# Table of Contents

I. DEFINING AND DELIVERING THE SERVICE .................................................. 3
   • Definition of the Service
   • Medication Management Care Process Defined

II. SPECIFIC COMPONENTS ................................................................. 7
   • Medication Therapy Review
   • Personal Medication Record
   • Medication-Related Action Plan
   • Intervention and/or Referral
   • Documentation and Follow-up
   • Collaborative Practice Agreements

III. IDENTIFICATION AND RECRUITMENT OF PATIENTS ...................... 10
   • Referrals
   • Direct to Patient Advertising
   • Incentives

IV. DOCUMENTATION AND COMMUNICATION .................................... 12
   • Components of Electronic Health Record
   • Assurance Documentation and Measurement Systems
   • Patient Communication Techniques

V. REIMBURSEMENT APPROACHES ..................................................... 15
   • Established Approaches for Medication Therapy Management Payment
   • Blended Payment Model
   • Coverage/payment for Services in Integrated or Capitated Systems of Care
   • Fee-for-Service, Capitated (Per Patient Per Month), or Hourly Fees: Steps to Determine Best Reimbursement Model

VI. EVALUATION ................................................................................. 19
   • Patient and Prescriber Satisfaction
   • Return-On-Investment (ROI)
   • Health Outcomes

VII. ORGANIZATIONAL STRUCTURES FOR THE MEDICATION MANAGEMENT SERVICE ................................................................. 21
   • Practitioner on Staff in the Medical Home
   • Practice Profiles
   • Practitioner Off-site with Referral System
   • Practice Profiles

VIII. APPENDIX .................................................................................. 30
   Tip Sheets and Sample Templates
   • Collaborative Practice Agreement Components
   • Common Causes of Drug Therapy Problems
   • Initial Set Up Flowchart
   • Medical Record Template
   • Medication Therapy Review Form
   • Outcomes Reporting Terminology
   • Patient and Provider Letter Templates
   • Referral Triggers
DEFINING AND DELIVERING THE SERVICE

Definition of the Service

Comprehensive medication management (MM) is defined as the standard of care that ensures each patient’s medications (whether they be prescription, nonprescription, alternative, traditional, 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 co-morbidities and other medications being taken, and able to be taken by the patient as intended. Comprehensive medication management includes an individualized care plan that results in achieving the intended goals of therapy with appropriate follow-up to determine actual patient outcomes. This all occurs because the patient understands, agrees with, and actively participates in the treatment regimen, in order to optimize each patient’s individual medication experience.

The concept and definition of comprehensive medication management has been evolving for a number of years. The term medication (therapy) management became most widely used when the Centers for Medicare & Medicaid Services (CMS) adopted it in legislation passed in January of 2003 to refer to the new, additional service required for certain patients receiving Medicare Part D benefits. Medication management has expanded since then as State Medicaid programs have recognized and provided payment for the service, employers have added the service as a benefit for employees, and the service has been added to medical homes functioning in North Carolina and Minnesota. Comprehensive medication management is accepted and provided around the world resulting in a new standard for medication use in our societies.

The management of medications currently occurs at varying levels in all patient care practices on a daily basis. However, medication regimens are becoming very complex and specialized in patients who have an average of five co-morbidities and are taking an average of eight medications concurrently. In order to achieve better patient outcomes from the use of medications, the systematic and comprehensive management of medications is necessary. For the purposes of this document, we refer to comprehensive medication management in the context of the patient-centered medical home (PCMH) where it is delivered as a service to an individual patient in the primary care practice setting.

We will use the common elements of two definitions that describe this service in the medical home - the definition offered by the American Medical Association when it provided CPT payment codes for the delivery of medication management services and the definition provided by legislation for Minnesota Medicaid recipients. These two definitions have the following five elements in common relevant to the needs of patients being cared for in the medical home:

1. Patient understands:
2. Patient agrees with:
3. Patient actively participates:
4. Systematic and comprehensive management:
5. New standard for medication use.
1. The service (medication management) needs to be delivered directly to a specific patient.
2. The service must include an assessment of the specific patient’s medication-related needs to determine if the patient is experiencing any drug therapy problems. A care plan is developed to: resolve the problems, establish specific goals of therapy, implement personalized interventions and education, and follow-up to determine the actual outcomes experienced by the patient as a result of the medications taken.
3. The care must be comprehensive since medications impact all other medications and all medical conditions.
4. The work of the pharmacist/medication therapy practitioners needs to be coordinated with other team members in the PCMH.
5. The service is expected to add unique value to the care of the patient.

One of the principles of the PCMH is the team approach, and the composition of the PCMH team will vary based on a range of factors, including the specific needs of patients and the scope of services to be offered and/or coordinated. For patients on multiple and/or chronic medications, pharmacists, who are trained to provide comprehensive medication management services, have the necessary expertise to help them and their health care team in the patient-centered medical home to maximize the benefits from the very effective medications that are available in this country.

Comprehensive medication management is best accomplished when the PCMH is flexible in its design, allowing access to this expertise for complex patients or those not at goal when it is needed.

**Medication Management Care Process Defined**

Medication management in the medical home needs to be a comprehensive, systematic service in order to produce positive patient outcomes and add value to the care of the patient. Therefore, all of the steps described below must be completed for each patient receiving medication management services. Incomplete provision of service, completing selected steps only or partial fulfillment of the responsibilities described will not optimize the patient’s medication experience, achieve the goals of therapy in a predictable manner or lead to positive patient outcomes. The process that leads to optimal outcomes from drug therapy is:

1) **An assessment of the patient’s medication-related needs**

   This assessment is comprehensive and includes all of the patient's medications (prescription, nonprescription, alternative, traditional, supplements, vitamins, samples, medications from friends and family, etc.) regardless of who prescribed them, and where they were dispensed, purchased, or obtained. This is necessary since current electronic systems of dispensing and e-prescribing are missing 40-50% of medications taken by a patient. Also, these systems contain idealized prescription information, i.e., how the prescription was written, but do not contain information about how the medications are actually being taken.
The assessment begins with uncovering the patient’s medication experience. The medication experience includes the patient’s beliefs, concerns, understanding, and expectations about his/her medications. This experience helps to define how patients make their decisions about: a) whether a prescription is filled, b) if it is taken, c) how it is taken, and d) for how long it is taken. The goal is to affect the decision process so that the patient understands that taking the medications is a positive thing. Therefore, it is necessary to first understand the patient’s medication experience.

The assessment includes the patient’s medication history. All of the following questions need answers: Which medications have been taken in the past and for which medical conditions? Which have worked, which have not worked? Which medications have caused the patient problems/concerns? Which medications would the patient like to avoid in the future? Why?

The assessment includes the patient’s current medication record. The primary focus is how the patient actually takes all his/her medications and why. Changes, discrepancies, and any concerns or questions about the medications are noted.

Each medication is assessed for the medical condition or indication for which it is taken. In order to produce clinically useful data, the indication for the medication must be electronically linked with the product being used, the dose, duration, the manner in which the medication is actually being taken, the goals of therapy, the clinical parameters that will determine progress toward these goals, and the actual outcomes. This allows for a comprehensive service to be delivered and new, clinically useful data to be generated.

2) Identification of the patient’s medication-related problems

Once the assessment (as described above) is completed, a determination can be made if any medication-related problems are interfering with the patient achieving the intended goals of therapy. This determination must be completed in logical order, it must be done systematically, and it must be comprehensive to be of value to the team. The medication-related categories that are evaluated (in order), for each of the medications being taken, are:

A) Appropriateness of the medication
   i) Is the medication appropriate for the medical condition being treated?
   ii) Does the patient have an indication for a medication which presently is not being treated or prevented?

