

Implementation of a pharmacist care manager model to expand availability of medications for opioid use disorder

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Purpose. The rise in opioid prescribing, often for chronic pain management, resulted in an increased prevalence of opioid use disorder (OUD) throughout the United States, including within the Veterans Affairs (VA) healthcare system. The veteran population has been especially vulnerable to opioid-related harms, but rates of prescribing medications for OUD have been low. Use of care manager models for OUD have increased access to treatment. In this article we provide an overview of a clinical pharmacist care manager (CPCM) model for medications for OUD treatment implemented within the Minneapolis Veterans Affairs Health Care System.

Summary. A CPCM model for medications for OUD was identified as a care model that would address patient and facility barriers to effective OUD treatment. Pharmacists were integral in program development and implementation and served as the main care providers. An interim evaluation of the program established that the proportion of patients with OUD receiving medications for opioid use disorder (MOUD) had increased, with use of the program resulting in treatment of 109 unique patients during 625 visits. Key program implementation facilitators included the facility leadership establishing increased use of MOUD as a priority area, identification of a physician champion, and a history of successful expansion of clinical pharmacy specialist practice within the VA system. Implementation barriers included factors related to provider engagement, patient identification, and program support. The CPCM model of provision of MOUD expanded the pharmacist role in buprenorphine management.

Conclusion. The need to increase the number of patients receiving MOUD led to the implementation of a CPCM model. The program was effectively implemented into practice and expanded the availability of MOUD, which allowed patients to access treatment in multiple care settings.

Keywords: buprenorphine, collaborative care management, opioid-related disorders, pharmacists

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The use of long-term opioid therapy for chronic pain management became a mainstay of clinical practice starting in the 1990s, resulting in a substantial increase in opioid prescribing within the United States.^{1,2} While prescribing rates have declined since 2012, more than 17% of Americans filled at least 1 opioid prescription in 2017.^{2,3} Regrettably, the rise in opioid prescribing has been associated with a growing number of overdoses and

deaths.⁴ In 2017, 130 American deaths per day were attributable to an opioid-related overdose.⁵ An additional harm associated with greater opioid prescribing was the increasing prevalence of opioid use disorder (OUD), which affected an estimated 2 million US adults in 2015.⁶ Mirroring national trends, the veteran population also experienced an increase in opioid prescribing, often for management of chronic pain, which resulted in a major increase in the

diagnosis of OUD.⁷⁻⁹ Compared to the general population, veterans have been at greater risk for harms associated with opioid use, including being twice as likely to die from an accidental overdose.^{10,11} This increased risk of harm presented a substantial opportunity to reduce morbidity and mortality associated with OUD through the use of evidence-based therapies.

Only 20% of Americans with a diagnosis of OUD have received treatment.¹² Medications for opioid use disorder (MOUD) are effective and life-saving but remain underutilized.¹³ Treatment options include methadone, which can only be dispensed through a certified opioid treatment program; buprenorphine, which can be prescribed in physician offices by physicians or midlevel practitioners (but not pharmacists) with an “X waiver” from the Drug Enforcement Administration per the Drug Addiction Treatment Act (DATA) of 2000; and naltrexone, which can be prescribed in the long-acting injectable form by any prescriber after completion of risk evaluation and mitigation strategy (REMS) requirements.¹⁴ Buprenorphine and methadone have been designated essential medicines by the World Health Organization, as use of these treatments has been associated with improved health outcomes, including a reduction in overdose deaths.¹⁵⁻¹⁷ Despite the effectiveness of MOUD, major barriers have continued to limit access to care, likely contributing to the low treatment rates.^{18,19}

As in the general population, rates of MOUD prescribing within the Veterans Health Administration population have been low, with only 33% of patients with diagnosed OUD receiving treatment in 2016.²⁰ Care manager models for OUD can increase access to treatment options by improving management practices and allowing physicians to treat patients more efficiently.²¹ These interventions are well received by patients, including veterans with chronic pain.²² Previously reported buprenorphine management care models have included pharmacists, though their duties varied significantly and they

KEY POINTS

- Medications for opioid use disorder, including buprenorphine, are effective but frequently underutilized due to barriers limiting access to care.
- Within the Veterans Health Administration, use of a clinical pharmacist care manager model improved availability of medications for opioid use disorder, allowing patients to access care in multiple clinical settings.
- Pharmacists were integral in the development and successful implementation of the clinical pharmacist care manager model for medications for opioid use disorder.

infrequently served as care managers.²³⁻²⁷ Additionally, these models have often incorporated a specialty-trained psychiatric pharmacist, occurred within mental health specialty settings, involved use of a psychiatrist as the collaborating prescriber, or supported buprenorphine maintenance prescribing only. In this article we provide an overview of a clinical pharmacist care manager (CPCM) model for OUD treatment implemented within the Minneapolis Veterans Affairs Health Care System (MVAHCS).

