

Medication Optimization Use Case

DEPARTMENT OF VETERANS AFFAIRS (VA)—Primary Care Clinical Pharmacy Specialist (CPS) Practice	
Focus Area	Team-based care model, with comprehensive medication management (CMM) practice in primary care that incorporates the clinical pharmacist providing CMM services. This model is found across the VA and implemented across VA facilities with outcomes ranging from quality to humanistic outcomes.
At-a-Glance	<ul style="list-style-type: none"> ■ Organization Type: Government, Accountable Care Organization ■ Launch Date: In 2010, the VA implemented a Primary Care Medical Home (PCMH) model known as Patient-Aligned Care Teams (PACTs). Each PCMH team followed a panel of veterans and included core team members as well as the clinical pharmacist known as the clinical pharmacist practitioner (CPP). ■ Payment and Funding Sources: Government funded, each facility is funded based on their patient population and complexity of the services provided at that organization. Budget is allocated across the facility to ensure care is provided for the patient population. VA care includes ambulatory, acute and long-term care services provided to the patient population. <ul style="list-style-type: none"> ■ In 2019, there were nearly 2.6 million CMM interventions captured across over 1.2 million clinical pharmacist face-to-face and virtual visits.¹
Organization Details	The VA provides care across 145 VA medical facilities and 1,283 outpatient sites of care. The veteran population has over 9 million patients, 10% of which are female veterans.
Brief History of CMM Program	<ul style="list-style-type: none"> ■ In 2010, the VA implemented their PCMH, which incorporated a team to care for each veteran, consisting of a primary care provider, registered nurse, licensed professional nurse (LPN) and medical support administration (MSA). The clinical pharmacist practitioner (CPP) is assigned to the PCMH team at a ratio of 1 CPP per 3,600 primary care patients. As of March 2020, there are 4,566 CPPs (49.2% of the total of 9,285 VA pharmacists) functioning as advanced practice providers system-wide with 2,171 providing direct patient care services in primary care.
Results & Achievements Focus on the Quadruple Aim* <ul style="list-style-type: none"> ■ <i>Better Outcomes</i> ■ <i>Cost Savings</i> ■ <i>Patient Satisfaction & Engagement</i> ■ <i>Clinician Satisfaction</i> 	<p>Better Outcomes¹:</p> <ul style="list-style-type: none"> ■ 27% of return appointments were avoided as a result of CMM interventions by the CPP, freeing PCPs to see other patients.¹ ■ 111 CPPs served 133,270 veterans during 429,460 visits, with approximately 67% of the care provided to rural veterans.⁵ ■ On average, each CPP cared for 564 veterans during 1,255 visits annually.⁵ <p>Cost savings:</p> <ul style="list-style-type: none"> ■ The 27% avoided return appointments at one site (noted above), projected a cost avoidance that would result in nearly \$3.8 million in cost savings per year for the VA.¹ ■ Rural veterans receiving CMM resulted in \$2.1 million savings annually by alleviating the need for the PCP to see them.^{1,5} <p style="text-align: right;"><i>continued</i></p>

<p><i>continued</i></p> <p>Results & Achievements</p> <p><i>*Aims chosen to align with examples from “The Outcomes of Implementing and Integrating Comprehensive Medication Management in Team-Based Care: A Review of the Evidence on Quality, Access and Costs”</i></p>	<p>Patient Satisfaction & Engagement:</p> <ul style="list-style-type: none"> ■ 627 patients took a patient satisfaction survey, with a mean overall score of 90.6% (SD = 10%). Mean scores within the service, knowledge and self-management domains were 92.0% (SD = 10.8%), 89.7% (SD = 11.35%) and 89.2% (SD = 12.0%).³ ■ CMM telehealth services were evaluated, with a median patient satisfaction score demonstrated of 39.5 (IQR = 36-40) out of a maximum score of 40.⁴ <p>Clinician Satisfaction²:</p> <ul style="list-style-type: none"> ■ In evaluating team member perceptions (PCPs, medical support assistants and RNs, N=91) to how the CPP decreased the time patients had to wait for primary care services, it was noted the CPP had a moderate impact (average score of 4 out of 5) by all team members.⁶ ■ In evaluating the CPP integration and how their contribution to the team improves job satisfaction, it was noted the CPP had a significant impact (average score of 4.5 out of 5) by all team members.⁶
<p>Patient Success Story</p>	<p>Kansas City VA Medical Center, Kansas City, Missouri:</p> <p>An 82-year-old male was initially referred to the CPP by the patient’s geriatrician for CMM. The patient’s past medical history included type 2 diabetes, hypertension, hyperlipemia, diabetic retinopathy, coronary artery disease, peripheral vascular disease, congestive heart failure and chronic kidney disease. His labs upon initial review included A1c 8.5%, Serum Creatinine (Scr) 2.43 and eGFR 25.7. His diabetes medications included insulin detemir 2-3 units Subcut QHS (Noted if bedtime reading <150mg/dL would inject 2 units) and insulin aspart 6-13 units Subcut TID AC meals.</p> <p>Upon initial CPP video visit, the patient expressed concerns of frequent distressing hypoglycemic episodes before dinner and bedtime (blood sugars in the 60s to 70s) and elevated morning readings (blood sugars in the 190s). The CPP increased his insulin detemir, reduced his insulin aspart and provided patient education on his insulin therapy and blood sugar goals (e.g., monitoring for hypoglycemia, avoiding insulin self-adjustment).</p> <p>Two weeks later, the CPP followed up with the patient by video. The patient reported 1 mild hypoglycemic event and average blood sugars of 160-190mg/dL. The CPP determined that based on cardiac history and chronic kidney disease, he would be a good candidate for a GLP 1 agonist prescribing dulaglutide 0.75mg Subcut weekly. As blood sugars were anticipated to improve with addition of GLP 1 agonist, insulin aspart was discontinued to avoid hypoglycemia, and his insulin detemir was continued. In conjunction with the physician, the CPP ordered a repeat Scr in 4 weeks to assess patient renal function and scheduled video follow up.</p> <p>At the next follow up, the patient denied hypoglycemic events and ADRs from recent regimen changes; however, he did notice his evening and bedtime readings had trended upward. The CPP noticed his Scr was stable and discussed further dose increase of dulaglutide to 1.5mg Subcut weekly. The patient agreed and the CPP scheduled follow up labs and video visit in 4 weeks.</p> <p style="text-align: right;"><i>continued</i></p>

