**Best Practice Submission**

**Prescription Synchronization in the Medical Home**

Point of Contact: Dr. Beverly Morrow, Pharm D, (253) 477-5085  
beverly.a.morrow2.civ@mail.mil

Groups Involved with the Project: The Madigan-Puyallup Community Medical Home and Madigan Army Medical Center’s Department of Pharmacy

Submitted by Mrs. Jaime L. McKay  
15 May 2013

**Executive Summary:** Prescription synchronization at the Madigan-Puyallup Community Medical Home is an outcomes-based, adaptable, and sustainable approach to promoting the health and wellness of America’s Military Family. Results include population health improvements, a better experience of care for patients and staff, and reduced per capita cost through waste reduction.
Objective of the Best Practice

The prescription synchronization efforts at the Madigan-Puyallup Community Medical Home (MPCMH) align with the Institute for Healthcare Improvement’s Triple Aim, striving to improve population health, provide a better experience of care, and reduce per capita cost (IHI, 2013). These objectives are attainable with prescription synchronization through improved medication adherence and persistency rates, reduced waste for MPCMH personnel and patients, and increased job satisfaction.

Background

Madigan Army Medical Center opened its first community-based clinic, the Madigan-Puyallup Community Medical Home (MPCMH), in April 2011. The MPCMH is one of fifteen Army-run primary care clinics located in the community, currently serving Army families. One of the fundamental concepts in these clinics is that the healthcare team works together to coordinate care and proactively engage patients as partners in care (Army Medicine, 2013). The MPCMH embraces this philosophy and in March of 2012, they began offering prescription synchronization services to enrolled beneficiaries. These services are above and beyond medication reconciliation processes required by Joint Commission.

Literature Review

The synchronization efforts at the MPCMH are based on the Appointment Based Model (ABM), which was designed to improve medication adherence and persistency rates, while decreasing phone calls and visits to the pharmacy (NASPA, 2013). Adherence and persistence are terms commonly used in the literature regarding pharmaceutical “compliance”, defined as taking the prescribed medication (adherence) for the intended course of treatment (persistence).

According to the New England Healthcare Institute (NEHI), poor medication adherence is a source of healthcare inefficiency, and may result in as much as $290 billion per year in avoidable medical spending nationwide (NEHI, 2009). The ABM is designed to reduce inefficiencies by synchronizing a patient’s chronic medications to be refilled on a single day of the month, and pilot studies have been implemented in multiple organizations. Holdford and Inocencio (2013) conducted a retrospective study of the ABM program at Thrifty White Pharmacy over a 12 month period between 2011 and 2012. Their analysis indicates “significant improvements in adherence and persistence for the ABM patients…Depending on the drug class, patients enrolled in the program had 3.4 to 6.1 times greater odds of adherence as controls during the evaluation period” (p. 2). Further, with respect to persistency, “control patients had a 52% to 73% greater likelihood of becoming non-persistent compared to the ABM group, depending on drug class” (p. 2).

A recent pilot study of Medicaid patients (using a Chi-square and Wilcoxon rank sum test) indicates 52% were required to go to the pharmacy more than once per month to keep all of their medications filled, and 46% missed a day or more of medication because they are refilled on different dates (Ross, Jami, Young & Katz, 2013). This highlights the potential magnitude of waste that could be reduced with synchronization efforts, as well as the opportunity to improve outcomes with increased rates of adherence and persistence among patients.

As highlighted in a recent Family Practice Management article (Sinsky & Sinsky, 2012), it is common for a group of physicians to hire a full-time nurse whose main responsibility is prescription renewals. However, “this nursing time could be more wisely deployed for advanced medical home activities, such as direct patient care, self-management support, or population...
management- work that can be more professionally satisfying than a day spent on the phone addressing prescription renewal requests” (Sinsky & Sinsky, 2012, p. 12). The article indicates a patient on multiple chronic medications typically generates multiple calls per year, each contact taking about two to three minutes. Conservatively, this can result in approximately one hour per day (per provider), which could be better used increasing access to primary care services (Sinsky & Sinsky, 2012).

Implementation Methods

The MPCMH performed a prescription synchronization pilot and tracked outcomes between March and September 2012. The pilot was based on the ABM, with polypharmacy patients identified in accordance with Medical Command Policy Memo 10-076. This policy identifies polypharmacy patients with psychotropic medication and central nervous system depressants (CNSDs), and provides guidance “to reduce adverse events and optimize clinical outcomes among Soldiers receiving care in the Military Healthcare System” (Coley, 2010, p. 2).

