Medication Optimization Services within the Patient Care Process

Background Paper Prepared for the 2015–2016 APhA Policy Committee
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Issue

The American Pharmacists Association (APhA) Board of Trustees has directed the 2015–2016 Policy Committee to recommend policy to the APhA House of Delegates related to pharmacists’ involvement in medication management services, including services related to medication adherence activities, medication therapy management, and the Pharmacists’ Patient Care Process.

Summary of Key Concepts

- Medication management services terminology is variable and is not applied in a standardized manner and not widely understood by health care providers, patients, and payers.
- Medication management services do not currently have widespread recognition as essential and integral patient care services.
- Medication management services are not uniformly recognized as an essential benefit for health care coverage and are not broadly supported by established practice-specific procedures and protocols across the pharmacy profession.
- Meaningful quality metrics are needed to measure the value of medication management services, especially in new value-based payment and delivery models.
- Pharmacists do not provide medication management services using a consistent process of care across the pharmacy profession, and documentation of services by pharmacists varies greatly.
- Established referral systems involving physicians and other health care providers, including pharmacists, do not currently exist.
- Medication synchronization and the medication-related services incorporated in the Appointment-Based Model are emerging, but they are somewhat variable across the pharmacy profession.
- The Appointment-Based Model could benefit from profession-wide consensus on the identification of appropriate patients, the definition of the services that should be provided, and a well-defined business model to support broad adoption in practice.
- The role of medication therapy review and other medication management services and the business model to support them in the Appointment-Based Model services is not well-established.

Introduction

Pharmacists’ medication-related patient care services are core to pharmacists’ training and the value they supply as health care providers and members of the health care team. These services, broadly termed medication management services, include a spectrum of services to optimize medication and health outcomes for individual patients. Within this spectrum are services related to medication therapy management, comprehensive medication management, Medicare Part D Medication Therapy Management, medication adherence, medication reconciliation, medication synchronization, and care transition, as well as the medication-related services incorporated into the Appointment-Based Model. Challenges exist across the health care system with regard to disparate medication management terms and terminology and a resulting confusion about the definition and content of these services. Because of the lack of widely adopted definitions, physicians, other health care providers, patients, payers, and even pharmacists cannot clearly understand or consistently communicate the terminology. Additionally, this ambiguity in terminology has led to not only difficulty in measuring the effect and outcomes of the
services provided, but also a lack of attributed value to the health care system. Further, it has contributed to the lack of recognition of these services as a covered essential benefit among health plans and emerging delivery models. Taking steps to build awareness and better clarify accepted and pharmacy-supported definitions of pharmacists’ services in order to optimize medication use is essential.

Medication management services provided by pharmacists may be augmented by a variety of other related services, including health and wellness services and chronic condition (disease) management. Regardless of the service delivered, establishing that a consistent process of care is the foundation for providing consistency in the marketplace and measuring the value of pharmacist-delivered care is essential. This is important especially with the emergence of value-based payment models in the health care system. The Joint Commission of Pharmacy Practitioners recently adopted the Pharmacists’ Patient Care Process, which is designed to be the contemporary practice framework for pharmacists’ patient care delivery, including medication management.¹

As pharmacists develop medication management services, consideration must also be given to the implementation of standardized practice models similar to those of other health care providers. This approach includes (a) implementing standardized processes for medication management that lead to consistent care across patient care settings, (b) delivering care within an individual practice through practice-specific procedures and protocols developed and documented within the practice, (c) documenting the care provided in a patient-specific health record accessible to all providers within the practice providing care to patients, and (d) establishing a referral system in which patients identified by their physicians or other health care providers can efficiently receive their needed medication management services from a pharmacist in a coordinated and efficient manner. The profession has yet to fully achieve these goals. However, as a profession, pharmacists must strive to provide consistent medication management service delivery that reliably meets the expectations of patients and caregivers, other health care providers, and payers.

When evaluating patients’ medication regimens, a pharmacist assesses each medication for appropriateness, efficacy, safety, and adherence.¹ A comprehensive assessment must include all of these elements. If problems are identified, then the patient may receive specific services to address the problem(s). For adherence problems, a variety of programs are emerging in the marketplace, including medication synchronization, adherence programs targeted to specific medications, automated refill programs, special packaging, and the Appointment-Based Model (ABM) for care delivery. Adherence services may include a variety of elements, based on the needs of the individual patient. Each adherence program must have a design that clearly defines the elements to ensure consistent care delivery from pharmacist to pharmacist and from one patient care practice to another. Currently, these programs and models vary. With the emerging ABM, clarification and consensus are needed on which elements of the ABM service will be in the marketplace; whether medication management services, including medication review, are included and financially sustainable; and how the most appropriate patients are identified and enrolled.

Medication management has many issues. This paper focuses on those related to the areas of definitions and terminology and implementation in practice.

**Definitions and Terminology**

**Medication-Related Services**

Medication-related services encompass medication management, which involves a spectrum of services to optimize medication and health outcomes for individual patients. This spectrum includes services such as medication therapy management, comprehensive medication management, Medicare Part D Medication
Therapy Management, medication adherence, medication reconciliation, medication synchronization, and care transition, as well as the medication-related services incorporated into ABM.

