Increasing Early Detection of Kidney Disease

The National Kidney Disease Education Program introduces a multifaceted approach.

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Diabetes is the leading cause of end-stage renal disease or kidney failure. Identifying practical ways to detect kidney disease early and provide effective treatments that slow the progression of the disease are critical within the diabetes care delivery system. Early detection and treatment can make a difference in both survival and the quality of life patients face after diagnosis of kidney disease.

Approximately 10 to 20 million Americans have chronic kidney disease (CKD) as evidenced by varying levels of kidney damage or impairment.[1] Many with CKD are at risk for kidney failure, but risk varies across patient populations. Compared to whites, blacks are almost 4 times more likely to be diagnosed with kidney failure, while Native Americans are almost two times more likely to be diagnosed. Hispanics are almost two times more likely than non-Hispanics to be diagnosed with kidney failure.[2]

As the prevalence of diabetes increases, it is important for health care providers to be thorough in testing at-risk patients. The National Kidney Disease Education Program (NKDEP), an initiative of the National Institutes of Health, recommends the use of an estimating or predication equation to estimate GFR from serum creatinine to assess kidney function of those who are at-risk for CKD, in addition to annual microalbuminuria testing for patients with diabetes.

MONITORING KIDNEY DISEASE

Health care providers can promote early detection of CKD by encouraging labs to report eGFRs with all serum creatinine determinations or calculate it on their own using an eGFR calculator. Providers should also use spot urine albumin/creatinine ratios to detect and monitor kidney disease. In adults, the ratio of albumin to creatinine in a spot urine specimen correlates closely to total albumin excretion. For the best results, 24-hour collections are usually not necessary and first morning specimens are preferred — though random specimens are also acceptable. Treatment often includes use of angiotensin-converting enzyme inhibitors and angiotensin receptor antagonists to slow the progression of kidney disease.

Diabetes educators can encourage primary care providers to use eGFR and urine albumin/creatinine ratios to test and monitor kidney function and also encourage labs to routinely report eGFRs with all serum creatinines. Educators can play a critical role in encouraging patients to ask their providers about their kidney function. Patients should be encouraged to ask about their eGFR number and what it means. Educators are in an excellent position to communicate to patients that do have kidney disease that their condition is progressive and irreversible, but that damage can be slowed through treatment.

CREATININE STANDARDIZATION PROGRAM

In addition to promoting messages to providers and educators, the NKDEP is spearheading the Creatinine Standardization Program to reduce the variability and error in serum creatinine measurements and GFR estimates. Because measurement biases and imprecise values have a larger impact when creatinine values are closer to the normal range, eGFRs above 60 should be reported as ">60," rather than a discrete numeric value. Global standardization will result in more accurate serum creatinine readings, changes in reference intervals and more accurate eGFRs. Visit the NKDEP Web site to learn more about the program and find out when reference materials are available from the National Institute of Standards and Technology: www.nkdep.nih.gov. ■

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