

Spring 2012

# Medication Therapy Management, Challenges: The Pharmacist's Emerging Role

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## Recommended Citation

Shah P, Goad JA, Mirzaian E, Durham M. Medication Therapy Management, Challenges: The Pharmacist's Emerging Role. *California Pharmacist*. Vol LIX (2). Spring 2012.

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# Medication Therapy Management, Challenges: The Pharmacist's Emerging Role

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# Therapy Management, Challenges: The Pharmacist's Emerging Role

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The pharmacist's role on the healthcare team has received much attention lately as the new Affordable Care Act (ACA) healthcare legislation creates opportunities for pharmacists. Interprofessional collaboration will transform the way pharmacists deliver health services to patients with respect to their medications. In the community, pharmacist-provided services have been moving away from the traditional role of dispensing to cognitive services that maximize the patient's safe and effective use of medications. The current movement in medical care within the United States is to adopt a model that is patient-centric. The Patient-Centered Primary Care Collaborative (PCPCC) recognizes that "patient-centric" systems are evolving, in which the patient's well-being and responsibility for his or her own good health are defining treatment and operational policies.<sup>1</sup>

This patient-centered medical home (PCMH) model is intended to provide better continuity of care to patients in the primary care setting. The key to a successful PCMH is seamless coordination of care, which has the potential to improve access to specialty services, promote individual

empowerment in care, improve patient satisfaction and health outcomes, and subsequently decrease overall health care expenditures. Successful implementation of the PCMH will also require a healthcare system to adopt an interdisciplinary approach. Led by physicians, the team could include specialized clinicians such as nurses, nutritionists, and pharmacists, who can provide medication therapy management (MTM). MTM is the optimization of therapeutic outcomes for individual patients. This approach also includes a broad range of health and wellness services, such as disease screening and immunizations.

Recent attention to medication mismanagement events has placed more focus on the importance of MTM services. It is estimated that 1.5 million preventable medication-related adverse events occur each year costing nearly 177 billion dollars annually in injury and death.<sup>2</sup> Since the Medicare Modernization Act of 2003, Medicare Part D prescription drug plans (PDP) were required by the Centers for Medicare and Medicaid Services (CMS) to provide MTM services to their patients, specifically those who have multiple chronic disease states and subsequently take several medications. The intention of compensating pharmacists within this model was to improve quality and cost outcomes.<sup>3</sup> The mandate took effect in 2006, but PDPs have been slow to implement pharmacist compensation for MTM services in addition to the customary reimbursements for the distribution of medications. As a result, MTM services have not expanded as rapidly as intended, but CMS Quality Improvement Organization (QIO) reporting,

patient demand, and enhanced access to health information technology (HIT) may stimulate expansion.

## Medication Therapy Management Services: The Core Elements

CMS defines MTM as a mechanism to ensure "optimum therapeutic outcomes for targeted beneficiaries through improved medication use... (and) reduce the risk of adverse events."<sup>4</sup> Over the years, community pharmacists have been providing MTM services in the form of "brown bag," reviews, which typically involves the pharmacist explaining the use of each medication, identifying therapeutic duplications, drug interactions, outdated medications, and counseling the participant on how to best adhere to their medications. This process does not rely on HIT and is limited in its measurable outcomes. As the Asheville Project and subsequent similarly-modeled programs demonstrated, comprehensive MTM services that go beyond the "brown bag" model have repeatedly shown to be cost-effective and improve quality of care.<sup>5</sup> Pharmacist-provided MTM has also been validated in other specialty settings such as anti-coagulation and palliative care.<sup>6,7</sup> As patients and health plans demand more specialized care, pharmacists in the community setting must adapt a practice model that can accommodate more time spent providing such clinical services.

The American Pharmacists Association (APhA) and the National Association of Chain Drug Stores (NACDS) describe the framework of the MTM service model to include five core elements that can be implemented

in various pharmacy settings. They are: 1) medication therapy review or comprehensive medication review (MTR/CMR); 2) personal medication record (PMR); 3) medication-related action plan (MAP); 4) intervention and/or referral; and 5) documentation and follow up.<sup>6</sup> All core elements are essential for MTM, but can be modified or rearranged for a specific patient's needs. MTR is defined as a systematic process of collecting patient-specific information, assessing medication therapies, developing a prioritized list of medication-related problems, and creating a plan to resolve them.<sup>8</sup> The MTR can be comprehensive to include all of the patient's medication-related issues, self-management strategies and general health issues such as compliance with immunizations, primary care provider and/or specialist physician visits, lifestyle habits, and stress management. Ideally, people taking multiple medications would have an annual MTR visit with their pharmacist with additional targeted MTRs conducted more frequently to address the specific issues arising throughout the course of care. Several studies have shown that MTRs can reduce the number of physician visits, emergency room visits, hospitalization days, and can increase patient satisfaction and quality of care.<sup>5, 9-11</sup>

