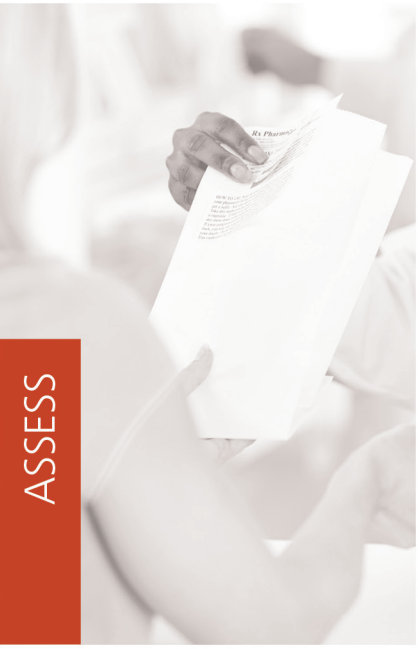
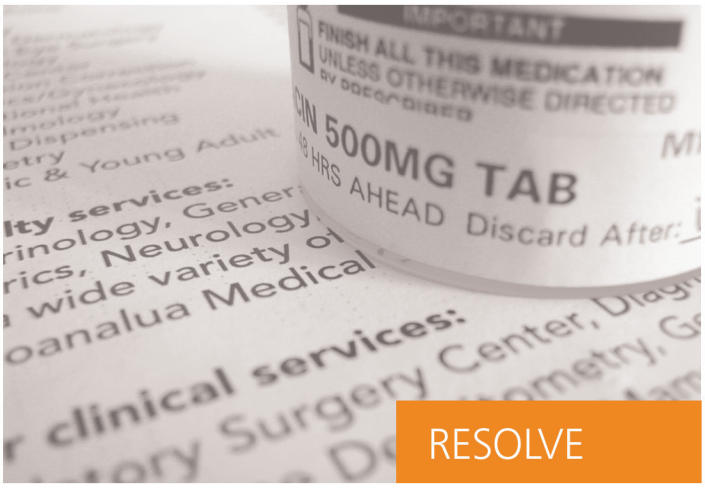


Medication Adherence

educators toolkit



American Association of Colleges of Pharmacy AACP
Discover • Learn • Care: Improve Health

NCPA
NATIONAL COMMUNITY PHARMACISTS ASSOCIATION

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Table of Contents

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About the Toolkit

Background

Since its inception in November 2004, the Joint Commission of Pharmacy Practitioners (JCPP) Future Vision for Pharmacy Practice charges pharmacists as the health care professionals responsible for providing patient care that ensures optimal medication therapy outcomes by the year 2015. Pharmacists must be able to assist patients in achieving and maintaining adherence to their medication(s) in order to contribute to achieving this vision. In order to ensure this vision is carried forward, student pharmacists need to be prepared to enter into practice with the knowledge, skills, and attitudes to respond to and improve patient medication adherence.

The National Community Pharmacists Association (NCPA) is working to show that by 2015, actions taken by community pharmacists will result in demonstrable improvement in patient medication adherence rates. To accomplish this goal, NCPA launched the Pharmacists Advancing Medication Adherence (PAMA) initiative. An element of PAMA is to collaborate with pharmacy academia by working with the American Association of Colleges of Pharmacy (AACP) to produce efforts to develop graduates that embrace pharmacists' role as medication adherence counselors.

AACP institutions and members are committed to providing student pharmacists with relevant education, practice, and research information related to medication adherence. AACP has demonstrated its commitment to medication adherence in multiple ways. This includes being a committed partner of the National Consumers League's Script Your Future national campaigns, designed to increase awareness of medication adherence, as well as being one of the three sponsors of the first Script Your Future Advocacy Challenge in 2011, which engaged student pharmacists in the Script Your Future campaign and raised public awareness about adherence as a critical health issue.

Toolkit Development Process

In 2012, NCPA launched a joint initiative with AACP to help identify current teaching strategies to prepare student pharmacists to detect, monitor, and improve medication adherence in pharmacy practice. The partnership began with a joint challenge to the schools and colleges of pharmacy to propose innovative medication adherence tools currently in use or development. A summary of submission and and winning entries can be found on the NCPA and AACP Web sites.

To build upon the tools received through the challenge, NCPA hosted a half-day adherence symposium at AACP's 2012 Annual Meeting. As part of this symposium, participants had the opportunity to contribute their ideas and recommendations to aid in the development of the Medication Adherence Educators Toolkit. A special Advisory Committee was formed to assist in the compilation and review of the toolkit in Fall 2012.

The best practices and resources presented in this toolkit have been divided into one of four categories:

- Assessing Medication Adherence
- Improving Medication Adherence Through the Use of Aids
- Empowering Patients to Improve Medication Adherence
- Resolving Barriers to Medication Adherence

Assessing Medication Adherence

Pill Count Exercise

This activity is easy to do and gives students the opportunity to document their own medication adherence and learn first-hand how medication adherence can change due to a variety of external factors. Additionally, it serves as a great interprofessional teaching and learning opportunity.

Required Resources

- Gelatin caps, mints, jelly beans, or other candy to serve as medication
- Pharmacy vials and labels
- Medication monographs
- Patient profiles and prescriptions (Appendix A and B)
- Daily medication log (Appendix C)
- Instructor and assistants to help facilitate the activity

Optional Resources

Medication management forms (examples at www.mymedschedule.com and www.scriptyourfuture.org)

Description

- To begin this exercise, students are randomly assigned into one of two groups, both of which will receive one or more labeled vial(s) of medications.
- The first group receives 2-3 vials of different-colored medications with basic instructions for use and a medication monograph.
- The second group receives 2-3 pharmacy vials of different-colored medications with instructions for use, a medication monograph, and a medication counseling session with the instructor(s).
- Students are provided with a daily medication log to document the dose times and their food/beverage consumption over the course of the assignment designated by the instructor.

Challenges/Barriers

- Cost of the candy medications
- Student self-reporting
- Time needed to document who is receiving the different vials and track pill counts
- Time needed to distribute medications and provide refills
- Time needed to analyze results
- Adequate number of instructors and assistants to help facilitate the activity

Additional Activities

These additional activities can be added to enhance the learning experience for students:

- Surprise Pill Count: Choose a random day when students are asked to present their vial(s) to someone sitting next to them in class for a surprise pill count. Student evaluators record the following and submit to the instructor: Name of student being evaluated, name of the student completing the pill count, and number of pills counted.
- Refill Requests: Students are asked to send an e-mail to the instructor for a refill when they run out of their medication. Based on the initial days supply, the instructor can assess if the patient was adherent to the medication.
- Use of Adherence Aids: For instructors who are able to conduct this activity over a longer period of time, switch a random group of students at week 6 to use a medication reminder tool such as a pillbox.

- Food Interactions: Provide students with a list of foods that qualify as interacting foods with the medications they received and ask them to review the list with their food/beverage consumption over the course of the activity and identify any drug/food interactions.

Interprofessional Application

By partnering with medical students, student pharmacists have the opportunity to demonstrate the role of pharmacy in patient medication adherence to their future medical colleagues.

- Medications are dispensed by third-year pharmacy students to second-year pharmacy students and medical students serving as patients. The patients are counseled on their new prescriptions by the third-year pharmacy students.
- During the next five days, the second-year pharmacy students and medical students attempt to adhere to the medication regimen and record their medication adherence and observations in a medication log.
- Students meet in interdisciplinary groups to discuss ways that pharmacists and physicians can work together to improve medication adherence.

Feedback/Measurement

The following ideas represent additional mechanisms that facilitate feedback and assessment about the activity:

- Ask students to keep a daily log of their daily medication use and food/beverage consumption. Students should reflect on potential reasons for non-adherence and identify reasons that caused them to either be adherent or non-adherent. See Appendix C for daily medication log.
- Have students complete a pre- and post-survey that assesses their anticipated difficulty versus actual ability to adhere to the complex medication regimen. See Appendix D for sample pre- and post-survey questions.
- Have students write a reflective paper about the experience. See Appendix E and F for assignment and grading rubric.
- Following the activity, discuss with the students the issues related to medication adherence, including practical examples of their personal experiences during the activity.

Medication Non-Adherence Assessment

This exercise allows students to perform a medication adherence assessment on a mock patient and prepare an original script that can be performed during a counseling session with the patient.