**Medication Therapy Management**

Although pharmacists’ medication-related clinical services had been delivered in various settings for several decades, the passage of the Medicare Prescription Drug, Improvement, and Modernization Act (MMA) in 2003 introduced medication therapy management (MTM) as a covered benefit and included specific mention of pharmacists as providers of MTM in the Social Security Act. Under the MMA, each Medicare Part D prescription drug plan (PDP) sponsor was mandated to develop an MTM program to offer to targeted Medicare beneficiaries. Targeted beneficiaries, as defined in the law, are those covered beneficiaries who

- Have multiple chronic conditions
- Take multiple Part D medications
- Are projected to meet an anticipated annual spending threshold on their Part D medications

The law stated that MTM may be provided by pharmacists (the only provider specifically referenced). It also provided some guidance on the MTM program elements that could be provided to targeted beneficiaries as follows:

- Promote enhanced enrollee understanding through beneficiary education, counseling, and other means that promote the appropriate use of medications and reduce the risk of potentially adverse events from the use of medications.
- Increase enrollee adherence to prescription medication regimens (for example, through medication refill reminders, special packaging, compliance programs, and other appropriate means).
- Detect adverse drug events, including patterns of overuse and underuse of prescription drugs.

Beyond these elements, a consensus definition of MTM in the marketplace was absent at the time the act was passed. Policy makers sought guidance on the meaning of MTM and the way it should be delivered. In 2004, a consortium of 11 national pharmacy organizations agreed on a definition of MTM that included an array of activities that could be performed as part of MTM services based on individual patient need: “Medication therapy management (MTM) is a distinct service or group of services that optimizes therapeutic outcomes for individual patients. MTM services are independent of, but can occur in conjunction with, the provision of a medication product.”

An important aspect of the profession’s consensus MTM definition is its much broader application and service level than the current Medicare Part D MTM benefit.

To provide further guidance, in 2005, APhA and the NACDS (National Association of Chain Drug Stores) Foundation developed a foundational service model describing five core elements of an MTM service, Medication Therapy Management in Community Pharmacy Practice: Core Elements of an MTM Service (version 1.0), that would serve as a guide for the creation of new MTM programs. The MTM Core Elements Model was updated in 2008 and published as Medication Therapy Management in Pharmacy Practice: Core Elements of an MTM Service Model (version 2.0) in the *Journal of the American Pharmacists Association* (JAPhA). The five elements of the model are as follows:

- Medication therapy review
- Personal medication record
- Medication-related action plan (for the patient)
- Intervention or referral
- Documentation and follow-up
The core elements serve as the basic foundation on which to build MTM services and program offerings and are designed to provide consistency in the standard service delivery model implemented for patients. Standard care elements that are part of this model include performing medication reviews (comprehensive or targeted), documenting care, and following up or referring a patient for additional care. The model also includes two elements that provide tangible deliverables for patients: an up-to-date medication list and a patient-centered medication action plan to assist a patient in effectively managing his or her medications. Additional patient care functions such as disease management and prevention, wellness activities, and those activities facilitated by collaborative practice agreements (such as initiating and modifying therapy and ordering laboratory tests) could build on the core elements model according to an individual state’s scope of practice. The MTM Core Elements Model is aligned with the MTM Consensus Definition, which advocates for services that should be based on the individual needs of a patient and coordinated with the other health care services the patient is receiving.

When the Medicare Part D MTM benefit went into effect in 2006, the Centers for Medicare and Medicaid Services (CMS) allowed prescription drug plans significant flexibility in the design of their MTM programs. Because MTM was not defined well, CMS reasoned that program sponsors could experiment in the way patients were targeted, programs were designed, and MTM was delivered. As a result, the targeting criteria, method of delivery (telephonic versus face-to-face conversation), and types of MTM services (from medication therapy management using the core elements to mailed educational brochures) varied widely.\(^7\)\(^8\) As the Part D benefit matured, as innovation by programs occurred, and as CMS collected data on MTM service delivery and effect, refinements were made and more standardization was gradually introduced into the MTM program, especially that related to beneficiary targeting criteria. Since 2009, CMS has released MTM fact sheets that provide a variety of statistics about MTM enrollment, delivery, and outcomes.\(^3\)

In 2009, the Patient Protection and Affordable Care Act (PPACA) contained provisions that improved the Medicare Part D MTM program such as a required annual person-to-person comprehensive medication review, targeted quarterly monitoring (no required patient interaction), and a standardized medication action plan and personal medication list for a patient.\(^7\) Eligible beneficiaries continue to be targeted for MTM by the Part D plans based on plan-specific criteria (that meets CMS requirements), and beneficiaries have the choice to opt out of receiving MTM services, including the annual comprehensive medication review. PPACA also included a provision for testing MTM through a grant program (not funded to date) and various mentions of pharmacists and MTM services in several new programs (outside of Part D MTM).\(^10\)

On September 28, 2015, the CMS Center for Medicare and Medicaid Innovation (CMMI) announced the Medicare Part D Enhanced Medication Therapy Management model. According to CMMI:

This Enhanced MTM model offers an opportunity and financial incentives for basic stand-alone Part D Prescription Drug Plans (PDPs) in selected regions to offer innovative MTM programs in lieu of the standard CMS MTM model, aimed at improving the quality of care while also reducing costs. As part of the “better care, smarter spending, healthier people” approach to improving health delivery, CMS will test changes to the Part D program that aim to achieve better alignment of PDP sponsor and government financial interests, while also creating incentives for robust investment and innovation in MTM targeting and interventions.