B) Effectiveness of the medication
   i) Is the most effective drug product being used for the medical condition?
   ii) Is the dose appropriate and able to achieve the intended goals of therapy?

C) Safety of the medication
   i) Is the patient experiencing an adverse event from the medication?
   ii) Is the dose so high it could be causing toxicity in the patient?

D) Adherence to the medication
   Is the patient able and willing to take the medication as intended?
There are many reasons patients may experience one or more of the medication-related problems described above. It is necessary to determine whether medication-related problems are present, and to determine the cause(s) of the problems, so that each can be resolved and the goals of therapy can be met in an efficient and effective manner.

3) Development of a care plan with individualized goals of therapy and personalized interventions

The care plan is developed in conjunction with the patient and the patient’s health care providers. The care plan allows a provider to:

A) intervene to solve the patient’s medication-related problem(s) (interventions include: initiating needed drug therapy, changing drug products, doses, discontinuing medications or educating the patient, etc.)

B) establish individualized goals of therapy for each medical condition – although national guidelines dictate population level goals, each goal of therapy must be individualized for each specific patient based on risk, co-morbidities, other drug therapies, patient preferences, and physician intentions

C) design personalized education and interventions which will optimize each patient’s medication experience

D) establish measurable outcome parameters which can be monitored and evaluated at follow-up to determine the impact of the therapies and the service

E) determine appropriate follow-up timeframes to ensure the interventions were effective and to determine if any safety issues have developed since the last evaluation

4) Follow-up evaluation to determine actual patient outcomes

The follow-up evaluation allows the practitioner to determine the actual outcomes resulting from the interventions. The outcome parameters are evaluated against the intended outcomes (individualized goals of therapy) and the patient is re-assessed to determine if any new medication-related problems have developed which might interfere with the safe and effective use of the medications the patient is taking. This follow-up occurs in a timeframe that is clinically appropriate for the specific patient, the medical conditions being monitored, and the drug therapy being taken. This will vary with each individual patient. These follow-ups should be coordinated with the medical team to minimize interference with other care activities.
SPECIFIC COMPONENTS

**Medication Therapy Review**

- 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, on the basis of all relevant clinical information available to the pharmacist, the patient’s physical and overall health status, including current and previous diseases or conditions
- Assessing the patient’s values, preferences, quality of life, and goals of therapy
- 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 lab 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 be empowered 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
- Addressing identified medication problems, updating the patient’s progress, and recommending follow-up care
Personal Medication Record

- 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 (e.g., What allergies do I have? What happened when I had the allergy or reaction?)
- Other medication-related problems (e.g., What medication caused the problem? What was the problem I had?)
- 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 (e.g., drug name and dose)
    - Indication (e.g., Take for...)
    - Instructions for use (e.g., When do I take it?)
    - Start date
    - Stop date
    - Ordering prescriber/contact information (e.g., doctor)
    - Special instructions

Medication-Related Action Plan

- 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
**Intervention and/or Referral**

Examples of circumstances that may require referral include the following:

- A patient may exhibit potential problems discovered during the medication therapy review (MTR) that may necessitate referral for evaluation and diagnosis
- A patient may require disease management education to help him or her manage chronic diseases such as diabetes
- A patient may require monitoring for high-risk medications (e.g., warfarin, phenytoin, methotrexate)

**Documentation and Follow-up**

Proper documentation of medication therapy management (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 (e.g., payer audits)
- Demonstrating the value of pharmacist-provided MTM services
- Demonstrating clinical, economic, and humanistic outcomes

**Collaborative Practice Agreements**

Collaborative practice agreements are gradually becoming a routine part of the pharmacist’s practice. A collaborative practice agreement is a voluntary agreement between one or more prescribers and pharmacists establishing cooperative practice procedures under defined conditions and/or limitations, wherein qualified pharmacists working within the context of a defined protocol are permitted to assume professional responsibility for performing patient assessments; ordering drug therapy related laboratory tests; administering drugs; and selecting, initiating, monitoring, continuing, and adjusting drug regimens.

**Scope of Collaborative Practice Agreement Use**

Each state has its own regulations regarding collaborative practice agreements. As of May, 2004, 41 states and the territory of Guam allow for some form of Collaborative Practice Agreement between pharmacists and prescribers. Thirty-six states allow for statutory authority and five states use regulations to authorize Collaborative Practice Agreements. These numbers are changing. To stay up-to-date on your state’s collaborative practice regulations visit http://www.go2ec.org/StateProfiles.htm to find comprehensive information specific to your state.
IDENTIFICATION AND RECRUITMENT OF PATIENTS

Significant evidence is accumulating to establish the positive impact that comprehensive medication therapy management (MTM) has on patient outcomes. Patients who benefit the most are:

- those who have not reached or are not maintaining the intended goal of therapy,
- those who are experiencing adverse effects from their medications,
- those who have difficulty understanding and following their medication regimen,
- those in need of preventive therapy, and
- those who are frequently readmitted to the hospital.

Although the data suggest that there are few patients who are not able to benefit from comprehensive medication management, patients with greater numbers of medical conditions taking greater numbers of medications have the potential to benefit the most. Data accumulated to date are not able to identify predictors of medication-related problems (either patient variables, disease variables, or drug variables) because there are so many drug therapy problems present. However, it stands to reason that the medical conditions which are most costly and are associated with multiple medications used (diabetes, cardiovascular disease, COPD, asthma (in children), cancer chemotherapy, depression, pain, and hypothyroidism) are great candidates with which to begin the service.

Referrals

Key Indicators

a. Identify Key Disease States (Diabetes, Hypertension, COPD, Asthma, Anticoagulation, etc.)

b. Indicators of Poor Disease Control (i.e. A1c > 8%, BP > goal despite > 2 medications, lipids not at goal despite drug therapy, multiple ER visits due to asthma, etc.).

c. Complex Drug Therapies (i.e. insulin therapy, insulin pumps, patients with a medical history of multiple medication intolerances, etc.)

d. Compliance Issues (cost, ADRs, complex regimes, etc.)

e. Polypharmacy (> 8 medications)

f. High Cost/High Utilization Based on Claims History

g. Hospital Discharge

Direct to Patient Advertising

a. Brochures

b. Media

c. Educational Programs (i.e. Senior Centers, Club Meetings, etc)
Incentives

a. Co-pay waives or reductions on medications
b. Reduction in insurance premiums
c. Contributions to HSAs (Healthcare Spending Accounts)
d. Opt out programs (patients must dis-enroll)
DOCUMENTATION AND COMMUNICATION

Documentation of the service and reported results will allow the quality of services to be evaluated. National and international data are now available on the number and type of drug therapy problems that exist, so a practitioner’s ability to identify these problems can be compared to national averages. In addition, outcome measures reflect the quality of the services provided. Quality metrics such as the number of patients whose hypertension, diabetes, cholesterol, and other medical conditions are controlled all reflect the outcomes of the care provided. Patient and physician acceptance of the service will be important as well. Outcome measures are a necessary and large part of the quality evaluation of medication management services in the medical home.

