

The impact of a telephonic outreach program on medication adherence in Medicare advantage prescription drug (MA-PD) plan members

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Background

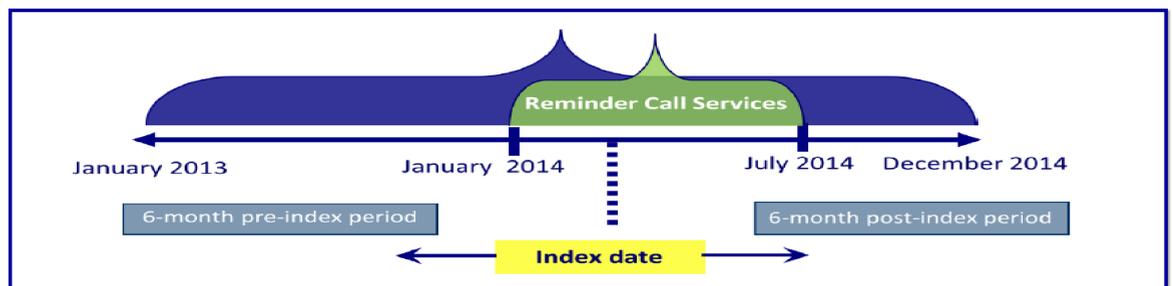
- ❖ Non-adherence to medications is widely recognized as being a very common and costly problem with many individuals not reaching their intended therapeutic goals.¹
- ❖ A health plan's overall quality rating score can be greatly impacted by a patient's lack of adherence to oral antidiabetic and hypertensive medications.²
- ❖ The University of Florida Medication Therapy Management Communication and Care Center (UF MTMCCC) provides telephonic performance measure improvement initiatives with the goal of helping to improve a patient's adherence to their medications as well as increasing the health plans' overall quality rating score.

Objective

- ❖ To determine the effectiveness of a telephonic outreach program designed to improve medication adherence as determined by using the proportion of days covered (PDC) calculation for MA-PD plan members diagnosed with hypertension and diabetes.

Methods

- ❖ This was a retrospective pre-post comparison group study analyzing medication adherence.
- ❖ Adherence, as defined by the proportion of days covered (PDC) calculation, was measured using incurred medication prescription claims data 6-months before, and after, the adherence services were implemented.
- ❖ Prescriptions claims data from January 2013 to December 2014 for AvMed Health Plans MA-PD membership was evaluated.
- ❖ Members who received at least two prescriptions fills for an oral anti-diabetic medication (**diabetes cohort**) and/or an oral anti-hypertensive medication (**hypertension cohort**) were included
- ❖ Members that received at least one reminder call between January 2014 and July 2014 were included as the intervention group.
- ❖ A 1:1 propensity score matching technique was used to pair each patient in the intervention group with one individual from the comparison pool (the control group).
- ❖ The pre-post differences in the PDC value within, and between, the eligible members and controls were measured (difference-in-differences (DID) analysis).



Results

❖ Baseline Characteristics for Treatment Groups

Characteristic	Matched diabetes cohort			Matched hypertension cohort		
	Intervention (n=201)	Control (n=201)	P Value	Intervention (n=563)	Control (n=563)	P Value
Age (years), mean (SD)	75.1 (8.1)	74.6 (7.8)	0.412	76.1 (8.3)	76.3 (8.0)	0.486
Gender, n (%), male	88 (43.8%)	94 (46.8%)	0.572	220 (39.1%)	201 (35.7%)	0.195
Proportion of days covered (PDC)						
Mean (SD)	70.6 (27.2)	70.6 (27.8)	0.982	63.1 (29.9)	62.3 (29.4)	0.285
No. of patients ≥ 80%, n (%)	104 (51.7%)	99 (49.3%)	0.511	225 (40.0%)	214 (38.0%)	0.266

❖ Primary Outcome: Change in adherence 6 months post-intervention

	Matched diabetes cohort			Matched hypertension cohort		
	Intervention (n=201)	Control (n=201)	Difference-in-differences	Intervention (n=563)	Control (n=563)	Difference-in-differences
Mean number of reminder calls (SD)	1.53 (0.94)	0	N/A	1.48 (0.87)	0	N/A
Change in Proportion of days covered (PDC), mean (SD)	5.19 (36.5)^a	4.07 (33.2) ^a	1.12 (39.8) ^b	17.33 (33.6)^a	13.83 (32.3)^a	3.50 (36.3)^b

^a P values compare changes between the 6-month pre- and post-intervention using paired t-test.

^b P values compare the difference-in-differences [changes in intervention group – changes in matched control groups] using paired t-test. Values in bold indicate statistical significance.

Discussion

- ❖ The findings of the present study suggest that the pharmacist-managed adherence program was effective in improving medication adherence in MAPD plan beneficiaries.
- ❖ In the hypertension cohort, patients who received the basic adherence reminder calls had a 3.5% increase in pre-post PDC value as compared to the control group.
- ❖ In the diabetes cohort, patients who received the basic adherence reminder call had a 1.1% increase in pre-post PDC as compared to the control group, although this finding was not statistically significant.
- ❖ Possible explanations for mixed findings in this study could be a result of a smaller sample size and higher PDC at baseline in the diabetes cohort as compared to the hypertension cohort.
- ❖ Limitations:
 - ❖ The 6-month time period analyzed may not have been enough time to capture a significant impact of the adherence program, especially for those receiving a 90 day supply of medications.
 - ❖ Patients in the control group may have received adherence reminders directly from the pharmacy where they fill their prescriptions which could affect the PDC value in those patients.

Conclusion

- ❖ This study found that the telephonic adherence program as administered by the UF MTMCCC demonstrated a statistically significant increase in medication adherence in Medicare MAPD patients as compared with a control group.
- ❖ Further research is warranted to continue to assess the effects of the telephonic adherence program.
 - ❖ The UF MTMCCC has initiated the advanced adherence call services which includes all aspects of the basic reminder call services with the addition of incorporating a validated survey tool for assessing adherence barriers and offering various reminder tools targeted at these patient-specific adherence barriers.
 - ❖ The data from the advanced adherence call services will be compared to the data from this study in a future study.

References

1. Ho PM, Rumsfeld JS, Masoudi FA, et al. Effect of medication nonadherence on hospitalization and mortality among patients with diabetes mellitus. Arch Intern Med. 2006;166(17):1836-1841.
2. Centers for Medicare and Medicaid Services. Part C and D Performance Data: 2015 Part C and D Performance Data Technical Notes. <http://www.cms.gov/Medicare/Prescription-Drug-Coverage/PrescriptionDrugCovGenIn/PerformanceData.html>. Accessed March 10, 2015.