

# Medication Therapy Management: Getting back to the basics

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## **Educational goal:**

To provide an overview of Medication Therapy Management (MTM) and a recommendation for the most effective way to make an impact on your patient in the 30 minutes you have with them.

## **Objectives:**

After completing this knowledge-based program, the participant will be able to:

- Review the meaning of MTM.
- Know the minimum level of service that must be offered for MTM according to the Centers for Medicare and Medicaid Services (CMS).
- List the 5 core elements of a MTM service model.
- Understand and know how to conduct a medication therapy review (MTR), personal medication record (PMR), and medication-related action plan (MAP).
- Understand the importance of intervention and/or referral along with documentation and follow-up.
- Identify the most important intervention a pharmacist can make in any one brief MTM session.

## **Introduction**

Medication-related problems and medication mismanagement are huge public health problems in the United States today. Experts estimate that 1.5 million preventable medication-related adverse events occur each year- some of which lead to serious injury and death<sup>1</sup>. These adverse events result in an additional \$177 billion in medication-related morbidity and mortality<sup>1</sup>. MTM services may help alleviate some of this public health burden by contributing to medication error prevention and enabling patients to take an active role in their own health and medication management. Teaching patients to take an active role in their own health

may start with educating patients on the importance of medication adherence.

## **MTM Overview**

Medication Therapy Management, commonly referred to as MTM, is a term used to describe a broad range of health care services provided by pharmacists<sup>1</sup>. In a consensus definition adopted by the pharmacy profession in 2004, MTM was described as a service or group of services that optimize therapeutic outcomes for individual patients<sup>1</sup>. According to the American Pharmacists Association (APhA), these services may include medication therapy reviews, pharmacotherapy consults, anticoagulation management,

immunizations, disease management coaching, health and wellness programs, and many other clinical services<sup>1</sup>. MTM involves assessing and evaluating a patient's entire medication therapy regimen rather than focusing on an individual drug.

Some patients may benefit from MTM more than others. Patients who take several different medications each day, have multiple chronic disease states, spend an unusually large sum of money each month on prescription medications, or receive medications from a variety of sources are especially viable candidates to benefit from MTM. A MTM session between a patient and a pharmacist can be conducted in a variety of ways including face-to-face, by phone, or by mail; however, face-to-face interaction is preferred. This allows the pharmacist to observe potential medication problems, and this direct interaction also enhances the patient-pharmacist relationship.

According to the Medicare Prescription Drug, Improvement and Modernization Act of 2003 any healthcare provider can provide MTM services from nurses to pharmacists to physicians<sup>2</sup>. The service can range from quarterly letters a patient receives in the mail from their insurance company to a one-on-one interview four times a year with a healthcare provider depending on which program offers and pays for the service. The Centers for Medicare and Medicaid Services (CMS) expanded the requirements for MTM for the 2010 contract year<sup>2</sup>. Sponsors must now offer a minimum level of MTM services that includes a comprehensive medication review (CMR) at least annually, targeted medication reviews quarterly, and offer interventions targeted to providers<sup>2</sup>. Generally, the first visit each year will be for a CMR that generally lasts around 30 minutes. Each subsequent visit (most sponsors pay for a maximum of 4 visits per year) will be more targeted to assess medication use and monitor whether any unresolved problems need attention or new drug therapy problems have arisen since the CMR. These sessions may only last around 15 minutes.

### **Core Elements of a MTM Service**

*Please note: the following section "Core Elements of a MTM Service" contains excerpts from "Medication Therapy Management in Pharmacy Practice: Core Elements of a MTM Service Model Version 2.0", a document published by the APhA in*

*conjunction with the National Association of Chain Drug Stores Foundation<sup>3</sup>.*

The MTM service model in pharmacy practice includes the following five core elements according to a joint initiative of the American Pharmacists Association (APhA) and the National Association of Chain Drug Stores Foundation:

- Medication therapy review (MTR)
- Personal medication record (PMR)
- Medication-related action plan (MAP)
- Intervention and/or referral
- Documentation and follow-up

***Medication Therapy Review:*** *The medication therapy review (MTR) is a systematic process of collecting patient-specific information, assessing medication therapies to identify medication-related problems, developing a prioritized list of medication-related problems, and creating a plan to resolve them. Other terms synonymous with MTR may include MTM consult, comprehensive medication review (CMR), or targeted medication review (TMR).*

Pharmacists, due to their unique training, are able to obtain accurate and efficient medication-related information from patients. The MTR is designed to improve patients' knowledge of their medications, address problems or concerns that patients may have, and empower patients to self-manage their medications and their health condition(s). The MTR can be comprehensive or targeted to an actual or potential medication-related problem. In a comprehensive MTR, the patient should present all current medications to the pharmacist, including all prescription and nonprescription medications, herbal products, and other dietary supplements. The pharmacist should assess the patient's medications for the presence of any medication-related problems, including adherence. Any problems that are identified should be addressed with the patient, the physician, or other healthcare professionals to determine appropriate options for resolving identified problems. Pharmacists should also provide the patient with education and information to improve the patient's self-management of his or her medications.