Components of Electronic Health Record

1. A record of the patient’s medication experience (understanding, concerns, preferences, beliefs, behavior)
2. Medication allergies (along with a description of the allergy, timeframe, and severity) and adverse reactions (separated into dose-related and preventable)
3. Medication history (including immunizations - complete with dates and effectiveness information, record of issues, problems, etc.)
4. Current medication record (includes all medications regardless of source, mode of administration, or prescriber), indication for use, product, dose, duration, and the manner in which the medication is actually being taken
5. Active drug therapy problem list complete with the cause of the problem (associated with the medical condition and medications relating to the drug therapy problem)
6. Therapeutic treatment plans for patient and practitioner (a patient and prescriber version of the treatment plan needs to be available). The following specific functionality must be available in the electronic therapeutic record to provide medication management services:
   A. Connect indication for medication (reason for use) to specific drug product to dose, duration, and actual outcomes for each medical condition
   B. Identification, resolution, and prevention of drug therapy problems of:
      I. Appropriateness: eliminate unnecessary medications; initiate necessary medications not being taken
      II. Effectiveness: identify most effective in specific patient; increase dosages to be effective
      III. Safety: eliminate toxicities; identify adverse reactions
      IV. Adherence: increase patient’s ability to adhere; eliminate cost variable to increase access

The cause of each of the drug therapy problems described above need to be documented as well.
C. Record and evaluate actual outcomes from drug treatment
   Record personalized goals of therapy and evaluate against outcome measures for each medical condition. Graph laboratory levels against changes in drug therapy and doses.
   Record outcome changes with changes in medication details.

D. Provide post marketing surveillance on appropriateness, effectiveness, safety, and adherence variables

E. Record drug therapy problems specific to drug product, medical condition, and patient parameters

F. Offer clinical decision support and analysis

G. Support patient participation and decision making in drug therapy decision (adherence tools, record keeping, etc.)

H. Provide patients with medication information that is individualized and compliments the therapeutic care plan

I. Provide a website for patients to participate in managing their medication

J. Billing and claims remittance

Assurance Documentation and Measurement Systems

Comprehensive electronic documentation and billing systems are available that easily integrate into any practice. These systems allow the pharmacist to build an Electronic Therapeutic Record; track medication reconciliation interventions; identify, track, and resolve medication-related problems; create custom patient care plans; document and report therapeutic goals for a patient; schedule appointments; create claims automatically and submit invoices electronically to payers. An example of an assurance documentation system can be found by accessing www.medsmanagement.com.

Measurement should be able to account for the delivery, documentation, billing, and administration of Medication Therapy Management. As an example, in North Carolina, all Medicare Part D patients 65 and older are eligible for Medication Therapy Management Services, including a comprehensive medication review annually and the identification and resolution of medication-related problems. One model that demonstrates this working well is the patient-centered medical home in which the pharmacist is practicing physically within the physician’s practice. Medicare Part D patients 65 and older are identified and referred to the pharmacist for an annual comprehensive medication review. This can be accomplished at an individual appointment with the pharmacist or in conjunction with the physician’s visit. In addition to the comprehensive medication review, the pharmacist identifies and resolves any medication-related problem and on follow-up with the patient, manages any of the medication-related problems as they arise. The findings are communicated with the physician immediately and drug therapy changes instituted immediately via collaborative practice agreements with the physician. An example of an assurance documentation system can be found by accessing www.getoutcomes.com.
Patient Communication Techniques

Greater demands are being placed on patients as consumers of health care. The health care system is increasingly complex and demanding of patients – from direct-to-consumer advertising to shorter hospitalizations with greater self-care requirements after discharge. At times, providers may actually place greater burdens on patients to make informed decisions that can affect health outcomes. Patients will benefit from the following recommended strategies for patient-centered visits:

1. Explain things clearly in plain language
   - Slow down the pace of your speech
   - Use plain, non-medical language
     - “Blood pressure pill” instead of “antihypertensive”
     - Pay attention to patient’s own terms and use them back
   - Avoid vague terms
     - “Take 1 hour before you eat breakfast” instead of “Take on an empty stomach”

2. Focus on key messages and repeat
   - Limit information
     - Focus on 1-3 key points
   - Develop short explanations for common medical conditions and side effects
   - Focus on behaviors – what do you want the patient to do?
   - Review each point at the end – summarize and reinforce

3. Use a “teach back” or “show me” technique to check understanding
   - Ask patients to repeat in their own words to gauge comprehension versus asking, “Do you understand?”

4. Effectively solicit questions
   - Rather than asking, “Do you have any questions?” open the door by effectively soliciting patient questions and say, “What questions do you have?”

5. Use patient-friendly educational materials to enhance interaction
   - Guidelines for written materials:
     - Few messages, with no assumptions that patients know about how the body works, diseases, or medications
     - Short, simple, and familiar words
     - Easy-to-understand phrasing of numeric information
     - Large, sans serif fonts
     - Short, simple, and familiar words
     - Short lines and lots of white space
     - Simple illustrations that are directly applicable to the text

REIMBURSEMENT APPROACHES

Established Approaches for Medication Therapy Management Payment

Medication Therapy Management and CPT Codes

The American Medical Association (AMA) Current Procedural Terminology (CPT) Editorial Panel has approved three CPT codes for use when medication therapy management services are provided face-to-face to patients by pharmacists. The codes may be used to document services delivery and bill any health plan that provides a medication therapy management benefit, including those covered under Medicare Part D.

The codes are time-based, designated for use for medication therapy management services performed face-to-face for a patient. As currently constructed, the codes do not incorporate practice expense or liability components of the typical physician/provider “evaluation and management” (E&M) CPT codes. A description of the codes issued for medication therapy management provided by pharmacists is included with the Tool Box.

Some payers have adapted the medication therapy management CPT codes in ways that can account for various additional factors such as patient complexity, numbers of medication-related problems that are identified or addressed, number of chronic diseases, or other criteria. For example, the Minnesota Medicaid program has developed a framework for documentation and payment for medication therapy management services that expands on this basic framework.

Payment approaches for medication therapy management services have expanded substantially in recent years as the value of these services, commonly provided by pharmacists as members of inter-professional teams, have been more fully recognized. This approach includes billing independently with resource based relative value scale

Both private sector (“Asheville model,” Diabetes 10-City Challenge, Kaiser Permanente) and public sector (Medicare Part D and state Medicaid program, including Minnesota, Community Care of North Carolina, and the Veterans Administration) programs have served as stimuli to the development of a range of coverage and payment approaches that recognize and reward the clinical outcomes, enhanced safety, cost management, and patient satisfaction that effective medication therapy management services can provide.

Realigning payment incentives to promote care coordination among providers can be particularly important in the process of medication management due to (1) the central role of medication use in the treatment of chronic conditions, (2) the likelihood of multiple prescribers involved in the patient’s care, and (3) the need for patients to occasionally transition from one setting of care to another, even when their care is being coordinating by the PCMH.
**Blended Payment Model**

One of the core principles of the Patient-Centered Primary Care Collaboration’s (PCPCC) framework for health care reform involves changing current payment policies and realigning payment incentives to more appropriately recognize and reward primary care health services provided by physicians and other health professionals whose services are or may be delivered within a patient-centered primary care medical home. The PCPCC Payment Model encompasses a three-part methodology:

1. A monthly care coordination payment for the physician’s work that falls outside of a face-to-face visit and for the health information technologies needed to achieve better outcomes;
2. A visit-based fee-for-service component for services currently recognized and paid under the existing fee-for-service payment system; and
3. A performance-based component that recognizes achievement of service, patient-centeredness, quality, and efficiency goals.

