Although numerous studies have shown that chronic kidney disease (CKD) is linked with an increased risk for atherosclerotic cardiovascular disease, should all patients with CKD be taking statins? A new study published in the Journal of the American Society of Nephrology compares different cholesterol management guidelines and assesses the utility of risk equations to answer this question.

In 2013, two cholesterol management guidelines were published: one by the American College of Cardiology/American Heart Association (ACC/AHA) and another by the Kidney Disease Improving Global Outcomes Lipid Work Group (KDIGO). The ACC/AHA guideline recommends statin treatment for individuals with a high risk of heart disease and stroke based on a history of heart problems, diabetes, or very high cholesterol, or for those with an estimated 10-year risk of 7.5 percent or more according to a formula called the Pooled Cohorts risk equations. By contrast, the KDIGO guideline recommends statin therapy for all individuals 50 to 79 years of age with CKD.

“Although individuals with CKD are in general more likely to develop cardiovascular disease than individuals without CKD, those considered at low risk by the ACC/AHA cholesterol treatment guideline may actually have low risk and therefore may unnecessarily be recommended statin treatment by the KDIGO guideline,” explained Paul Muntner, PhD, of the University of Alabama at Birmingham School of Public Health. “In contrast, if these individuals do have high risk for cardiovascular disease, following the ACC/AHA cholesterol treatment guideline may result in an excessive number of cases that could be prevented.” Therefore, Muntner and his team, including lead investigator Lisandro Colantonio, MD, MSc, thought that it was important to understand how the two cholesterol treatment recommendations are similar and different.

The researchers compared the two guidelines using data from the Reasons for Geographic and Racial Differences in Insults from recent research into the nephrology workforce will inform discussions about nephrology’s future in 2015. Researchers from George Washington University (GWU) will continue their collaboration with the American Society of Nephrology (ASN) and expand upon their initial nephrology workforce research. Discussion of workforce trends and developments in the specialty is timely and has become more urgent after results of the Match for appointment year (AY) 2015–2016 were released on December 3, 2014.

Kidney Watch 2015
Research Aims to Aid Nephrology Workforce Planning
ASN Forms Nephrology Match Task Force

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Stroke (REGARDS) study, a large study of more than 30,000 adults in the United States. Their analysis included 4,726 participants who were aged 50 to 79.9 years and had an estimated GFR below 60 mL/min per 1.73 m² or albuminuria above 30 mg/g but were not treated with dialysis.

The team found that 92 percent of people with CKD are recommended to receive statin treatment by the ACC/AHA guideline versus 100 percent according to the KDIGO guideline. This indicates that although the guidelines use very different methods for estimating future vascular risk, concordance between the two is extremely high.

The investigators also found that 50 percent of people with CKD who are recommended to receive statins are not taking them. Finally, the new Pooled Cohort risk equations were accurate among people with CKD, indicating that physicians have a valid tool available to estimate heart disease risk for their patients with CKD.

“These results indicate that either guideline can be used to inform the decision to initiate statin therapy for people with CKD who are 50 to 79 years of age,” said Colantonio. “They also show that there is an unmet treatment need and a missed opportunity for lowering heart disease risk among patients with CKD.”

Sankat Navaneethan, MD, MS, MPH, who is a nephrologist at the Cleveland Clinic and was not involved with the research, noted that Medicare data also show that statins are underutilized in the CKD population (http://www.carrtkt.org/2013/pdf/v1_ch5_13.pdf). “While there are some differences amongst the guidelines, it is reassuring to see that irrespective of whichever guidelines practitioners will choose to follow, most CKD patients will qualify for prescription of statins,” he said.

“Non–dialysis-dependent CKD patients have heightened vascular risk, and clinical trials have shown the beneficial effects of statins in this population. We hope statin use will increase and would translate into survival benefits for this high-risk population in the future.”

According to Colantonio and her colleagues, follow-up of REGARDS participants is currently ongoing, and data for this analysis were available only to calculate observed risk for atherosclerotic cardiovascular disease at 5 years. Also, the REGARDS study does not have active surveillance to detect atherosclerotic cardiovascular disease events that may not have been reported by participants or their next of kin. This could have led to an underestimation of the actual number of events in this cohort.

In an accompanying editorial, Marcella Tonelli also provided a broader view of statins as an important method for reducing the global burden of noncommunicable chronic diseases, along with interruption of the renin/angiotensin system, healthy diet and exercise, smoking cessation, and control of blood pressure, blood sugar, and body weight.

The article, entitled “Contrasting Cholesterol Management Guidelines for Adults with CKD,” is available online at http://jasn.asnjournals.org/content/early/2014/11/12/ASN.2014040400.abstract.

The REPRiSE clinical research study will evaluate the safety and efficacy of tolvaptan in patients with ADPKD.

A patient may be eligible for the study if he or she:

- Is 18 to 55 years of age with eGFR between 25 and 65 mL/min/1.73m² OR
- Is 56 to < 66 years of age with eGFR between 25 and 44 mL/min/1.73m² (subject to the discretion of the medical monitor)
- Does not have hepatic impairment or liver function abnormalities other than that expected for ADPKD
- Does not have advanced diabetes, additional significant renal disease, renal cancer, single kidney, or recent (within the past 6 months) renal surgery or acute kidney injury

If you have a patient who you think may be a good candidate for this study, please invite him or her to visit www.ReprisePKDStudy.com.

In the fight against PKD, your contribution is important.

www.ReprisePKDStudy.com