The Best Pharmacy Practices in Medication Reconciliation

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Disclosures

- The panelists have no actual or potential conflicts of interest associated with this presentation

Objectives

- Discuss the role of pharmacists in medication reconciliation throughout different aspects of healthcare including the inpatient, outpatient, and long-term care settings
- Describe the role of the pharmacist in transitions of care from post-acute care setting to “your patient’s home”
- Detail best practices for medication reconciliation during transitions of care
- List and describe roles of the health care team during the medication reconciliation process

Medication Reconciliation Required by the Joint Commission

- National Patient Safety Goal: 03.06.01
  - Record and pass along correct information about patient’s medications
  - Find out what medications the patient is taking
  - Compare those medications to new medications given to the patient
  - Make sure the patient knows which medications to take when they are at home
  - Tell the patient it is important to bring their up-to-date list of medications every time they visit a doctor

Medical Professionals Involved in Medication Reconciliation at a Hospital

- Medication History Technicians (MHTs)
- Nurses
- Doctors
- Physician Assistants
- APRNs
- Pharmacists

Improving Medication History at Admission Utilizing Pharmacy Students and Technicians

- Inova Loudoun Hospital in Northern Virginia
- ED nurses completed medication history followed by pharmacy student/technician

<table>
<thead>
<tr>
<th>Study Period: 7/27/15 – 1/27/16</th>
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<tbody>
<tr>
<td>Total number of patients interviewed</td>
<td>4,070</td>
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<tr>
<td>Total number of patients with medication discrepancies</td>
<td>3,162</td>
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<tr>
<td>Total number of medication discrepancies</td>
<td>7,284</td>
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Improving Medication History at Admission Utilizing Pharmacy Students and Technicians cont.

- Most frequent discrepancies
  - Removal of discontinued medications (23.7%)
  - Addition of omitted drug (22.5%)
  - Clarification of Dose (20.6%)
  - Clarification of Frequency (18.4%)

MHTs at MidState Medical Center and Hospital of Central Connecticut

- Which patient populations do MHTs complete medication histories for?
  - All patients being admitted from the Emergency Department
  - Direct admits from different hospitals
  - Connecticut Orthopedic Institute patients at MidState only
- Opportunities for MHTs moving forward:
  - Expand services to patients having any kind of planned surgery
  - Help providers with medication histories on discharge

MHT Standard Work

- Utilize sources to compile preliminary medication list
  - Ex. Surescripts, pharmacy, insurance company
- Speak directly with the patient and/or patient’s family if possible
- Ask patients about:
  - Prescription medications
  - OTC medications
  - Herbs/Vitamins
  - Once weekly, once monthly, etc. medications
  - Aspirin
  - Infusion pumps
  - Creams/ointments/lotions
  - Inhalers
  - Etc.

Which of the following should a MHT verbally notify a provider about?

A) Patient states that he splits his lisinopril in half and takes twice instead of once daily
B) Patient states she is taking both rivaroxaban and warfarin
C) Patient states he stopped his dofetilide 5 days ago because he could not afford it anymore
D) Patient states that she stopped her esomeprazole last week
E) A and D
F) B and C

Provider Standard Work: On Admission

- Do not order home medications until medication history is completed by MHT
- Once completed, review each medication for appropriateness
  - MHT completes history
  - Provider completes reconciliation
- Read and act upon notes left by the MHT
- Reorder medications that should be continued inpatient
Pharmacist Expectations: On Admission

- Compare provider’s order to the medication history provided by the MHT
- Double check home medications with Surescripts if possible
- Read and access notes left by the MHTs
- Access orders for appropriateness and accuracy
- Contact provider with any issues or concerns

Provider Standard Work: Upon Discharge

- Review each medication for correct dose and frequency
- Ensure new medications are added to medication list
- Remove medications that were discontinued during inpatient stay
- Discuss discharge medication list with patient

MHT Good Catches

- Patient is ED diagnosed with PE
  - Patient history of dementia
  - Patient managed own medications at home
  - Patient stated she was definitely taking apixaban
  - ED provider canceled surgical thrombectomy to remove PE due to apixaban
  - MHT verified last fill history was > 9 months ago
  - Spoke with prescribing physician who stated he had not sent in recent prescription
  - Patient was not receiving samples
  - MHT communicated findings with ED provider
  - Patient was able to have surgical thrombectomy

Medication Reconciliation in Post-Acute Care Settings

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 at every transition of care in which new medications are ordered or existing orders are rewritten. This process comprises five steps:

1. Develop a list of current medications;
2. Develop a list of medications to be prescribed;
3. Compare the medications on the two lists;
4. Make clinical decisions based on the comparison;
5. Communicate the new list to appropriate caregivers and to the patient.*

*From: http://www.ihi.org/Topics/ADEsMedicationReconciliation/Pages/default.aspx
“Medication Regimen Review (MRR)” or Drug Regimen Review is a thorough evaluation of the medication regimen of a resident, with the goal of promoting positive outcomes and minimizing adverse consequences and potential risks associated with medication. The MRR includes review of the medical record in order to prevent, identify, report, and resolve medication-related problems, medication errors, or other irregularities. The MRR also involves collaborating with other members of the IDT, including the resident, their family, and/or resident representative.

