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Issue Brief | November 2019

Success at Scale: Comprehensive Medication Management in Primary Care

Scaling successful innovations is difficult, particularly in health care. For primary care practices, success in a new era of value-based, personalized care depends on their ability to coordinate with an expanded care team beyond the PCP and office staff.

One area of innovation has been to implement team-based care that utilizes the clinical pharmacist as an integral member of the health care team offering comprehensive medication management (CMM) services to optimize medications and improve care. As the GTMRx Institute asks, "Is the patient receiving the right medication at the right time in the right dose to meet patient and clinical goals of therapy?"

Putting CMM into practice in primary care means transforming and adapting practice-based operations in a way that ensures the necessary resources and support are available. However, there has been little formal guidance for primary care practices on how to do just that. Until now.

New research offers that much needed guidance on how to implement CMM in the real world of primary care. Mary Roth McClurg, Pharm.D., MHS, of the UNC Eshelman School of Pharmacy and Todd D. Sorensen, Pharm.D., of the College of Pharmacy, University of Minnesota, are part of a research team that reviewed 35 primary care practices with the most advanced approach to CMM. Based on this research, they've developed a framework for putting CMM into practice.

Creating a common language: Defining CMM terms

Language is the foundation of learning, of civilization—and change. It follows, then, that to understand CMM, we need a common language that describes and defines it. Until recently, we didn't really have one; many organizations and providers may embrace the concept but don't always grasp what it involves.

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>
> *C. Edwin Webb, Pharm.D., MPH, FCCP, senior policy advisor to the executive director and board of regents, American College of Clinical Pharmacy, GTMRx board member*

"One of the things that we learned really early in interviewing clinical pharmacists integrated within primary care practices providing CMM is there was a lot of inconsistency in how they were defining CMM," McClurg explains. "So while they embraced the practice of CMM in general, their definition of what it meant to actually conduct or operationalize CMM in their clinics did vary."

McClurg is co-principal investigator on a $2.4 million grant from the American College of Clinical Pharmacy (ACCP) to enhance primary care medical practice through delivery of comprehensive medication management. The three-year study involves 35 mature primary care practice sites providing CMM across five states.

CMM is a team-based process that includes a clinical pharmacist as part of the team. It is

> *The standard of care that ensures each patient's medications (whether they are 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 comorbidities and other medications being taken, and able to be taken by the patient as intended.*[1]

[1] McInnis T, Webb E, and Strand L. *The Patient-Centered Medical Home: Integrating Comprehensive Medication Management to Optimize Patient Outcomes,* Patient Centered Primary Care Collaborative, June 2012

Before moving into the framework, let's look at what CMM is and isn't.

CMM: Pharmacist is a fully integrated member of the care team

To understand CMM, it's important to distinguish between clinical pharmacists' CMM practice activities and the processes of dispensing. The dispensing of medication, whether done in a health system or retail pharmacy or via mail order ensures that patients *get* their medications. CMM, on the other hand, is a value-added *service* that should wrap around any dispensing of medications that occurs, especially for high-risk patients. CMM ensures that the medications the patient receives are optimized for that patient to improve the quality of care.

C. Edwin Webb, Pharm.D., MPH, FCCP, senior policy advisor to the executive director and board of regents, American College of Clinical Pharmacy, GTMRx board member points to issues of patient centeredness. "If you think about

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health care delivery in the context of what serves patients best, patients' access to their medication should be dictated in large measure by patient preference and affordability."

The real question, he says, is this: Are they getting efficient access to the "right medications for them?" And that—the most appropriate medication-related care—is what CMM offers.

What is the ideal setting to provide CMM services?

McClurg and Sorensen's research focuses largely on clinical pharmacists embedded in primary care practices. Based on this research, they believe the primary care practice is an ideal setting for offering CMM. Among their reasons:

- The pharmacist has access to the electronic medical record;
- Collaborative relationships can be developed with the primary care providers, other members of the health care team and the patients;
- The setting is conducive to ensuring effective communication within the team.

