.
 - b. The minimum level of understanding that should be documented is comprehension (e.g., results from teach-back method). For example, "The patient repeated the new warfarin dose and that she is to return for blood work next week."
 - c. Ideally, any required skills should be demonstrated by the patient (e.g., using the show-me technique). For example: "Patient correctly showed 8-mg dose from combination of 5-mg and 1-mg warfarin tablets." "Patient obtained an adequate blood sample and correctly recorded the blood glucose reading."
 - d. If the instructions are situation-dependent, the documentation should state the patient's ability to apply the information (e.g., "Given peak flow and symptoms, patient was able to identify the correct zone and corresponding activities on the asthma action plan").
3. Document both the educational message and the implications for adherence/nonadherence if applicable. For example, "Patient voiced reluctance to return for blood monitoring. Explained the importance of frequent blood work and medication adjustments to minimize the risk of significant bleeding."
4. Further educational needs and plans for follow-up. Note the patient's level of difficulty or ease in learning new skills and any particular steps with which the patient struggled. For example: "Patient demonstrated correct inhaler technique on first attempt" or "Patient struggled with timing of the inhalation to the release of medication."
5. Any specific educational materials or resources such as written pamphlets given (e.g., title and source of material, referrals to websites or support groups). For example: "Patient given American Heart Association pamphlet 'What Is Hypertension?'" If several versions exist, the version or revision date should be noted.

Patient Case

7. A pharmacist is counseling a patient on a new sliding-scale insulin regimen. Which would be the best way to document the patient's full understanding of how to use the sliding-scale insulin in the medical record after the session? The patient:
 - A. Correctly repeated insulin dose and demonstrated injection technique.
 - B. Verbalized understanding of dose, route, frequency, and injection technique.
 - C. Described sliding-scale insulin dosage and the correct injection technique.
 - D. Showed injection technique and calculated dose for hypothetical blood glucose.

- D. Documenting Therapeutic Assessments and Making Persuasive Recommendations (*Domain 2*)
1. Provide sufficient patient data to support the assessment and plan.
 2. Assessments should be clear and consistent with patient's data. Use appropriate terminology for the disease (e.g., "Patient has stage II hypertension, uncontrolled to goal pressure of..." "Carvedilol is an appropriate β -blocker for heart failure, but current dose is below target of...").
 - a. Use of ICD-10 terminology
 - b. Complete assessments will support higher billing codes based on patient acuity
 3. Making written recommendations
 - a. Use the active voice whenever possible. The note should reflect the writer's professional opinion, not that of others. For example, "I recommend..." versus "It was decided..."
 - b. Choose a verb that corresponds to the strength of the recommendation (e.g., recommend, suggest, advise, consider).
 - c. Be specific (e.g., the complete drug regimen, the person who will follow up, what blood work was ordered, time frame for monitoring).
 - d. Clearly document the results of the recommendations; for example:
 - i. Whether recommendations were accepted and whether there were any order changes
 - ii. When recommendations are partly accepted or rejected
 - (a) Document respectfully and objectively. As stated previously, the active voice is usually preferred. However, the passive voice can be useful in situations when one wants to document one's recommendation and acknowledge provider's decision without reflecting one's agreement with it. For example, "Suggested that the ramipril dose be decreased to 5 mg because of rising serum potassium (now at 5 mEq/L). Checked with Dr. Jones. *Ramipril to be continued at same dose (10 mg) at this time. Serum potassium to be checked again tomorrow.*" (*passive voice*)
 - (b) Document actions taken to limit the potential for adverse effects. "Verbal order from Dr. Jones to recheck potassium in 3 days and decrease the ramipril to 10 mg daily if still greater than 5 mEq/L."

VI. OPPORTUNITIES FOR PATIENT ADVOCACY OUTSIDE THE HEALTH CARE SYSTEM

Many people without medical training will be in a position to make decisions about or influence health-related policies (e.g., legislators, school board members, news reporters) but will lack adequate health literacy (i.e., civic domain of health literacy). Pharmacists should seek opportunities to positively influence public policy for safe and efficacious medication use.

