CSB
CASE STUDY BRIEF

Implementing a Medication Optimization Program to Reduce Patient Readmissions

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BACKGROUND

Care transitions constitute any instance in which a patient moves from one health care setting to another and are a focal point for nearly every health system. Recently, changes in the Centers for Medicaid and Medicare Services (CMS) have prioritized the need for health systems throughout the country to develop and implement programs to reduce hospital readmissions. This is especially pertinent to teams dedicated toward quality improvement as payments for Medicare patients are reduced through the Hospital Readmissions Reduction Program if hospitals have an above-average 30-day readmission rate. Fairview's Medication Therapy Management (MTM) program, developed in partnership with the University of Minnesota, College of Pharmacy, originally began the Comprehensive Medication Management (CMM) program over 20 years ago and has since developed into an expanded network focused on reducing readmission rates throughout the system.

About

Fairview Health Services is an award-winning, nonprofit, integrated health system located in Minnesota. Having partnerships with the HealthEast system and University of Minnesota health, Fairview provides a network of over 5,000 doctors and providers throughout the state and operates 7 hospitals, 45 primary care clinics, 55+ specialty clinics, and 30+ retail pharmacies.

APPROACH

The University of Minnesota's College of Pharmacy began teaching a new practice of pharmaceutical care in 1997 and approached Fairview to ask if they could assist in building the infrastructure for the program to help student see the process in action. While many health systems include a medication management component to their efforts to reduce readmissions, Fairview recognized the opportunity to closely integrate interventions by pharmacists into their strategy. Prior to the program, it was challenging, based on DRG codes, to identify readmissions directly related to medications without a well-defined MTM process. Fairview believed that medication management programs that utilize MTM pharmacists with organized and systematic processes for patient care would ultimately lead to lower readmission rates.

The organization started the program called Pharmaceutical Care (which would later be changed to Comprehensive Medication Management) that originally included several retail pharmacists but would eventually move into both primary/internal medicine and specialty clinics throughout the state. Fairview officially implemented formal processes for transitions of care in 2012 in two hospitals. Discharged patients would be referred to outpatient services provided by MTM pharmacists, behavioral health specialists, and other care coordinators. These providers would schedule follow up visits as soon as possible to help patients stay on track throughout the care continuum. Because transitions of care are considered a health system benefit, patients were eligible for 2 free visits by an MTM within 30 days of discharge, regardless of their insurance coverage.

Prior to patients being discharged, care coordinators and/or in-patient pharmacists would identify patients who were at a higher risk of hospital readmission based on patient data found within the EMR, such as chronic disease state diagnoses, number of chronic medications, care utilization metrics, and documented medication consumption non-adherence. Staff members of the coordination team could also flag patients they felt would benefit from the CMM based on other intangible factors.

Pharmacists also had the ability to introduce, cancel, or adjust certain medications found in the collaborative practice agreement (CPA) for patients with one of more than 15 disease states such as heart failure, diabetes, or hypertension and had a primary care provider within the Fairview network. Care providers would document pertinent medical information for patients and assess medications to help develop unique care plans for patients along the way. The Comprehensive Medication Management visits were often provided in the same clinic as the patient's primary care provider to help promote face-to-face interactions. For patients who were unable to attend in-person consultations, online visits were offered.

RESULTS TO DATE

Evaluations were undertaken to examine the effectiveness of the CMM program visits on decreasing readmissions at 30-day and 60-day post discharge when compared to patients who did not receive additional consultations. 43,711 patients and 57,673 hospitalizations from December 2012 to July 2015 were included in the study. At 30 days post discharge, patients who had received a Comprehensive Medication

Management visit had a readmission rate 4.2% lower than the comparator group ($P < 0.001$). Additionally, the 60-day post discharge readmission rate was 2% lower for patients with a CMM visit, although this group did not reach statistical significance ($P = 0.0528$).

Additionally, 97 percent of patients involved in the clinical pharmacist program said they would recommend the system to others, and many individuals voiced their feelings that they are more confident in their medication programs as a result of Fairview's efforts to help manage their transitions of care.

TOOLS & VENDOR PARTNERS

Fairview utilized an alert system within their electronic medical record (EMR) that identified high-risk patients who would benefit most from the Medication Therapy Management. Care coordinators and pharmacists would apply the EMR alert to place a referral the patient for a CMM visit and Medication Therapy Management coordinators would utilize this referral to schedule a visit as soon as possible following the discharge. The patient's primary care clinic would also often contact the patient within 48 hours of discharge and could place a CMM referral visit if they felt it necessary based on their assessment during their consultation. MTM pharmacists evaluated each of the patient's medications based on factors such as indication, efficacy, safety, and convenience, and followed defined processes to detect and resolve drug therapy issues throughout the course of care. Pharmacists were given discretion to provide comprehensive care based on a wholistic view of a patient's conditions and corresponding medications.

CHALLENGES WITH IMPLEMENTATION

One of the initial challenges associated with building out a Medication Therapy Management was efficiently identifying patients who would benefit by being a part of the program. The care team initially began by analyzing system best practices, as well as examining patient data to attempt to discover which areas to focus their efforts on. These actions helped the Fairview team identify patient populations who historically had higher rates of readmission due to medication complications, such as liver patients. The team was also given the ability to identify potentially high-risk individuals based on their personal interactions or "gut feelings". Through this, Fairview developed a readmissions tool that easily assessed the probability of a patient to readmit by categorizing each patient into one of several risk classifications and suggesting next steps to the care coordination team.

Fairview is currently working to more efficiently implement the referral alert into the workflow of their care coordinators in a manner where they can increase CMM referral placements and maintain high engagement with patients. The team is planning to expand the alert notification to additional inpatient pharmacies in the network, as only a few inpatient pharmacies currently have this system in place and the alert system does not fit into the care coordinator workflow well.

KEY LEARNINGS

- Comprehensive medication management programs – Based on this Fairview evaluation, comprehensive medication management systems are likely to provide the most benefit to patients who are at the highest risk of hospital readmission.
- Integrate pharmacists into transitions of care teams – Pharmacists are a vital component of care coordination and can make meaningful contributions to hospital readmission reduction efforts when they are heavily involved in patient interactions and follow up.
- Utilize the expertise of care coordinators in addition to patient data – Fairview was successful in identifying patients who were the most at risk for readmissions via a thoughtful balance of patient-care team interaction and data analysis.