To facilitate compliance with the policy, a list of patients meeting the outlined criteria is provided monthly to primary care providers. This serves as a trigger to perform a review of medication profiles and to refer “true” polypharmacy issues to the pharmacist for a comprehensive review. Upon review, the pharmacist offers synchronization services to patients with multiple chronic medications. For patients opting in, refills are processed a few days sooner in order to “sync” medications to the same refill and renewal schedule.

Since the policy specifically targets polypharmacy patients on psychotropics and CNSDs, a number of polypharmacy patients may be overlooked. As such, synchronization services were also offered “on the spot” when the profile revealed multiple active prescriptions on file for patients presenting to the pharmacy for routine refills. The MPCMH is currently working on brochures to advertise synchronization services to patients, and efforts to educate providers and get their buy-in continue.

The implementation of synchronization efforts at the MPCMH are a result of the team-oriented and patient centered culture of the organization. There is an emphasis on continuous process improvement and on all team members working at the top of his or her license. This environment provides an opportunity for the pharmacist to dedicate more time to reviewing profiles and educating patients and providers.

Results

Prescription synchronization efforts result in better population health outcomes, improved experience of care, and reduced per capita cost. Population health improvements center on healthier outcomes through patient adherence with prescribed medications, reductions in adverse drug events, and education of providers and patients. These improvements can be measured with Healthcare Effectiveness Data and Information Set (HEDIS) scores, and can result in performance based earnings. When synchronization efforts began in March 2012, the composite HEDIS score for the clinic was at 40%; in March 2013 the score was 42.9% (Snedecor, 2013).

Experience of care is enhanced for patients, providers, and pharmacy personnel with a patient-centered approach, and with more convenient timing of prescription renewal and dispensing for patients and staff. The impact of more convenient timing is measurable by Army Provider Level Satisfaction Survey scores (patient satisfaction), with access to care metrics (providers are available to address health concerns an additional hour per day instead of handling routine refill/renewal requests), and by pharmacy transaction times (concerns are addressed in
advance so service time at the window is faster). From March through September 2012, the monthly average wait time for patients served by the MPCMH dropped from 6.1 minutes to 4.8 minutes, and “the average time to serve (process and dispense) was kept below 4 minutes”, resulting in an overall reduction in the total transaction time (Morrow & Bosserman, 2012). The results of more convenient timing can also be measured with job satisfaction surveys, capturing the impact of providers (nurses, physicians, pharmacists, and technicians) spending more of their time working at the top of their licenses.

Safety is another aspect of experience of care for which results can be measured. The comprehensive review of medications (as part of the synchronization process) improves safety by identifying risks associated with drug interactions and noncompliance. It reduces the likelihood of adverse drug events by highlighting opportunities to educate patients on potential interactions with foods or over the counter supplements or therapies, and increases the patient’s involvement in his or her own care. These outcomes are measurable through the Patient Safety Reporting System, and could result in cost avoidance through reduced emergency room and urgent care visits.

Lastly, prescription synchronization reduces per capita cost by reducing waste. Waste is reduced by coordinating prescriptions for polypharmacy patients so that they refill at the same time, thereby reducing unnecessary calls and visits to the MPCMH. Waste is also reduced by decreasing the number of pending prescriptions (first-fill failures), and by discontinuing unnecessary active prescriptions (duplicate therapies, medications no longer indicated, and acute medications with no refills remaining). From March through September of 2012, synchronization efforts at the MPCMH resulted in the discontinuation of 903 active prescriptions. During this period, the average number of active prescriptions per enrollee decreased from 4.85 (max of 14) to 4.42 (max of 17). These improvements can result in cost savings through better inventory management and can be measured in medication disposal/destruction expense reductions. A summary of MPCMH’s results is illustrated in Figure 1 of the Appendix.

**Conclusion**

I believe the MPCMH’s prescription synchronization efforts are outcomes-based, adaptable throughout the Military Health System (MHS), and are a sustainable approach to achieving efficiencies directly aligned with the Institute for Healthcare Improvement’s Triple Aim. Improvements in population health and environment of care, and reductions in per capita cost, are attainable and measurable. While this best practice has universal applicability in healthcare, I believe it is most easily replicable within the MHS given our internal pharmacy resources and emphasis on the team approach within the medical home model. Prescription synchronization leverages existing technology, builds upon an existing evidence base, and is a sustainable way to better promote the health and wellness of America’s Military Family.
References


Appendix

Figure 1. Prescription Synchronization Results, Madigan-Puyallup Community Medical Home (adapted from the IHI Triple Aim logo).