Innovative models will be tested in five regions. Many of these strategies are those advocated by members within the pharmacy profession, including APhA, and include plans such as physician referral for MTM, better coordination of MTM with the patient’s health care, and use of pharmacists in physician office practices and community pharmacies.\(^11\)
While the Medicare Part D MTM benefit has been evolving, MTM programs outside the Medicare program have also emerged in several state Medicaid programs, some private sector and self-insured employer programs, and physician office practices and clinics. For example, the longstanding Minnesota Medicaid MTM program pays pharmacists to provide care to targeted Medicaid patients with one or more chronic conditions taking three or more prescription medications. The Minnesota MTM benefit is more aligned with the pharmacy profession’s MTM consensus definition, has broader targeting criteria, and promotes a comprehensive approach to care that includes follow-up visits as necessary. The variability in program design and terminology has caused confusion inside and outside the pharmacy profession. The authors of one study attempting to describe the MTM services in Minnesota remarked that “the lack of a comprehensive description of the current level of services could hinder growth, especially as new graduates begin their professional careers. A current description of MTM practices and practitioner characteristics is needed to maintain progress.”

Comprehensive Medication Management

The Patient-Centered Primary Care Collaborative (PCPCC) developed a framework for integrating comprehensive medication management into the patient-centered medical home. Comprehensive medication management is defined as the standard of care that ensures each patient’s medications (prescription, nonprescription, alternative, and traditional medications; vitamins; or nutritional supplements) are individually assessed to determine that each medication is appropriate for the patient, effective for the medical condition, safe given the comorbidities and other medications being taken, and able to be taken by the patient as intended. PCPCC developed a resource guide, The Patient-Centered Medical Home: Integrating Medication Management to Optimize Patient Outcomes, that outlines the comprehensive medication management process.

MTM Research Evidence

Variability in MTM service delivery and MTM terminology has also affected the ability to measure the effect of pharmacists’ delivered MTM services. The term medication therapy management is often equated with the service requirements of Medicare Part D MTM, whereas private sector or state Medicaid programs using the same term may offer more robust MTM services to their beneficiaries (e.g., Minnesota Medicaid MTM program). Likewise, research studies on MTM often use a variety of different terms to characterize MTM interventions and do not use a standardized format to describe key components of MTM service delivery such as method of delivery, type of initial visit, type and quantity of follow-up visits, type and intensity of services delivered, and so on.

In 2014, a systematic review of MTM studies, Medication Therapy Management Interventions in Outpatient Settings, conducted by the Agency for Healthcare Research and Quality, found limited evidence for the effectiveness of MTM programs, primarily because of heterogeneity resulting from wide variations in populations and interventions. The review authors went on to explain that there are two important needs for efforts to systematically review MTM programs. The first is for researchers to specify the MTM intervention based on existing definitions, taxonomies, or service models. The second is to develop consensus guidelines for describing intervention features and fidelity of intervention delivery in publications reporting findings from evaluation studies. Progress on these two steps would enable systematic reviews to differentiate better between different types of services and avoid the problem of overgeneralizing review results.

In 2014, Avalere Health released a report, Exploring Pharmacists’ Role in a Changing Healthcare Environment, that was also a systematic review of the literature to examine the evidence for “the types of services that pharmacists can provide, and how a shifting landscape may affect the demand for these
Evidence was presented that pharmacists’ medication management services have been shown to improve adherence and clinical outcomes for patients with certain chronic diseases. Aspects of pharmacist-provided medication reconciliation, preventive care services, and educational and behavioral counseling services were also shown to provide benefits for emerging team-based care models. One of the findings in the key takeaways for medication management involved reporting: “New research evaluating pharmacist-provided medication management should diligently identify and standardize reporting of all relevant component services being delivered within these programs, as this can help inform policy and quality improvement efforts.”

The previously mentioned systematic reviews also focused on the lack of randomized, controlled studies that have sufficient numbers of patients to stand up to the scrutiny of agencies such as CMS and Agency for Healthcare Research and Quality. Traditionally, pharmacy researchers have not been beneficiaries of large grants that would permit these types of studies. A 2014 review of MTM studies noted that “evidence suggests that MTM services are a promising way to manage complex patients, but there are gaps in the literature largely because of the limited number of studies with strong designs. Stronger evaluation of MTM programs is warranted.” The authors continued to explain that “most studies lacked rigorous design and had limited control groups” and that “taken together, comprehensive benefits of MTM economic outcomes remain inconclusive.” Although noting that the “broad goals” and “variety of designs” among MTM programs make assessment of these programs challenging, the authors indicated that overcoming the key barrier of reimbursement required better-designed and more comprehensive studies on MTM benefits.