Targeted MTRs are used to address an actual or potential medication-related problem. Ideally, targeted MTRs are performed for patients who have received a comprehensive MTR. Following assessment, the pharmacist intervenes and provides education and information to the patient, the physician, and other healthcare professionals as needed. The MTR is tailored to the individual needs of the patient at each encounter.

An MTR may include any or all of the following:

- Interviewing the patient to gather data including demographic information, general health and activity status, medical history, medication history, immunization history, and patients' thoughts or feelings about their conditions and medication use
- Assessing the patient's overall health status, including current and previous diseases or conditions
- Assessing cultural issues, education level, language barriers, literacy level, and other characteristics of the patient's communication abilities that could affect outcomes
- Evaluating the patient to detect symptoms that could be attributed to adverse events caused by any of his or her current medications
- Interpreting, monitoring, and assessing patient's laboratory results
- Assessing, identifying, and prioritizing medication related problems related to:
  - The clinical appropriateness of each medication being taken by the patient including benefit versus risk
  - The appropriateness of the dose and dosing regimen of each medication, including consideration of indications, contraindications, potential adverse effects, and potential problems with concomitant medications
  - Therapeutic duplication or other unnecessary medications
  - Adherence to the therapy
  - Untreated diseases or conditions
  - Medication cost considerations
  - Healthcare/medication access considerations

- Developing a plan for resolving each medication-related problem identified
- Providing education and training on the appropriate use of medications and monitoring devices and the importance of medication adherence and understanding treatment goals
- Coaching patients to manage their medications
- Monitoring and evaluating the patient's response to therapy, including safety and effectiveness
- Communicating appropriate information to the physician or other healthcare professionals, including consultation on the selection of medications, suggestions to address identified medication problems, updates on the patient's progress, and recommended follow-up care

***Personal Medication Record:*** *The personal medication record (PMR) is a comprehensive record of the patient's medications (prescription and nonprescription medications, herbal products, and other dietary supplements). The PMR is essentially a complete medication list.*

As part of the MTM session, the patient should receive a comprehensive record of his or her medications (prescription and nonprescription medications, herbal products, and other dietary supplements) that has been completed or updated either by the pharmacist or by the patient with the assistance of the pharmacist. The information should be written at a literacy level that is appropriate for and easily understood by the patient. In institutional settings, the PMR may be created at discharge from the medication administration record or patient chart for use by the patient in the outpatient setting.

The PMR contains information to assist the patient in his or her overall medication therapy self-management. The PMR, which is intended for use by the patient, may include any or all of the following information:

- Patient name
- Patient birth date
- Patient phone number
- Emergency contact information (name, relationship, phone number)

- Primary care physician (name and phone number)
- Pharmacy/pharmacist (name and phone number)
- Allergies (including what happened at time of reaction)
- Other medication-related problems (medicines that have caused problems and what problems they caused)
- Potential questions for patients to ask about their medications (e.g., when you are prescribed a new drug, ask your doctor or pharmacist...)
- Date last updated
- Date last reviewed by the pharmacist, physician, or other healthcare professional
- Patient's signature
- Healthcare provider's signature
- For each medication, inclusion of the following:
  - Medication (drug name and dose)
  - Indication
  - Instructions for use
  - Start date
  - Stop date
  - Prescriber contact information
  - Special instructions

The PMR is intended for patients to use in medication self-management. The maintenance of the PMR is a collaborative effort among the patient, pharmacist, physician, and other healthcare professionals. Patients should be encouraged to maintain and update this document. Patients should be informed to carry the PMR with them at all times and share it at all healthcare visits and at all admissions to or discharges from institutional settings to help ensure that all healthcare professionals are aware of their current medication regimen. Patients should be instructed to update the PMR each time there is any change in therapy to help ensure a current and accurate record. Often times, the PMR and MAP (discussed below) are generated as one document that can be given to the patient.

