Minimizing Risk through Communication: The Medication Reconciliation Process

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Objectives of this presentation

• To share data leading to support for this National Patient Safety Goal

• To define the requirements of this NPSG and clarify how to manage special circumstances

• To define some best practices for successful implementation
Mrs. Jane Doe is a 65 year old with congestive heart failure and angina on exertion...

She is taking the following medications at home:
Nitro-Dur™ (nitroglycerin) 10 cm² daily
    (on for 14 hours, off for 10 hours)
Zaroxylin™ (metolozone) 5 mg daily
Prinivil™ (lisinopril) 5 mg daily

Mrs. Doe is admitted to the hospital after experiencing chest pain and increased shortness of breath …

She is placed on a Chest Pain/CHF treatment protocol, which includes…

• IV nitroglycerin
• IV Lasix™ (furosemide)
“Medication Reconciliation is based on the Premise that in order to use Medications Safely, one should know the Medications the Patient has been on up to that point in time…”

Richard Croteau, MD
The Joint Commission

Why Is Medication Reconciliation Important?
Most frequently occurring type of medical error:
  – Medication errors
Most frequently cited category of root causes for serious adverse events:
  – Ineffective communication
Most vulnerable parts of a process:
  – Links between the steps (the “hand-offs”)

Medication reconciliation addresses all of these
Involvement of the Patient and Family is Important to the Process

- Providing information about the medications patient is taking
- Keeping them informed about changes to the medication regimen
- Education about medications, desired effects and side effects
- Encouraging them to voice concerns they might have
The JCAHO 2006 National Patient Safety Goals

Goal #8: Accurately and completely reconcile medications across the continuum of care.

Requirement #8.a.
Implement a process for obtaining and documenting a complete list of the patient's current medications upon the patient's admission to the organization and with the involvement of the patient. This process includes a comparison of the medications the organization provides to those on the list.

Requirement #8.b.
A complete list of the patient's medications is communicated to the next provider of service when it refers or transfers a patient to another setting, service, practitioner or level of care within or outside the organization.

2007 Clarification for Medication Reconciliation

Accurately and completely reconcile medications across the continuum of care.

There is a process for comparing the patient’s current medications with those ordered for the patient while under the care of the organization.

A complete list of the patient’s medications is communicated to the next provider of service when a patient is referred or transferred to another setting, service, practitioner or level of care within or outside the organization. The complete list of medications is also provided to the patient on discharge from the facility.
Steps in the Reconciliation Process

Develop a complete and accurate list of the patient’s medications (Not new: see MM.1.10)

Compare (reconcile) the listed medications with any new orders for medications
  - Omission
  - Duplication
  - Interaction
  - Name/dose/route confusion

Update the list as orders change during the episode of care

Communicate the updated list to the next provider(s) of care

Which Medications Must Be Reconciled?

Medication” includes:
  - Prescription medications
  - Sample medications
  - Vitamins
  - Nutraceuticals
  - Over-the-counter drugs
  - Vaccines
  - Diagnostic and contrast agents
  - Radioactive medications
  - Respiratory therapy-related medications
  - Parenteral nutrition
  - Blood derivatives
  - Intravenous solutions (plain or with additives)
  - Any product designated by the FDA as a drug
How Many Lists Do We Need?

An initial “home” medication list
Keep this handy—don’t change it.

A list of medications that is updated throughout the episode of care
This corresponds to what is on the M.A.R.

Which list do we use for reconciliation? **Both!**

Remember, some “home” medications may be held when a patient is admitted or goes to surgery. They may need to be resumed upon transfer to a different level of care, return from the OR, or at discharge.

Who Should Do This?
Assign Responsibility!

Pharmacist is a logical choice – but can be any clinician with the background and experience necessary

Often RN with primary responsibility to ensure completion, contacting MD and passing off unreconciled meds at shift change

MD: Ultimately responsible and may be best choice. Efficient.
When Should This be Done?

On admission, or as soon as possible thereafter
- Prior to next prescribed dose
- Max: 24 hours; Target: 6-8 hours – 4hrs for high risk meds/circumstances
- Ideally done prior to MD writing admit orders.
- Requirement: within timeframe of the initial assessment (hospitals=24 hrs)

High Risk Medications Recommended to be Reconciled Within 4 Hours

- Antibiotics
- Insulin
- Antihypertensive agents
- Anti-rejection drugs
- Antiarrythmics
- Inhalers
- Anticonvulsants
- Oral hypoglycemics
- Anti-anginal drugs
- Pain medications
- Eye medications
Designing the Medication Reconciliation Process

Incorporate the process into existing activities, rather than creating an add-on process
Will require a multidisciplinary involvement
Responsibility should not fall on a single individual

What About “Minimal Medication Use” Scenarios?

Brief outpatient encounter (e.g., ED, X-Ray)
No new meds prescribed for use after discharge
No changes to the patient's “current meds”
“Minimal medication use” during encounter
  - Act locally with minimal systemic activity
  - Examples:
    - Minimally absorbed topical agents
    - Low volume local infiltration anesthetics
    - Non-absorbable enteric contrast agents
Should the Med Rec process be different?
Special Circumstances

Emergent or urgent situations

• Immediate care takes precedence

• Medication reconciliation to be completed after acute phase

Medication Reconciliation in the Emergency Room

- Screening reconciliation for all

- Focused reconciliation based on relevance

- Full reconciliation for admitted patients
Medication Reconciliation in the OR

- List of current medications must be available
- Anesthesia provider to use this list in decisions involving inter-operative medication