**Summary**

As a result of the disparate MTM terms and terminology, confusion exists about the definition and content of these services. Thus, key stakeholders such as physicians, other health care providers, patients, payers, and even pharmacists lack a clear understanding of these services and often do not recognize MTM as an essential and integral patient care service. Additionally, this ambiguity in terminology has resulted in both difficulty in measuring the effect and outcomes of MTM services and a lack of attributed value within the health care system. It also has contributed to the absence of recognition of MTM services as an essential health benefit for health care coverage.

**Implementation in Practice**

Medication management services provided by pharmacists may be provided alone or may be augmented by a variety of other related services, including health and wellness services and chronic condition (disease) management. Pharmacists must use a consistent process of care in delivering these services, regardless of the service delivered. A consistent process of care is the foundation for allowing the public to gain uniform expectations of pharmacists’ services and for measuring the value of care delivered. This is important especially with the emergence of value-based payment models in the health care system. The recently adopted Joint Commission of Pharmacy Practitioners’ (JCPP) Pharmacists’ Patient Care Process is designed to be the contemporary practice framework for pharmacist care delivery, including medication management.

**Pharmacists’ Patient Care Process**

The JCPP approved the Pharmacists’ Patient Care Process in May 2014 with the intention of standardizing how the pharmaceutical care model is taught and practiced. Most health care providers operate under a standardized patient care process, but until the JCPP’s approval, pharmacists had not had a consistently applied and delivered process of their own. With the future of health care necessitating team-based, outcome-focused, and cost-effective approaches, articulation of the pharmacist’s care process
to other members of the health care teams and patients and facilitation of consistency for patients and the health care system were imperative. Developed by using the pharmaceutical care model and other key source documents, the Pharmacists’ Patient Care Process was created to do the following:

- Promote consistency across the profession
- Provide a framework for delivering patient care in any practice setting
- Operate as a contemporary and comprehensive approach to patient-centered care delivered in collaboration with other members of the health care team
- Apply to a variety of patient care services delivered by pharmacists, including medication management

The key components of the Pharmacists’ Patient Care Process are as follows: Collect, Assess, Plan, Implement, and Follow-up: Monitor and Evaluate (Figure 1). This cycle requires a pharmacist to “collaborate, communicate, and document” throughout the care process as a member of the health care team, all with the patient at the center of care. The foundational components of the process are as follows:

- Establishment of patient-pharmacist relationship
- Engagement and effective communication with a patient, family, and caregivers
- Continual collaboration, documentation, and communication with physicians and other health care providers
- Enhancement of process by interoperable information technology systems that facilitate effective and efficient communication

**Figure 1. Key Components of the Pharmacists’ Patient Care Process**

**Overview of Components**

**Collect:** The pharmacist assures the collection of necessary subjective and objective information about the patient in order to understand the relevant medical and medication history and clinical status of the patient. Information may be gathered and verified from multiple sources. The information collected may include the following:
• A current medication list and medication use history for prescription and nonprescription medications, herbal products, and other dietary supplements
• Relevant health data that may include medical history, health and wellness information, biometric test results, and physical assessment findings
• Patient lifestyle habits, preferences and beliefs, health and functional goals, and socioeconomic factors that impact access to medications and other aspects of care

Assess: The pharmacist assesses the information collected and analyzes the clinical effects of the patient’s therapy in the context of the patient’s overall health goals in order to identify and prioritize problems and achieve optimal care. The assessment may include the following:
• Each medication for appropriateness, effectiveness, safety, and patient adherence
• Health and functional status, risk factors, health data, cultural factors, health literacy, and access to medications or other aspects of care
• Immunization status and the need for preventive care and other health care services, where appropriate

Plan: The pharmacist develops an individualized patient-centered care plan, in collaboration with other health care professionals and the patient or caregiver that is evidence based and cost-effective. The plan will include the following:
• Addresses medication-related problems and optimizes medication therapy
• Sets goals of therapy for achieving clinical outcomes in the context of the patient’s overall health care goals and access to care
• Engages the patient through education, empowerment, and self-management
• Supports care continuity, including follow-up and transitions of care as appropriate

Implement: The pharmacist implements the care plan in collaboration with other health care professionals and the patient or caregiver. The pharmacist will engage in the following:
• Addresses medication- and health-related problems and engages in preventive care strategies, including vaccine administration
• Initiates, modifies, discontinues, or administers medication therapy as authorized
• Provides education and self-management training to the patient or caregiver
• Contributes to coordination of care, including the referral or transition of the patient to another health care professional
• Schedules follow-up care as needed to achieve goals of therapy

