## Big Gains in Blood Pressure Control Since JNC-7

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CHICAGO — Hypertension control has improved markedly in the United States since spring of 2003—and the JNC-7 guidelines deserve most of the credit, James Jackson, Pharm.D., said at the annual scientific sessions of the American Heart Association.

The improvement in blood pressure control since release of JNC-7 (the Seventh

Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure) in the spring of 2003 has been particularly impressive among hypertensive patients with diabetes.

Even so, there remains much room for further improvement on this score, because fewer than one-third of such patients in the JNC-7 era have their blood pressure controlled to goal, added Dr. Jackson of Xcenda, a Palm Harbor, Fla.-based health outcomes research and consulting company.

Physicians have taken to heart the JNC-7 message to prescribe more aggressively. More hypertensive patients are on two or three antihypertensive drugs than was the case just before the introduction of JNC-7. But by far the most dramatic change in prescribing has been the nearly threefold increase in the percentage of patients on fixed-dose combination therapy, he noted.

To study JNC-7's effect on blood pressure control rates and treatment patterns, he and his coinvestigators accrued a random national sample of hypertensive subjects drawn from 23 managed care organizations and physician groups. The pre–JNC-7 group consisted of 15,359 patients followed during June 1998–March 2003; the post–JNC-7 cohort comprised 2,012 patients followed during December 2003–April 2006.

The proportion of all hypertensive patients with good blood pressure control rose from 39% in the pre–JNC-7 period to 53% after the JNC-7 release. The percentage of diabetic hypertensive patients treated to goal nearly doubled during the same time span, from 17% before JNC-7 to 29% afterward.

In the pre–JNC-7 era, 45% of hypertensive patients for whom medication was prescribed received a single agent; after JNC-7 that figure dropped to 37%. Meanwhile, the use of dual therapy climbed from 31% to 37%, and three or more antihypertensive drugs were used in 20% of patients, up from 17% before JNC-7.

The most widely used class of antihypertensive drugs since JNC-7 has been diuretics, which are prescribed for 33% of patients.

The use of ACE inhibitors declined from 31% before JNC-7 to 24% afterward. Angiotensin-2 receptor blockers took up the slack during this period, as the proportion of patients on this class of drugs rose from 8% to 13%.

Roughly one-quarter of patients were on a  $\beta$ -blocker for control of hypertension, a proportion that did not change over the study period. Meanwhile, the use of calcium channel blockers declined significantly from 27% before JNC-7 to 24% afterward, Dr. Jackson continued.

The use of fixed-dose combinations has increased more than that of any other antihypertensive agents since the release of JNC-7. Before JNC-7, 11% of hypertensive patients were on a fixed-dose combination; since JNC-7 this figure has jumped to 27%.

The advantages of fixed-dose combination therapy include improved patient compliance, fewer drug interactions and adverse events, less likelihood of inadequate dosing, and less out-of-pocket expense, the researcher added.

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