<p><i>continued</i> Patient Success Story</p>	<p>At subsequent visits, the patient’s renal function stayed stable, and his blood sugar continued to improve with the majority of his readings within 140–160mg/dL. He continued to deny hypoglycemic events or ADRs. At his next visit, the patients A1c improved from 8.5% to 7.8%, meeting the patients adjusted A1c goal of less than 8%. The CPP continued to work closely with the patient in conjunction with his primary care provider and CMM team.</p>
<p>Team-Based Care Strategy</p>	<ul style="list-style-type: none"> ■ Interprofessional Team Roles: <ul style="list-style-type: none"> ▪ CMM is a core concept of veteran care. The CPP provides CMM in between PACT provider visits to initiate, modify or discontinue medications, as well as in foundational or high-volume areas. The CPP, co-located with the primary care team, sees patients face to face and with virtual modalities. Patients are referred to CPPs via direct provider referral, team referral (e.g., nurse) and population health management activities. ▪ The interprofessional primary care team includes 1 CPP, 1 PACT provider, 1 RN care manager, 1 LPN and 1 medical support staff. The team also has additional team members to include registered dietitians, social workers and primary care mental health integration team members. ■ Role of the CPP: <ul style="list-style-type: none"> ▪ Scope of Advanced Practice: VHA policy’s VHA Handbook 1108.11 Clinical Pharmacy Services outlines core activities and authority for clinical pharmacist scope of practice. CPPs have had prescriptive authority set forth in VA national policy since 1985. The CPP functions with independent clinical decision-making to perform CMM services included in their scope of practice with credentialing consistent with the medical staff process serving as an advanced practice provider. ■ Visit Structure: <ul style="list-style-type: none"> ▪ Visits can be any form including in-person, telephone, home care or telehealth (e.g., VA Video Connect and Clinical Video Telehealth). CPPs also provide team support (e.g., chart consultation, secure messaging and curbside and e-consults). ▪ Typical time allotted for each visit type: 30 min
<p>Patient Referral Criteria</p>	<ul style="list-style-type: none"> ■ Eligibility: <ul style="list-style-type: none"> ▪ Any patient requiring CMM services is eligible for care. The goal is for 15–20% of patients from the PCP panel to be seen by the CPP for CMM. In addition to quality improvements, this creates an addition of 3 weeks of appointments for the PCP. ■ CMM Populations of Focus: <ul style="list-style-type: none"> ▪ CPPs focus on the provision of CMM services and are referred patients through a variety of means including patient self-referral, physician and team member handoff and population health management dashboards. Patients are seen for multiple common primary care conditions and managed by the CPP.

