SCIENCE-IN-BRIEF
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TURNING SCIENCE INTO ACTION

Medication Synchronization Programs Improve Adherence to Cardiovascular Medications and Health Care Use

The following is a synopsis of the article "Medication Synchronization Programs Improve Adherence To Cardiovascular Medications And Health Care Use," published in the January 2018 issue of *Health Affairs*.

What is already known on this topic?

Patients with cardiovascular disease make an average of 20 trips to their pharmacy every year, and many need to make even more visits. The complexity of their treatment regimens can be a barrier to good treatment outcomes, as one-tenth of patients with cardiovascular disease visit their pharmacy at least 44 times a year. Such patients have 8% lower medication adherence than patients with the least complex treatment regimens. Medication adherence can be measured by using proportion of days covered (PDC), determined by dividing the number of days a patient has a medication by the total number of days within a specific period. One possible way to improve medication adherence in this patient population is to use medication synchronization programs, which allow patients to have most or all of their medications filled at the same time. This could reduce the number of visits that patients need to make to their pharmacy.

What is added by this article?

This retrospective cohort study examined the impact that two community pharmacy chains' medication synchronization programs had on medication adherence for patients with at least one prescription for treating hypertension, hyperlipidemia, or diabetes. In addition, this study looked at whether medication synchronization programs were associated with a decreased incidence of major cardiovascular events (e.g., myocardial infarction, unstable angina, stroke, congestive heart failure, percutaneous coronary intervention, coronary artery bypass graft procedure) and decreased utilization of patient care (e.g., emergency department visits, inpatient hospital admissions, visits to a physician's office).

Results showed that monthly PDC at follow-up was 3% greater among patients in the medication synchronization programs than among unenrolled patients, which was a statistically significant change. Additionally, the authors reported statistically significant reductions in monthly emergency department visits or hospitalizations (9%) and outpatient visits to the physician (3%).

What are the implications of these findings?

The results highlight medication synchronization programs' utility in improving patient adherence and outcomes. Specifically, these programs help improve adherence among patients with hypertension, hyperlipidemia, and diabetes, especially patients who have low medication adherence at baseline. These improvements in adherence, in turn, may help decrease the rates of hospitalizations, emergency department visits, visits to physicians' offices, and major cardiovascular events. Public health agencies could consider encouraging pharmacies to take steps to develop and implement such programs, and consider working with pharmacies to eliminate barriers to medication adherence, including exploring ways to lower patients' medication costs.

Resources

Centers for Disease Control and Prevention
Using the Pharmacists' Patient Care Process to Manage High Blood Pressure: A Resource Guide for Pharmacists
https://www.cdc.gov/dhdsp/pubs/docs/Pharmacist-Resource-Guide.pdf

Million Hearts: Medication Adherence
https://millionhearts.hhs.gov/tools-protocols/medication-adherence.html

Centers for Disease Control and Prevention
Community Pharmacists and Medication Therapy Management
https://www.cdc.gov/dhdsp/pubs/guides/best-practices/pharmacist-mtm.htm

National Center for Chronic Disease Prevention and Health Promotion
Division for Heart Disease and Stroke Prevention

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