The Development and Success of a Transitions of Care Program

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Drs. Antigua and Corsberg have no relevant financial or nonfinancial relationships to disclose.
Objectives

1. List the goals outlined by the Centers of Medicare and Medicaid Services (CMS) and The Joint Commission (TJC) for transitions of care (TOC).

2. Describe the role of pharmacists in the advancement and implementation of a TOC program.

3. List and describe the metrics used for the TOC program including medication-related interventions, pharmacy services time, recommendation acceptance rates by other providers, and overall rates of readmission.
Transitions of Care

“The movement of patients make between health care practitioners and setting as their condition and care needs change during the course of a chronic or acute illness.”

The Impact of Transitions of Care

- 72% of post-discharge adverse events are medication related
- 60% of all medication errors occur during times of care transition

“Many patients are discharged without understanding their illness or treatment plans, or inadvertently discontinue important medicines needed to stay well”

The LARGEST Impact

Unplanned Hospital Readmissions

$15B
2005 data

76% Readmissions are Preventable

= $12B

Hospital Readmissions

Medicare 30 day readmissions as a percentage of admissions in 2009

“Improving Care Transitions,” Health Affairs, September 13, 2012, Available at http://www.healthaffairs.org/healthpolicybriefs/
Why a New Model?

- Institute of Medicine Report 2001, “Crossing the Quality Chasm”
  - Less than 50% of patients with major chronic illness receive accepted treatments
  - Less than 50% have satisfactory disease control
  - Focus on episodic and continuous care
  - Little attention given to the patient’s knowledge, skills, behavior in managing their own illness

The “Big 6 Aims”

Goal 1: Make care safer

Goal 2: Strengthen caregivers

Goal 3: Effective Communication

Goal 4: Prevention

Goal 5: Work with Communities

Goal 6: Affordable

Game Changer

- “Medicare is no longer a program that just pays the bills”
- Dr Patrick Conway, Chief Medical Officer, CMS
Hospital Readmission Incentives

Promises

- Hospitals receive higher Medicare payments by achieving/exceeding quality measure performance targets

Pressures

- 1% payment reduction to hospitals with readmission rates above particular targets for heart failure, heart attack, pneumonia
- 3% increase in penalties for COPD or CV disease

COPD: Chronic Obstructive Pulmonary Disease, CV: cardiovascular
# Hospital Readmissions Reduction Program

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Penalty (%)</td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td>Conditions</td>
<td>Heart attack, heart failure, pneumonia</td>
<td>COPD</td>
</tr>
<tr>
<td>Number of Penalized Hospitals</td>
<td>2213</td>
<td>222</td>
</tr>
<tr>
<td>Total Penalties</td>
<td>$280,000,000</td>
<td>$227,000,000</td>
</tr>
<tr>
<td>Average Penalty/Hospital ($)</td>
<td>$126,525</td>
<td>$102,022</td>
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<tr>
<td>Average Penalty/Hospital (%)</td>
<td>0.42%</td>
<td>0.38%</td>
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Transitional Care

“A set of actions designed to ensure the coordination and continuity of healthcare as patients transfer between different locations or different levels of care within the same location”

National Transitions of Care Coalition (NTOCC)

- Implementation and evaluation outline

- Multiple resources developed:
  - TOC checklist
  - Interventions for low health literacy
  - Standardized forms
  - Metrics for tracking outcomes
The TOC Pathway

Medication

Communication

Discharge and Follow-up
Medication Evaluation

- Comprehensive evaluation of a patient’s medication regimen any time there is a change

- **Goals:** avoid or deter and correct medication errors

- Should include comparison of existing and previous medication regimens

- Should occur at every care transition involving new medication orders, re-written or adjusted existing orders, or if the patient has added nonprescription medications to self-care

Chen D, Burns A. Summary and recommendations of ASHP-APhA Medication Reconciliation Initiative Workgroup Meeting, Feb 2007.
The Role of a Pharmacist

Meet The Newest Member Of Your Personal Healthcare Team

Robert J. Szczzerba, CONTRIBUTOR

As most patients in the American healthcare system know, it’s gotten harder and harder to maintain regular, detailed communication with your doctor. At least in terms of medication, pharmacists have begun to address this gap through regular, direct contact with their patients. In Medication Therapy Management (MTM), a pharmacist evaluates a patient’s prescriptions and how the patient is feeling to identify and resolve issues including: untreated conditions, drug interactions, adverse drug reactions, inappropriate drugs or doses, and whether a patient is taking the medications as prescribed. The pharmacist is rapidly becoming the newest member of your healthcare team.

