Expanded Guidance on the Health IT Leadership Checklist:

Information Technology Supports for Comprehensive Medication Management Practice Management Systems[1]

In 2019, the American College of Clinical Pharmacy Research Institute along with the UNC Eshelman Institute for Innovation identified thirteen essential practice management components to successfully support an organization's comprehensive medication management (CMM) program. These essential components were grouped into five overarching domains: organizational support, care delivery processes, care team engagement, evaluating CMM services and ensuring consistent and quality care.[2] Using these essential components as the foundation, the GTMRx Health IT to Support Optimized Medication Use Workgroup added further guidance (foundational elements and enhancements), in the form of questions, for the implementation team to ask themselves.

- The foundational elements address baseline requirements such as regulatory compliance, patient privacy and safety that are applicable across a variety of settings.
- The enhancements address specific details related to business environment, patient population and clinical practice.

Comprehensive medication management is a systematic approach to medications where physicians and clinical pharmacists ensure that medications (e.g., prescription, nonprescription, alternative, traditional, vitamins, 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.[3] CMM is known to vastly improve health outcomes and reduce overall health care costs.[4]

The adoption of CMM relies on having the right data, at the right time, at the point-of-care. This guidance supports health information technology (HIT) components of practice management systems to address existing implementation challenges and empower successful integration of CMM services. It is designed for a range of health care stakeholders who are enhancing existing programs, developing a new business line or seeking qualified partners.

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1 Pestka DL, Frail CK, Sorge LA et al. The practice management components needed to support comprehensive medication management in primary care clinics. *J Am Coll Clin Pharm.* 2019;3(2):438–447. https://doi.org/10.1002/jac5.1181.

2 Ibid.

3 McInnis T, Strand L, Webb E, et al. The Patient-Centered Medical Home: Integrating Comprehensive Medication Management to Optimize Patient Outcomes, Resource Guide, 2nd ed. Patient-Centered Primary Care Collaborative: PCPCC Medication Management Task Force. 2012.

4 McFarland MS, Buck M, et al. The Outcomes of Implementing and Integrating Comprehensive Medication Management in Team-Based Care: A Review of the Evidence on Quality, Access and Costs. GTMRx Institute. 2021. https://16bvl028dn7zhgp35k7rzh5c-wpengine.netdna-ssl.com/wp-content/uploads/2020/11/Outcomes-of-Implementing-ED.v4-1.pdf.

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Leadership Checklist Outline[5]

The leadership checklist was derived from the American College of Clinical Pharmacy Research Institute and the UNC Eshelman Institute for Innovation's thirteen essential practice management components grouped into five overarching domains to successfully support a CMM program. The "Description" was added as additional guidance.

✔	Component	Description
Organizational Support and Readiness		
	1. Leadership support	Dedicate resources or adapt IT structures to support CMM
	2. Equipment and resources	Ensure access to data and tools to safely and efficiently provide CMM within the applicable regulatory environment
	3. Credentialing and revenue systems	Track licensure and certifications, streamline payor related data exchange and ensure financial sustainability
Care Delivery Processes		
	4. Method of CMM patient identification	Identify criteria and select patients who are eligible for CMM
	5. Scheduling CMM services	Optimize coordination and scheduling processes among CMM team members
	6. Care documentation	Establish IT functionalities and capabilities from basic note templates to integrated data elements and coding
Care Team Engagement		
	7. Utilization of collaborative practice agreements (CPAs)	Ensure electronic health record (EHR) security template allows for policy and procedures to support CPA implementation
	8. Interprofessional collaboration	The patient's specific health and medication related information can be exchanged with all of those on the CMM care team
	9. Engagement of support staff	Leverage IT tools and support to create an effective interprofessional care team engagement process
Evaluating CMM Services		
	10. Measuring CMM data	Obtain necessary patient information according to industry norms
	11. Reporting CMM data and outcomes	Produce required internal and external reports for quality and process outcomes
Ensuring Consistent and Quality Care		
	12. Practitioner training	Provide individual and team-based EHR/IT training for interprofessional care team members
	13. Quality assurance processes	Develop standardized workflow processes that allow the inter-professional care team to provide a consistent, replicable and quality service

5 Pestka DL, Frail CK, Sorge LA et al. The practice management components needed to support comprehensive medication management in primary care clinics. *J Am Coll Clin Pharm.* 2019;3(2):438–447. https://doi.org/10.1002/jac5.1181.

