Medication Adherence Practice Module

February 2022

Implementation of Quality Improvement Initiatives to Improve Diabetes and Hypertension

Funding provided by the Pennsylvania Department of Health through the Improving the Health of Americans Through Prevention and Management of Diabetes and Heart Disease and Stroke federal grant from the Centers for Disease Control and Prevention. Publication number PADOH-HD-020922

Quality Insights

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Purpose of Module

This module provides a high-level overview of evidence-based information related to medication management and adherence. It is designed to promote and supplement your current quality improvement efforts.

Sections are highlighted using the medication adherence ABCs:

- **Assessment**
- **Barriers**
- **Care Teams and Communication**

Note: Guidelines referenced in this module are provided in brief, summary format. Full recommendations should be reviewed in the original publication(s) and utilized with physician/clinician judgment, treatment, and based on individual patient's unique needs and circumstances.

Medication Adherence: An Invisible Obstacle

Medication nonadherence is a problem that has a great impact on patients, providers, and the health system in the United States. The well-documented evidence is clear:

- One-fourth of new prescriptions are never filled. (Kleinsinger, 2018)
- Even when filled, adherence rates for most medications for chronic conditions such as diabetes and hypertension are only 50-60 percent. (Kleinsinger, 2018)
- Up to 25 percent of hospitalizations each year are related to medication nonadherence, costing the American health care system up to $300 billion. (Sullivan, 2020)
- An estimated 125,000 deaths per year are attributable to medication nonadherence. (Kleinsinger, 2018)

Despite these statistics, medication nonadherence is largely an invisible problem, unlike better-known causes of death such as heart attack or cancer. According to an article by Fred Kleinsinger, MD, published in *The Permanente Journal*:

"…Medication nonadherence is usually invisible to patients, their families, and the medical profession. It does not appear on the death certificate of a patient who has died of a myocardial infarction after not taking his antihypertensive medication or an antiplatelet agent to protect his stent…Practicing physicians remain largely unaware of this problem. To the extent they do, they see it as the patient's responsibility to correct this problem."

Medication Nonadherence Video

Watch patients describe their experiences with medication nonadherence in this video from the American College of Physicians, *We Didn't Ask: They Didn't Tell*.

The American Heart Association's (AHA) policy statement on medication adherence (2021) acknowledges that nonadherence is one of the greatest challenges faced by medical providers in the management of chronic illness; however, it is often not directly addressed primarily due to time constraints.

How then can busy medical providers address medication adherence without adding to their already pressing time burden? This practice module aims to provide workflow modifications, practical strategies, and tools to assist with improving patients' medication adherence to promote better outcomes by adopting the medication adherence ABCs outlined in this module: Assessment, Barrier Identification, and Care Team and Communication.

Assessment

The AHA defines adherence as the "active, voluntary, and collaborative involvement of the patient in a mutually acceptable course of behavior to produce a therapeutic result." **A patient is considered adherent if they take 80 percent of their prescribed medication**. Nonadherence can be intentional or unintentional as classified in the table below.

Characteristics of Intentional and Unintentional Nonadherence	
Intentional (Active)	**Unintentional (Passive)**
Side effects	Forgetfulness
Experience	Lack of understanding
Fear	Cost
Stigma	Underlying disease
Denial	Health literacy
Health belief system	Miscommunication

**Source: Medication Adherence: Importance, issues and policy: A policy statement from the American Heart Association (2021)*

Assessing Primary Nonadherence: The Adherence Estimator®

Primary nonadherence, also known as initiation, occurs when a provider prescribes a new medication and the order is never dispensed by the pharmacy or picked up by the patient.

The Adherence Estimator® (paper form also available) is a unique tool that can be easily integrated into practice workflow to assess possible primary nonadherence when discussing a new medication.

The Adherence Estimator® is:

- Validated and patient-centered. Learn more by reviewing this 2009 study titled, *The Adherence Estimator: a brief, proximal screener for patient propensity to adhere to prescription medications for chronic disease.*
- Designed to help gauge a patients' likelihood of adhering to newly prescribed oral medication for certain chronic, asymptomatic conditions.
- Responses to just three brief survey questions provide a score (high, medium or low) indicating the probability of medication nonadherence to a newly prescribed oral medication for certain chronic asymptomatic conditions.