However, there are limitations to this process that can be solved with improved access to HIT. Without the medical record, medication indications can only be inferred. This process is limited in that many drugs have multiple indications, thus while the probability to infer all possible diagnoses is high, but the ability to infer which of the possible diagnoses is the right one may be low. In addition, the source of the medication list is important. If it originates from the pharmacy, prescriptions filled at other pharmacies may be missed, and if it originates from the PBM, prescriptions not paid for by insurance may be missed (e.g. \$4 generic deals). Lastly, if the patient is using samples, neither the PBM nor

the pharmacy records will be accurate. This is a prime example in which HIT can play a major role in closing the information gap between patients, providers and health systems.

At the completion of an MTR a pharmacist should provide the patient with a Personal Medication Record (PMR), which is a compressive medication list that includes all prescription and non-prescription medications used by the patient. The PMR includes basic patient information and itemizes each medication with its appropriate dose, indication, instructions for use, duration of use, and corresponding prescriber. This form of documentation helps the patient manage his or her medications and provides a comprehensive medical list for other healthcare providers.

The second form of documentation to assist patients in medication self-management is a medication action plan (MAP). Much like the "Plan" portion of a providers SOAP note, a MAP is a patient-centric medication-related plan to help the patient direct his or her own care independently. The MAP contains actionable steps the patient and pharmacist must take to address medication related problems, and it needs to be updated at follow up visits. Sometimes, the identified problems are beyond what the pharmacist or patient can change and the primary care provider must be consulted. Finally, in order to ensure proper continuity of care, all MTM services must be documented by the pharmacist, and follow up visits or calls should be scheduled in an appropriate time frame. Documentation should, at a minimum, reside at the pharmacy, but in the future, should be documented directly in the electronic medical record.

Taking these five core elements together, MTM can be an incredibly powerful tool in ensuring the best care possible for patients, especially in the outpatient setting. Studies have demonstrated that the inclusion of pharmacists within the PCMH