Follow-Up: Monitor and Evaluate: The pharmacist monitors and evaluates the effectiveness of the care plan and modifies the plan in collaboration with other health care professionals and the patient or caregiver as needed. The pharmacist may monitor and evaluate the following:
• Medication appropriateness, effectiveness, and safety and patient adherence through available health data, biometric test results and patient feedback
• Clinical endpoints that contribute to the patient’s overall health
• Outcomes of care, including progress toward or the achievement of goals of therapy

Adoption and implementation of the Pharmacists’ Patient Care Process by the profession is in its early stages with national and state pharmacy organizations and with colleges of pharmacy through the revised accreditation standards of the Accreditation Council for Pharmacy Education (ACPE), which is committed to integrating the care process in education programming and care delivery. Members of each pharmacy practice area will assess how they will integrate this care delivery approach into their practices. JCPPT member organizations have undertaken activities to support pharmacists’ efforts to implement the patient care process:
The Pharmacists’ Patient Care Process has been included in the ACPE 2016 standards, which go into effect in July 2016. This inclusion is a major asset to JCPP’s goal of providing consistency in the teaching of the patient care process. The new standard requires curriculum reform for didactic, experiential, and extracurricular learning to include the Pharmacists’ Patient Care Process. Assessment of how well the process has been implemented within curricula can begin in Fall 2016, which will facilitate understanding of the best methods of incorporation and a potential standard that could be used going forward. ACPE also educated accredited continuing education providers about the process and encouraged those providers to incorporate the process into educational programs for pharmacists.

- The process is included in the newly revised American Society of Health-System Pharmacists’ PGY1 residency accreditation standards and will be included in future revisions of the other residency accreditation standards.
- Numerous presentations are being delivered across the country in various formats to educate pharmacists about the process. These include education of pharmacists who are participating in Alliance for Integrated Medication Management and Center for Medicare and Medicaid Innovation projects.
- The Pharmacy Health Information Technology (HIT) Collaborative is incorporating the process into structured electronic documents that can be shared with other providers using the electronic health information exchange.
- The Pharmacy Quality Alliance is including consideration of the process in the development of new medication-related quality metrics.
- The process is being incorporated into tools for pharmacists, such as a tool to identify gaps in diabetes care developed by a national patient safety organization.

The Pharmacists’ Patient Care Process is designed for use in all pharmacy practice settings where patient care is delivered. APhA has published a book, *How to Implement the Pharmacists’ Patient Care Process*, that provides detailed explanations of the steps in the process and, perhaps most important, case-studies and exercises that show how the process can be integrated into different pharmacy settings for different types of services. A community pharmacy example shows how the process can be applied during a comprehensive medication review, and an inpatient example shows how it can be used during an endoscopy. The willingness, awareness, and widespread acceptance of the Pharmacists’ Patient Care Process as the standard of care across the profession and the understanding of the process by consumers, health care practitioners, and other key stakeholders will be key to its implementation.

*Standardized MTM Practice Models*

MTM service development needs to be accompanied by the implementation of standardized practice models similar to those of other health care providers. This approach includes (a) implementing standardized processes for medication management to ensure consistency across patient care settings, (b) delivering care within an individual pharmacy practice through practice-developed and -documented procedures and protocols specific to the practice, (c) documenting the care provided in a patient-specific health record accessible to all providers within the practice providing care to patients, and (d) establishing a referral system in which patients identified by their physicians or other health care providers can efficiently receive their needed medication management services from a pharmacist in a coordinated and efficient manner. These practice models must be effective and efficient and have business models that support growth and expansion over time.

*MTM Service Delivery Types*
MTM services are delivered using a wide array of methods from face-to-face meetings to telephonic conversations to virtual video-conferencing. The MTM core elements indicate that a face-to-face delivery method is optimal because it permits a pharmacist to visually assess a patient. Although few studies exist evaluating the efficacy of MTM delivery methods (face-to-face meeting, telephonic conversation, or telehealth using video), with regard to the largest MTM payer—Medicare Part D—100% of Part D plans offer person-to-person comprehensive medication reviews (CMRs) over the phone, while 57% of the plans offer face-to-face CMRs.22

A recent study evaluating the effect of telephonic MTM on hospital readmissions found that the lowest-risk group who received the service were three times more likely to remain out of the hospital 60 days after entering into home health care. The authors called for more study on higher-risk patients to learn if such patients needed more intense face-to-face interventions in order to achieve positive results.23 As evidenced by this study, greater understanding of the time to apply certain methods and the intensity of service delivery is needed. This understanding needs to include patient preferences because the mode of service delivery often is dictated by the payers (plans) and may not be optimal for a patient.