Required Resources

- Mock patients (students, instructors, or actors)
- Sample patient profiles and prescriptions (Appendix A and B)
- Tips for assessing potential medication non-adherence (Appendix G)
- Scripting your adherence dialogue worksheet (Appendix H)
- Instructor and assistants to help facilitate the activity

Optional Resources

- Videotaping equipment (for feedback and evaluation)

Description

- Ask students to form pairs and identify one student as the pharmacist and the other as the patient.
- Provide each pair of students with a sample patient profile that includes a variety of medications and dosage forms (Appendix A and B).
- The pharmacist should review the patient's profile and identify potential reasons for a history of non-adherence.
- The pharmacist should prepare to conduct a non-adherence assessment on the patient in the case. See Appendix G for assessment tools and examples of open-ended questions.
- Using these tools, the pharmacist should create an original script dialog to assess the patient's non-adherence. See Appendix H for a sample worksheet.
- Pharmacists use the script to perform a non-adherence assessment and counseling session with the patient.

Challenges/Barriers

- Time required by faculty to review each assessment to provide feedback
- Adequate number of instructors and assistants to help facilitate the activity
- Quality and effectiveness of peer evaluators' critiques

Additional Activities

The activities below can be added to enhance the learning opportunity for students:

- Ask students to complete a Rapid Estimate of Adult Literacy in Medicine, Revised (REALM-R) to assess patient literacy, which can be found at www.adultmeducation.com.
- Ask students to conduct a medication history with the patient and incorporate the medication adherence assessment into this task.
- Integrate patient counseling into the exercise by asking the patient about his/her history of medication non-adherence and counseling on new medications assigned to the patient.

- Integrate techniques of motivational interviewing and other communication skills into the counseling session after they have been demonstrated in the course.
- Videotape the sessions for later evaluation.
- Incorporate this activity into a real-world setting as part of students' APPE rotations. Ask the student to identify a set number of patients in an ambulatory care or community pharmacy setting with medication adherence challenges, and then have them conduct an assessment, provide interventions, and track interventions to assess long-term medication adherence.

Feedback/Measurement

The following ideas represent additional mechanisms that can be incorporated into the activity in order to facilitate feedback:

- The pharmacist could complete a self-evaluation form and the patients could fill out an evaluation form for the pharmacist. See Appendix I for a sample evaluation form.
- Small group discussion
- Classroom discussion that includes possible intervention strategies to improve patient medication adherence

Improving Medication Adherence Through the Use of Aids

Utilizing Technology to Improve Medication Adherence

This activity is similar to the Pill Count Exercise but incorporates the use of medication reminders (e-mail, phone or text), along with medication adherence aids.

Required Resources

- Gelatin caps, mints, jelly beans, or other candy to serve as medication
- Pharmacy vials and labels
- Sample patient profiles and prescriptions (Appendix A and B)
- Daily medication log (Appendix C)
- Instructor and assistants to help facilitate the activity
- Pill boxes and/or compliance packages

Description

- Students are provided with a 30-day medication regimen with one or more medication(s).
- Students are randomized into three groups:
  - No aids or reminders
  - Medication reminder (e-mail, phone call, or text)
  - Adherence aid (pillbox, compliance packaging, etc.).
- All students will be asked to bring their medication containers or medication adherence aids to class on week four to perform a pill count and record medication adherence in a log.

Challenges/Barriers

- Cost of the medications, vials, and refill reminders
- Cost of compliance packaging/aids
- Cost of integrating technologies
- Ability of students to utilize technologies
- Student self-reporting
- Time needed to randomize student groups
- Time needed to analyze results
- Adequate number of instructors and assistants to help facilitate the activity

Technology Integration

Technology can be incorporated in the following ways to enhance the students' learning experience.

- Text (SMS) and e-mail medication reminders
- Adherence applications available on both smartphones and tablet computers
- Free medication adherence apps available on Apple® devices (list may not be exhaustive; other apps may be available):
  - Dosecast – iTouch®, iPhone®, iPad® (https://itunes.apple.com/us/app/dosecast/id365191644?mt=8)
  - MedCoach – iTouch®, iPhone®, iPad® (https://itunes.apple.com/us/app/id443065594?mt=8)
  - Pill Monitor – iTouch®, iPhone®, iPad® (https://itunes.apple.com/us/app/pill-monitor-free-medication/id485247638?mt=8)
  - CARE4TODAY™ – iTouch®, iPhone®, iPad® (https://itunes.apple.com/us/app/care4today/id517069748?mt=8)

- Free medication adherence apps available on Android® devices (list may not be exhaustive; other apps may be available):
  - Dosecast – Android® 1.6 and up (https://play.google.com/store/apps/details?id=com.montunosoftware.dosecast)
  - MedCoach – Android® 2.2 and up (https://play.google.com/store/apps/details?id=com.greatcall.medcoach&feature=also_installed)
  - RxCase Minder® – Android® 1.5 and up (https://play.google.com/store/apps/details?id=com.meenx.rxcase.main&feature=also_installed)

Additional Activities

The activities below can be added to enhance the learning opportunity for students:

- Adherence applications on the Web and for smartphones are constantly changing. Students can be asked to research (individually or in teams) various medication adherence technology applications, compare and contrast their features, and make recommendations regarding the applications they would recommend for specific patients.

Interprofessional Application

This activity could incorporate any number and types of students (i.e., medical, nursing).

Feedback/Measurement

The following ideas represent additional mechanisms that can be incorporated into the activity in order to facilitate feedback:

- Have students complete a pre- and post-survey that assesses their anticipated difficulty versus actual ability to adhere to the complex medication regimen. See Appendix D for sample pre- and post-survey questions.
- Have students write a reflective paper about the experience. See Appendix E and F for assignment and grading rubric.
- Classroom discussion

Evaluation of Medication Adherence Aids

This activity allows students to evaluate a variety of medication adherence aids and create an adherence plan for a patient case based on available adherence aids.

Required Resources

- A variety of medication adherence aids such as daily, weekly, and/or monthly pill boxes with different features; pill containers for narcotics; syringe holders for pre-filled syringes; pill splitters; and other adherence aids
- List of commercially available medication adherence aids (Appendix J)
- Case studies (Appendix K)
- Instructor and assistants to help facilitate the activity

Description

- Students break up into small groups (4-5 students) and take one box full of medication adherence aids along with a booklet of other medication adherence aids that are commercially available. See Appendix J for list of aids.
- Students receive a worksheet with case studies to be completed by the group. See Appendix K for case study worksheet.
  - Students identify potential source(s) of non-adherence and review the adherence aids available to them.
  - Students select and justify the most appropriate adherence aid for each case.
  - Students also identify four medication adherence aids useful in the ambulatory care population. They must justify the reason they feel these are useful aids and the patient population that would benefit the most.

Challenges/Barriers

- Cost of purchasing medication adherence aids
- Appropriate space and classroom set up needed for students to convene in groups to review medication adherence aids and discuss responses to questions

Technology Integration (Optional)

Technology can be incorporated in the following ways to enhance the students' learning experience.

- An electronic version of this activity can be developed where students can view the aids online and choose the correct medication adherence aid to use with specific patient cases.
- This activity can be constructed via cloud-based apps and surveys (e.g., Google Docs™) that can then be uploaded to a spreadsheet/database.

Feedback/Measurement

The following ideas represent additional mechanisms that can be incorporated into the activity in order to facilitate feedback:

- In a group discussion, students can evaluate the advantages and disadvantages of different medication adherence aids and how they might use a patient-centered approach to selecting the most appropriate aids for specific patients.

Development of a PILL Card

This activity allows students to create a PILL Card to help patients better understand when and how to take their medication(s).

Required Resources

- Instructions and tips for creating an effective PILL Card (available at www.ahrq.gov/qual/pillcard/pillcard.htm)
- Sample patient profiles and prescriptions (Appendix A and B)
- Sample PILL Card (Appendix L)
- Instructor and assistants to help facilitate the activity

Description

- Each student is provided with instructions and tips for creating a PILL Card.
- Each student receives a patient case containing at least two different medications (including dose, route, directions, etc.).
    - Cases can be designed from simple to complex so that first-year to third-year pharmacy students will have the skills needed to complete.
    - More drug interactions can be introduced with complex cases so that students will carefully think about the placement of a dose.
- Students use clip art and easy-to-understand language to create an effective PILL Card for the patient.
- Faculty can choose to have students e-mail the completed card.

