Medication Reconciliation

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Frederick, Maryland

Scope of the Project

- Implement an automated medication reconciliation tool
- Meet the 2006 JCAHO patient safety goal of reconciling medications starting at admission and continuing through discharge
- This project will take a phased approach.
  - Phase I: Admissions
  - Phase II: Transfer
  - Phase III: Discharge
PROCESS IMPROVEMENT:
JCAHO Patient Safety Goal #8

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

- 8A  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.
- 8B  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.

Project Objectives

- Implement and facilitate the discharge medication reconciliation process, which is an organizational patient safety initiative.

- Facilitate the documentation and quality of home medication information in the electronic medical record. (EMR)

- Transition discharge instructions from a carbon copy paper system to the EMR in order to improve access to and the legibility of this information.
Project Objectives cont.

- Facilitate and improve compliance with discharge patient education documentation, which includes core measure indicators
- Provide the patient with a legible discharge instructions
- Provide the patient with a complete list of home medications in layman’s terms

Barriers:

- Physician and staff cooperation and acceptance
- Staff Perception of the Patient’s solicited list of Medications
- Communication between consultants
- Time for nursing/physician education especially with the planned phased approach
- Increased time to actually complete med reconciliation if it was not part of their current practice
Roles/Responsibilities
Staff involved with project

- Patty Grunwald, Pharmacy, Project Coordinator
- Cindy Russell, Nursing Project Coordinator
- Lisa Block, Manager, Admissions Center
- Jackie Rice, IS, Manager EMR Group
- Jeffrey Cowen, Cardiology, Member P&T
- Lalit Verma, Hospitalist
- Neil Waravdekar, Pulmonary, Chairperson, P&T
- Andrew Donelson, Internal Medicine, IS Physician Consultant
- Sharon Powell, Director, Performance Improvement
- Sue Archer, Clinical Nurse Specialist, ICU
- Bonnie Pitt, Director, Pharmacy
- Rose Labriola, VP Patient Care Services
- Craig Rosendale, VP, Chief Compliance Officer
- Beth Cipra, Education Specialist, TODD
- Kate Smith, Clinical Nurse Specialist, Med-Surg
- Valerie Dailey, EMR IS Liaison, Physician Education
- Lauren Small, EMR IS Liaison, Trainer
- Jean Havrilla, Director Nursing Resources, IS Liaison Nursing
- EMR Team Members

Physician Feedback on Medication Reconciliation Process

- Our Med Rec Group felt it was the physician’s responsibility to complete
- Physicians in the group felt that for this to work the Med Rec forms needed to be Physician order forms
  - Discharge Med Rec from: Med Rec and discharge instructions are combined in one process, they did not want to complete two forms on discharge. They wanted access to this discharge information in PCI after the patient was discharged
Pharmacy Feedback
Medication Reconciliation Process

- Pharmacy currently performs reconciliation of all herbal products and vitamins from the admission process
- Would review the Med Rec Order Forms when they are faxed to the Pharmacy and communicate with Physicians as needed
- Would not have the Pharmacy staff to complete the Medication Reconciliation in place of the physician

Nursing Feedback on Medication Reconciliation Process

- Current Process is to collect list of medications in Nursing History, this list should be leveraged
- Did not want to be responsible for Medication Reconciliation
- Did not want to rewrite the patient’s list of medications at discharge
- Legibility is important to the nurse and patient
- Would like the patient’s list of meds to be updated at discharge and default into the next admission history
Example: Discharge Error

- Discharge Error
  - Patient takes Prevacid at home
  - Hospital formulary auto substitutes for Protonix
  - Patient receives discharge instructions to continue all meds at home and a new prescription for Protonix
  - Upon return visit to gastroenterologist, patient had been taking both Prevacid and Protonix since discharge