Guidance on the Leadership Checklist

The body of the tool describes the foundational elements and enhancements of the five overarching domains and thirteen essential components to successfully support a CMM program.

1 Organizational Support and Readiness

The implementation of information technology (IT) supports for CMM practice management systems, like most IT activities, requires certain key considerations to be successful. Foremost in this is leadership support and organizational alignment. Leadership recognizes that CMM improves access to care, clinical quality, patient and care team satisfaction. It also contributes to financial success in value-based contracts. Additionally, dedicated technology, equipment, human resources and a firm understanding of the regulatory environment are essential to ensure the stable foundation of a CMM program.

Leadership Support

Foundational

- How will senior clinical, business and IT leaders work cross-functionally to dedicate resources to support IT needs related to the CMM practice?
- What process will you use to define, review and revise success metrics?

Enhancements

- Who are the dedicated departmental champions for IT? How will you identify these champions?
- How will you identify your IT department clinical subject matter experts?
- Who will provide dedicated project and program management of the CMM program roll-out?

Equipment and Resources

Foundational

- How will patient privacy be ensured for physical, digital and electronic safeguarding of protected health information (PHI)?
- How will CMM providers access patient specific health and medication related information?
- How will CMM providers communicate with patients and other members of the care team?
- How will the CMM provider workspace comply with all applicable regulatory requirements in the relevant jurisdictions (e.g., public display of credentials, licensure, protection of physical PHI)?

Enhancements

- What hardware and technology will you need utilized in your care delivery model (e.g., webcam, video platform, virtual waiting room, interactive voice response)?
- How can omni-channel functionality enhance the patient experience and engagement?
- How will patient specific health and medication related information be exchanged with all of those on the interprofessional CMM care team?

Credentialing and Revenue Systems

Foundational

- What credentials for CMM providers are required in your jurisdiction?
- Which personal identifiers (e.g., National Provider Identifier (NPI) number) will be necessary for your CMM providers?
- How will state-specific licensure and certifications be tracked and aligned to patient populations?
- Will CMM services be monetized? If so, how?
- How will the codes or service structure be determined (e.g., Current Procedural Terminology (CPT), Systematized Nomenclature of Medicine (SNOMED), International Statistical Classification of Diseases and Related Health Problems (ICD) codes)?
- How will reimbursement methodologies be negotiated with payors?

Enhancements

- How will invoicing, claims and adjudication be processed?
- How will secure exchange of PHI with customers, payors and partners be supported (e.g., Continuity of Care Document (CCD) exchange processes)?

2 Care Delivery Process

The care delivery process for CMM ensures that the right patients are enrolled, their health conditions and diagnoses are defined and coded, their visits are scheduled longitudinally and the patient's progress is monitored throughout their enrollment. A robust IT infrastructure for the care delivery process will support an interdisciplinary team of health care providers working in collaboration with patients. Any infrastructure should be augmented with the goal of optimizing medication use, preventing adverse drug events, improving patients' quality of life and reducing provider administrative burden.

Method of CMM Patient Identification

Foundational

- What are the goals for the implementation of your CMM program? What elements in your dataset can be used to establish CMM enrollment criteria to meet these goals?
- What are criteria for qualifying patients for CMM in your EHR or dataset (e.g., demographics, high-risk medications, specific ICD-10 codes, lab test results)?
- Who are the responsible interprofessional team members with data access (clinical champion, project manager, IT, administration)?
- Who is the executive sponsor?

Enhancements

- How will elements that are not routinely collected be captured in the EHR?
- Do you have the capability to deploy population risk stratification or other multivariable algorithms to refine and streamline CMM enrollment criteria (e.g., high frequency of utilization, frequent hospital readmission rates, patient attributes—social influencers of health, predicted disease/health care costs, specialized medications)?