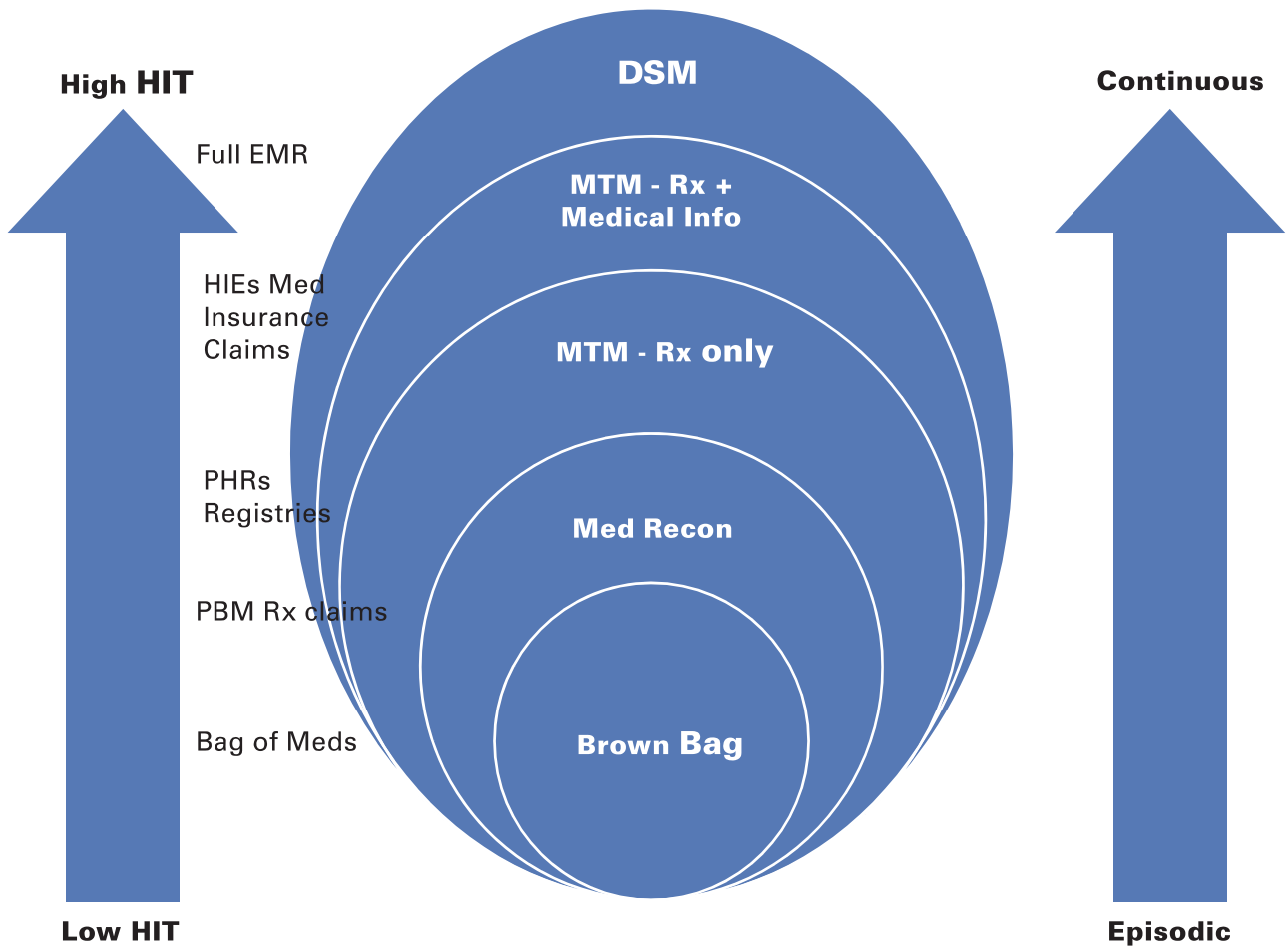
improves the quality of patient care, provides valuable resources for all providers and staff, and empowers patients.<sup>12, 13</sup> As the demand for MTM services increases with an aging patient population, pharmacists will play a central role within the health care team providing medication expertise.

## **Health Information and Other Barriers to Implementing Medication Therapy Management Services**

Success of an MTM program is likely to be multi-factorial and not solely dependent upon the practice setting. Availability of HIT at the interface of the pharmacy, time for the pharmacist to provide patient care, appropriate pharmacy layout to enable private consultation, and an adequate compensation system are some of the components essential to a successful MTM. A setting in which the pharmacist has access to comprehensive health information delivered by an electronic health/medical record (EHR/EMR) is ideal for a pharmacist to provide a sophisticated and comprehensive MTR. Currently, pharmacists are more likely to find this situation in an integrated managed care organization, a hospital or a medical clinic, but not a community pharmacy.

Access to health information is essential to furnishing MTM of higher levels of complexity (see Figure 1). As MTM progresses from simple, episodic encounters, such as "brown bag" and targeted MTM services to more complex CMRs and Disease State Management programs (DSMs), more patient information is needed to accurately and safely perform these clinical functions. Although a patient's pharmacist is considered a covered entity under HIPAA, obtaining patient's medical records is currently cumbersome and logistically impractical for a pharmacist in a traditional community pharmacy setting. Even when EHRs are employed by medical providers, issues of privacy and

**Figure 1. Range of services in relation to availability of HIT**



**HIT** = Health Information Technology allows for the collection, storage, retrieval and transfer of information electronically. The following rely on HIT to various degrees:

**EMR/EHR** = Electronic Medical Record/Electronic Health Record

**PHR** = Personal Health Record

**HIE** = Health Information Exchange

**DSM** = Disease State Management

**MTM** = Medication Therapy Management, which include MTR/CMR

**Med Recon** = Medication Reconciliation

interoperability with the pharmacy systems limit a community pharmacist's participation. New requirements by The Joint Commission (TJC) mandate hospitals and health-systems to maintain accurate medication lists during transitions of care, such as from the hospital to the outpatient environment, a process known as Medication Reconciliation (Med Rec). Interoperability within systems could improve Med Rec. Registries, such as the immunization registries used throughout the country, could also be developed to electronically maintain a PMR. These types of registries are generally government maintained and can grant

access to any provider deemed in need of this information. In the ACA, states are encouraged to develop Health Information Exchanges (HIE) to facilitate interoperable electronic transfer of health information between HIPAA (health insurance portability and accountability act) -covered entities, including insurers and healthcare systems. These HIEs are not EMR/EHRs, but are simply designed to work in the background to make sure a patient's health information moves to the environment where the patient is receiving care.

