

AWARENESS AND KNOWLEDGE OF CHRONIC KIDNEY DISEASE CLINICAL PRACTICE GUIDELINES AMONG INTERNAL MEDICINE RESIDENTS. A NATIONAL SURVEY.

Varun Agrawal, William Beaumont Hospital, Royal Oak MI, USA;  
Michael A. Barnes, William Beaumont Hospital, Royal Oak MI, USA;  
Amit K. Ghosh, Mayo Clinic, Rochester MN, USA.

Chronic Kidney Disease (CKD) is an increasingly prevalent health problem. The National Kidney Foundation published the Kidney Disease Outcomes Quality Initiative clinical practice guidelines for management of CKD. Many patients with CKD are seen by a primary care physician who are less likely than a nephrologist to offer optimal pre-End Stage Renal Disease care. We performed a cross-sectional national survey to assess the knowledge of CKD guidelines among internal medicine residents- the future primary care physicians. An eight-item questionnaire was sent to internal medicine residents all over the U.S. through their program directors. 479 residents from 74 programs completed the online questionnaire. The postgraduate year (PGY) distribution was 166 PGY1, 187 PGY2 and 126 PGY3. Half of the residents correctly defined CKD as kidney injury (proteinuria) for more than 3 months. Two-third of the residents knew the CKD stages. All residents were aware of traditional risk factors for CKD namely diabetes and hypertension but were less aware of other risk factors like obesity (38%), elderly age (71%) and African American or Hispanic race (68%). Most of the residents (87%) were aware of using estimated glomerular filtration rate (GFR) rather than serum creatinine to assess renal function. Most of the residents (90%) knew the goal blood pressure (<130/80 mmHg) for CKD. Most of the residents identified anemia (91%) and bone and mineral disorder (82%) as complications of CKD while only half were aware of CKD being a strong risk factor for cardiovascular disease. Most of the residents (90%) chose to refer a patient with GFR<30 to a nephrologist. The mean performance score improved by the PGY (PGY1 69%, PGY2 72% and PGY3 74%;  $p=0.004$ ). Our survey suggests that internal medicine residents have significant gaps in the knowledge of CKD clinical practice guidelines. Educational efforts in raising awareness of these guidelines among internal medicine residents and identifying barriers to implementation could potentially improve CKD management and clinical outcomes.