Optimizing Medication Use Through Comprehensive Medication Management (CMM) in Practice

Strategic Recommendations for Implementing CMM into the Care Team with Sustainable Payment and Practice Structures

MAY 2022

GTMRx Institute™
Get the medications right

Dear Colleague:

We would like to invite you into a conversation.

This document—Optimizing Medication Use Through Comprehensive Medication Management (CMM) in Practice: Strategic Recommendations for Implementing CMM into the Care Team with Sustainable Payment and Practice Structures—represents the beginning of an important dialogue. We hope to expand the national discussion around the value, importance and urgency of implementing a more rational medication use process.

We all understand the urgency: Too many lives lost, too much money wasted and too many suffering patients. The time has come to change the way medications are managed. That requires changes in how care is organized and delivered.

Our solution is through a person-centered, team-based process of care called comprehensive medication management (CMM).

When CMM is integrated into practice, care improves, costs decrease and the patient and provider experience is enhanced.[1] We understand the importance of a trusted healer working alongside a medication expert. We want to see investments made in high quality, advanced primary care. We want to see payment for teams (to include a clinical pharmacist) delivering a comprehensive set of services that include CMM. We want to see specialists access CMM for their patients.

But how do we make that happen? Through sustainable payment models.

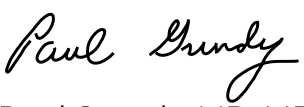
As purchasers of health care, employers and the government must exercise their spending power. They must look beyond the pill, formularies and discounts and toward patient care services that ensure safe, effective and appropriate use of medications.

Connecting medical and pharmacy benefits offers an opportunity to transform care that will optimize medication use and impact total cost of care.

This document serves as a call to rise to that challenge as well as a guidebook on how to move forward to accelerate the momentum. We are grateful to the Payment Methodology Subgroup of the GTMRx Payment and Policy Solutions Workgroup, which dedicated months of deliberation, dialogue, research, vetting and editing of this paper.

It's just the beginning. Join the conversation. Join the journey.

With warm regards,



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1 McFarland MS, Buck M, Armistead L, Jacobi J, Kliethermes MA. The Outcomes of Implementing and Integrating Comprehensive Medication Management in Team-Based Care: A Review of the Evidence on Quality, Access and Costs. December 2021. https://16bvl028dn7zhgp35k7rzh5c-wpengine.netdna-ssl.com/wp-content/uploads/2020/11/Outcomes-of-Implementing-ED.v4-1.pdf

Acknowledgments

Get the Medications Right (GTMRx) Institute is a multi-stakeholder coalition of over 1650 members from 1000 organizations committed to advancing health care delivery models that ensure a personalized, patient-centered, systematic and coordinated approach to medication use. The evidence shows that this service, integrated into advanced primary care models, vastly improves outcomes and reduces total cost of care.

GTMRx is composed of members of the health care team including clinicians, pharmacists, patients, caregivers, health information technology (IT) innovators, pharmaceutical and diagnostics companies, consumer groups, employers, payors and health systems—aligned to optimize patient outcomes and improve health care value by ensuring appropriate use of medications and gene therapies through comprehensive medication management (CMM).

Payment and practice recommendations are highlighted in this paper and were identified by the Payment Methodology Subgroup of the GTMRx Payment and Policy Solutions Workgroup. In addition, comments that contributed to this work were offered from the GTMRx Employer Advisory Taskforce and GTMRx Physician Advisory Taskforce.

Executive Summary

Get the Medications Right (GTMRx) Institute believes optimizing medication use through coordinated, person-centered, team-based comprehensive medication management (CMM) services (See consumer explainer video for a breakdown of the process.), saves lives, reduces total cost of care and restores health. Multi-stakeholder GTMRx workgroups have created a Value Framework, identified medication optimization use cases from a variety of settings, identified evidence and best practices (See our CMM Evidence Document.), and now offer this document as guidance for payment and policy solutions needed to expand access to CMM in order to positively impact patient care. Medication-related problems are a top preventable cause of serious adverse health events and avoidable hospital readmissions. GTMRx has developed payment and policy recommendations to create sustainable, cost-saving mechanisms for team-based care.[2]

Medication optimization is designed to ensure all Americans have access to a personalized, patient-centered, systematic and coordinated approach to medication use—one that will vastly improve outcomes and reduce overall health care costs. Almost 75% of patients leave their physician's office with a prescription[3], and nearly one-third of adults in the U.S. take five or more medications.[4] CMM addresses medication therapy problems, thereby improving medication-related outcomes. Failure to ensure appropriate use of medications comes with a tremendous human toll. Avoidable illness and death resulting from non-optimized medication therapy led to an estimated 275,000 avoidable deaths annually and contributed to $528.4 billion in annual health care costs, equivalent to 16% of the annual $3.2 trillion in 2016 U.S. health care expenditures.[5]

The ability to optimize medication use is within our reach but requires practice and care delivery transformation utilizing interprofessional teams working collaboratively to integrate CMM into practice. This begins by first identifying those patients that have not achieved goals of clinical therapy. After, all medications are evaluated to ensure that they are safe, effective and appropriate. Then, patients are engaged in the development of their care plan while ensuring that they are willing and able to take those medications that are indicated. Aligned with the essential elements of high-quality primary care[6], value-based payment models must support the interprofessional team, recognizing the important role of the clinical pharmacist, working in collaborative practice with the physician in the delivery of patient-centered, team-based CMM. The following four action items within the GTMRx Blueprint for Change are steps the GTMRx Institute is taking to advance payment for CMM in practice:

- Identify foundational elements of policy solutions necessary to overcome barriers to the adoption of CMM and optimization of medication and gene therapies.
- Identify successful use cases for utilization in advocacy and coalition building.
- Identify payment and policy solutions and strategies that reward the value of CMM services in terms of cost, quality and patient outcomes.
- Design an approach to educate and engage policymakers about CMM (See CMM impact/evidence.).