Both McClurg and Sorensen acknowledge that CMM *can* be delivered in other settings, as long as access to the electronic medical record and medication record can be assured *and* a trusting, collaborative relationship exists among the pharmacist, the primary

care provider and team and the patient. Through other collaborations they are engaged in, research is ongoing that examines the feasibility and impact of CMM delivered to high-risk patients via telemedicine.

Whatever the setting, McClurg emphasizes that the CMM Patient Care Process should not—with the exception of a few nuances—vary from setting to setting. "We believe each of the steps of the comprehensive process (the essential functions and the operational definitions) are applicable and all hold true, whether the setting is acute care, outpatient care or telemedicine."

Three-part framework

Recognizing that scalability of this process required defining this systematic approach, McClurg and Sorensen's team established a three-part framework as a way to level set and offer a roadmap for *consistent* implementation of CMM services across practices: (See Figure 1). The researchers felt that in order to be most successful teams should:

A. Establish a Shared CMM Philosophy of Practice that establishes the values and beliefs that guide the pharmacist's action and behaviors as a member of an interdisciplinary, patient-centered care team and serves to foster a pharmacist-patient and pharmacist-physician relationship that is built on trust. The research resulted in five core tenets that shape the philosophy of practice for CMM:

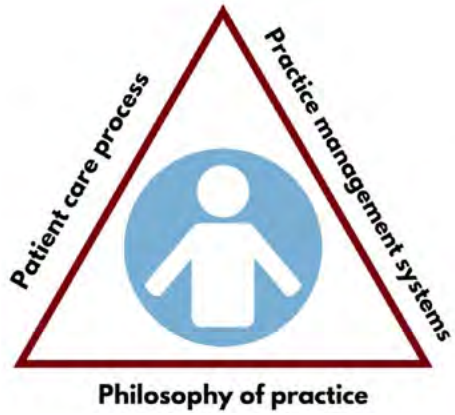
1. Meeting a societal need
2. Assuming responsibility for optimizing medication use
3. Embracing a patient-centered approach
4. Caring through an ongoing patient-pharmacist relationship
5. Working as a collaborative member of the health care team

B. Establish the Patient Care Process. The CMM Patient Care Process advocates that the pharmacist assumes responsibility for optimizing medications for the patient[2], which includes developing a care plan in collaboration with the patient and the patient's health care providers to address the identified medication therapy problems. In this case, McClurg and Sorensen recommend that regardless of the prescriber (whether primary care provider or specialist), the pharmacist is reaching out to the prescriber to develop an optimal care plan for the patient and working with that prescriber and the patient to ensure the plan has been implemented accordingly.

Through their research, the team identified the five essential functions that frame the delivery of CMM.

1. **Collect and Analyze Information:** The pharmacist assures the collection of the necessary subjective and objective information about the patient and is responsible for analyzing it in order to understand the relevant medical/medication history and clinical status of the patient.

[2] Pestka, DL, Frail, CK, Sorge, LA, Funk, KA, Roth McClurg, MT, Sorensen, TD. The practice management components needed to support comprehensive medication management in primary care clinics. *J Am Coll Clin Pharm.* 2019; 1–10. https://doi.org/10.1002/jac5.1181



- **CMM Philosophy of Practice** Establish core tenets of a CMM philosophy of practice
- **CMM Patient Care Process** Establish a common definition for the profession
- **CMM Practice Management** Establish a framework and common definition for the profession

Figure 1 Three Components of CMM

2. **Assess the Information and Formulate a Medication Therapy Problem List:** The pharmacist assesses the information collected and formulates a problem list consisting of the patient's active medical problems and medication therapy problems in order to prioritize recommendations to optimize medication use and achieve clinical goals.

3. **Develop the Care Plan:** The pharmacist develops an individualized, evidence-based care plan, in collaboration with other health care professionals and the patient or caregiver.

4. **Implement the Care Plan:** The pharmacist implements the care plan in collaboration with other health care professionals and the patient or caregiver.

5. **Follow up and Monitor:** The pharmacist provides ongoing follow-up and monitoring to optimize the care plan and identify and resolve medication therapy problems, with the goal of optimizing medication use and improving care.

Most importantly, this research resulted in operational definitions that explicitly define how each essential function should be operationalized to ensure that CMM is implemented consistently and with fidelity to improve patient outcomes.

