

2013

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## Recommended Citation

Kelling SE, Bright DR, Ulbrich TR, et al. Development and implementation of a community pharmacy medication therapy management-based transition of care program in the managed Medicaid population. *Inov Pharm*. 2013;4(4): Article 137. <http://pubs.lib.umn.edu/innovations/vol4/iss4/8>

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**Disclosure:** Sarah E. Kelling and Douglas C. Cornelius were employees of The Kroger Co. James Gartner was an employee of CareSource Management Group. The other authors declare no conflicts of interest or financial interests in any product or service mentioned in this article, including grants, employment, gifts, stock holdings, or honoraria.

**Funding Support:** The Kroger Co.; CareSource Management Group

**Keywords:** Community pharmacy, community pharmacy services, health insurance, medication therapy management, patient-centered care, transitions of care

**Previous Presentations:** Ohio Pharmacists Association Annual Meeting, Columbus, OH, April 5-6, 2013.  
American Pharmacists Association Annual Meeting, Los Angeles, CA, March 2, 2013.  
American Society of Health System Pharmacists Midyear Meeting, Las Vegas, NV, December 5, 2012.

### Abstract

**Objective:** To describe successes and barriers with the development and implementation of a community pharmacy medication therapy management-based transition of care program in the managed Medicaid population.

**Setting:** A single supermarket chain pharmacy

**Practice description:** Community pharmacists provide dispensing and non-dispensing pharmacy services including medication therapy management, biometric wellness screenings, and immunizations.

**Practice innovation:** Developed and implemented a community pharmacy medication therapy management-based transition of care program for patients with managed Medicaid

**Main outcome measures:** Feasibility of developing and implementing a transition of care service in a community pharmacy

**Results:** During the first six months, a total of 17 patients were seen as part of the program. Study pharmacists identified successes and potential strategies for overcoming barriers.

**Conclusion:** Developing and implementing a community pharmacy transition of care program for patients with managed Medicaid was logistically feasible.

### Introduction

Increasing national attention has been placed on hospital readmission rates as a result of the Affordable Care Act.<sup>1</sup> Approximately two-thirds of hospitals will face a total of \$280 million in penalties in 2013 for excessive readmissions.<sup>2</sup> Disparities based on insurance status have been reported. Adults 18-64 years of age with Medicaid have higher hospital readmission rates compared to patients with private

insurance or who are uninsured.<sup>3</sup> It is projected that in 2016 and beyond, an additional 15-17 million individuals will be insured through Medicaid.<sup>4,5</sup> The number of patients impacted by disparities related to hospital readmission rates may increase as a result of the expansion of Medicaid in some states.

Pharmacists have demonstrated improved patient health outcomes through the provision of medication therapy management (MTM) services.<sup>6-8</sup> More recently, clinical studies and policy statements have described the potential role of pharmacists in assisting patients as they transition

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from the hospital to home.<sup>9-17</sup> Limited information exists regarding successes and barriers that pharmacists face when providing MTM-based transition of care (TOC) services in the community pharmacy.

Given the impact of excessive readmissions, as well the accessibility of community pharmacists, value may exist in developing collaborative approaches to combat readmission issues. The primary aim of this pilot study was to assess the feasibility of developing and implementing a community pharmacy-based TOC service in collaboration with an insurer. The community pharmacy partnered with CareSource, a Medicaid managed care plan. Effective July 2012, all 900,000 members in Ohio insured through this company became eligible for reimbursable MTM services.<sup>18,19</sup> The purpose of this article is to provide practical information gained from the six-month pilot project.

