

PHILADELPHIA—The proportion of patients with type 2 [diabetes](#) who have uncontrolled [hypertension](#) is higher in patients with [chronic kidney disease \(CKD\)](#) than those without CKD, investigators announced at the 72nd Scientific Sessions of the American Diabetes Association.

Robert Stellhorn, MS, Janssen Global Services LLC, Raritan, New Jersey, and associates examined the extent of uncontrolled hypertension in 2,181 type 2 diabetics using data from the *National Health and Nutrition Examination Survey*

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study for the years 1999-2008. The NHANES group of studies assesses the health and nutritional status of adults and children in the United States using a combination of interviews and physical examinations.

As hypertension is causally related to the development of CKD, and patients with diabetes have higher rates of hypertension, BP control is recognized as a cornerstone of diabetes care. A prior study using NHANES data from 1999-2008 showed that the percentage of type 2 patients with uncontrolled hypertension ranged from 44.9% to 56.9%. The analysis, however, did not take into account CKD status.

Patients included in the present analysis were at least 25 years old at the time they were diagnosed with type 2 diabetes and had valid serum creatinine test results.

Chronic kidney disease stages were based on the classification system used by the National Kidney Foundation. Uncontrolled hypertension was defined as having either a systolic or diastolic pressure reading above 130/80 mm Hg, respectively.

Overall, 45.2% of patients were identified as having some form of CKD. Results showed that 62.3% of CKD patients had uncontrolled hypertension versus 48.6% of patients without CKD.

Although the current use of antihypertensive medication was higher in type 2 diabetes patients with CKD than those without it, a significantly larger proportion of these patients had uncontrolled hypertension (67.2% vs. 54.4%).

As patients progressed with CKD to a higher stage, the proportion of patients on any antihypertensive increased and antihypertensive monotherapy declined and combination therapy use increased.

The analysis also showed that the proportion of patients with hemoglobin A_{1C} greater than 7 was higher among patients with CKD irrespective of hypertension status.

The results suggest that additional effort is likely warranted in optimizing blood pressure control in patients with type 2 diabetes, particularly in those with comorbid CKD, the authors concluded.

Finally, he cited two possible study limitations. First, NHANES data are cross-sectional and do not provide repeated measurements of laboratory values for patients over different time periods. Thus, the determination of estimated glomerular filtration rate (eGFR) and CKD status was based on a single laboratory observation for each patient.

Secondly, the older version of the Modification of Diet in Renal Diseases study formula was used to calculate eGFR because most of the data were in the study are from a period prior to the change in formula. As a result, the CKD rates may be slightly underestimated.

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