



## Issue Brief: Coordinated and Comprehensive Medication Management in Substance Use Disorder Treatment and Recovery

### Key Highlights

- Clinical pharmacists are responsible for comprehensive medication management (CMM) in team-based patient care environments.
- Individuals with complex chronic conditions benefit most from CMM and individuals with substance use disorder (SUD) have a high incidence of complex comorbidities.
- CMM services for SUD have demonstrated a positive impact on access to care, quality of care, patient engagement, patient satisfaction, and treatment retention.
- Medication plans for CMM that are led by a clinical pharmacist, as part of an interdisciplinary team, include clear and measurable goals of therapy with specific follow-up timeframes to ensure optimal medication use and outcomes.
- Delegated authority through collaborative practice agreements or collaborative drug therapy management, together with the applicable state pharmacy practice act, confer specific privileges, responsibilities, and accountabilities to the clinical pharmacist that propel efficient team-based care.

### Background

Substance use disorder (SUD) treatment requires individualized care with coordinated management of co-existing chronic conditions. A team-based, patient-centered approach enables a health care system to provide better care and promote healthier people and communities. Avoidable illness and death resulting from suboptimal medication therapy leads to an estimated 275,000 needless deaths annually and contributes to \$528.4 billion in health care costs, equivalent to 16 percent of annual U.S. health care expenditures.<sup>1</sup> Medication optimization occurs through comprehensive medication management (CMM) to avoid misuse, overuse, or underuse of medication therapy which can lead to treatment failure and new medical problems. In addition to reducing costs, CMM is associated with lower hospital readmission rates and improved clinical outcomes for a range of chronic conditions.<sup>1</sup>

Clinical pharmacists are medication experts providing CMM in team-based patient care environments. As discussed in the American College of Clinical Pharmacy's [Standards of Practice for Clinical Pharmacists](#),

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<sup>1</sup> Watanabe JH, McInnis T, Hirsch JD. Cost of Prescription Drug–Related Morbidity and Mortality. *Annals of Pharmacotherapy*. 2018;52(9):829-837.

[clinical pharmacists](#) complete a comprehensive care team and collaborate with patients, primary care clinicians, and behavioral health specialists to develop and implement individualized, optimal medication therapy plans. Clinical pharmacists assess a patient’s medication-related needs, evaluate past and current medication therapy, and support ongoing medication management across the continuum of care. Clinical pharmacists are licensed pharmacists with specialized advanced training and clinical competencies to practice in team-based, direct patient care environments. Accredited residency training or equivalent post-licensure experience is required for entry into direct patient care roles. Board certification is also preferred once the clinical pharmacist meets the eligibility criteria specified by the Board of Pharmacy Specialties (BPS).<sup>2</sup>

## Comprehensive Medication Management (CMM)

CMM is a [holistic, consistent process](#) of assessing each medication to ensure it is appropriate for the patient, effective for the indication, safe given comorbidities and other medications, and able to be taken as intended. As part of CMM, the clinical pharmacist develops an individualized care plan in collaboration with the patient and the health care team. Each medication plan includes clear and measurable goals of therapy with specific follow-up timeframes to ensure optimal medication use and outcomes. Individuals with complex chronic conditions benefit most from CMM, which can be utilized to mitigate medication misuse while enhancing management of SUDs and any other chronic condition that requires medication treatment.<sup>3</sup>

Effective collaboration with a clinical pharmacist is achieved through delegated authority from individual physicians, medical groups, or health systems (e.g., collaborative drug therapy management or collaborative practice agreements), or through formally granted clinical privileges from the medical staff or credentialing system of the organization in which they practice. These privileging processes, together with the applicable state pharmacy practice act, confer specific authorities, responsibilities, and accountabilities to the clinical pharmacist that ensure efficient team-based care. Leveraging the expertise of qualified clinical pharmacists and integrating these professionals into team-based care models is essential to achieve the full value of CMM services.

Although medication management has been tied to transitions of care payment structures, CMM needs to be formally recognized as a compensated chronic care service in evolving payment models, such as the Addiction Recovery Medical Home.

CMM has the potential to help health care providers maximize performance-based payments. CMM aligns closely with quality improvement initiatives to achieve the national goals of better care, better health, and affordable cost.

