Contrary to current guidelines, peripherally inserted central catheters (PICCs) are used in a high percentage of hospitalized patients with chronic kidney disease (CKD), reports a study in *Annals of Internal Medicine*.

The prospective cohort study analyzed the frequency of PICC use and associated characteristics among patients with stage 3b or higher CKD: estimated glomerular filtration rate (eGFR) less than 45 mL/min/1.73 m². The collaborative quality initiative included data from 52 participating hospitals in the Michigan Hospital Medicine Safety Consortium. Primary analysis included 20,545 (of a total 23,392) PICC placements between 2013 and 2016.

Overall, 23.1% of PICCs were placed in patients with eGFR less than 45 mL/min/1.73 m². Of these patients, 56% were on general medical units and 44% in the ICU, while 3.4% were receiving hemodialysis. Patients with eGFR less than 45 mL/min/1.73 m² accounted for 30.9% of PICC placements in the ICU versus 19.3% on the wards. Rates of PICC use in CKD patients varied substantially among hospitals, with interquartile ranges of 12.8% to 23.7% on the wards and 23.7% to 37.8% in the ICU. More than one-fourth of CKD patients with PICCs had dwell times of less than 5 days.

The CKD patients were more likely to have multilumen versus single-lumen PICCs. On the wards, the rate of PICC-related complications was 15.3% in patients with advanced CKD and 15.2% in those with an eGFR of 45 mL/min/1.73 m². In the ICU, the rates were 22.4% and 23.9%, respectively.

The “Choosing Wisely” guidelines, among others, recommend that PICC placement be avoided in patients with advanced CKD. The new analysis of data from a statewide hospital collaborative suggests that nearly one-fourth of PICC placements are in patients with an eGFR less than 45 mL/min/1.73 m².

“Taken together, these data suggest that PICC placement in patients with CKD is common and discordant with guidelines,” the researchers write. They discuss possible reasons for the widespread use of PICCs in CKD patients, as well as strategies to improve appropriate PICC use [Paje D, et al. Use of peripherally inserted central catheters in patients with advanced chronic kidney disease: a prospective cohort study. *Ann Intern Med* 2019; 171:10–18].