# PREDICTORS OF LATE REFERRAL AFTER THE IMPLEMENTATION OF K-DOQI GUIDELINES

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Chronic kidney disease (CKD) affects approximately 26 million people in the United States.  Late referral of CKD patients to a nephrologist results in both increased morbidity and mortality, and an increased cost of health care. In 2002, The National Kidney Foundation's Kidney Disease Outcomes Quality Initiative provided guidelines to facilitate referral of these patients to a nephrologist by their primary care physicians (PCPs). We analyzed the predictors of late referral to nephrologists after publication of these guidelines.

We conducted a retrospective review of: 268 patients referred to a nephrologist with stage 3 CKD (Group 1), 268 patients referred to a nephrologist with stage 4 CKD (Group 2), and 268 patients not referred to a nephrologist by their PCP despite having CKD 4 for one year's duration (Group 3) in year 2005. In multivariate analysis comparing group 1 with group 2, age > 65 years (Odds ratio (OR) 3.8, 95% CI 2.4- 6.13), female gender (OR 2.6, 95%CI 1.6-4.1) and higher Charlson comorbidity score were predictors of referral at stage 4 versus stage 3.  Similarly, in multivariate analysis comparing group 2 with group 3, age > 65 years (OR 3.5, 95%CI 2.3-5.2), female gender (OR 1.4, 95%CI 1.02-2.09) and non-whites (OR 2.6, 95%CI 1.5-4.5) with stage 4 CKD were less likely to be referred to a nephrologist. Type of referring physician, type of insurance did not influence the referral process.

Age > 65 years, female gender, patients with more comorbidities and non-whites are more likely to be either referred late to a nephrologist, or not referred at all. Interventions are needed to increase referral of these high risk patients.