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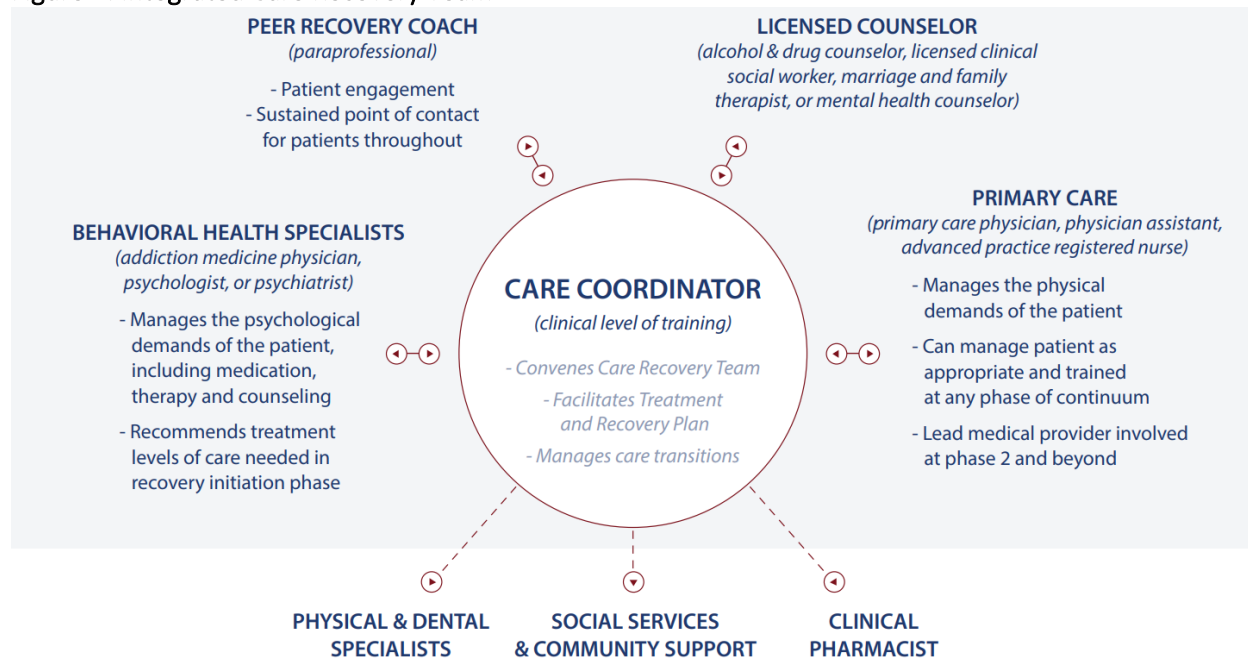
<sup>2</sup> American College of Clinical Pharmacy. Standards of Practice for Clinical Pharmacists. *Pharmacotherapy* 2014;34(8):794–797. Available from [https://www.accp.com/docs/positions/guidelines/standards\\_of\\_practice.pdf](https://www.accp.com/docs/positions/guidelines/standards_of_practice.pdf); Watanabe JH, McInnis T, Hirsch JD. Cost of Prescription Drug–Related Morbidity and Mortality. *Annals of Pharmacotherapy*. 2018;52(9):829–837

<sup>3</sup> The Patient Care Process for Delivering Comprehensive Medication Management (CMM): Optimizing Medication Use in Patient-Centered, Team-Based Care Settings. CMM in Primary Care Research Team. 2018 Jul. Available from [http://www.accp.com/cmm\\_care\\_process](http://www.accp.com/cmm_care_process)

## Substance Use Disorder and the Addiction Recovery Medical Home Model

The [Addiction Recovery Medical Home \(ARMH\) model](#) is unique in its scope and transformative approach to long-term community-based treatment and recovery from all SUDs. The Alliance for Addiction Payment Reform established the ARMH model to organize care principles most germane to opioid use disorder (OUD) and alcohol use disorder (AUD). The five foundational elements of the ARMH include: 1) payment, 2) quality and process measures, 3) network, 4) care recovery team, and 5) treatment and recovery plan. Care recovery has three critical, interconnected episodes: pre-recovery/stabilization (episode 0), recovery initiation and active treatment (episode 1), and community-based recovery management (episode 2).<sup>4</sup> As integral members of the care recovery team, clinical pharmacists positively impact outcomes in these episodes across the continuum of care.

