Experience with the Program (continued)

Patient Outcomes

• Medication reconciliation on admission or discharge increased from 500/month to over 2500/month

• 30-day unplanned readmission rate for patients receiving medication reconciliation decreased from over 20% per month to around 12% per month

Experience with the Program

Process Outcomes

• Bed to pharmacist ratio fell to 24:1 in most service lines

• ICUs, oncology, transplant services, and cardiology deployment was based on interdisciplinary team alignments while medicine and surgery pharmacist deployment was based on patient care units with a bed to pharmacist ratio below 30:1

• Integrate clinical pharmacy specialists and unit based pharmacists into hybrid of team and patient centered care

• Activities were retrospective focused on
  • Order review
  • Medication reconciliation
  • Delivery of medications

• Phase in over 2 years

• Clinical pharmacy specialists – 17 pharmacists in 6 clinical areas

• Pharmacists provided
  • Pharmacokinetic dosing
  • Drug information services
  • Emergency response
  • Discharge rounds

• To change pharmacy practice model to
  • Most proposed changes in healthcare regarding “patient satisfaction”
  • Decrease risk of reduced payments due to readmissions within 30-days of discharge
  • Provide patient centered, comprehensive, pharmaceutical care

• Patient Centered Pharmacy Practice Model

• Provide team pharmacists for intensive care units (ICU), transplant, oncology, pain management, cardiology, anticoagulation stewardship, and antimicrobial stewardship

• Deployment of patient centered care pharmacists over 23 patient care units with a bed to pharmacist ratio below 30:1

• Add to previous activities

- Introduction to patient within 24 hours of admission
- Assessment of patient understanding with current medications
- Completion of medication reconciliation on admission
- Provision of patient education for all new medications
- Optimization of pharmaceutical care
- Avoid adverse reactions
- Maximize drug dosing
- Stop medications without indications
- Identify unduplicated course of therapy
- Completion of medication reconciliation and re-education of patients and families at discharge
- Education of high risk populations using MedActionPlan®
- Older than 85 years
- Multiple inpatient admissions and emergency department visits
- Selected disease states (i.e., transplant, congestive heart failure)

Experience with the Program

Process Outcomes

• Number of pharmacist interventions increased from 500/month (16/day) to 10,000/month (333/day), a 2000% increase from FY07 to FY13

• For FY13 over 95% of all adult patients received a pharmacy intervention

• Cost avoidance for adverse drug events avoided increased from $1.7 million/year for FY07 to $6 million/year for FY13

• Cost avoidance for medication reconciliation on admission and discharge averaged $500,000/month

• Total cost avoidance estimated to be $12 million

Experience with the Program (continued)

- Physician consults averaged 800 and 700/month respectively

- Medication reconciliation and patient education averaged $500,000/month

- Total cost avoidance estimated to be $12 million

- Number of pharmacist interventions increased from 500/month to over 2500/month

- 30-day unplanned readmission rate for patients receiving medication reconciliation decreased from over 20% per month to around 12% per month

Effect of Practice Model Changes in FY2010 on Ratio of Patient Beds to Pharmacist

<table>
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<th>Patient Units</th>
<th>FY2009</th>
<th>FY2010</th>
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<th>Revised Ration</th>
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<td>Emergency Room</td>
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</tbody>
</table>

Categories of Pharmacist Interventions FY2012 thru FY2013

- Identify untreated conditions
- Stop medications without indications
- Maximize drug dosing
- Stop medications without indications
- Avoid adverse reactions
- Anticoagulation
- Drug information services
- Emergency response
- Discharge rounds
- ICU
- Oncology
- Transplant
- Critical Care
- Cardiology
- Anticoagulation
- Medication reconciliation
- Order review
- Medication reconciliation
- Medication reconciliation
- Medication reconciliation
- Medication reconciliation
- Medication reconciliation
- Medication reconciliation
- Medication reconciliation
- Medication reconciliation
- Medication reconciliation