

I. REPORT CHECKLIST

The following checklist must be completed and submitted with the project report. By checking an item, *the student and advisor(s) agree that the work has been done appropriately.*

1. If the research report will be or has been submitted for publication in a journal, provide the name of the journal here:

2. Project title is concise and clear; lists advisers, course no. & date submitted
3. Abstract is no more than 250 words and retains headings
4. Introduction provides a definition of the topic under study, the importance of the topic, and the issue addressed by the study and is no more than two (2) pages.
5. There is NO literature review section
6. Purpose(s) of project is clearly and concisely stated
7. Methods section uses headings and represents a summary of the methods used. (Actual methods used should be described if they were modified from the proposal.)
8. Data analysis described is appropriate and responds to the purpose.
9. Appropriate tables are included in the results section.
10. Text of results section interprets the findings reported in the tables, not repeating them.
11. The discussion section includes a description of the most important findings, and relates findings to the literature.
12. The final section of the discussion is the limitations section.
13. The conclusions respond to the purpose statement.
14. Reference list uses style from DI class (PhPr 861c) or is specific to journal.
15. Data collection/recording form(s) and/or questionnaire(s) are included in the appendix.
16. Information is placed in the appropriate section—introduction, methods, results, etc.
17. Report does not exceed 15 pages excluding tables & figures & appendices.

Date report submitted: April 3, 2018 Student: Alexa Harnisch

Student (2): Aya Shoura

Capitalizing on Opportunities for Reaching Patients: Utilization of Providers in Delivering Medication Therapy Management (MTM) Services

Course title: PhPr 896b

Date: 1 March 2018

Faculty advisor(s): Dr. Stephanie Forbes, Dr. Kwyn Szabados

Student(s): Alexa Harnisch, Aya Shoura

ABSTRACT

Specific Aims: The specific aim of the project is the study the impact of connecting with primary care providers of eligible patients to complete MTM services through pharmacist-delivered CMRs. Our primary working hypothesis is that provider engagement through the Provider Outreach Program (POP) will allow more patients to receive MTM services than the standard MTM process.

Methods: This study used a descriptive, retrospective design. Inclusion criteria for this study consisted of patients enrolled in the Provider Outreach Program. Beneficiaries of the program were the patients with two or more chronic conditions and taking multiple prescription medications eligible to receive MTM services as part of their Medicare Part D or individual prescription coverage. Since this study will be from 21 states and over a period of 4.75 months the estimated sample size was calculated to be roughly 53,000. The independent variable is the Provider Outreach Program (POP). The POP targets patients that the standard MTM process is unable to reach by directly contacting providers to increase the number of patients who benefit from MTM services.

Demographics for all study participants consist of Medicare qualifying patients (65 years or older, disability, or end-stage renal disease). Descriptive variables will be participating state, total faxes sent, medication list received, POP CMRs completed, total outbound calls, standard CMRs completed, and reasons for denial of communication. The descriptive variables were analyzed by calculating percentages and totals for continuous variables (total faxes sent, medication lists received, POP CMRs completed, standard CMRs completed, and total outbound calls).

Main Results: Of the total 52,170 faxes sent, 9,043 medication lists were received (17.9%) from PCPs. There was a 3.8-fold difference in successful CMR completion rates between the POP (16.4%) and the standard MTM program (4.3%).

Conclusions: The POP can be utilized as a method to strengthen the outcomes of the standard process to increase the number of patients who benefit from MTM services.

INTRODUCTION:

Medication therapy management (MTM) is a service or group of services designed to optimize medication therapy and therapeutic outcomes for patients.¹ Patients with two or more chronic conditions and taking multiple prescription medications are eligible to receive MTM services as part of their Medicare Part D or individual prescription coverage. Comprehensive medication review (CMR), a standard form of MTM, is an interactive person-to-person or telephonic medication review and consultation of the beneficiary's medications (including prescriptions, over-the-counter medications and herbal or dietary supplements) by a pharmacist or qualified provider⁵. The intent of the CMR is to aid in assessing medication therapy, identifying problems or concerns, optimizing patient outcomes, and improving patient knowledge of their medications⁵.

Effective, interprofessional communication is essential to providing comprehensive, quality health care. Yet, communication between pharmacists and providers, in provision of medication therapy management (MTM), in some outpatient settings is challenging when direct patient engagement is not feasible or realistic. MTM is underutilized given that only about 11% of Medicare beneficiaries receive these services.² Thus, it is critical that innovative, interprofessional MTM programs are designed to address patients' needs who cannot directly participate.