- A. Collaborate with Professional Organizations (e.g., American College of Clinical Pharmacy, American Pharmacists Association, American Society of Health-System Pharmacists, state associations) and Disease Advocacy Groups (e.g., American Lung Association, American Heart Association, American Cancer Society) for legislative days in your state. These groups may also offer training sessions beforehand on how to effectively speak to legislators. (*Domain 4*)
- B. Offer to Speak in Public Forums such as town hall or school board meetings on timely topics of interest to the organization as a private citizen, or provide a presentation as a medical expert. (*Domain 4*)

- C. Letters to the Editor: These are usually short (100–250 words) and in response to a recent news story. Tips for writing letters are available online (<http://ctb.ku.edu/en/table-of-contents/advocacy/direct-action/letters-to-editor/main>). (*Domain 4*)
1. Follow the organization’s guidelines for length and submission.
 2. If the letter is in response to a recent article, include the date and title of the article.
 3. Keep a copy of the letter to see whether it was edited when it appeared.
 4. Include full contact information. Papers will print the author’s name and city, but most will not print anonymous letters.
 5. Choose topics important to you. Most papers will not print letters from the same person more than every few months.
- D. Opposite the Editorial Pieces (also known as “op-ed” pieces) (*Domain 4*)
1. Can be influential and highly visible in local newspapers. Often written in response to the paper’s editorial or can be unsolicited on a timely topic.
 2. A limitation is that only a few are published compared with letters to the editor.
 - a. Timing is critical. Today’s top story is old news tomorrow. Submit quickly if you wish to respond to an editorial or hot news item. If a topic is likely to be brought up in the near future, you might draft a piece in anticipation and then tailor it to the actual event.
 - b. Be concise and to the point. Keep the length to a maximum of 600–750 words.
 - c. Make one carefully crafted main point. Be clear and accurate with facts and evidence.
 - d. Help the readers care about the issue. A personal story about yourself or a patient situation provides human interest. (Be careful to protect patient privacy in examples.) Use an example that readers can understand and that is memorable.
 - e. Write it for a lay audience: Follow the suggestions in the Health Literacy section on written materials (e.g., use short sentences and common words, avoid jargon and abbreviations, use an active voice).
 - f. Follow the rules and guidelines from the newspaper or media source (e.g., length, to whom it is sent, whether or not to use an attachment, preferred method of submission).
 - g. Write a cover letter with key points, state why this topic is timely, and provide your credentials.
 - h. Make a favorable first impression and a memorable last impression. A catchy opening grabs attention, and a good closing is what the reader may remember.
- E. Letters to Legislators and Senators (*Domain 4*)
1. Follow guidelines similar to those for letters to the editor with respect to length, style, and preference for electronic submission.
 2. Be aware that politicians usually accept only letters from their constituents.
 3. Use the appropriate form of address. For example: The Honorable...
 4. Note clearly in your letter if your communication is in response to a particular piece of legislation (e.g., House Bill No. —).
 5. Include a clear recommendation to support or oppose the legislation.
 6. In closing, provide your credentials and contact information with an offer to provide more information if necessary.
- F. A Speaker’s Bureau for Your Organization: Hospitals and corporations may have public relations/media departments that keep a list of employees who are able to comment on various health-related topics. As issues arise, reporters may contact these organizations when looking for experts to comment. Training by the organization may be provided to learn how to effectively speak to the media. (*Domain 4*)

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ANSWERS AND EXPLANATIONS TO PATIENT CASES**1. Answer: C**

An open-ended question is best used to open a discussion about the patient's chief concern. Compound questions (Answer A) should be avoided. Answer B and Answer D are more focused questions, which are better saved for later in the conversation.

2. Answer: D

When dealing with emotions such as anger, it is usually best to first reflect back the emotion and acknowledge the patient's concerns or complaints. Once this patient believes his concern is understood, he may be willing to listen to one of the other responses as a reason for what appears to him to be a delay in resolving his problem.

