Medication Therapy Management Programs: When Will the Outcomes Come Out?

The Medicare Modernization Act requires Medicare Part D prescription drug plans (PDPs) and Medicare Advantage prescription drug plans (MA-PDs) to provide medication therapy management programs (MTMPs) as part of the benefit. As defined in the Act, MTMPs are “furnished by a pharmacist [and] designed to assure . . . that covered part D drugs are appropriately used to optimize therapeutic outcomes through improved medication use, and to reduce the risk of adverse events, including adverse drug interactions.” While the Act defines basic elements of the program, it also gives PDPs and MA-PDs a large degree of flexibility for the design and implementation of the MTMP. The Act also identifies the beneficiaries who should be targeted for MTMPs (those with multiple chronic conditions, taking multiple medications, and having prescription drug expenses exceeding $4,000 per year) but allows each participating plan to develop its own specific patient eligibility criteria for MTMP enrollment.

The wide variability in MTMP patient eligibility criteria and the types of services offered to enrollees was documented in a 2006 survey of 70 health insurance plans representing more than 250 PDPs and MA-PDs. All of the surveyed plans followed the $4,000 per year in prescription drug expenses criterion, but they used a variety of methods to calculate this figure. While plans relied on predictive modeling to estimate prescription drug expenses for the year, some plans required a consistent monthly expense ($300-$350 per month for the first 2-3 months of eligibility), while others required $1,000 of expenditures in the first quarter.

There were more significant differences in plan requirements for the number of chronic conditions and the number of unique medications necessary for MTMP enrollment. The number of chronic conditions required by health plans ranged from 2 to 5, with some plans limiting the count to a specified list of chronic conditions. The number of unique medications requirement brought the most variability; while most plans required between 6 and 9 chronic medications, the range among all plans was from 2 to 24 medications, and some plans did not differentiate between episodic and chronic medication use. Further, some plans did not specify a minimum number of medications or chronic conditions required, while others did not require that all 3 enrollment criteria be met for a patient to be eligible for MTMP enrollment.

Since most PDPs and MA-PDs are now approaching (or have surpassed) 1 year of MTMP operation, the time has come to begin evaluating the successes and failures of the programs. When evaluating their programs, plans should be focusing on 2 questions: (1) Has their targeting criteria correctly identified the patients who would most benefit from medication therapy management? and (2) Has the MTMP been successful in achieving whatever goals (enrollment, health outcomes, cost savings, etc.) that the plan had established for it?

It is likely that most PDPs and MA-PDs examined historical data while developing their MTMP enrollment criteria. In a previous issue of the Journal of Managed Care Pharmacy (JMCP), Daniel and Malone describe the results of a study where data from the Medical Expenditure Panel Survey were used to calculate the proportion of community dwelling seniors with annual prescription drug expenditures exceeding the $4,000 threshold for MTMP targeting and to identify the patient-specific risk factors for reaching that expenditure level. The study determined that 9.2% of patients aged 65 years or older would generate $4,000 or more in annual prescription expenses and that patients meeting the $4,000 threshold averaged 10.8 unique medications and 5.2 chronic conditions per year. These findings indicate a potential redundancy in the enrollment criteria; since 90% of patients meeting the prescription expense threshold had 3 or more chronic conditions, and 85% of patients had 7 or more unique medications, it is unlikely that the chronic condition and multiple medication requirements would eliminate more than a small fraction of the patients with prescription drug expenditures exceeding $4,000. Health plans seeking to quickly identify the patient population most likely to be targeted for MTMP could use the $4,000 annual prescription drug expenditure threshold to come up with a rather reliable estimate.

The authors also identified a list of factors that predicted whether or not a patient would meet the $4,000 threshold, including age, functional status, health insurance status, specific diagnoses, and the number of chronic conditions. This list is useful, but the factors should not be considered static. For example, the marketplace entry of generic medications for depression and gastrointestinal disorders since the end of this study’s data collection period may make use of these classes of medications less likely to trigger the $4,000 threshold. Any plan conducting its own work should update its analyses periodically (at least on a yearly basis) to account for changes in the health status of the population, utilization patterns, and prescription expenses. The authors also correctly noted that some of these factors (functional limitations, help required in activities of daily living) might not help a PDP or MA-PD identify potential MTMP targets since that level of information is not typically stored in a health claims database. Plans should not rely on a claims database as the only means to identify potential MTMP targets; physicians, pharmacists, and allied health professionals should all have the opportunity to assess and identify patients who would be good candidates for MTMP.