2 Ramalho de Oliveira D, Brummel AR, Miller DB. Medication therapy management: 10 years of experience in a large integrated health care system. Journal of Managed Care Pharmacy 2010;16(3):185-95. doi: 10.18553/jmcp.2010.16.3.185. — also cited in the GTMRx CMM Evidence Document

3 https://www.cdc.gov/nchs/data/ahcd/namcs_summary/2016_namcs_web_tables.pdf

4 https://psnet.ahrq.gov/primer/medication-errors-and-adverse-drug-events

5 Watanabe JH, McInnis T, Hirsch JD. Ann Pharmacother. 2018 Sep;52(9):829-837.

6 Implementing High-Quality Primary Care: Rebuilding the Foundation of Health Care. A consensus study report of the National Academies of Sciences Engineering Medicine. Washington, DC. 2021. https://www.nationalacademies.org/our-work/implementing-high-quality-primary-care.

Payment and policy recommendations to implement sustainable CMM practices to ensure access to CMM and high-quality care:

1. Adopt the common definition of comprehensive medication management (CMM).
2. All private and public medical benefit plans (e.g., commercial, Medicare, Medicaid, VA, Marketplace) should compensate interprofessional care teams for delivering CMM services.
3. High quality, comprehensive and advanced primary care payment models should include payment to teams to deliver a comprehensive set of services, to include CMM.
4. Recognition that value-based payment models are optimal for the provision and sustainability of CMM.
5. Under Medicare and other fee-for-service models, allow physicians to bill for complex evaluation and management services provided by an appropriately trained clinical pharmacist, working in collaborative practice on the care team with the physician.
6. A sufficient workforce of qualified clinicians trained, credentialed and privileged to provide CMM services should be available to meet patient and population needs.
7. CMM value should be measured on attributable patient outcome measures.
8. Clinicians delivering CMM services should have access to clinical information at the point-of-care and be held accountable for related quality metrics.
9. In order to identify, assess and evaluate those patients that would benefit from CMM services, the care team should have access to clinical information at the point of care.
10. Fully integrate companion and complementary diagnostic (e.g., pharmacogenomic) services into the CMM process to support useful clinical decision making and increased availability of data. For more details, see GTMRx's Pharmacogenomics and CMM policy recommendations.

CMM Value Proposition

CMM decreases total cost of care, improves clinician work life and patient satisfaction and enhances access and quality of care—all while decreasing waste across the health system.[7,8]

What is CMM

CMM is a standard of care that ensures each patient's medications are individually assessed to determine that each medication is appropriate for the patient, effective for the medical condition, safe given the comorbidities and other medications being taken and able to be taken by the patient as intended.[9] CMM is a rigorous multi-step process that engages *all* members of the health care team, to include the patient, assuring more effective coordination of care.

CMM Saves Lives and Money

One of the lessons learned from the COVID-19 pandemic has been exposure to inefficiencies of our health care delivery systems. Failure to ensure appropriate use of medications comes with a tremendous human toll. Avoidable illness and death resulting from non-optimized medication therapy has led to an estimated 275,000 avoidable deaths annually and contributed to $528.4 billion in annual health care costs, equivalent to 16% of the annual $3.2 trillion in 2016 U.S. health care expenditures.[10] Misuse, overuse or underuse of medication therapy can lead to treatment failure, new medical problems or both, driving waste in the system. In addition to the evidence on costs, data show that CMM benefits the health-care system through lower hospital readmission rates and improved patient-centered clinical outcomes. A 2018 study, including more than 43,000 patients, found that patients who had received a CMM visit within 30 days post discharge had a significantly lower rate of readmissions compared to the cohort. The 60-day readmission rate was also lower. Patients receiving interprofessional, team-based and pharmacist-led CMM had improved outcomes in chronic conditions including quality indicators for type 2 diabetes, anticoagulation, hypertension, hyperlipidemia and pain.[11,12]

Five Principles of CMM

Americans should have access to CMM and team-based medication management that improve outcomes and reduce costs. The GTMRx Blueprint for Change provides a roadmap for reform, based on the following five principles:

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7 McFarland MS, Buck M, Armistead L, Jacobi J, Kliethermes MA. The Outcomes of Implementing and Integrating Comprehensive Medication Management in Team-Based Care: A Review of the Evidence on Quality, Access and Costs. December 2021. https://16bvl028dn7zhgp-35k7rzh5c-wpengine.netdna-ssl.com/wp-content/uploads/2020/11/Outcomes-of-Implementing-ED.v4-1.pdf.

8 McFarland MS, Marcia B, Crannage E, Armistead T, Ourth H, Finks W, McClurg MR. Assessing the Impact of Comprehensive Medication Management on Achievement of the Quadruple Aim. The American Journal of Medicine. 2021:134(4): 456-461. https://doi.org/10.1016/j.amjmed.2020.12.008.