**Figure 1: Integrated Care Recovery Team**



## Practice Models

Clinical pharmacists enhance care for people with SUD with holistic, comprehensive services extending beyond the dispensing of medications.<sup>5</sup> This role often intersects with their responsibilities caring for

<sup>4</sup> Addiction Recovery Medical Home Alternative Payment Model. Alliance for Addiction Payment Reform. 2019. Available from <https://incentivizerecovery.org/armh-apm-model/>

<sup>5</sup> Coon SA, Hill LG, Hutchison RW, et al. Mobilizing pharmacists to address the opioid crisis: A joint opinion of the ambulatory care and adult medicine practice and research networks of the American College of Clinical Pharmacy. *J Am Coll Clin Pharm.* 2020;3(8):1493-1513

people with acute and chronic pain syndromes. Just as clinical pharmacists are key contributors to hospital-based antimicrobial stewardship programs, they are also essential to both inpatient and outpatient opioid stewardship programs. While these programs often start with the goals of improving pain management and minimizing inappropriate opioid prescribing, many have progressed to include treatment and harm reduction services for people with SUDs. The following case studies demonstrate how CMM for SUD is managed by clinical pharmacists, across the continuum of care.

### **Acute Care (Episodes 0 and 1)**

In 2017, Rush University Medical Center (Chicago, IL) started a care recovery team with an integrated clinical pharmacist. In this acute care model, the clinical pharmacist is engaged as a strategic team member, embedded in an interprofessional addiction medicine consult team, providing medication knowledge of acute and chronic diseases to inform decisions on SUD treatment during the pre-recovery and stabilization episode of the patient's hospitalization. The clinical pharmacist informs decision making with other services by offering optimal medication options for acute and chronic treatment in a deliberate way that allows patients with OUD to be initiated and maintained on medications for opioid use disorder (MOUD). Mitigating drug-drug interactions, anticipating dose reductions, and avoiding treatment interruptions increases the capacity for patients to engage in recovery initiation during their hospitalization.

The care recovery team, known as the Substance Use Intervention Team (SUIT), is a hospital initiative to respond to SUD becoming an anticipated target for future CMS guidelines. Following the ARMH episodes of care, hospital-wide, universal SUD screening identifies patients during their pre-recovery stabilization period who would benefit from brief intervention and treatment. Over one year, 87.2 percent of 35,541 hospital admissions received initial screening. Of the 5,888 (19 percent) of admissions who screened positive for high risk of a SUD, 1,484 patients received a brief intervention during their hospital stay. SUIT was consulted on 880 patients with SUD to facilitate a patient from pre-recovery engagement to recovery initiation, and multiple forms of MOUD were started, including buprenorphine, methadone, and naltrexone. Just over 150 patients were started on buprenorphine for induction or withdrawal treatment during hospitalization with the majority referred for ongoing treatment. The pharmacist-integrated care recovery team runs an addiction medicine clinic to accept patients initiated on treatment as part of their model to promote a strong connectivity between institutional settings and an underlying care recovery team working to promote active recovery with the patient.

The SUIT has seen 244 patients in the clinic and the patient identification and flow has been used to justify initiation of naloxone distribution in both the SUIT clinic and emergency department.<sup>6</sup> As an integrated member of the care team, the clinical pharmacist contributes to quality and process outcomes by developing and refining institutional policies, protocols, and quality improvement initiatives.

An [amendment](#) to the Medical Assistance Article of the Illinois Public Aid Code will now allow an add-on payment for hospitals administering long acting injectable Food and Drug Administration (FDA) approved SUD medications, which will expand the use of inpatient specialty medications in Illinois starting in 2022.