Pharmacist MTM services yielded 86% reduction in readmissions compared to the control group.

Patients receiving MTM were 3x more likely to remain out of the hospital after 60 days.

https://www.forbes.com/sites/robertszczzerba/2014/06/05/meet-the-newest-member-of-your-personal-healthcare-team/#2fd402066132
Challenge and Opportunities

- **Challenge**
  - Less than 1/3 of hospitals involve their pharmacists in discharge counseling or post-discharge follow up with high risk patients

- **Solution**
  - Connectivity
  - Cooperation
  - Care coordination
Who to Target?

- **Readmission Diagnoses**
  - Heart Failure
  - COPD
  - Heart attack
  - Pneumonia

- **Complex Medication Regimens**

- **Payers (?)**

- **Predictive Modeling**
Proper Communication Flow

1. Patient arrival to hospital
2. Hospital accepts patient for admission with information
3. Patient identified as a high risk patient
4. Pharmacist provides TOC patient care per policy
5. Obtain information regarding medications
6. More data obtained about patient
7. Plan for discharge of patient
8. Communicate information identified with outpatient facility
The TOC Pathway

Medication

Communication

Discharge and Follow-up
Discharge Information

- Patient demographics
- Contacts
  - Primary care provider
  - Hospital coordinator
  - Non-professional caregiver
- Medication list
- Diagnoses
- Lab values
- Hospital-identified issues for resolution
North Florida Regional Medical Center

- 432-bed community hospital located in Gainesville, FL
- 2015 and 2016 CHF 30-day readmission rates: 25-35%
- Pharmacy-driven TOC program initiated in August 2016
The TOC Program

University of Florida
College of Pharmacy

NFRMC
Pharmacy Interventions

1) Incorrect drug
2) Incorrect dose
3) Incorrect route
4) Incorrect frequency
5) Incorrect instructions
6) Omission of medications
7) Medication on home list that patient does not take
8) Duplication of therapy
9) Lifestyle/symptom management counseling needed
10) Financial issues concerning medications
11) Counseling on patient’s new medication needed
12) Missing Adverse Drug Reaction/Allergies
13) Medication therapy optimization
EXAMPLE PATIENT CASES
Intervention

Type 1: Incorrect Drug

**Patient A Information**

- EH is an 82 YO white male, admitted for shortness of breath and past medical history of COPD
- EH is a senior healthcare center patient
- Home medication reconciliation showed the patient taking fluticasone (Flovent) and albuterol (Proair) for COPD
- Pharmacy utilized medication claims, and last senior healthcare center note to review patient medications
Patient A Intervention

- Patient takes fluticasone (Flonase) intranasally, and albuterol (Proair) for COPD which he uses multiple times a day.
- Spoke with pulmonologist and clarified patient had only albuterol (Proair) for COPD medications.
- After review of patient with pulmonologist pharmacy suggested addition of fluticasone/salmeterol (Advair) for maintenance therapy to prevent re-admission.

Intervention

Type 1: Incorrect Drug
**Patient B Case**

- EB is an 80 YO WF readmitted within 27 days of discharge for CHF.
- Per cardiology, patient was instructed to start sacubitril/valsartan (Entresto) at follow-up visit, but she only took one dose due to “severe headache.”
- Home medication list updated with metoprolol succinate 50 mg daily and lisinopril 10 mg daily.
- Incorrect doses of furosemide 40 mg changed to 80 mg daily, and pravastatin 10 mg changed to 20 mg daily.
Intervention
Type 4: Incorrect Frequency