This “blended payment” model aligns effectively with recommendations for payment reform for medication management services contained in a jointly-developed document on integration of pharmacists’ services in the patient-centered medical home in 2009:

“Payment policies should be aligned to (1) effectively support the medical home, (2) provide reasonable and adequate payment for pharmacists’ clinical services as an element of the scope of services that are eligible for payment to either the providers or the [medical home] practice, and (3) promote the achievement of higher quality, safer, and more effective therapeutic outcomes from medication use through enhanced provider collaboration.

**Coverage/payment for Services in Integrated or Capitated Systems of Care**

Due to the greater alignment of financial incentives in integrated healthcare delivery systems in both the private (Kaiser Permanente) and public (Veterans Administration, Indian Health Service) sectors that have responsibility for “all-cost” health care expenditures, the incorporation (“coverage”) of medication therapy management services, frequently provided by pharmacists as part of the clinical team, has advanced more rapidly in such settings than in the fee-for-service payment environment. This has been strongly aided by the utilization of shared and accessible health records (increasingly electronic) and information systems that support team-based work in patient care.

Capitated approaches to payment for medication management services are currently taking a number of forms. One approach that is being accepted by employers is to pay a capitated per member per month fee for those employees who are actually receiving the service (not the total covered lives or the eligible lives). Another approach, by a state government, pays for medication management on an annual, capitated basis for those employees who are receiving the service.
While reasonably effective and recognized payment methodologies and procedures for coverage and provision of medication management services have been developed and can be adapted to a patient-centered medical home practice, they, like other aspects of health care provider payment in primary care, are in need of substantial reform to be effective.

It is likely that the breadth and depth of medication management services that a particular medical home practice can provide to its patients will vary based on factors such as practice size and location, patient needs and complexities, and the clinical goals, quality objectives, and other parameters that the practice has embraced and for which it has agreed to be accountable both qualitatively and economically.

Nevertheless, the integral place of medications in effectively serving the needs and goals of most patients likely to be cared for within a patient-centered medical home suggests that the inclusion of medication management services of pharmacists as members of the PCMH team is essential. Whether through direct staffing structures, consultation arrangements, virtual and/or shared providers, or other types of community linkages that already exist or may be developed, medication management services should be recognized, incorporated, and appropriately compensated within a reformed payment structure that supports the full scope of services necessary for the high-performing patient-centered medical home.

**Fee-for-Service, Capitated (Per Patient Per Month), or Hourly Fees: Steps to Determine Best Reimbursement Model**

- **Identify Payer Mix**
  - % Medicare, Commercial Insurance, Medicaid, Medicare Part D
- **Identify/Manage Collections**
  - What is the collection rate?
  - What % of what’s billed is collected
- **Incident-to Billing**
  - Must satisfy all of the “incident to” rules
- **Employers**
  - Those with self-funded insurance programs
  - Fee-for-service or per patient per month
  - Risk sharing based on overall savings
- **Pharmacist MTMS CPT Codes**
  - Find out which plans cover these codes
- **Traditional E/M Coding**
  - 99211, 99212, 99213, 99214, 99215
- **Medicare Part D**
- **Revenue Sharing**
  - Share a % of receipts produced from visits
  - Productivity reports – reports that specify billing amounts and receipts
Other

- A monthly care coordination payment for the physician’s work that falls outside of a face-to-face visit and for the health information technologies needed to achieve better outcomes;
- A visit-based fee-for-service component for services currently recognized and paid under the existing fee-for-service payment system; and
- A performance-based component that recognizes achievement of service, patient-centeredness, quality, and efficiency goals.

### MEDICATION THERAPY MANAGEMENT SERVICES

**Resource-based Relative Value Scale**

<table>
<thead>
<tr>
<th>Level of Service Provided</th>
<th>Level #1</th>
<th>Level #2</th>
<th>Level #3</th>
<th>Level #4</th>
<th>Level #5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessment of Drug-related Needs</td>
<td>Problem-focused 1 Medication</td>
<td>Expanded Problem 2 Medications</td>
<td>Detailed 3-5 Medications</td>
<td>Expanded Detailed 6-8 Medications</td>
<td>Comprehensive ≥ 9 Medications</td>
</tr>
<tr>
<td>Identification Drug Therapy Problems</td>
<td>Problem-focused 0 Drug Therapy Problems</td>
<td>Expanded Problem 1 Drug Therapy Problem</td>
<td>Detailed 2 Drug Therapy Problems</td>
<td>Expanded Detailed 3 Drug Therapy Problems</td>
<td>Comprehensive ≥ 4 Drug Therapy Problems</td>
</tr>
<tr>
<td>Complexity of Care Planning &amp; Follow-up Evaluation</td>
<td>Straightforward 1 Medical Condition</td>
<td>Straightforward 1 Medical Condition</td>
<td>Low Complexity 2 Medical Conditions</td>
<td>Moderate Complexity 3 Medical Conditions</td>
<td>High Complexity ≥ 4 Medical Conditions</td>
</tr>
<tr>
<td>CPT Codes</td>
<td>99605 initial encounter with a new patient (or 99606 for all follow-up encounters)</td>
<td>99605 (or 99606) and 99607</td>
<td>99605 (or 99606) and 2 X 99607</td>
<td>99605 (or 99606) and 3 X 99607</td>
<td>99605 (or 99606) and &gt; 4 X 99607</td>
</tr>
<tr>
<td>Face-to-face Time</td>
<td>15 minutes</td>
<td>16-30 minutes</td>
<td>31-45 minutes</td>
<td>46-60 minutes</td>
<td>&gt; 60 minutes</td>
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</tbody>
</table>
EVALUATION

Patient and Prescriber Satisfaction
The value of this service can be measured in a number of ways. The patient benefits from improved outcomes and the benefits he/she receives directly from the increased individualized attention to medications and the role they play in daily life. Physicians benefit when someone with pharmacotherapeutic expertise is able to assist in the management of complex drug therapies. Physicians are able to dedicate more time to the diagnostic and treatment selection process, thereby being more efficient, seeing more patients, and spending more time providing medical care.

Return-On-Investment (ROI)
Health plans, employers, and payers in general benefit tremendously when they are paying only for medications which are safe, appropriate, and effective for the patient and his/her medical problem and are used as intended. Keeping patients out of the hospital is one of the most cost effective outcomes and providing comprehensive medication management to complex patients is one way to accomplish this.

Another way to measure value is through the calculation of the return on investment (ROI), or, how much value the service adds relative to the cost of delivering the service. ROI data are frequently difficult to obtain and vary significantly depending on the patient population being evaluated. However the ROI of medication management services has been established. The data from the delivery of this service are positive, with a demonstrated ROI as high as 12:1, with an average of 3 to 5:1. The return on investment reflects an ability to decrease hospital admissions, physician visits, emergency room admissions, and reduce use of medications which are unnecessary and inappropriate. This is a conservative estimate and the ROI is likely to be much greater due to the fact that practitioners routinely underestimate their impact on a patient’s life and it is not easy to put a number on high patient satisfaction and physician acceptance.

Health Outcomes
Documentation of the service and reported results will allow for the quality of services to be evaluated. National and international data are now available on the number and type of drug therapy problems that exist, so a practitioner’s ability to identify these problems can be compared to national averages. In addition, outcome measures must be a necessary and large part of the quality evaluation of medication management services in the medical home. Such measures include:
• The level of patients with controlled hypertension, diabetes, cholesterol, and other medical conditions all reflect the quality outcomes of the care provided (i.e. A1cs, BPs, LDLs, etc.)