McClurg and Sorensen believe these "common terms describing implementation activities" are essential to ensure CMM is valued as distinct from *and* complementary to the care delivered by the patient's primary care provider. The activities outlined in their Patient Care Process form the basis for the operational definitions of the CMM Patient Care Process, outlined in The CMM in Primary Care Research Team's *The Patient Care Process for Delivering Comprehensive Medication Management.*[3] Figure 2 (see next page) illustrates how these align with the 10 steps to CMM. The document was developed for primary care and other health care providers, payers, clinical pharmacists, patients, students and educators.

C. Build a Practice Management System to support CMM[4]. These are the structural and system-level supports that enable the efficiency, effectiveness and sustainability of CMM services within the practice. The research resulted in Practice Management supports that fall into five domains: organizational support, care delivery processes, care team engagement, evaluating CMM services and ensuring consistent and quality care. (See Figure 3, page 6.)

CMM's rigor distinguishes it from MTM

One hurdle to a common understanding of CMM is that it's often confused with medication therapy management (MTM).

[3] CMM in Primary Care Research Team. The Patient Care Process for Delivering Comprehensive Medication Management (CMM): Optimizing Medication Use in Patient-Centered, Team-Based Care Settings. July 2018. Available at accp.com/cmm_care_process.

[4] op cit.

At its most basic, CMM is a comprehensive approach to assessing and optimizing *all* of the patient's medications in collaboration with a team. MTM, which is associated with Medicare part D, "means many different things to many people," McClurg says.

It comes down to rigor, says Webb. "I think in many respects 'rigor' is the defining differential word between MTM programs, particularly in the part D space, and the rigor of both the process and purpose of CMM," he argues. CMM is more rigorous, much more team-based, information-focused and patient-centric simply because of the resources required to do CMM well.

The distinction is particularly important for plans and payers, he says, given that many feel they're still not getting the value out of medication usage in their patient population. CMM may give them the value they seek. "The experience of these practices suggests that, appropriately implemented, rigorous comprehensive medication management moves the needle on quality outcomes, patient satisfaction and provider satisfaction," he says. "Those are all things that MTM simply isn't structured to accomplish because it's a siloed operation."

As for health plans…

It's not just primary care practices that need to be paying attention to CMM: Health plans need to take a long look at CMM, Webb says.

"A health plan has already decided it will offer medical services. It's decided it's going to have physical therapy services or clinical social work services or something else." Health plans need to think about the provision of team-based CMM the same way they decide how to implement and provide and pay for other clinical services that benefit their clients' health and wellness. But it must be integrated—not a carveout or a set-aside. "It's really no different than any of the other broad services they provide to their clients."

Some health plans are already paying—directly or indirectly—for CMM services. (See sidebar on page 7.)

Health plans, like every other player in the health care delivery system, have good reason to get the medications right.

10 Steps to Achieve CMM

#1 Identify patients that have not achieved clinical goals of therapy.

#2 Understand the patient's personal medication experience, history, preferences, & beliefs.

#3 Identify actual use patterns of all medications including OTCs, bioactive supplements & prescribed medications.

#4 Assess each medication for appropriateness, effectiveness, safety (including drug interactions) & adherence, focusing on achievement of the clinical goals for each therapy.

#5 Identify all drug therapy problems.

#6 Develop a care plan addressing recommended steps including therapeutic changes needed to achieve optimal outcomes.

#7 Ensure patient agrees with & understands care plan which is communicated to the prescriber or provider for content & support.

#8 Document all steps & current clinical status vs. goals of therapy.

#9 Follow-up evaluations are critical to determine effects of changes, reassess actual outcomes & recommend further therapeutic changes to achieve desired clinical goals & outcomes.achieve optimal outcomes.

#10 CMM is a reiterative process! Care is coordinated with other team members & personalized goals of therapy are understood by all team members.

