

# Comprehensive Medication Management in Team-Based Care



## About ACCP

---

The American College of Clinical Pharmacy (ACCP) is the professional and scientific society that provides leadership, education, advocacy, and resources enabling clinical pharmacists to achieve excellence in practice and research.

ACCP's membership is composed of practitioners, scientists, educators, administrators, students, residents, fellows, and others committed to excellence in clinical pharmacy and patient pharmacotherapy.



## Contact Us

---

**American College of  
Clinical Pharmacy  
World Headquarters**

13000 W. 87th Street Parkway  
Suite 100  
Lenexa, KS 66215-4530  
Telephone: (913) 492-3311  
Fax: (913) 492-0088  
E-mail: [accp@accp.com](mailto:accp@accp.com)

**Washington Office  
Government and  
Professional Affairs**

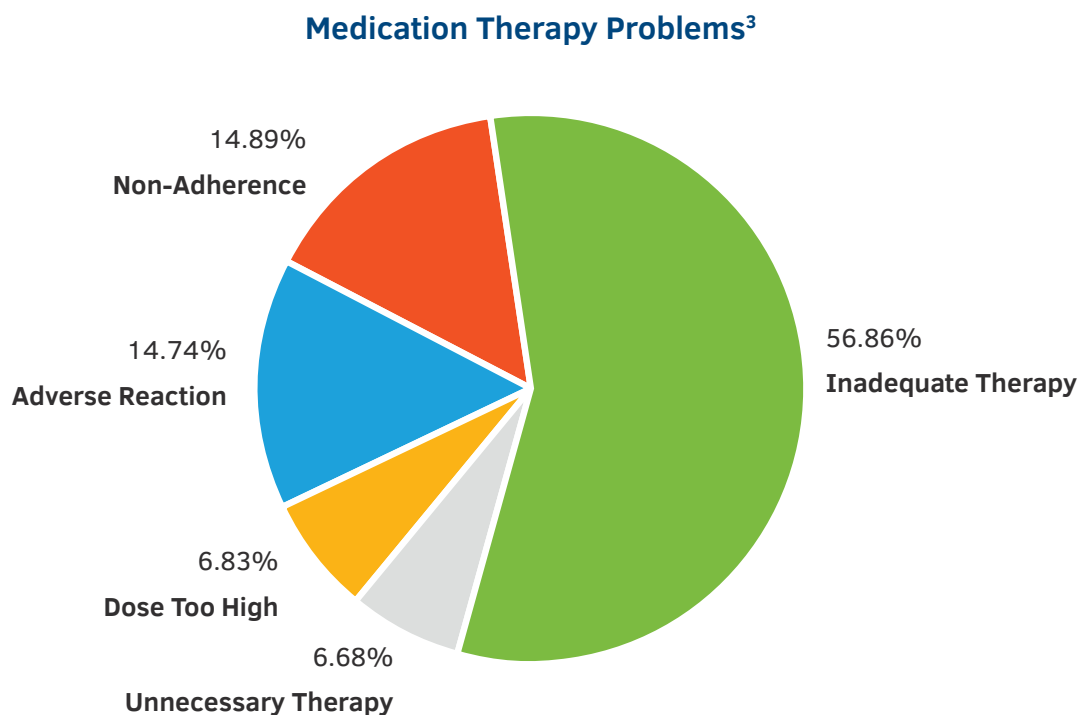
1455 Pennsylvania Avenue NW  
Suite 400  
Washington, DC 20004-1017  
Telephone: (202) 621-1820  
Fax: (202) 621-1819

## How significant is the medication problem?

Medications are involved in 80% of all treatment plans and affect almost every aspect of a patient's life. Prescriptions dispensed in the United States are estimated to approach 5 billion by 2021, reflecting an increase of about 1 billion prescriptions over just 10 years.<sup>1</sup> According to the World Health Organization, adherence to therapy for chronic diseases in developed countries averages 50%, and poor adherence to therapies results in poor health outcomes and increased health care costs.<sup>2</sup>