The purpose of the study is to describe the outcomes of the Provider Outreach Program in order to maximize patient outcomes via collaborative interdisciplinary healthcare process to: deliver personalized, pharmacist-delivered CMRs via telephone; resolve pharmacotherapy-related medication problems; and obtain information and resources needed (e.g. active medications) from providers to facilitate the CMR on the patient's behalf. The purpose of this study is to determine if the Provider Outreach Program is an efficient method for completing telephonic

comprehensive medication reviews (CMRs) for patients who were eligible to receive MTM services but were unable to directly participate in the MTM process.

METHODS:

This study will use a descriptive, retrospective design. Inclusion criteria for this study consisted of patients enrolled in the Provider Outreach Program. Beneficiaries of the program were patients with two or more chronic conditions and taking multiple prescription medications eligible to receive MTM services as part of their Medicare Part D or individual prescription coverage. Furthermore, of the patients eligible, those who are not reachable by telephone or not able to participate in a MTM consultation directly with a pharmacy staff member were compiled and used for this project. Since this study was from 21 states and over a period of 4.75 months, the estimated sample size will be roughly 53,000. The independent variable is the Provider Outreach Program (POP). The POP targets patients that the standard MTM process is unable to reach by directly contacting providers to increase the number of patients who benefit from MTM services.

Demographics for all study participants consisted of Medicare qualifying patients (65 years or older, disability, or end-stage renal disease). Other demographic variables included states participating in the program. No other demographic variables will be used in this study. Descriptive variables were participating state, total faxes sent, medication list received, POP CMRs completed, total outbound calls, standard CMRs completed, and reasons for denial of communication. The descriptive variables were analyzed by calculating percentages and totals for continuous variables (total faxes sent, medication lists received, POP CMRs completed, standard CMRs completed, and total outbound calls). Categorical variables will be analyzed by calculating frequencies and percentages (state and reason for POP denial).

The data were converted from the secure sinfonia hard-drive and made available in the form of a de-identified Excel spreadsheet. The excel contains the number of faxes sent on behalf of patients, the number of medication lists received, medication lists received late, and

documented reasons of denial for the Provider Outreach Program. A copy of the data collection form can be found the appendix.

RESULTS:

Table 1: Response Rates for Medication Lists Obtained Following Provider Outreach for Participating States

Participating State	Faxes Sent N (%)	Medication List Received N (%)
Texas	1,372 (2.6)	283 (20.6)
California	2,824 (5.4)	483 (17.1)
Washington	537 (1.0)	112 (20.9)
Maine	116 (0.2)	37 (31.9)
Wisconsin	2,272 (4.4)	485 (21.3)
New Hampshire	913 (1.8)	298 (32.6)
New York	20,972 (40.2)	2,203 (10.5)
Michigan	2,222 (4.3)	318 (14.3)
Massachusetts	913 (1.8)	397 (43.5)
Tennessee	4,912 (9.4)	1,526 (31.1)
Ohio	8,289 (15.9)	1,882 (22.7)
Indiana	1,520 (2.9)	304 (20.0)
Connecticut	1,072 (2.1)	206 (19.2)
Montana	378 (0.7)	63 (16.7)
Virginia	295 (0.6)	44 (14.9)
Kentucky	393 (0.8)	55 (14.0)
Nevada	1,799 (3.4)	245 (13.6)
Colorado	223 (0.4)	28 (12.6)
Hawaii	110 (0.2)	9 (8.1)
West Virginia	227 (0.4)	20 (8.8)
New Jersey	811 (1.6)	45 (5.5)
Total	52,170	9,043 (17.3)

Table 2: Comprehensive Medication Review (CMR) Completion Rates for Standard MTM versus Provider Outreach Program (POP)

Total Outbound Calls	Standard MTM CMR Completion N (%)	Total Facsimiles Sent to Providers	POP CMR Completi on N (%)
2,494,030	107,435 (4.3)	52,170	8,532 (16.4)

Table 3: Reasons for Nonparticipation in the Provider Outreach Program (N=3,443)*

Reasons for Nonparticipation	Total N (%)
PCP Practice-related Reasons	
No facsimile number provided nor obtained	2,682 (77.9)
Incorrect facsimile information	448 (13.0)
Provider unwilling to participate	111 (3.2)
Release of information or payment requested by PCP	59 (1.7)
Proof of contract requested by PCP	16 (0.5)
Patient-related Reasons	
Patient opted out or disenrolled from Medicare Coverage	127 (3.7)

*Value does not represent total number of facsimiles that went unanswered by PCPs

Table 1 presents the number of medication lists successfully received following PCP contact through POP. Designated PCPs in 21 states participated in the POP and received facsimiles requesting patient-related medication lists-placement. Of the total 52,170 faxes sent, 9,043 medication lists were received (17.9%) from PCPs. Table 2 compares the number of CMRs completed by the call center (standard MTM) versus the POP. There was a 3.8-fold difference in successful CMR completion rates between the POP (16.4%) and the standard MTM program (4.3%). Table 3 outlines some reasons why PCPs failed to respond to communication initiated via facsimile contact. For the PCP practices, the most common reason for nonparticipation was lack of a fax number for the respective office. In addition to practice-related issues, patients opted out or disenrolled from MTM services were another reason for PCP nonparticipation.

