Reduced kidney function linked to an increased risk of community-acquired infections

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Individuals with reduced kidney function may be at increased risk of developing infections acquired in the community, according to a study appearing in an upcoming issue of the Clinical Journal of the American Society of Nephrology (CJASN). The findings indicate that people with kidney disease would benefit from an increased focus on preventing infections.

Infections contracted outside of a healthcare setting are common, and they contribute to considerable illness and increased healthcare costs. A team led by Juan Jesús Carrero, PhD and Hong Xu, MD (Karolinska Institutet, in Sweden) wondered if kidney function might affect one's susceptibility to such community-acquired infections.

The researchers analyzed 12-month information from 1,139,470 participants in the Stockholm CREAtinine Measurements (SCREAM) project, which collected measures of kidney function from individuals in Stockholm, Sweden.

The investigators found that the incidence rate of all infections increased with lower kidney function, from 74 per 1000 person-years of individuals with normal kidney function to 419 per 1000 person-years with stage 4 or higher chronic kidney disease (CKD). (A person-year is the number of years of follow-up multiplied by the number of people in the study.) Also, the relative proportion of lower respiratory tract infections, urinary tract infections, and sepsis became increasingly higher as kidney function decreased.

"Given the fact that CKD remains underdiagnosed and unrecognized in most societies, our findings may help patients and clinicians become more aware of CKD and its complications," said Dr. Carrero. "This in turn may be useful to identify patients at increased risk of infection and inform discussions about prevention strategies, such as vaccination, and health service planning."


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