



# Medication Reconciliation Toolkit for PerformCare Providers

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# Introduction

The goal of this toolkit is to:

- Provide an overview of the significance of medication reconciliation.
- Assist providers with developing a medication reconciliation process.
- Recommend educational strategies for patients.
- Summarize the need for auditing the effectiveness of a medication reconciliation process.

Medication reconciliation is an important process and essential to reducing the likelihood of medication errors. Medication reconciliation should occur in all care settings, including mental health and substance use inpatient, partial hospitalizations, outpatient treatment settings and substance use rehabilitation. Medication errors are a serious issue and many studies have been completed on this topic in various levels of care; the results are surprising. It is estimated that 1 million medication errors occur each year, contributing to 7,000 deaths.<sup>1</sup> In fact, 22 percent of preventable medication reconciliation errors occur during admissions, 66 percent occur during transitions in care and 12 percent occur during discharge.<sup>2</sup> Clearly, transition times between treatment settings are the most vulnerable time for patients and their caregivers because the focus is often on the next step in care rather than medications. Although “transfers” may not occur as frequently in mental health care, as in physical health care, the likelihood of a medication error occurring in both the admission and discharge process is highly possible without a medication reconciliation process in place. A good medication reconciliation process provides a thorough check of the medication orders to avoid unintended discrepancies and increases communication between the nurse, the patient and the caregiver. Medication reconciliation can be a significant strategy to reduce errors, lower the risk of aversive reactions and decrease the possibility of death.

As a provider in PerformCare’s network, you can make changes in your processes that can help reduce medication errors and improve patient safety. If a provider does not have a medication reconciliation process established, PerformCare encourages the provider to internally discuss how to implement a successful initiative. If a process is in place, this can be an opportunity to review procedures and measure for discrepancies and trends. The intent of this toolkit is to provide useful information to providers, but is not intended to replace current processes.

## Background

The Institute for Healthcare Improvement defines medication reconciliation as “the process of creating the most accurate list possible of all medications a patient is taking — including drug name, dosage, frequency and route — and comparing that list against the physician’s admission, transfer, and/or discharge orders. The goal is to provide correct medications to the patient at all transition points within the hospital.”<sup>3</sup> Medication reconciliation is a major component of safe patient care in any environment. Reconciliation is completed to avoid medication errors, omissions, duplications, dosing errors and drug interactions. To start the process, a comprehensive list of all medications, including prescribed, over-the-counter drugs, dietary supplements and herbals, should be considered because some non-prescribed medications can interfere with prescribed medications.

## Background (continued)

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Similar to individuals with other types of illnesses, those living with mental illness\* or in recovery from mental illness may be particularly vulnerable because symptom interference can impair the memory, which could make the patient an unreliable historian. The medication information provided by the patient during the admission process may be confusing or distorted. Some patients may not be able to recite provider names, medication doses or why they are taking their medications.

Additionally, patients may have difficulty recalling information about their medications due to the complexity of the medication names, generic versus brand, multiple dosing schedules, and the medical jargon behind the reasons for the medications. The patient may have stopped a medication prior to admission or skipped doses because the patient did not understand the directions on how to take the medication, or did not recognize the benefits of taking them. Obtaining permission to verbally speak with the family or other supports may be necessary for newly admitted patients who are not able to provide an accurate list. Nurses or doctors should not assume patients are taking their medications as prescribed on the label even if they bring the prescriptions to the appointment. Sometimes dosing changes occur and the patient continues to use an old prescription bottle. Patients with a language barrier may also create more of a challenge in obtaining an accurate list. It is essential for staff to obtain an interpreter to assist because cultural differences may compound the situation.

