Cost of Intermittent Participation in Medication Therapy Management
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Background

- In 2010, the Affordable Care Act (ACA) introduced the pay-for-performance (P4P) reimbursement model, a new form of healthcare reimbursement, which is driven by quality improvement and cost reductions. Centers for Medicare and Medicaid Services, employer groups, and various other payers have sought out ways to use the P4P model to reduce costs and improve quality of patient care. One of these ways is through the use of integrated care models such as Accountable Care Organizations (ACOs). 1

- ACOs enable pharmacists an opportunity to use their clinical knowledge and expertise by providing medication therapy management (MTM) programs and services in a team-based setting, focused on improving outcomes and reducing costs. MTM programs and services, such as the Asheville Project and Diabetes Ten City Challenge, have proven that pharmacist-led MTM programs improve quality and decrease costs.2-6 Furthermore, literature has shown when patients are consistent in attending their MTM sessions they receive the largest benefit to improving their health and well-being compared to those who are not consistent and have a high attrition rate. 6

- Even though there is evidence showing the clinical benefit of consistent participation, few studies have examined the impact of inconsistent participation in MTM programs on costs. The cost-spending associated with intermittent participation in MTM should be analyzed in order to assess the economic benefit of MTM. Evaluating this benefit is necessary to show that MTM not only improves quality of care but is also cost-effective.

Methods

Figure 1: Mixed-model, longitudinal multi-site study conducted at 7 community pharmacies across Northwest Ohio beginning in 2006. Patients serve as their own controls.

- Inclusion criteria: Primary medical insurance and prescription coverage through Lucas County, Ohio and primary diagnosis for diabetes with or without co-morbid conditions. Participants also must be above 18 years of age, speak English, and have transportation to pharmacy.

- Exclusion criteria: Patients who enrolled in the program for 2-yrs (± 4 months), dropped out for a 2-yr period (± 4 months) and then returned (refer to Figure 1).

- MTM services provided by pharmacists from the Toledo Area Coalition of Independent Pharmacies. Pharmacists counseled patients at three-month intervals.

- 650 participants were enrolled and of these, 310 were identified as intermittent participants. For this study, intermittent participants were defined as those patients who enrolled in the program for 2-yrs (± 4 months), dropped out for a 3-yr period (± 4 months) and then reenrolled (refer to Figure 1).

- For costs of physician office visits, ER visits, hospitalization and total health care costs were examined. Descriptive statistics were used to determine the average cost at each time point.

Results

- Figure 2: The average total health care cost to employer per patient per year (PPEY) during MTM year 1 was $110. During MTM year 2, the average total health care cost to employer per patient per year (PPEY) was $139. For the dropout year 2, the average total health care cost to employer per patient per year (PPEY) was $193. For the year 2 rejoin, the average total health care cost to employer per patient per year (PPEY) was $153.

- Figure 3: The average hospitalization cost to employer per patient per year (PPEY) during MTM year 1 was $35. During MTM year 2, the average hospitalization cost to employer per patient per year (PPEY) was $72. For the dropout year 1, the average hospitalization cost to employer per patient per year (PPEY) was $50. For the year 2 rejoin, the average hospitalization cost to employer per patient per year (PPEY) was $45.

- Figure 4: The average ER visit cost to employer per patient per year (PPEY) during MTM year 1 was $4. During MTM year 2, the average ER visit cost to employer per patient per year (PPEY) was $6. For the dropout year 1, the average ER visit cost to employer per patient per year (PPEY) was $8. For the year 2 rejoin, the average ER visit cost to employer per patient per year (PPEY) was $8.

Discussion

- The results show the average total health care cost to employers decreased while patients were in the MTM program. When they dropped out their costs increased. These costs included hospitalization, ER visits, and physician office visits. The same trend was seen with hospitalization and ER visit costs individually. The average physician office visit costs were shown to increase as patients participated in the program and were encouraged to see their primary care physician or specialist more frequently. However, these costs decreased after the first year as patients stabilized, became more controlled, and did not need to switch medications.

- Given the results of this study, higher cost-savings will be realized as patients participate consistently in MTM programs. By working together, patients and payers will realize the largest economic benefit through fewer hospitalizations and ER visits. Pharmacists and other health care professionals, providing team-based care, will benefit through shared savings. Showing employers and payers the economic feasibility of these programs may prove that pharmacists should be considered providers and reimbursed according to the P4P model.

- Pharmacist-led MTM programs have shown to be successful, but identifying the participation patterns of patients is necessary to establish the full economic benefit of these programs.

References

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