9 McInnis, Terry, et al. The Patient-Centered Medical Home: The Patient-Centered Medical Home: Integrating Comprehensive Medication Management to Optimize Patient Outcomes. 2010. 2nd ed., Patient-Centered Primary Care Collaborative. PCPCC Medication Management Task Force.

10 Watanabe JH, McInnis T, Hirsch JD. Ann Pharmacother. 2018 Sep;52(9):829-837.

11 Budlong H, Brummel A, Rhodes A, Nici H. Impact of Comprehensive Medication Management on Hospital Readmission Rates. Population Health Management 2018. 21(5): 395-400. — also cited in the GTMRx CMM Evidence Document

12 McFarland MS, Nelson J, Ourth H, Groppi J, Morreale A. Optimizing the primary care clinical pharmacy specialist: Increasing patient access and quality of care within the Veterans Health Administration. J Am Coll Clin Pharm. 2020;3:494-500. — also cited in the GTMRx CMM Evidence Document

- Developing a personalized, patient-centered, systematic and coordinated approach to medication use that will vastly improve outcomes and reduce overall health care costs.
- Aligning systems of care to integrate CMM, engaging patients to ensure that they are willing and able to take those medications that are indicated, effective and safe to optimize their outcomes.
- Creating immediate delivery system, payment and policy transformation to enable successful, broad-scale adoption of integrated CMM services.
- Ensuring appropriate diagnosis and access to advanced diagnostics with companion/complementary and pharmacogenomics (PGx) testing to target correct medication therapy.
- Implementing and paying for team-based, patient-centered care models that recognize appropriately skilled clinical pharmacists as medication experts who work in collaborative practice with physicians and other clinicians.

Regulatory and Policy Implications

GTMRx is committed to advocacy at the federal, state and organization levels for practice and payment policies that fully support CMM as a patient care service needed to improve health and ensure appropriate, personalized use of medications. GTMRx has built a strong coalition of 1600 members (from over 1000 organizations) representing health care team members, such as physicians, clinical pharmacists, payors, employers as health plan sponsors, academics, researchers and patients. Support from these coalition members is essential in order to remove barriers and adopt required policies to optimize medication use through CMM in practice.

Evolution of Medication Management Services

To promote medication optimization, the Medicare Prescription Drug, Improvement and Modernization Act (MMA) of 2003 introduced the term medication therapy management (MTM) as a prescription benefit for certain eligible beneficiaries under Medicare Part D. MTM made initial progress in medication management but variation in both implementation and provision of the service created ambiguity as to what the definition and provision of MTM actually meant.[13,14]

CMM was developed to address the shortcomings of MTM. CMM is a patient-centered approach to optimizing medication use *and* improving patient health outcomes that is delivered collaboratively by the patient and health care team, including a clinical pharmacist.[15] Whereas MTM is medication-focused, CMM is a more comprehensive patient-centric and medication optimization strategy.

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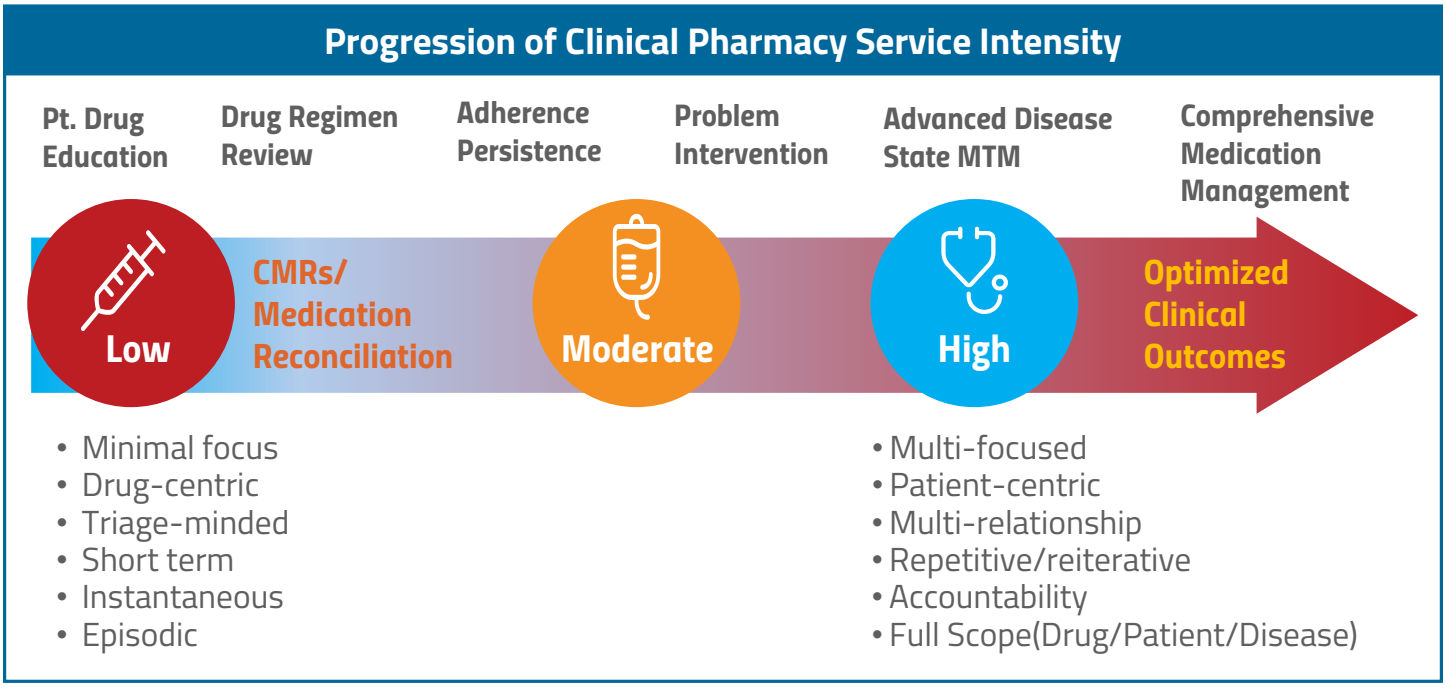
13 Medicare Prescription Drug, Improvement, and Modernization Act of 2003, Pub. L. 108–173. Available at: https://www.congress.gov/bill/108th-congress/house-bill/1. Accessed December 29th, 2020.

