Pharmacy Medication Synchronization Service Works to Improve Medication Adherence

Abstract: *Medication adherence plays an important role in the effective management of chronic conditions, yet nonadherence related to therapeutic complexity and numerous visits to the pharmacy is well documented in the literature. Medication Synchronization (Med Sync) programs work to overcome this barrier by standardizing medication refills for a less frequent, generally once monthly pickup. Features of Med Sync programs as well the impact on adherence will be discussed.*

Keywords: medication; adherence; medication synchronization

Medication adherence plays an important role in the effective management of chronic conditions, yet nonadherence is well documented in the literature. Even before dispensing, a reported 22% to 28% of written prescriptions are never taken to a pharmacy and of the prescriptions that are, 3.27% to 6.3%

are never picked up.^{1,2} Once the medication is in the possession of the patient many other factors challenge the patient's ability to adhere to the prescribed regimen. Among these is the burden of numerous visits to the pharmacy to pick up medications. Patients who visit multiple doctors,

and the top decile make 48 or more visits to the pharmacy annually.³ To simplify the medication acquisition process and decrease the number of pharmacy visits, many stores have started offering Medication Synchronization (Med Sync) programs for their patients.

Patients who visit multiple doctors, multiple pharmacies, and who take multiple medications experience greater difficulty adhering to their prescribed medication regimens.

multiple pharmacies, and who take multiple medications experience greater difficulty adhering to their prescribed medication regimens.³ A study of the implications of therapeutic complexity on adherence to medications found that patients with cardiovascular disease make an average of 20 visits to the pharmacy each year

Medication Synchronization Features

Medication Synchronization is the proactive assembly of all of a patient's medications for a single, generally monthly, pickup.⁴ To achieve this once monthly pharmacy visit, patients often receive partial supplies of their

DOI: 10.1177/1559827616660687. From Creighton University School of Pharmacy and Health Professions, Omaha, Nebraska. Address correspondence to: Nicole D. White, PharmD, CDE, Pharmacy Practice, Creighton University School of Pharmacy and Health Professions, 2500 California Plaza, Omaha, NE 68178; e-mail: nicolewhite@creighton.edu.

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medications to align subsequent refills. Patients enrolled in Med Sync programs receive a call or text message to remind them to pick up their medications and many pharmacies are coupling this monthly pickup with a variety of additional services. For example, pharmacists may use previsit reminder calls to discuss vaccination status and in-store vaccination services. Many pharmacies couple monthly visits with comprehensive medication reviews to identify and resolve medication-related problems. Some pharmacies are even integrating this service with the patient's other care providers. For example, following hospitalization, pharmacists obtain discharge orders to reconcile medications with the primary care physician to ensure a smooth transition of care. Pharmacists may also provide screening such as blood pressure or point of care A1c and cholesterol to assess pharmacotherapeutic deficiencies and relay this information as well as any acute health changes to primary care physician offices.

An additional benefit to the once monthly pickup is the ability to tailor the refill date to the individual patient's preference. It may be easiest for the patient to remember to pick up medications the first day of each month, or perhaps the patient would like to schedule refills around their payday. This flexibility may contribute to improved adherence rates.

Medication synchronization programs are becoming more commonplace and are already being utilized by a number of patients. An estimated 1.5 million patients are currently enrolled in Med Sync programs.⁵ A study evaluating the prevalence of Med Sync programs found that in 2014 approximately 10% of independent pharmacies (stand-alone pharmacies with fewer than 4 stores), 6% of chain pharmacies (stand-alone pharmacies with 4 or more stores) and 11% of retail pharmacies (pharmacies embedded in retail outlets, such as supermarkets) offer the service.⁵ The authors of the study noted that the number of pharmacies with Med Sync programs doubled from 2013

to 2014 so the prevalence is likely much higher today.

Impact

While studies assessing the effects of Med Sync services on clinical outcomes are lacking, the impact of Med Sync programs on adherence has been explored in several recent studies. A study by Holdford and Inocencio⁶ examined prescription refill records to compare the medication adherence of patients participating in a Med Sync program with a matched group of nonparticipating patients. Medications evaluated in the study included those used for chronic conditions (antihypertensives, metformin, and statins). The program used an appointment-based model during which, in addition to the synchronization of medications, the pharmacist provided a review of the patient's medications. Medication adherence was measured as the proportion of days covered (PDC), or percentage of days during the evaluation time period in which all medications are available to the patient. Mean PDC for study patients was significantly higher than for control patients. The PDC differed by drug class but ranged between 58% and 63% in the control group versus between 80% and 87% in the intervention group (*P* ranged between <.001 and .001, all drug-class comparisons were statistically significant). A PDC of 80% is generally considered adherent. The study also evaluated the odds of adherence and found that patients enrolled in a Med Sync program had 3.4 to 6.1 times greater odds of adherence compared with those not participating in a program.

An examination of the impact of a Med Sync program in Medicaid beneficiaries found improved adherence and decreased costs in patients on chronic medications.⁷ The study used prescription claims data to compare medication adherence rates (measured as PDC) between pharmacies that employed the Med Sync program and those that

did not. The beneficiaries from these pharmacies were matched by age, sex, race, and the use of medications from 1 of 3 drug classes: statins, antihypertensives, and oral hypoglycemics. At the 3-month follow-up, the average PDC was significantly higher for those enrolled in the program than for nonenrollees (90.87% vs 84.27%; *P* = .002). In addition, average medical costs during the 3 months of follow-up were lower for those enrolled (\$1802.41 vs \$2326.52; *P* < .0001).

Discussion

While the Med Sync service seems pretty straightforward, there are barriers to its implementation. One major barrier is the cost to the patient. While most pharmacies provide Med Sync as a free service to patients, an additional cost is often incurred from the partial fills (less than 30-day supply) necessary to align the patient's medications. These partial fills are generally not covered by insurance. Legislation to change this insurance coverage is currently underway. As of January 1, 2014, Medicare Part D requires plan sponsors to cover partial fills for medication synchronization through prorated copayments.⁸ Following this change, several states have pursued similar legislation to apply to insurance in the private sector.⁹ Legislation has been passed in Connecticut, Colorado, Oregon, and Utah requiring payers to allow partial co-payments for partial fills made to sync multiple prescription refills but the benefit is otherwise not widespread.

While more and more patients are being enrolled in Med Sync programs through consumer advertisement and direct recruitment at the pharmacy level, it is important that physicians and other health providers are aware of the service. Not only can other providers refer patients they identify to have challenges with adherence to such programs, they are also aware of the need for partial fills and why one might be requested from a pharmacy.

Conclusion

Medication synchronization is a novel pharmacy service designed to address therapeutic complexity by simplifying the refill process for patients. Med Sync is becoming more prevalent in pharmacies across the nation and has been shown to improve medication adherence and is associated with decreased medical costs. The impact of such programs on clinical outcomes, patient safety and other markers have yet to be determined. **AJLM**

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