Alignment of the 10 Steps of CMM with the CMM in Primary Care Research Findings

- **#1** Practice Management System
- **#2** Essential Function 1 (operational definition, 1.b.)
- **#3** Essential Function 1 (operational definition, 1.b.)
- **#4** Essential Function 1
- **#5** Essential Function 2 (operational definition, 2.f.)
- **#6** Essential Function 3 (operational definition, 3.a.)
- **#7** Essential Function 4 (operational definition, 4.a., 4.b.)
- **#8** Essential Function 4 (operational definition, 4.g.)
- **#9** Essential Function 5
- **#10** Essential Function 5

Figure 2

Joy in practice—CMM and PCP satisfaction

One of the most heartening findings of the UNC study so far is that CMM reduces clinician burnout and increases joy in practice among primary care providers.

One of the early papers to come out of McClurg and Sorensen's work is "Primary Care Providers Believe That Comprehensive Medication Management Improves Their Work-Life."[i] It specifically ties decreased burnout and improved joy to embedding a clinical pharmacist in the primary care team. This is an important finding, given that burnout is epidemic among health care professionals; an estimated 35% to 54% have substantial symptoms of burnout.[ii]

To demonstrate the connection between CMM and reduced burnout, the research team crosswalked the seven drivers of burnout and engagement[iii] with some of the themes from the primary care physician's perception of CMM. (See figure below.)

The ability to work closely with another professional to care for patients and discuss care plans were cited as key to increasing satisfaction and reducing mental exhaustion. As one of the PCP research participants shared, "I think a lot of the burnout comes from all the multiple decisions you have to make in a day. That can be exhausting. Having someone you can collaborate with on some of those things is great… that collaboration absolutely reduces burnout."

Seven Drivers of Burnout and Engagement*	Related Themes from PCP Perception of CMM
Workload and job demands	▪ Decreased workload ▪ Achievement of quality measure
Work life integration	▪ Decreased workload ▪ Decreased mental exhaustion
Social support and community at work	▪ Collaborative partner ▪ Reassurance
Efficiency and resources	▪ Added skillset/resource ▪ Decreased workload ▪ Increased provider access
Meaning in work	▪ Satisfaction patients are receiving better care ▪ Enhanced professional learning
Organizational culture and values	▪ Findings do not connect to this driver
Control and Flexibility	▪ Findings do not connect to this driver

[i] Funk KA, et al. "Primary Care Providers Believe That Comprehensive Medication Management Improves Their Work-Life." *J Am Board Fam Med.* 2019 Jul-Aug;32(4):462-473

[ii] National Academy of Medicine. *Taking Action Against Clinician Burnout: A Systems Approach to Professional Well-Being* Oct. 2019

[iii] Shanafelt TD, et al. Mayo Clin Proc 2015.

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Too much is at stake to get them wrong. More than 275,000 avoidable deaths annually are tied to non-optimized medication use—more than a quarter million lives lost—because we're not applying a systematic approach to medication use

Elements of a Practice Management System

Organizational Support
- Leadership support
- Availability and adequacy of clinic space
- Fiscal resources to support service delivery

Care Team Engagement
- Availability of support staff
- Interprofessional collaboration
- Presence and scope of CPAs

Care Delivery Processes
- Rational methods to identifying patients in need of CMM
- Effective systems for patient scheduling
- Systems for efficient and effective care documentation

CMM Program Evaluation
- Use of measurement strategies
- Reporting results to improve and expand

Ensuring Consistent and Quality Care
- Quality Assurance Processes
- Practitioner Training and Coaching

Figure 3

to every patient. Altogether, avoidable illness and death resulting from non-optimized medication therapy cost $528.4 billion in 2016.[5] "We must work together to empower and support physicians, clinical pharmacists and other medication-focused members of the care team, so that together they can ensure that medications are appropriate, safe, effective and precise," Webb says. GTMR

[5] Watanabe, JH, McInnis, T, Hirsch, JD. "Cost of Prescription Drug–Related Morbidity and Mortality." *Annals of Pharmacotherapy,* 2018; 52(9)

Sustainability: Who pays, and how?

There are pockets of excellence across the country in primary care practices where CMM is not only bringing great value, but is sustainable. "In these cases, the pharmacists and the CMM services are fully integrated within the practices. Further, organization leadership, the health care providers and the pharmacists all have a shared philosophy and belief around the importance of CMM for providing quality patient care," McClurg says.

