**Community Pharmacists and Medication Therapy Management**

Medication therapy management (MTM) is a distinct service or group of services provided by health care providers, including pharmacists, to ensure the best therapeutic outcomes for patients. MTM includes five core elements: medication therapy review, a personal medication record, a medication-related action plan, intervention or referral, and documentation and follow-up. Within the context of cardiovascular disease (CVD) prevention, MTM can include a broad range of services, often centering on (1) identifying uncontrolled hypertension (2) educating patients on CVD and medication therapies, and (3) advising patients on health behaviors and lifestyle modifications for better health outcomes. MTM is especially effective for patients with multiple chronic conditions, complex medication therapies, high prescription costs, and multiple prescribers. MTM can be performed by pharmacists with or without a collaborative practice agreement (CPA), and it is a strategy that can be considered to straddle both Domains 3 (health care system interventions) and 4 (community-clinical links).

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**Summary**

MTM is care provided by pharmacists with the goal of ensuring the most effective use of drug therapy. It is a cost-effective strategy for increasing patient knowledge and medication adherence and lowering blood pressure.

**Stories From the Field:**
Ohio Department of Health.

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**Evidence of Effectiveness**

- **Effect**: Supported
- **Implementation Guidance**: Supported
- **Research Design**: Supported
- **Internal Validity**: Supported
- **Independent Replication**: Supported
- **External & Ecological Validity**: Supported

**Legend:**
- Well supported/Supported
- Promising/Emerging
- Unsupported/Harmful

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**Evidence of Impact**

- **Health Impact**: Supported
- **Health Disparity Impact**: Insufficient
- **Economic Impact**: Supported

**Legend:**
- Supported
- Moderate
- Insufficient
Evidence of Effectiveness

Strong evidence exists that the use of MTM by pharmacists is effective. Although the exact combination of MTM activities tends to vary between settings, studies examining MTM have generally found it to be effective and to have strong internal and external validity. MTM trials have been replicated in many different contexts with positive results. Implementation guidance on MTM is available from several sources, including the guidance provided under Medicare Part D.

Evidence of Impact

Health Impact

In 2015, the Agency for Healthcare Research and Quality (AHRQ) found the evidence behind MTM to be insufficient because of inconsistency in the operationalization of MTM across studies, but concluded that MTM can improve medication adherence. MTM has been shown to be effective for lowering systolic and diastolic blood pressure; lowering LDL cholesterol and other health indicators (e.g., glycosylated A1C, HBA1c); increasing patient knowledge; improving patient quality of life and medication adherence; and improving the safe and effective use of medications, including reducing therapeutic duplication, decreasing total medications prescribed, and increasing adherence for therapeutic care.

Health Disparity Impact

Expanding the pharmacist’s role through MTM is likely to increase access to health care for populations facing the most barriers to care. However, few studies have examined the ability of MTM to reduce health disparities in CVD outcomes. Although some evidence exists that MTM can achieve positive outcomes among minority and low-income populations, the extent of this evidence is limited and inconsistent. More research is needed to directly examine the effect of MTM on different populations.

Economic Impact

Studies have indicated that MTM can produce health care cost savings and a positive ROI for health care systems. A study that examined the effect of providing MTM in a large health system for over 10 years found that the cost to providing MTM services was $76 per patient encounter, and the return on investment (ROI) that resulted from health care cost savings was $1.29 per $1 spent on MTM services over this period. Another study that evaluated the use of MTM by a self-insured employer reported an intervention cost of $145.61 per patient and a ROI to the payer of $1.67 per $1 of MTM costs over a 6-month period. Despite early findings of potential economic benefits, recent meta-analyses and systematic reviews have identified a need for better cost-effectiveness data on expanded pharmacist care.

Strong evidence exists that the use of MTM by pharmacists is effective.
In 2014, the Ohio Department of Health (ODH) teamed up with three Federally Qualified Health Centers (FQHC) sites to assess the effect of MTM counseling sessions on patients with hypertension. This effort involved collaboration among the Ohio State University College of Pharmacy, Ohio Pharmacists Association, Ohio Association of Community Health Centers, and the Health Services Advisory Group. These partners helped plan and develop the assessment. Pharmacists administered MTM to 5,000 patients with hypertension who were receiving care at one of the three FQHC sites. After 6 months, assessments found that hypertension control had increased to 68.6% among these patients. There were key components related to the project’s achievement, which included maintaining relevant partnerships, implementing the pilot in one type of pharmacy setting, allowing FQHC sites to develop their own protocols for patient enrollment, using effective dissemination processes, and selecting data points that align with current pharmacy practices. Challenges included finding champions for the MTM model.

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Four Considerations for Implementation

1. Settings

MTM has been implemented in several settings, including federally qualified health centers, patient-centered medical homes, managed care health systems, community pharmacies, hospital pharmacies, and primary care clinics.

2. Policy and Law-Related Considerations

MTM is currently supported under the Centers for Medicare & Medicaid Services (CMS), as a service available to selected Medicare beneficiaries. As a part of Medicare Part D regulations, enrollees with multiple chronic diseases who are taking multiple Part D drugs are eligible for MTM programs.12 Outside of the CMS guidelines, reimbursement for time and services is a key issue for pharmacists performing MTM. Regional variations in training and scope of practice can limit pharmacists when they attempt to provide MTM services. For MTM to work most effectively, pharmacists and prescribers can develop CPAs with shared blood pressure management protocols. Other policy considerations that need attention are determining the inclusion criteria for patients to receive MTM and encouraging payers to make the service available and offer reimbursement for pharmacists.

3. Implementation Guidance

Implementation guidance has been developed by various organizations, including:
- Centers for Medicare & Medicaid Services.12
- American Pharmacists Association’s MTM Central,13 which includes implementation guidance, an MTM resource library, and information about the added value of MTM.

4. Resources

Several federal agencies are working on initiatives that focus on greater involvement of pharmacists in cardiovascular prevention and MTM. They include the following:
- Centers for Medicare & Medicaid Services.12
- AHRQ, which provides the National Guideline Clearinghouse14 and a list of resources related to innovations in MTM.15
- CDC’s 6|18 Initiative.16
- CDC’s Million Hearts Initiative.17
References


