Change Package for implementing comprehensive medication management (CMM) for patients with cardio-kidney-metabolic (CKM) conditions

Developed by the MedOpt-CKM Team (2026)
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Purpose:

- The CMM-CKM Change Package is designed to help pharmacists and implementation teams implement comprehensive medication management (CMM) with fidelity for patients with cardiovascular-kidney-metabolic syndrome (CKM). The Change Package also helps to navigate the previously developed CMM Implementation System Pathway and guide them through the 10-step implementation system for implementing (CMM) for patients with CKM. This Change Package is meant to be a living document that will be updated over time.

Background:

- The Change Package is built to augment (not replace) the CMM Implementation Pathway by adding insights from MedOpt-CKM study participants and resources specific to CKM. The Change Package was developed as part of MedOpt-CKM which is a broader project that studied the implementation of CMM for patients with CKM. To learn more about the CMM Implementation system, read Livet M, et al.[1].

Before you get started:

- Take a step back to see where your organization is regarding the commitment to implement CMM for patients with CKM:
  - Determine whether overall benefit and purpose of implementing CMM for patients with CKM conditions has been identified
  - Ensure there is clarity around the practice model of CMM and a commitment to practice CMM
  - Ensure that an initial financial commitment is in place and that resources to support the change are available.
  - Read the change package in its entirety as the “steps” outlined are not linear and teams will be continually moving back and forth between them.

How to use:

- We highly suggest using the CMM Implementation Pathway website (https://www.optimizingmeds.org/cmm-implementation-system/cmm-implementation-pathway/) to guide implementation and then visit this document for more context, ideas, and resources specific to CKM. The “Overview” column summarizes general implementation steps. The “Implementation Experiences” and “Implementation Quotes” columns provide insights from the MedOpt-CKM study participants. Finally, the “Implementation Actions” columns provide more specific actions and the ‘Additional Resources’ column provides some helpful resources. Note: if printing, this document is formatted to 11x17 in.
- To learn more about the MedOpt-CKM participant experiences in implementing CMM for CKM patients, read:
  - Gaps, Barriers and Facilitators to Implementing Comprehensive Medication Management in Cardiovascular-Kidney-Metabolic care: a Qualitative Study. JACCP. https://doi.org/10.1002/jac5.70253.
  - Implementation readiness for establishing cardiovascular-kidney-metabolic comprehensive medication management: survey results from five health systems. (in progress)

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[1]Livet M, Blanchard C, Sorensen TD, McClurg MR. An implementation system for medication optimization: Operationalizing comprehensive medication management in primary care. JACCP. 2018;1(1):14-20. https://doi.org/10.1002/jac5.1037