Incorporate the Adherence Estimator® into your workflow in one or more of the following ways:

- Quickly assess adherence at determined intervals by utilizing the online assessment link during medication reconciliation and enter results in a structured data field.
- Print a copy of the Adherence Estimator® for patients to complete in the waiting room or during their office visit. Document results and scan the form to the patient record.

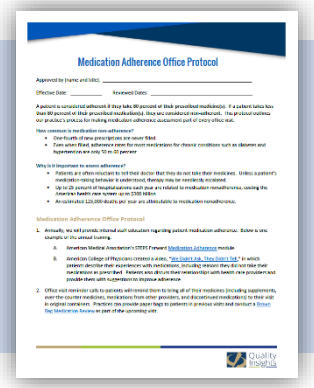
Assessing Secondary Nonadherence

Secondary nonadherence develops over time as a patient misses doses, prematurely discontinues therapy, or takes inadequate amounts of doses required for the desired therapeutic effect. Here are a few strategies to mitigate barriers that may arise due to secondary nonadherence:

- Use pre-visit planning and an enhanced medication reconciliation process.
- Initiate front office staff visit reminder calls to remind the patient to bring all their medicines (including supplements, medications from other providers and discontinued medication) to their visits in their original containers.
- Provide paper bags to patients in previous visits and conduct a Brown Bag Medication Review as part of their upcoming visit.

Medication Adherence Office Protocol from Quality Insights

Quality Insights developed a sample Medication Adherence Office Protocol that incorporates all of the suggestions above for addressing primary and secondary nonadherence. Health care practices can utilize this protocol to enhance practice workflow and patient care.


Medication Adherence Office Protocol

Barrier Identification

Barriers to medication adherence are complex and challenging to identify and mitigate. A 2020 article published in *American Journal of Cardiology* looked at the prevalence and impact of having multiple barriers to medication adherence in non-adherent patients with poorly controlled cardiometabolic disease and found:

- A large proportion of patients with cardiometabolic disease experience multiple barriers to optimal adherence to chronic medications, leading to gaps in adherence compared to those with fewer barriers.
- >30 percent of non-adherent patients have more than two reasons for non-adherence.
- The most common single barrier is forgetfulness, cited by more than 25 percent of patients.
- The study suggested that people may voluntarily suppress recall for activities that make them uncomfortable.
- The most common co-occurring barriers are forgetfulness and health beliefs, in which patients do not believe the medications are important and therefore purposefully do not integrate them into daily routines.
- The study noted that the strongest interventions appear to be those that are multicomponent interventions targeted toward patients' specific barriers based on clinical need and predicted benefit.

Medical Economics Journal also cited forgetfulness and lack of symptoms as barriers to adherence. In addition, it cited cost concerns according to a recent consumer survey:

- High out-of-pocket costs for prescription drugs are a significant barrier for many patients.
- 48 percent of respondents reported not filling a prescription due to cost.
- Even a 10 percent rise in copay increases the likelihood of prescription abandonment by as much as 19 percent.
- One in seven Americans reported they would avoid seeking care for potential COVID-19 symptoms because of cost concerns.

Care Teams and Communication

Communication with patients is key to promoting medication adherence. But it is difficult for an individual physician to manage this given the time demands of busy practices. Other health care workers (such as nurses, medical assistants, and case managers) or disease management programs can help fill the gaps to support patients and providers. Recruiting and extending the care team not only shares the work; it also emphasizes the importance of medication adherence to patients.

Examples of ways care teams can collaboratively promote medication adherence are provided in a 2018 Healthcare Communication article, *The Unmet Challenge of Medication Adherence*:

- Administrative staff can query the EHR to identify patients at risk, such as those with a given diagnosis who have poor control, few visits, or insufficient refills.
- Ancillary staff such as medical assistants can reach out to patients who are nonadherent or who have poor control, encouraging them to make appointments.
- Chronic condition case managers are especially helpful for patients with congestive heart failure or diabetes.
- Integrated or community-based health education, such as:
    - National Diabetes Prevention Program
    - Diabetes Self-Management Education and Support

Engaging a Pharmacist as Part of the Care Team

A 2020 *Research in Social & Administrative Pharmacy* article suggests the contribution of community pharmacists in facilities to manage chronic conditions and promote medication adherence during the COVID-19 pandemic will be essential in easing the burden on already strained health systems.