To ensure safety, medication reconciliation is completed with the patient at time of admission, transfer of care, and discharge. Reconciling medication also encourages communication between the provider, the patient and caregivers. Information about the importance of knowing their medications should be discussed with the patient and the patient's family during the reconciliation process, especially at discharge. At admission to any level of care, the nurse should look for medication discrepancies by reviewing the list of home medications and comparing them to the admission orders. It is better to rely on several sources, including discharged charts, family members, computerized printouts from local pharmacies, and other providers, such as case managers and the physical health managed care organization. When transferring a patient to another facility, a standardized form may be easier to complete; keeping it uniform may prevent errors. The form should include current medications, discontinued medications, and the over-the-counter medications the patient may or may not have taken while in your care. The physician should clarify directions regarding when to resume these medications with the patient, the family and the new level of care. Similarly, a list should be completed at discharge with the same expectations as the transfer form. It is important to remember patients need specific directions about the medications that they are to take at home. Patients will need to know which medications they should discard or take as prescribed by the physician.

\* Infers both members with mental health and substance use issues for the purpose of this paper

## Developing a process

There are challenges to starting a medication reconciliation program, but patient safety should come first. Providers should consider a team approach and include key staff in the process. A leader should be chosen to ensure the project is completed and included in the daily workflow. The Medications at Transitions and Clinical Handoffs (MATCH) Toolkit<sup>4</sup> sponsored by the Agency for Healthcare Research and Quality through the United States Department of Health and Human Services offers steps to facilitate this process after the team is created. The following steps are suggested:

- Create a flowchart of the current medication reconciliation process.
- Develop a work plan for improvements.
- Integrate medication reconciliation into existing workflow.
- Pilot test (optional) and learn from the trial.
- Educate and train staff.
- Establish a measurement strategy to know if discrepancies are decreasing.

When creating a flowchart, look for gaps or potential failures that may interfere with good medication reconciliation. If a medication reconciliation flowchart already exists, be honest about current flaws and how they may interfere with a good workflow. For example, a practice may encounter issues such as doctors writing ambiguous orders, doctors placing the form in different areas on the chart, doctors completing the form incorrectly, and staff not adding non-prescribed medication. A consistent process and clear directions to staff will help decrease the likelihood of errors.

Flowcharts can take any form and can be simple and concise. An example of a flowchart is provided in the Resources section of this paper. You may need a different flowchart for admissions, transfers and discharges. For additional details concerning how to develop a flowchart plan, please go to the Agency for Healthcare Research and Quality website at [www.ahrq.gov](http://www.ahrq.gov).

### Keys to success:

- Research best practice.
- Develop good policies and procedures.
- Be clear who is assigned to the process.
- Limit steps in the process to avoid confusion.
- Allow staff the time to complete the entire form accurately.
- Use other sources of information besides the patient.
- Identify breakdowns and barriers in the process and alleviate them.
- Keep the form in the same place in the patient's record.

Monitoring for the success of the medication reconciliation process will be discussed later in this toolkit.

# Medication reconciliation forms

There are many different forms in the public domain from which a provider can pattern his or her form. The form should at minimum include the following:

1. Member identification.
2. Allergies (including reaction to the drug).
3. Medication name, dose, route, directions or frequency, and reason.
4. Last dose.
5. Signatures of nurse completion.
6. Reconciliation column or a discrepancies column.

Other recommendations include:

1. Disposition of medication (were they sent with security, sent with family or not brought in).
2. Education material given to patient.
3. Pharmacy name and number.
4. Source of information (patient, family, list or medical records).
5. Comments.
6. Height and weight.
7. Smoker.
8. Pregnancy (if yes, how many weeks).

The admission and discharge medication reconciliation sheets may look different. The discharge medication reconciliation sheet may include the following details:

1. Member identification.
2. Medication, dose, route, directions or frequency, and reason.
3. If the patient is to continue the medication at home or not.
4. Timing and schedule of next dose.
5. Whether a prescription was given or if the medication was at home.
6. All medications including on the admission reconciliation sheet (even if they were discontinued or not prescribed during treatment).
7. Patient signature and nurse signature.

Some discharge medication reconciliation sheets separate the medications either by old medications versus new medications, or psychiatric medications versus physical health medications. It helps to provide patients with more than one copy of their discharge medication reconciliation sheets. Some forms include a statement such as: "Please bring this copy to your next medication or primary care appointment." This will prompt patients to take a copy to their psychiatric outpatient provider or their next medical appointment.