Medication Reconciliation in Post-Acute Care Settings

F 756 continued:

MRR policies and procedures should also address, but not be limited to:
• MRRs for residents who are anticipated to stay less than 30 days;
• MRRs for residents who experience an acute change of condition and for whom an immediate MRR is requested after appropriate staff have notified the resident’s physician, the medical director, and the director of nursing about the acute change.

ACO development = Integra

Transition of care NCMs coming into the nursing facilities to transition and monitor high risk patients to avoid possible re-admission.

The TOC NCMs are assigned by geographic location through the state & work closely with the NCMs and Ambulatory Care Pharmacists in the PCP offices.

So, why not a pharmacist assisting the NCMs from the nursing facilities to “the patients home”?

COPD and CHF are among the top five disease states with the highest rates of readmission according to the most recent CMS data.

The ACO has an average readmission rate for COPD and CHF of 21.5% and 23.2%, respectively.

National average readmission rates for COPD and CHF are 19.8% and 21.6%, respectively

Pharmacist Interventions Completed by the hospital to fund the TOC Pharmacist in the ACO

Integra has two PGY-1’s in the hospital and starting in July 2019 two PGY-2’s starting on the Ambulatory Care Pharmacist Team

The PGY-2’s will be on the Complex Care Team to assist the NCMs for the first year.

Goal is to show similar data as the hospital program to secure permanent funding for a TOC Pharmacist for the Complex Care Management Team in the SNFs.
What are some of the most beneficial roles of the pharmacist when a patient is transitioning from an inpatient setting to “the patient’s home”?

A) Address medication costs and medication access once the patient is “home”
B) Educate the patient and caregivers about the medication regimen
C) Assess and evaluate medication-related problems
D) All of the above

The Case for Medication Reconciliation in Outpatient Settings

- Patients may not recall discharge instructions, follow-up appointments
- Timeframe between hospital/SNF discharge to primary care follow up
- Communication gap from hospital/SNF to primary care physicians
- Potential discrepancies and adverse drug events (ADEs) may continue into the outpatient setting

- Incorporated into:
  - NCQA Patient Centered Medical Home (PCMH) standards
  - Institute for Healthcare Improvement guidance
  - Addresses need to reconcile at all transition points AND at each outpatient visit (i.e., primary care, oncology, outpatient surgery, dialysis)
  - CMS required documentation for Medicare transitional and chronic care management billing

The Case for Medication Reconciliation in Outpatient Settings

Outpatient Care Continuum

<table>
<thead>
<tr>
<th>Site</th>
<th>Individual &amp; Practitioner Focus</th>
<th>Intervention Criteria</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal medicine clinic (L3 PCMH)</td>
<td>Case manager coordination of care, 48-hour pharmacist clinic visit followed by PCP visit</td>
<td>Discharged from facility, seen in clinic (regardless of diagnosis)</td>
<td>Significantly lower hospital readmissions 30 and 90 days; non-significantly lower ED visits 30 and 90 days</td>
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<tr>
<td>Family medicine clinic (L3 PCMH)</td>
<td>Coordination of follow-up visit at discharge, 30-minute pharmacist clinic visit followed by PCP visit</td>
<td>&gt; 18yo, discharged from facility to community, attended HFU</td>
<td>Mean of 4.36 ± 2.65 MRPs per patient (most classified as nonadherence); non-significantly lower 30 and 60 day readmissions</td>
</tr>
<tr>
<td>Family medicine clinic</td>
<td>Pharmacist clinic visit; collaborative practice agreement for anticoagulation management</td>
<td>&gt; 18yo, 10 or more medications, not seen by pharmacist within 6 months; or referral by physician at their discretion</td>
<td>Mean number of discrepancies per visit 6.7 ± 4.7; 3.5 ± 3.2 of those determined to be clinically important (53% of total)</td>
</tr>
<tr>
<td>Multi-site integrated group primary/health plan (PCMH)</td>
<td>Case manager coordination of pharmacy services; follow up call from pharmacist 3 to 7 days post-discharge</td>
<td>High rate of medication identified by hospital care team on chronic diseases, medication reconciliation, version of ability to self-manage</td>
<td>Significantly lower 7 and 14 day readmissions; non-significantly lower 30 day readmissions; net cost savings $35,478/100 patients</td>
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Pharmacist Impact: Studies