Incorporating pharmacists in team-based care models increases patient awareness of the importance of medication adherence and further encourages and supports behavior change and self-management of many chronic illnesses and diseases. The expanding role of pharmacists and their position to have greater impact can be reviewed further in the CDC Grand Rounds presentation, *How Pharmacists Can Improve Our Nation's Health*.

Here are three ways pharmacists can add value to your patients and practice:

1. Medication Therapy Management (MTM)

The American Pharmacists Association (APhA) describes MTM as a broad range of health care services provided by pharmacists. A pharmacist may provide MTM services in all care settings (e.g., pharmacies, health care clinics, and community settings) and seek to ensure that the medication is optimal for the patient and that the best possible outcomes from treatment are achieved.

Pharmacists use MTM to help patients get the best benefits from their medications by working with patients to actively manage drug therapies and by identifying, preventing, and resolving medication-related problems.

2. Team-based Care

Because they often work in the local community, pharmacists extend the health care team from the health care setting into the community. Consequently, pharmacists are some of the most accessible health care professionals. Research shows real value in pharmacists' management of diabetes and heart disease, resulting in contained or reduced overall health care costs.

Engaging pharmacists as members of the health care team can help relieve provider workload, increase efficiency and help care team members stay updated on best practices. For initial action steps related to incorporating a pharmacist in your care setting, visit the Primary Care Team Guide website.

The Benefits of Pharmacy-Based Interventions

Community Preventive Services Task Force finds that tailored pharmacy-based interventions to increase medication adherence are cost-effective for cardiovascular disease prevention. When used for cardiovascular disease management, these interventions can lead to a favorable return on investment. The systematic review of economic evidence included 38 studies published through May 2019.

3. Partnering to Provide Optimal Patient Care

Interested in learning more about ways you can work together with a pharmacist to improve patient medication adherence outcomes? The Pennsylvania Pharmacists Association offers an array of resources promoting and advancing MTM in pharmacies statewide. Specifically, the Pennsylvania Pharmacists Care Network (PPCN) is committed to working collaboratively with health care providers. Learn more about potential partnership opportunities and services by visiting the PPCN website.

Teach-Back Method

According to the Institute of Healthcare Communication, patients' perceptions of the quality of the health care they receive is highly dependent on the quality of their interactions with their health care clinician and team.

The connection that a patient feels with his/her clinician can ultimately improve their health, mediated through participation in their care, adherence to treatment and patient self-management.

Teach-Back Works

A November 2020 article published in the *Journal of the American Board of Family Medicine* found that at the one-year follow-up, patients whose care providers used teach-back with them were 20 percent less likely to have diabetes-related health complications, including heart disease

How can we more effectively engage with patients and families?

One evidence-based method to achieve this goal is through **use of the teach-back method**. This communication can be an effective method for healthcare providers to:

1. Ensure they have explained medical information clearly, and;
2. That their patients understand what is communicated to them.

The Agency for Healthcare Research and Quality (AHRQ) offers a suite of helpful resources to assist health care providers and staff in journey to implementing the teach-back method, including:

Care Team Role	Resource	Description
Clinicians	Teach-Back Quick Guide - Full Teach-Back Quick Guide - Pocket	Job aid that contains tips and examples of plain language, which can be handed out as pocket card or posted at workstations.
	Conviction and Confidence Scale	Self-assessment for clinicians to evaluate confidence in using teach-back.
Practice Staff	Teach-Back: A Guide for Staff	Handout that explains the goal of teach-back, the teach-back process, and the role of practice staff in implementation.
	Are You Using Teach-Back? Survey	Short survey for all members of the practice (clinicians and staff) to assess the use of teach-back.
Patients & Families	A Patient's Guide to Teach-Back	Poster, flyer, or handout that explains the goal of teach-back and the patient and family role in teach-back.

The Value of Assessing Health Literacy, Cultural Competency, and Language Barriers

A 2019 article featured in *Harvard Public Health Review* includes three main components to effective communication in the health care setting:

1. Health literacy
2. Cultural competency
3. Language barriers

When any one of these components is compromised, effective communication does not occur.