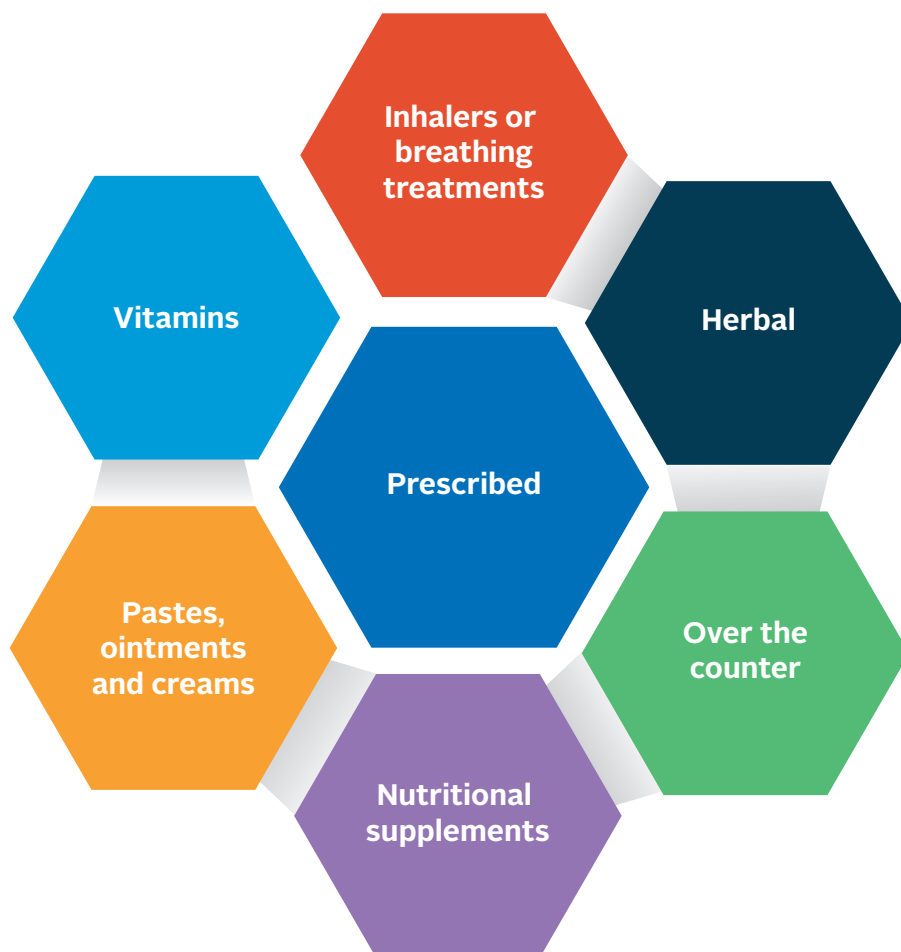
## Medication reconciliation forms (continued)

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The electronic health record (EHR) system is generally thought to offer more accurate information, but studies have found discrepancies between what the patient stated he or she was taking and what was listed in the electronic record.<sup>5</sup> In other words, human error in entering the data or failure to add medication changes can make the difference in the number of medication discrepancies. If done correctly, the use of EHR certainly makes it easier to enter patient information and print as a tool for the family and patient. A copy of a sample medication reconciliation form is in the Resources section of this paper. Paper or electronic, when a form is developed, it is important to remember to customize the form to current workflow and process, and capture what your Quality Improvement staff plan to audit in the future.

## Interviewing the patient

The nurse plays a significant role in interviewing the patient for their current medication regimen. Verifying the list with other sources is very important because the patient may have difficulty recalling some medication names or doses. Additionally, when interviewing the patient, open-ended sentences may obtain better results. For example, “what do you take for your depression?” or “does your asthma doctor prescribe any medications for you?” The nurse should ask specifically about the types of medications listed in the below diagram. The use of key words can often trigger the name of a medication the patient may have forgotten.

