

# MEDICATION RECONCILIATION DURING TRANSITIONS OF CARE: How to Catch Errors, Improve Patient Safety and Reduce Readmissions

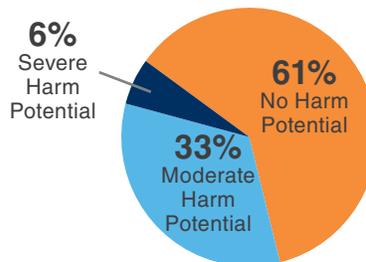
*Comprehensive Pharmacy Services customizes and implements hospital medication reconciliation program to drive transitions of care performance.*

## THE CHALLENGE:

Patients often receive new medications or have changes made to their existing medications at times of transitions in care—upon hospital admission, transfer from one unit to another during hospitalization, or discharge from hospital to home or another facility. Caregivers at these transition points may inadvertently omit needed medications, unnecessarily duplicate existing therapies, or contain incorrect dosages. These discrepancies place patients at risk for adverse drug events, which have been shown to be one of the most common types of adverse events after hospital discharge and a key driver of hospital readmissions (see *Diagram A*).<sup>1</sup>

DIAGRAM A

**More than half of patients have  $\geq 1$  unintended medication discrepancy at hospital admission**



Source: Cornish PL, Knowles SR, Marchesano R, et al. Unintended medication discrepancies at the time of hospital admission. *Arch Intern Med.* 2005;165:424-429.

Medication reconciliation refers to the process of avoiding such inadvertent inconsistencies across transitions of care by reviewing the patient's complete medication regimen at the time of admission, transfer, and discharge and comparing it with the regimen being considered for the new setting of care.

Hospitals will lose a combined total of \$420 million in reimbursements, penalized for failing to meet readmissions targets set by the Centers for Medicare and Medicaid Services (CMS). According to CMS, the average readmissions rate was 18.4 percent in 2012<sup>2</sup>.

There's a reason for the readmission problem. Studies show that patients are often discharged from the hospital confused and don't know how to take their prescriptions properly<sup>3</sup>, and what's worse, patients may duplicate, miss or take the wrong prescriptions that are not in the care plan<sup>4</sup>.

With maximum CMS penalties set at 3%, the financial consequences of failing to meet CMS targets for readmissions are very real. Statistics paint a bleak picture of the challenges confronting hospitals as they work to stem the tide of preventable readmissions:

- 20% of Medicare patients will be readmitted to the hospital within 30 days of discharge<sup>5</sup>
- 66% of emergency readmissions for patients over 65 years old are due to adverse medication events<sup>6</sup>
- 19% of Medicare discharges are followed by an adverse medical event within 30 days, and 2/3 of these are preventable<sup>7</sup>
- 20% of patients do not fill their prescriptions<sup>8</sup>

All of these dynamics led to the pilot program outlined in this case study, where the leading community hospital sought to leverage pharmacy resources to build a medication reconciliation program during transitions of care, from hospital admissions to post-discharge to the patient's home. The hospital wanted to manage the high risk and complex medication regimens, patient specific risk factors, comorbidities and adverse drug events associated with an increased rate of readmissions.

## About the JFK Medical Center:



A leading 498-bed community hospital (acute care and rehabilitation) in Edison, New Jersey, with more than 900 affiliated physicians providing general and specialized surgery, neurology, cardiac care, maternity and pediatric care, and emergency medicine.

## About Comprehensive Pharmacy Services:

We help hospital pharmacy leadership increase quality, reduce readmissions and lower costs across the continuum of care.

- Founded 45 years ago and employing over 2,000 pharmacy professionals, CPS is the nation's oldest and largest provider of pharmacy support services to more than 600 hospitals and healthcare facilities pharmacies.
- We offer industry leading analytics and expertise that help hospital pharmacists tackle complex problems such as medication reconciliation, hyper-inflated drug costs, standardization, centralized distribution, retail pharmacies, compliance, 340B programs, and much more.



## Medication Reconciliation During Transitions of Care: Pilot Goals

- Reduce medication issues that could lead to readmissions
- Improve patient outcomes by enhancing communication related to medications, pre- and post-discharge
- Target Core Measure conditions for readmission scores, including congestive heart failure, chronic obstructive pulmonary disease, pneumonia and myocardial infarction patients discharged to home
- Reduce CMS and commercial payer reimbursement penalties related to readmissions

## THE SOLUTION

A study performed by the University of California found that engaging patients with credible information delivered by a pharmacist yields results, including reduced medication-related ER visits and unnecessary readmissions<sup>9</sup>.

That was the premise for piloting a medication management program customized to JFK Medical Center's needs. The CPS telepharmacy team had access to the hospital's EHR, the ability to document patient interactions within the hospital's system and provide customized reporting to the primary care physician or case manager.