Health system overview

In 2018, MVAHCS comprised a large, urban, tertiary care teaching hospital and 13 community-based outpatient clinics in suburban and rural locations that together served more than 100,000 veterans, making it one of the 10 largest Veterans Affairs (VA) health systems in the country. Within MVAHCS, clinical pharmacy specialists (CPSs) have well-established practices in primary care, pain, and mental health clinics, where they function

as advanced practice providers conducting comprehensive medication management for patients with a range of chronic diseases. The CPS scope of practice allows for independent prescriptive authority, including ordering of non-controlled substance medications, laboratory tests, consults, and referring patients to other healthcare team members (eg, social workers and psychologists) after diagnosis by a collaborating provider.

Since mid-2017, a full-time CPS with postgraduate training in mental health has worked in the addiction clinic and has collaborated with DATA-waivered prescribers within that clinic to manage patients with OUD. This practice arrangement has improved access to MOUD and minimized provider burden within the addiction clinic. Prior to program implementation, pharmacists practicing in primary care and general mental health clinics were not involved in providing care to patients with OUD, and all treatment options were exclusively available through providers at the addiction clinic.

Program development

The CPCM program was started at the direction of the health system's leadership and its Pain Management Committee, with an initial goal to increase the number of patients receiving treatment for OUD by 10%. A CPS was appointed to lead an interdisciplinary committee including prescribers, nurses, psychologists, and other pharmacists practicing in primary care, pain management, and mental health to guide program development. Committee members met monthly to better understand barriers to OUD treatment and develop plans to improve MOUD delivery.

Through regular committee meetings and an anonymous prescriber survey, top barriers to OUD treatment were identified. Top barriers noted by non-DATA-waivered prescribers were lack of familiarity with MOUD, inexperience with treating substance use disorders, and insufficient support from other healthcare providers, including

nurses and pharmacists. Patients' reluctance to seek care in an addiction clinic was also noted as a major treatment barrier, which was consistent with what has been reported in the "VA/DoD Clinical Practice Guideline for the Management of Substance Use Disorders."²⁸ The guideline noted that several factors, including stigma, may reduce patient acceptance of treatment in addiction clinics.

Prescribers noted that collaboration with a CPS was important in facilitating their willingness to prescribe MOUD. The committee concluded that expanding the use of these medications to the primary care setting would help minimize stigma and normalize OUD treatment. As a result, the committee decided to implement a collaborative care model (also known as the "Massachusetts model" and previously described as implemented by nurse care managers) wherein a CPS serves as the care manager and works with qualified DATA-waivered prescribers to treat patients with OUD in primary care and general mental health clinics.²¹ Components of the program are detailed in Table 1. The established and effective partnership between a CPS and DATA-waivered prescribers within the addiction clinic at MVAHCS served as a guide for creation and implementation of this new program. The program also included a physician champion.

Program implementation

The CPCM program was discussed at primary care and mental health team meetings with the goal of seeking additional input and buy-in from stakeholders. Before and during program implementation in the primary care setting, pharmacists completed several educational sessions, including 2 grand rounds presentations focused on opioids, addiction, and OUD. The grand rounds presentations were well attended by primary care providers, specialty providers, pharmacists, and other clinicians. Additionally, pharmacists developed a formal educational session for mental health psychologists that focused on medications used for

the treatment of OUD, how to recognize patients with OUD, and how to refer those patients to the CPCM program. Throughout program implementation, pharmacists completed academic detailing visits to mental health and primary care providers regarding OUD management, though the number of completed visits and pharmacists' efforts during those visits were not formally recorded.

The physician champion involved in the CPCM program, who was the first primary care provider to obtain a DATA waiver, also promoted the program through presentations made to internal medicine colleagues. To assist with addressing perceived prescriber barriers, the pharmacists and physician champion also arranged for interested prescribers and prospective pharmacist case managers to receive the formal DATA waiver training and hands-on experience in the addiction clinic. To support care standardization within the CPCM program, patient and provider guides and electronic health record note templates were created.

The CPCM care model was developed for prescribing and management of buprenorphine, though the model could support the use of naltrexone and methadone if clinically indicated. Due to federal regulations, methadone treatment for OUD was restricted to an existing opioid treatment program located in the MVAHCS addiction clinic. The basic approaches to treatment are generalizable to a variety of prescribed medications and clinical settings.