Discharge Medication Reconciliation

Combined Discharge Instruction Process
Opportunity to include Core Measures

- CHF (Congestive Heart Failure Teaching)
- Food and Drug Interaction Teaching
  - Easier to identify the patients
  - Education would show on last page of discharge process
  - Look ups for Staff information
  - Discharge Instructions for both print automatically with Discharge instructions

Timeline/Training for Discharge Medication Reconciliation

- June 06 Marathon – Excluded Psych, OR, ED, and MBU (Oct 06)
- Discharge Medication Reconciliation – 30min station
- Included a PowerPoint presentation with Examples of Med Rec Errors, Pocket Sized Handout, time for hands on computer practice
- Pilot on 4B Med/Surg Unit and with Hospitalists House wide
Physician Training

- Physician IS Liaison, EMR Physician Educator, and the Pharmacy Project Coordinator attended Medical Staff meetings
- Physician CMEs were held and well attended
- A PowerPoint presentation of how to complete medication reconciliation was placed on the physician portal
- EMR Team Support was provided one on one during the roll out for Discharge Medication Reconciliation

Pharmacy Training

- Emails
- Staff Meetings
- Use of Pharmacy IS Liaison to follow up with Pharmacists
Nursing Training

- Self Learning Packet, Posters on all units and Super users
- EMR Marathon for Discharge Med Rec and review of Admission Med Rec
  - List of FAQ
  - Online Tutorial on our FMH Intranet
  - Pocket size Guide for staff reviewing the Process
- EMR Updates on Med Rec process planned for Fall Mandatory Nursing Marathon

Four Easy Steps!

1. The MD prints out the D/C form, fills it out and places it on the chart.
2. The Nurse enters the information into Process Interventions, using the Discharge Instruction Intervention.
3. The Nurse prints the patient's instructions (2 copies auto-print).
4. The patient signs the copies. One copy stays in the chart and one goes home with the patient.
When a patient is to be discharged:

- The MD (or RN) prints the “Med Reconciliation – Discharge Orders” form.
- This can be found under Print Reports on the Status Board:

```
<table>
<thead>
<tr>
<th>Status Board / MDU</th>
<th>Administrative / Charge Nurse Reports</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Order / Edit Temporary Location</td>
</tr>
<tr>
<td></td>
<td>Order / Strats / Sent Messages</td>
</tr>
<tr>
<td></td>
<td>Orderable / Tools / Set Procedures</td>
</tr>
<tr>
<td></td>
<td>MD Rounds Report</td>
</tr>
<tr>
<td></td>
<td>MDU</td>
</tr>
</tbody>
</table>

| Edit Medication List for Discharge |

Be sure to delete any home meds the doctor does not want them to continue taking, to edit any doses the doctor changes and to add any new medications the doctor orders.

```

<table>
<thead>
<tr>
<th>&gt;&gt;&gt;&gt;&gt;&gt; Medications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Next</td>
</tr>
<tr>
<td>--------</td>
</tr>
<tr>
<td>ASA</td>
</tr>
<tr>
<td>IBU</td>
</tr>
<tr>
<td>POTASSIUM</td>
</tr>
<tr>
<td>FAMCICILIN</td>
</tr>
<tr>
<td>PENICILLIN</td>
</tr>
<tr>
<td>ACETYL</td>
</tr>
</tbody>
</table>

Indicate if it is a new med
Add comments as needed
Benefits of Editing Med List

- Patient goes home with an easy to understand, ACCURATE list of medications, with frequencies in layman’s terms
- If the patient is re-admitted, the list of meds that recalls will be the meds they were last discharged on, making it more accurate
- The information is available in PCI

Mandatory D/C Patient Education

The last page is the Patient Education Screen. Don’t forget to fill out the Mandatory Food/Drug and CHF questions!