• Patient and physician acceptance of/satisfaction with the service

• Patient adherence with office visits, medications, and other key self care indicators (i.e. eye exams, flu vaccines, pneumonia vaccines, foot exams, etc.)

• Key demographic information (i.e. race, age, etc.)
ORGANIZATIONAL STRUCTURES FOR THE MEDICATION MANAGEMENT SERVICE

Practitioner on Staff in the Medical Home

When a prescriber identifies a patient in need of medication management, a referral is made to the qualified practitioner. The manner in which the service is delivered is dependent upon the proximity of the practitioner, the specific structure of the medical home as well as the service delivery design of the practitioner providing the service. In many practices, the medication management practitioner is employed by the medical home and resides full time or part time in the clinic or practice. In this scenario the practitioner is available at any time to deliver the service and he/she functions inside the medical home structure.

Other medication management practices are established outside the medical home clinic (associated with a community pharmacy, health plan or hospital entity) where the referral is made to the practitioner and a patient appointment is set. The patient meets with the practitioner delivering medication management services off premises and the medication management practitioner provides the referring physician with written documentation of the assessment, communicates the need for any changes, and provides a record of all of the clinical outcomes achieved. The patient is followed until the goals of therapy are met or until the physician determines this level of care is no longer necessary. This structure frequently involves the use of collaborative practice agreements between the physician and the practitioner providing medication management. Such agreements are allowed in 46 states.

Yet another structure allows the patient to request the medication management service directly, and an appointment with the practitioner is set. Even in this situation, communication between the medication management practitioner and the primary care physician occurs after each patient encounter. Medication management cannot be done effectively unless all of the patient’s providers are informed and care is coordinated with the team.
PRACTICE PROFILE

Community Health Center

Type of Practice/Facility:
Physician-directed interprofessional community health center (Health Resources and Services Administration [HRSA] supported)

Location:
Tucson, Arizona

Pharmacist Relationship to Practice:
Physically present, employee staff, practicing under collaborative drug therapy management protocols

Medication Management Services (MMS) provision:
Patient-specific care related to:
• ID/document medication-related problems
• Insulin/oral hypoglycemic therapy
• Hyperlipidemia therapy
• CVD/hypertension therapy
• Patient education

Access to MM Service:
(1) Physician/PCP referral
(2) Pharmacist follow-up appointments
(2) Direct patient request/appointments

Payment/Billing Methods:
(1) HRSA/community funded
(1) MTM CPT codes (documentation only)
(2) Patient-pay/co-pay

Service Assessment Measures (documented):
(1) Clinical treatment goals achievement
(2) Patient adherence
(3) Adverse effects identified/prevented

Physician/Staff View:
“Working with a pharmacist as part of my medical service team is like having an additional clinical resource in my pocket. I have access to a wealth of medication knowledge to improve patient safety and health outcomes. The collegiality found with a pharmacist who can build trust with me and our patients [allows] us to complement each other’s services and to meet mutual goals with our patients.” – Arthur Martinez, M.D. – Chief Medical Officer
**PRACTICE PROFILE**

**Multi-Specialty Group Practice**

**Type of Practice/Facility:**
Multi-specialty physician private group practice

**Location:**
Greensboro, North Carolina

**Pharmacist Relationship to Practice:**
Physically present, contracted staff (medical practice contract with clinical pharmacy services private practice), practicing under collaborative drug therapy management protocols and “clinical pharmacist practitioner” licensing (NC specific)

**MMS provision:**
Patient-specific care related to:
- ID/document medication-related problems
- Anticoagulation management and testing
- Insulin/oral hypoglycemic therapy
- Hyperlipidemia therapy
- Multi-disease medication regimen optimization
- Patient education
- Longitudinal outcomes monitoring

**Access to MM Service:**
(1) Physician/PCP referral
(2) Direct patient request/appointment
(3) Benefit design/contract

**Payment/Billing Methods:**
(1) Incident-to-physician using E&M CPT codes (patient/coverage)
(2) MTM CPT codes for Medicare patients determined
(3) Patient-pay

**Service Assessment Measures (documented):**
(1) Clinical treatment goal achievement
(2) Patient adherence
(3) Adverse effects identified/prevented
PRACTICE PROFILE

Staff Model HMO

Type of Practice/Facility:
Staff model health maintenance organization/medical home framework providing acute and chronic ambulatory care services to enrolled members

Location:
Seattle, Washington

Pharmacist Relationship to Practice:
Physically present, salaried employee staff, practicing under approved collaborative drug therapy management protocols; integrated as core team members within primary care clinics

MMS provision:
Patient-specific care related to:
- Identify/document medication-related problems
- CVD/hypertension therapy
- Anticoagulation management
- Group care registries for chronic disease panels
- Patient education (in-person/telephonic)

Access to MM Service:
(1) Physician/PCP referral
(2) Pharmacist-initiated follow-up appointments
(3) Direct patient request/appointments

Payment/Billing Methods:
(1) PM/PM Capitation Model
(2) Patient-pay/co-pay

Service Assessment Measures (documented):
(1) Clinical treatment goals achievement
(2) HEDIS/NCQA measures
(3) Annualized cost avoidance/ROI
(4) Patient satisfaction
(5) Medication/treatment adherence

Physician/Staff View:
“Most patient care interactions involve medications and the limitations both in knowledge and time on my part make the addition of a clinical pharmacist on the medical home team MANDATORY! I would have a difficult time maintaining our current standards without this person on board.”

– James Bergman, M.D. – Staff Physician, Associate Professor of Family Medicine, U. of Washington
PRACTICE PROFILE

University-Based Primary Care Clinic

Type of Practice/Facility:
University-based interprofessional primary care practice, serving university employees/dependents (self-insured); clinical education site for physicians, pharmacists, nurses

Location:
Columbus, Ohio

Pharmacist Relationship to Practice:
Physically present, employee staff, practicing under approved collaborative drug therapy management protocols; three part-time primary care physicians, nurse practitioner, practice manager

MMS provision:
Patient-specific care related to:
- Identify/document medication-related problems
- Medication goals/plan development
- Disease/medication management coordination
- Medication access assistance
- Patient education (in-person/telephonic)

Access to MM Service:
(1) Physician/PCP referral
(2) Pharmacist follow-up appointments
(3) Direct patient request/appointments

Payment/Billing Methods:
(1) Self-insured university employee health benefit
(2) Patient co-pay

Service Assessment Measures (documented):
(1) Clinical treatment goals/care plan achievement
(2) NCQA/HEDIS measures
(3) Annualized cost avoidance of higher intensity services
(4) Patient satisfaction

Physician/Staff View:
“Practicing medicine as a part of an interprofessional team has greatly enhanced the quality of patient care I am able to deliver. I have noted a marked increase in patient adherence and improved outcomes as a result of the more intensive education and medication monitoring that we are able to provide.”
– Kelly Hall, M.D., Primary Care Physician
Practitioner Off-site with Referral System

Medication management services can also be provided by telephone or through a virtual clinic structure. The medication management practitioner must be in direct communication with the patient (in person, telephonically, or telemedicine/virtual clinic) to deliver the services as described. IT systems necessary to support telephonic or telemedicine/virtual clinic arrangements must include accurate and reliable ways to identify medications and dosages currently being taken by the patient as well as a clear means to determine the response of the patient to the medications. When this service is provided by telephone or through a virtual clinic structure, it should be done by a medication management practitioner who understands the limitations of the virtual meeting, and has developed methods to obtain additional information through other means.