Role of the pharmacist

Four primary care pharmacists and 3 pharmacists with expertise in mental health expanded their practice to include MOUD management, with 1 additional pharmacist providing backup coverage. As pharmacists were already integrated team members in the primary care and mental health practice settings, the CPCM program was able to employ preexisting practice processes and clinicians. Therefore, no additional pharmacists were hired as part of this program, and DATA-waivered

prescribers were always required to sign buprenorphine prescriptions. The DATA-waivered prescribers saw patients at least annually (more frequently if clinically indicated or by request of the CPCM) and were available for consultation at any time.

The CPCM program allowed for easier transitioning of patients already established on MOUD therapy prescribed by DATA-waivered prescribers to CPCM and across practice settings. In the mental health setting, patients already established on buprenorphine or naltrexone by addiction psychiatrists, without use of the CPCM model, were able to have their care transitioned to a CPCM for ongoing management, reducing workload for in-demand prescribers and providing interim coverage when needed. Patients who were stable were transferred to the primary care practice setting for ongoing care provided by a CPCM, while patients who needed a higher level of care were transferred to the mental health practice setting for management by a mental health CPCM.

Program facilitators and barriers

Primary care CPS practice at MVAHCS has been repeatedly expanded to include management of additional disease states. This history was a significant facilitator of successful implementation of the CPCM program. Use of the CPCM model did not require modifications to clinic structure, workflow, or documentation and did not necessitate the hiring of new CPSs or other clinicians. Identification of a physician champion, who served as the first primary care MOUD prescriber, was integral to successful implementation of the care model. Support from the health system's leadership served as an additional facilitator to program implementation.

Barriers to implementation were identified in the domains of provider engagement, patient identification, and program support. A significant amount of time was spent facilitating DATA waiver training, though completion of

Table 1. CPCM Model Components in Primary Care and Mental Health Settings

	Primary Care Setting	Mental Health Setting
Team members	Core members: CPCM, DATA-waivered prescriber (primary care physician or advanced practice provider) Ad hoc members: primary care-based psychologist	Core members: CPCM, DATA-waivered prescriber (generally a consulting psychiatrist), mental health registered nurses Ad hoc members: individual and group psychotherapists highly encouraged
Team processes	Weekly case review meetings, scheduled or as-needed interval communication within team and with primary care team	As-needed communication with team
Pain care modalities	Standard: MOUD adjustments as necessary, nonopioid pain medications, individual behavioral activation (goal setting, motivational interviewing, and multimodal pain care planning) Additional: specific therapies per individual needs and local resources (eg, cognitive behavioral therapy, group behavioral therapy, exercise therapy, complementary therapies)	Standard: MOUD adjustments as necessary, basic pain pharmacological treatments Additional: specific therapies per individual needs and local resources (eg, cognitive behavioral therapy, group behavioral therapy, exercise therapy, complementary therapies)
Initial visit ^a	Standard: face-to-face visit with DATA-waivered prescriber, then transition to CPCM (joins at end of visit) Alternate: DATA-waivered prescriber and CPCM may see patient together or sequentially for in-clinic starts Clinical monitoring: typically urine drug screen and review of state prescription monitoring program for all patients Documentation: includes DATA-waivered prescriber as cosigner on clinical care note entered in electronic health record	Standard: Initial face-to-face visit with CPCM Alternate: initial visit may include DATA-waivered prescriber (required only for patients without established OUD diagnosis) Clinical monitoring (required): urine drug screen (with confirmatory testing as needed) and review of state prescription monitoring program for all patients Documentation: includes DATA-waivered prescriber as cosigner on clinical care note entered into electronic health record
Follow-up visits ^a	With CPCM on days 2, 5, and 7 after new start, then weekly until stable and monthly thereafter; visits may be face-to-face, phone, or video; at minimum, yearly visit with medical provider; additional visits as indicated Clinical monitoring: laboratory and prescription monitoring completed when clinically indicated Documentation: includes DATA-waivered prescriber as cosigner on all clinical care notes	Typically once weekly for 4 weeks, every other week for 4 weeks, then monthly; visits primarily face-to-face but may be conducted by phone based on patient need if clinically appropriate Clinical monitoring (required): urine drug screens (with confirmatory testing as needed) completed for all patients Additional clinical monitoring: prescription monitoring and pill counts completed when clinically indicated Documentation: includes DATA-waivered prescriber documentation once yearly or as needed when cosigning clinical care note
Common core elements	Patient-centered communication; individualized opioid taper assessment, preparation, and implementation	