3. Answer: A

Patients who respond to the SILS question by stating that they sometimes, often, or always ask others to help them read medical information are considered at risk of inadequate health literacy (either Answer A or Answer C). This patient was able (with some difficulty) to correctly calculate the correct dose when given the specific numbers to use, and only very simple arithmetic was necessary. So he is likely at NAAL level 2 (basic level) (Answer A). Those at level 3 would be able to identify which numbers to use and perform basic calculations (e.g., calculate a pediatric dosage from a chart).

4. Answer: D

Adults older than 65 years are at higher risk of inadequate health literacy. Other risk factors are less than a high school education and low income. This patient completed high school, and he is part of the middle class. One should not assume English is the patient's second language on the basis of his or her ethnicity. It should not be automatically assumed that all in minority groups have low health literacy.

5. Answer: C

The Adherence Estimator is a useful tool to assess a patient's perception of concern, commitment, and cost of an individual medication. Adverse perceptions of a medication likely discourage continued adherence and could therefore be areas for tailored educational messages (Answer C correct). Answer A and Answer B would be ways to assess his past adherence, but would

not assess the likelihood of continued adherence moving forward. The Health Belief Model may be useful to assess reasons for nonadherence, but it does not predict continued adherence (Answer D).

6. Answer: C

According to The Joint Commission recommendations, abbreviations, especially those for drug names (MSO4), should be avoided. Trailing zeros (10.0) should not be used with drug doses. Other abbreviations should be avoided (IV, q).

7. Answer: D

In this case, documentation should include both the ability to perform the necessary skill (i.e., injection) and to apply the sliding scale to calculate a situation-specific dose. Answers A, B, and C are limited to comprehension of the dosing scale and/or technique.

ANSWERS AND EXPLANATIONS TO SELF-ASSESSMENT QUESTIONS

1. Answer: B

Because this routine maintenance medication therapy management is not an emergency, it would be best to use a professional interpreter according to the guidelines for using medical interpreters by the Association of American Medical Colleges. Therefore, only Answer B is the best option of those given.

2. Answer: B

The Morisky and the Adherence Estimator questionnaires are both methods to assess the likelihood of adherence. However, only the Morisky questionnaire is intended to evaluate adherence to one or more drugs in a regimen for a particular disease. The Adherence Estimator is used only with individual drugs. The BATHE technique or Motivational Interviewing may help identify reasons for nonadherence, but neither assesses the likelihood of adherence.

3. Answer: C

This patient is able to identify facts from dense text (the package insert) and perform simple calculations, so he is at least at the intermediate literacy level. Because he is having trouble integrating and applying information from several sources, he is unlikely to be considered proficient.

4. Answer: C

The PEMAT tool would be most appropriate because it was specifically designed for assessing the usability of audiovisual materials. The SAM tool has similar criteria, but it was designed originally for written materials. Obtaining feedback from either knowledgeable colleagues or typical patients would be useful, but this may not provide a comprehensive assessment of usability.

5. Answer: A

Whereas health care professionals typically learn at least some of the aspects of medication therapy, audiences are usually most interested in information related to their job responsibilities. Physical therapists would want to know the neuromuscular effects of a medication and their potential impact on patient movement. For example, the adverse effects of dizziness, hypotension, or sedation might impair a patient's ability to participate in physical therapy sessions. Because these professionals

are typically not responsible for prescribing or administering pain-related medications, they would usually be less interested in cost, dosing, formulary status, or pharmacokinetics. Thus the most correct option would be Answer A.

6. Answer: A

U is listed on the ISMP error-prone abbreviations list and should not be used if possible. *Units* is the preferred way to note the insulin dose. The term *QD* (daily) is also listed on the ISMP list and is often mistaken as *QID* (four times a day) and should not be used; *daily* is preferred. The Joint Commission does not state a preference with respect to *HS* versus *bedtime*; however, ISMP lists this on the error-prone list because it is often confused with *half-strength* and, in general, these abbreviations should be avoided.

7. Answer: D

Responses to editorials of between 300 and 750 words are suitable for placement opposite the editorial (or op-ed piece). Letters to the editor can be used to respond to editorials, but they receive less visibility and generally should be fewer than 250 words. The school board would appreciate the support. Ideally, however, the pharmacist's comments should reach the same readership as the newspaper's original editorial. Sending them to the school board would not achieve this.