Challenges/Barriers

- Time needed to prepare cases
- Time needed to analyze PILL Card results and provide feedback
- Adequate number of instructors and assistants to help facilitate the activity

Technology Integration (Optional)

Technology can be incorporated in the following ways to enhance the students' learning experience.

- Students can share completed cards via Google Docs™ so edits and comments can be made in real-time.

Feedback/Measurement

The following ideas represent additional mechanisms that can be incorporated into the activity in order to facilitate feedback:

- Faculty can provide feedback on the PILL Card submitted by each student.

Empowering Patients to Improve Medication Adherence

Script Your Future Campaign

This activity allows students completing an IPPE or APPE experience to leverage the resources developed by the National Consumers League's Script Your Future campaign to assist patients in becoming more adherent to their medication(s).

Required Resources

- IPPE/APPE rotation sites
- Patients
- Computer/tablet with internet access

Description

- Script Your Future is a campaign of the National Consumers League (NCL), a private, non-profit organization founded in 1899. As an advocacy organization, NCL is working to educate consumers and key health stakeholders on the importance of taking medication as directed.
- Students completing IPPE or APPE experiences can bring the Script Your Future Campaign to their rotation site.
- A centerpiece of the multi-year campaign is a Web site, www.ScriptYourFuture.org, which provides tools to support patient efforts to adhere to their prescribed medicine.
- Tools include free text message reminders, sample questions, medication lists and charts to keep track of medicines, and fact sheets on common chronic conditions such as diabetes, asthma, and high blood pressure.

Challenges/Barriers

- Time needed to navigate the Script Your Future Web site and decide which tools to use with the patient.
- Identifying IPPE/APPE sites to partner with on this initiative.

Technology Integration (Optional)

Technology can be incorporated in the following ways to enhance the students' learning experience.

- Set up a laptop or iPad® with access to the Script Your Future Web site and have patients create a pledge to take their medications.
- Assist patients in setting up an online medicine reminder through the Script Your Future Web site.

Feedback/Measurement

The following ideas represent additional mechanisms that can be incorporated into the activity in order to facilitate feedback:

- Students can complete a reflection of their Script Your Future Campaign experience. See Appendix F for grading rubric.

SMART Patient Goal Setting

The SMART (Specific, Measurable, Attainable Relevent, Time Sensitive) goal model has been used by corporations and businesses and can be effectively applied to health care to increase medication adherence.

Required Resources

- Sample patient profiles and prescriptions (Appendix A and B)
- SMART goal model worksheet (Appendix M)
- Health action plan (Appendix N)
- Words to watch (Appendix O)
- Adherence aids for medication adherence solutions
- Instructor and assistants to help facilitate the activity

Optional Resources

- Videotaping equipment (for feedback and evaluation)

Description

- Ask students to form pairs and identify one student as the pharmacist and the other as the patient.
- Provide each pair of students with a patient case that includes a variety of medications and dosage forms (Appendix A and B).
- The pharmacist is responsible for obtaining history from the patient, counseling on the pertinent medication, and addressing medication adherence.
- Pharmacists are also provided with several medication adherence tools such as pill boxes, medication cards, and medication organizers. The most appropriate tools are chosen based on the patient's needs.
- The pharmacist uses the SMART goal worksheet to work with the patient to develop a SMART goal that avoids confusing words or phrases. See Appendix M for SMART goal model worksheet and Appendix O for examples of words/phrases to avoid.
- The pharmacist documents the medication adherence SMART goal on a health action plan for the patient to take home. See Appendix N for a sample health action plan.

Challenges/Barriers

- Patients' understanding of SMART goals
- Cost of purchasing medication adherence aids
- Adequate number of instructors and assistants to help facilitate the activity

Interprofessional Application

The SMART goal model can be used not only by pharmacists but other health care professionals and therefore may warrant use as a tool for interprofessional education, specifically with nursing and medical students during clinical rotations.

Feedback/Measurement

The following ideas represent additional mechanisms that can be incorporated into the activity in order to facilitate feedback:

- Each one-on-one session could be videotaped to provide additional opportunity for students to self-reflect.
- The pharmacist could complete a self-evaluation form and the patients could fill out an evaluation form for the pharmacist. See Appendix I for a sample evaluation form.
- Instructors could review and provide feedback on videotaped sessions and SMART goal model worksheets.

Resolving Barriers to Medication Adherence

Patient Physical Limitations Affecting Medication Adherence

This lab activity allows students to experience first-hand several physical impairments to medication adherence, including limited mobility, limited vision, and dyslexia.

Required Resources

(See Appendix P for example photos)

- Pill box
- Gloves
- Lab goggles with stickers
- Illegible prescription labels
- Instructor and assistants to help facilitate the activity

Description

- This activity utilizes affordable solutions to simulate real-world barriers encountered by patients.
- Students are divided into small groups, assigned a particular case, and experience the limitations that could prevent a patient from being adherent to their medication regimen. These limitations include:
  - Complex medication regimen with arthritis: Students have to wear work gloves while filling their pill box.
  - Limited vision (cataracts or macular degeneration): Students wear lab goggles that have been obstructed with stickers that limit their field of vision and make it difficult for them to see.
  - Dyslexia: The prescription labels were designed with various font sizes, letters that were put backwards, and some letters that were put out of order to simulate a patient with dyslexia who has to read a prescription label.
- The students review the case, fill a pill box, and simulate the impairment.

Challenges/Barriers

- Cost of purchasing required resources
- Adequate number of instructors and assistants to help facilitate the activity

Additional Activities

The activities below can be added to enhance the learning opportunity for students:

- Introduce students to the social and cultural barriers to medication adherence by presenting a short video series entitled "Unnatural Causes" before beginning the activity. Available at www.unnaturalcauses.org/episode_descriptions.php.

Feedback/Measurement

The following ideas represent additional mechanisms that can be incorporated into the activity in order to facilitate feedback:

- Group discussion

Interprofessional Application

This activity could incorporate any number and types of students (i.e., medical, nursing).

Medication Adherence Detection and Intervention

This experiential learning activity allows pharmacy students to identify non-adherent patients and to develop a strategy to address the underlying cause of each patient's non-adherence.

Required Resources

- Real patients
- Adherence assessment questions (Appendix G) or evidence-based assessment tool (DRAW® tool, etc.)
- Instructor and assistants to help facilitate the activity

Description

- Ask students to identify five patients who are non-adherent to medication.
- Students should be instructed to speak with the patient to assess non-adherence and identify the source of non-adherence.
- Preceptors can provide a video simulating a patient assessment for non-adherence to give students an example of what to expect.
- Preceptors review the findings and work with students to create a solution to the issue of non-adherence.

Challenges/Barriers

- Access to real patients

Feedback/Measurement

The following ideas represent additional mechanisms that can be incorporated into the activity in order to facilitate feedback:

- Preceptors review the findings and work with students to create a strategy to improve the underlying cause of the patient's non-adherence.
- Ask students to present one individual patient case in a group discussion with other students on rotation and discuss the various barriers to medication adherence and the interventions developed by the student and preceptor.

Interprofessional Application

This activity could incorporate any number and types of students (i.e., medical, nursing).

- Students and preceptors can use the findings from the patient interview to communicate concerns with other health care providers.

Communicating Effectively with Patients

While communication and patient counseling skills may be covered elsewhere in the curriculum, this interactive exercise teaches effective communications techniques to help pharmacy students communicate more effectively with patients on the topic of medication adherence.

Required Resources

- Sample patient profiles and prescriptions (Appendix A and B)
- Sample patient-pharmacist interaction (Appendix Q)
- Instructor and assistants to help facilitate the activity

Optional Resources

- Videotaping equipment (for feedback and evaluation)

Examples of Communication Techniques

- Teach Back Technique (see Appendix R for techniques)
- The Indian Health Service (IHS) interactive counseling techniques

  (available at www.ihs.gov/healthcommunications/documents/toolkit/Tool9.pdf)

Description

- Ask students to form pairs and identify one student as the pharmacist and the other as the patient.
- Provide each pair of students with a script illustrating an example of a patient-pharmacist interaction. See Appendix Q for a sample script.
- Ask the pair to read the script as written. Then, take a few minutes to suggest ways the conversation could have been conducted differently.
- Provide each pair of students with a second patient case (Appendix A and B) that features a patient receiving a prescription for a new complex therapy.
- Ask the pharmacist to counsel the patient on the new therapy using effective communication techniques.