With the advent of HIEs and guidance from government and phar-

macy professional organizations, the physical location of a pharmacist may no longer be a barrier to providing high-level patient care. The Pharmacy e-Health Information Technology Collaborative has developed a set of initiatives called The Roadmap for Pharmacy Health Information Technology Integration in U.S. Health Care. The Roadmap is designed to provide guidance to integrate pharmacy HIT into the national HIT infrastructure, which among its many goals will ensure that the HIT infrastructure supports the HIT needs for the provision of MTM services.<sup>14</sup> Additionally, the PCPCC indicates that moving to

patient-centric care models will be driven by market forces, the goal to improve health and reduce costs, and advances in technology.<sup>1</sup>

As a result of federal funding to encourage implementation, more healthcare systems are transitioning to include HIT. In 2006, The Agency for Healthcare Research and Quality (AHRQ) assessed the cost-benefit of HIT and estimated that by 2015 nearly \$82 billion can be saved annually through improved efficiency and safety.<sup>15</sup> HIT has many benefits as it becomes integrated into our health care system. In a broad sense it should improve patient care by increasing the efficiency of health care delivery, decreasing health care costs and preventing many medical errors.

Although interoperability and standardization of HIT are key rate-limiting factors towards implementing MTM in community sites, there are other significant barriers to community-based MTM services. Business models within local community pharmacies must change in order to allow pharmacists the time to perform MTM services. Some pharmacies do targeted MTM encounters such as resolving issues with non-formulary drugs and therapeutic duplications, while dispensing prescriptions. This is sometimes known as “in-line” MTM. More complex MTMs, which require consultation with the PCP and the patient, need to be scheduled. To meet demands in either scenario, the pharmacy needs to be staffed appropriately, and pharmacy software systems must evolve to integrate the documentation demands of MTM and interoperability with EHRs. Additionally, pharmacy as a profession needs to invest time and resources to market the benefits of MTM so that when the offer to perform MTM is made, consumers are more likely to accept. Additionally, as the Affordable Care Act is slowly implemented, demand for pharmacists with specialty training to provide comprehensive MTM will increase.<sup>16</sup> Therefore, insurers and government agencies need to

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recognize pharmacists as providers to allow compensation for cognitive services. The latter will allow pharmacies to expand their workforce and decrease economic barriers for patients to access MTM services.

While doctoral pharmacy education will continue to enhance MTM training and exposure to HIT, post-doctoral residency training must also evolve to expand the depth, breadth and complexity of MTM services in a fully electronic-enabled environment. However, the number of students demanding this type of training far exceeds the number of programs available. Expansion of current residency programs is hindered by multiple factors, including funding and site development. Johnson and Teeters describe the “tipping point” for pharmacy residencies as the intersection of opportunity and demand, both of which are on a rapid collision course.<sup>17</sup> With these challenges in mind, and the demonstrated contribution pharmacists have already made in collaborative practice models, a concerted effort must be made in designing strategic action plans in education and in the implementation of effective practice models in which pharmacists provide MTM.

## Conclusion

The inevitable movement towards the PCMH creates an opportunity for pharmacists to take a larger role in primary care as medication management experts. Consumers need to

understand the benefits of MTM, pharmacists in the community setting need to re-engineer their practice to allow more time to be spent in cognitive services, and insurers need to recognize the value of MTM provided by pharmacists and compensate them accordingly. Lastly, a highly functional PCMH requires fully accessible and interoperable HIT for all healthcare providers and patients. To achieve all of this, concerted efforts must be made now to unify the various pharmacy organizations, create partnerships with other health professions and consumer groups and encourage the government to abolish laws that restrict pharmacy practice and compensation. As stated in the recent report to the Surgeon General by the Office of the Chief Pharmacist, “One of the most logical, evidence-based decisions that can be made to improve care is to maximize the expertise and scope of pharmacists, and minimize expansion barriers of an already existing and successful health care delivery model.”<sup>18</sup>

## About the Authors

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