Although nonadherence is commonly cited as the primary problem with patients' medication use, growing evidence shows that it is not the leading reason for treatment failures and incomplete achievement of clinical goals. The data represented below reflect aggregated results from 19 distinct medication management service practices; 11,804 patients older than 65 years and 21,213 documented encounters. Inadequate therapy--defined as dose too low, different or additional drug needed, or wrong drug--accounts for more than half of the problems encountered.<sup>3</sup>

Clinical pharmacists are certainly trained, qualified, and eligible to resolve nonadherence problems; however, the more influential problems require the unique expertise of a clinical pharmacist to enable the patient to achieve medication-related therapeutic goals. This is known as comprehensive medication management (CMM). The two most commonly identified drug therapy problems in patients receiving CMM are: 1) the patient requires additional drug therapy for effective prevention or synergistic or palliative care; and 2) the drug dosages need to be titrated to achieve therapeutic concentrations and achieve intended therapy goals.<sup>2</sup>



## What is CMM?

CMM is defined as the standard of care that ensures each patient's medications (i.e., prescription, nonprescription, alternative, traditional, vitamins, or 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. CMM includes an individualized care plan that achieves the intended goals of therapy with appropriate follow-up to determine actual patient outcomes. This all occurs because the patient understands, agrees with, and actively participates in the treatment regimen, thus optimizing each patient's medication experience and clinical outcomes.<sup>2</sup>

## How is CMM delivered?

Clinical pharmacists work in collaboration with other providers to deliver CMM that optimizes patient outcomes. Care is coordinated among providers and across systems of care as patients transition in and out of various settings. The clinical pharmacist's process of care comprises the following components.<sup>4</sup>



After the delivery of CMM, all patient encounters are documented with those of other health care professionals and in accordance with state practice act requirements. Specific components to be documented include the patient’s medication history, the related problem and/or condition history, and the plan for resolving the identified medication-related problems.<sup>4</sup>

## Who needs CMM?

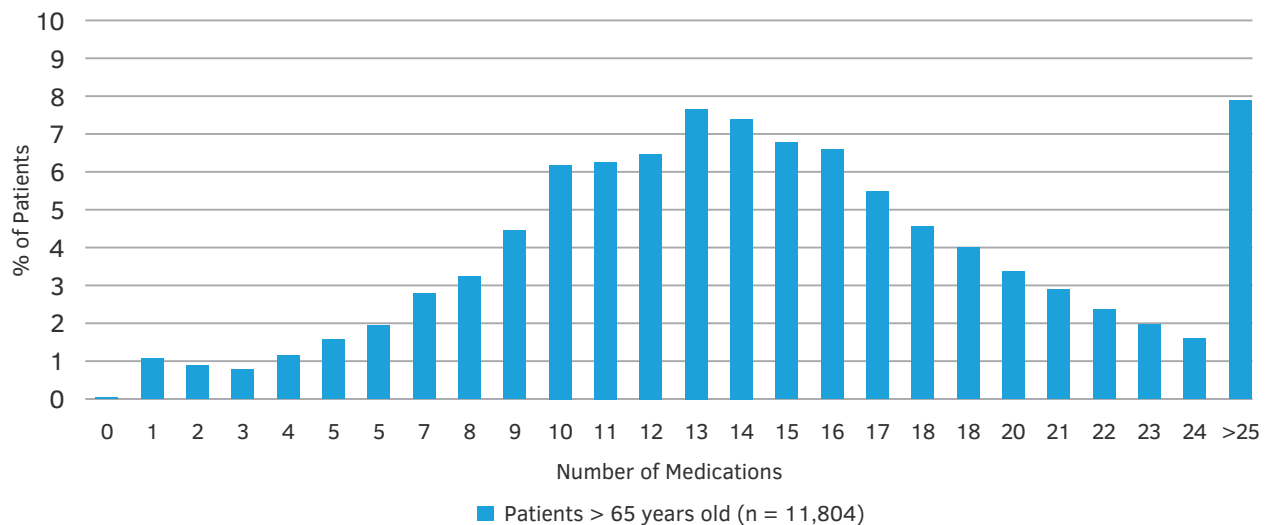
CMM is of the greatest benefit to<sup>2</sup>:

- Patients who have not reached or are not maintaining the intended therapy goal
- Patients who are experiencing adverse effects from their medications
- Patients who have difficulty understanding and following their medication regimen
- Patients in need of preventive therapy
- Patients who are often readmitted to the hospital

Although the data suggest that many patients are able to benefit from comprehensive medication management, patients with greater numbers of medical conditions and taking greater numbers of medications have the potential to benefit the most.<sup>2</sup>

For instance, of the 11,804 patients previously mentioned, two of three older adults had three or more medical conditions, and two of three older adults were identified with two or more drug therapy problems. In addition, three of four older adults took more than eight different medications at any time.<sup>3</sup>

### Number of Medications Per Patient<sup>3</sup>



## What is the value of CMM?

The value of CMM is realized in multiple ways by multiple groups. Most importantly, patients benefit from improved medication-related clinical outcomes. Patients also benefit directly from the increased individualized attention to medications and their impact on their daily lives. Physicians and other care team members benefit when clinical pharmacists apply their pharmacotherapeutic expertise in a collaborative process to help manage complex drug therapies. Physicians can dedicate more time to the diagnostic and treatment selection process, enabling them to be more efficient, see more patients, and spend more time providing medical care.<sup>2</sup>

Other stakeholders, including health plans, employers, and payers, benefit when they pay only for medications that are safe, appropriate, and effective for the patient and his or her medical problem and that are used as intended. Keeping patients out of the hospital is one of the most important—and most cost-effective—goals of the patient-centered medical home (PCMH). Providing CMM to complex patients is one way to help accomplish this goal.<sup>2</sup>

Another measurement of value is through the calculation of return on investment (ROI), or how much value the service adds compared with the cost of delivering the service. The ROI of medication management services has been studied in numerous patient populations. The data from the delivery of this service are positive, with a demonstrated ROI as high as 12:1 with an average of 3:1–5:1. ROI reflects an ability to decrease hospital admissions, physician visits, and emergency department admissions and reduce the use of unnecessary and inappropriate medications. This estimate is conservative; the ROI is likely to be much greater because practitioners routinely underestimate the impact of clinical pharmacists' services on a patient's quality of life. In addition, it is difficult to place a number on high patient satisfaction and physician acceptance.<sup>2</sup>

Data suggest that providing CMM will help the Medicare program avoid almost 6 million physician office visits and 670,000 emergency department visits annually, saving more than \$1 billion and more than \$500 million, respectively, per year.<sup>3</sup>

---

### What qualifies a clinical pharmacist to deliver CMM?

---

Qualified clinical pharmacists are licensed professionals with specialized advanced education and training who possess the clinical competencies necessary 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 practice. Board certification is also required once the clinical pharmacist meets the eligibility criteria specified by the Board of Pharmacy Specialties (BPS).<sup>4</sup>

In addition, clinical pharmacists providing CMM are credentialed in a manner that aligns with the health system's processes and requirements for credentialing other health care professionals.

---

### How is CMM operationalized?

---

A collaborative practice agreement (CPA) between one or more physicians and qualified clinical pharmacists who work within the context of defined protocols and/or approved clinical privileges permits the clinical pharmacist to assume professional responsibility for performing patient assessments, ordering medication-related laboratory tests, administering medications, and selecting, initiating, monitoring, continuing, and adjusting medication regimens. Privileging processes, together with the applicable state pharmacy practice act, confer certain authorities, responsibilities, and accountabilities to the clinical pharmacist and contribute to the improved efficiency and effectiveness of team-based care. In addition, a CPA designates the level of oversight and physician involvement required in the clinical pharmacy service. Because a CPA cannot include all activities that may occur in the care setting, providers should discuss policies and procedures regarding team-based strategies for managing patient-centered care in these instances.<sup>5</sup> To accomplish the *comprehensive* nature of CMM, these agreements should not limit the service provided by restricting medications or medical conditions/problems.