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<sup>6</sup> Thompson HM, Hill K, Jadhav R, Webb TA, Pollack M, Karnik N. The Substance Use Intervention Team: A Preliminary Analysis of a Population-level Strategy to Address the Opioid Crisis at an Academic Health Center. *J Addict Med.* 2019 Nov/Dec;13(6):460-463; Tran TH, Swoboda H, Perticone K, Ramsey E, Thompson H, Hill K, Karnik NS. The substance use intervention team: A hospital-based intervention and outpatient clinic to improve care for patients with substance use disorders. *Am J Health Syst Pharm.* 2021 Feb 8;78(4):345-353

The pharmacist-integrated care recovery team will be essential to hospital-access of these expensive medications which have strict regulatory temperature and controlled substance storage requirements and can only be maintained through careful transitions of care coordination with specialty pharmacy that are part of the limited distribution network, a DATA-waivered outpatient prescriber, and communication with PCP for successful community-based recovery management.

### Health System (Episodes 0, 1, and 2)

At the Veterans Health Administration (VHA), the clinical pharmacist is an Advanced Practice Provider who is authorized, under a scope of practice, to provide CMM in a variety of practice settings as described in [VHA policy](#). Their roles and responsibilities include prescribing, executing therapeutic plans, physical and objective disease assessment, utilizing quantitative instruments to screen for and address addiction and withdrawal, ordering labs and diagnostic tests, taking corrective action for identified drug-induced problems, making referrals to maximize positive outcomes, and obtaining and documenting informed consent for treatments and procedures. The clinical pharmacist applies the principles of team-based care and population management to proactively identify patients who benefit from CMM with a focus on at-risk patients, risk mitigation opportunities, and harm reduction strategies. Collectively, these activities focus on treatment appropriateness, effectiveness, safety, and recovery in SUD along with addressing co-morbid care needs.

Clinical pharmacist practice within VHA spans the continuum of SUD services. The care transitions necessary to navigate treatment and recovery create a framework for clinical pharmacist integration into each level of care consistent with the VA Stepped Care Model of SUD treatment: Level 0, self-care; Level 1, primary care-based management; progressing through higher complexity care needs in Level 2, Specialty Care.<sup>7</sup>

Integration of clinical pharmacists in this model significantly improves access to SUD care by increasing the number of prescribers available to treat patients while positively impacting quality metrics.<sup>8</sup> Within VHA, the Pharmacy Benefits Management (PBM) Clinical Pharmacy Practice Office (CPPO) and the Office of Rural Health (ORH) partnered in October of 2019 to launch a new enterprise-wide initiative (EWI), “Leveraging Clinical Pharmacist Practitioners (CPP) to increase Rural Veteran Access (CRVA) with Substance Use Disorder (known as the CRVA-SUD).<sup>9</sup> This initiative affords greater access to medication treatment for rural patients with SUD focusing OUD and AUD care needs. The project supported hiring and integrating 35 clinical pharmacists into collaborative care roles, in addition to system-wide SUD virtual education to over 250 clinical pharmacists, with the central priority to promote practice spread across the nation. Large-scale practice infrastructure and SUD training is essential in an integrated health care system to support solutions for increased access to medication treatment and risk mitigation in the journey to recovery.

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<sup>7</sup> Gordon AJ, Drexler K, Hawkins EJ, Burden J, Codell NK, Mhatre-Owens A, Dungan MT, Hagedorn H. Stepped Care for Opioid Use Disorder Train the Trainer (SCOUTT) initiative: Expanding access to medication treatment for opioid use disorder within Veterans Health Administration facilities. *Subst Abus.* 2020;41(3):275-282

<sup>8</sup> DeRonne BM, Wong KR, Schultz E, Jones E, Krebs EE. Implementation of a pharmacist care manager model to expand availability of medications for opioid use disorder. *Am J Health Syst Pharm.* Feb 8 2021;78(4):354-359

<sup>9</sup> Alliu V., et al. “Leveraging Clinical Pharmacist Practitioners to Increase Rural Veteran Access.” VA Office of Rural Health Newsletter. Fall 2021. Retrieved from [https://www.ruralhealth.va.gov/docs/news/ORH\\_Newsletter\\_Fall2021\\_FINAL.pdf#page=7](https://www.ruralhealth.va.gov/docs/news/ORH_Newsletter_Fall2021_FINAL.pdf#page=7). Accessed 15 December 2021

