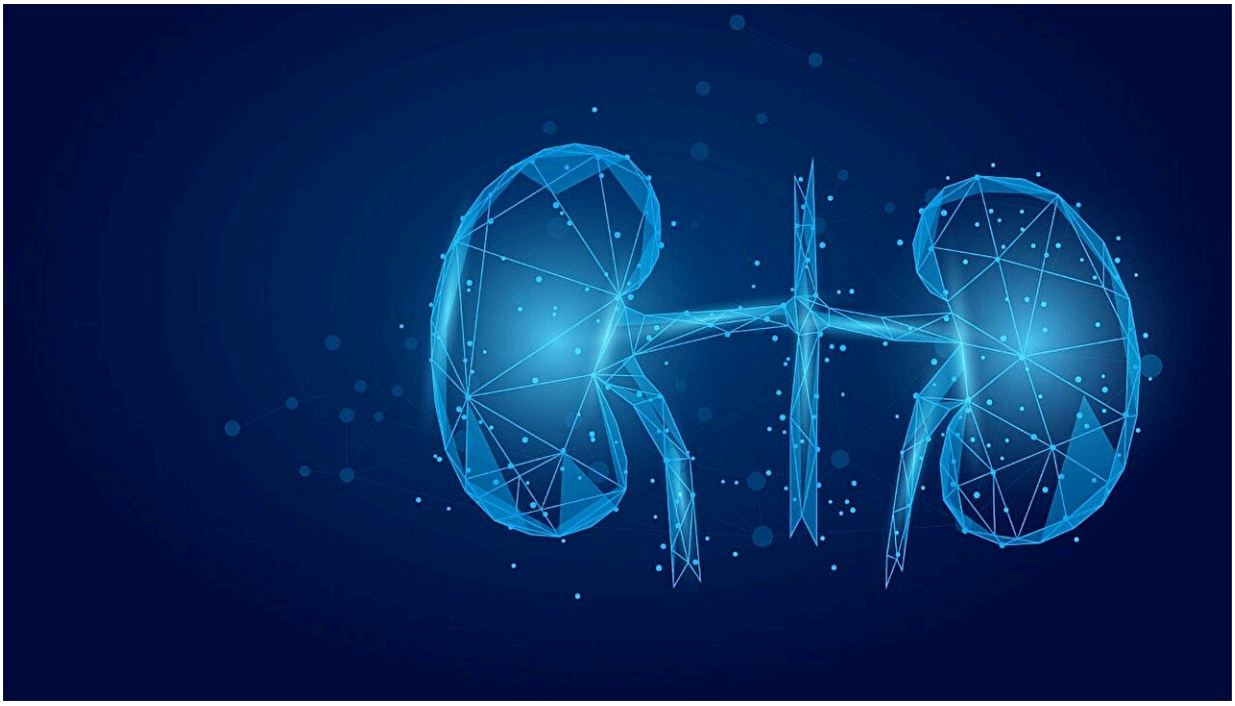
Link between ACEi, ARB use and lower risk for kidney failure with replacement therapy

July 8 2024, by Elana Gotkine



For individuals with advanced chronic kidney disease (CKD), angiotensin-converting enzyme inhibitor (ACEi) or angiotensin-receptor blocker (ARB) treatment is associated with a reduced risk for kidney failure with replacement therapy (KFRT) but not death, according to a study published online July 2 in the *Annals of Internal Medicine*.

Elaine Ku, M.D., from the University of California in San Francisco, and colleagues examined the association of ACEi or ARB treatment initiation with rates of KFRT and death using data from completed randomized controlled trials from 1946 through Dec 31, 2023.

Data were included for 1,739 participants from 18 trials, and of these patients, 35.9 and 7.6 percent developed KFRT and died, respectively, during a median follow-up of 34 months. The researchers found that the risk for KFRT was lower with ACEi or ARB treatment initiation (adjusted hazard ratio, 0.66; 95 percent confidence interval, 0.55 to 0.79), but the risk for death was not significantly lower (adjusted hazard ratio, 0.86; 95 percent confidence interval, 0.58 to 1.28). No significant interactions were seen between ACEi or ARB treatment and age, estimated glomerular filtration rate, albuminuria, or diabetes.

"Initiation of ACEi or ARB therapy protects against KFRT, but not against death, in people with advanced CKD," the authors write. "Even in an era where other agents, such as sodium-glucose cotransporter-2 inhibitors, are available, significant benefit can be derived from the initiation of ACEi or ARB treatment in patients with low glomerular filtration rate."

Several authors disclosed ties to the pharmaceutical industry.

More information: Elaine Ku et al, Angiotensin-Converting Enzyme Inhibitors or Angiotensin-Receptor Blockers for Advanced Chronic Kidney Disease, *Annals of Internal Medicine* (2024). DOI: 10.7326/M23-3236