Medication Reconciliation: The Role of Community Pharmacists

Katie Holmes, PharmD
Community Pharmacy Practice Resident
UW Hospital and Clinics

Objectives

• Define medication reconciliation
• Discuss the importance of medication reconciliation with regards to patient safety
• Describe the process for completing medication reconciliation
• Discuss barriers to completing medication reconciliation
• Identify ways to overcome barriers to completing medication reconciliation by introducing tools to use during medication reconciliation in the community pharmacy setting

Patient Scenario

• BL is a 73 year old male preparing to be discharged after 60 days of rehabilitation at a SNF (rehabilitation following 4 day hospital admission for a PE)
• Discharge Meds:
  – Glipizide XL 10mg tablet p.o. once daily
  – Metformin 500mg tablet p.o. twice daily
  – Warfarin 3mg 5x/week, 2mg M,Th (goal INR: 2-3)
  – Metoprolol 50mg tablet p.o. once daily
  – Lisinopril 20mg tablet p.o. once daily
  – HCTZ 25mg tablet p.o. once daily
  – ASA 81mg tablet p.o. once daily

Patient Scenario

• Plan:
  – Discharge medications are faxed to your pharmacy (BL’s home pharmacy)
  – BL will have INR drawn at the local clinic in one month since INR has been within target range on a stable dose of warfarin
  – Weekly home services have been coordinated for BL
  – BL is scheduled to see PCP one month after discharge from SNF

Patient Scenario

• BL’s sister picks up meds from your pharmacy
• Sister asks if there have been any medication changes
• RPh responds “none as far as I know”

• At home:
  – BL fills his own med boxes and is responsible for taking his meds on his own

Patient Scenario

• RTC appointment with PCP:
  – BL reports easier bruising, episodes of lightheadedness, near falls in the past month
  – PCP is the physician who wrote BL’s discharge orders, but he still asks BL what meds he is taking; BL does not have a current list with him, but tells PCP to call the pharmacy for a complete list of meds
  – INR is drawn as scheduled; Result=5.2
Patient Scenario

- PCP reviews BL’s clinic record noting last warfarin dose 2mg 5x/week and 3mg M,Th
- PCP contacts your pharmacy; you report that BL is taking warfarin 3mg 5x/week and 2mg M,Th
- PCP checks other meds with RPh and discovers BL receiving metoprolol tartrate 50mg once daily rather than metoprolol succinate once daily
- Warfarin dose and metoprolol prescriptions corrected and new prescriptions filled

Patient Scenario

- BL’s sister picks up corrected prescriptions from pharmacy
- BL promptly fills his med box upon receipt of the new prescriptions
- No one told BL to remove the incorrect meds from his med box and replace with new meds

Patient Scenario

- One week later:
  - Staff person from home care service discovers BL on the kitchen floor
  - BL noted to have bruising on face
  - BL transported to ED by ambulance
  - Determine BL experienced a hemorrhagic stroke presumably from a fall
  - BL dies two days later

What is the problem?

- 1.5 million preventable ADEs in the U.S. per year
- $3.5 billion in costs (IOM Report Brief July 2006: preventing medication errors)
- Generalizing Gurwitz study to all Medicare enrollees:
  - More than 1.9 million ADEs/year among 38 million Medicare enrollees
  - More than 180,000 life-threatening or fatal ADEs/year
  - >50% may be preventable (Gurwitz 2003)

Problem continued

- Chart reviews revealed that 40% of all medication errors and 20% of adverse drug events are due to poor communication at the interfaces of care
  - Patient admission to the hospital
  - Patient transfer out of specialty units to other nursing units
  - Patient discharge from the hospital

What is Medication Reconciliation?

Medication reconciliation (MR)
- The process of comparing a patient’s medication orders to all of the medications that the patient has been taking
- Should be done at every transition of care in which new medications are ordered or existing orders are rewritten
  - Transitions in care = changes in setting, service, practitioner, or level of care
National Patient Safety Goals

- The Joint Commission
  - Goal 8
  - Accurately and completely reconcile medications across the continuum of care
    - NPSG.08.01.01
      - A process exists for comparing the patient’s current medications with those ordered for the patient while under the care of the organization

- National Patient Safety Goals
  - NPSG.08.02.01
    - When a patient is referred to or transferred from one organization to another, the complete and reconciled list of medications is communicated to the next provider of service and the communication is documented. Alternatively, when a patient leaves the organization’s care directly to his or her home, the complete and reconciled list of medications is provided to the patient’s known primary care provider, or the original referring provider, or a known next provider of service.
    - Note: When the next provider of service is unknown or when no known formal relationship is planned with a next provider, giving the patient, and family as needed, the list of reconciled medications is sufficient.