*MTM Barriers to Implementation*

Be they real or perceived, barriers continue to exist for the implementation and integration of MTM for both providers and payers. In the APhA’s 2014 *Medication Therapy Management Digest (MTM Digest)*, an environmental scan conducted by APhA since 2007, both providers and payers were surveyed on their perceived barriers to MTM services. On average, providers rated five issues as “significant” barriers: inadequate time, lack of payers paying for MTM services, low payment for MTM, difficulty in billing, and inadequate support staff.24 However, those surveyed in the *MTM Digest* are likely to be providers already offering MTM services, so a wider survey of providers might find more barriers significant. One such study, published in JAPhA in 2009, surveyed 970 pharmacists in the outpatient setting on their actual and perceived barriers to providing MTM services. Although lack of payment for services was the primary barrier, 89.6% of respondents listed staffing as a barrier, and 84% listed poor access to medical information as a barrier.25

*Financial Sustainability*

Payment for MTM services continues to be a significant barrier to sustainability and scalability in all practice settings. Medicare Part D MTM currently represents the largest covered MTM benefit, yet the majority of MTM services are delivered in-house telephonically by the PDPs, leaving a relatively small number of MTM encounter opportunities for pharmacists in outpatient settings. (According to the 2015 CMS MTM fact sheet, over 66% of programs use MTM vendor in-house pharmacists to deliver the CMR, and 28% use MTM vendor local pharmacists.) Absent a critical mass of patients, integration of MTM services into a busy practice can be difficult.22

For pharmacists practicing in physician office practices and clinics, the primary payment option for comprehensive medication management is through physician incident-to-billing, which often is not adequate to support a pharmacist. Aside from the Medicare Part D MTM benefit, several state Medicaid programs (Iowa, Minnesota, Missouri, and Ohio), and physician office practices where the physician bills for pharmacists’ services, opportunities for pharmacists to provide MTM services as a covered benefit are sporadic. The profession’s current provider status initiative is focused solely on achieving recognition and coverage for pharmacists’ patient care services to address the critical need for payment for services.
For those MTM services that do have associated payment, significant variability exists in documentation and billing requirements between payers that can make MTM service implementation difficult. Payers can require documentation in their own web-based platforms that sometimes contain a list of specific tasks that pharmacists must complete as part of the care. The variability between these systems and their required activities can create difficulty in delivering consistent and efficient MTM services. Pharmacists must transition between different systems depending on a patient’s coverage compared to the seamless use of one system for dispensing regardless of the payer. The variability in payer requirements, including those with task-oriented activities, can make the ability to deliver care using a consistent care process challenging. Since 2008, APhA has advocated for standardized MTM documentation and billing requirements, and the formation of the Pharmacy HIT Collaborative was spearheaded because of MTM documentation and billing challenges.

Because of sufficient patient volume and the ability to document using a single electronic medical record, some practices have implemented efficient systems to document and bill for MTM services. A study at the MD Anderson Cancer Center’s Ambulatory Treatment Center (where pharmacists are part of integrated care teams) over a three-month period found that difficulty with the actual billing process might be alleviated through education and awareness of resources. The study identified that “many pharmacists believed that their other duties would keep them from completing the required MTM documentation and billing.” However, after provision of education and training and as experience with those tasks increased, pharmacists were more proficient at documenting and billing for services. The authors stated that they “provided further education and training using patient cases and demonstration on how to efficiently carry out the process. One-on-one training was also provided to those with continued difficulty. Even without further education, documentation and billing time decreased as pharmacists’ experience increased.”

In 2008, APhA passed the following policy:

1. APhA encourages the development and use of a system for billing of MTM services that:
   a. includes a standardized data set for transmission of billing claims; b. utilizes a standardized process that is consistent with claim billing by other healthcare providers; c. utilizes a billing platform that is accepted by the Centers for Medicare and Medicaid Services (CMS) and is compliant with the Health Insurance Portability and Accountability Act (HIPAA)
2. APhA supports the pharmacist’s or pharmacy’s choice of a documentation system that allows for transmission of any MTM billing claim and interfaces with the billing platform used by the insurer or payer.
4. APhA supports efforts to further develop CPT codes for billing of pharmacists’ services, through the work of the Pharmacist Services Technical Advisory Coalition (PSTAC).

APhA currently offers a “Billing for MTM Services” resource as does the Pharmacy HIT Collaborative, and other groups such as OutcomesMTM also offer education for using their system to document and bill for services. Currently, three time-based Current Procedural Terminology (CPT) codes approved by the American Medical Association can be used for MTM billing, if recognized by the payer. Efforts are underway through the Pharmacy HIT Collaborative to advocate for the creation of additional MTM CPT codes that better reflect the complexity of care delivered.
Patients’ Engagement

Patients’ understanding of and engagement in MTM services continues to be a barrier to uptake. In the 2014 APhA MTM Digest, payers who reimburse for MTM services found only one significant barrier to providing MTM services: “Patients are not interested or decline to participate.” This is evidenced by 2015 CMS data, which show that 67.6% of MTM programs had a CMR completion rate between 10% and 30%.3

A study published in JPhA in 2009 reported that of 81 patients surveyed, 60% had never heard of MTM, 80% had never received a CMR, and 86% had never received a medication action plan.25 A need exists to find successful methods for building awareness and engagement in MTM services. In the 2014 APhA MTM Digest, 75% of surveyed MTM providers and 82% of payers agreed that “direct contact with patients” was a “successful marketing strategy.” The next most productive strategy was “collaboration with other health care providers” (44% of providers), followed by “word of mouth” (32% of providers).24 Many pharmacists have stated anecdotally that referrals from prescribers are very effective in getting patients interested, and willing to participate, in MTM services. Further research is warranted to identify strategies for improving patient engagement in MTM services.27

One survey of MTM programs recognized that more intensive MTM programs with larger time commitments correlated with decreased patient engagement.17 Given the results of the APhA MTM Digest surveys as well as studies citing an overall lack of awareness, additional direct pharmacist engagement with patients regarding MTM services might benefit patient engagement. CMS is also ramping up efforts to identify effective strategies for engaging patients in MTM. Factors such as increased marketing efforts, expanded patient eligibility, and education of physicians and other providers about MTM may also help increase patient engagement.