Challenges/Barriers

- Coordinating with communication course(s) in the curriculum
- Adequate number of instructors and assistants to help facilitate the activity

Additional Activities

The activities below can be added to enhance the learning opportunity for students:

- Students and preceptors can use the findings from the patient interview to communicate concerns with other health care providers.

Feedback/Measurement

- The sessions can be videotaped for later evaluation.
- The pharmacist could complete a self-evaluation form and the patients could fill out an evaluation form for the pharmacist. See Appendix I for a sample evaluation form.
- Group discussion

Applying Cultural Sensitivity

A patient's cultural influences may influence their health care decisions and behavior and ultimately their health outcomes. This lab activity teaches students how to communicate effectively with patients who may have different cultural beliefs or Limited English Proficiency.

Required Resources

- Patient profile and sample prescription (Appendix S and T)
- Instructor and assistants to help facilitate the activity

Optional Resources

- Videotaping equipment (for feedback and evaluation)

Description

- Ask students to form pairs and identify one student as the pharmacist and the other as the patient.
- Provide each pharmacist with a copy of the patient profile and sample prescription in Appendix T.
- Provide each patient with a copy of the patient profile in Appendix S, and indicate if they should use patient scenario A, B, or C.
- Ask the pharmacist to counsel the patient on the medications he/she is picking up.

Challenges/Barriers

- Access to video recording equipment
- Coordinating with communication course(s) in the curriculum
- Adequate number of instructors and assistants to help facilitate the activity

Additional Activities

The activities below can be added to enhance the learning opportunity for students:

- The sessions can be videotaped for later evaluation.
- The pharmacist could complete a self-evaluation form and the patients could fill out an evaluation form for the pharmacist. See Appendix I for a sample evaluation form.

Feedback/Measurement

- Group discussion

Appendices

Appendix A: Sample Patient Profiles and Prescriptions

(For Pharmacist Use)

Sample Patient Profile 1

Name Mike Monroe

Date of Birth 01/01/1957

Address 555 Happy Lane
Tucson, AZ 85704

Phone 123-456-7890

Case Summary	The patient is a 55-year-old man with hypertension (high blood pressure) and type 2 diabetes. He has been a long-time customer of this pharmacy. He is here to pick up refill prescriptions for his diabetes, which has not been well controlled and also presents a new prescription for a burning sensation in his feet.
History of Present Illness	Has been seeing current doctor at the Family Medicine Clinic for 10 years. Health has been stable and feels well. Patient takes no hypertension medicine.
Social History	Patient works a steady job in the classified ad department of the newspaper. His family lives far away, and he only has a few close friends nearby. He likes to watch TV and tend his vegetable garden.
Family History	Patient's father died of a heart attack. Mother and sister have type 2 diabetes.
Past Medical History	Hypertension and diabetes
New Rx	Desipramine 25mg

Medication List

Today's Date 8/13/13

Medication/Strength	Sig	Qty	Day Supply	Original Rx Date	Date Picked Up	Refills remaining
Metformin 500MG	1 PO BID	60	30	1/16/13	08/13/13 (Most Recent)	2
Glyburide 5MG	1 PO q AM	30	30	3/30/13	08/13/13	2
Glyburide 5MG	1 PO q AM	30	30	3/30/13	06/28/13	3
Metformin 500MG	1 PO BID	60	30	1/16/13	05/21/13	3
Glyburide 5MG	1 PO q AM	30	30	3/30/13	05/20/13	4
Glyburide 5MG	1 PO q AM	30	30	3/30/13	04/02/13	5
Metformin 500MG	1 PO BID	60	30	1/16/13	03/31/13	4
Metformin 500MG	1 PO BID	60	30	1/16/13	1/18/13	5

Supersize Health Center
123 Main Street Big City, Upstate 12345
(123) 456-7890

℞

Name: Mike Monroe
Phone: 123-456-7890
Address:
555 Happy Lane
Tucson, AZ 85704

Date: 08/13/13
DOB: 01/01/1957

Prescription:

Desipramine 25mg
1 PO q HS

Ima Doctor, MD

Dispense as written

Substitution permissible

DEA#: _____

NPI# _____

Appendix A: Sample Patient Profiles and Prescriptions

(For Pharmacist Use) – Continued

Sample Patient Profile 2

Name	Max Bennett	**Date of Birth**	07/26/1955
Address	858 Tumbleweed Way Las Vegas, NV 89183	**Phone**	702-555-5555

Case Summary	The patient is a 57-year-old man with CAD (STEMI 3 months ago). Prior to that, he was only diagnosed with dyslipidemia, uncontrolled, and HTN, controlled. He presents to the pharmacy today to pick up his monthly refills and brings in a new prescription for sildenafil.
History of Present Illness	He moved to Nevada from Oklahoma 12 months ago, and is seeing a physician at a local family medicine clinic in Las Vegas. He had his heart attack in Oklahoma when he was visiting family 3 months ago. He has visited his PCP twice since he returned to Nevada, last month and the month before that.
Social History	Patient does not drink or smoke. Patient works as a clerk for a collection agency, where he typically sits at a desk. He does not currently exercise, and eats mostly fast food for breakfast and lunch, home-cooked meals for dinner. He lives with his girlfriend. All his family lives in Oklahoma.
Family History	Patient's father died of a heart attack at 54, had Type 2 DM. Patient's mother is alive at 76 and has HTN. Patient's brother is alive at 53, had an MI at 45, and has Type 2 DM
Past Medical History	Dyslipidemia, CAD, HTN.
New Rx	Sildenafil 50mg

Medication List

Today's Date: 1/15/13

Medication/Strength	Sig	Qty	Day Supply	Original Rx Date	Date Picked Up	Refills remaining
Atorvastatin 20mg	1 PO daily	30	30	11/5/12	12/17/12	9
Metoprolol succinate 25mg	1 PO daily	30	30	11/10/12	12/17/12	2
Aspirin 325mg	1 PO daily	30	30	11/10/12	12/17/12	2
Atorvastatin 20mg	1 PO daily	30	30	11/5/12	11/20/12	10
Metoprolol succinate 25mg	1 PO daily	30	30	11/14/12	11/20/12	3
Clopidogrel 75mg	1 PO daily	30	30	11/14/12	11/20/12	3
Aspirin 325mg	1 PO daily	30	30	11/14/12	11/20/12	3
Atorvastatin 20mg	1 PO daily	30	30	11/5/12	11/5/12	11
Hydrochlorothiazide 25mg	1 PO daily	30	30	1/16/12	11/11/12	2
Atorvastatin 10mg	1 PO daily	30	30	1/16/12	9/10/12	3
Hydrochlorothiazide 25mg	1 PO daily	30	30	1/16/12	9/10/12	3

Supersize Health Center
123 Main Street Big City, Upstate 12345
(123) 456-7890

℞

Name: Max Bennett **Date:** 1/14/13

Phone: 702-555-5555 **DOB:** 07/26/1955

Address:
858 Tumbleweed Way
Las Vegas, NV 89183

Prescription:

Sildenafil 50mg i PO 1hr prior to sexual activity; MR x1 in 24hrs

#10

NR

Ima Doctor, MD

Dispense as written

Substitution permissible

DEA#: _____

NPI# _____

Appendix A: Sample Patient Profiles and Prescriptions

(For Pharmacist Use) – Continued

Sample Patient Profile 3

Name	Cindy Allen	**Date of Birth**	02/24/73
Address	34 Cherry Lane Anytown, USA 22222	**Phone**	123-456-7890

Case Summary	The patient is a 39-year-old female with hypertension (high blood pressure) and type 2 diabetes.
History of Present Illness	Patient recently saw her physician and comes in with a new prescription for her diabetes medication.
Social History	Patient has a full-time job as a second-grade teacher at the local elementary school. She lives at home with her husband and 3 children—ages 3, 5, and 7.
Family History	Patient's husband has type 2 diabetes.
Past Medical History	Hypertension and diabetes.
New Rx	Metformin 500mg