### Setting and Practice Description

The TOC service was implemented in one supermarket chain pharmacy located in a rural, underserved community in Ohio. At the time of the study, 17% of the 66,000 individuals in the county lived below the federal poverty level.<sup>20,21</sup>

Approximately 2,100 prescriptions were dispensed per week, including those filled through the 340B Drug Pricing Program for patients receiving care at a local Federally Qualified Health Center (FQHC). All pharmacists at the community pharmacy provided non-dispensing services, resulting in approximately 350 MTM claims primarily for patients insured through Medicare or Medicaid, 250 employee biometric wellness screenings, and 1050 vaccines administered. Patients who received MTM services were primarily recruited through conversations with pharmacy staff when obtaining prescriptions at the pharmacy or through telephone calls initiated by pharmacists. A private office was available for non-dispensing services. Staff included two full-time and two part-time pharmacists, five full-time and four part-time technicians, and one community pharmacy resident.

### Practice Innovation

Pharmacists identified a lack of medication-related services for patients transitioning from an inpatient to outpatient setting. In collaboration with the managed Medicaid insurer and university-based researchers, a proposal was developed for a community pharmacy TOC that built upon MTM core elements.<sup>22</sup> The primary differences between this service and the existing MTM program at the community pharmacy were additional interview questions related to the hospitalization and follow up plans with other clinicians, reconciliation of discharge documents when available, and data collection associated with the study. The pilot project was initiated in November 2012 after IRB approval from Ohio Northern

University. The resident and one pharmacist provided the TOC service.

The insurer used health-system claims to identify patients recently discharged from a health care facility. Eligible patients included those who were 18 years of age and older, resided within the county the supermarket chain pharmacy was located, were insured by the managed Medicaid plan, and were hospitalized within the past 14 days. Potential participants were eligible for the study regardless of where they typically obtained prescription medications. Study pharmacists encouraged patients to continue to use their current pharmacy for dispensing services. Contact information and prescription claims records for those individuals meeting the inclusion criteria were sent to OutcomesMTM, an internet-based MTM platform, and loaded into a database unique to this project. The pharmacist in charge of the study was notified via e-mail when patients were uploaded into the platform.

Study pharmacists called eligible patients to invite them to participate in a face-to-face comprehensive medication review (CMR) with telephone follow-up. The study investigators deemed it prudent to conduct a CMR, as opposed to a targeted review of new or changed therapies, as it has been reported that 70% of 30-day hospital readmission rates are not a result of an exacerbation of the same disease state.<sup>23</sup> Pharmacists attempted to contact patients via phone until they scheduled an appointment, refused the service, or were documented as being unable to be reached on at least three different dates and times.

Face-to-face patient appointments primarily occurred at the supermarket chain pharmacy. A second supermarket chain pharmacy site within the county was also available. When a patient preferred to be seen at the second location, a study pharmacist would travel to that pharmacy to meet with the patient. Patients who received care at a local FQHC had the choice to see the community pharmacist at the supermarket chain pharmacy or FQHC.

Patients were asked to bring all prescription and non-prescription therapies as well as discharge paperwork with them to the visit. During the session, each medication was reviewed for indication, safety, effectiveness, and adherence. When available, medications and the discharge medication list were reconciled with the patient. Recommendations that reinforced appropriate medication use and lifestyle modification were made to the patient during the visit. Recommendations that required prescriber action, such as starting, stopping, or changing a prescription therapy were sent to the prescriber via phone or fax within 24 hours of the

appointment. Recommendations for patients receiving primary care at the FQHC were communicated via the prescriber's electronic health record.

Patients were mailed a copy of their personal medication record (PMR) and medication-related action plan (MAP) that described the recommendations made by the pharmacist during the encounter. In situations where the prescriber was sent a recommendation and there was no evidence that the recommendation was acted upon by the time the PMR was mailed to the patient, the pharmacist was able to include that recommendation on the MAP. Patients were encouraged to take their PMR and MAP to their upcoming appointment and discuss any recommendations made by the pharmacist directly with their clinician.

Telephone follow-up with the patient occurred 10-14 days after the encounter. Based on individual patient need, telephone follow-up was also available before and after that time period. Example topics included medication changes, medication access, adherence, and adverse effects. Pharmacists also encouraged persistence in self-management behaviors.

