Medication Reconciliation:
Assuring Medication Accuracy at Transitions of Care

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Learning Objectives

- Define medication reconciliation
- Identify opportunities, barriers and challenges in performing successful medication reconciliation
- Identify strategies for effective medication reconciliation and obtaining an accurate medication list
- Discuss the role of medication reconciliation and patient safety
Patient Medications
What is Medication Reconciliation?

- ...is the process of *reconciling* a patient’s medication list at transitions in care - ‘Med Rec’ for short

- Helps to ensure all *medications* are accurate on admission to a hospital or nursing home, at inpatient transfers, on discharge, and in the community pharmacy or outpatient setting.

www.jointcommission.org/sentinel_event_alert_issue_35_using_medication_reconciliation_to_prevent_errors/(accessed 8/20/2014)
What does *reconcile* mean?

- ...the process of checking against another for accuracy
- ...to account for

http://www.merriam-webster.com/dictionary/reconcile
Why is it necessary to conduct Medication Reconciliation?

- **Adverse Drug Events (ADEs)**
  - 5-40% of hospitalized patients
  - 12-17% of patients after discharge

- **Transitions increase discrepancies & ADEs**
  - 70% of patients on admission have discrepancies
  - 1/3 are potentially harmful ADEs

- **Unintended discrepancies**
  - 67% on admission
  - 11-59% harmful

What *medications* are included?

- Prescription medication
  - Community pharmacies
  - Mail order pharmacies
  - Specialty/Compounding pharmacies
  - Prescription assistance programs
  - Free clinics
  - Provider samples
  - Infusion or dialysis centers
- Over-the-counter (OTC) meds
- Vitamins, herbals
- Dietary Supplements
- Nutraceuticals
- “Borrowed meds”
- Vaccines
- Implanted/depot medications
- Diagnostic and contrast agents
- Radioactive therapies
- Respiratory therapy medications
Definitions – The Joint Commission

- **Medication reconciliation**
  - …is the process of comparing a patient's medication orders to all of the medications that the patient has been taking. It should be done to **avoid medication errors** such as omissions, duplications, dosing errors, or drug interactions.
  - …at every **transition of care** in which new medications are ordered or existing orders are rewritten.

- **Transitions in care** include changes in setting, service, practitioner or level of care.
Medication reconciliation is…

...a process of identifying the most accurate list of all medications a patient is taking – including name, dosage, frequency and route – and using this list to provide correct medications for patients anywhere within the health care system.
The Joint Commission – National Patient Safety Goal

- **2005**
  - Medication reconciliation selected as one of the National Patient Safety Goals (NPSG)
  - NPSG #8 - to *accurately and completely reconcile medications across the continuum of care*
  - Organizations struggled to develop and implement effective and efficient processes

- **2009**
  - Evaluated but not affecting accreditation until 2011

- **2011**
  - New version requires organizations to…
  - …. ‘*maintain and communicate* accurate medication information’ and ‘*compare the medication information* the patient brought to the hospital with the medications ordered for the patient by the hospital in order to *identify and resolve discrepancies*’


www.jointcommission.org/sentinel_event_alert_issue_35_using_medication_reconciliation_to_prevent_errors/(accessed
The Joint Commission – Continuum of Care

The Joint Commission’s *continuum of care* refers to all care settings

- Ambulatory Care
- Emergency and Urgent Care
- Home Care
- Inpatient Services
- Long-term Care
Medication Reconciliation – National Patient Safety Goal 2014

- Occurs when…
  - …clinician compares the medications a patient should be using (*and is actually using*) to the new medications that are ordered for the patient and resolves any discrepancies

- A *good faith effort* to collect this information is recognized as meeting the intent of the requirement
Why is Medication Reconciliation Important?
Meet Ann 76 y/o female

- **CC:** “I had to go to the bathroom in the middle of the night and I think I tripped on the rug.”

- **HPI:** Brought by EMT to the ED, s/p fall at home, fractured left hip confused and found to be hypotensive (86/58). Admitted to hospital for 4 days for THA, released to local SNF; now going home after 7 days

- **SH:** Widowed, lives alone in a two story-house

- **PMH:** Glaucoma
  - Osteoarthritis
  - Hypertension
  - GERD
  - Atrial fibrillation
  - Depression
Who completes Medication Reconciliation?

- Nurse
- Provider
- Pharmacist
- Medical Assistant
- Patient

*Everyone can play a role to ensure an accurate patient medication list*
Sources of information

- Pharmacy
  - Community, Mail order, Specialty, Free Clinic

- Provider
  - Primary Care Provider, Specialists, others

- Patient
  - Self, caregiver, family

- Health Systems/Information Exchanges
  - HealthInfoNet® in Maine
What are *your* barriers to completing Medication Reconciliation?