- Is the patient qualification process automated for the interprofessional CMM team?
- Is there a designated patient enrollment landing page for ease of enrollment and disenrollment from the CMM program?
- Are there standardized EHR order sets that include CMM referrals?
- Can processes be used to increase CMM patient awareness and education to encourage patient self-enrollment (e.g., digital marketing, social media, email campaigns, post card mail drops)?

Scheduling CMM Services

Foundational

- Is there a calendar feature for scheduling in the EHR with automated reminders to the patient and CMM providers?
- Which team members are designated to schedule patients?
- Is the patient landing page used for enrollment HIPAA compliant?

Enhancements

- Do all members of the interdisciplinary team have full visibility of calendar appointments?
- Have the IT privileges (e.g., read, write, edit) been assigned to specific team members?
- Are pre-authorizations done in advance of a scheduled CMM visit?
- Does the system allow scheduling with a preferred provider and alternatively a secondary provider if the preferred is not available?
- Does the system have the functionality to classify CMM patients by assigning unique patient identifiers, encounter types or visit types?
- Does the system allow for scheduling based on acuity and triage of CMM complexity?
- Does the system have the functionality to limit CMM wait time to 15 minutes or less?
- Is there a facility for kiosk check-in for CMM patients?
- Are patients able to self-qualify for CMM? Is there a scheduling link on the landing page where patients can self-enroll and/or auto-schedule?
- Does the system allow for scheduling appointments a year in advance?

Care Documentation

Foundational

- Are there standardized CMM referrals and structured or coded notes templates for the CMM team to use?
  - Do data sources (e.g., EHR) have relevant free-text (unstructured) data which will impede CMM processes?
- Is CMM terminology incorporated in the EHR (e.g., SNOMED, severity, allergens)?
- Is coordination across multiple CMM providers within a care team possible through the EHR for CMM management at the point of care?

Enhancements

- Is pharmacogenomics (PGx) information incorporated in a meaningful manner in the EHR for CMM?
- Are CMM referrals and notes integrated with other HIT standardized documentation (e.g., Consolidated CDA (C-CDA), FHIR® (Fast Healthcare Interoperability Resources) for lab data/notes) to promote interoperability between systems?
- Is there access to external health information (e.g., Health Information Exchanges (HIE), Prescription Drug Monitoring Programs (PDMPs)) such as patient discovery, patient records and support for sending (i.e., external request) patient health information?
- Can other external HIE (e.g., Surescripts, Altera Digital Health, Corepoint Health) be integrated into the care process to get an accurate CMM medical profile?
- Is care documentation available to the patient (e.g., open notes)?
- Is there a facility for secure bi-directional communication between the patient and the designated providers of the interprofessional care team?
- Can automated order sets, assessments and plans based on CMM be automated?
- Can SmartText and SmartPhrases for CMM be deployed for easy charting?
- Is there a protocol for care coordination with primary care physicians and specialists for follow-ups?
- Is there a functionality for patients to pre-fill information through online portals or questionnaires prior to the CMM session?

Care Team Engagement

Effective care team engagement requires consistent communication enabled by people, processes and tools. CMM activities are most successful when coupled with EHR access for the CMM provider and the ability to efficiently communicate with other care team members through formal notes and informal messages. Documentation templates can improve efficiency of communication and allow for data collection through the use of discrete elements. Additionally, the EHR system should have a security template that matches the regulatory framework in your state as defined in the utilized collaborative practice agreement (CPA).

Engagement of Support Staff

Foundational

- What are the processes for utilization of support staff and what team roles are required?
- What is the onboarding program to enable support staff roles to engage quickly?
- What are the standardized communication artifacts for the patient and care support team?
- How will administrative, customer service or clerical support staff engage to alleviate administrative burden?

Enhancements

- How does the EHR create streamlined engagement templates for specific actions to document a cross-communication workflow process?
- How can communication channels be established with IT support to create support staff onboarding programs for an effective team engagement process?