**Medication-Related Action Plan:** *The medication-related action plan (MAP) is a patient-centric document containing a list of actions for the patient to use in tracking progress for self-management. It*

*is essentially a summary of one's findings during the interview process.*

A care plan is the health professional's means for helping a patient achieve specific health goals. In addition to the care plan, which is developed by the pharmacist and used in the collaborative care of the patient, the patient receives an individualized MAP for use in medication self-management. Completion of the MAP is a collaborative effort between the patient and the pharmacist. The patient MAP includes only items that the patient can act on that are within the pharmacist's scope of practice or that have been agreed to by relevant members of the healthcare team. The patient can use the MAP as a simple guide to track his or her progress. The MAP reinforces a sense of patient empowerment and encourages the patient to actively participate in his or her medication-adherence behavior and overall MTM. The MAP, which is intended for use by the patient, may include the following information:

- Patient name
- Primary care physician (doctor's name and phone number)
- Pharmacy/pharmacist (pharmacy name/pharmacist name and phone number)
- Date of MAP creation (date prepared)
- Action steps for the patient: "What I need to do..."
- Notes for the patient: "What I did and when I did it..."
- Appointment information for follow-up with pharmacist, if applicable

Specific items that require intervention and that have been approved by other members of the healthcare team and any new items within the pharmacist's scope of practice should be included on a MAP distributed to the patient on a follow-up visit. In institutional settings the MAP could be established at the time the patient is discharged for use by the patient in medication self-management.

**Intervention and/or Referral:** *The pharmacist provides consultative services and intervenes to address medication-related problems; when necessary, the pharmacist refers the patient to a physician or other healthcare professional.*

During the course of a MTM encounter, medication-related problems may be identified that

require the pharmacist to intervene on the patient's behalf. Interventions may include collaborating with physicians or other healthcare professionals to resolve existing or potential medication-related problems or working with the patient directly. The communication of appropriate information to the physician or other healthcare professional, including consultation on the selection of medications, suggestions to address medication problems, and recommended follow-up care, is integral to the intervention component of the MTM service.

***Documentation and Follow-up:*** *MTM services are documented in a consistent manner, and a follow-up MTM visit is scheduled based on the patient's medication-related needs.*

Documentation is essential to the success of MTM. The pharmacist documents services and intervention(s) performed in a manner appropriate for evaluating patient progress and sufficient for billing purposes. Proper documentation of MTM services may serve several purposes including, but not limited, to the following:

- Facilitating communication between the pharmacist and the patient's other healthcare professionals regarding recommendations intended to resolve or monitor actual or potential medication-related problems
- Improving patient care and outcomes
- Enhancing the continuity of patient care among providers and care settings
- Ensuring compliance with laws and regulations for the maintenance of patient records
- Protecting against professional liability
- Capturing services provided for justification of billing or reimbursement
- Demonstrating the value of pharmacist-provided MTM services
- Demonstrating clinical, economic, and humanistic outcomes MTM documentation includes creating and maintaining an ongoing patient-specific record that contains, in chronological order, a record of all provided care in an established standard healthcare professional format (e.g., the SOAP note).

Ideally, documentation will be completed electronically or alternatively on paper. Most

software platforms used for MTM allow for documentation to be completed as one proceeds through the MTM process. The creation of the PMR and MAP is linked to the documentation process. The inclusion of resources such as a PMR, a MAP, and other practice-specific forms will assist the pharmacist in maintaining consistent professional documentation. The use of consistent documentation will help facilitate collaboration among members of the healthcare team while accommodating practitioner, facility, organizational, or regional variations.

### **Keeping it Simple**

Does this mean a pharmacist must complete all of the above core elements the first time they see a patient? In short, "No." The first time a pharmacist sits down with a patient to conduct a MTM session is not the time to solve all the patient's problems and ailments. For pharmacists new to MTM, 30 minutes is not enough time to complete a comprehensive review of the patient and make appropriate interventions. Instead, start with the basics: meet and get to know the patient, look at all their medications, and find out how they are taking them. Look for any concerns that stand out, and ask the patient what he or she needs help with.

Determining whether a patient is taking or not taking their medications and whether they are taking them correctly may be the single most important thing you can do with MTM. Patients who qualify for MTM services likely have a number of comorbid conditions and numerous medications that create a complex drug regimen. This can make adherence difficult and confusion common. Before evaluating whether a patient is properly following medication instructions, one should attempt to determine that patients are taking all the medications and only the medications that they need. Nonadherence is defined in the pharmaceutical care practice model as a patient's inability or unwillingness to take a drug regimen that a practitioner has prescribed and found to be appropriately indicated, safe, and efficacious<sup>4</sup>.