That said, McClurg noted that there is still a lot of work to do to replicate and scale the CMM model in primary care because there isn't a single approach to establishing sustainability—it is highly dependent on linking the value of CMM services to the priorities of the host organization. In addition, there is currently no one blueprint for paying for CMM. In some models, the practice or the health system supports the pharmacists. In other cases, pharmacists are supported indirectly by payers (e.g., value-based contracts). Other models include academic support.

"We have observed that organizations that are most successful in creating sustainability use a multifaceted approach to the development of their value proposition," she reports. This typically includes demonstration of impact on clinical quality, cost savings, patient experience and medical provider experience (the Quadruple Aim), along with a reasonable approach to capture direct patient care revenue as members of the team. In some organizations this is largely driven through value-based approaches to payment. In other organizations, a combination of fee-for-service and value-based payments are employed. Those organizations engaged in value-based contracting tend to see greater value from CMM services and choose to invest in the service. Those practices using fee-for-service alone will not likely achieve sustainability or expansion goals.

"While there are certainly local stories of success and scale, we need to build the business case for such services and continue efforts to replicate and scale, both locally and nationally," says McClurg. ■

About the Experts

Mary Roth McClurg, Pharm.D., MHS, Professor and Executive Vice Dean-Chief Academic Officer, UNC Eshelman School of Pharmacy

Mary Roth McClurg, Pharm.D., MHS, practiced as a clinical pharmacist in inpatient medicine within the VA Health System as well as primary care within the VA Health System, providing direct patient care as part of a collaborative team. In 2001, McClurg moved to UNC Health Systems and developed a clinical practice in geriatrics with the UNC Department of Geriatric Medicine. In 2006, McClurg assumed a tenure track position as assistant professor to focus her efforts on research and began to transition out of clinical practice.

McClurg completed her Pharm.D. and residency training at the St. Louis College of Pharmacy and earned a master's degree in health sciences in clinical research from Duke University School of Medicine. She is a fellow of the American College of Clinical Pharmacy.

(Continued)

About the Experts *(Continued)*

Todd D. Sorensen, Pharm.D., Professor and Associate Dean, Strategic Initiatives and Innovation, College of Pharmacy, University of Minnesota

Todd Sorensen, Pharm.D., is professor and associate dean for strategic initiatives and innovation at the College of Pharmacy, University of Minnesota. He also serves as the executive director of the Alliance for Integrated Medication Management, a non-profit organization that engages health care institutions in practice transformation activities that support improved medication use. He currently serves as president of the American Association of Colleges of Pharmacy.

C. Edwin Webb, Pharm.D., MPH, FCCP, Senior Policy Advisor to the Executive Director and Board of Regents, American College of Clinical Pharmacy, GTMRx Board Member

C. Edwin Webb serves as the senior policy advisor to the executive director and Board of Regents of the American College of Clinical Pharmacy, the national professional and scientific society of pharmacists providing leadership in clinical pharmacy practice, research and education.

He joined the ACCP staff in 2000, establishing and managing its Washington, DC office until his retirement from the senior executive staff in August 2018.

Ed holds bachelor's (1972) and doctor of pharmacy (1973) degrees from the University of Tennessee and a master's degree in public health with a major in health policy and administration from the University of North Carolina Gillings School of Global Public Health (1985).

Ed has more than 30 years of national pharmacy association executive experience in the areas of policy analysis advocacy and professional affairs, having also served on the staffs of the American Association of Colleges of Pharmacy (1992-2000) and the American Pharmacists Association (1987-1992).

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Our **VISION** is to enhance life by ensuring appropriate and personalized use of medication and gene therapies.

Our **MISSION** is to bring critical stakeholders together, bound by the urgent need to optimize outcomes and reduce costs by *getting the medications right.*

About the GTMRx Institute The GTMRx Institute is a catalyst for change that brings critical stakeholders together, bound by the urgent need to get the medications right. We are physicians, pharmacists, caregivers health IT innovators, drug and diagnostics companies, consumer groups, employers, payers and health systems—aligned to save lives and save money through comprehensive medication management, or CMM. By showcasing evidence and innovation, we motivate practice transformation and push payment and policy reform. Together, we ACT to champion appropriate, effective, safe and precise use of medication and gene therapies. Learn more at gtmr.org.

11/22/19