

Treating Hypertension: Beta Blockers Surpass ACE-Inhibitors

An estimated 50 million American adults (or 25% of the adult population) have high blood pressure.¹ Left untreated, hypertension can lead to heart disease and stroke, and it can cause damage to blood vessels and other organs. Angiotensin-converting enzyme (ACE)-inhibitors widen the blood vessels and lower blood pressure by blocking the production of angiotensin II.

When we compare the patterns of treatment of hospital inpatients with hypertension for the first quarter of each year from 1995 to 2002, we can see that there have been changes in the classes of antihypertensive agents that physicians most often prescribe (Figure 1). Calcium-channel blockers were used most frequently until the year 2001, when they were surpassed by ACE-inhibitors; in 2002, however, beta blockers were being prescribed more often. For some patients, physicians are prescribing more than one class of drug.

The most common diagnoses for patients receiving ACE-inhibitor therapy are hypertension (60%), coronary atherosclerosis (30%), and congestive heart failure (25%). Although these diagnoses have remained constant over time, use of the individual drugs within the ACE-inhibitor class for treating hypertension has changed (Figure 2). For instance, enalapril maleate was the drug most frequently prescribed from 1995 to 1997; in 1998, lisinopril replaced enalapril maleate and has dominated the market ever since. The use

of lisinopril in the treatment of patients with hypertension is three times higher than that of the next competitor.

ACE-inhibitors are a good choice for diabetic patients because the drugs do not affect blood glucose levels; because they produce few side effects, they are an alternative to beta blockers and diuretics. ACE-inhibitors also prolong the lives of patients with heart failure, and, as discussed in the article on page 98, they slow the development of kidney failure in patients with diabetes. The rate of ACE-inhibitor usage for patients with type-2 diabetes has risen from 13% in 1995 to 23% in 2002 as more studies have revealed benefits to this population.

The data cited here are available free of charge to hospitals that participate in the PharmScope Insights program. The program specializes in helping hospital pharmacies to target areas for performance improvement by providing benchmarks from a panel of 70 hospitals nationwide. For information about joining PharmScope Insights, a division of MediMedia USA, Inc., visit the Web site at www.mminfotech.com and click on Hospitals.

REFERENCE

1. Vasan RS, Larson MG, Leip EP, et al. Impact of high normal blood pressure on the risk of cardiovascular disease. *N Engl J Med* 2001; 345(18):1291-1297.

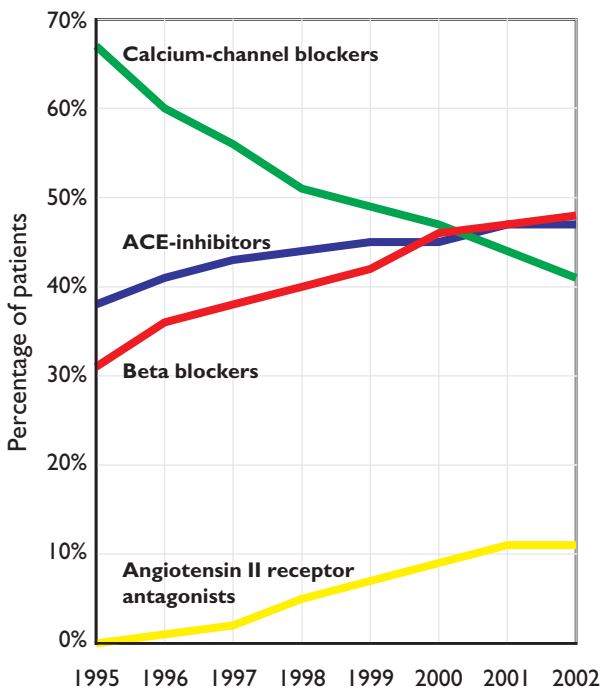


Figure 1 Hypertension treatment patterns by drug class.

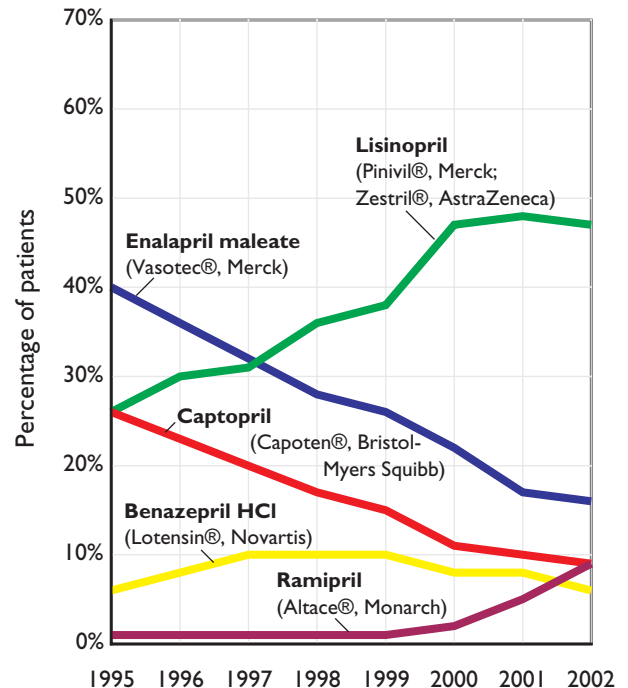


Figure 2 ACE-inhibitors: Trends in the treatment of hypertension.