### Primary Care (Episodes 1 and 2)

The VHA and non-governmental health care organizations have described models of clinical pharmacist integration in outpatient SUD treatment. The success of many of these models is the broad expertise and focus of the clinical pharmacists involved. Research has described models for contribution to treatment of AUD and tobacco use disorder, though emerging literature has focused primarily on OUD treatment.<sup>10</sup>

In the Minneapolis Veterans Affairs Medical Center (VAMC), four primary care clinical pharmacists and three psychiatric clinical pharmacists expanded their practice to include MOUD management.<sup>9</sup> A DATA-waivered clinician encountered each patient at least annually and authorized all buprenorphine prescriptions, but patient access was eased because interim visits could be conducted with a clinical pharmacist who could independently manage their comorbidities. This program confirmed the feasibility of clinical pharmacist co-management of MOUD through 625 encounters with 109 unique patients.

At the University of Buffalo, clinical pharmacist integration in outpatient treatment of OUD was associated with fewer opioid relapse months and improved medication adherence.<sup>11</sup> The care provided by clinical pharmacists included buprenorphine co-management as well as adjustments to other untreated or undertreated conditions. Successful integration of clinical pharmacists in OUD care was also demonstrated in four different outpatient practice types in North Carolina.<sup>12</sup>

Transitions of care are complex for any patient, and they are especially precarious for patients with SUDs. Effective care coordination from a clinical pharmacist often includes reviewing hospital records, completing a phone encounter with the patient, and communicating with an outpatient pharmacy to navigate medication access barriers. Completion of each of these tasks is essential to ensure the first encounter with an outpatient clinician is efficient and effective. In the Tennessee Valley VAMC, a pharmacist-led transitions of care program was established to support patients with OUD or AUD who were prescribed extended-release naltrexone or buprenorphine.<sup>13</sup>

Retention in treatment was improved at one and three months, and continuous use of naltrexone was significantly higher for patients who engaged with clinical pharmacists compared to those who did not. In addition to improving SUD treatment outcomes, clinical pharmacists have demonstrated outstanding success with focused system-level interventions such as increasing naloxone prescribing.<sup>14</sup> Given their vital understanding of medication effects, risks, and use processes, clinical pharmacists often serve as

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<sup>10</sup> Ford JH, 2nd, Gilson A, Mott DA. Systematic Analysis of the Service Process and the Legislative and Regulatory Environment for a Pharmacist-Provided Naltrexone Injection Service in Wisconsin. *Pharmacy (Basel)*. Jun 12 2019;7(2); NASPA. Pharmacist Prescribing: Tobacco Cessation Aids. National Alliance of State Pharmacy Associations. Updated February 10, 2021. Available at: <https://naspa.us/resource/tobacco-cessation/>

<sup>11</sup> Mattle AG, Aladeen T, Blondell RD, Capote H, Rainka M. Evaluating outcomes of a clinical pharmacist medication management program in a multidisciplinary practice for outpatient buprenorphine treatment of opioid use disorder. *J Am Coll Clin Pharm*. 2021; 4(4): 424-434

<sup>12</sup> Caron O, Fay AE, Pressley H, Seamon G, Taylor SR, Wilson CG. Four models of pharmacist-integrated office-based opioid treatment. *Jaccp: Journal of the American College of Clinical Pharmacy*. 2022;doi:10.1002/jac5.1607

<sup>13</sup> Smith A, Hansen J, Colvard M. Impact of a pharmacist-led substance use disorder transitions of care clinic on post-discharge medication treatment retention. *J Subst Abuse Treat*. Apr 28 2021;130:108440

<sup>14</sup> Hoefling AD, Ash LR, Linneman TW. Impact of pharmacist contact via telephone vs letter on rate of acquisition of naloxone rescue kits by patients with opioid use disorder. *Subst Abuse*. Sep 3 2020:1-5

academic detailers of other health care professionals for these initiatives. Clinical pharmacists can also be vital ongoing resources to support lifelong learning for other clinicians by helping them analyze new studies, appraise new warnings, and navigate new regulations related to medications.