14 Centers for Medicare and Medicaid Services. Medication therapy management. Available at: https://www.cms.gov/medicare/prescription-drug-coverage/prescriptiondrugcovcontra/mtm. Accessed December 29th, 2020.

15 Patient-Centered Primary Care Collaborative (PCPCC). The patient-centered medical home: integrating comprehensive medication management to optimize patient outcomes resource guide, 2nd ed. Washington, DC: PCPCC, 2012. www.pcpcc.org/sites/default/files/media/medmanagement.pdf.

Figure 1 highlights the different levels of pharmacy service intervention and how clinical outcomes are best optimized and achieved through CMM.[16]



The Value of CMM to Stakeholders

The value of CMM to various stakeholders is outlined in the GTMRx document Optimizing Medication Use through Comprehensive Medication Management in Practice Value Framework. These stakeholders include: patients, caregivers, patient advocacy organizations, employers, clinicians, clinical teams, professional and provider organizations, health systems, health care insurers, government agencies and medication manufacturers. The GTMRx Evidence-Based Resources Subgroup of the Practice and Care Delivery Transformation Workgroup consistentely updates peer-reviewed evidence of CMM integrated into team-based care within a myriad of health care systems—from individual provider offices with privately insured patients to nonprofit value-based payment and/or government run health care systems. The evidence supports that CMM advances the achievement of the quadruple aim,[17] and findings are consistent that when CMM is integrated into the care process, there is:[18]

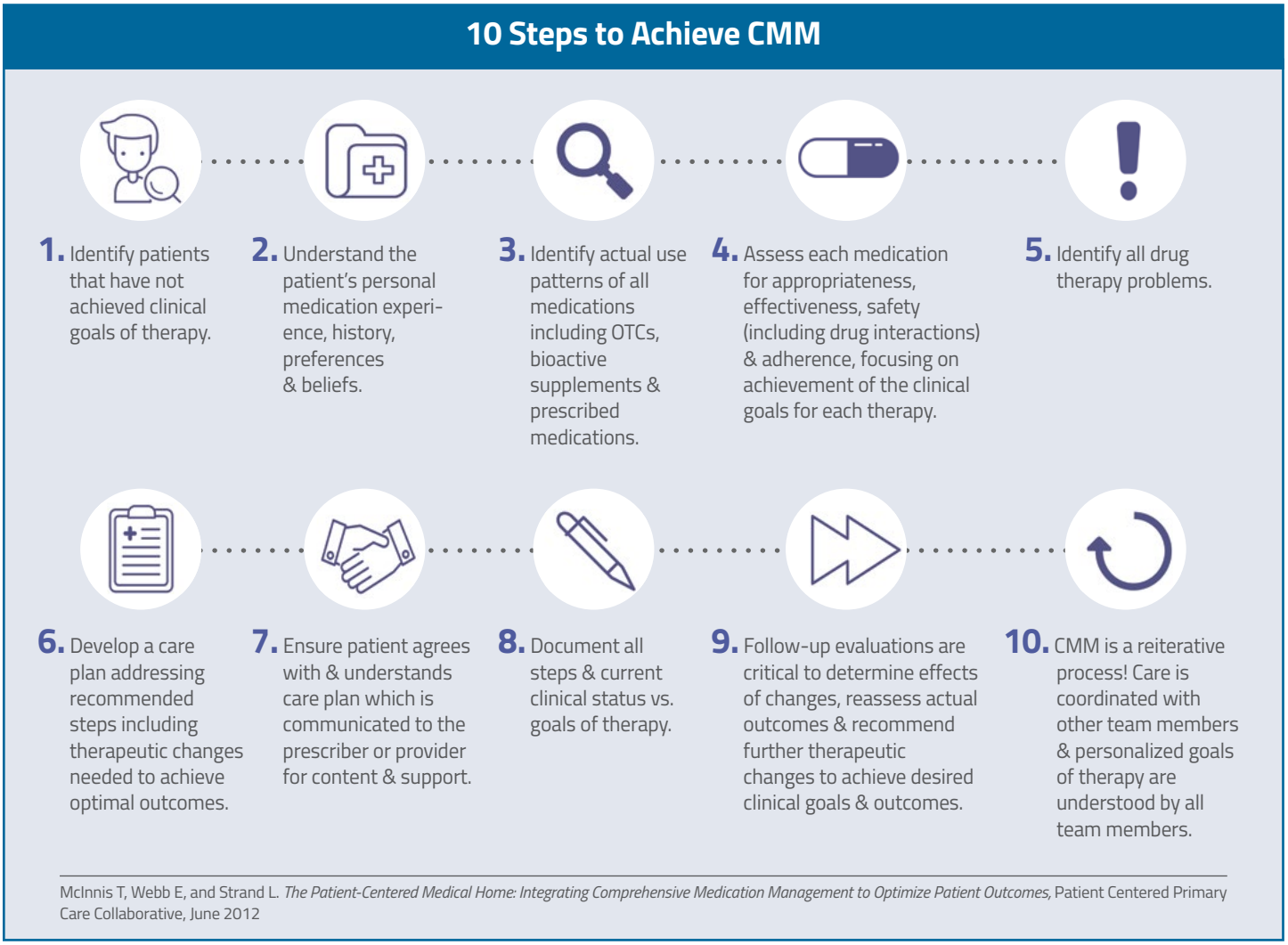
- Better care
- Reduced costs
- Improved access to care
- Improved patient satisfaction
- Improved provider work-life
- Improved outcomes