The payment rate for this service mirrored the contracted rate for other MTM services provided by the community pharmacists for patients insured through the Medicaid managed care plan. This included a payment for the face-to-face CMR, as well as additional payments for each medication issue that was identified, resolved, and billed through the MTM platform.

The primary aim of this pilot study was to assess the feasibility of developing and implementing a TOC service in a community pharmacy. In addition, study pharmacists assessed the number of pharmacologic and non-pharmacologic recommendations made. Other outcomes included 30 and 90 day hospital readmission rates stratified by age, gender, and diagnosis, as well as the rate of physician and emergency department visits within 30 days of hospital discharge.

#### **Preliminary Outcomes**

During the initial six-month pilot project, 84 patients were referred to the study, of which 30 individuals (35.7%) could not be reached via telephone. Study pharmacists identified 11 individuals (13.1%) as not being appropriate candidates for the service, including patients or caregivers reporting end-of-life care, home health care handling medications, one or fewer medications, or a scheduled MTM session at a different community pharmacy.

A total of 43 potential participants were reached and identified as being appropriate candidates for the service. Sixteen individuals (19%) refused the service, commonly reporting no medication changes during the recent hospitalization or indicating that they spoke with a different health care professional regarding their medications. Twenty-seven individuals scheduled an appointment with a study pharmacist, of which 17 (62.9%) presented for the appointment. The percent of patients who presented for their scheduled appointment was only slightly lower than reported elsewhere in literature for patients with managed Medicaid.<sup>24</sup>

Demographic information for enrolled participants is included in table 1. Reasons for hospital admission included medical conditions (n=11), mental health conditions (n=4), or pregnancy-related issues (n=2). The face-to-face encounters lasted an average of 44 minutes (range 20-60 minutes). The average amount of time between hospital discharge and MTM session was eight days (range 0-15 days). In the one unique case where the number of days was reported as zero, the patient went home and then was briefly re-hospitalized. The pharmacy received the referral from the initial discharge on the same day that the patient went home for the second time. When contacted, the patient agreed to come to the pharmacy later that day.

Study pharmacists identified 50 medication-related and 36 behavior modification recommendations (table 2). Behavior modification recommendations were provided when the behavior change would likely support positive therapeutic outcomes for patients. It is recommended that patients practice self-management behaviors after hospital discharge as a part of a comprehensive strategy to decrease unnecessary rehospitalizations.<sup>25</sup>

Because patients obtained medications at outside pharmacies and there was no built in process requiring clinician follow up regarding recommendations, acceptance rates could not be accurately calculated. In general, the number of medication-related and behavior modification recommendations increased as the number of medications increased (table 3). Due to limited sample size to date, results for the other listed outcomes will not be addressed at this time, as they were not the primary outcome.

#### **Successes and Strategies to Overcome Barriers**

Throughout the implementation phase, a number of successes and barriers were identified. Potential strategies to successfully overcome barriers are presented in the remaining portion of this manuscript. It is anticipated that community pharmacists with an interest in TOC services may

be able to utilize this information when developing services within their communities.

**Goal: Identify patients who have recently been discharged from a health facility**

**Barrier:** Many community pharmacies lack a process to identify recently discharged patients.

**Strategy:** Partnering with a third-party insurer allowed the community pharmacy to obtain contact information for discharged patients. The third-party insurer utilized claims data to identify eligible patients. One benefit of working with an insurer was that patients discharged from multiple health facilities were referred to the program. In some communities, this may represent a significant number of patients, especially if patients seek specialty care at academic medical centers outside the local community. Community pharmacies may also consider partnering directly with a hospital or clinic. Shared medical information may help to identify patients at high risk for hospital readmission.

**Goal: Invite eligible patients to enroll in the MTM-based TOC program**

**Barrier:** Phone contact was determined to be most appropriate as contacting patients quickly was a priority. Of the 84 potential participants who were referred, 30 (35.7%) were unable to be reached via phone as a result of disconnected or incorrect phone numbers.