- No standardized process
- Difficult to obtain accurate medication history
- Multiple providers involved in patient’s care
- MD office is not aware of patient’s prescriptions

ASHP-APHA Medication Management in Care Transitions Best Practices 2013
Barriers to Medication Reconciliation

- Enough time
- Appropriate Workflow
- Authority
- Consensus
- Different Medical Record Systems
  - Paper, Electronic
Medication Reconciliation at a Glance

- Verification
  - Collection of the medication history

- Clarification
  - Ensure that medications and doses are appropriate

- Reconciliation
  - Documentation of changes in the orders

Institute for Healthcare Improvement – 2007
http://www.ihi.org/knowledge/Pages/Tools/MedicationReconciliationReview.aspx
Tips for Medication Reconciliation

- Review list for duplicate therapies
  - Bet-blockers, HTN medications

- Document discontinued, omitted therapies
  - Old antibiotic prescriptions
  - Antidepressants, Psychiatric medications

- Review patient medication list

- Obtain list of medications filled from the pharmacy
Interviewing the Patient

- **Assumptions**
  - Printed list, all medication bottles and tubes

- **Open-ended, non-judgmental questions**
  - *Tell me how you use this medication*
  - *Do you take this with food? What time of day?*
  - *Have you had any changes in your medications?*
  - *In order to provide the best care for you, I have to ask some personal questions. This is not meant as a judgment. Do you obtain medications from anyone else, use marijuana, stimulants, street drugs?*
Education and Engagement

- Educate patient at appropriate health literacy level
- Accommodate for hearing and language barriers
- Encourage patient involvement in communication about their medications
- Encourage self-advocacy for their own safety
Back to Ann

- Ann, 76 y/o female, fractured left hip as result of fall
- HPI: 4 days in hospital released to SNF, going home after 7 days
- PMH: Glaucoma, Osteoarthritis, HTN, GERD, AF, Depression
- **Current Medications** (per electronic health system records)
  - Timolol (Timoptic®) 0.5% solution  Apply to eye(s) as directed
  - Metoprolol (Lopressor®) 50 mg tablet  1 tablet PO twice daily
  - Hydrochlorothiazide 25mg tablet  1 tablet PO once daily
  - Zolpidem (Ambien®)10 mg tablet  1 tablet PO qhs prn sleep
  - Amitriptyline (Elavil®) 100mg tablet  1 tablet PO daily
  - Warfarin 2.5mg tablet  1 tablet PO daily/as directed
## The Value of Medication Reconciliation

### Current Medications *(after medication reconciliation)*:

<table>
<thead>
<tr>
<th>Medicine</th>
<th>Formulation</th>
<th>Dose/Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timolol (Timoptic®) 0.5% solution</td>
<td>1 drop OS once daily</td>
<td></td>
</tr>
<tr>
<td>Metoprolol (Lopressor®) 50 mg tablet</td>
<td>1 tablet PO twice daily</td>
<td></td>
</tr>
<tr>
<td>Hydrochlorothiazide 25 mg tablet</td>
<td>1 tablet PO QHS</td>
<td></td>
</tr>
<tr>
<td>Zolpidem (Ambien®) 10 mg tablet</td>
<td>1 tablet PO qHS for sleep</td>
<td></td>
</tr>
<tr>
<td>Amitriptyline (Elavil®) 100 mg tablet</td>
<td>1 tablet PO qHS</td>
<td></td>
</tr>
<tr>
<td>Warfarin 2.5 mg</td>
<td>1 tab PO daily or as directed</td>
<td></td>
</tr>
<tr>
<td>Viactiv® Calcium Soft Chews</td>
<td>1 chewable PO BID</td>
<td></td>
</tr>
<tr>
<td>Advil PM® caplets</td>
<td>1 to 2 caplets PO HS PRN pain</td>
<td></td>
</tr>
<tr>
<td>Tylenol® Arthritis Pain</td>
<td>1 to 2 tablets PO q8h PRN pain</td>
<td></td>
</tr>
<tr>
<td>Prilosec® 20 mg OTC</td>
<td>1 capsule PO once daily</td>
<td></td>
</tr>
<tr>
<td>Tums® Extra Strength 750 mg</td>
<td>2 to 3 chews PO PRN heartburn</td>
<td></td>
</tr>
<tr>
<td>Gingko biloba</td>
<td>no directions noted</td>
<td></td>
</tr>
<tr>
<td>Fish Oil 1,000 mg caps</td>
<td>2 caps every AM</td>
<td></td>
</tr>
</tbody>
</table>
What if you don’t have enough time for Medication Reconciliation?

- Multiple chronic disease (>3)
- Multiple medications (>10)
- High risk medications
  - Heart medications
  - Opioids
  - Immunosuppressants
  - Blood sugar medications
- Medications with Narrow Therapeutic Index
  - Anticoagulants
  - Psychiatric medications
  - Seizure medications
Community Pharmacist Role

- Important component of medication reconciliation
  - Communication with pharmacy
    - Obtain accurate medication history on admission
    - Vital to reducing medication errors
  - Communication with patients after discharge
    - Counsel medications
    - Remind to stop taking unnecessary pre-admission regimens
    - Answer questions
    - Medication record
    - Update information
Community Pharmacist Role

- Educate patients/family members to serve as advocates
  - Patients understand the role they play in medication management
  - Allows patients to keep better track of medications they are taking
  - Have patients bring their medications to every healthcare encounter
- Educate and empower patients to be responsible for their medication list
Summary

- Remain patient focused
- Resolve discrepancies
- Avoid blaming the patient
- Educate at appropriate health literacy levels
- Engage the patient and caregiver/family in the medication reconciliation process
Questions?
Medication Reconciliation Resources

- The Institute for Healthcare Improvement (www.ihi.org)
  - Resources, frequently asked questions

- The Joint Commission (www.jointcommission.org)
  - Compliance w/standards, frequently asked questions, flow chart

- The American Society of Health-System Pharmacists (www.ashp.org)
  - “How to guide, “clearing house information”

- The Agency for Healthcare Research and Quality (www.ahrq.gov)
  - Toolkit

- The Massachusetts Coalition for the Prevention of Medical Errors (www.macoalition.org)
  - Safe practices, toolkit, reference list
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