16 Source: GTMRx Institute

17 McFarland MS, Marcia B, Crannage E, Armistead T, Ourth H, Finks W, McClurg MR. Assessing the Impact of Comprehensive Medication Management on Achievement of the Quadruple Aim. The American Journal of Medicine. 2021:134(4): 456-461. https://doi.org/10.1016/j.amjmed.2020.12.008.

18 McFarland MS, Buck M, Armistead L, Jacobi J, Kliethermes MA. The Outcomes of Implementing and Integrating Comprehensive Medication Management in Team-Based Care: A Review of the Evidence on Quality, Access and Costs. December 2021. https://16bvl028dn7zhgp35k7rzh5c-wpengine.netdna-ssl.com/wp-content/uploads/2020/11/Outcomes-of-Implementing-ED.v4-1.pdf.

Figure 2 visualizes the ten steps for CMM as defined by the Primary Care Collaborative (PCC).[19] It is a reiterative and ongoing process of care for high-risk patients who have not achieved goals of therapy.[20]



Return on Investment for CMM Services

The return on investment (ROI) of CMM has been well documented with an average, in dollars, of 3:1 to 5:1 and as high as 12:1.[21] This results in a reduction of the direct mean medical cost of $1200 to $1872 per patient per year for each of the first 5 years for patients with chronic diseases such as diabetes, cardiovascular health issues, asthma and depression.[22]

CMM's focus on optimizing medication use has been shown to reduce total cost of care and decrease waste (e.g., decreased hospital readmissions, emergency department visits, long-term

19 Patient-Centered Primary Care Collaborative (PCPCC). The patient-centered medical home: integrating comprehensive medication management to optimize patient outcomes resource guide, 2nd ed. Washington, DC: PCPCC, 2012. www.pcpcc.org/sites/default/files/media/medmanagement.pdf.

20 10 Steps to Achieve Comprehensive Medication Management (CMM). GTMRx Institute. 2019. https://16bvl028dn7zhgp35k7rzh5c-wpengine.netdna-ssl.com/wp-content/uploads/2019/04/GTMRx-CMM-10-steps-PDF.pdf.

21 Brummel A, Lustig A, Westrich K, Evans MA, Plank GS, Penso J, Dubois RW. Best Practices: Improving Patient Outcomes and Costs in an ACO Through Comprehensive Medication Therapy Management. J of Managed Care and Specialty Pharmacy. 2014. (20):12.—also cited in the GTMRx CMM Evidence Document

22 Cipolle RJ, Strand L, and Morley P. Pharmaceutical Care Practice: The Patient Centered Approach to Medication Management. Third Edition. New York, NY: McGraw-Hill Medical; 2012.— also cited in a GTMRx Blog

care costs). The cost associated with drug therapy also includes medication regimens that are not optimized to effectively treat the indication resulting in a treatment failure (TF). Such failure can also cause a new medical problem (NMP), where a newly prescribed medication causes or contributes to an incident clinical symptom or syndrome, or both a TF and NMP.[23] Data suggest that providing CMM will help Medicare avoid almost 6 million physician office visits and 670,000 emergency department visits annually, saving more than $1 billion and more than $500 million, respectively, per year.[24]

Role of Care Team Members Delivering CMM

To instill trust in the care delivered, the care team should ensure a shared philosophy of practice focused around the whole patient where each clinical service complements every other clinical service. The roles of each member of the team (e.g., patient, physicians, clinical pharmacists, nurses, social workers, physical therapists, behavioral health workers, dieticians) are distinct yet complementary and work harmoniously to optimize patient medication use. In summary, the CMM practitioner works with a physician under a collaborative practice agreement[25, 26] that outlines the role to develop an individualized medication plan that achieves the intended goals of therapy and includes appropriate follow-up to determine patient outcomes. Care team members need to understand how each contributes to the patient care process. In addition, the structural and system levels of the organization or site must support management and operations of CMM services to enable efficiency, effectiveness and sustainability.

GTMRx believes in the necessity of a core team member, usually a clinical pharmacist working in collaborative practice with the physician, to be responsible for leading the medication therapy care plan with patients. In partnership with the physicians, the clinical pharmacist provides services to assure safe and effective medication use and help reduce workload burden on physicians and other staff.[27,28] The clinical pharmacist is highly trained to provide assessment of each medication for appropriateness, effectiveness, safety and identification of all drug problems. The greatest value is seen when the clinical pharamcist works with high-risk patients identified by the physician and care team.