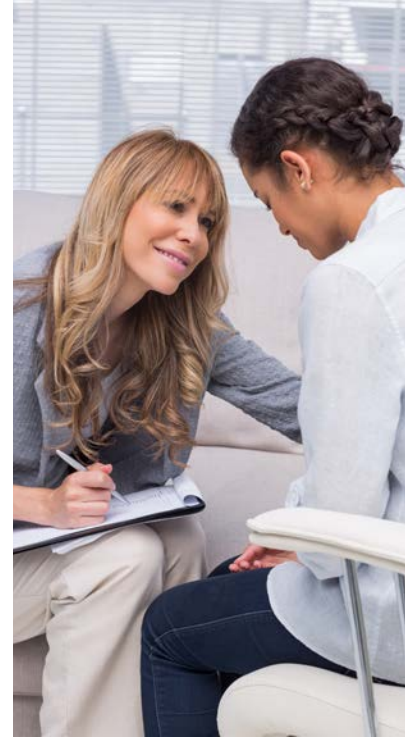


## Interviewing the patient (continued)

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Here are some additional recommendations for obtaining the patient's history:

- Request information about the names of the medications, doses, how often, the route and when the patient last took the medications. These are key elements for reconciliation.
- Ask if the patient recently started taking a new medication or if one was recently discontinued.
- Ask leading questions like, "What do you take for your heartburn pain?"
- To determine allergies and sensitivities, request information about whether the patient ever had a bad reaction to a medication.
- Give patients the information provided by the pharmacist or past history lists and look for discrepancies. By reminding patients that they had a prescription for something in the past, the patient might remember another key medication.
- Ask if the patient keeps a list of medications in a wallet or purse.
- Ask the patient if there is someone who fills a medication box for him or her and, if so, whether you can meet with that person.
- Ask if there are any medications that the patient only takes once a week or once a month.

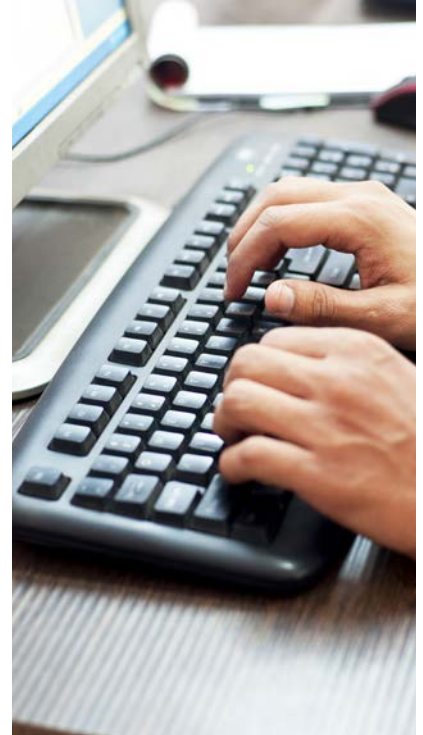




## After the patient interview

The goal is to develop the most complete list of patient medications. Interviewing the patient and family is a crucial component to this process. Once the interview is complete, the nurse should compare the patient's home medication list with pharmacy documents, recent records, and discharge summary reports. After a complete list is obtained, the nurse can compare the list with the new written orders. Undoubtedly, there will be discrepancies because some differences are intended. These types of discrepancies are purposeful, such as lowering the dose, or discontinuing a medication based on current mental status. The key is to identify and resolve the unintended discrepancies upon admission. Unintended discrepancies can also occur when medications were omitted on the form despite evidence the patient was taking the medication. Additionally, a human error can occur if the nurse documented the wrong medication. These discrepancies can be avoided by further clarification from the patient and the family, by the nurse not rushing the process, and ultimately by clarifying the differences with the physician.