What is health literacy?

Health literacy is 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.

Source: *Institute of Medicine, Health Literacy: A Prescription to End Confusion, 2004*

Health care literacy is determined by the comprehending ability of the patient and the complexity of the health care system. The health care system has grown increasingly more complex and possesses a high barrier-of-entry with regard to knowledge base. In a single encounter, the health care system demands that patients be aware of a myriad of complex topics (for example, health insurance reimbursement, evidence-based reasoning for diagnoses, acute medical interventions, lifestyle and medication self-management of chronic conditions, etc.). **The ability to comprehend these topics demands a high knowledge base that many patients simply do not have.**

There are a variety of resources available to healthcare providers and staff to help them develop and provide quality health care communications in their clinical setting:

- AHRQ Health Literacy Library: Created to help healthcare professionals and delivery organizations make information easier to understand and systems easier to navigate.
- AHRQ Health Literacy Measurement Tools: Includes a variety of validated screening tools for assessing health literacy.
- CDC Health Literacy Website
- CDC Train Online Course: Culture & Health Literacy: Beyond Access: Discusses how inequalities in health information contribute to unequal treatment and health outcomes for some populations (health disparities) and what communities can do to close the gap and improve health literacy.
- National Network of Libraries of Medicine's (NNLM) recording, *Effective Health Communication and Health Literacy on YouTube*
- NNLM Consumer Health Information in Many Languages Resources
- MedlinePlus Easy-to-Read Health Education Materials
    - Use Medicines Wisely, English and Spanish
    - Use Medicines Safely, English and Spanish

Text Messaging for Increased Patient Engagement

Do you ever get the feeling that patients are ignoring your phone calls? If so, you're not alone. While phone communication may have been the best option in the past, most patients ignore 90% of the phone calls they receive. Practices may leave voice messages if they can't reach the patient by phone, but often times these messages also go unnoticed or unheard.

Utilizing a texting solution can be a convenient option for health care practices and patients alike. Systems can be integrated with the existing patient management system, to make it conducive for providers to keep a record of text messages sent and received with the patient's other medical records. They can also be managed from the practice's desktop computer, making it easy for office staff to see when a text has been received, and respond quickly.

Review these resources for more information:

- 13 Stats on Why Text Messaging Should be Next for Your Practice
- Text Messaging in Healthcare Research Toolkit: Developed by the University of Colorado, this extensive toolkit was developed for medical and health services researchers who are planning to use text messaging as part of a health care intervention.
- Pledge to Take Your Meds Medication Reminder: Patients can sign up on the website to receive medication text reminder messages.
- Learn more about how BPMED text messaging system has been used to improve the quality of medication management through increasing medication adherence in African Americans with uncontrolled hypertension.

Support for Patients: Education and Cost Reduction Resources

Patient Resources

Phone Apps to Improve Medication Adherence

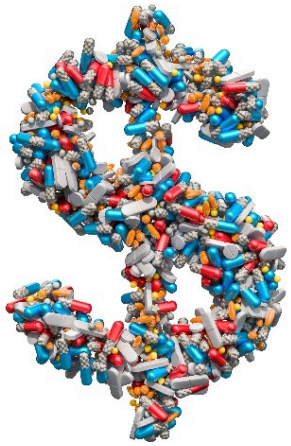
Most patients today have easy access to a smartphone—why not encourage them to use a free medication tracking app to help them manage their medicines at home?

The options below are provided for informational purposes only and do not imply endorsement by Quality Insights.