Ensuring Credentialed and Licensed Health Care Team Members

Health care clinicians undergo annual internal and external credentialing often mandated by payors, state and federal guidelines. The purpose is to ensure that each clinician meets all applicable licensing and all scope of practice, contractual and health plan provider manual requirements and is therefore qualified to provide a specific service. The CMM clinical pharmacist typically has completed an accredited post-graduate residency or accrued equivalent post-licensure experience to prepare them for direct patient care practice. In addition, many have achieved board certification through the Board of Pharmacy Specialties or other advanced practice credentials.

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23 Watanabe JH, McInnis T, Hirsch JD. Ann Pharmacother. 2018 Sep;52(9):829-837.

24 American College of Clinical Pharmacy (ACCP). Comprehensive Medication Management in Team-Based Care. https://www.accp.com/docs/positions/misc/CMM%20Brief.pdf.

25 Collaborative Practice Workgroup, National Alliance of State Pharmacy Associations. Pharmacist Collaborative Practice Agreements: Key Elements for Legislative and Regulatory Authority. American College of Clinical Pharmacy. 2015.

26 Collaborative Practice Agreements in Outpatient Team-Based Clinical Pharmacy Practice. Practice Advancement Issue Brief. American College of Clinical Pharmacy. 2015. https://www.accp.com/docs/positions/misc/IB2CPA-ACCPPracticeAdvancement.pdf.

27 McBane S, Dopp A, Abe A, et al. ACCP white paper: collaborative drug therapy management and comprehensive medication management–2015. Pharmacotherapy. 2015;35(4):e39–e50.

28 Funk K, Pestka D, McClurg M, Carroll J, Sorensen T. Primary Care Providers Believe That Comprehensive Medication Management Improves Their Work-Life. Journal of American Board of Family Medicine. 2019; 32(4): 462-473. doi: 10.3122/ jabfm.2019.04.180376.—also cited in the GTMRx CMM Evidence Document

Key Challenges to Implementing CMM

Specific challenges that the care team face include:

- Lack of an existing payment structure to reimburse CMM as a service, including services provided by a clinical pharmacist, which results in inconsistent or incomplete approaches to providing CMM and challenges to integrating and sustaining CMM in practice. Such as:
  - Regulations limiting physicians from billing Medicare for complex medication management services provided incident to the physician (e.g., E/M codes 99212-99215) by pharmacists on the care team undermine team-based delivery of CMM services.
  - Federal, state and regional-related scope of practice agreements; collaborative practice agreements; interpretation of policies and disparate insurance regulations all affect pharmacists' abilities to receive compensation by public and private payors.
  - Lack of standard and consistent payment driven by positive patient outcomes.
  - Limited understanding of CMM and the roles of the interprofessional team members by patients, clinicians and payors—resulting in a poor understanding of the value of CMM.
  - Absence of interoperability and secure systems to store, share and access protected health information among the patient's health care team.

Data to Support Quality of CMM for Policies and Payment Decisions

Decisions to invest and create policy and payment structures for a service must be based on sound evidence that the service is of value (high quality and cost effective) to all key stakeholders. As CMM is a value-based construct, it is critical for value to be quantified—based on what is important to patients and defined through clinical, patient experience and cost outcomes categories. CMM should achieve improved patient outcomes holistically in a team-based fashion. Specifically, optimizing each patient's medication care plan to produce their desired outcomes is the responsibility of the CMM practioner and other team members. Intended outcomes should have measures that:

- Differentiate provider performance: clinical processes, effectiveness and diagnostic/treatment accuracy
- Identify patient safety improvements and all-cause harm contributors
- Remove or close gaps in care
- Monitor care coordination and transitions
- Define high-performing provider teams, including clinical pharmacists
- Document patient and clinical relationships
- Document attainment of agreed upon expectations and goals

A limited number of medication-related quality outcomes measures are available and embedded in various measures data sets, including the Healthcare Effectiveness and Information Data Set (HEDIS), Pharmacy Quality Alliance (PQA), National Quality Forum (NQF) and those within various accountable care organizations. Examples include reduction of 30-days readmission for medication-dependent disease states and medication therapy problem resolution measures. The benefit of using measures from these organizations is that they are vetted through a rigorous systematic approval process where they are developed and tested to define specifications for data collection and evaluated for importance, scientific rigor, feasibility and usability in the health care arena. The majority of available measures are process and not outcome measures. Despite the enormous number of measures, many gaps in measurement remain, especially for medication optimization and associated outcomes, cost and patient perceptions of care.

Accountability Measures

GTMRx's CMM Metrics Group of the Evidence-Based Resources Subgroup has identified the best available metrics that support CMM. There are important gaps, including measurement of patient and caregiver needs, preferences or values, non-surrogate outcomes and accurate reflections of costs and cost avoidance. GTMRx recommends use of the following metrics within each category:

- **Structure:** Fidelity of CMM is critical to ensuring the correct structure exists in the CMM service provided in order to attribute results of process and outcome measures to CMM. Use of the CMM Practice Management Assessment tool for structure and workflow of CMM fidelity is recommended.[29]

- **Process:** Process measures are intended to reflect evidence-based or established best practices in processes of care, with the assumption of adherence to such practices will result in improved outcomes. Improvement in numerous process measures have been demonstrated with CMM services. These include medication adherence, appropriate medication use in certain populations (e.g., statin use in patients with cardiovascular disease or diabetes) and avoidance of harmful medications (e.g., avoidable medications in the elderly).