Many have recognized the essential contributions of clinical pharmacists to team-based patient-centered care while noting barriers to fully integrating services such as CMM into practice. One strategy for overcoming these barriers is to develop a CPA that defines agreed-on clinical pharmacists' scope and services. In providing collaborative drug therapy management (CDTM) on interprofessional care teams, clinical pharmacists apply specific drug therapy knowledge, skills, and experience to complement the care provided by collaborating professionals. Therefore, clinical pharmacists enhance the care provided to patients rather than serve as physician substitutes or extenders.<sup>5</sup>

## What are the payment methods for CMM?

---

Although a range of metrics and conceptual approaches continue to be discussed and debated as a means to “demonstrate pharmacists’ value,” the reality is that practical and effective mechanisms to pursue payment for clinical pharmacists’ collaborative, team-based patient care have been in existence for quite some time, and additional opportunities continue to emerge.

Given the description of CMM, the principal and relevant billing codes commonly associated with this practice include, but are not limited to the following:

- The existing and recognized pharmacist services time-based codes in the 99605-07 series (note: these codes are not confined for use solely within Part D MTM programs, and can provide a framework for pharmacist-specific coding/documentation by a range of benefit designs and payment structures);
- Significant portions of the range of relevant Evaluation & Management codes in the 99211-99215 series, which best describe many of the elements of medication management activities that occur in a typical/broader medical office visit; and
- Emerging codes reflecting Transitional Care Management (TCM), Chronic Care Management (CCM) and other care coordination, telephonic, and team-based care activities that are in development or under consideration.

## What additional CMM research is underway?

---

To expand upon what is known about CMM in primary care, the ACCP and the ACCP Research Institute recently awarded a \$2.5 million grant to study a variety of related outcomes.

- Which patients and populations within primary care practices benefit the most from CMM?
- Among those who receive CMM, what is the impact on quality of care and cost? Are the patients in greatest need of medication optimization receiving CMM, and if so, what are best practices around the duration and frequency of follow-up?
- How can/should CMM be delivered, replicated, scaled, and sustained? In other words, how can medical practices do this most effectively?
- Which medication-related, clinical, and economic performance metrics are most relevant to today’s primary care practices? What are the clinical pharmacist’s contributions to helping the practice achieve these metrics?
- What are the clinical pharmacist’s contributions to the net revenue generated by the practice, and what is the relative ROI of having the clinical pharmacist embedded in the office or clinic?

## References

---

1. Aitken M, Kleinrock M, Lyle J, Nass D, Caskey L; IMS Institute for Healthcare Informatics. Medicines use and spending shifts: a review of the use of medicines in the U.S. in 2014. Available from [www.imshealth.com](http://www.imshealth.com). Accessed December 2, 2015.
2. Patient-Centered Primary Care Collaborative (PCPCC). The patient-centered medical home: integrating comprehensive medication management to optimize patient outcomes resource guide, 2nd ed. Washington, DC: PCPCC, 2012. Available from [www.pcpcc.org/sites/default/files/media/medmanagement.pdf](http://www.pcpcc.org/sites/default/files/media/medmanagement.pdf). Accessed December 2, 2015.
3. Strand, L. Written communication. October 4, 2013.
4. American College of Clinical Pharmacy (ACCP). Standards of practice for clinical pharmacists. *Pharmacotherapy* 2014;34:794–7.
5. American College of Clinical Pharmacy (ACCP). Practice advancement issue brief. Available from [www.accp.com/paib2](http://www.accp.com/paib2). Accessed December 2, 2015.