Change Package Element and Description	**Overview:** *General description of implementation step*	**Implementation Experiences:** *Summary of MedOpt-CKM participant interviews and surveys relating to implementation step*	**Implementation Quotes:** *Quote(s) from MedOpt-CKM participants*	**Implementation Actions:** *In addition to visiting the CMM Implementation Pathway for each step, these suggested actions are based on MedOpt-CKM participant experience*	**Additional resources:** *Learn more about CMM and CKM for each implementation step*
Step 1: Get Started	Orient implementation team to: • Principles of CMM • Importance of applying a systematic CMM implementation approach • Role/benefit of CMM in CKM	• Pharmacists, health system leaders & other care team members will need clarity on: • What CMM is • How CMM differs from other services (e.g., MTM, medication reconciliation) • Lack of familiarity with CMM, terms, & process • Desire for tools to understand CMM and define roles	**"***The thing that the patients always seem to bring up is that they're like, well, why didn't my nephrologist talk about my heart disease? So, I think the first thing to begin with is acknowledging that there's more parts to a person than just whatever they're dealing with... introducing these concepts and then introducing these [CMM] models of care is a really good way for [patients] to understand that everything is holistic*." **– Physician**	• Define CMM using a defined practice model • Ensure pharmacists are trained in CMM • Educate health system leaders & other team members about CMM and evidence of benefits to providing CMM • Develop and/or distribute tools to support CMM service	• What is CMM? • CMM Philosophy of Practice • Optimizing Medications for Better Health: CMM Evidence and Research
Step 2: Identify Needs and Assess Fit	• Evaluate current services, patient population, and workflow to identify unmet CKM care needs • Consider how CMM can address current medication-related gaps in CKM care and organizational priorities	• Identified CMM service needs included: • Identify appropriate patients for a CKM-CMM service • Identify existing referral & communication pathways • Education of patients on the value of CKM CMM visits with a pharmacist (e.g., value add)	"*…there's a great opportunity [to improve CKM management through CMM], but [the CMM service] is either unknown or not well used."* **– Pharmacy Administrator** "*I'm very attuned to the CKM syndrome and the use of guideline-directed medical therapies for our patients. It's unfortunate thought, that there are still many physicians out there who aren't familiar with the CKM syndrome as well as the guidelines related to the medical therapies."* **– Physician**	• Understand organization's mission and priorities around patient experience, outcomes, and finances • Establish a health system or clinic-specific process for identifying CKM patients who qualify for the CKM CMM service • Identify existing referral structure and processes • Develop patient handouts and/or FAQ documents highlight the value of CMM in CKM	• Identifying the Needs of Your Organization • Making the Business Case to Sustain CMM (PDF) • American Heart Association (AHA) CKM Health Initiative • KDIGO 2024 Clinical Practice Guideline for the Evaluation and Management of CKD
Step 3: Establish CMM-CKM Specific Goals	• Set clear and measurable goals for CKM-A1CCMM service in collaboration with health system/clinic leadership and ensure goals are aligned with: • Population needs • Clinical and organizational priorities • Implementation capabilities	• It is important to establish CKM-specific goals that are realistic and achievable, which may include: • CMM program metrics (referrals, number of visits, cost outcomes, prevention of hospitalization, identification and resolution of medication therapy problems [MTPs], patient and provider satisfaction) • Clinical outcomes (achievement of treatment goals [e.g., A1C, blood pressure, albuminuria], initiation and maintaining CKM guideline-directed therapies)	"*…we track goals of therapy: A1c, slowing the progression of CKD, blood pressure. As far as leadership…[they are] interested in those improvements as well, but also the financial return…to justify the costs of continuing to have pharmacists available."* **– Pharmacist** "*I do think patient satisfaction is another good marker, and something that can be powerful to be able to have feedback from a patient on how they felt about the pharmacist intervention."* **– Pharmacy Administrator**	• Establish CMM program metrics • Establish desired outcomes for CKM patients (for example):* ○ CKD screening (eGFR, UACR) ○ MTP identification and resolution ○ GDMT initiated and maintained ○ CKM metric tracking (for example) ▪ BP, obesity markers ▪ BG, A1c, eGFR, UACR, lipid panel ▪ ED and hospitalization for CVD, CKD, AKI, diabetes-related events ▪ Total cost of care ▪ Patient and HCP satisfaction • Determine methods for tracking metrics (eg, data source, frequency, analysis)	• Develop Your CMM Bold Aim • KDIGO 2024 CKD Guideline • American Diabetes Association (ADA) Standards of Care in Diabetes - 2025 • Advancing Kidney Health through Optimal Medication Management (AKHOMM) • Medication Therapy Problem (MTP) Documentation • 2026 AHA/ACC/ADA/ASN Guideline for Prevention, Detection, Evaluation, and Management of CKM syndrome