- Free Apps to Help You Better Manage Your Medicines
- Keep Hypertension Under Control with these Smartphone Apps
- Free Apps to Help You Better Manage Your Diabetes

Medication Cost Reduction Resources

If your patients experience financial challenges affording their medications, consider the following options:



- Coupons for medications
- Increasing the prescription to a 90-day supply instead of 30-day supply, to reduce co-pays
- Checking their insurance plan to see if a mail-order service is covered to prevent trips to the pharmacy (if costly transportation is part of the issue)
- Suggesting other cost-reduction resources, such as:
  - Findhelp.org (formerly Aunt Bertha)
  - United Way 2-1-1
  - Needy Meds
  - Partnership for Prescription Assistance: Medicine Assistance Tool
  - Benefits Checkup
  - Eldercare Locator
  - HealthWell Foundation
  - Family Caregiver Alliance (support and resources for family caregivers of adults)
  - ADCES Affordability Resource: Find detailed information on manufacturer patient assistance programs, cost savings programs, discount cards and more.
  - Insulinhelp.org: An affiliate site of the American Diabetes Association (ADA), this website provides valuable information that helps patients readily identify the type of information they should have available when applying for assistance, contact information for insulin

manufacturers and assistance programs, and outlines manufacturer-specific COVID-19 coverage enhancements. Patients can call **1-800-DIABETES** during normal business hours to receive direct assistance and interpreter service is available.

Script Your Future: Pledge to Take Your Meds

Led by the National Consumers League, Script Your Future is a national initiative to raise awareness about medication adherence, which includes the patient campaign known as "Pledge to Take Your Meds." In partnership with over 130 public and private stakeholder organizations, the campaign offers adherence resources to help patients and the health care professionals who care for them.

Patients can participate in the campaign for free by visiting the website, where they will find easy-to-understand medication adherence resources, including a medication wallet card (available in multiple languages), signing up for medication text alerts and creating their own personal pledge to take their medications.

BeMedWise Program at NeedyMeds: Free Printable Resources

BeMedWise Program at NeedyMeds, formerly the National Council on Patient Information and Education (NCPIE), encourages health care professionals and community groups to foster patient–professional communication about medicines. Visit its extensive patient resource library to access relevant patient medication adherence resources, including:

- Your Medicine. Be Smart. Be Safe.: Available in English and Spanish
- Must Ask Questions: What You Need to Ask Your Healthcare Provider and Pharmacist about Your Medications
- Do's and Don'ts of Medicine Disposal
- Drug Discount Card

Provider Resources: Podcasts & Webinars

Million Hearts® Medication Adherence Tools & Tip Sheets

Get proven strategies and printable guides to help your patients understand the importance of taking their medications as directed from Million Hearts®. Featured resources include:

- Medication Adherence Video: Tips for Taking Blood Pressure Medicines as Directed (available in English and Spanish)
- Improving Medication Adherence for Patients with Hypertension: A Tip Sheet for Health Care Professionals
- Patient Visit Checklist: Supporting Your Patients with High Blood Pressure

CME Webinar: AMA STEPS Forward: Medication Adherence

Learning objectives for this module include defining medication adherence and its importance for patient health, recognizing the importance of developing a routine process for inquiring about medication adherence, identifying top reasons for patients' intentional nonadherence to medications, and explaining the importance of a personalized approach to medication adherence and patient involvement in treatment plans. The American Medical Association (AMA) designates this enduring material activity for a maximum of .50 *AMA PRA Category 1 Credit*™. Access the module here.

Webinar: Working with Pharmacists to Increase Medication Therapy Management

This National Forum for Heart Disease & Stroke Prevention webinar discusses ways to bring physicians, pharmacists, social workers, and public health together to inform, discuss and encourage use of pharmacists in the team-based medication management therapy model and work to identify innovative reimbursement methods. Listen to the recording here.

Webinar: Tackling the Top 5 Barriers to Medication Adherence

In this webinar, Jenny Glennon, PharmD, RPh, will discuss the top struggles with medication adherence in populations and how to use predictive analytics, tailored outreach, patient engagement, and behavior change programs to overcome them. Listen to the recording here.

Podcast: Building Trust to Support Medication Adherence

In an episode of the "AMA Moving Medicine" podcast, AMA Chief Experience Officer Todd Unger is joined by Marie T. Brown, MD, a geriatric and internal medicine specialist at Rush University Medical Center, in Chicago, to talk about creating connections with patients to support medication adherence. Read a transcript of their conversation here.

Medication Adherence Workflow Modifications to Improve Care for Your Patients

Providers and practices who are actively engaged in the Pennsylvania Department of Health's Improving the Health of Americans Through Prevention and Management of Diabetes, Heart Disease, and Stroke program have the benefit of scheduling a no-cost Workflow Assessment (WFA) with a local Quality Insights Practice Transformation Specialist (PTS). WFAs are completed annually and designed to initiate a future state of processes that will move the needle on clinical quality improvement activities.

