Medication Reconciliation in Ambulatory Care Settings: Guide for Health Care Professionals

Introduction

Medication reconciliation is a process that involves a systematic and comprehensive review of all medications a patient is taking with the goal of maintaining an accurate medication list.[1] This guide focuses on medication reconciliation performed in the ambulatory setting during the peri-discharge period to prevent rehospitalization.

- Performing medication reconciliation in the ambulatory setting can prevent medication errors that may impact costs, quality of care, and patient safety, as well as rehospitalization rates.[1-4]
- Poorly executed medication reconciliation can result in adverse effects and impact patient outcomes.[5]
- During medication reconciliation in ambulatory settings the health care professional (HCP)* is looking for discrepancies between the list of medications in the medical record (recorded medications) and what a patient is actually taking, based on an examination of the patient's medication bottles and from the patient's self-report of medications currently being taken (reported medications).[1,5]
- Successful medication reconciliation requires consistent and meaningful engagement of patients and families/caregivers.[1,6]

About This Guide

This guide is intended for HCPs and health care teams involved in delivering patient care in the ambulatory setting during the peri-discharge period—for example, home care, community pharmacy, and ambulatory care clinics—with the goal of preventing rehospitalization. It provides a medication reconciliation framework, addresses the development of standardized workflows, and helps delineate health care team roles and responsibilities in their common efforts to ensure patient safety. Ideally, medication reconciliation should be performed for every patient, regardless of the health care setting. Although this guide focuses on performing medication reconciliation in the ambulatory care setting during the peri-discharge period, the general principles, practices, and recommended approaches can oftentimes—with appropriate adjustments—apply to multiple care settings.

> The patient's total health and needs should always be at the center of standard medication management. Optimized care begins with prescribing the proper medication for a particular indication along with follow-up to determine its effectiveness and to assess for adverse effects.[7]

*An HCP can include physicians, physician assistants, nurse practitioners, pharmacists, and advanced practice nurses when performing medication reconciliation, depending on the organization's policies and procedures.

The Medication Reconciliation Process

Medication reconciliation is one of the more complex components of health care delivery and patient safety. Failing to reconcile medications or doing so poorly is among the most common causes of medication errors that result in adverse drug events (ADEs).[2,7] Proper medication reconciliation during any episode of care—in acute or ambulatory settings alike—can reduce the potential for medication errors during care transitions.[7]

Studies have found great variability in how medication reconciliation processes are designed, implemented, and evaluated in ambulatory care settings. In an effort to consolidate best practices, developing and adhering to a consistent process is important.[6] A structured framework—such as the one outlined in this guide—promotes patient safety by helping physicians and other HCPs document accurate, detailed information about current prescription medications, as well as nonprescription medications and supplements. In addition to this comprehensive and accurate medication list, additional documentation ideally includes whether the patient is taking the medications as prescribed; the time and date of the last dose; the names of prescribing physicians and other HCPs involved in the patient's care; and the sources of medications—for example, local or mail-order pharmacies, the Internet, or foreign countries.[7]

The safest and smoothest medication reconciliation process in ambulatory settings requires the active involvement of a multidisciplinary team of physicians, pharmacists, nurses, and home health professionals as well as ancillary and clerical staff. Although all team members may have access to certain vital information or data to optimize the patient's treatment, physicians are ultimately accountable for medication management. The success of medication reconciliation thus relies on physician leadership and involvement in all phases of the process.[7,8]

The ambulatory medication reconciliation process outlined here provides a standardized, consistent framework for[9]:

Step 1.
Obtaining, documenting, and verifying the patient's current medication list.

Step 2.
Comparing the patient's current medication list to the medication list in the medical record to identify discrepancies.

Step 3.
Confirming and resolving any unintended discrepancies to capture the best possible medication history.

Step 4.
Communicating medication information to the patient and caregiver.

Step 1 Obtain, Document, and Verify the Patient's Current Medication List (Reported Medications)

Obtaining an accurate and up-to-date medication list—that is, the best possible medication history (BPMH) or "one source of truth"—is often challenging. This ultimate goal of the medication reconciliation process requires time and commitment from all parties involved. To begin with, patients should be reminded—for example, via e-mail or phone—to bring their medication list or medication bottles, if they do not have a list, to their appointment.[9]

Along with the names of the medications—including nonprescription medications—the collected information should include strength, dose, frequency, route, known allergies, medication start/stop dates (when known), name of prescribing physician, and dispensing pharmacy.[7,9] Support from nonclinical staff may be needed in identifying and compiling the reported medication list. They can do this by sorting through "brown bags" and by communicating with the patient's family, caregivers, and other physicians or pharmacists to obtain current information. They can also assist with collecting past medication lists and other relevant information from the patient's medical records.[7]

Once the current list of medications has been obtained and documented, it is important to review it in the context of the patient's total health history.[7]

The *My Medicines: Know, Track, and Share the Information* poster and patient brochure can help engage patients in the medication reconciliation process. These actionable resources help patients maintain an up-to-date list of their medicines and share that information during every episode of care.

