

Initial Drug Choice and Economics Affect Healthcare Utilization and Persistence

Healthcare resource utilization was lower during the first year of antihypertensive therapy with valsartan compared with metoprolol extended-release, according to Gilbert C. Ngan, PharmD, from the University of Texas at Austin College of Pharmacy.

A retrospective, longitudinal pharmacy claims database was accessed to measure the healthcare utilization incurred by patients with hypertension prescribed valsartan versus metoprolol extended-release as initial therapy (ASH 2006. Abstract

P210). Adults with continuous pharmacy benefit coverage with a diagnosis of hypertension and who initiated therapy with valsartan (N = 17 442) or metoprolol extended-release (N = 32 604) were followed for 1 year.

Compared with patients started on metoprolol extended-release, those started on valsartan had significantly ($P < .05$ for all comparisons) fewer cardiovascular-related physician visits (2.36 vs 2.17), cardiovascular-related hospitalizations (0.11 vs 0.16), and cardiovascular-related emergency department visits (0.03 vs 0.04). The annual mean medical costs were \$3106 for patients started on valsartan versus \$4387 for patients started on metoprolol extended-release. Dr Ngan stressed that “choice of initial antihypertensive therapy cannot be determined solely by evaluating the economic benefits of an agent or agents; selection requires a balance of the clinical and economic benefits of the pharmacologic agents.”

In addition, valsartan use by Medicare-eligible patients was associated with a reduction in costs associated with heart failure treatment. Using clinical results from the Valsartan Heart Failure Trial (Val-HeFT), Dean G. Smith, PhD, from the University of Michigan in Ann Arbor, developed a model to compute annual costs associated with hospitalizations for heart failure (ASH 2006. Abstract P413). The model included a managed care plan with 1 million members, of whom 170 000 were elderly. Based on a heart failure prevalence rate of 8%, the target population of interest included 13 600 patients aged 65 years or older with heart failure.

In Val-HeFT, adding valsartan to standard heart failure therapy was associated with a 21.3% reduction in heart failure-related hospitalizations in older patients. With an estimated 1217 fewer heart failure-related hospitalizations in patients treated with valsartan, the net savings with valsartan therapy of all elderly patients with heart failure in the managed care organization was \$4 437 906.

Becky Briesacher, PhD, University of Massachusetts Medical School in Worcester, reported persistence with antihypertensive drug therapy to be a function of prescription drug cost-sharing (ASH 2006. Abstract P162). “The strongest and most consistent predictor of maintaining therapy was having average or better drug coverage, which was statistically significant ($P < .05$) for 4 of the 5 classes,” noted Dr Briesacher. Only the use of diuretics was not influenced by the generosity of drug coverage.

The impact of prescription cost-sharing on discontinuation of antihypertensive drugs was assessed by linking medical claims, prescription records, and encounter data of 2.8 million employees. Some 23 047 individuals with inci-

dent use of antihypertensives were identified from a database and followed for 24 months. Most of the patients (38.2%) received an initial prescription for an angiotensin-converting enzyme (ACE) inhibitor followed by beta blockers (23.7%), diuretics (17.9%), calcium antagonists (15.3%), and angiotensin receptor blockers (ARBs) (4.9%). Average duration of therapy was 7 to 8 months. The main reason for discontinuation was switching to another drug class. The most frequent switch was to an ARB (48.6%). The rate of termination for the various drug classes ranged from a low of 5.5% with ARBs to a high of 19.1% with diuretics.

Average copays for the first antihypertensive prescription were \$18 for ARBs, \$16 for beta blockers, \$15 for ACE inhibitors, \$10 for calcium antagonists, and \$6 for diuretics. There is also evidence to suggest that patients taking a fixed-dose combination have less resource utilization than patients taking the same drugs as separate components.

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In the previous study reported by Dr Ngan comparing fixed-dose ACE inhibitor/calcium antagonist administration with each agent given separately, patients receiving the fixed-dose combination experienced fewer outpatient visits ($P < .0001$). However, both groups had the same number of cardiovascular-related physician and emergency department visits. The total medical and pharmacy cost per patient was \$1304 for the fixed-dose ACE inhibitor/calcium antagonist combination versus \$1823 for individual administration of the 2 agents ($P < .001$).

Abstracts cited in this supplement are available on the ASH Web site (<http://www.abstracts2view.com/ash/>) and in the May 2006 supplement to *The Journal of Clinical Hypertension*.