- **Outcomes:** Outcome measures are divided into clinical, humanistic and economic.
  - **Clinical:** As noted, surrogate outcomes are often used. Those available for CMM are focused on medication management of certain chronic diseases (e.g., A1c, blood pressure). Hospitalization rates for certain conditions are additional clinical outcome measures for CMM (e.g., heart failure, COPD/asthma).
  - **Economic:** The most commonly utilized measures relate to resource consumption (e.g., hospitalizations), or an estimate of cost avoidance; however, the definition for types of measures are not standardized. Therefore, correct interpretation should be considered when using these measures.
  - **Humanistic:** Patients are involved in their care plan; therefore patients, clinicians and team experience with CMM via survey or interview are available to use for measurement.

29 Pestka DL, Frail CK, Sorge LA, et al. Development of the comprehensive medication management practice management assessment tool: A resource to assess and prioritize areas for practice improvement. JACCP. March 2020: 3(2): 448-454.

In assessing currently available quality measures, existing challenges in quality measurement should emphasize the following:

- Development and best utilization of true outcome measures.
- Evidence showing that health is improved for the patient.
- Collection of a combination of objective and subjective measures such as patient reported outcomes.
- Awareness of the effect on measurement of differences in CMM implementation across the country due to state practice regulations, health care systems and payor processes.
- Attribution challenges that are team versus individual provider contributions.

The role of CMM is to improve health outcomes, safety and adherence while reducing overall health care costs. Health care teams and payors need to specify expected deliverables, include contributions to safety and savings and be accountable for unanticipated expenditures.

Additionally, optimized medication use through CMM provides improved quality of care which then improves quality measure results, leading to higher Star or plan ratings.[30]

CMM Payment Models and the Movement to Value-Based Health Care Systems

There are various business models for integration of CMM into health care practices[31] such as vertically integrated health systems, use of community pharmacies, primary care practices, public payors, ACOs, employer sponsored programs, etc. Each of these models may require different types of payment systems.

The health care payment system is slowly but steadily moving away from a fee-for-service (FFS) reimbursement system to a value-based (VB) reimbursement system where quality is valued over quantity. CMM is a natural fit for VB systems because they both embrace the same values of patient-centered outcomes and lower overall health costs. However, the type of VB payment system is critical to the success of CMM.

The current FFS system is based upon retroactive payments for services that have already been rendered. It is not a system that is conducive in looking at the future health of a patient—especially one with multiple chronic care conditions. Under FFS, there is no assurance of quality of services and the provider is financially penalized if the health status of patients improves and there are less patient-provider interactions. FFS has proven to be very expensive and unsustainable. FFS does not pay for some services that would contribute to quality including multiple needed communications with patients outside of office visits to ensure safety and efficacy of the treatment plan.

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30 Tripicchio K, Ozawa S, Urick B, Easter J. Making the Economic Value Proposition for Pharmacist Comprehensive Medication Management (CMM) in Primary Care: A Conceptual Framework. *Research in Social and Administrative Pharmacy.* 2020. 16(10): 1416-1421.

31 Pham K. (2020). Alternative payment approaches for advancing comprehensive medication management in primary care. *Pharmacy practice.* 2020. 18(4):2238. https://doi.org/10.18549/PharmPract.2020.4.2238.

Fee for Service Limitations

Today, we lack an adequate payment mechanism for CMM as a reimbursable service under fee-for-service models through CMS (Established patient E/M codes that properly reflect the work provided may not be used "incident to" the physician when an integrated pharmacist provides CMM).[32] Unfortunately, clinicians must squeeze CMM on top of their other responsibilities often in shorter visit times dictated by limited FFS payment pressures. The resulting effect is suboptimal medication-related care and outcomes and increased expenses to the health care system. Thus, to integrate CMM services, organizations must use as many eligible codes that allow either direct or indirect (clinical pharmacists functioning as auxiliary personnel or clinical staff) generation of revenue that often does not match the breadth, depth or resources needed to provide effective CMM services.

Many health-systems and payors who have included CMM in their benefit model utilize mixed or hybrid payment methods to address the compensation issue. FFS along with risk-sharing or cost-saving VB reimbursement appears to be the most common payment methodology.[33] CMM clinicians most commonly generate revenue for their services using chronic care management CPT codes and/or established patient codes that are incident to the physician or eligible clinician who must submit the bill for services provided.[34] Additionally, CMM clinicians enhance quality markers leading to decreased system, payor and patient costs. Below is a summary of the codes commonly used in patient care visits. These codes do not provide a reasonable reimbursement for CMM services.

E/M Established Patient Codes:
CPT codes 99211

- Under Medicare rules, physicians can only bill services of clinical pharmacists on the care team at the 99211 level, rather than 99212-99215, which reflects the true complexity of CMM services. CMM visits that average 30 minutes in length are reimbursed at a level intended for services requiring less than 5 minutes.[35]
- "Incident to rules" are complex and may hinder current team-based practice.
- Medicare and commercial plans may differ in rules and reimbursement, adding to complexity and confusion.

