MEDICATION RECONCILIATION AT TRANSITIONS OF CARE

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Disclosures

- Kendall Crane, Pharm.D. – Nothing to disclose
Objectives

- Define medication reconciliation
- Identify common barriers to implementation of medication reconciliation
- Recognize a pharmacist’s contributions and role in medication reconciliation
- Discuss the foundational concepts for improving medication reconciliation

Brief history of medication reconciliation

- 1999: “To Err is Human”
- 2005: The Joint Commission on Accreditation of Healthcare Organizations designate it National Patient Safety Goal (NPSG) 8
- 2009: The Joint Commission revokes med rec as an accreditation requirement
- 2011: The Joint Commission’s revised med rec requirement (NPSG 03.06.01) became effective
What is med rec?

“Medication reconciliation is the comprehensive evaluation of a patient’s medication regimen any time there is a change in therapy in an effort to avoid medication errors such as omissions, duplications, dosing errors, or drug interactions, as well as to observe compliance and adherence patterns. This process should include a comparison of the existing and previous medication regimens and should occur at every transition of care in which new medications are ordered, existing orders are rewritten or adjusted, or if the patient has added nonprescription medications to [his or her] self-care.”


What is med rec?

“What is med rec?

“Medication reconciliation is the process of creating and maintaining the most accurate list possible of all medications a patient is taking — including drug name, dosage, frequency, and route — and using that list to guide therapy.”

— Institute for Healthcare Improvement

Steps to complete Med Rec

1. Develop current med list
2. Develop list of meds to be prescribed
3. Compare the two lists
4. Make decisions based on comparison
5. Communicate new list to patient/caregiver


Components to Med Rec

- Medication (e.g., drug name and dose)
- Indication (e.g., Take for...)
- Instructions for use (e.g., When do I take it?)
- Start date
- Stop date
- Ordering prescriber/contact information (e.g., doctor)
- Special instructions

Why is this important?

- Approximately 1.5 million preventable ADE's occur annually as a result of medication errors, cost of more than $3 billion per year\(^1\)
- Approximately half of all hospital-related medication errors and 20% of all ADE's attributed to poor communication at transitions and interfaces of care\(^2,3\)
- One in five patients discharged from hospitals suffers an adverse event, 72% of which are related to medications\(^4,5\)


Why is this important?

- ADE's account for 2.5% of emergency department visits for all unintentional injuries and 6.7% of those leading to hospitalizations\(^1\)
- Average hospitalized patient subject to at least one medication error per day\(^2\)
- Occurrence of unintended medication discrepancies at the time of hospital admission ranges from 30 to 70%\(^3,4\)

Why is this important?

- Forster et al: 72% of discharge AE are drug-related
- Moore et al. (J Gen Intern Med 2003)
  - 42% discharged pts had at least 1 med error
- Wong et al. (Ann Pharmacother 2008)
  - 41% discharges with unintentional med discrepancies
  - 29% could potentially have affected outcomes

Admission Medication Reconciliation

- Medication discrepancies on admission result in discrepancies at discharge
- Cornish et al. (Arch Intern Med 2005)
  - 54% admissions with at least 1 unintended discrepancy
  - 39% risked potential harm or clinical deterioration
Discharges and Adverse Events

- Forster et al. (CMAJ 2004, Arch Int Med 2003)
  - ~20% of discharges associated with AEs
    - ~50-60% were preventable
  - Increased health care utilization
    - 21% additional MD visit
    - 12% additional ED visit
    - 17% re-admission
  - 3% permanent disability, 3% death

Post-discharge Medication Discrepancies

- Coleman et al. (Arch Intern Med 2005)
  - 14% post-hospital transitions to home with medication discrepancies
    - ~50% were system-associated
      - Incomplete or inaccurate d/c instructions
      - Conflicting information from different sources
  - CHF and polypharmacy associated with discrepancies
  - 14% required readmission vs 6% without discrepancies
Medication Reconciliation: Can Reduce Errors

- Schnipper et al. (Arch Int Med 2009)
  - RCT of computerized med rec
  - Intervention 1.05 vs control 1.44 PADEs/pt

When to perform med rec?

- At every transition of care...