Medication List

Today's Date 8/13/13

Medication/ Strength	Rx Number	Sig	Qty	Day Supply	Original Rx Date	Refills remaining	Price
Lisinopril 10MG	4598823	1 PO QD	30	30	1/05/13	5	$10.00
Metformin 500MG	4436111	1 PO QD	30	30	11/13/12	3	$10.00
ASA(Aspirin) 81MG	4356129	1 PO QD	100	100	09/24/12	2	$3.99
Metformin 500MG	4321017	1 PO QD	30	30	08/24/12	2	$10.00

Supersize Health Center
123 Main Street Big City, Upstate 12345
(123) 456-7890

℞

Name: Cindy Allen
Phone: 123-456-7890
Address:
34 Cherry Lane
Anytown, USA 22222

Date: 08/13/13
DOB: 02/24/73

Prescription:

Metformin 500mg
1 tab PO BID, #60
2 refills

Dr. Best, MD

Dispense as written

Substitution permissible

DEA#: _____
NPI# _____

Appendix B: Detailed Patient Profiles

(For Patient Use)

Patient Profile 1

Name	Mike Monroe	**Date of Birth**	01/01/1957
Address	555 Happy Lane Tucson, AZ 85704	**Phone**	123-456-7890

Case Summary	You are a 55-year-old man with hypertension (high blood pressure) and type 2 diabetes. You have been a long-time customer of this pharmacy. You are here to pick up a refill for a prescription for his diabetes, which has not been well controlled.
Social History	You work a steady job in the classified ad department of the newspaper. Your family lives far away, and you only have a few close friends nearby. At home, you like to watch TV and tend your vegetable garden.
Emotional Tone	You are a 55-year-old middle class Caucasian male/female. You are cooperative, but not overly forthcoming with answers and questions. You feel pretty healthy. You have mixed emotions about picking up your diabetes medication. You have a doctor's visit coming up soon, and the doctor has asked you to do a lot of things that you haven't done yet, like increase exercise, decrease salt intake, lose 5-10 pounds, and stop smoking. You are a little bit worried about your diabetes.
Beginning of Encounter	In response to the opening question (i.e. What brings you in today?)
Your Response	I guess I need to refill my diabetes medication.
History of Present Illness/Complaint	You can't remember exactly when you were diagnosed with diabetes and hypertension. You have been seeing your current doctor (whom you generally like) at the Family Medicine Clinic for 10 years. Your health has been stable and you feel well. You take no hypertension medication.
Lifestyle/Habits	• Diet and alcohol: You have a full-time job, so you eat take-out food about 3 times per week. Your go-to take-out place serves lots of pasta. Once in a while, you have a glass of wine – about 1 per week. • Exercise: Not much, though you have been lately by walking 3 blocks to work every day. • Smoking: You smoke 1 pack/day for the last 20 years. • Caffeine: You drink 1 cup of regular coffee with cream in the morning. • Hobbies/Interests: Add personal experiences here. You also like to watch TV and tend your vegetable garden.

If the pharmacist asks:

1) **A closed question (i.e. Are you taking your medicines?)**

   Your response: Yes.

2) **A more open-ended question (i.e. How do you take your medicines?)**

   Your response: I'm supposed to take two tablets twice a day.

3) **About your medication adherence (i.e. I'm worried that you're not getting enough diabetes medicine to last you through the month.)**

   Your response: Well, sometimes I am a little late picking up my refills.

4) **Why you are late picking up your refills.**

   Your response: I really don't like this medicine. When I first started taking it, it upset my stomach. I couldn't even eat with it. I stopped taking it and my doctor thought that it wasn't working so he prescribed me with an even higher dose! Sometimes I try to start taking it again, but it's a disaster. I always forget in the morning because I'm rushing out the door trying to get to work.

5) **What you think or how you feel about your diabetes.**

   Your response: I know I should be worried about my diabetes. My numbers aren't good, my sugars are high. I don't want to end up like my aunt – she lost her vision to diabetes.

6) **Whether you're willing to try some things that might help you take your medicines better.**

   Your response: Sure, I guess it couldn't hurt.

Appendix B: Detailed Patient Profiles

(For Patient Use) – Continued

Patient Profile 2

Name	Max Bennett	**Date of Birth**	07/26/1955
Address	858 Tumbleweed Way Las Vegas, NV 89183	**Phone**	702-555-5555

Case Summary	You are a 57-year-old man with high blood pressure and high cholesterol. You had a heart attack 3 months ago and were treated at a hospital in Oklahoma while visiting family. You are coming in today to pick up your monthly refills and to fill a new prescription.
Social History	You have a job as a clerk for a collection agency, a desk job. You don't drink or smoke. Your diet is mostly fast food and fried foods. You don't really watch what you eat. You enjoy watching history documentaries, reading about history, and building model airplanes. You live with your girlfriend, who is also from Oklahoma, and who moved out to Nevada with you for your job.
Family History	Father died of a heart attack. Mother has high blood pressure. Brother had a heart attack and has type 2 diabetes.
Past Medical History	High blood pressure, high cholesterol, heart attack
History of Present Illness	You had a heart attack 3 months ago and were treated at a hospital in Oklahoma. You got some prescriptions which you filled here when you got back home. You visited your PCP last month and the month before and he did not tell you to change anything about your medications.
Emotional Tone	You are a 57-year-old middle class Caucasian male. You are dry and straight-forward with your responses. You feel okay for your age. You sound/appear more educated than the average patient, but you have no healthcare background. You are not too concerned about the heart attack because you have little stress in your life and your brother lived through one.
Lifestyle/Habits	- Exercise: No regular exercise. - Smoking: No tobacco history. - Caffeine: One cup of black coffee in the morning. - Hobbies/Interests: You like history, reading books, and watching documentaries of historical accounts, and build model airplanes in your spare time.

When asked what you take this new prescription for:

Your response: I having problems in the bedroom getting an erection. I have not had this problem before my heart attack. (Prescription was written a month ago; if asked why you waited until now to fill it, it is because you wanted to see if things would improve without having to take the little blue pill).

When asked what kind of problems you are having remembering to take medicine:

Your response: I typically take all of my medication every day. I have a daily alarm on my cell phone to remind me to take my medicines.

When asked why you are not taking the hydrochlorothiazide anymore:

Your response: The heart doctor in the hospital told me not to take it anymore. I confirmed this with my PCP 2 months ago.

When asked why you are not taking the clopidogrel anymore:

Your response: I was getting a lot of bruises on my arms and legs, even when I didn't bump into anything. I knew this medicine could make me bleed, and I didn't feel like it was safe to take it anymore. (May give this information if further probing questions asked: Stopped taking it 1 month ago, did not tell PCP).

When asked if you are having problems or experiencing side effects from your other medications:

Your response: Apart from the clopidogrel, I feel really tired throughout the day since I started the new medicines a few months ago. My trouble in the bedroom started around that time as well.

Appendix C: Daily Medication Log

Instructions

Start on the date that you begin the exercise (e.g., start on line 20 if you begin on 10/20). Record the time you take your morning medications and your evening medications. Leave the time column blank if you forget to take your dose. Record whether you consumed food within 2 hours before or 2 hours after your medication dose, and if so, jot down a brief description of what you ate. Use the last column to take any other notes which might relate to your adherence patterns such as your mood or events that may have caused you to forget to take your medicines.

Calendar Date	Time morning dose taken	Was food consumed within 2 hours before or after the dose? (If yes, describe)	Time evening dose taken	Was food consumed within 2 hours before or after the dose? (If yes, describe)	Other notes regarding medication taking
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					
# of doses taken			# of doses possible		

Appendix D: Sample Survey Questions (Pre- and Post-)

1. **How difficult do you think adhering to this medication regimen would be for your patients?**
   a. Not difficult
   b. Somewhat difficult
   c. Difficult
   d. Very difficult

2. **How difficult would it be (was it) for you to adhere to this medication regimen?**
   a. Not difficult
   b. Somewhat difficult
   c. Difficult
   d. Very difficult

3. **What would you rate the complexity of this medication as:**
   a. Not at all complex
   b. Somewhat complex
   c. Complex
   d. Very complex

What are some suggestions you have that would help someone with their ability to adhere to this medication regimen?

Appendix E: Reflective Writing Assignment

During this exercise, you are asked to track how adherent you are with your medications. You may want to track this in a chart or on a calendar. You are expected to miss doses – after all, this is a real-life learning exercise, so just keep track of how you do and jot down the reason why you missed the dose.