DISCUSSION:

The POP established communication with designated PCPs to facilitate CMR completion to improve patient outcomes. Interprofessional collaboration and coordination with PCPs through the POP was an effective method for providing comprehensive medication-related care to patients. Facsimile and telephonic communication methods improved interprofessional collaboration between pharmacists and PCPs. Patients who are unreachable via traditional MTM program communication channels may benefit from a Provider Outreach Program.

Implication for future investigation is warranted to determine the significance of PCP's refusal to participate in the POP and to identify reasons for nonparticipation, evaluate difference in provider-pharmacists communication channels by state, and expand the POP to include more PCPs to serve a multitude of patients.

Limitations include lower CMR completion rate of the standard MTM process may have been due to the timeframe of the study and lower patient availability. Additionally, POP's faxing capabilities (e.g. manual) may have been inadequate for contacting PCPs and medication lists

provided by PCPs after POP completion (after the December 31st deadline) were excluded from the analysis.

CONCLUSIONS: The POP can be utilized as a method to strengthen the outcomes of the standard process to increase the number of patients who benefit from MTM services.

REFERENCES

1. American Pharmacists Association. <http://www.pharmacist.com/mtm>. Accessed September 22, 2016.
2. Avalere. Few Medicare Beneficiaries Receive Comprehensive Medication Review Services. Enrollment in MTM. August 7, 2014
3. Boesen K, Perera P, Guy M, Sweaney A. Evaluation of prescriber responses to pharmacist recommendations communicated by fax in a medication therapy management program (MTMP). *JMCP*. 2016;17(5).
4. Mann A, Esse T, Abughosh S, Serna O. Evaluating pharmacist-written recommendations to providers in a Medicare advantage plan: Factors associated with provider acceptance. *JMCP*. 2016;22(1).
5. Medicare Part D: Medication Therapy Management Program Standardized Format. <https://www.cms.gov/medicare/prescription-drug-coverage/prescriptiondrugcovcontra/downloads/mtm-program-standardized-format-english-and-spanish-instructions-samples-v032712.pdf>. Accessed March 29, 2017.
6. Moczygamba L.R, Barner J.C, Gabrillo E.R. Outcomes of a Medicare Part D telephone medication therapy management program. *J Am Pharm Assoc*. 2012; 52, pp. 144-52.
7. Truong H, Groves C.N, Congdon H.B, Botchway R, Dang D, Clark N, Zarfeshan F. Interprofessional Collaborative Model for Medication Therapy Management (MTM)

Services to Improve Health Care Access and Quality for Underserved Populations.

Journal of Health Care for the Poor and Underserved. 2012; 23 (3), pp.114-124.

TABLES AND FIGURES

Table 1: Response Rates for Medication Lists Obtained Following Provider Outreach for Participating States

Participating State	Faxes Sent N (%)	Medication List Received N (%)
Texas	1,372 (2.6)	283 (20.6)
California	2,824 (5.4)	483 (17.1)
Washington	537 (1.0)	112 (20.9)
Maine	116 (0.2)	37 (31.9)
Wisconsin	2,272 (4.4)	485 (21.3)
New Hampshire	913 (1.8)	298 (32.6)
New York	20,972 (40.2)	2,203 (10.5)
Michigan	2,222 (4.3)	318 (14.3)
Massachusetts	913 (1.8)	397 (43.5)
Tennessee	4,912 (9.4)	1,526 (31.1)
Ohio	8,289 (15.9)	1,882 (22.7)
Indiana	1,520 (2.9)	304 (20.0)
Connecticut	1,072 (2.1)	206 (19.2)
Montana	378 (0.7)	63 (16.7)
Virginia	295 (0.6)	44 (14.9)
Kentucky	393 (0.8)	55 (14.0)
Nevada	1,799 (3.4)	245 (13.6)
Colorado	223 (0.4)	28 (12.6)
Hawaii	110 (0.2)	9 (8.1)
West Virginia	227 (0.4)	20 (8.8)
New Jersey	811 (1.6)	45 (5.5)
Total	52,170	9,043 (17.3)

Table 2: Comprehensive Medication Review (CMR) Completion Rates for Standard MTM versus Provider Outreach Program (POP)

Total Outbound Calls	Standard MTM CMR Completion N (%)	Total Facsimiles Sent to Providers	POP CMR Completi on N (%)
2,494,030	107,435 (4.3)	52,170	8,532 (16.4)

