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Medication Reconciliation Health & Safety Alert

Introduction

The Institute of Healthcare Improvement (IHI) defines medication reconciliation as the process of creating the most current and accurate list of the medications an individual is taking, then taking that list and comparing it against the medication administration record (MAR) and against the ordering physician or nurse practitioner's prescriptions/orders to verify correctness (1) (3) (7).

The World Health Organization (WHO) regards medication reconciliation as a best practice standard of care in reducing harm to individuals and as an important part of healthcare safety (1).

One of the highest risk opportunities for medication errors and adverse drug reactions to occur is during periods transitions of care. Individuals are at increased risk when going from a primary care providers (PCP) office to the hospital, the hospital to rehab, and rehab to home. It is best practice to complete a medication reconciliation after each transition in care and after an individual has been seen by a licensed/prescribing healthcare provider (5) (4) (7).

There are three main reasons for increased risk of medication error and/or adverse drug reactions to happen during transition of care. Which are:

1. Changes to medications may have occurred at each transition.
2. Communication breakdown during the transition between physicians/licensed prescribers, healthcare staff, the individual, their family, and caregivers.
3. Varying levels of health literacy, and reduced knowledge about medications and/or treatments at each step down in care (5) (4).

Medication reconciliation is the answer to resolving confusion surrounding medications before problems occur. The goal is for the individual to receive the medications the physician/licensed prescriber intended through a process of discovering errors in transcription, omissions, and duplications (3) (7).

"Article 5

Medication Management Services

A. The provider shall implement written policies addressing:

1. The safe administration, handling, storage, and disposal of medications.

2. The use of medication orders.

3. The handling of packaged medications brought by individuals from home or other residences.

4. Employees or contractors who are authorized to administer medication and training required for administration of medication.

5. The use of professional samples; and

6. The window within which medications can be given in relation to the ordered or established time of administration.

B. Medications shall be administered only by persons who are authorized to do so by state law.

C. Medications shall be administered only to the individuals for whom the medications are prescribed and shall be administered as prescribed.

D. The provider shall maintain a daily log of all medicines received and refused by each individual. This log shall identify the employee or contractor who administered the medication, the name of the medication and dosage administered or refused, and the time the medication was administered or refused.

E. If the provider administers medications or supervises self-administration of medication in a service, a current medication order for all medications the individual receives shall be maintained on site.

F. *The provider shall promptly dispose of discontinued drugs, outdated drugs, and drug containers with worn, illegible, or missing labels according to the applicable regulations of the Virginia Board of Pharmacy"* (Virginia Code: 12VAC35-105-770).

Regular medication reconciliation practices have been shown to reduce the number of medication errors and/or adverse drug events experienced by an individual. It is considered best practice to do medication reconciliation monthly and/or when medications are received from the pharmacy (5) (1) (3).

The reconciliation process compares all current medication prescriptions/physician orders to the medicines received from the pharmacy, samples received from a PCPs office, and/or other medications brought from another location by the individual (6).

An accurate list should include prescription medications, over-the-counter (OTC) drugs, nutritional supplements, vitamins, herbals, and minerals. Anything an individual is taking

which contains an "active ingredient" requires a licensed prescriber's order/written prescription and should be include on the MAR. The drug name, dosage, frequency, route, and the reason why the medication is being given should be included (3) (7).

Each medicine is checked for correctness by comparing the individual's MAR against current prescriptions/orders which are required to be kept on site with the individual (3) (6).

Medication reconciliation can be a time-consuming process for each individual. It has been shown to take anywhere from 20 minutes to 90 minutes depending on how many discrepancies are found. Additional time may be needed for phone calls to the pharmacist or the licensed prescriber (physician or nurse practitioner) to resolve differences found with prescription/orders and the received medications (2) (4) (7).

Discontinued medications should have a written order from the licensed prescriber stating the drug administration should be ended. Discontinued medications should be noted on the MAR to include the date the drug was stopped (3).