  “the movement of patients between health care locations, providers, or different levels of care within the same location as their conditions and care needs change”
When to perform med rec?

- Admission
- Transfer
- Discharge

Admission
- Collect list of medications patient is taking
- Make available to prescriber
  - ASAP or at least within 24 hours
- No list is perfect
  - May need to talk to several individuals

No list is perfect
- May need to talk to several individuals
When to perform med rec?

**Transfer**
- Between levels of care
  - Home medication list
  - Current medication orders
  - Transfer orders

**Discharge**
- Home medication list
- Current medication orders
- Discharge medication orders
- **COMMUNICATION!**
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Think-pair-share

What medication reconciliation barriers (or successes) have you experienced in your practice?
Barriers\textsuperscript{1,2}

- Additional work
- “Isn’t this the physician’s job?”
- Communication breakdown
- Physician/staff partial by-in
- Staffing
- “If we only had access to a computerized database, we would not have a problem”
- “We seem to be losing momentum. We have been working at this for a long time”
- Need for standardized medication list and sharing of information between patients and health care professionals


Standardized sharing of information

- Value, usability and portability
  - Perception vs Reality mismatch
- Consider the consumer’s use of the list
  - Health care literacy
  - Language
  - Cognitive ability
  - Assistance of caregiver
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Pharmacist and Med Rec

- Medication experts
- Resolve medication related problems
  - Improper drug selection
  - Sub- and supratherapeutic dosages
  - Medication non-adherence
  - Therapeutic duplications or omissions
  - Drug interactions
  - Drugs with no indications
  - Treatment failures
Pharmacists & Med Rec: The Evidence

- **Gleason et al. (J Gen Intern Med 2010)**
  - Compared pharmacist and hospital physician medication histories
  - 234 (36%) patients had a medication error
  - 85% of those originated in medication histories (over half were omissions)


- **Pharmacist-provided medication therapy review and consultation in various settings resulted in**
  - Reductions in physician visits
  - Reductions in emergency department visits
  - Reductions in hospital days
  - Reductions in overall health care costs

Pharmacists & Med Rec: The Evidence

- **Murphy et al. (Am J Health-Syst Pharm 2009)**
  - 450-bed academic medical center
  - Admission Med Rec
    - ICU: 5.9% (95% CI, 3.1—8.7%)
    - Medical: 11.7% (95% CI, 8.7—14.8%)
  - Discharge Med Red
    - Reduced discharge medication errors
      - Surgical: from 90% to 47% (95% CI, 42-53%; p<0.001)
      - Medical: from 57% to 33% (95% CI, 28-38%; p<0.001)

- **Boockvar et al. (Am J Geriatr Pharmacother 2006)**
  - Pharmacist-conducted med rec of VA NH pts post-discharge
  - Intervention 2.3% vs control 14.5% ADEs
  - OR 0.11 for discrepancy-related ADE

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Pharmacist role in med rec

- Policy and procedure development
- Implementation and performance improvement
- Training and competency assurance
- Information systems development
- Advocacy


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Improving Med Rec

- Foundational concepts
  - Developed by American Pharmacist Association (APhA) and American Society of Health-Systems Pharmacists (ASHP)
  - Encompass the tenets of med rec
  - Intentionally broad to allow application across a variety of practice settings


Foundational Concepts

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Medication reconciliation is a key process required to improve patient care and outcomes in care transitions.

Medication reconciliation is a patient-centered process focusing on patient safety.
Foundational Concepts

**Medication reconciliation requires an interdisciplinary, collaborative approach**

Foundational Concepts

**Medication reconciliation must be based on a culture of accountability**
Foundational Concepts

Medication reconciliation should be standardized

Effective medication reconciliation requires coordinated communication
Foundational Concepts

Medication reconciliation requires integration of health information technology solutions

Foundational Concepts

Medication reconciliation requires a process of continuous quality improvement
Medication Reconciliation
Summary

- Medication reconciliation is more than just a list of medications
- Medication reconciliation needs to occur at every transition of care, otherwise:
  - Signification monetary and ADE consequences can occur
- While barriers exist, pharmacists play a vital role in successful medication reconciliation programs
- Patient safety is the ultimate goal

Questions