The schedule and means of follow-up are determined by the drug therapy problems identified and the need to modify or evaluate the effects of the therapy recommendations. In this scenario, continual written (and when necessary, verbal) communication occurs with the patient, the prescriber (and/or referring primary care clinician) and the medication management practitioner. This occurs electronically when those facilities are available, and in writing when they are not available.
PRACTICE PROFILE

Community-Based Pharmacy

Type of Practice/Facility:
Community pharmacy practice; pharmacists with focused training in medication management, working with small physician groups in rural Minnesota

Location:
Minnesota – several small to medium communities: Willmar, Little Falls, St. Cloud, Princeton

Pharmacist Relationship to Practice:
Pharmacist is employed by the pharmacy chain; medication management practice is separately structured from the dispensing operation

MMS provision:
Patient-specific care related to:
• Comprehensive assessment of medication and medical conditions
• Identification/documentation of drug therapy problems
• Physician-pharmacist care plan development
• Follow-up/evaluation visits
• Written documentation of encounters to physician and patient

Access to MM Service:
(1) Physician/PCP referral to pharmacist
(2) Direct patient request/appointments
(3) Employers/other payer referral

Payment/Billing Methods:
(1) MTM CPT code billing/documentation
   • Minnesota Medicaid
   • Self-insured employers (U. of Minn., General Mills, Fairview Health System, state employees)
(2) Patient self-pay/co-payments

Service Assessment Measures (documented):
(1) Volume and complexity of patients
(2) Clinical goals achievement
(3) Hospitalizations avoided/clinic visits prevented
(4) Medication cost savings
(5) Days at work saved
(6) Patient adherence to regimen
PRACTICE PROFILE

Group Model HMO

Type of Practice/Facility:
Group model health maintenance organization providing ambulatory care and acute care services for enrolled members

Location:
Denver, Colorado

Pharmacist Relationship to Practice:
Both physically and virtually present models, employee staff, practicing under approved collaborative drug therapy management protocols; integrated within specific primary care clinics, medical services, and departments

MMS provision:
Patient-specific care related to:
• Identify/document medication-related problems
• CVD/hypertension therapy
• Anticoagulation management
• Chronic care/geriatrics/palliative care
• Mental health/neurology
• Care transition/medication reconciliation
• Patient education (in-person/telephonic)

Access to MM Service:
(1) Physician/PCP referral
(2) Inter-service referrals
(3) Pharmacist follow-up appointments
(4) Direct patient request/appointments

Payment/Billing Methods:
(1) PM/PM Capitation Model
(2) Patient-pay/co-pay

Service Assessment Measures (documented):
(1) Clinical treatment goals achievement
(2) NCQA/HEDIS measures (various)
(3) Annualized cost avoidance/ROI
(4) Patient satisfaction
Physician/Staff View:
“My primary care clinical pharmacy specialist is as important as my nurse and LPN in getting work done efficiently throughout the day and in giving excellent care to our patients. I can’t imagine working without her help.”

Patient/Caregiver View: “I call them my heart team …I pay attention to what they tell me;” [The patient] looks forward to calls from her pharmacist, who adjusts her medications for cholesterol, thyroid disease and blood pressure. “He makes sure my heart is protected, let me tell ya.”
APPENDIX

Tip Sheets and Sample Templates

• Collaborative Practice Agreement Components

The features listed below can also be used as a guide when building a collaborative practice agreement.

– Names of participating parties
– Description of the activities to be performed by the pharmacist
– What is this collaborative practice agreement for (drug, disease, etc.)
– Which patients, referral only
– Be specific on care process, patient-specific decision making, and what you will and will not be doing
– Qualifications of participating pharmacist (determination and demonstration of competency)
– Details of the protocol to be used
– Documentation requirements
– How will your work be communicated to the physician
– Accountability for quality measures
– Compensation stipulations
– Expiration statement
– Signatures
## Common Causes of Drug Therapy Problems

<table>
<thead>
<tr>
<th>Drug Therapy Category</th>
<th>Drug Therapy Problem</th>
<th>Common Causes of Drug Therapy Problems</th>
</tr>
</thead>
</table>
| I. Appropriate Drug Therapy | A. Unnecessary Drug Therapy                  | • There is no valid medical indication for the drug therapy at this time.  
• Multiple drug products are being used for a condition that requires single drug therapy.  
• The medical condition is more appropriately treated with nondrug therapy.  
• Drug therapy is being taken to treat an avoidable adverse reaction associated with another medication.  
• Drug abuse, alcohol use, or smoking is causing the problem. |
| I. Appropriate Drug Therapy | B. Need for Additional Drug Therapy           | • A medical condition requires the initiation of drug therapy.  
• Preventative drug therapy is required to reduce the risk of developing a new condition.  
• A medical condition requires additional pharmacotherapy to attain synergistic or additive effects. |
| II. Effective Drug Therapy | A. Ineffective Drug                          | • The drug is not the most effective for the medical problem.  
• The medical condition is refractory to the drug product.  
• The dosage form of the drug product is inappropriate.  
• The drug product is not an effective product for the indication being treated. |
| II. Effective Drug Therapy | B. Dosage Too Low                            | • The dose is too low to produce the desired response.  
• The dosage interval is too infrequent to produce the desired response.  
• A drug interaction reduces the amount of active drug available.  
• The duration of drug therapy is too short to produce the desired response. |
| III. Safety            | A. Adverse Drug Reaction                      | • The drug product causes an undesirable reaction that is not dose-related.  
• A safer drug product is required due to risk factors.  
• A drug interaction causes an undesirable reaction that is not dose-related.  
• The dosage regimen was administered or changed too rapidly.  
• The drug product causes an allergic reaction.  
• The drug product is contraindicated due to risk factors. |
| III. Safety            | B. Dosage Too High                           | • Dose is too high.  
• The dosing frequency is too short.  
• The duration of drug therapy is too long.  
• A drug interaction occurs resulting in a toxic reaction to the drug product.  
• The dose of the drug was administered too rapidly. |
| IV. Compliance         | Noncompliance                                | • The patient does not understand the instructions.  
• The patient prefers not to take the medication.  
• The patient forgets to take the medication.  
• The drug product is too expensive for the patient.  
• The patient cannot swallow or self-administer the drug product appropriately.  
• The drug product is not available for the patient. |
• Initial Set Up Flowchart

**Set Up Referral Process**

| MD Indicators - Disease State Driven vs. Drug Therapy Problem Driven | Set up schedule template - 30 min visits for new patients and 15 mins for follow ups |
| Patient Self Referral | Dedicated office space/supplies to see patients | Identify support personnel |

**Develop Collaborative Practice Agreement**

| Implement Documentation System | Develop Integration and Referral Network (Podiatrist, Ophthalmologist, etc.) |

**Set Up Billing Model**

| Traditional E/M Coding | Pharmacist MTMS CPT codes |
• **Medical Record Template**

```
Date:

Patient:                     DOB:                    Patient ID:

Reason for Review:

Allergies:

Diagnoses (not all inclusive):

<table>
<thead>
<tr>
<th>Meds per EMR</th>
<th>Meds per H&amp;P</th>
<th>Meds per D/C Summary</th>
<th>Meds per Patient</th>
</tr>
</thead>
<tbody>
<tr>
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</table>

Pertinent Labs:

Findings:

Considerations/Discussion:
```
### Medication Therapy Review Form

#### 1. Patient Personal Information
- **Name:**
- **Phone:**
- **Address:**
- **Patient Date of Birth:**
- **Social Security:**
- **Allergies:**
- **Pre-existing Conditions:**

#### Notes:

#### 2. Insurance Information:
- **Insurance Company Name:**
- **Phone:**
- **Address:**
- **ID Number:**
- **Group Number:**

The undersigned hereby authorizes the release of any information relating to the claims for benefits submitted on behalf of myself and / or dependents. I hereby authorize my insurer to pay and hereby assign all benefits, if any, otherwise payable to me for their services as described on the attached form.