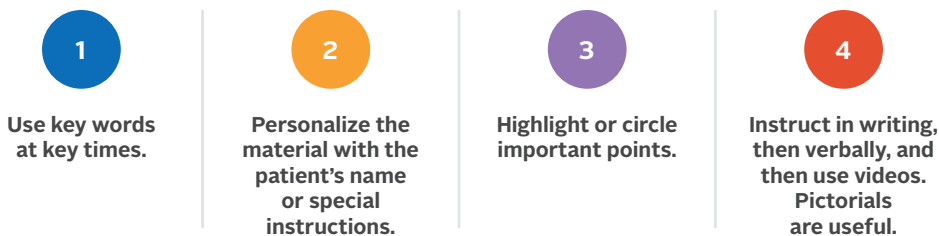
Reconciliation at discharge will help avoid medication errors and adverse medical reactions once the patient goes home. Discharge reconciliation is completed by reviewing the medications at admission, current medications listed on the medical record, and the discharge instruction sheet that includes the discharged medications prescribed by the physician. The discharge reconciliation form should be very clear on which medications are to be continued and at what dose, and which were stopped. The discharge reconciliation process of completing the form will alert the nurse if there is a medication concern or question. The nurse should notify the discharging physician for clarification prior to sending the information to the next provider. Communication with the follow-up providers is very important and a copy of the discharge instructions and medication list should be faxed at discharge.



# Patient and caregiver education

Patient and caregiver education is very important in the treatment of mental illness. Understanding of the need for treatment, which includes medications, is paramount to medication adherence. The patient may feel overwhelmed by the medication names, the schedule of each, the dosage amount and the reason for taking the medication. However, a little education can help alleviate some of the anxiety. At discharge the patient may be given a large quantity of paperwork and verbal directions. Therefore, teaching the patient immediately before leaving the facility may not be the best idea. Patients and their caregivers need to hear clear, precise and consistent messages throughout their treatment. Using simple and basic language in addition to introducing one crucial bit of information at a time will help the patient or caregiver absorb the information better. Providers teach the patient and caregiver to keep the patient safe. Avoiding medication errors is an important part of the overall treatment approach and helps provide a safe transition to another level of care.

Individuals learn in different ways; some prefer written information, some prefer verbal information, and some prefer both. There are a few tips in the diagram below that may help in providing good patient education.



Remembering medical information is a prerequisite for good adherence to recommended treatment. However, studies show that 40 percent to 80 percent of medical information provided by health care practitioners is forgotten immediately.<sup>6</sup> Teaching some patients can be challenging for a nurse, but the teach-back method is a teaching method proven to work. The teach-back method is simply a way to confirm the patient understood what you taught him or her by having the patient say it back to you.



## Teach-back method suggested approaches<sup>7</sup>

- “I want to make sure I explained your medication correctly. Can you tell me how you are going to take this medicine?”
- “We covered a lot today about your \_\_\_\_\_, and I want to make sure I explained things clearly. So let’s review what we discussed. What are the three strategies that will help you \_\_\_\_\_?”
- “What are you going to do when you get home?”

## Patient and caregiver education (continued)

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We recommend you ask the patient or caregiver to repeat the information given to ensure understanding of what has been communicated, and that you provide further clarification if the patient is not correct. Providers should try to avoid making the patient feel that the request is a test or quiz, because this will only increase anxiety. Providers should always display comfortable body language with good eye contact, and voice tone should be even. Patients should explain everything in their own words; the recitation does not need to be word for word.

## Auditing

A retrospective evaluation of the medication reconciliation procedure is necessary to measure the quality and effectiveness of the process. Ideally, looking at discharged charts shortly after discharge would help staff find discrepancies immediately and would allow a quick resolution of inconsistencies in patient medications. Staff may find an error and can contact an outpatient provider to correct the medication list.

The type of tool to audit for correct medication reconciliation can be easily designed. The form does not need to be cumbersome and should measure exactly what you need to know. Medication reconciliation consists of two key elements:

1. Did reconciliation occur at time of admission? Do the medication list and the doctor's orders address every medication?
2. Was reconciliation completed at transfer or discharge? Were all the medications listed at time of admission addressed on the discharge list by signifying that the medication was continued, discontinued or changed?