What can MR prevent?

- Inadvertent omissions of required medications
- Failure to reinitiate home medication following transfer and discharge
- Therapy duplication at discharge
- Prescribing errors associated with ordering incorrect doses or dosage formulations

Process Overview

- Verification
  - Collect medication history
- Clarification
  - Ensure appropriate medications, doses, routes
- Reconciliation
  - Document changes in physician orders

Process

Patient/caregiver presents to pharmacy with discharge prescriptions

- All prescriptions, OTC medications, supplements, herbs, vitamins, samples
  - Dosage, route, frequency, formulation, time of day, when last dose taken, any special instructions
  - Prompt patients on: patches, eye drops, topicals, devices, insulin, insulin pumps, birth control pills
- Complete allergy information
  - Type of reaction, severity of reaction, history of event (i.e. childhood, etc.)
  - Specific drug intolerances
  - Ask about allergies to: food, latex, tape, contrast dye
  - Patient’s current height and weight (especially for pediatric patients)
  - Significant past medications
  - Any recently stopped and why
  - Status changes while inpatient at hospital/LTCF

Pharmacy gathers necessary information
Patient/caregiver presents to pharmacy with discharge prescriptions

Pharmacy gathers necessary information

Pharmacist completes MR
  • Compare all medications patient is currently taking in pharmacy computer system to discharge list or prescriptions
  • Complete DUR and profile review

Pharmacist clarifies discrepancies

Document and bill for interventions

Pharmacist completes MR

Provide updated PMR to patient

Pharmacist completes MR

Document and bill for MR

Document and bill for MR

Pharmacist clarifies discrepancies

Follow up with patient/caregiver regarding medication changes
**Barriers**

**Possible Solutions**

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Possible Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of:</td>
<td></td>
</tr>
<tr>
<td>- Time</td>
<td>PSW attempts to address these quality-based practice components through WPQC</td>
</tr>
<tr>
<td>- Consistent workflow</td>
<td></td>
</tr>
<tr>
<td>- Standardization</td>
<td></td>
</tr>
<tr>
<td>Difficulty noting pt is post hospital discharge</td>
<td>• Train techs to flag hospital discharge for checking and consultation RPhs</td>
</tr>
<tr>
<td></td>
<td>• Train techs and RPhs on what discharge prescriptions look like from area hospitals</td>
</tr>
<tr>
<td>Difficult to understand which are actually prescriptions on the discharge sheet</td>
<td>• Use additional instructions on discharge forms for cues</td>
</tr>
<tr>
<td></td>
<td>• Contact prescriber if still unclear</td>
</tr>
<tr>
<td>Patient is anxious to leave/does not understand why there is an additional wait</td>
<td>Provide patient with information about the process of MR and why it is important ✖</td>
</tr>
</tbody>
</table>

* ✖ = Component included in the Medication Reconciliation Toolkit

---

**Barriers**

**Possible Solutions**

<table>
<thead>
<tr>
<th>Patient/caregiver presents to pharmacy with discharge prescriptions</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide updated PNR to patient</td>
<td>Pharmacy gathers necessary information</td>
</tr>
<tr>
<td>Document and bill for interventions</td>
<td>Pharmacist clarifies discrepancies</td>
</tr>
<tr>
<td>Follow up with pt/caregiver regarding medication changes</td>
<td>Pharmacist completes MR</td>
</tr>
</tbody>
</table>

**Pharmacist completes MR**

- Compare all medications patient is currently taking in pharmacy computer system to discharge list or prescriptions
- Complete DUR and profile review

---

**Barriers**

**Possible Solutions**

<table>
<thead>
<tr>
<th>Patient/caregiver does not know what medications patient is on (especially OTCs, herbals)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Have pt fill out a Brief Med History Form in waiting area or at home (bring back to pharmacy) ✖</td>
</tr>
<tr>
<td></td>
<td>• Educate pts to keep an up-to-date med list</td>
</tr>
<tr>
<td>You are unsure of what to do with the information once it is obtained from the patient</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Add to notes field</td>
</tr>
<tr>
<td></td>
<td>• Create proxy prescriptions</td>
</tr>
<tr>
<td></td>
<td>• Keep a paper file of information for complex patients</td>
</tr>
</tbody>
</table>