Medication Reconciliation

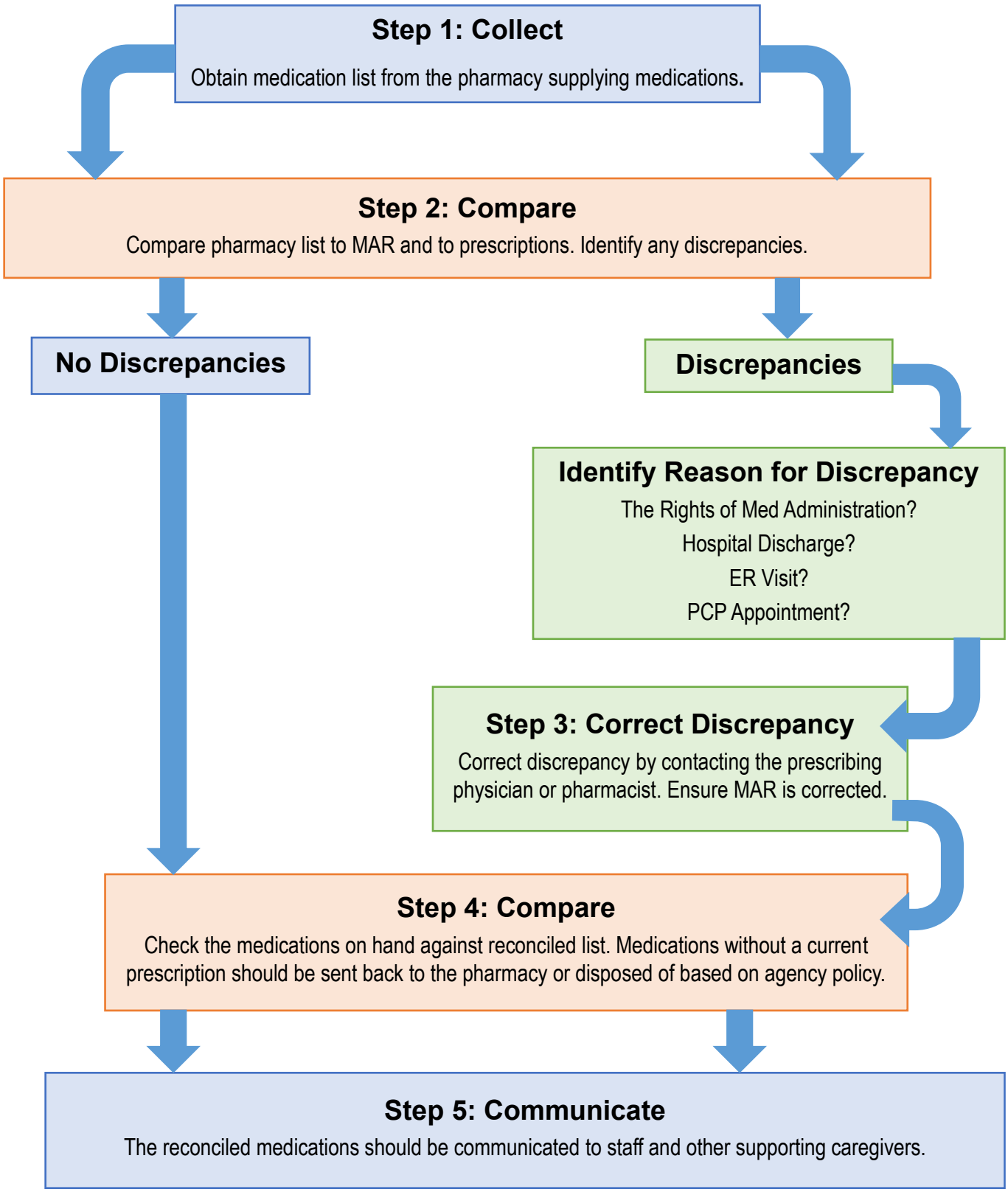
Steps in the medication reconciliation process are:

1. A current medications list should be created and/or available such as the MAR, or a pharmacy print out.
2. Gather all medication orders and prescriptions.
3. Compare the MAR to the medication prescriptions/orders.
4. Make note of any discrepancies which were found during the process.
5. If there are no discrepancies found between the MAR and medication prescriptions/orders, compare each medication listed to the pharmacy label found on each medication.