While many of the results of the analyses performed by Daniel and Malone were self-evident, the methodology and analysis were sound, and the authors should be commended for being the first to publish such an extensive analysis of the MTMP targeting criteria. They have drawn up a blueprint that plans can follow to investigate patient factors associated with meeting the prescription drug expense threshold. Plans may benefit from replicating the study using their own data from
2006 and then modifying their targeting criteria to best identify the patients who may benefit most from MTMP enrollment.

As important as the questions regarding the identification and characteristics of the targeted population are, quantifying the benefits of MTMPs is the ultimate goal. While individual plans likely spent a great deal of time and effort developing their MTMPs enrollment criteria and design, it means little if there are no solid plans to quantify their program’s impact. The Centers for Medicare & Medicaid Services (CMS) has not yet begun to require PDPs or MA-PDs to document MTMP outcomes. For MTMPs operating in 2006, CMS only required that plans self-report the number of beneficiaries who met the target criteria, participated in the program, disenrolled from the program, and declined to participate and the total prescription costs per MTMP beneficiary per month.³ The application process for coverage year 2007 only required plans to describe their methods for documenting and measuring the outcomes of the MTMP³.

A review of plan responses to the American Pharmacists Association (APhA) survey question regarding the measurement of MTMP outcomes indicates that quite a few plans had begun to operate their MTMP without a strategic plan to evaluate the program’s effectiveness.³ This finding was unsettling, especially in light of the meetings convened in summer 2004 by the American Society of Health-System Pharmacists and the Academy of Managed Care Pharmacy. At these meetings, stakeholders from pharmacy benefit managers, health plans, health care organizations, and pharmacy organizations agreed that the measurement of short- and long-term outcomes was essential to ensure individual and organizational competency.⁶

APhA convened an outcomes measures task force in order to suggest metrics that could be used by CMS and its contractors to evaluate MTMPs.⁷ Task force recommendations regarding outcomes research for medication therapy management services (MTMSs) included (a) outcomes analyses that include both short-term metrics (such as the number of prescriptions received and therapy adherence and compliance) and long-term metrics (emergency department visits, hospitalization rates); (b) use of measures to evaluate the economic impact of MTMSs, including costs of services, quality of care outcomes, cost of quality of care, and cost of quality of life improvement; (c) use of metrics to evaluate adherence to various treatment standards and guidelines (Beers list for potentially inappropriate medications, National Cholesterol Education Program guidelines for cholesterol management, etc.); (d) monitoring for therapeutic effect and the impact on disease progression and symptomatology; and (e) adverse drug event monitoring. Plans that still have not established outcomes metrics for evaluating their MTMP can review these recommendations for examples.

It is likely that the PDPs and MA-PDs that had a solid strategic plan for evaluating MTMP outcomes have completed—or are nearing the completion of—the evaluation of their 2006 MTMP experiences. While one would hope for a flurry of publications describing MTMP successes and learning experiences in the coming months, the unwillingness of some plans to publicly post their responses to APhA’s survey² and the rather vague responses of others indicate that some degree of secrecy about MTMPs remains. The sharing of MTMP learning experiences among PDPs and MA-PDs has the potential to further improve patient health through improvements in medication adherence and persistence and a reduction in adverse drug events and the overuse and underuse of prescription medications. The elements of successful MTMPs can be identified and mimicked by other programs that are starting up or have struggled to improve patient health. The sharing of information can also help establish a minimum package of MTMP services that PDPs and MA-PDs will be required to offer. Establishing these important benchmarks can reduce the trial-and-error approach to MTMP services and can improve the quality of services delivered to patients.

Joshua J. Spooner, PharmD, MS
Director, Clinical and Outcomes Services
Advanced Concepts Institute
University of the Sciences in Philadelphia
600 South 43rd St.
Philadelphia, PA 19104
j.spoone@usip.edu

DISCLOSURE
Advanced Concepts Institute has received industry grant support to study medication therapy management programs.

REFERENCES