If you answer “Y”, CHF education auto-prints!
Responsibilities for the Process

- **Attending Physician**
  - Complete and document the process of med reconciliation
  - Print Discharge Med Reconciliation form and complete

- **Nursing**
  - Print the admission and transfer forms for med reconciliation
  - Input the DC Meds and DC Instructions
  - Print Discharge Patient Instructions and review with patient

- **Pharmacist**
  - Review med reconciliation form and checks for errors

Staff Feedback Concerns

- **Physician Noncompliance**
  - Our VP of Medical Affairs individually met with physicians who had concerns
  - Physician IS Liaison meet with physicians individually
  - Physician EMR Trainer provided assistance in the physician lunch area each week
  - CME Planned and well attended

- **Nursing concerns** - We completed a Gap Analysis Study before going house wide with the process
**Gap Study analysis of Discharge Medication Reconciliation**

- **Purpose:** To compare the paper-based and on-line discharge instruction processes, in terms of meeting patient safety goals and JCAHO requirements.

- **Methodology:**
  - Review the charts of patients who were discharged between 7/7/06–8/1/06
  - Randomly select **30 applicable charts from the pilot unit – 4B**
    - Select charts in which the patient was discharged to home
      - Exclude transfers to TCU, nursing homes, or other hospitals
    - Narrow the selection to patients who were given discharge instructions via the **new on-line process**.
  - Randomly select **30 applicable charts from 3B, 3G, & 4G** (10 charts from each unit)
    - Select charts in which the patient was discharged to home
      - Exclude transfers to TCU, nursing homes, or other hospitals
    - Narrow the selection to patients who were given discharge instructions via the **old paper process**.

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**Discharge Medication Reconciliation Gap Analysis**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>July 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Paper Process</td>
</tr>
<tr>
<td>Home medications documented in Admission History?</td>
<td>100%</td>
</tr>
<tr>
<td>“Resume home meds” written by MD?</td>
<td>21.2%</td>
</tr>
<tr>
<td>Medication reconciliation documented?</td>
<td>0%</td>
</tr>
<tr>
<td>Discharge medication order discrepancy noted?</td>
<td>81.8%</td>
</tr>
<tr>
<td>Was the error significant?</td>
<td>46.2%</td>
</tr>
<tr>
<td>Did patient receive a complete list of home medications?</td>
<td>30.3%</td>
</tr>
<tr>
<td>Is the medication list legible?</td>
<td>60.0%</td>
</tr>
<tr>
<td>Were the medications ordered in layman’s terms?</td>
<td>66.7%</td>
</tr>
<tr>
<td>Did the nurse make any transcription errors when the discharge instructions were entered on-line?</td>
<td>N/A</td>
</tr>
<tr>
<td>Was the error significant?</td>
<td>N/A</td>
</tr>
<tr>
<td>Signed copy of discharge instructions on chart?</td>
<td>97.0%</td>
</tr>
<tr>
<td>Is the home medication list given to the patient identical to the list documented in the Discharge Summary Report?</td>
<td>42.9%</td>
</tr>
</tbody>
</table>

n = 33

n = 30
Evaluation Process

- 100% review during pilot
- Thereafter, 25 cases per area per month, Super users from ICU, Med Surg, and Pharmacy Students participating
- Data collected:
  - Number possible reconciliations
  - Percent charts with form
  - Percent with signed forms
  - Number home medications restarted
  - Number hospital medications DC’d

Medication Reconciliation Completed?

- Admission
  - Once within the first 24 hours
- Transfer
  - Prior to transfer from ICU or PACU to an inpatient department
- Discharge
  - Prior to discharge from FMH to Home
  - Prior to discharge to TCU – forms being revised
  - Prior to discharge to Nursing home – forms being revised
Core Measures Meet Medication Reconciliation

- The medication history is updated at discharge and demo recalls the next time the patient presents for care
- Patient takes home a legible list of all medications
- The discharge instructions are available in PCI for physicians and other FMH Outpatient affiliates such as ED, Home Health, Hospice
- Weekly audits of discharges to home average 95% compliance with the on-line discharge medication reconciliation process

Summary of Discharge Medication Reconciliation