## Auditing (continued)

A provider may wish to monitor for other key components or simply measure how many charts were reconciled at admission, transfer and discharge. The success of your program is based on the adjustments and changes you make in response to the data findings. Each provider should set his or her own internal goal, such as 95 percent compliance or 100 percent compliance. Other measurements may include the following:

1. Were all the details completed in the form accurately, such as name, dose and frequency?
2. Was the reconciliation shared with a family member or caregiver?
3. Did the form reside in the correct place in the chart?
4. Were the follow-up providers promptly notified of the discharged medication list?

**Here is an example of a typical audit format:**

Medication reconciliation	Chart 1 Y or N	Chart 2 Y or N	Chart 3 Y or N	Chart 4 Y or N	Chart 5 Y or N	Chart 6 Y or N	Chart 7 Y or N	Chart 8 Y or N
Did reconciliation occur at admission?	Y	Y	Y	N	Y	Y	N	N
Were all medications listed at admission addressed on the discharge list by noting whether they were continued, discontinued or changed?	Y	Y	N	N	Y	Y	N	N
Did the form reside in the correct place on the chart?	Y	N	Y	Y	Y	Y	Y	Y

Goal = 100 percent compliance

Number of charts reconciled at time of admission = Five out of eight charts, or 62.5 percent

Number of charts reconciled at time of discharge = Six out of eight charts, or 75 percent

Number of charts that had the form in the correct place = Seven out of eight charts, or 87.5 percent

## Summary

Medication reconciliation helps reduce discrepancies and, ultimately, medication errors. Reconciliation should occur between any transitions in care to ensure the patient continues taking the proper medications. The first step to medication reconciliation should be to obtain an accurate list from multiple sources and then reconcile with the doctors' current orders. Getting all staff engaged and trained is important. Monitoring reconciliation rates is also vital in examining trends and making changes to medication reconciliation programs. Overall, small changes can result in a big reduction in medication errors. Implementing a good medication reconciliation program can decrease drug interaction and therapeutic duplications.