Abbreviations: CPCM, clinical pharmacist care manager; DATA, Drug Addiction Treatment Act; MOUD, medications for opioid use disorder; OUD, opioid use disorder.
^aListed visit schedule specific to buprenorphine initiation and follow-up monitoring when provided outside of an opioid treatment program; the visit schedule may be adapted for use with alternative MOUD (eg, naltrexone).

training did not rapidly increase MOUD prescribing. The CPCM model did not directly address this barrier but may have increased prescribers' willingness to obtain and use a DATA waiver. Coordinating hands-on experiences in the addiction clinic was challenging, as visits were typically arranged on short

notice when interested prescribers already had scheduled patients. Infrequent identification and referral of patients with OUD to the CPCM program remains an ongoing challenge, which is regularly addressed by provider education. Finally, in the primary care setting, nursing staff support for

patient check-in and administrative scheduling support continue to be barriers, though neither are specific to the CPCM program.

Program impact

An interim evaluation of the program was completed in late 2019 to

assess visits completed from July 2017 through September 2019. During the evaluation period, 109 unique patients were seen, for a total of 625 visits. Their mean age was 49.9 years (range, 22-78 years) and 85.3% of patients were male. The majority of patients were white (87.2%), consistent with figures for the general population served by MVAHCS. Diagnosed mental health comorbidities were common among the patient population, with depression in 66 (59.5%), posttraumatic stress disorder (PTSD) in 33 (29.7%), insomnia in 27 (24.3%), alcohol use disorder in 26 (23.4%), and cannabis use disorder in 18 (16.2%).

Of the 109 patients treated by pharmacists in the CPCM program, 94 (86.2%) were treated in a mental health practice setting, for a total of 532 visits. These patients were younger, received higher daily doses of buprenorphine, and had higher rates of PTSD, alcohol use disorder, and cannabis use disorder in comparison to the patients managed in the primary care setting.

A total of 47 patients had buprenorphine initiation directly facilitated by a CPCM. In the primary care practice setting, buprenorphine was initiated in 12 patients, with 8 (67.7%) starting treatment at home. In the mental health practice setting, buprenorphine was initiated in 35 patients, with only 7 (20%) starting treatment at home. Overall, most visits (80.6%) were conducted in person and lasted under 30 minutes. Patient visits in the primary care setting were more often conducted by phone and shorter in duration (mean [SD], 20.3 [13.7] minutes) than those conducted in the mental health setting (28.6 [12.5] minutes).

Comparison of baseline quarterly numbers before implementation of the CPCM model for MOUD (ie, for the third quarter of fiscal year 2017 [April 1 through June 30]) and final quarterly numbers after model implementation (ie, for the fourth quarter of fiscal year 2019 [July 1 through September 30]) showed that the percentage of MVAHCS patients with OUD receiving MOUD

treatment increased from 33.8% (204 of 604) to 46.7% (275 of 589), an absolute increase of 12.9%.

Discussion

The implementation of the CPCM program resulted in a significant increase in the percentage of patients with OUD receiving evidence-based medication treatment. The program also expanded access to MOUD within primary care and mental health practice settings. The number of patient visits has steadily increased, and continued efforts by the pharmacists and DATA-waivered collaborating prescribers have sustained improvements in MOUD treatment.

The direct impact of the CPCM model on the overall percentage of patients receiving MOUD treatment was not evaluated separately from other initiatives. Numerous national VA initiatives to expand MOUD treatment occurred during program implementation, so expansion of MOUD treatment within MVAHCS was not solely attributable to the CPCM model. The national Stepped Care for Opioid Use Disorder Train the Trainer (SCOUTT) initiative²⁹ was launched in August 2018, approximately 1 year after the initial implementation of the CPCM program. Because the SCOUTT initiative promoted collaborative care models as one approach to expanding MOUD treatment, this initiative supported rather than supplanted ongoing CPCM efforts. Also, traditional MOUD treatment through addiction psychiatrists (without use of pharmacists) has continued. Clinician capacity and identification of patients amenable to care did not limit expansion of treatment using the CPCM model. The CPCM model expanded the pharmacist role, as it involved use of CPSs without focused mental health postgraduate training, allowed for collaboration with nonpsychiatrist DATA-waivered prescribers, and was implemented in a primary care setting.

Conclusion

The need to increase the number of patients with OUD receiving MOUD

within MVAHCS led to implementation of a CPCM program. The program expanded availability of MOUD, which allowed patients to access treatment in multiple care settings.

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Disclosures

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