Step 4: **Build Your Team**	• Strategically define roles and responsibilities of all team members involved in CKM CMM implementation and identify: • Core implementation team members • Key stakeholders • Clinical/administrative champions • Communication pathways & workflows	• Defining team member roles is important to successful implementation: • Identification of clinical champions • Delineation of roles across interprofessional team (inclusive of care team members and implementation, quality improvement, population health and clinical analytics personnel) • Define aspects of CMM-CKM care to be managed by specific members of the interprofessional team	*"…we created a chronic kidney disease design-team, and the CKD design-team included nephrologists, general practitioners, endocrinologists, etc. And we all met… to actually create algorithms, best practice alerts, etc. for CKD patients."* **– Physician** "*I think we should ideally move to multidisciplinary team care where we're all working together."* **– Physician**	• Engage administrative leadership and specialty clinicians for support of CKM-CMM service • Define and develop two different types of teams (they likely will be closely aligned) • **Implementation team –** focused on further implementing CMM to reach more CKM patients**:** • Identify champion to advocate for patient access to CMM-CKM • Engage partners across the organization, including IT and finance to develop data management strategy and financial model • **CKM care team –** focused on optimizing CKM care for patients**:** • Foster collaboration between pharmacy, primary care & specialty care • Include relevant CKM team members (e.g. pharmacy technicians, social workers, dietitians, care coordinators, patient visit schedulers, navigators) • Secure staff for support such as, scheduling, billing • Define roles for each care team member • Educate care team on CMM practice model	• Team Composition Guide • The CMM Value Proposition for Key Organization Stakeholders • Team Charter Template • 2026 AHA/ACC/ADA/AHA CKM Guideline: Interprofessional Team, Coordinated Services for CKM Management, including CMM
Step 5: **Assess and Build Readiness**	• Understand and strengthen the organization's readiness to implement a CKM-CMM service • Proactively address barriers such as: • Staff motivation and capacity • Space limitations • Clinical knowledge gaps	• Critical elements of building readiness identified include: • Securing adequate resources for CMM implementation (e.g., adequate number of trained pharmacists, support staff, space) • Buy-in from the clinic and/or health system to establish new care pathways for CMM-CKM services • Establish referral pathways for CMM that align with current structure	"*The majority [of education] is self-directed. Some [pharmacists] have stepped into specialty clinics and they get a lot of resources and a lot of direction from their clinic teams – which is helpful, and others have gotten nothing. So, we've seen both sides."* **– Pharmacy Administrator**	• Complete Readiness assessments with your implementation and clinical teams • Identify and prioritize findings from readiness assessment to include in the Implementation Plan (Step 7) • Educate non-pharmacist care team members about CMM value in CKM • Train pharmacists and other staff on standards of care for CKM conditions	• Readiness Guide • Readiness Thinking Worksheet • Readiness Priority Matrix • Readiness Action Plan and Monitoring Tool • ADA Institute of Learning • ASN DKD Collaborative • KDIGO 2024 Clinical Practice Guideline for the Evaluation and Management of CKD
Step 6: **Assess CMM Foundations**	• Evaluate current CMM practice and assess existing infrastructure and needs	• At baseline, pharmacists may provide a range of clinical services: • CMM • Medication therapy management (MTM) • Disease state management • Medication reconciliation • Assessing CMM foundations is critical to adequately implement a CKM-CMM service	*"I think [pharmacists do] a great job of being able to bring all [aspects of care] together and really look at that holistic picture within our practice."* **– Pharmacy Administrator** "*We are always [maintaining] that comprehensive model…and making sure that we're doing what we can, even if that's not necessarily the primary reason for the referral or for the visit."* **– Pharmacist**	• Assess current fidelity to the CMM process • Complete the CMM Philosophy of Practice Self-Assessment and discuss amongst team members • Define your service delivery system and process • Use the CMM Practice Management Assessment Tool (PMAT) to help identify areas for improvement to support CMM.	• CMM Practice Management Assessment Tool (PMAT) • CMM Philosophy of Practice Self-Assessment • CMM Patient Care Process Checklist • Defining Your Service Delivery System