At the conclusion of the exercise, you will be asked to write a reflective paper about the experience. The paper should be 2-3 pages, double-spaced and should address the following questions:

- How difficult was it to follow the regimen?
- Calculate your medication adherence rate for each medication by taking the amount of drug ingested divided by the amount you should have ingested and multiply by 100.
- How successful do you consider yourself to have been in adhering to the medication regimen?
- How many days did you miss doses?
- How memorable do you expect this experience to be in the future?
- Did you use any tools (e.g. aids) to help you remember to take the prescriptions?
- Did anything make this assignment difficult?
- What lessons, if any, did you learn from this exercise?

The reflective paper will be graded using the Reflective Writing Rubric (Appendix F). Please review the criteria before writing your reflection.

Appendix F: Reflective Writing Rubric

Skills Demonstrated	Exceeds expectations	Meets expectations	Does not meet expectations
Introduction: Provides an introduction to the experience; sets the context within which the experience took place; lays out main points to be covered	(11-8 pts.)	(7-4 pts.)	(3-0 pts.)
Thesis: Is clear and focused; indicates writer's overall impression of the experience	(5-4 pts.)	(3-2 pts.)	(1-0 pts.)
Summary: Provides a brief summary of the experience	(11-8 pts.)	(7-4 pts.)	(3-0 pts.)
Body: Explains clearly and thoroughly the writer's first impression as well as how and why that impression did or didn't change throughout the experience; explains what the reader learned from the experience	(15-11 pts.)	(10-4 pts.)	(3-0 pts.)
Reaction: Explains clearly and thoroughly how the writer reacted to the experience	(8-6 pts.)	(5-3 pts.)	(2-0 pts.)
Organization: Follows an appropriate organizational scheme (e.g. chronological, least important to most important, etc.)	(8-6 pts.)	(5-3 pts.)	(2-0 pts.)
Supporting Information: Contains specific description of and examples from the experience to support the writer's Impression	(15-11 pts.)	(10-4 pts.)	(3-0 pts.)
Paragraphs: Start with a topic or transitional sentence; contain only information relevant to the paragraph's main idea	(8-6 pts.)	(5-3 pts.)	(2-0 pts.)
Conclusion: Presents final thoughts on the topic, including how the writer will apply what he/she has learned from the experience; answers, so what?	(8-6 pts.)	(5-3 pts.)	(2-0 pt.)
Editing and Proofreading: Demonstrates careful reading and correcting of awkward sentences, as well as grammar and punctuation errors	(11-8 pts.)	(7-4 pts.)	(3-0 pts.)

Total points available: 100 points

Your points: / 100 = _____% = _____ letter grade

Appendix G: Assessing Potential Adherence Problems

Subjective Evidence

1. **During patient counseling or interview, look for pink or red flags.**

   Red Flags
   I don't see why I have to take this anyway.
   I hate to have to take medicines.

   Pink Flags
   *I'm **supposed** to take it three times a day.*
   *My doctor **wants** me to take it three times a day.*
   *The doctor **says** I should take it three times a day.*

2. **Use a direct probe or universal statement during visit interview**

   Direct Probe
   What kind of problems have you had remembering to take your medication?

   Universal Statement
   Most of my patients have some difficulty remembering to take their medications. What kind of problems have you had remembering to take your medication?

3. **Look for different dose than labeled during 'show and tell' counseling on refills.**
   Immediately probe for how the patient is actually taking their medication and why the difference from the label

4. **Look for controversy over accuracy of subjective information.**

Objective Evidence

1. **Look for evidence within the patient profile/refill record.**
   a. Eyeball estimation method
   b. Medication Possession Ratio (MPR)

$$\text{MPR} = \frac{\text{Number of days in the time period}}{\text{Number of days worth of medications picked up during that time}}$$

   c. Patient only picks up one of several chronic medications

2. **Look for changes in prescriptions/new prescriptions.**

   Suspect issues when:

   - New medication for same disease
   - Increase in dose of existing chronic medication
   - New medication used to treat a complication of chronic disease (e.g. ACEI in patients with diabetes)
   - New medication used to treat a potential ADR from current chronic medication (e.g. Phenergan Expectorant with Codeine for ACEI cough)

4. **Conduct a physical pill count.**

5. **Look for change in disease control.**

6. **Monitor drug serum levels.**

Action Steps if Adherence Problems Detected

Pink/Red Flags

Reflective response and follow up
Sounds like you are not sure about the medicine (dose)?
So you are taking a half a tablet instead of a whole one?

Objective Evidence Found

Use Supportive Compliance Probe
I noticed that you didn't get your Beclomethasone inhaler refilled today or on your last visit and I'm concerned that there might be a problem

Sample Interview Questions for Structured Interview to Screen for Causes of Non-Adherence

- How often have you missed a dose in the last week?
- What side effects have you had from your medication?
- How do you get your prescriptions from the pharmacy? (for elderly or disabled patients)
- What system do you use to manage your medications?
- Medications can be very expensive. How do you manage to pay for medications?
- How are your medications helping you?

Appendix H:
Scripting Your Adherence Dialogue Worksheet

Use this worksheet to think about how to formulate patient-centered, non-judgmental, conversation with your non-adherent patient.

Opening the adherence discussion: You suspect that your patient is non-adherent. In what ways can you assess whether or not the person is adherent? How can you open up a discussion about medication adherence? What will you say?	
Assessing relevant barriers to medication adherence: What potential barriers to adherence is this specific patient likely to have? How will you assess those barriers and what tools can you use? What questions will you ask?	
Promoting medication adherence and achieving patient buy-in: Are there any important counseling points you'd like to highlight that might encourage the patient to take their medications?	
Formulating the medication adherence plan: What potential strategies can be employed to support the patient's adherence? How will you introduce these strategies to the patient? What will you say?	
Wrapping up the session: How will you know that the patient understands the adherence plan? What types of questions or phrases will you use to close the session?	

Appendix I: One-on-One Communication Evaluation

Name of Pharmacist: _____

Evaluation Criteria	Points Earned (8/section)	Comments
Verbal & Nonverbal Communication Skills • Clear • Appropriate tone • Appropriate body language • Congruent message		
Listening Skills • Asks open-ended questions • Waits for response • Does not interrupt • Provides feedback • Addresses needs		
Empathetic Responding • Demonstrates empathy • Nonjudgmental • Provides feedback		
Organization • Uses consistent thought process • Uses suggested format • Demonstrates appropriate time allocation		
Participation Style • Acts professionally • Maintains enthusiasm/interest • Provides constructive opinion/comment • Addresses medication adherence		

Total Score (out of 40)

Appendix J:
List of Commercially Available Adherence Aids

This list can be downloaded at www.ncpanet.org/pdf/adherence/adherence_aids.pdf.

Appendix K: Case Studies

Objectives: (1) To identify various educational and behavioral reasons why certain patients may not adhere to their regimen.

(2) To select an appropriate method to improve a patient's medication adherence given his/her specific needs and concerns.

Part I. Identifying Sources of Non-adherence

The following two patients walk into your pharmacy. You check their medication profiles and identify they are both late in picking up the medication(s) being requested. Before you assess the patient's situation, your preceptor asks you to identify three or more questions that you might ask the patient to learn the patient's reason(s) for non-adherence. These questions should be tailored based on the patient's age, physical and mental health, work situation, home situation, and type of medication regimen. Please work in groups of 4-5 students, and you need only complete one handout per group.

1. An elderly man wearing thick glasses comes into the pharmacy and asks you for a refill of two of his medications. You look on his medication profile and see several routine medications. He says, with some confusion, he thinks one is to get rid of water and the other one is for pain. You see from his list that he is taking hydrochlorothiazide (a diuretic that helps eliminate fluid). You are not sure what medication on his list is for pain but when you mention the arthritis medication Celebrex, he says that's it.

2. A young obese woman in a business suit rushes into the pharmacy and says she has little time to wait for her mood stabilizer (lithium 300 mg three times a day) since she has to get to the airport for a brief trip to Columbus. She accidentally drops her bag and her little boy's toy cars and little girl's broken Barbie spill out. She appears flustered when picking them up. She then receives a call on her cell phone, and you hear her telling her secretary to complete some papers so she can quickly sign them before she heads to LA in two days. She gets off the cell phone and smiles when you give her the medication. She looks at her month's supply of 90 tablets and jokingly says half out the door I sometimes think these things do more harm than good.