Step 2 Compare Reported Medications with Recorded Medications to Identify Discrepancies

During health care visits in the ambulatory setting, the list of medications in the medical record (recorded medications) should be carefully compared with the one collected in the previous step (reported medications). This process may reveal potential drug interactions, contraindications, and unintended discrepancies—for example, omissions, changes in dose or frequency, duplications, and deletions. It is essential to apply critical thinking when determining whether identified discrepancies are consistent with the patient's current clinical status and desired plan of care and whether clarification is required.[1,5,9]

Examples of intended discrepancies—that is, discrepancies that are appropriate based on the patient's plan of care—include[9]:

- Antibiotics started for infection
- "As-needed" medications ordered for pain/fever
- Dosing changes made to blood pressure medications due to hypotensive episodes
- Warfarin and aspirin held for a medical or surgical procedure
- Formulary substitutions

Although intended discrepancies typically do not require physician follow-up, other discrepancies that lack clinical rationale and supporting documentation should be flagged for further clarification and resolution by a physician.[9]

The *Medication Reconciliation: Communication Tips* resource provides additional communication strategies and conversation starters for identifying discrepancies that can arise when patients inaccurately or incompletely communicate information. Common reasons for this include[7]:

- Not understanding the value of maintaining a personal medication record
- Not having the resources or ability to maintain a personal medication record
- Inability to actively participate—for example, lack of understanding of their condition or unfamiliarity with or inability to identify medications
- Limited health literacy or cultural barriers

Step 3 Confirm and Resolve Any Unintended Discrepancies to Capture the Best Possible Medication History

For a medication list to be current, complete, and accurate, any unintended discrepancies identified in the previous step have to be evaluated and resolved by a prescribing HCP. At this stage, the prescriber needs to decide what medications to continue, discontinue, or add. To facilitate this decision-making step, the prescriber should[7]:

- Listen to the patient's self-reported experience with medications.
- Identify duplications, look to simplify regimens, and discontinue unnecessary medications.
- Follow clinical practice guidelines that create more standardized regimens for particular diseases.
- Consult with other HCPs to question and clarify any additions or switches to regimens.
- When appropriate, leverage health information technology (HIT) such as electronic health records (EHR) or relevant data feeds (i.e., automated clinical laboratory reporting).

To achieve optimal outcomes, it is essential to engage the patient in the decision-making process pertaining to medications, considering that patients are the one constant in the care continuum. Patient engagement is essential to achieve optimal outcomes. However, the patient's personal goals, preferences, resources, and capacity should factor into determining the scope of their role in medication reconciliation.[7]

All changes to the medication list need to be documented and dated, and the prescriber's name needs to be captured. The resulting list should be centrally located and easily visible within the patient's medical record and act as the reference point during subsequent care.[9]

A Comprehensive Approach

Use the *Medication Reconciliation: Communication Tips* resource to gather meaningful insights from the patient, make better sense of the current medication protocol, and devise a plan to resolve discrepancies. Leverage the *My Medicines: Know, Track, and Share Your Information* patient brochure when patients are starting a new medicine and the *Medication Reconciliation: the Electronic Health Record Guide* to maximize the use of the EHR in facilitating medication reconciliation.

Step 4 Communicate Medication Information to the Patient and Caregiver

Upon resolution of any unintended discrepancies, the reconciled medication list should be provided back to the patient and caregiver. It should contain the following information, captured in the most comprehensive and accessible manner possible[7]:

- Full name of patient
- Date list was created
- Known drug allergies
- Medication name, strength, dose, frequency, and route—including nonprescription medications (over-the-counter products, vitamins, herbals)
- Medication start date(s)
- Name(s) of prescribing physician(s)
- Name(s) of dispensing pharmacy(ies)

At the end of any health care visit, it is essential to establish—for example, by using the "teach-back" method (see Box)—that the patient or family/caregivers understand the updated medication list that resulted from the reconciliation process.[7] The HCP should answer any further questions and provide a number to call should questions arise at a later time. It is important that the patient leave the office with the updated medication list.[7]

To ensure consistent quality of care and continuing treatment optimization, patients should receive an accurate reconciled medication list at every transition of care. Furthermore, they should be encouraged to keep their medication list up-to-date and always carry it to facilitate their medical encounters and pharmacy visits. Future medication prescriptions should be checked against the reconciled medication list for interactions and/or conflicts.[7]

The *Medication Reconciliation: Communication Tips* resource contains "teach-back" strategies to ensure patient and caregiver understanding. Teach-back is a communication technique in which the recipient of the information is asked to restate, in their own words, what they have been told. It has been shown to be especially effective when providing complex information or teaching new skills.

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