- **Signature:**
- **Date:**

#### 3. Health Care Providers & specialty: (Ex. Doctor, Pharmacist, Dietitian, Physical Therapist, Chiropractor, Herbalist, ...)
- **Name / Specialty:**
- **Address:**
- **Phone:**

#### Notes:

### 3. Personal Medication Record

<table>
<thead>
<tr>
<th>Start Date</th>
<th>Medication Brand (Generic)</th>
<th>Dosage</th>
<th>Route</th>
<th>Times per Day</th>
<th>Scheduled Times</th>
<th>Purpose for Use</th>
<th>Remarks</th>
<th>Prescriber (Notice)</th>
<th>Stop Date</th>
</tr>
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</tbody>
</table>

### 3. Medication Action Plan

<table>
<thead>
<tr>
<th>Date Identified</th>
<th>Medication-related Issue Identified</th>
<th>Proposed Action</th>
<th>Person Responsible</th>
<th>Result of Action</th>
<th>Date of Result</th>
</tr>
</thead>
<tbody>
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#### Notes:
• Outcomes Reporting Terminology

**Standard Terminology for Outcome Status Reporting in the Team Management of Medications**

- **Initial:** goals being established, initiate new therapy
- **Resolved:** goals achieved, therapy completed
- **Stable:** goals achieved, continue same therapy
- **Improved:** adequate progress being made, continue same therapy
- **Partial Improvement:** progress being made, adjustments in therapy required
- **Unimproved:** no progress yet, continue same therapy
- **Worsened:** decline in health, adjust therapy
- **Failure:** goals not achieved, discontinue current therapy and replace with different therapy

Patient and Provider Letter Templates

[Pharmacist's Name or Logo]

Dear [Mr./Mrs./Dr./Ms.] [Patient Last Name],

Thank you for choosing [Pharmacy Name] as your source for prescriptions, services, and information. We appreciate your business and are pleased to inform you about some important new Personal Pharmacist™ services that are now available to you through your [Patient's Prescription Drug Plan Name].

Personal Pharmacist services are specially designed to help you:

- organize your medications
- avoid drug complications
- understand generic and non-prescription drugs
- improve medication knowledge
- save money
- feel better

One service your benefit plan would like you to take advantage of is a medication review. This service provides a 20-30 minute one-on-one consultation with me or another specially-trained pharmacist. The purpose of the consultation is to review your entire medication profile, including prescription drugs, over-the-counter products, and herbal supplements – even if you have purchased them at another store. Through this review, we will work to prevent any harmful complications or side effects from your medications as well as identify potential lower-cost options and assist you in maximizing your healthcare.

[Patient's Prescription Drug Plan Name] is one of the only plans to offer this important benefit to its members. The full cost of this service is covered by your plan – there are no co-payments, co-insurance, or deductibles to meet. To get started, simply call [Pharmacy Phone Number] to schedule an appointment.

Thank you and we look forward to serving you.

Sincerely,

[Pharmacist Name]

[Pharmacist Title]

[Pharmacy Name or Logo]
Dear [Prescriber Name]:

[Pharmacy Name] is pleased to offer a new Medication Therapy Management (MTM) program to assist patients with all of their medication needs. Available to members of the [Plan Name], this service is designed to allow pharmacists to work collaboratively with local prescribers to enhance our patients’ quality of care.

As part of this program, pharmacists may conduct a comprehensive medication review of a patient's prescription and nonprescription medications, as well as vitamins, minerals, herbal products, and other dietary supplements. We will also provide patient counseling on new prescription orders and over-the-counter therapies. In addition, we will contact patients for follow-up monitoring visits, as needed, to check their progress with new medications, and to ensure drug therapy problems have been adequately resolved.

Our MTM program is designed to help both you and your patients and offers these benefits:

- **Safer and more effective medication use.** We believe that educating patients on appropriate medication use can improve their adherence, help them reach and maintain their therapeutic goals, and prevent medication errors. To ensure medication effectiveness, our pharmacists will conduct follow-up phone calls to monitor a patient's symptoms and compliance with the medication regimen.

- **Selection of the most therapeutic and cost effective medications.** We offer patient counseling services that can assist in selecting the most cost-effective and clinically-appropriate generic or brand name medications. If we find a medication that is more cost effective than the patient's current medication, our pharmacists will consult you and obtain your authorization before any medication changes occur.

- **Improved coordination of care.** Many patients see multiple providers for various health conditions, which can lead to duplicate therapies or harmful medication interactions. We will provide patients with a master medication list that contains information pertaining to all of their medications, and a medication action plan that explains the safest and most effective use of their medications. We will instruct patients to bring these records on all visits with you and other health care providers.

- **MTM Service documentation.** Our pharmacists will carefully document all MTM services provided to eligible patients. In addition, you will be notified if a patient's clinical situation requires your attention. Any changes made to a prescription medication will only be made with your prior authorization. All documentation will be kept at our pharmacy and is available to you as needed.

On behalf of [Pharmacy Name], we look forward to working together to promote the health of our patients and community.

Regards,

[Pharmacist Name]
[Pharmacist Title]
• **Referral Triggers**

  **Diabetes**
  - A1c > 7.0%
  - Newly diagnosed
  - Intolerance to medications

  **Hyperlipidemia:**
  - LDL > 100 in patients with heart disease and/or diabetes
  - HDL < 40 in patients with heart disease and/or diabetes
  - LDL >160 in patients with no heart disease or diabetes
  - Intolerance to medications

  **Hypertension:**
  - Intolerance to medications
  - Patients on 3 or more medications and poor control of BP
  - Patients with poorly controlled BPs

  **Asthma/COPD:**
  - Any patient with poor control of symptoms of COPD
  - Any asthma patient with poor control
  - Newly diagnosed

  **Polypharmacy:**
  - Any patient on > 7 medications
  - Any patient with history of poor compliance
  - Any patient with adverse reactions
## Diabetes Management Program

### 4th year report for XXXXXXX Practice

### Average Costs/Year/Participant for 31 Participants with Baseline Economic and Follow-up Economic and Clinical Data for Each of 4 Years

<table>
<thead>
<tr>
<th>Cost Category</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
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<tr>
<td></td>
<td>Baseline</td>
<td>Year 1 Actual</td>
<td>1st Year Projected</td>
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<tr>
<td>Medical Payer</td>
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<tr>
<td>Medical Patient</td>
<td>$74</td>
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<td>$119</td>
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<tr>
<td>Rx Payer</td>
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<td>RPh Cost</td>
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<tr>
<td>Payer Total Cost</td>
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<td>$11,586</td>
<td>$13,055</td>
<td>$9,333</td>
<td>$14,752</td>
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<tr>
<td>Total Costs</td>
<td>$12,280</td>
<td>$12,088</td>
<td>$13,876</td>
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</tr>
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</table>