Interprofessional Collaboration

Foundational

- How does the interprofessional care team collaborate?
- Which patients are attributed to the CMM provider?
- How are CMM providers granted read/write access to the existing EHR(s) with ability to route notes and messages to interprofessional care team members?
- How are user roles created for each member of the team (e.g., students, residents, providers, office staff)?
- How are documentation templates designed to allow for efficient and effective communication, standardized data collection, etc.?

Enhancements

- Is it possible to route notes and communication directly to external care team members (e.g., health information exchange)?
- How will EHR access enable the CMM providers to clearly identify themselves as a member of the patient's care team?

Utilization of Collaborative Practice Agreements (CPAs)

Foundational

- Does the regulatory framework in your state of practice allow for meaningful, efficient collaborative practice? If not, what barriers exist that need to be addressed?
- How will your EHR support authorized care team members to sign and submit orders for medications, labs and referrals without a co-sign?
- How will the leadership team build security template(s) to allow CMM providers to sign and submit orders for medications, labs and referrals to prevent delay?

Enhancements

- How does your organization's compliance or training software (e.g., HealthStream, SAI Global) have the capability to monitor CPA due dates, revision dates and required reviewers?

4

Evaluating CMM Services

Evaluation of CMM services requires clearly defined measures and goals. These measures can be classified in terms of three primary domains:

1. **Structure:** the capacity of the provider or care team to provide high quality care;
2. **Process:** measuring activity performed for, on behalf of, or by a patient that is associated with improved outcomes; and
3. **Outcome:** the economic, clinical and humanistic outcomes, considering the patients, the organization and the CMM care team.

These measures should be chosen based on criteria proposed by the National Academy of Medicine's 2018 workshop. Specifically, they recommend that measures be:

1. **Important and Relevant** – that the measure relates to impact to the patient;
2. **Scientifically Acceptable** – has evidence linking structure and process to outcomes;
3. **Feasible** – has an acceptable workflow burden and cost;
4. **Useable and Actionable** – can be used to improve quality of care; and
5. **Responsive** – improves with improved provision of care.

To implement measures, the CMM system must have, or have access to, all relevant information. When appropriate, this information should be discrete (i.e., not "free text) and use industry standard terms (e.g., SNOMED CT, Value Set Authority Center (VSAC)). Ideally, generating the measure(s) or report(s) should be predefined in the CMM system. However, existing measures evolve, and new measures are created, so there needs to be personnel and system resources to implement new measures and reports.

Measuring CMM Data

Foundational

- What goals and measures have been selected for CMM service evaluation? Consider metrics from established sources, for example:
  - NCQA (HEDIS) (e.g., care effectiveness, care access/availability, utilization, risk adjusted utilization)
  - PQA (e.g., performance and monitoring measures, quality improvement indicators)
  - CMS Part C and D Performance Data
- How will the CMM system access the data needed to produce the selected metrics?
  - If some data is user entered, how will that entry be integrated in the CMM workflow? How will the additional burden of this data entry be mitigated?
- Which existing industry best practice for health data and terminology does the CMM service follow (e.g., United States Core Data for Interoperability (USCDI), VSAC, SNOMED CT)?

Enhancements

- How will the CMM system exchange information with other systems in the immediate organization?
- How will the CMM system exchange information with other systems (e.g., via HIE)?

Reporting CMM Data and Outcomes

Foundational

- What resources (e.g., people, processes, systems, tools) have been allocated to create, produce and maintain reports related to the selected measures?
- Which mandated reports (e.g., CMS Medication Therapy report format CMS-10396) will be produced? What are their compliance deadlines?

- What additional reports or data are required by the stakeholders (e.g., CMM team, operations, management, executives)?
- Which selected measures and mandated reports are generated by pre-defined reports in the CMM system?

