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### **LAB TESTS COULD HELP DETECT LOW KIDNEY FUNCTION**

**Washington, DC (March 25, 2005)** — The results of routine laboratory tests performed for other reasons could provide a new approach to identifying patients—particularly older adults—with reduced kidney function, reports a study in the May *Journal of the American Society of Nephrology*.

Led by Dr. Amit X. Garg of University of Western Ontario, the researchers gathered the results of kidney function tests in adult patients from 17 outpatient (non-hospital) laboratories serving Eastern Ontario. Because the focus was on identifying unsuspected abnormalities, patients with kidney failure requiring dialysis (end-stage renal disease) were excluded.

The final analysis included tests from nearly 350,000 individuals—32 percent of all adults living in the study area. In close to half of patients tested, the results showed an abnormally low glomerular filtration rate (GFR), a standard measure of kidney function. Thus about 16 percent of adults in the population—about 1 in 6—had reduced kidney function.

Most of the abnormal results met criteria for the mild, early stages of chronic kidney disease (CKD). However, the GFR results fell below the cutoff point for moderate CKD in 16 percent of patients. Just less than two percent of patients met criteria for severe CKD.

More than two-thirds of patients who underwent repeated tests in the same month had similar results on both occasions. This suggested that the abnormal GFR results signaled true reductions in kidney function, rather than temporary drops due to disease or other causes.

Early identification of CKD is a major health care priority, especially because effective treatments can slow or prevent progressive kidney disease. Moreover, CKD is now recognized as a major risk factor for development of cardiovascular diseases such as heart attack and stroke, and early treatment of CKD has been shown to reduce the risk of later development of cardiovascular disease. However, many cases of CKD go undetected by routine medical care.

Based on their results, Dr. Garg and colleagues propose that laboratory-initiated screening could provide an innovative approach to identifying patients with CKD. Since kidney function tests are routinely performed for other reasons—especially in older adults—laboratory-based screening could use already-existing data to identify patients at risk of both kidney and heart disease.

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More research would be needed to address potential difficulties of setting up such a "real-time" data management system, including questions related to patient privacy and laboratory quality control. Dr. Garg and colleagues conclude, "[A]mbulatory laboratory database screening, particularly in older patients, is a promising strategy for case finding large segments of the population with reduced GFR."

The study's results appear in the article entitled, "Identifying Individuals with a Reduced Glomerular Filtration Rate Using Ambulatory Laboratory Database Surveillance" under the category of Epidemiology and Outcomes in the May issue of JASN and on the ASN website beginning on March 30 at [www.asn-online.org](http://www.asn-online.org).

The ASN is a not-for-profit organization of 9,000 physicians and scientists dedicated to the study of nephrology and committed to providing a forum for the promulgation of information regarding the latest research and clinical findings on kidney diseases.

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