Part II: Adherence Aids: Tailoring To Patient-Specific Needs

3. Using the different reminder systems available, how would you help the elderly man and young woman if the questions you developed previously led you to discover certain sources of non-adherence. Given the scenarios of the elderly man and young woman, identify one or two reminder systems that might help each overcome two likely sources of non-adherence and why you chose these systems.

4. Your preceptor gives you a box (or list) of reminder systems and needs your help in picking out four systems the pharmacy will choose to stock (has limited space and cannot stock all of them). Why did you pick the systems you did, and which populations do you think each of the selected reminder systems will benefit the most?

Appendix L: Sample PILL Card

Sample Pill Card for:
AL Resident

Created: May 1, 2008
Pharmacy phone: 222-222-2020

Name	Used For	Instructions	Morning	Afternoon	Evening	Night
○ Furosemide 20 mg	Fluid reduction	Take 2 pills in the morning and 2 pills in the evening	○ ○		○ ○	
Simvastatin 20 mg	Cholesterol reduction	Take 1 pill at night				
Insulin 70/30	Diabetes (blood sugar)	Inject 24 units before breakfast and 12 units before dinner	24 units		12 units	

Source: How to create a PILL Card (Agency for Healthcare Research and Quality) www.ahrq.gov

Appendix M: SMART Goal Model Worksheet

SMART Goals

1) Specific
2) Measurable
3) Attainable
4) Relevant
5) Time-Sensitive

Work in small groups of 4-5 to develop patient goals for medication adherence for one patient in your patient case. How will the patient attain these goals in specific, measurable, attainable, relevant, and time-sensitive terms?

Specific

What specific goal are we trying to accomplish for this patient regarding medication adherence, and how will it be accomplished?

- 5 W's: Who, What, Where, When, Why, How

Measurable

How can you measure if the patient has reached his/her medication adherence goal? List at least two measurements.

- Are the goals quantifiable? (i.e. How many pills are remaining at the end of 30 days?)

Attainable

Is this goal achievable for the patient?

- The resources and tools to assist the patient in reaching their goal are available, explained, and understood by the patient.

Relevant

Is this goal in alignment with the patient's other goals and desires?

- Discuss with the patient what achieving this goal will help them do (live longer, feel better, have fewer hospitalizations, etc.) and why they feel it is important.

Time-Sensitive

What timeframes have been set up for the patient to complete this goal?

- Assist the patient in setting a target date for achieving medication adherence to all medications prescribed.
- Time frame must be realistic to the patient.

Source: Gregory, A. SMART Goal Setting 101 [page on internet]. About.com [homepage on internet]. Updated 2012. Accessed 20 September 2012. Available from: http://sbinformation.about.com/od/startingabusiness/a/smart-goal-setting.htm.

Appendix N: Health Action Plan Worksheet

Health Action Plan Worksheet

Complete one of these forms for each goal you have agreed to include in your action plan. Use this information to write the draft text for your action plan. Note: This form can be used for plans to build on existing strengths as well as for addressing problems.

<table>
<tr><td>Goal?</td><td rowspan="2">Actions. (What must be done to achieve the goal?)
1.
2.
3.
4.
5.</td><td rowspan="2">Time-Frame (for implementation of each action)
1.
2.
3.
4.
5.</td><td>Who should be responsible for ensuring that the goal is achieved?</td></tr>
<tr><td>Justification: Why is this a goal?</td><td>Who else needs to be involved?</td></tr>
<tr><td>What has already been done or is currently being done to address the problem or achieve the goal?</td><td>What information is needed to achieve the goal?</td><td>What resources are needed to achieve the goal?</td><td>What obstacles might interfere with the successful achievement of this goal?</td></tr>
<tr><td colspan="4">What would success in achieving the goal look like?</td></tr>
</table>

IDEELS Simulation Document – Prepared by Janet Sutherland, Ph.D.

Appendix O: Words to Watch

Medical Word Examples: Words frequently used by doctors and in health care instructions.

Problem Word	Consider Using
Ailment	Sickness, illness, problem with your health
Benign	Will not cause harm; is not cancer
Condition	How you feel; health problem
Dysfunction	Problem
Inhibitor	Drug that stops something that is bad for you
Intermittent	Off and on
Lesion	Wound; sore; infected patch of skin
Oral	By mouth
Procedure	Something done to treat your problem; operation
Vertigo	Dizziness

Concept Word Examples: Words used to describe an idea, metaphor, or notion.

Problem Word	Consider Using
Active role	Taking part in
Avoid	Stay away from; do not use (or eat)
Collaborate	Work together
Factor	Other thing
Gauge	Measure; get a better idea of; test (dependent on context)
Intake	What you eat or drink; what goes into your body
Landmark	Very important (adj.) Important event; turning point (n.)
Option	Choice
Referral	Ask you to see another doctor; get a second opinion
Wellness	Good health; feeling good

– continued –

Appendix O: Words to Watch

– Continued

Category Word Examples: Words that describe a group or sub-set, and may be unfamiliar.

Problem Word	Consider Using
Activity	Something you do; something you do often, like driving a car
Adverse (reaction)	Bad
Cognitive	Learning; thinking
Hazardous	Not safe; dangerous
High-intensity exercise	Use an example, such as running
Generic	Product sold without a brand name, like ibuprofen (Advil is brand name)
Noncancerous	Not cancer
Poultry	Chicken, turkey, etc.
Prosthesis	Replacement for a body part, such as a man-made arm
Support	Help with your needs – for money, friendship, or care

Value Judgment Word Examples: Words that may need an example or visual to convey their meaning with clarity.

Problem Word	Consider Using
Adequate	Enough *Example (adequate water): 6-8 glasses a day*
Adjust	Fine-tune; change
Cautiously	With care; slowly *Example: making sure to hold on to handrails*
Excessive	Too much *Example (bleeding): if blood soaks through the bandage*
Increase gradually	Add to *Example (exercise): add 5 minutes a week*
Moderately	Not too much *Example (exercise): so you don't get out of breath*
Progressive	Gets worse (or better)
Routinely	Often *Example: every week; every other day*
Significantly	Enough to make a difference
Temporary	For a limited time; for about (an hour, day…)

Excerpted from National Patient Safety Foundation's Ask Me 3™ Words to Watch Fact Sheet. For full document and additional resources, visit www.npsf.org.

Appendix P: Examples of Adherence Barriers

Dyslexia Label

Visual Impairment Goggles

Appendix R: Teach Back Techniques

Understanding the Medication

Here are some examples of open-ended questions to use when discussing medications with a patient:

- Tell me in your own words how you will take this medicine at home.
- When you get home, how many pills will you take? What time will you take them?
- What are some of the side effects to watch for with this medicine?
- What should you do if the side effects become severe?
- Tell me when you should refill this prescription.
- Please show me how you will use the _____ (glucose meter, inhaler, etc.).
- When during the day should you take your medicine?
- Because you have to take several of these pills, what will you do if you miss one of your doses?
- When is the best time for you to monitor your blood sugar level? Show me how you will do that.
- Please tell me how many other medicines you are currently taking and when you take them during the day.

Cautions

Be aware of, and try to avoid, these common mistakes when using the Teach Back technique:

- Quizzing the patient at the end of the conversation
- Using medical jargon, highly technical terms, or language that you think the patient may have difficulty understanding
- Appearing rushed, annoyed, or bored during these efforts
- Asking patients questions that require only a simple yes or no answer, such as
  - Do you understand?
  - Do you have any questions?
  - Do you know how to use this device?
  - Do you know when to take this medicine?

Source: The Teach Back Technique: Communicating Effectively with Patients (developed as an educational resource by Merck)

Appendix Q:
Interactive Exercise (Teach Back Technique)

Read through the background and sample conversation below, and write down some of the changes that would make the conversation more interactive with the patient.

Background

Mrs. Miller was brought to the emergency room after suffering a hypoglycemic episode. She is a 50-year-old overweight woman who has had type 2 diabetes for three years. She has a history of poor glucose control. Below is an example of a conversation between the hospital pharmacist and Mrs. Miller at her discharge.

Pharmacist: I am concerned about managing your glucose levels. Do you understand how important it is for you to adequately monitor your blood glucose once you get home?

Mrs. Miller: Yes.

Pharmacist: How will you take your medication?

Mrs. Miller: I will take 2 pills a day.

Pharmacist: Yes. Make sure to measure your blood in the morning and before bed. Do you understand?