We chose to target the JFK Medical Center's Core Measure patient population units including congestive heart failure, pneumonia, COPD, and myocardial infarction, driven by a three-part program:

### Medication Reconciliation

- We built an admission and discharge medication reconciliation process that delivered a more complete picture of inpatient, outpatient and retail prescription history, which enabled more accurate reconciliation, variance identification and reporting.
- We used a proprietary medication reconciliation process; including access to a national pharmacy claims database as well as medication lists and medical chart information from the hospital's electronic health record to identify and correct variances.
- CPS pharmacists made evidence-based disease state intervention recommendations to the hospital care team for therapy optimization and greater patient safety.
- Discharge medication education is provided by a licensed pharmacist, not a nurse or pharmacy technician

### Post-Discharge Support

- Pharmacist review of discharge medication orders
- 48 hours post discharge patient support includes phone conversation with patient to assess filling of discharge meds and understanding of medication therapies, as well as identification of significant clinical issues that might lead to readmission
- 24/7 access to a clinical pharmacist via phone or multi-media communications
- Scheduling calls to patient's home

- Information gathered from patient coaching is submitted to hospital pharmacists, nurses, and physicians

## RESULTS

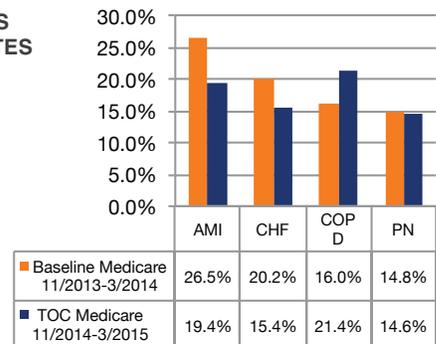
Our program for medication reconciliation during transitions of care caught medication errors, improved patient safety and reduced readmissions across a number of the Core Measure units:

- 44% of the targeted patients are discharged to home in our case study.
- 85% of patients, discharged to home, received pre-discharge medication counseling by a pharmacist.
- 82% of patients, discharged to home, were successfully contacted post discharge by a pharmacist.
- 13% of patients, during the post discharge follow up call, could not validate the filling of their discharge prescriptions.
- 11% of patients, during the post discharge follow up call, were identified by the pharmacist as having a significant clinical issue:
  - ✓ 96% were referred to their primary care physician
  - ✓ 4% were referred to the emergency room for further care
- Readmission rates declined for the AMI/CHF patient populations, COPD rates increased (however, that was driven by an anomaly staff shortage in that particular unit), while pneumonia readmission rates were relatively unchanged.

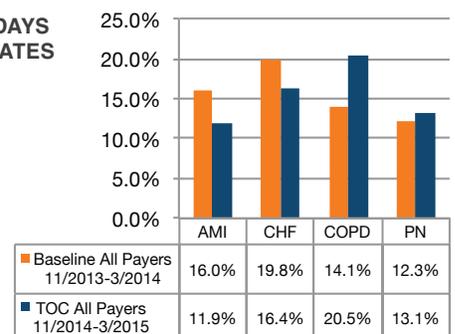
More broadly outside this case study, CPS has driven successful outcomes across transitions of care programs, which have reduced readmissions by over 30% in certain disease states and increased HCAHPS scores as much as 13%.

Our programs have reduced CMS penalties and unscheduled visits to emergency departments and urgent care, increased early identification of therapy failures post-discharge, enhanced the patient experience, improved clinical outcomes, and lowered total cost of care.

**MEDICARE 30 DAYS READMISSION RATES**



**ALL PAYERS 30 DAYS READMISSION RATES**



# 8 STEPS TO AN EFFECTIVE MEDICATION MANAGEMENT PROGRAM



## 1. TARGET PATIENT POPULATION

Identify high-risk, high-value patient populations, likely the core measures: congestive heart failure, chronic obstructive pulmonary disease, pneumonia and myocardial infarction.



## 2. CREATE CONTINUUM OF CARE WORKFLOW

Multidisciplinary team including pharmacists, nurse managers, nursing staff, case management, social work, patient care services, care coordination lead, project red coordinator, information systems, and operations leadership.



## 3. DESIGN INFRASTRUCTURE

Provide secure, remote access to enable offsite transition of care pharmacists to view and utilize specific hospital applications.



## 4. DEVELOP AND LAUNCH TRAINING

Intensive nursing education on processes, procedures, contacts and using applications, via webinars and training materials created by nurses with IT support.



## 5. INTERNAL COMMUNICATION

Create and post a comprehensive list of patient rooms and phone numbers, including CPS Telepharmacy phone/fax numbers and onsite support.



## 6. PATIENT COMMUNICATION

Develop a patient flyer with the help of patient care services and share with patients at discharge.



## 7. ACTIVATE PROGRAM

Transition of care pharmacists review patient admission and/or discharge medication lists, work with nursing to address discrepancies and counsel patients on medications prior-to and post-discharge.



## 8. ESTABLISH BEST PRACTICES

Form an interdisciplinary team to immediately address issues deemed critical by the reviewing pharmacist, on an ongoing basis.

<sup>1</sup> Agency for Healthcare Research and Quality; Patient Safety (PSNet); March 2015

<sup>2</sup> Data shows reduction in Medicare hospital readmissions rates during 2012. Medicare & Medicaid Research Review. 2013: Volume 3, Number 2

<sup>3</sup> Dartmouth Atlas project

<sup>4</sup> Health Research and Educational Trust

<sup>5</sup> Medicare hospital readmissions: Issues, Policy options and PPACA.

<sup>6</sup> Budnitz DS, Lovegrove MC, Shehab N, Richards, CL. Emergency hospitalizations for adverse drug events in older Americans. N Engl J Med. 2011;365:2002-2012.

<sup>7</sup> Medicare hospital readmissions: Issues. Policy options and PPACA

<sup>8</sup> Ibid.

<sup>9</sup> The Impact of Follow-up Telephone Calls to Patients After Hospitalization. Dudas, Bookwalter, Kerr, Pantilet. Am J Med. 2001;111 (98): 26S-30S.