Standardization of Medication Synchronization and Appointment-Based Model

As part of an effort to implement various medication management services in community-based pharmacy practices, medication synchronization and the ABM are emerging services that have garnered interest in many sectors of the health care system. These services can enhance patient adherence, provide the convenience of a once-a-month coordinated visit to the pharmacy to pick up prescriptions, and improve efficiencies in pharmacy operations. Although the APhA Foundation, the National Alliance of State Pharmacy Associations, the National Community Pharmacists Association (NCPA), and others have performed significant work in developing models for medication synchronization and the ABM, variability remains in the marketplace in the way these programs are developed and delivered. Additionally, the inclusion of MTM services such as medication therapy reviews as part of the ABM for patients who could potentially benefit is not well defined.

Definitions of Medication Synchronization and Appointment-Based Model

The term Appointment-Based Model is often used synonymously with medication synchronization.9 However, differentiating between the two terms, and the way they are applied to improve patient adherence and pharmacy efficiencies, is important.

Medication synchronization is the process of coordinating a patient’s refills for chronic medications so they are filled on the same day each month.

The ABM is a 3-part proactive process that includes the following:
Medication synchronization to assign an appointment day each month for a patient to pick up his or her prescriptions and consult with a pharmacist

A monthly pre-appointment call to a patient to verify the prescription order and determine if the patient is experiencing any changes or problems

Scheduled monthly appointment where a patient picks up the prescriptions and a pharmacist consults with the patient about any ongoing experiences that might be potential issues.

The APhA Foundation’s white paper on the ABM states that medication synchronization is “the engine” that drives the model. NCPA promotes a program similar to the ABM—Simplify My Meds—that contains the same steps as the ABM.

In addition to the APhA Foundation–convened consortium leading to the white paper on the ABM, the Foundation has also launched a patient awareness education initiative—Align My Refills. The focus of this education campaign is on the ability for patients to have their medication refill dates synchronized in order to reduce trips to the pharmacy and improve adherence. This consumer-focused language is also apparent in some versions of NCPA’s Simplify My Meds program. APhA and NCPA also collaborate on a map that displays those pharmacies offering ABM services.

Most studies evaluating the ABM identify two common components: (a) medication synchronization and (b) a monthly phone call to a patient. Some studies placed more emphasis on printing medication lists, identifying medications that would require partial fills given the synchronization date, and engaging a patient on fill quantity desires and feasible payment plan (single monthly payment versus interspersed payment). For achievement of comparable study results, avoidance of confusion, and improved awareness, reaching consensus on the definition and components of the appointment-based model may be advisable.

Summary
As medication management services continue to expand, the pharmacy profession must strive to implement the JCPP Pharmacists’ Patient Care Process uniformly across the profession. Medication management services need to be standardized and supported by practice models that include well-developed procedures and protocols; a single system to document patient care, regardless of payer; and an established system for the effective referral of identified patients in need of medication management services from physicians to pharmacists providing these services.

Implementing Medication Synchronization and ABM

A full implementation guide and a white paper from the APhA Foundation present implementation of the medication synchronization program and ABM in 10 easy steps. However, dramatic changes in workflow and considerations of cost remain a barrier to broad implementation by some national chain pharmacies. The consortium behind the Foundation’s white paper on the ABM agreed that the model requires only “minor modifications of workflow” and “emphasized that almost nothing additional is required to implement an appointment-based model.” Additionally, they concluded, “the ABM is intuitive and requires almost no financial investment to be successfully implemented.” NCPA also offers an ABM Revenue Calculator and educational videos on how to implement the ABM that may help decrease perceived or actual barriers for its implementation. Further examples and growing programs may serve to encourage organizations considering the ABM, and consideration of “potential measures” such as time spent with a consumer, pharmacist efficiency, and adherence measures may enhance support for implementation.
Numerous studies indicate good evidence that at its core, the ABM improves adherence. In a major study, the results showed “approximately 18 to 35 additional ABM study participants were adherent for every 100 patients enrolled when compared with usual care. For every 100 patients receiving usual care, 17 to 40 additional patients in the ABM study group were persistent.” However, whether or not the model can yield clinical results is less clear. A study that measured patients achieving blood pressure (BP) goals through medication synchronization showed a significant decrease in overall systolic blood pressure from baseline for the medication synchronization group, but no significant difference from the study group receiving education only. Furthermore, the study was not focused solely on BP and was affected by other limitations, so “medication synchronization did not lead to a significant increase in proportion of patients at BP goal. This may indicate that further intervention is needed to impact clinical outcomes aside from ensuring that patients have their medication on hand.” However, the limitations of this study were significant, because the study did not exclude patients already at BP goal (41% in the medication synchronization group started at goal) and results were collected over a four-month period only. Further research will help identify the benefits and value of medication synchronization and ABM.