## Future Directions

The role of clinical pharmacists in optimizing care for SUD is primed to expand dramatically over the next decade. The total [physician shortage is projected](#) to fall between 54,100 and 139,000 physicians by 2033, with a shortage of primary care physicians between 21,400 and 55,200. As the medication experts, clinical pharmacists integrated as accountable members of the care team improve team efficiency and achieve medication optimization. When clinical pharmacists engage in patient care to their full capacity, physician time is saved, access to care is expanded, clinical outcomes are improved, and payers experience financial savings.

CMM services for SUD have demonstrated a positive impact on access to care, quality of care, patient engagement, patient satisfaction, and treatment retention.<sup>15</sup>

Currently 10 states (CA, ID, MA, MT, NM, NC, NV, OH, TN, WA) allow varying levels for [controlled substance prescriptive authority](#) for pharmacists. When the clinical pharmacist is a Drug Enforcement Administration (DEA) registered practitioner, team and practice efficiency is improved when controlled substance prescribing is needed for the care of the patient. Clinical pharmacists are currently not included in the definition of qualifying practitioner by federal law and therefore are not authorized to obtain a DATA-waiver to prescribe buprenorphine products for OUD. Modifying or removing the DATA-waiver requirement to prescribe buprenorphine for OUD for all DEA registered practitioners would facilitate access to live-saving, evidence-based treatment. Within VHA, clinical pharmacists with DEA-registered prescriptive authority have demonstrated a positive impact on patient outcomes.<sup>16</sup> Additionally, the accessibility of community pharmacists makes their role in OUD access prime for involvement as

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<sup>15</sup> Grgas, M. Clinical psychiatric pharmacist involvement in an outpatient buprenorphine program. *Mental Health Clinician*. 2013;3(6):290-291

Suzuki et al., Implementation of a collaborative care management program with buprenorphine in primary care: A comparison between opioid-dependent patients and chronic pain patients using opioids non-medically. *J Opioid Manag*. 2014;10(3):159-168

DiPaula BA, Menachery E. Physician-Pharmacist Collaborative Care Model for Buprenorphine-maintained Opioid-dependent Patients. *J Am Pharm Assoc*. 2015;55:187-192

Thompson, CA. Pharmacist, physician collaborate at clinic to treat opioid dependence. *Am J Health Syst Pharm*. 2016;73(11):738-9. doi: 10.2146/news160034

Cochran G, Chen Q, Field C. A community pharmacy-led intervention for opioid medication misuse: A small scale randomized clinical trial. *Drug and Alcohol Dependence*. 2019;206:107570

Ives TJ, et al. Pharmacy practice in a chemical-dependency treatment center. *Am J Hosp Pharm*. 1990;47(5):1080-3

Lagisetty P, Klasa K, Bush C, Heisler M, Chopra V, Bohnert A. Primary care models for treating opioid use disorders: What actually works? A systematic review. *PLOS One*. 2017; 12(10)

Lagisetty P, et al. A physician-pharmacist collaborative care model to prevent opioid misuse. *American Journal of Health-System Pharmacy*. 2020; 77(10): 771-780

<sup>16</sup> Kominek, C. Retrospective Chart Review of Advanced Practice Pharmacist Prescribing of Controlled Substances for Pain Management at the Harry S. Truman Memorial Veterans' Hospital. *Fed Pract*. 2021 Jan;38(1):20-27

demonstrated in a recent pilot supporting the enhanced care of stable patients prescribed buprenorphine.<sup>17</sup>

Clinical pharmacists on the health care team play a vital role in medication selection, initiation, stabilization, and maintenance for OUD, and for other SUDs as the availability of approved medications for them expands. However, practice models to fully incorporate and leverage pharmacists' capabilities are developing too slowly. Although some progress has been made, the persistent increase in drug overdose deaths and non-fatal drug-related complications necessitates a call for innovation action.

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<sup>17</sup> Wu LT, John WS, Ghitza UE, et al. Buprenorphine physician-pharmacist collaboration in the management of patients with opioid use disorder: Results from a multisite study of the National Drug Abuse Treatment Clinical Trials Network. *Addiction*. Jan 11 2021;doi:10.1111/add.15353





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