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## **NEW KIDNEY MARKER PREDICTS DEATH RISK IN ELDERLY**

**Washington, DC (October 31, 2005)** — A new indicator of kidney function, called cystatin C, is a strong predictor of mortality risk in healthy older adults, reports a study in the January *Journal of the American Society of Nephrology*.

Led by Dr. Michael G. Shlipack of University of California, San Francisco, the researchers assessed cystatin C's prognostic value in a group of over 3,000 healthy black and white Americans, aged 70 to 79 years. Serum cystatin C levels were measured and evaluated as a predictor of death during a 6-year follow-up period.

The higher the subjects' initial cystatin C level, the greater their risk of death. Mortality rate increased from 1.7 percent per year for older adults in the lowest one-fifth of cystatin C levels to 5.4 percent per year for those in the highest one-fifth.

With adjustment for other factors—including other diseases and risk factors and markers of inflammation, such as C-reactive protein—risk of death was more than doubled for subjects at the highest vs lowest levels of cystatin C. The relationship between cystatin C and mortality was similar for men vs women and for blacks vs whites.

Breakdowns by specific cause of death found that cystatin C level was a significant predictor of death from cardiovascular disease and of death from other causes. It was unrelated to risk of death from cancer.

In older adults, reduced kidney function is associated with decreased life expectancy. The standard test of kidney function is the serum creatinine level, but the results can be affected by a variety of other factors, including body weight, nutrition, sex, age, and race. In the new study, creatinine level was unrelated to mortality risk, after adjustment for other factors.

Cystatin C, in contrast, is a relatively new kidney function marker that is unaffected by other factors. Previous studies have suggested that cystatin C is a strong indicator of kidney function and

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mortality in older adults. The new study further evaluated the predictive value of cystatin C in a larger sample of elderly subjects, including both blacks and whites.

The results confirm that cystatin C is a strong, independent predictor of mortality risk in healthy elderly people. Across sex and racial groups, cystatin C levels identify older adults at low, medium, and high risk of death. Compared with the creatinine level, cystatin C may be more sensitive in detecting small reductions in kidney function. Other studies have found that cystatin C predicts the risk of cardiovascular events better than creatinine—more research will be needed to determine whether diagnostic or screening approaches using cystatin C can improve on current clinical strategies.

The study, entitled “Cystatin-C and Mortality Risk in the Elderly: The Health, Aging, and Body Composition (Health ABC) Study” will be available online at [www.jasn.org](http://www.jasn.org) on Wednesday, November 2 and will appear in print in January’s *Journal of the American Society of Nephrology*.

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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