Medication Reconciliation and Imaging Services

- If any medication is given, a list must be obtained and reviewed to determine:
  - If contrast or other drugs are appropriate
  - If home medications will impact results of imaging study
  - If the patient requires administration of any home medication during the time in Radiology
- If there are no changes to the patient’s medication after the study, 8B does not apply
Confusing Concepts in the Discharge Process

• Discharge orders
  – Prescriptions and other orders directed at providers

• Discharge instructions
  – Directed to the patient

• Discharge list of the patient’s medications
  – Directed to the patient and providers

Case Study: Medical Center
3 Phases of Implementation

Phase I Admission reconciliation: completion of home medications list and comparison with admission medication orders
Phase II Transfer reconciliation: comparison of medications between different levels of care
Phase III Discharge reconciliation: comparison of meds taken at home, taken in the hospital and ordered at discharge
Case Study: Medical Center

Phase I: Admission reconciliation began with one unit
Created paper tool
Developed education about process
  – Provided to nursing unit
  – Presentations to medical staff
  – Flyers on units, dictation cubicles, physician mailboxes, letters to Dr offices
Tool revised: used as order sheet plus reconciliation

Implemented Discharge Phase next
  – Pharmacy review prior to discharge
  – Physician review after pharmacy
  – Tool revised: column added for noting medication continued, changed or discontinued

Phase II: Transfer reconciliation last to be implemented
  – Transitioned from paper process to electronic format
  – Eliminated duplication of work where possible
Troubleshooting the Process

Looking at the Components of a Successful Program

MA Coalition Recommendations

Assign primary responsibility to someone with sufficient expertise in context of shared accountability
  - Safety net

Reconcile within specific timeframes

Develop clear procedures – not just policies
MA Coalition Recommendations

Adopt a standardized form
- It's not about the form – modify
- Place in highly visible location in patient chart

Engage patient
- Review list of patient diseases or physicians' list
- List of commonly missed drugs (qweek, eye or skin medications).
- Engage patient visually

MA Coalition Recommendations

Provide access to drug information resources and pharmacist advice

Include in regular orientation/in-service education program

Provide ongoing monitoring and feedback
- 20 charts per month – never goes away
Organizational Commitment

- Senior Leadership Sponsorship
- Medical Staff engagement
- All Involved Staff appreciate patient safety implications
- Continuous improvement of the process

Developing a Process that Works!

- Policy developed
  - “Must have” procedures
    - Generate patient’s pre-admission medication list
    - Compare that list to physician orders
    - Specify when to call/stat page physician to review discrepancies
    - Back-up procedures for special situations including unavailability of ordering physician and evening/weekend admissions
    - Process for nurses to pass off non-reconciled meds at shift change for follow up by next shift
    - Identify high-risk situations requiring RPh involvement
    - Identify high-risk situations which require specialists, case managers
    - Prohibit blanket orders such as “continue all meds” or “resume all meds”

Source: Massachusetts Coalition on the Prevention of Medical Errors. Nov. 2005
Process Defined

- Flow maps address different settings
  - Inpatient versus Ambulatory
  - Admission, transfer, discharge
  - Unique areas such as ED, Radiology, Clinic
Techniques for Patient Interviews

- Patient informed of importance
- Privacy, sensitivity and confidentiality
- Ask if the patient maintains a list of medications
- Ask to see containers for each
- Ask about medical conditions patient has and meds
- Open-ended questions
- Develop a script of probing questions to insure consistency in process

Sources of Confusion for Patients Regarding Medications

- Multiple names for a single drug
- Failing to instruct patient about medications taken at home that weren’t written for at discharge
- Switches to “formulary” versions when admitted
- Changing the dosage strength or frequency without sufficient understanding by the patient as to why
Develop a Good Form

- No need to invent from scratch
- Many forms are available to customize
- Source for form examples
  www.ihi.org/IHI/topics/PatientSafety/medication_systems
  www.macoalition.org

Suggested Items to Include on a Form

- Prescription medication (name, dose, route, administration schedule)
- Other patient medications (vitamins, supplements, herbals)
- Source of information (patient, med bottle, family, PCP)
- Time of last dose
- Assessment of patient compliance
- Indication for drug
- Patient height and weight
- Food and drug allergies and known reactions
- Person(s) completing the medication list form
- Time and date of completion
Other Operational Challenges

- Staffing shortages
- Pharmacy not available 24/7
- Physician availability for timely reconciliation
- Access to necessary forms, patient information and alternative resources to complete the process
Refining the Process with Experience

• Begin the process
• Assess the process
  – Staff surveys
  – Audits
    • Closed chart
    • Tracer audits

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<tr>
<th>Roadblocks</th>
<th>Actions Taken to Overcome Roadblocks</th>
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<td>1. Medical staff acceptance.</td>
<td>• Increase the number and type of physicians on your team. Include obstetricians, cardiologists, psychiatrists, and surgeons.</td>
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<td>2. Overcoming concerns related to the accuracy of the selected medication list.</td>
<td>• Review department-specific medical forms and physician discharge practices prior to implementation of standardized forms and practices.</td>
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<td>3. Ownership for medication oversight.</td>
<td>• Move to change the organizational criteria to one that emphasizes patient care instead of discipline determinants.</td>
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<td>4. “My patient’s type is very unique,” and “You just don’t understand.”</td>
<td>• Increase the number of physician assistants.</td>
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<td>5. Consistency among residents and physician extenders.</td>
<td>• Obtain buy-in of physician extenders.</td>
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<td>6. Organizational climate vs. small test of change.</td>
<td>• Implement process unit by unit. Delay hospital-wide implementation until medical, nursing, and pharmacy staffs are ready.</td>
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