Regional Medication Safety Initiative: Enhancing Communication and Coordination Between Hospital-Based Clinicians, Community Pharmacies, and Outpatient Physician Offices

Bruce Lambert, Ph.D.
Associate Professor
Department of Pharmacy Administration
University of Illinois at Chicago
833 S. Wood St. (MC 871)
Chicago, IL 60612-7231
lambertb@uic.edu

Overview

- Project goals and objectives
- What is medication reconciliation?
- ‘Defragmenting’ drug therapy
- What do we want to accomplish today?

Project Background

- Project funded by Michael Reese Health Trust (Lambert/Schiff PIs, under CPSF)
- 2-year planning grant started January 2005
- Year 1: build team, plan pilot, invitation only meeting, open meeting
- Year 2: execute pilot and plan for future

Long-Term Objective

- To improve the safety of the drug use process by creating better communication linkages between community pharmacies, hospitals and outpatient physician offices.
- (What about other nodes in the continuum of care?)

Specific Aims

- To bring together a planning group of consumers, community pharmacies and pharmacists, office-based clinicians, and hospital-based clinicians to identify the highest priority challenges and opportunities with regard to medication reconciliation
- To enroll at least one solo practitioner, one primary care group practice, one hospital and one community pharmacy in our medication reconciliation demonstration project

Specific Aims

- To implement locally-defined, boundary-spanning, best practices for reconciliation among these participants
- To evaluate the success of the planning effort
- To seek funding for a larger scale demonstration of the successful practices

Project Timeline

Activity	Qtr 1	Qtr2	Qtr3	Qtr4	Qtr5	Qtr6	Qtr7	Qtr8
IRB approval	xxxx							
Meet with e-prescribing vendors	xxxx	xxxx						
Meet with IHA med reconciliation project participants		xxxx						
Meeting of key informants		xxxx	xxxx					
Community meeting				xxxx				
Plan/organize reconciliation efforts				xxxx	xxxx			
Recruit community pharmacies for reconciliation project		xxxx	xxxx		xxxx			
Recruit office-based physicians			xxxx		xxxx			
Implement reconciliation plans						xxxx	xxxx	xxxx
Evaluate progress								xxxx
Write up final report								xxxx

What Have We Accomplished Thus Far?

- Built core planning team
- Met by teleconference every two weeks since March 2005
- Worked on our own definition of medication reconciliation
- Reviewed other ongoing efforts
- Secured tentative commitment from retail pharmacy chain to participate

Peer Review

- The Michael Reese Health Trust will sponsor a peer review
- Half Day (morning)
- Ron Stock, MD from SharedCarePlan.org
- Thursday, October 27, 2005
- Location?

Goals and Objectives of Peer Review

- Give feedback on design of pilot project
- Inform us about similar projects/progress elsewhere
- Identify barriers and ways to overcome barriers
- Evaluate our process of collaboration
- Assist us in identifying key technologies
- Give us macro perspective on RHIOs and other related issues

How does this project relate to other local efforts?

- IHA project
  - Admission reconciliation (20+ hospitals)
  - Becky Steward
- Northwestern project
  - Kris Gleason
  - Direct admission and transfer reconciliation
  - AHRQ-funded

Other Initiatives We Are Exploring

- Regional Health Information Organizations
  - PeaceHealth (Portland, OR), http://www.sharedcareplan.org
  - Indianapolis
  - Massachusetts
  - Colorado, http://www.CareTransitions.org
  - Australia, http://www.health.gov.au/internet/wcms/publishing.nsf/Content/nmp-guiding

What is Medication Reconciliation?

- The American Heritage® Dictionary of the English Language, Fourth Edition---*reconciliation*:
  - To reestablish a close relationship between.
  - To settle or resolve.
  - To bring (oneself) to accept: *He finally reconciled himself to the change in management.*
  - To make compatible or consistent: *reconcile my way of thinking with yours.* See synonyms at *adapt*.
  - To reestablish a close relationship, as in marriage: *The estranged couple reconciled after a year.*
  - To become compatible or consistent: *The figures would not reconcile.*

JCAHO Has Its Own Definition

- **Goal 8 requires an accurate and complete reconciliation of medications across the continuum but the requirements relate only to obtaining and communicating a complete list of medications. Please explain.**
- A. The intent of the goal is that whenever a patient/client/resident moves from one "setting, service, practitioner, or level of care within or outside the organization," the complete and current list of that patient/client/resident's medications—as obtained on admission/entry and updated during that episode of care—will be communicated to the next provider of service to be compared (reconciled) with the medications to be provided in/by the new setting, service, practitioner, or level of care. The list will reflect changes that occurred during the episode of care.

More on JCAHO Goal

- Goal: Accurately and completely reconcile medications across the continuum of care.
- During 2005, for full implementation by January 2006, develop 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.
- 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.

JCAHO: What needs to be reconciled?

