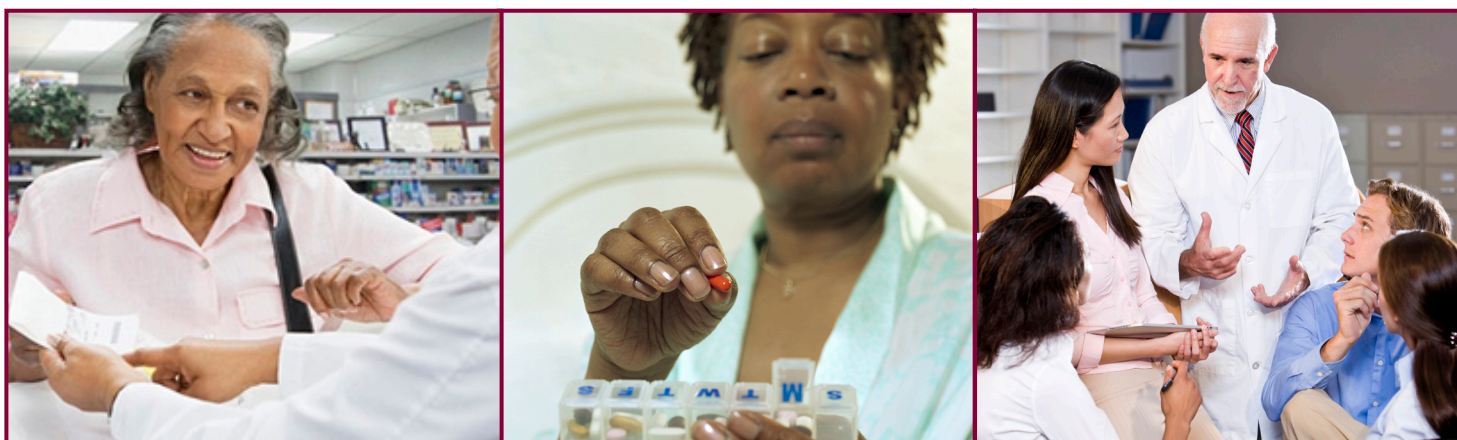


Antihypertensive Medication Adherence Assessment Method and Cardiovascular Risk

The following is a synopsis of “Differences in Cardiovascular Disease Risk When Antihypertensive Medication Adherence is Assessed by Pharmacy Fill Versus Self-Report: The Cohort Study of Medication Adherence Among Older Adults (CoSMO),” published online in October 2014 in the *Journal of Hypertension*.



What is already known on this topic?

Low or inadequate adherence to prescribed antihypertensive medication is associated with poor blood pressure control, increased hospitalization rates, higher health care costs, and a lower survival rate. Adherence to prescribed medications includes two related but distinct patient behaviors: (1) filling medications and (2) taking medications as prescribed after they are filled. Prior studies have used pharmacy refill rates to demonstrate the connection between poor adherence and increased risk for cardiovascular disease (CVD). Few studies have used a self-reported antihypertensive medication adherence scale to measure the effect of low adherence on increased risk for CVD events. Self-report scales that can reliably identify low adherence to antihypertensive medication in real time could improve outpatient management of high blood pressure.

What is added by this article?

This study is the first large-scale examination of the relationship between antihypertensive medication adherence and CVD events through analysis of self-report and pharmacy refill rates. The authors conducted the study in a real-world setting with insured patients aged 65 years

or older, who had established hypertension and lived in a congregate residential setting. The authors determined low adherence using the Medication Possession Ratio, a pharmacy refill measure (i.e., whether patients fill their medications during specified time intervals) and self-reports (i.e., whether patients take medications after filling a prescription). Both methods demonstrated an association between poor adherence and uncontrolled blood pressure. However, self-reported medication adherence was not associated with CVD outcomes, whereas high pharmacy refill adherence was associated with lower incidence of CVD events.

What are the implications of these findings?

Differences in what each adherence measure evaluates and the characteristics of those identified as individuals with low adherence may have important implications when determining associations with long-term CVD outcomes. Self-report tools may provide important information to clinicians about the barriers to medication adherence that can be addressed through a short-term intervention. Pharmacy refill measures may provide insight into patients' medication-filling patterns and enable clinicians and researchers to evaluate refill barriers

and assess adverse event risk. Self-reported adherence measures that provide complementary information can guide appropriate engagement of patients and providers in the management of high blood pressure and other chronic

conditions. Pharmacy refill measures may be particularly important for research studies and population management projects, given the association between this measure and CVD outcomes.

Resources

Krousel-Wood M, Joyce C, Holt E, Muntner P, Webber LS, Morisky DE, et al. Predictors of decline in medication adherence: results from the cohort study of medication adherence among older adults. *Hypertension*. 2011;58(5):804–10.

Viswanathan M, Golin CE, Jones CD, Ashok M, Blalock SJ, Wines RCM, et al. Interventions to improve adherence to self-administered medications for chronic diseases in the United States: a systematic review. *Ann Intern Med*. 2012;157(11):785–95.

Centers for Disease Control and Prevention

Improving Medication Adherence Among Patients with Hypertension: A Tip Sheet for Health Care Professionals
www.millionhearts.hhs.gov/Docs/BP_Toolkit/TipSheet_HCP_MedAdherence.pdf

Citation

Krousel-Wood M, Holt E, Joyce C, Ruiz R, Dornelles A, Webber LS, et al. Differences in cardiovascular disease risk when antihypertensive medication adherence is assessed by pharmacy fill versus self-report: the Cohort Study of Medication Adherence among Older Adults (CoSMO). *J Hypertens*. 2014 [ePub ahead of print].

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

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