

New Study Indicates That Increasing Prescription Co-payments Results in Lower Adherence, Especially for Chronic Diseases

Study Published in the Journal of Occupational and Environmental Medicine Says That Shifting Costs to Patients Decreases Medication Adherence

Philadelphia, PA (July 12, 2007)—The strategy of increasing prescription co-payments to lower healthcare costs results in lower adherence and may cause patients to stop taking their medications, according to a new study recently published in the *Journal of Occupational and Environmental Medicine*.

Although a number of factors contribute to a lack of adherence,[1],[2] high prescription drug co-payments have become the focus of special attention because they are used increasingly by employers and insurers to control drug expenditures[3] and because they have been shown not only to lead patients to switch from branded to generic drugs[4],[5] but also to decrease use of medications for chronic conditions.[6-8]

In “The Effects of Co-payments on Medication Adherence,” study investigators examined the effects of initial prescription co-payment size and the effect of an observed increase in co-payment on medication adherence by analyzing data from the National Managed Care Benchmark database (IHCIS Waltham, MA)—a national database that includes de-identified data from over 30 health plans covering more than 25 million people.

Several key findings resulted:

- High co-payment levels were associated with patients choosing to stop taking their medicine (increased termination), especially early in treatment.
- Increases in co-payment were directly associated with increased termination—at any time there was an increase, not just early in treatment.
- There was a high rate of medication treatment termination overall (low compliance).
- The effects of higher co-payment levels and increases in co-payments vary across disease conditions.

Lack of medication adherence is often a real concern especially early in treatment. The current study focused on termination of medication for patients new to a therapy. More specifically, the authors examined the association between co-payment and termination as a function of time in treatment over the first two years of the treatment process.

The study was coauthored by Ronald C. Kessler, PhD, Department of Health Care Policy, Harvard Medical School; Christopher Ron Cantrell, PhD and Michael C. Sokol, MD, MS, Health Management Innovations, GlaxoSmithKline (GSK); and Patricia Berglund, MBA, Institute for Social Research, the University of Michigan. It was prepared through a grant from the Department of Health and Human Services with supplemental support from GSK.

Patients with Chronic Diseases Most Susceptible

Poor adherence to a medication regimen is a serious problem, especially for those with chronic diseases, contributing to substantial worsening of disease, complications, death, and increased healthcare costs.[9]

Patients with diabetes were most susceptible to higher co-payment levels; asthma, rhinitis, and depression were less sensitive to co-payment levels but had lower levels of compliance overall. However, all disease states were susceptible to increased termination rates as co-payments increased.

“Chronic diseases are important drivers of healthcare costs in this country—and the lack of medication adherence is a serious problem in the treatment of many chronic diseases,”[9] says Dr. Ronald C. Kessler, Professor of Health Care Policy at Harvard Medical School. “Shifting more and more costs to the patient—by using high co-payments to control drug expenditures, for example—can aggravate the adherence problem.”

Some research has shown that the effects of high drug co-payments on lack of adherence are strongest early in the course of treatment [9],[10] and that these effects vary across therapeutic classes.[8],[11] The current study saw the same relationship but also indicates that an increase in co-payment may have an even more pronounced and longer effect on termination rates.

“These observations might suggest that while patients are susceptible to the initial price for a medication, those who decide to fill and continue filling their medication may form an opinion that this is a fair price. Subsequent increases in this price may be viewed as exceeding the fair price. Because of this effect, nonfinancial strategies—such as patient education, case management, pharmacist intervention—or other creative financial incentives – such as discount coupons for initial users—may prove more useful in improving adherence than initially low co-payments” says Dr. Ron Cantrell, Director of Applied Outcomes and Analysis, Health Management Innovations (HMI), GSK.

Such approaches would be consistent with other types of interventions that have been proposed in the literature. However, financial strategies such as starting patients new to therapy on a lower co-payment and then increasing that co-payment after a few fills may prove unsuccessful.

The current report presents data of this sort for the ten most commonly prescribed groups of chronically used medications defined by Medispan’s Master Drug Database for the years 2001-03: medications for asthma, beta blockers, anticonvulsants, calcium channel blockers, antidepressants, oral antidiabetics, diuretics, medications for rhinitis, statins, and other antihypertensives.

A Holistic View of Healthcare—Prevention, Intervention, Innovation

Encouraging patients to maintain healthier lifestyles and follow their doctors’ orders may help lower total healthcare costs.

“This study underscores the need to educate employers, payers, legislators, and patients on the value of medicine,” says Kessler. Lowering line-item expenditures by shifting costs onto the patient is a short-term fix. To lower overall healthcare costs and provide better treatment for patients, the focus must be on the real problem—chronic diseases. “We must view healthcare holistically,” Kessler continued, “encouraging prevention to keep people healthier, longer; intervention, to give patients the right

treatments to maintain their health; and innovation, to find new cures and make life-ending diseases manageable.”

The Health Management Innovations team at GSK is also analyzing the results of several other studies investigating potential factors affecting patient compliance, including assessing the impact of:

- decreasing co-payments levels
- co-payment level on specific outcomes such as Hba1c levels for a diabetic patient
- income on initial co-payment levels and increases in co-payment
- implementing a consumer-directed health plan
- implementing a pay-for-performance initiative

Formal results of these studies will be announced as they are published.

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