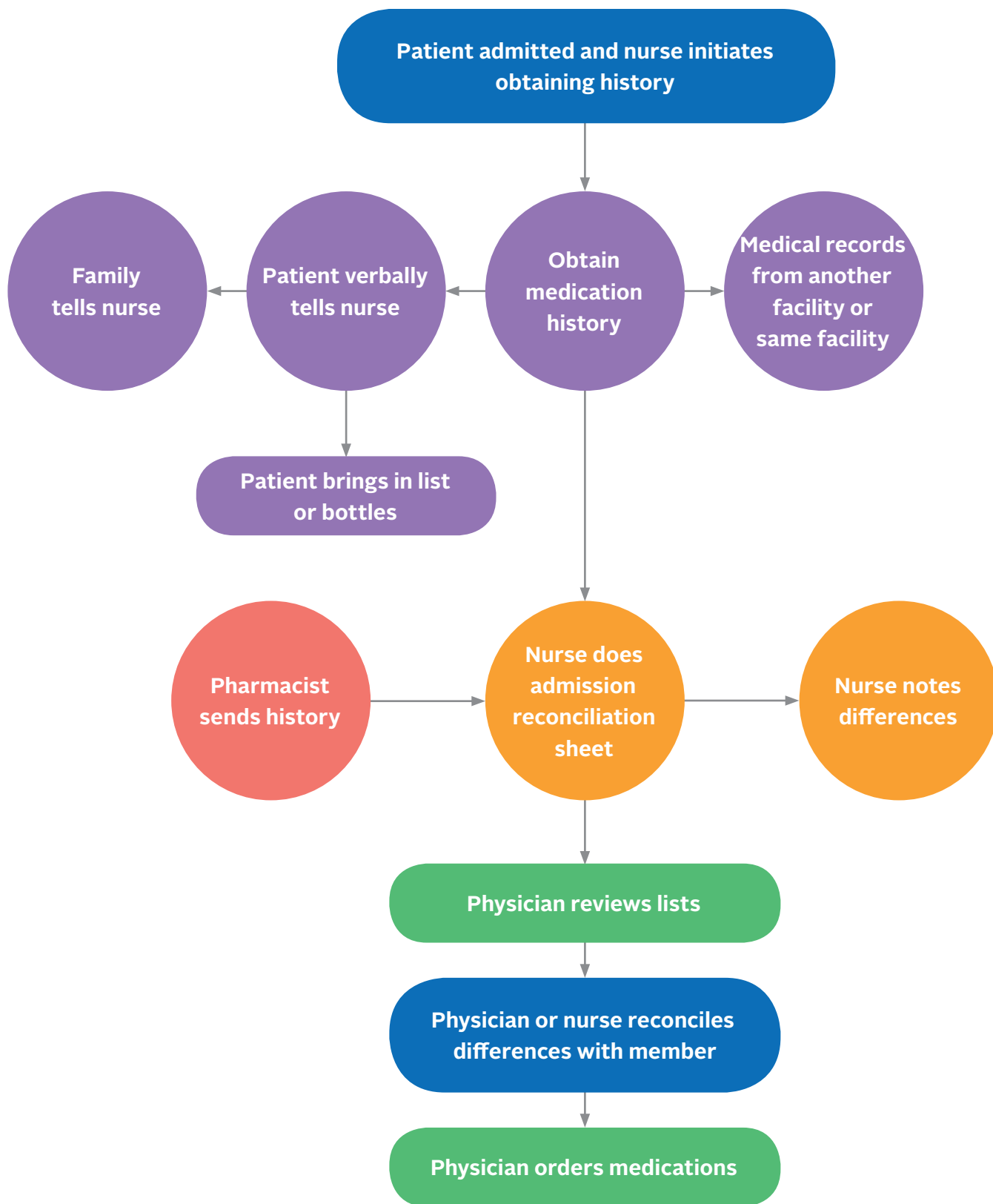
Additionally, teaching patients and caregivers about patient medications and changes that recently occurred will increase patient safety and give patients a better understanding of their medicine regimen. Ensuring patients, caregivers and follow-up providers understand the current prescribed medications may prevent discontinuation of medications or dosage error.

# Resources

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\* The following resources were created by PerformCare and can be used and edited as the provider needs.

## Medication reconciliation flow chart example



# Admission medication reconciliation form

Company name: \_\_\_\_\_ Patient name: \_\_\_\_\_

MR number: \_\_\_\_\_ Date of birth: \_\_\_\_\_

Date: \_\_\_\_\_

## Allergies

Medication	Reaction

Medications (include strength)	Dose prescribed	Frequency	Route	Last dose taken (date and time)	Reason for medication	Discrepancy (yes or no)	Discrepancy comment

## Source of list

Source of list	Source of list	Source of list
Patient verbal	Family list	Outpatient physician
Family verbal	Medical records	Outpatient provider
Patient list	Pharmacy	Other

Signature of patient \_\_\_\_\_ Signature of nurse \_\_\_\_\_

Date \_\_\_\_\_ Time \_\_\_\_\_



# Discharge medication reconciliation form

Company name: \_\_\_\_\_ Patient name: \_\_\_\_\_

MR number: \_\_\_\_\_ Date of birth: \_\_\_\_\_

Date: \_\_\_\_\_

## Allergies

Medication	Reaction

Medications (include strength)	Dose prescribed	Frequency	Route	Last dose taken (date and time)	Next dose to be taken (date and time)	Reason for medication	Discrepancy comment
<b>Continue these medications</b>							
<b>Start these medications</b>							
<b>Stop these medications</b>							

Signature of patient \_\_\_\_\_ Signature of nurse \_\_\_\_\_

Date \_\_\_\_\_ Time \_\_\_\_\_

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Institute for Healthcare Improvement at [www.ihf.org](http://www.ihf.org).

Joint Commission at [www.jointcomission.org](http://www.jointcomission.org).

Institute for Safe Medication Practices at [www.ismp.org](http://www.ismp.org).



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