**Summary**

Although implementation and adoption of medication synchronization and the ABM continue to expand in the marketplace, variability remains in the structure of the services provided. The pharmacy profession needs to further define the scope and nature of included services within the model and to define when and what types of medication management services are included and for which patients the services are most appropriate. In the environment of limited health care resources, targeting the services to those patients who have identified needs and who will receive the greatest benefit will be the most effective and efficient approach for the system as a whole. As a profession, pharmacists must strive to create a system for the ABM that appropriately identifies patients who may benefit from this model, clearly articulate what services are provided and when, and build a sustainable business model to support the broad adoption by the profession.

**Conclusion**

The further implementation and expansion of medication management services in pharmacy practice is a complex, multifaceted issue. Although this paper focuses on definitions and terminology and on implementation in practice, other factors to be addressed on this topic are likely to arise in the future. The pharmacy profession has specific actionable items in each of these areas to address in order to impart meaningful change in the profession and the care pharmacists are providing to patients. The creation and adoption of meaningful policy by APhA assist in moving the profession forward and help advance medication management services broadly within the health care system.

**References**


Relevant APhA Policies

2012 Contemporary Pharmacy Practice
1. APhA asserts that pharmacists should have the authority and support to practice to the full extent of their education, training, and experience in delivering patient care in all practice settings and activities.
2. APhA supports continuing efforts that lead to the establishment of a consistent and accurate perception by the public, lawmakers, regulators, and other health care professionals of the role and contemporary practice of pharmacists.
3. APhA supports continued collaboration with stakeholders to facilitate adoption of standardized practice acts, appropriate related laws, and regulations that reflect contemporary pharmacy practice.
4. APhA supports the establishment of multistate pharmacist licensure agreements to address the evolving needs of the pharmacy profession and pharmacist-provided patient care.
5. APhA urges the development of consensus documents, in collaboration with medical associations and other stakeholders that recognize and support pharmacists’ roles in patient care as health care providers.
6. APhA urges universal recognition of pharmacists as health care providers and compensation based on the level of patient care provided using standardized and future health care payment models.
(JAPhA NS52(4) 457 July/August 2012)

2011 Pharmacists Role in Healthcare Reform
1. APhA affirms that pharmacists are the medication experts whose accessibility uniquely positions them to increase access to and improve quality of health care while decreasing overall costs.
2. APhA asserts that pharmacists must be recognized as the essential and accountable patient care provider on the health care team responsible for optimizing outcomes through medication therapy management (MTM).
3. APhA asserts the following: (a) Medication Therapy Management Services: Definition and Program Criteria is the standard definition of MTM that must be recognized by all stakeholders. (b) Medication Therapy Management in Pharmacy Practice: Core Elements of an MTM Service Model, as adopted by the profession of pharmacy, shall serve as the foundational MTM service model.
4. APhA asserts that pharmacists must be included as essential patient care provider and compensated as such in every health care model, including but not limited to, the medical home and accountable care organizations.
5. APhA actively promotes the outcomes-based studies, pilot programs, demonstration projects, and other activities that document and reconfirm pharmacists’ impact on patient health and well-being, process of care delivery, and overall health care costs.
(JAPhA NS51(4) 482;July/August 2011)
2008  Billing and Documentation of Medication Therapy Management (MTM) Services
1. APhA encourages the development and use of a system for billing of MTM services that: a. includes a standardized data set for transmission of billing claims; b. utilizes a standardized process that is consistent with claim billing by other healthcare providers; c. utilizes a billing platform that is accepted by the Centers for Medicare and Medicaid Services (CMS) and is compliant with the Health Insurance Portability and Accountability Act (HIPAA)
2. APhA supports the pharmacist's or pharmacy's choice of a documentation system that allows for transmission of any MTM billing claim and interfaces with the billing platform used by the insurer or payer.
4. APhA supports efforts to further develop CPT codes for billing of pharmacists' services, through the work of the Pharmacist Services Technical Advisory Coalition (PSTAC).

Topic: Pharmaceutical Care

2003, 1992  The Pharmacist's Role in Therapeutic Outcomes
1. APhA affirms that achieving optimal therapeutic outcomes for each patient is a shared responsibility of the health care team.
2. APhA recognizes that a primary responsibility of the pharmacist in achieving optimal therapeutic outcomes is to take an active role in the development and implementation of a therapeutic plan and in the appropriate monitoring of each patient.


2013, 1978  Pharmacists Providing Health Care Services
APhA supports the study and development of new methods and procedures whereby pharmacists can increase their ability and expand their opportunities to provide health care services to patients.