

Adherence to Hypertension and Dyslipidemia Therapy

Chapman RH, Benner JS, Petrilla AA, et al. Predictors of adherence with antihypertensive and lipid-lowering therapy. *Arch Intern Med* 2005;165:1147–52.

Study Overview

Objective. To identify patterns and predictors of adherence with concomitant antihypertensive and lipid-lowering therapy.

Design. Retrospective cohort study.

Setting and participants. 8406 enrollees in a U.S. managed care plan from 1 January 1996 until 30 April 2001 who initiated dual treatment with antihypertensive and lipid-lowering medications within a 90-day period (determined by prescription fill records) were examined.

Main outcome measures. Participant adherence, measured as the proportion of days covered in each 3-month interval following initiation of concomitant therapy. Patients were considered adherent if prescriptions filled were sufficient to cover at least 80% of days with both classes of medications.

Main results. Following treatment initiation, the percentage of patients adherent with both medications declined sharply, with 44.7%, 35.9%, and 35.8% of patients remaining adherent at 3, 6, and 12 months, respectively. Multivariate modeling adjusted for age, sex, and other potential predictors showed increased odds of adherence if patients initiated antihypertensive and lipid-lowering therapy at the same time, had a history of coronary heart disease or congestive heart failure, or took fewer other medications. Women and those recently hospitalized showed lower odds of dual therapy adherence.

Conclusion. Adherence to concomitant antihypertensive and lipid-lowering therapy is very poor. Physicians may be able to increase adherence by decreasing pill burden and, in those suitable, starting both medications at the same time.

Commentary

A recent analysis of national surveys showed that the prevalence of uncontrolled blood pressure and cholesterol levels is decreasing, due in part to the significant increase in use of antihypertensive and lipid-lowering medications [1]. Research has estimated that cardiovascular benefits can be

achieved if optimal control of blood pressure and cholesterol can be maintained [2]. Yet, despite repeated updates to best practice guidelines, the crucial final step in achieving control is patient adherence to therapy [3].

This study by Chapman and colleagues elucidates predictors of adherence. Key findings in this study are disappointing—a 55% nonadherence rate to dual therapy within 3 months of starting therapy and a subsequent increase to more than 60% nonadherence over 36 months. However, this study offers physicians insight on when to intervene in their patient's care to increase adherence. Because the increase in nonadherence rate nearly plateaus after 6 months, physicians may be able to target adherence reminders and reinforce counseling during the first 6 months of therapy for maximum benefit. Although the claims data used in this study may overestimate adherence and do not reflect changes in patient benefit structure that may have contributed to nonadherence, this study does have important implications for physicians and plan administrators involved in care delivery.

Applications for Clinical Practice

After initiating antihypertensive and/or lipid-lowering therapy, physicians should check and encourage patient adherence within the first 3 months. Women and patients who were recently hospitalized also deserve closer follow-up to assess adherence. Managed care plan administrators may want to investigate whether care extenders can further encourage adherence.

—Review by Mark S. Horng, MD

References

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3. Krousel-Wood M, Thomas S, Muntner P, Morisky D. Medication adherence: a key factor in achieving blood pressure control and good clinical outcomes in hypertensive patients. *Curr Opin Cardiol* 2004;19:357–62.