- Rx medications, samples, herbals, vitamins, nutraceuticals, OTCs, vaccines, diagnostic and contrast agents, radioactive meds, respiratory therapy products, parenteral nutrition, blood derivatives, intravenous solutions, and any product designated by the FDA as a drug.
- Excluded: enteral nutrition solutions, oxygen or other medical gases.
  http://www.drugtopics.com/drugtopics/article/articleDetail.jsp?id=143478

Defragmenting Drug Therapy

- Not having an accurate list of a patient's current medications is not the problem---it is a symptom
- The underlying disease is fragmentation
- Medication reconciliation is symptomatic treatment---a band-aid
- Real treatment would attack fragmentation

Who Will Take Responsibility?

- Someone in the patient's life has to take responsibility to coordinate and oversee the drug therapy. Put your name to it. Manage uncertainty. Whom to contact?
- Who is going to take responsibility? Short of a dedicated professional, how do we manage this in such a fragmented system?
- Responsibility likely to be a shared between PCP and pharmacist.

How many patients can one provider handle?

- Answer is a function of the number of providers, patient's acuity, level of involvement and cognitive capacity not just number of meds or number of diagnoses.
- One person can do perhaps 2 patients per day if we mean high level reconciliation

Levels of Reconciliation

- What are they on?
- Why are they on it?
- What did they stop and why?
- Matching, comparison, and organizing
  - Sort by indication
  - Sort by pharmacologic category
  - Match with problem list
- Why are they in the hospital?
  - Is this best treated by drug therapy?
  - Could lifestyle do the trick?

Levels of Reconciliation

- Appropriateness of drug therapy?
- Reconciling for renal/hepatic function?
- Reconciling with formulary
- Reconciling with clinical guidelines
- Reconcile with other lab results
- Reconcile with individual personal experience
- Reconciling past with present (what drugs have they failed on?)

Levels of Information Need

- Type and extent of information need depends on level of reconciliation being attempted
- “Merely” getting an accurate list (i.e., “first-order reconciliation”) is hard enough and often not achieved
- Our designs should keep in mind the higher levels of reconciliation

Is “Reconciliation” the Right Term?

- Medication coordination
- Medication therapy management (a la new Medicare benefit)
- Managing regimens not prescribing drugs
- Medication rationalization
- Avoiding the slippery slope

Nodes in the Continuum of Care

- Home
- Hospital
- Outpatient Pharmacy
- Outpatient physician office
- Others
  - Rehab, long term care, social work, prison, nutritionist, PT, OT, etc., etc.

4 Nodes Yield 12 Interfaces

- Patient contacts hospital
- Hospital contacts patient
- Patient contacts pharmacy
- Pharmacy contacts patient
- Patient contacts outpatient clinic
- Outpatient clinic contacts patient
- Hospital contacts outpatient pharmacy
- Outpatient pharmacy contacts hospital
- Hospital contacts outpatient clinic
- Outpatient clinic contacts hospital
- Pharmacy contacts outpatient office
- Outpatient clinic contacts pharmacy

Complexity Within Nodes

- Each “geographic” node has its own internal complexity
- In the home there is the patient and the caregivers
- In the pharmacy there are multiple pharmacists and technicians
- In the hospital there are multiple MDs, RNs, PharmDs and others
- In the outpatient clinic there are receptionists, nurses, and MDS

What Do We Want to Accomplish Today?

- The goal of today's meeting is to assess the extent of agreement or disagreement on basic goals and strategies.

Key Questions to Consider

- What sort of information is most important to share across boundaries?
- Which personnel should do the actual communication and coordination?
- Which patients will participate and how will their informed consent be gained?
- What technical obstacles exist?
- What practical obstacles exist?
- What are realistic goals for the two-year timeframe of the project?
- How might we measure our success?

Some Basic Procedural Questions

- What is the actual (physical) format of the medication list?
- How do you deal with meds at home but not hospital?
- How do you make sure meds get ordered, filled, received?
- How do you deal with formulary conflicts?
- How do you inform the primary care giver?
- How does the list get from the patient to the pharmacist?
- How do we make sure meds get filled?
- How (and to whom) do we feedback what does get filled?
- How do we assess and deal with compliance and how do we inform MD that noncompliance is a problem?
- How do we handle discontinuations?

Topics for Morning Presenters

- This is what I need
- When I need it
- Why I need it
- What format I need it in
- Where can I get it?
- Barriers/limitations?

Plan for the Day

- Morning
  - Discuss consumer, hospital, pharmacy, and outpatient physician perspectives, problems, and ideals
- Working Lunch
- Afternoon
  - Analysis of failure modes
  - Discussion of current models around US
  - Group design of pilot project

Summary

- A difficult problem that no one has yet solved
- We will a modest, local attempt not to solve the problem but to better understand it
- We need lots of help, input, cooperation, resources