It has been estimated that 43% of the general population, 55% of the elderly, and 54% of children and teenagers are nonadherent<sup>5</sup>. Fairview Health Services, a large integrated health care system, recently looked at outcomes from 10 years of delivering MTM services to over 9,000 patients<sup>4</sup>.

They discovered that out of 38,631 drug therapy problems identified by pharmacists during MTM, 6,379 or 16.5% were due to noncompliance<sup>4</sup>. Pharmacist's assessments found that the most frequent cause of patients being unable or unwilling to adhere to a medication regimen was that the patient could not afford the medication or the copayment<sup>4</sup>. The next most common reason was that patients could not understand the instructions<sup>4</sup>.

The Federal Study of Adherence to Medications in the Elderly (FAME) examined methods to improve medication adherence in patients  $\geq 65$  years of age<sup>6</sup>. The FAME trial concluded that the most effective method to improve compliance was personalized, patient-focused programs that involved frequent contact with health professionals<sup>6</sup>. MTM is a personalized, patient-focused program involving frequent contact with a health professional; thus it is adequately suited to be an effective means of improving medication adherence.

Because adherence is a multifaceted issue, pharmacists should focus on identifying patient-specific adherence barriers and tailor interventions to eliminate or reduce each patient-specific barrier<sup>4</sup>. There is no blanket intervention that will improve adherence for all patients. Pharmacists can use the MTM session to try to understand the patient's unique medication experience which includes patients' previous experiences with medications, what they think and feel about their medications, and their concerns and beliefs about them<sup>4</sup>. In addition, communicating adherence issues to physicians may be the most important thing one can do for a patient.

The consequences of nonadherence can be severe. Nonadherence to pharmacotherapy has been shown to decrease productivity and increase disease morbidity, physician office visits, admissions to nursing homes, and death<sup>5</sup>. For example, an estimated 125,000 deaths per year have been attributed to a lack of adherence to treatment for cardiovascular disease<sup>5</sup>. Finally, nonadherence places a giant burden on the nation's economy with

direct and indirect costs due to a lack of adherence estimated to be around \$100 billion per year in the United States alone<sup>5</sup>.

Adherence to pharmacotherapy is essential for optimal therapeutic outcomes. The pivotal role of the pharmacist in gauging and addressing adherence may involve assessing the adherence problem, identifying patient-specific factors leading to nonadherence, providing counseling, and recommending specific adherence strategies targeted to the patient's needs. A MTM session provides an ideal opportunity for this to take place, and addressing adherence could be the most effective way to ensure one makes an impact on a patient in the short time spent with them.

### References

1. "Medication Therapy Management: MTM Central." *Pharmacist.com*. American Pharmacists Association, 2010. Accessed on 5 Oct 2010. <<http://www.pharmacist.com/AM/Template.cfm?section=MTM#nogo>>.
2. United States. *2010 Medicare Part D MTM Programs Fact Sheet*, 2010. Accessed on 20 Oct 2010. <<http://www.cms.gov/PrescriptionDrugCovContra/Downloads/MTMFactSheet.pdf>>.
3. "Medication Therapy Management: Core Elements of a MTM Service Model." *Pharmacist.com*. American Pharmacists Association, Mar 2008. Accessed on 5 Oct 2010. <<http://www.pharmacist.com/AM/Template.cfm?Section=Pharmacists&CONTENTID=19013&TEMPLATE=/CM/ContentDisplay.cfm>>.
4. Ramalho de Oliveira D, Brummel A, Miller D. Medication Therapy Management: 10 Years of Experience in a Large Integrated Health Care System. *Journal of Managed Care Pharmacy*. 2010; 16(3):185-195.
- 5.) Kostick, Jacqueline. "Medicare MTM Services: A New Frontier." *Webscape Pharmacists*. WebMD, 07 Feb 2006. Accessed on 18 Oct 2010. <[http://www.medscape.com/viewarticle/406691\\_2](http://www.medscape.com/viewarticle/406691_2)>.
6. Brookes, Linda. "Methods to Improve Adherence: The FAME Trial." *Medscape Cardiology*. Medscape, 16 Feb 2007. Accessed on 12 Oct 2010. <<http://cme.medscape.com/viewarticle/552105>>.