Transitional Care Management:
CPT code(s) 99495 or 99496

- If not connected to a larger health system, it is difficult to meet the billing time requirements.
- Rules minimize and impede instead of maximizing the role of health care team members supporting the physician in managing transitions, including CMM services, making the codes difficult to use in current team-based practice models.

continued

32 Centers for Medicare & Medicaid Services, Physician Fee Schedule CY 2021 Final Rule, 85 Fed. Reg. 84592-3. 2020. https://www.govinfo.gov/content/pkg/FR-2020-12-28/pdf/2020-26815.pdf (Limiting physicians supervising pharmacist-provided incident-to services to billing code 99211 for those services, despite the fact that many of the services provided by pharmacists meet the complexity and duration criteria set forth for code 99212-14).

33 Alternative Payment Model APM Framework. Health Care Payment Learning & Action Network. 2017. https://hcp-lan.org/workproducts/apm-refresh-whitepaper-final.pdf

34 Centers for Medicare and Medicaid Services. Chronic Care Management Services. Medicare Learning Network. July 2019. https://www.cms.gov/outreach-and-education/medicare-learning-network-mln/mlnproducts/downloads/chroniccaremanagement.pdf

35 CMS. Medicare Program; CY 2020 Revisions to Payment Policies Under the Physician Fee Schedule and Other Changes to Part B Payment Policies. 2020. Federal Register/Vol. 84, No. 221:62568-63563.

Chronic Care Management (CCM): CPT code(s) 99490, 99491, 99487	• Although these codes encourage medication management and use of clinical staff, the rules and reimbursement make the codes difficult to use and often are insufficient to cover the cost of optimally providing care. • There is no differentiation in payment based on outcomes of care. The is no incentive to use a clinical staff member with the best training to ensure desired outcomes.
Medication Therapy Management (MTM): CPT code(s) 99605, 99606, 99607	• Codes are not recognized by traditional Medicare and many commercial payors. • Limited to Medicare Part D where plans may or may not use these codes. • Eligibility determined by payor and Medicare Part D rules miss patients who may need CMM and impedes coordination of care or team-based care; those caring for the patient have no input. • Most billing is through a third party, reducing reimbursement and affecting sustainability. • Documentation requirements are poorly integrated into patient care systems requiring extensive additional data entry. • In the retail setting, a lack of access to full health information/ EHR leads to time inefficiency and inability to provide high-quality evaluations.
Education and Training for Self-Management: CPT codes 98960-98962	• Not reimbursed by Medicare but may be by other payors.
Diabetes Self-Management/ Training (DSMT/E): G0108 and G0109	• Unable to sustain CMM as it is specialized to diabetic patients and only covers one element of many that comprise CMM, which is education.

Move to Value-Based Payment Offers Opportunity for CMM

In the past several years, new value-based payment models have been utilized by both health care practices and CMM programs. The Center for Healthcare Quality and Payment Reform (CHQPR), established in 2008, has contributed to the payment reform area by developing a new VB payment methodology called the Patient-Centered Payment.[36] In July of 2021, CHQPR issued the report, Patient-Centered Payment for Primary Care, which analyzed and compared FFS and VB payment plans. The payment plans outlined below each have an opportunity to incorporate CMM:

1. **Pay for Performance (P4P)** is a variation of the FFS system which has no new fees for unpaid services. Payments are not enough for quality of care, and there isn't a standard of care to be measured. A clinician is also penalized if there are factors beyond their control. There is no assurance of quality care for each patient.

2. **"Shared Savings"** is a variation of P4P programs with its same flaws and where the clinician may receive additional payments if their total costs are less than a target goal. One folly is there is an incentive to not order a test, procedure or medication because it would create savings.

3. **Additional Service Fees** are available only for narrowly defined services for specific types of patients. They are not enough to cover the cost of high-quality care and have tight restrictions to prevent inappropriate uses that can impede actual needed services.

4. **Population-Based Payment** occur where practices receive a monthly payment for each patient instead of office visit fees. The monthly payment is based upon the quantity of patients rather than the number of services rendered. Payments may be higher for chronic care patients and may be adjusted based upon quality scores and what the practice earned under the FFS model. The hope is that lower cost patients would subsidize higher cost patients at a level of high quality. There is no assurance that will be the case.

The Patient-Centered Payment (PCP) system created by CHQPR is VB and may avoid the down-sides of the other payment models which are essentially still FFS–based. The PCP system is particularly suited for primary care practices with wellness programs and chronic care management. The tenets of the PCP system are:

- The payment for each patient is based on the services that a patient needs and wants to receive.

- The payment for each patient ensures that a patient receives high-quality care in the most efficient way.

- The payment amounts are adequate to support the cost of delivering services to each patient in a high-quality manner.

- The payments are affordable for patients with and without insurance.

36 Center for Healthcare Quality and Patient Reform. Patient-Centered Payment for Primary Care. Chqpr.org

CMM is well suited for any of the value-based payment models to provide medication optimization. Eliminating current barriers to CMM will let the CMM care team, including the clinical pharmacist, to practice at the top of their skills. Because CMM is value oriented, it will improve the bottom line of any of the business models that may develop in the marketplace. CMM meets its value proposition of improving provider work life, patient satisfaction, access and quality of care while avoiding unnecessary costs and saving money for the overall health system. Stakeholder values should be aligned with the value proposition. GTMR

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