**Strategy:** When phone contact was unsuccessful, prescription claims data from the MTM platform was utilized to identify previous prescribers. Updated phone numbers were requested from these offices. Developing an additional partnership with local hospitals may increase access to updated contact information or may allow the community pharmacist to initiate contact prior to discharge.

An alternative strategy may involve mailing a joint letter from the insurer and community pharmacy. Written literature should be carefully prepared as 60% of patients with Medicaid have basic or below basic health literacy.<sup>26</sup> In this case, state regulation limited the feasibility of mailing a letter for the pilot project.

**Goal: Identify patients who are appropriate candidates for the service**

**Barrier:** Prospective identification of patients who might benefit from the service was challenging, particularly because the reason for hospitalization and the current number of medications were not available prior to speaking with the patient.

**Strategy:** Pharmacists reached out via telephone to all recently discharged adults regardless of the number of medications recorded in the MTM platform. Discrepancies between claims data and actual number of medications were frequent. Some causes of discrepancies included the use of medication obtained prior to eligibility with insurer, sample medications, non-prescription therapies (including over-the-counter, dietary and herbal supplements), and the lack of immediate claims data in the MTM platform.

Contacting all patients provided insight into needs related to medication and health conditions. Obtaining up-to-date health information, such as reason for hospitalization and the discharge medication list prior to contacting patients may allow high-risk patients to be more carefully targeted for TOC services. Further partnership with a hospital may allow inpatient clinicians to identify high-risk patients and share appropriate information with the community pharmacist to provide additional support and care to the patient.

**Goal: Decrease barriers that might impede participation**

**Barrier:** Patients insured through Medicaid may have limited access to reliable transportation, which may increase missed appointment rates. Patients may not feel well enough to visit the community pharmacy within several days of discharge.

**Strategy:** Identifying strategies to overcome structural barriers in the local community may increase patient participation in services. During part of this program, a driving service was made available by the managed Medicaid plan for patients without access to personal transportation; however, no patients utilized this service. As pharmacists saw patients at multiple locations, including those accessible via a bus route, the need for additional transportation services may have decreased.

Some patients reported not feeling well enough to visit the pharmacy within several days of discharge. While the goal was to see patients within three days of notification of discharge, patients frequently selected later dates. During the study period, the plan altered the program requirements such that phone-based CMRs were not reimbursable; however, patient follow-up via phone after the face-to-face encounter was allowed. Offering home-based or telephone visits may increase participation rates. Alternatively, seeing the patient at the clinician's office prior to the post-discharge medical appointment may be feasible.

**Goal: Ensure clear communication between pharmacists, patients, and clinicians**

**Barrier:** Barriers were encountered related to tracking acceptance rates of recommendations, regardless of whether

the participant obtained medications at the supermarket chain pharmacy or elsewhere. In particular, maintaining pharmacist-patient and pharmacist-clinician communication was challenging.

**Strategy:** Marketing the service to clinicians may increase rates of recommendation approval and follow-up with the community pharmacist. Additional planned telephone calls with patients may help to better identify acceptance rates of recommendations. A list of standardized questions with a system to document responses may ensure consistency of the follow-up service. Streamlining the data collection and recording process may increase efficiency and yield more complete results.

**Goal: Distinguish between planned and unplanned readmissions**

**Barrier:** Several patients alluded to anticipated hospital readmissions (e.g. planned childbirth). While specific rules apply to hospitals facing excessive readmissions, there may be benefit in identifying the actual rate of planned and unplanned hospital readmissions.

**Strategy:** Programs with access to the patient's medical records may be able to identify anticipated hospital readmissions. An alternative approach may be to incorporate a question during the face-to-face session, such as "Do you expect to have to go back to the hospital during the next 30 days?" Any affirmative response should be explored further to clarify if a planned readmission is scheduled or if the participant feels he was prematurely discharged.

**Goal: Identify the amount of time required to provide this service**

**Barrier:** As an insurer, community pharmacy, and internet-based MTM platform collaborated on this program, it was not possible to fully identify how much total time was required among the organizations on a per patient basis. At the pharmacy level, it was difficult to track total time because the program involved several distinct activities, including enrolling patients, conducting face-to-face visits, and following up with patients and clinicians.