* ✖ = Component included in the Medication Reconciliation Toolkit

---

**Barriers**

**Possible Solutions**

<table>
<thead>
<tr>
<th>Patient/caregiver presents to pharmacy with discharge prescriptions</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide updated PNR to patient</td>
<td>Pharmacy gathers necessary information</td>
</tr>
</tbody>
</table>

**Pharmacist completes MR**

- Compare all medications patient is currently taking in pharmacy computer system to discharge list or prescriptions
- Complete DUR and profile review

---
### Barriers vs. Possible Solutions

#### Patient is new to your pharmacy and you have no previous medication information on file
- **Possible Solutions**
  - Verify meds in inpatient system (if accessible)
  - Contact home pharmacy, hospital, PCP
  - Brief Med History Form

#### Hospital has automatic therapy interchanges that are not switched back upon discharge
- **Possible Solutions**
  - Become familiar with common interchanges at area hospitals
  - Look for therapeutic duplications when filling discharge orders

---

#### Prescriber contact information is missing on the prescriptions when something needs to be clarified
- **Possible Solutions**
  - Contact unit patient was discharged from
  - Ask patient if they were given a phone number for RN or MD upon discharge

#### Provider is gone for the day
- **Possible Solutions**
  - Call paging center to page MD on call

#### Chart has been filed away
- **Possible Solutions**
  - Request chart be pulled and phone call back

---

#### Lack of standard system for billing/documentation
- **Possible Solutions**
  - Scan documents into computer
  - Document completion in notes field (i.e. SOAP note)
  - Paper charting system

#### No time for billing for services completed during MR
- **Possible Solutions**
  - Technician coordination
  - Complete billing later

---

**= Component included in the Medication Reconciliation Toolkit**
Barriers | Possible Solutions
---|---
Patient feels that nothing has changed and they already have the medications at home | Provide patient with a comparison list of medications highlighting dose changes, med additions, and deletions

= Component included in the Medication Reconciliation Toolkit

Document and bill for MR

Barriers | Possible Solutions
---|---
Unsure of where to document the completion of MR | • Scan documents into computer
• Document completion in notes field
• Paper charting system

No time for billing for MR | • Technician coordination
• Complete billing later

Unable to bill for MR | Become a WPQC Pharmacy!

Follow up with patient/caregiver regarding medication changes

Additional MR Tools
- MR Process Flowchart
- How the MTM Core Elements Document Relates to MR (JPSW article)
- MR Educational Pamphlet for patients
- Brief Medication History Form
- Medication lists/wallet card examples for patients
- MR Action Plan
- MR Documentation Form
- MR Checklist Tool
- Fax form to send to primary provider(s)
Patient Scenario Follow Up

8/27/08
• MJ, a 75 year old female, presents to your pharmacy for her refill prescriptions. She is currently taking the following according to her medication list, which she carries in her purse:
  – Lisinopril 20mg tablet p.o. once daily
  – HCTZ 25mg tablet p.o. once daily
  – Levothyroxine 50mcg tablet p.o. once daily
  – Calcium with Vit D 600mg/200IU p.o. twice daily
  – ASA 81mg tablet p.o. once daily
  – Albuterol HFA inhaler. Use two puffs four times daily
• She hasn’t experienced any med problems

Patient Scenario Follow Up

9/6/08
• Nurse calls from local hospital to determine MJ’s current med list. She wants to clarify the pt’s levothyroxine dose. As the pharmacist, you provide this information.

Patient Scenario Follow Up

9/11/08
• MJ’s daughter presents to your pharmacy. As the pharmacist you go out to talk with her daughter, who has multiple questions for you. She also lets you know that MJ has been discharged today and is resting at home.
  • What questions would you like to ask her about MJ?

• Based on the questions you ask, the daughter provides you with new prescriptions, a medication list and tells you that MJ went to the hospital for an asthma attack.
  • What are your next steps as a pharmacist?

References
• IOM Report Brief July 2006: preventing medication errors.
• The Joint Commission. 2009 Chapter: National patient safety goals.
• Patient Safety and Quality: An Evidence-Based Handbook for Nurses CH 38. Medication Reconciliation.