### Clinical Results for 31 Patients Complete Economic Data

<table>
<thead>
<tr>
<th>Clinical Results</th>
<th>Initial Visit 2003</th>
<th>Last Visit 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>avg A1c</td>
<td>8.6</td>
<td>7.1</td>
</tr>
<tr>
<td>% A1c &lt; 9.0</td>
<td>57%</td>
<td>91%</td>
</tr>
<tr>
<td>% A1c &lt; 7.0</td>
<td>36%</td>
<td>52%</td>
</tr>
<tr>
<td>% A1c &lt; 6.5</td>
<td>15%</td>
<td>36%</td>
</tr>
<tr>
<td>avg LDL</td>
<td>104</td>
<td>91</td>
</tr>
<tr>
<td>% LDL &lt; 130</td>
<td>84%</td>
<td>84%</td>
</tr>
<tr>
<td>% LDL &lt; 100</td>
<td>44%</td>
<td>71%</td>
</tr>
<tr>
<td>avg Systolic BP</td>
<td>135</td>
<td>128</td>
</tr>
<tr>
<td>% Systolic BP &lt; 130</td>
<td>54%</td>
<td>67%</td>
</tr>
<tr>
<td>avg Diastolic BP</td>
<td>83</td>
<td>80</td>
</tr>
<tr>
<td>% Diastolic BP &lt; 80</td>
<td>45%</td>
<td>56%</td>
</tr>
<tr>
<td>% with Nutrition Goal</td>
<td>9%</td>
<td>97%</td>
</tr>
<tr>
<td>% with Exercise Goal</td>
<td>9%</td>
<td>95%</td>
</tr>
<tr>
<td>% with Weight Goal</td>
<td>9%</td>
<td>94%</td>
</tr>
<tr>
<td>% Achievement Nutrition</td>
<td>0%</td>
<td>57%</td>
</tr>
<tr>
<td>% Achievement Exercise</td>
<td>0%</td>
<td>51%</td>
</tr>
<tr>
<td>% Achievement Weight</td>
<td>0%</td>
<td>32%</td>
</tr>
<tr>
<td>% with Current Flu Shot</td>
<td>48%</td>
<td>95%</td>
</tr>
<tr>
<td>% with Current Foot Exam</td>
<td>18%</td>
<td>70%</td>
</tr>
<tr>
<td>% with Current Eye Exam</td>
<td>21%</td>
<td>73%</td>
</tr>
</tbody>
</table>

### Clinical Results for 56 Patients Enrolled in 2003-2005 with 12 mo Follow-up

<table>
<thead>
<tr>
<th>Clinical Results</th>
<th>Initial Visit 2003</th>
<th>Last Visit 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>avg A1c</td>
<td>8.7</td>
<td>7.2</td>
</tr>
<tr>
<td>% A1c &lt; 9.0</td>
<td>60%</td>
<td>93%</td>
</tr>
<tr>
<td>% A1c &lt; 7.0</td>
<td>39%</td>
<td>54%</td>
</tr>
<tr>
<td>% A1c &lt; 6.5</td>
<td>16%</td>
<td>40%</td>
</tr>
<tr>
<td>avg LDL</td>
<td>109</td>
<td>94</td>
</tr>
<tr>
<td>% LDL &lt; 130</td>
<td>78%</td>
<td>80%</td>
</tr>
<tr>
<td>% LDL &lt; 100</td>
<td>41%</td>
<td>63%</td>
</tr>
<tr>
<td>avg Systolic BP</td>
<td>135</td>
<td>130</td>
</tr>
<tr>
<td>% Systolic BP &lt; 130</td>
<td>48%</td>
<td>57%</td>
</tr>
<tr>
<td>avg Diastolic BP</td>
<td>84</td>
<td>80</td>
</tr>
<tr>
<td>% Diastolic BP &lt; 80</td>
<td>43%</td>
<td>55%</td>
</tr>
<tr>
<td>% with Nutrition Goal</td>
<td>14%</td>
<td>95%</td>
</tr>
<tr>
<td>% with Exercise Goal</td>
<td>16%</td>
<td>95%</td>
</tr>
<tr>
<td>% with Weight Goal</td>
<td>16%</td>
<td>95%</td>
</tr>
<tr>
<td>% Achievement Nutrition</td>
<td>14%</td>
<td>61%</td>
</tr>
<tr>
<td>% Achievement Exercise</td>
<td>4%</td>
<td>53%</td>
</tr>
<tr>
<td>% Achievement Weight</td>
<td>0%</td>
<td>36%</td>
</tr>
<tr>
<td>% with Current Flu Shot</td>
<td>0%</td>
<td>36%</td>
</tr>
<tr>
<td>% with Current Foot Exam</td>
<td>24%</td>
<td>62%</td>
</tr>
<tr>
<td>% with Current Eye Exam</td>
<td>29%</td>
<td>72%</td>
</tr>
</tbody>
</table>

### Clinical Results for 37 Patients with 4 Years

<table>
<thead>
<tr>
<th>Clinical Results</th>
<th>Initial Visit 2003</th>
<th>Last Visit 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>avg A1c</td>
<td>8.4</td>
<td>6.9</td>
</tr>
<tr>
<td>% A1c &lt; 9.0</td>
<td>62%</td>
<td>92%</td>
</tr>
<tr>
<td>% A1c &lt; 7.0</td>
<td>38%</td>
<td>65%</td>
</tr>
<tr>
<td>% A1c &lt; 6.5</td>
<td>14%</td>
<td>46%</td>
</tr>
<tr>
<td>avg LDL</td>
<td>100</td>
<td>90</td>
</tr>
<tr>
<td>% LDL &lt; 130</td>
<td>83%</td>
<td>85%</td>
</tr>
<tr>
<td>% LDL &lt; 100</td>
<td>51%</td>
<td>68%</td>
</tr>
<tr>
<td>avg Systolic BP</td>
<td>137</td>
<td>130</td>
</tr>
<tr>
<td>% Systolic BP &lt; 130</td>
<td>47%</td>
<td>59%</td>
</tr>
<tr>
<td>avg Diastolic BP</td>
<td>84</td>
<td>81</td>
</tr>
<tr>
<td>% Diastolic BP &lt; 80</td>
<td>44%</td>
<td>54%</td>
</tr>
<tr>
<td>% with Nutrition Goal</td>
<td>8%</td>
<td>95%</td>
</tr>
<tr>
<td>% with Exercise Goal</td>
<td>8%</td>
<td>95%</td>
</tr>
<tr>
<td>% with Weight Goal</td>
<td>8%</td>
<td>95%</td>
</tr>
<tr>
<td>% Achievement Nutrition</td>
<td>0%</td>
<td>57%</td>
</tr>
<tr>
<td>% Achievement Exercise</td>
<td>0%</td>
<td>51%</td>
</tr>
<tr>
<td>% Achievement Weight</td>
<td>0%</td>
<td>33%</td>
</tr>
<tr>
<td>% with Current Flu Shot</td>
<td>54%</td>
<td>95%</td>
</tr>
<tr>
<td>% with Current Foot Exam</td>
<td>22%</td>
<td>62%</td>
</tr>
<tr>
<td>% with Current Eye Exam</td>
<td>24%</td>
<td>73%</td>
</tr>
</tbody>
</table>
Acknowledgements

The PCMH Medication Management Tool Box was developed with input from Bryan Bray, PharmD, Linda Strand, PharmD, Impact Education, LLC, and the Medication Management Task Force from the Patient-Centered Primary Care Collaborative and supported by an educational grant from Takeda Pharmaceuticals North America, Inc.