**Strategy:** The face-to-face session was provided during non-dispensing time. By breaking other components of the TOC program into smaller tasks, study pharmacists were able to more efficiently use time available when practicing in a dispensing role. Examples of activities that may be feasible to work on when time is available throughout the day include calling potential participants, compiling an initial medication history, documentation, and billing of the service. Developing a systematic process was instrumental in allowing study

pharmacists to provide components of the TOC service between other responsibilities. While this created a challenge related to identifying time spent per patient, this integrated approach may allow the program to be implemented in other community pharmacies in which pharmacists work in both dispensing and non-dispensing roles.

Consideration should be given to incorporation of ancillary staff to decrease the time required by pharmacists for non-clinical components of the service. Examples of activities that trained pharmacy technicians may be able to participate in include scheduling patients, collecting information prior to the patient visit, documentation, and billing.<sup>27</sup>

**Next Steps**

Pharmacists should seek to develop programs that support national, state, and local goals. This may increase collaboration opportunities, facilitate reimbursement, and improve patient health outcomes. During the development of the TOC service, limited information existed regarding the barriers community pharmacists may face when implementing a MTM service for patients with managed Medicaid. Focusing on patients as they transitioned from the inpatient to outpatient setting added a layer of complexity. This pilot project may help provide a foundation for the development of other MTM-based TOC services within the community pharmacy setting.

Several areas of potential future research have been identified. Larger studies are needed to assess the impact of an MTM-based TOC service provided by community pharmacists on hospital readmission rates. Further development and assessment of partnerships with stakeholders, as well as strategies to best meet the needs of patients at high risk for hospital readmission, is warranted. Finally, further implementation of the Affordable Care Act is anticipated to increase the number of patients eligible for Medicaid, and potentially the diversity of the population. Ongoing research regarding patient needs is necessary, particularly related to areas where disparities exist, such as hospital readmission rates.

**Conclusion**

Developing and implementing a community pharmacy MTM-based TOC program for patients with managed Medicaid was logistically feasible. As national attention continues to be placed on reducing hospital readmission rates, additional research is needed regarding strategies for best incorporating community pharmacists in TOC services.

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Table 1: Demographic and health information of patients enrolled in study

| Characteristic (range)            | Female (n=10) | Male (n=7)   | Total |
|-----------------------------------|---------------|--------------|-------|
| Average age in years              | 41.7 (19-64)  | 51.7 (41-68) | 45.8  |
| Average years of formal education | 10.8 (5-14)   | 11 (9-12)    | 10.8  |
| Average number of medications     | 10.8 (3-24)   | 10.3 (2-18)  | 10.6  |
| Average number of conditions      | 6             | 6.5          | 6.2   |

Table 2: Frequency of pharmacologic and behavior modification recommendations

| Number of pharmacologic recommendations | #         | Number of patients receiving behavior modification recommendations | #         |
|---|-----------|--|-----------|
| Indication                              | 20        | Healthy food choices   | 9         |
| Underuse                                | 9         | Medication non-adherence   | 9         |
| Safety                                  | 8         | Physical activity  | 7         |
| Administration/ technique               | 6         | Smoking cessation  | 5         |
| Overuse                                 | 5         | Diabetes self-management skills                                    | 4         |
| Efficacy                                | 2         | Stress reduction   | 2         |
| <b>Total</b>                            | <b>50</b> | <b>Total</b>   | <b>36</b> |

Table 3: Frequency of recommendations based on number of medications

| Number of medications | Number of participants | Average number of pharmacologic recommendations | Average number of non-pharmacologic recommendations |
|-----------------------|------------------------|---|---|
| 5 or fewer            | 4                      | 0.75  | 1.25  |
| 6 to 10               | 5                      | 3.4   | 2.8   |
| 11 to 15              | 5                      | 4.2   | 2.2   |
| 16 or more            | 3                      | 6.3   | 3   |