Enhancements

- How will future ad-hoc reports be defined, produced and saved in the CMM system?
- Which relevant health information standards reports will the CMM service produce? (e.g., HL7 C-CDA Clinical Notes, HL7 CDA® Medication Therapy Management (MTM), HL7/NCPDP FHIR® Pharmacist Care Plan)
- What other reports or metrics defined by applicable organizations can be produced by the CMM service (e.g., American Society of Consultant Pharmacists (ASCP), Agency for Healthcare Research and Quality (AHRQ))?

5 Ensuring Consistent and Quality Care

Organizational leaders must assess how the CMM care team will provide consistent and quality care before engaging in services provided to patients. There are foundational HIT documentation systems or clinical decision support tools (CDST) to assist care teams providing the CMM service that are essential for care delivery.

In addition, enhancements can elevate CMM team performance as the care model develops or new technology becomes available. As the practice site and care team matures, these enhancements may become more foundational in nature. Together, these characteristics correlate to the CMM team's ability to grow and scale in a consistent manner while upholding the delivery of a quality service.

Creation, Implementation and Delivery of Ongoing Competency and Proficiency Evaluations of the Care Team

Foundational

- Who are the members of the CMM care team and do they have appropriate access to the documentation system(s) (e.g., physicians, clinical pharmacists, nurses, residents, students, genetic counselors, dieticians, social workers)?
- In what ways has CMM leadership reviewed, met and documented the regulatory requirements prior to providing the CMM service?
- Does the HIT system assign permissible roles and responsibilities for each care team member? If so, how?
- How is the HIT system able to confirm and track active professional state licensure for each member of the care team?
- What technical processes can be incorporated into the HIT system to ensure ongoing credentialing needs are met?
- How can web-based training be used or developed to meet the needs of the practice site (e.g., EHR, HIPAA, FWA)?
- How will team members demonstrate standard or core competencies prior to providing CMM services, including applicable system documentation?

Enhancements

- What professional development opportunities will be provided for the CMM care team (e.g., soft skills, motivational interviewing, active listening)?
- What clinical educational programs and certifications will be offered for the care team (e.g., Certified Diabetes Care and Education Specialist (CDCES), BPS)?
- In what ways will others (e.g., students, residents, technicians) be involved in the delivery of patient care? How can HIT promote efficient and accessible communication within the team?
- How can HIT systems evaluate the proficiency and workflow efficiency of care team providers?
- How will ongoing coaching and training be provided to improve clinical documentation skills of each team member (e.g., succinct, accurate, timely, knowledgeable)?

Quality Assurance Processes

Foundational

- What criteria will be used to identify CMM subject matter expert(s)?
- What HIT data is needed to assess patient encounters performed (e.g., calls, video recordings)?
- How will internal peer reviews be performed for each CMM provider (e.g., care notes/month)?
- Who are the internal and external stakeholders of CMM services (e.g., leadership, payors)?
- How can HIT data provide insight to work performance and assist with evaluating measurable outcomes for the CMM care team?
- What tool(s) will be used to measure patient satisfaction (e.g., Net Promoter Score (NPS), sentiment analysis)?
- How will patient satisfaction data be collected (e.g., telephonic, email, text, paper survey)?

Enhancements

- What processes will be used to review documentation sent to patients and providers (e.g., inserts, letters, condition specific verbiage)?
- How will internal scorecards be developed for the care team (e.g., CMM Practice Management Assessment Tool (PMAT))?
- As the practice evolves, what criteria will be used to identify when a quality position is needed?
- As the practice evolves, when and how will an interprofessional quality committee be developed and incorporated into care team processes (e.g., review quality events)?
- What are the quality benchmarks for the care team (e.g., medication reviews, provider acceptance rate for medication therapy problem recommendations)?
- How does the care team's performance compare to other organizations (e.g., health plans)?
- How will patient retention and engagement be measured (e.g., year over year)?
- How will CMM performance and/or outcomes be measured and compared to other quality-driven organizations, such as URAC, NCQA (HEDIS)?
    - (e.g., care effectiveness, care access/availability, utilization, risk adjusted utilization), PQA (e.g., performance and monitoring measures, quality improvement indicators) and CMS Part C and D Performance Data (e.g., star ratings and display measures such as SUPD and medication adherence)?

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