Step 7: Develop Implementation Plan	• Build a specific, step-by-step plan for providing CMM in the CKM population • Key elements should include: • Fidelity to CMM practice model (Steps 1 and 6) • Team onboarding and training (Step 4) • Strategies to build readiness (Step 5) • Documentation and outcome tracking mechanisms (Step 3) • Key timelines and service milestones	Teams noted: • Need for structured: ○ Referral systems ○ Management protocols ○ Guidance on patient insurance policy constraints • Need for broad CPAs/CDTMs to cover breadth of CKM management • Importance of engaging relevant stakeholder groups to ensure development of protocols that maximize success from the start	"*I think all of the stakeholders [need to be involved], of course the pharmacy team, and then there are the providers. Patients actually as well as clinic managers and department heads."* **– Physician** "*I think there has been more data, and more guidelines supporting specific medications for these CKM conditions. I think there has been added interest and desire from specifically providers to do everything they can in this space."* **– Pharmacist**	• Establish referral systems, CPA/CDTM for CKM and plans for your CKM-CMM program • Develop and disseminate the same clinical management protocols to all stakeholders • Continue to develop and refine systems for outcome tracking • Consider use of the PQA Medication Therapy Problem (MTP) Framework Documentation resource • Key factors to consider include: • Aligning service with existing workflows (e.g., referrals, patient identification) • Understand and develop communication methods between care settings (e.g., EHR operability, virtual care conferences) • Establish automatic referrals to schedule visits with qualifying CKM patients	• Ensuring Effective Implementation • CMM Implementation Action Plan and Progress Monitoring Tool • Medication Therapy Problem (MTP) Documentation • Pharmacy Quality Alliance (PQA) Medication Therapy Problem Categories Framework
Step 8: Implement, Monitor, and Improve	• Carry out the implementation plan • Continuously refine the service based on CMM fidelity data, outcome monitoring and team feedback	• Pharmacists reported a need/desire for more support in: • Tracking patient progress and outcomes • Responding to patient-level challenges to participating in CMM services, self-management, medication access, and medication taking	*"I also think that we need to provide patients with the information because then the patients have the information, they are more empowered and then they ask the right questions."* **– Physician** *"We actually created a workbook that was interactive that the pharmacist went through with the patient and allowed them to pick specific risk factors that they wanted to address, whether it was their diabetes or their weight, smoking, etcetera… and [patients] were more inclined to actually follow through."* **– Pharmacist**	• Engage the team to identify regular opportunities to review progress toward CMM-CKM goals identified in Step 3 and Step 7 • Review data gathered on the CKM-CMM intervention to inform programmatic and CMM fidelity related CQI efforts (eg, regular CMM practice model quality assurance audits) • Utilize patient resources/toolkits to continually: • Educate and support for self-management • Educate on value of CMM for CKM conditions • Education on risk mitigation	• CMM Implementation Pathway Resources • CMM Implementation Resources • Using Run Charts to Track Your Data
Step 9: Evaluate Success	• Evaluate operational, financial, and clinical impacts of the CKM CMM service: • Quantitative outcomes (clinical) • Qualitative outcomes (patient and clinician experiences) • Use data to assess CMM fidelity and effectiveness	• Team members expressed interest in promoting the value of CMM through presentation of relevant metrics • Expressed the importance of defining what success looks like and how to track it	*"[We need] support…to make sure that we're getting the reports [and data] we need to show what we're doing."* **– Pharmacy Administrator** *"[Our metrics are] self-reported, so a lot of times it can be a little bit hard to put in those metrics every time – [when] we're really busy [the data] won't get into the system…"* **– Pharmacist**	• Reassess fidelity to the CMM patient care process via completion of the PMAT • Gather feedback from key stakeholders (e.g., patients, care team members, administrators) to understand their perceived value of service • Bring all of the data elements together, such as: • Quantitative clinical and economic outcomes • Qualitative (patient and clinician experience) outcomes	• The 3 Pillars of CMM: Assessments • CMM Practice Management Assessment Tool (PMAT) • CMM Patient Care Process Self-Assessment • CMM Patient Responsiveness Survey • Implementation Outcomes Questionnaire (IOQ)
Step 10: Package Story and Share Findings	• Summarize your CKM CMM service outcomes to facilitate knowledge transfer across other clinics or health systems • Highlight key learnings, outcome improvements, and critical CMM elements for the CKM population	• Team members noted the critical importance of sharing their implementation journey with leadership, other clinics and key stakeholders	*"Communicating that this is supported and a priority for the division by giving resources towards it, whether it's time for people to be on a meeting… or [providing] education opportunities within the clinic [is important] to say, this is what we're doing, just to promote it."* **– Physician**	• Review the "Telling Your Performance Story" resource to develop a story to share your CKM-CMM service story • Utilize data gathered (quantitative and qualitative outcomes) to make a business case to sustain your CKM-CMM program (introduced in Step 2: Identifying needs and assess fit)	• Telling Your Performance Story • Making the Business Case to Sustain CMM

***Abbreviations:**

A1C: hemoglobin A1C; ACCP: American Colleges of Clinical Pharmacy; ADA: American Diabetes Association; AHA: American Heart Association; AKHOMM: Advancing Kidney Health through Optimal Medication Management; AKI: acute kidney injury; BG: blood glucose; ASN: American Society of Nephrology; BP: blood pressure; CDTA:, collaborative drug therapy agreement; CKD: chronic kidney disease; CKM: cardio-kidney-metabolic; CMM: comprehensive medication management; CPA: collaborative practice agreement; CQI: continuous quality improvement; CVD: cardiovascular disease; DKD: diabetic kidney disease; ED: emergency department; eGFR: estimated glomerular filtration rate; EHR: electronic health record; FAQ: frequently asked questions; GDMT: guideline directed medical therapy; HCP: healthcare professionals; IOQ: Implementation Outcomes Questionnaire; KDIGO: Kidney Disease-Improving Global Outcomes; MTM: medication therapy management; MTP: medication therapy problem; PMAT: Practice Management Assessment Tool; PQA: Pharmacy Quality Alliance; UACR: urine albumin-creatinine ratio