<p>Size of CMM Program</p>	<p>Staffing:</p> <ul style="list-style-type: none"> ■ As of March 2020, there are 4,566 CPPs (49.2% of the total of 9,285 VA pharmacists) functioning as advanced practice providers with a scope of practice for CMM. <ul style="list-style-type: none"> ▪ 2,171 of these CPPs provide direct patient care services in primary care. During the last 3 years, CPPs have increased by 20%.⁵ ■ Support Staff (e.g., CPhT, MA, RN, etc.): <ul style="list-style-type: none"> ▪ Schedule patients after referral for CMM. ▪ Provided education to patients on what the CPP CMM visit will encompass. ▪ Nursing support for rooming of patients, vitals, patient education (e.g., glucose monitoring). ▪ RN identification of patients for CMM after performing population health management. ▪ Some facilities have implemented Clinical Pharmacy Technicians into the team to directly support the CPP. <p>Program Capacity:</p> <ul style="list-style-type: none"> ■ Preestablished metrics focused on the CPP direct patient care time found 90% of their time was dedicated to CMM services.
<p>Program Success Factors</p>	<ul style="list-style-type: none"> ■ Convenient patient access and simple program entry <ul style="list-style-type: none"> ▪ Improved access to a CMM team member ▪ Focus across a broad range of CMM care ▪ Multiple delivery modalities (e.g., in-person, virtual) ■ Utilizing team members to their fullest capacity eased primary care workload, further helping to achieve the quadruple aim. ■ Demonstrated efficiency and effectiveness of cross-setting team-based care, articulating CMM's value. ■ Organization culture recognizes the CPP as CMM patient care professional. ■ Integrated electronic health record that allows for sharing across disciplines and population management dashboards to identify patients in need of CMM care.
<p>Next Steps, Future Goals</p>	<ul style="list-style-type: none"> ■ Expanded CPP integration into other practice areas where patient care needs are apparent (e.g., substance use disorder, pharmacogenomics, pain management, mental health). ■ Continued CMM model with integrated CPPs in hopes of closing staffing gap by 20% in the next 3 years. ■ Continued focus on veteran experience and CMM impacts that experience over time.

<p>References</p>	<ol style="list-style-type: none"> 1. McFarland MS, Nelson J, Ourth H, et al. Optimizing the primary care clinical pharmacy specialist: increasing patient access and quality of care within the Veterans Health Administration. <i>J Am Coll Clin Pharm</i> 2020;3(2):494-500. https://doi.org/10.1002/jac5.1177. 2. McFarland MS, Lamb K, Hughes J, et al. Perceptions of integration of the clinical pharmacist into the patient care medical home model. <i>J Healthcare Quality</i> 2018;40(5):265-73. https://doi.org/10.1097/jhq.000000000000114. 3. McFarland MS, Wallace J, Parra J, Baker J. Evaluation of patient satisfaction with diabetes management provided by clinical pharmacists in the patient-centered medical home. <i>Patient</i> 2014; 7:115-21. https://link.springer.com/article/10.1007/s40271-013-0039-7. 4. Maxwell LG, McFarland MS, Baker JW, Cassidy RF. Evaluation of the impact of a pharmacist-led telehealth clinic on diabetes-related goals of therapy in a veteran population. <i>Pharmacotherapy</i> 2016;36(3):348-56. https://doi.org/10.1002/phar.1719. 5. Groppi JA, Ourth H, Tran M, et al. Increasing rural patient access using clinical pharmacy specialist providers: Successful practice integration within the Department of Veterans Affairs, <i>American Journal of Health-System Pharmacy</i>, 2021; 78(8):712-19. https://doi.org/10.1093/ajhp/zxab011. 6. Zogas A, Gillespie C, Kleinberg F, et al. Clinical Pharmacist Integration into Veterans' Primary Care: Team Members Perspectives. <i>J Am Board Fam Med</i> 2021; 34(2): 320-27. https://doi.org/10.3122/jabfm.2021.02.200328.
<p>Program Contact Information</p>	<p>Julie Groppi, Pharm.D., FASHP, Assistant Chief Consultant, Clinical Pharmacy Practice and Policy, Veterans Health Administration, PBM Service (12P), Clinical Pharmacy Practice Office, Julie.Groppi@va.gov, (561) 352-0929.</p> <p>M. Shawn McFarland, Pharm.D., FCCP, BCACP, National Clinical Pharmacy Practice Program Manager, Veterans Health Administration, PBM Service (12P), Clinical Pharmacy Practice Office, Michael.Mcfarland2@va.gov, (615) 630-1482.</p> <p>Heather L. Ourth, Pharm.D., BCPS, BCGP, FASHP, Assistant Chief Consultant, Clinical Pharmacy Practice Program and Outcomes Assessment, Veterans Health Administration, PBM Service (12P), Clinical Pharmacy Practice Office, Heather.Ourth@va.gov, (515) 689-2801.</p> <p>Anthony P. Morreale Pharm.D., MBA, BCPS, FASHP, Associate Chief Consultant for Clinical Pharmacy and Policy, Veterans Health Administration PBM Service (12P), Clinical Pharmacy Practice Office, Anthony.Morreale@va.gov, (858) 232-6761.</p> <p>Kyleigh Gould, Pharm.D., Associate Chief of Clinical Pharmacy, Kansas City VA Medical Center, Kansas City, MO, Kyleigh.Gould@va.gov, (816) 714 8710.</p>
<p style="text-align: center;"><i>Developed by the Best Practices and Innovative Solutions Subgroup of the GTMRx Practice and Care Delivery Transformation Workgroup</i></p>	