Pharmacist Impact: Overview

- Post-discharge medication reconciliation with a pharmacist is a valuable piece of a multidisciplinary care transitions program
- Identification of discrepancies and medication related problems (MRPs)
- Variable data for healthcare utilization impact
- Longer follow-up may be necessary to assess impact of resolving certain discrepancies
- Medication reconciliation process should include:
  - Comprehensive medication review
  - Education
Roles of the Health Care Team in Outpatient Medication Reconciliation

<table>
<thead>
<tr>
<th>Provider</th>
<th>Case Manager/Nurse</th>
<th>Pharmacist</th>
<th>Pharmacy Technician</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>• Clinical decision making (including D/C, I/C or D/C on continuing)</td>
<td>• Collecting best possible medication history</td>
<td>• Collecting best possible medication history</td>
</tr>
<tr>
<td></td>
<td>• Recoupling medication list</td>
<td>• Collecting best possible medication history</td>
<td>• Collecting best possible medication history</td>
</tr>
<tr>
<td></td>
<td>• Reconciling medication list</td>
<td>• Documentation of discrepancy</td>
<td>• Documentation of discrepancy</td>
</tr>
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<td></td>
<td>• Evaluation of regimen appropriateness</td>
<td>• Education on disease states, new medications, changes</td>
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</tr>
<tr>
<td></td>
<td>• Education on disease states, new medications, changes</td>
<td>• Collaboration with pharmacist for complex cases</td>
<td>• Comprehensive review and identification of MRPs</td>
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</tbody>
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Tips for Best Practice in Outpatient Medication Reconciliation at Transitions of Care

- Have medication bottles present
- Define high-risk discrepancies
- Evaluate for medication-related problems
  - Attention to high-risk medications
    - Anti-coagulants
    - Adherence/Access
    - Medications not necessary post-discharge
- Collaborate with inpatient team and home care nursing
- Empower the patient
  - What does the patient hope to get out of the review

Which of the following describes the most appropriate actions the pharmacist should take in the med rec process?

A) Resume metoprolol ER and atorvastatin immediately at previous doses, discontinue olanzapine and trazodone.
B) Discontinue metoprolol ER, atorvastatin, and aspirin indefinitely.
C) Provide teaching for using new inhaler; take no action for medication discrepancies as it is the provider's responsibility to review this with the patient and update the med list.
D) Continue with all medications as noted in the discharge medication list.

Patient Case (continued)

Pre-admission med list (current record)
- Methylprednisolone/salmeterol 115/21 mcg 2 puffs twice daily
- Olanzapine 5 mg daily
- Trazodone 50 mg qhs prn insomnia
- Atorvastatin 10 mg daily
- Metoprolol ER 50 mg daily
- Levothyroxine 50 mcg daily
- Vitamin C 500 mg bid
- Aspirin 81 mg daily
- Docusate 100 mg bid
- Donepezil 5 mg po qhs
- Ferric gluconate 325 mg daily
- Omeprazole 20 mg po qd
- Lisinopril 10 mg daily
- Budesonide 240 mcg qhs
- Calcium carbonate 2400 mg daily

Discharge med list
- Metoprolol ER 50 mg daily
- Fluticasone furoate/vilanterol 100 mcg/25 mcg 1 puff once daily
- Trazodone 50 mg qhs prn insomnia
- Atorvastatin 10 mg daily
- Levothyroxine 50 mcg daily
- Vitamin C 500 mg bid
- Aspirin 81 mg daily
- Docusate 100 mg bid
- Donepezil 5 mg po qhs
- Ferric gluconate 325 mg daily
- Omeprazole 20 mg po qd
- Lisinopril 10 mg daily
- Budesonide 240 mcg qhs
- Calcium carbonate 2400 mg daily

What are the most appropriate recommendations the pharmacist could make to the physician?

A) Resume metoprolol ER and atorvastatin immediately at previous doses, discontinue olanzapine and trazodone.
B) Discontinue metoprolol ER, atorvastatin, and aspirin indefinitely.
C) Communicate with patient's cardiologist and assess risk/benefits of continued use of beta-blocker/statin, consider deprescribing plan for trazodone and olanzapine, resume the patient's formulary inhaler if clinically appropriate.
D) Continue with all medications as noted in the discharge medication list.

References