Whenever possible have all of an individual's prescriptions sent to one pharmacy. This will reduce confusion as to whether or not all of the individual's current prescriptions have been received when completing the medication reconciliation process. Always notify the prescriber of the name and address of the pharmacy being used.

If and when a discrepancy is found during a medication reconciliation review, it should be thoroughly investigated by contacting the licensed prescriber and dispensing pharmacy to clarify orders prior to giving the drug (1) (4).

Successful medication reconciliation requires a clear written understanding of exactly what staff and/or caregivers are responsible for completing within the process. This might require collaboration between night shift and day shift staff to resolve discrepancies (2).


Step 1: Collect
Obtain medication list from the pharmacy supplying medications.
Step 2: Compare
Compare pharmacy list to MAR and to prescriptions. Identify any discrepancies.
No Discrepancies
Discrepancies
Identify Reason for Discrepancy
The Rights of Med Administration?
Hospital Discharge?
ER Visit?
PCP Appointment?
Step 3: Correct Discrepancy
Correct discrepancy by contacting the prescribing physician or pharmacist. Ensure MAR is corrected.
Step 4: Compare
Check the medications on hand against reconciled list. Medications without a current prescription should be sent back to the pharmacy or disposed of based on agency policy.
Step 5: Communicate
The reconciled medications should be communicated to staff and other supporting caregivers.

Resources

- Virginia Law, Chapter 34: The Control Drug Act - https://law.lis.virginia.gov/vacode/title54.1/chapter34/
- National Institutes of Health, National Library of Medicine (2019). Medline Plus database - https://medlineplus.gov/druginformation.html
- Drugs.com (2019). Find drugs and conditions database - https://www.drugs.com/
- U.S. Food & Drug Administration (2019). Drugs @ FDA database - http://www.fda.gov/drugsatfda

References:

1. Almanasreh, E., Moles, R. & Chen, T. F. (2016, May). The medication reconciliation process and classification of discrepancies: A systematic review. *British Journal of Clinical Pharmacology*, 82, 645–658.
2. Gleason, K., Brake, H., Agramonte, V. & Perfetti, C. (2012, August). Medications at transitions and clinical handoffs (MATCH) toolkit for medication reconciliation. Agency for Healthcare Research and Quality, U.S. Department of Health and Human Services (AHRQ) Publication No. 11(12), 1-104.
3. Lester, P. E., Sahansra, S., Shen, M., Becker, M., & Islam, S. (2019, January). Medication reconciliation: An educational module. *Med Ed Portal*, 15:10852, 1-7.
4. Mendes, A. E., Lombardi, N. F., Andrzejevski, V. S., Frandoloso, G., Correr, C. J., & Carvalho, M. (2016, January). Medication reconciliation at patient admission: A randomized controlled trial. *Pharmacy Practice*, 14(1):656, 1-7.
5. Taylor, G. (2013). Standards of practice for clinical pharmacy services. Chapter 1: Medication reconciliation. Journal of Pharmacy Practice and Research, 43(2), 6-12.
6. Virginia Code: 12VAC35-105-770, Medication Management, Article 5.
7. Walsh, E. K., Kirby, A., Kearney, P. M., Bradley, C. P., Fleming, A., O'Connor, K. A., Halleran, C., Cronin, T., Calnan, E., Sheehan, P., Galvin, L., Byrne, D., & Sahm, L. J. (2019, August). Medication reconciliation: Time to save? Across-sectional study from one acute hospital. *European Journal of Clinical Pharmacology*, 75, 1713–1722.