The following list includes solutions aimed at achieving better patient outcomes in cooperation with the WFA. We encourage you to partner with your Quality Insights PTS to discuss scheduling a WFA and implementing at least ONE of the recommendations listed below. If you are not currently working with a PTS and would like assistance, please email Ashley Biscardi or call **1.800.642.8686, Ext. 137**.

Using the Quality Insights Medication Adherence module as a guide:

Protocol & Workflow Actions

	Review/create a Medication Adherence Office Protocol for hypertension, cholesterol, prediabetes, and/or diabetes.
	Ensure all members of the care team are engaged in medication reconciliation that includes assessment for medication adherence at every visit. Verbally discuss any new changes in medications or regimens.
	Implement use of patient portal and/or text messaging for medication reminders and refills.
	Execute external prescription history search, patient prescription eligibility, and patient-specific formulary check if available via EHR with patient's consent, and review medication adherence.

Practice & Clinical Solutions	
	Recommend smartphone apps for patients to download and use to help them better manage medication adherence, blood pressure, and diabetes. • Free Apps to Help You Better Manage Your Medications • Keep Hypertension Under Control with these Smartphone Apps • Free Apps to Help You Better Manage Your Diabetes
	Implement use of the Medication Adherence Estimator® (print form also available) and suggested patient conversations to enhance medication adherence. Review Quality Insights Medication Adherence Practice Module for more information.
	Urge patients to make a medication adherence pledge. Print out the pledge form and aid patients in designing their own pledge reason(s).
	Engage patients with a medication reminder wallet size card. Print the card and give it to patients.
	Encourage patients to adhere to medications through improved communications practices. Download and distribute AHRQ's Be More Involved in Your Healthcare tip brochure.

Funding provided by the Pennsylvania Department of Health through the Improving the Health of Americans Through Prevention and Management of Diabetes and Heart Disease and Stroke federal grant from the Centers for Disease Control and Prevention.
Publication number PADOH-HD-020822A

American Board of Family Medicine: Performance Improvement

What is ABFM?

The American Board of Family Medicine (ABFM) is an independent, non-profit organization. ABFM is one of 24 medical specialty boards that make up the American Board of Medical Specialties (ABMS). Through ABMS, the boards work together to establish common standards for physicians to achieve and maintain board certification.

Family Medicine Certification

Family Medicine Certification (FMC) is a voluntary continuous process designed to develop important physician characteristics: Professionalism; Self-Assessment and Lifelong Learning; Cognitive Expertise; and Performance Improvement (PI). Quality Insights' *Breast and Cervical Cancer Screening Quality Improvement Initiative* in Pennsylvania, and the *Diabetes and Hypertension Quality Improvement Initiative* in Delaware and Pennsylvania have been approved for 20 credits for the PI component. PI activities demonstrate competence in systematic measurement and improvement in patient care.

What Quality Insights Offers	Your Practice's Responsibilities
✓ Virtual Support ✓ On-going Technical Assistance ✓ Patient Reminder Campaigns ✓ Newsletters ✓ EHR Assistance ✓ Individualized Education ✓ Evidence-Based Workflow Modification Implementation	✓ Participation in Workflow Assessments ✓ Active Communication Between Your Practice and Quality Insights ✓ Implementation of Workflow Modifications ✓ Generate Quarterly and Annual Data

Once the above qualifications are met and data is collected, Quality Insights will then complete the process to award your practice 20 maintenance of certification credits.

If you are interested in participating in the Pennsylvania *Breast and Cervical Cancer Screening Quality Improvement Initiative*, please contact Sarah Toborowski at stoborowski@qualityinsights.org or 800.642.8686 ext. 130.

If you are interested in participating in the Pennsylvania or Delaware *Diabetes and Hypertension Quality Improvement Initiative*, please contact Ashley Biscardi at abiscardi@qualityinsights.org or 800.642.8686 ext. 137.

This publication was supported by the Grant Number NU58DP006290, funded by the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention or the Department of Health and Human Services. Publication number PADOH-CS-110421