Patient C Information

- DK is a 59 YO white male admitted for shortness of breath and a past medical history of COPD
- Pt smokes 10-15 cigarettes a day
- Medication reconciliation states patient takes fluticasone/salmeterol (Advair) 1 puff BID, albuterol/ipratropium (DuoNeb) 3 mL QID, and albuterol (Ventolin) 1 puff q 4h PRN
Intervention

Type 4: Incorrect Frequency

- Pharmacy utilized medication reconciliation, history and physical and patient interview to review medications
- Patient reports taking
  - Fluticasone/salmeterol (Advair) 2 puffs BID
  - Ipratropium/albuterol (Duoneb) 6-7 times a day, or every 2 hours
  - Albuterol (Ventolin) – 4 puffs at a time, he went through his 3 month supply in 2 weeks
- Overall, patient use of medications leaves him without COPD treatment for 2 months at a time
- Sought pulmonologist to inform him of gap in prescribing therapy. Pharmacy also counseled patient on correct frequency and inhaler techniques
Intervention
Type 6 and 10: Omission of Medication and Financial Issues

Patient D Information
- TF is a 59 YO white female, re-admitted for COPD exacerbation
- Patient last smoked on 9/6 and is highly motivated to continue quitting
- Patient has albuterol nebulizer at home
Intervention
Type 6 and 10: Omission of Medication and Financial Issues

TF has albuterol nebulized solution at home, this is what she was discharged on from last hospital admission.

Pharmacy contacted physician to inform them that TF needs a new prescription for albuterol (Proair) rescue inhaler when she is not at home.

TF has no maintenance inhaler, and cost of inhalers was a concern.

Pharmacy provided TF with tiotropium (Spiriva) for free as outpatient through Rxassist for one year in order to prevent re-admission.
Patient E Information

- WC is a 72 YO white female
- She was admitted for decompensated heart failure and pneumonia
- Patient past medical history significant for gastrointestinal hemorrhage with apixaban (Eliquis) and rivaroxaban (Xarelto)
Intervention

Type 12: Missing ADR/Allergies

- Entered patient room to counsel on heart failure and patient was very upset about rivaroxaban currently on her medication list inpatient.
- Physician was notified of past medical history and rivaroxaban was discontinued. Warfarin initiated with enoxaparin bridge treatment dose due to recent DVT on 9/12.
- Pharmacy updated adverse drug reactions in patient profile
Student-Provider Recommendations

Acceptance Rates (%)

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<thead>
<tr>
<th>Month</th>
<th>Rate</th>
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<tbody>
<tr>
<td>September</td>
<td>81.9</td>
</tr>
<tr>
<td>October</td>
<td>84</td>
</tr>
<tr>
<td>November</td>
<td>79</td>
</tr>
<tr>
<td>January</td>
<td>85</td>
</tr>
<tr>
<td>April</td>
<td>87.5</td>
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Total Pharmacy Times Spent with Patients

<table>
<thead>
<tr>
<th>Months of APPE Student in TOC Rotation</th>
<th>Time (hours)</th>
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<tbody>
<tr>
<td>September</td>
<td>2</td>
</tr>
<tr>
<td>October</td>
<td>2</td>
</tr>
<tr>
<td>November</td>
<td>1</td>
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<td>January</td>
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<tr>
<td></td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>46.9</td>
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TOC Readmission Result

- December readmissions
  - 22/89 (25%) total patients seen by the pharmacy interns were readmitted within 30 days of discharge
  - 7/89 (8%) were readmitted with high risk disease state intervened on by pharmacy intern (COPD or Heart failure)
Primary Care Physician Visits

PCP Appointments made prior to discharge
Readmission Trending

CHF CMS 30 Day Readmission Trending

- State
- National
- 2015
- 2016
- 2016 Trend

Month: January, February, March, April, May, June, July, August, September, October, November, December

Values range from 0 to 40 on the y-axis.
Next Steps for NFRMC's TOC Program

- Increasing the recognition of the TOC program
  - Improving communication between disciplines

- Strengthen process for new heart failure consult
Conclusions

- Established role for pharmacists in TOC
  - Roles to be expanded

- Multiple interventions shown to be beneficial

- Implementing program may be challenging
  - Requires focused approach with proper personnel
  - Know metrics before implementing
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