Mrs. Miller: Yes.

Pharmacist: Make sure to take your medicine on time, and keep on top of monitoring your glucose levels. Control of your glucose levels is very important.

Mrs. Miller: I understand. Is there anything else I can do to help keep my diabetes under control?

Pharmacist: Diet and exercise are very important. Any more questions? Do you understand everything we talked about?

Mrs. Miller: I think so.

Suggestions for Improvement

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_____

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Source: The Teach Back Technique: Communicating Effectively with Patients (developed as an educational resource by Merck)

Appendix S: Patient Profile and Prescription

(For Patient Use)

Scenario:

You are in a consultation booth of a community pharmacy. You are waiting to meet the pharmacist. You dropped off the new prescription and refill earlier in the day. The new prescription is for Lipitor, to help improve your cholesterol. The refill is for an antipsychotic, olanzapine.

The student will ask several general questions about name, address, and phone number, date of birth, allergies, current medication, and over-the-counter medications (including herbal medicines or folk and cultural/traditional medicines). If you are given Scenario A, you should respond to each one a little more slowly than how you usually talk. When asked for a piece of background information such as telephone number, address, or date of birth, provide wrong information such as a dummy social security number or how old you are or something irrelevant to the question.

If the student indicates that he/she doesn't have some of your medications on his/her profile, you can indicate that you get those other prescriptions filled elsewhere. You can fill in with the remaining general questions with either your actual information or made-up information.

NEW Prescription (Lipitor)

If the student asks what is the new medication for?

Scenario A: (Look like you don't understand what the student is asking; respond slowly and deliberately) My English is not too good.

Scenario B: My doctor says it is a cholesterol problem.

Scenario C: Too many yummy foods.

If the student asks how do you take the medication?

Scenario A: (Look like you are going to take the medication and leave) Thank you very much.
If student tries to explain in English, keep staring at them confused and nodding at everything the student says.

Scenario B: Yeah, he says I take it with my food and change my diet. I'm not sure I can do that. I'm (insert cultural group of choice that makes sense based on your own ethnicity- if African-American, you can insert Creole; if you are Caucasian, you can insert Spanish or some European language; if you are Asian, you can insert an Asian language). I'm not sure I believe in this whole cholesterol idea anyway. We believe a certain amount of fat and extra weight is needed to survive and live fully.

Scenario C: I think she said once a day.

Appendix S: Patient Profile and Prescription

(For Patient Use) – Continued

If the student says what were you told to expect from the medication?

Scenarios A: (Look confused, shrug your shoulders) I'm sorry. Don't speak English.
If student tries to explain in English, look away. Continue to nod at everything the student says. If student shows clocks and uses symbols, you can seem as though you understand by smiling and showing you get it by saying Yes. Ok.

Scenario B: Better cholesterol. But I have to tell you, I think some things are more serious than high cholesterol.

Scenario C: Not much, just confusing. I don't really want these pills since I don't want to give up my ethnic foods which contain delicious fried foods. No point in taking this stuff since doctor says diet and pills go hand in hand. I am not going to give up the foods I love and enjoy with my family. I am just picking these up because my sister says it is a good idea to have them on hand if I have chest pains and need one. Anyway, the good Lord will take care of me and such medicines are not needed.

If the student says do you have any questions?

Scenario A: Someone speak (insert language of choice that makes sense based on your own nationality- if African-American, you can insert Creole; if you are Caucasian, you can insert Spanish or some European language; if you are Asian, you can insert an Asian language)?

Scenario B: Is there really a problem if I stop this medicine once my cholesterol gets better? Will I have to take this for the rest of my life? We believe taking medicines for a long time can affect the soul and its preparation for the next life.

Scenario C: Ask a question about how many hours you should separate the medication from eating meats and sour cream.
If the student does NOT ask if you have any questions, please do not ask questions. In general, do NOT volunteer any information not specifically ASKED.

REFILL Prescription (olanzapine)

If the student asks you what the olanzapine is for:

Scenario A: You can shrug your shoulders. Look confused or just smile.

Scenarios B/C: Whenever I feel out of sorts.

If the student asks you how you were told to take the medication:

Scenario A: Shake students hand since you think it's the end of the consult.

Scenarios B & C: I think once a day.

If the student asks you what kind of problems you are experiencing with the medication:

Scenario A: (Laugh/giggle)

Scenarios B/C: The medication slows me down so the CIA can catch me.

Appendix T: Patient Profile and Prescription

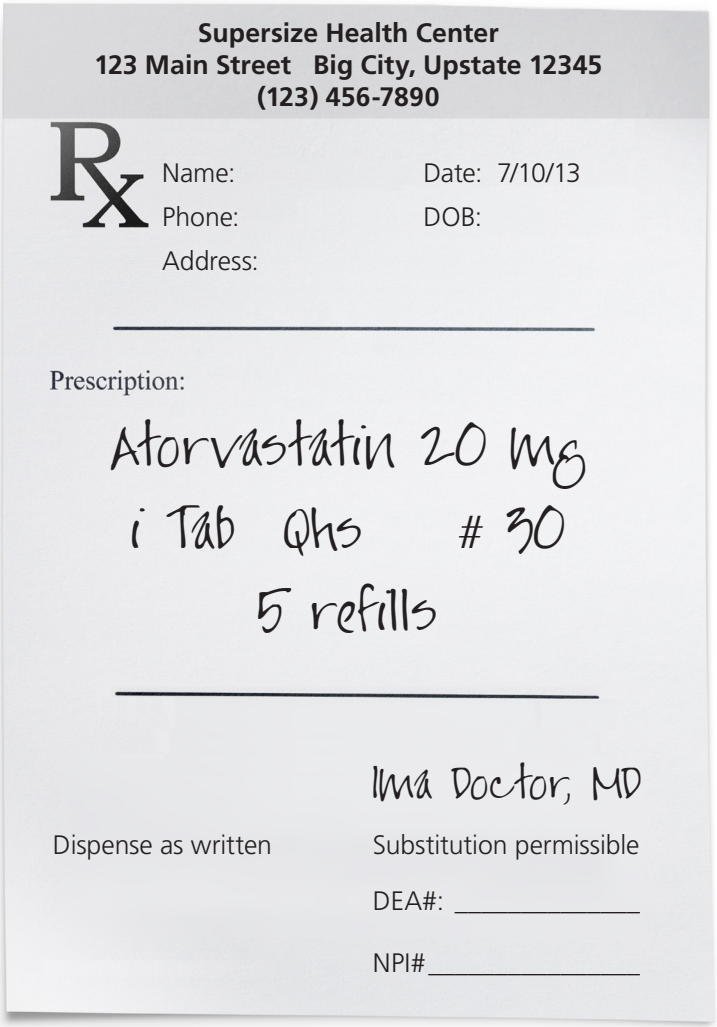
(For Patient Use)

Scenario

You are a practicing pharmacist in a community pharmacy. The individual is picking up a new medication for atorvastatin 20 mg and a refill for olanzapine 20 mg. The patient submitted the new prescription and refill request earlier in the day and is now in a consultation booth waiting to pick up the medication. You should assume that the technician has not had a chance to collect all of the patient's background information. In addition to the prescription on this sheet, you have the patient information sheets on atorvastatin and olanzapine available.

PATIENT MEDICATION PROFILE

Date	Rx#	Medication Name	Strength	Qty	Directions	Refills Left	Prescriber
07/10/13	216783	Olanzapine	20 mg	30	1 QHS	2	JS
05/25/13	216783	Olanzapine	20 mg	30	1 QHS	3	JS
04/03/13	216783	Olanzapine	20 mg	30	1 QHS	4	JS
03/02/13	216783	Olanzapine	20 mg	30	1 QHS	5	JS



Supersize Health Center
123 Main Street Big City, Upstate 12345
(123) 456-7890

℞

Name: Date: 7/10/13

Phone: DOB:

Address:

Prescription:

Atorvastatin 20 mg
1 Tab Qhs # 30
5 refills

Ima Doctor, MD

Dispense as written Substitution permissible

DEA#: _____

NPI#_____

HELPFUL RESOURCES

- Banahan III BF, Bunniran S, Bynum LA, Holmes ER. Implementing a New Prescription Synchronization Program That Positively Influences Patient Medication Compliance. American Pharmacists Association. March 2011. Seattle, WA.
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