New research indicates that many patients who are receiving chronic hemodialysis have depressive symptoms but do not wish to receive aggressive treatment to alleviate them. The study, which is published in the *Clinical Journal of the American Society of Nephrology*, also found that when patients are willing to accept treatment for depression, renal providers commonly do not prescribe it.

Depression affects nearly one-quarter of people receiving chronic hemodialysis, compared with an average population lifetime risk of between 8.3% and 9%. These high rates likely reflect the various physiological and psychosocial consequences of living with impaired kidney function—from the adverse effects of frequent treatment to the potential loss of social support and vocational capacity.

Depression in dialysis patients affects not only their mental health and quality of life but has also been linked to missed and abbreviated dialysis treatments, more frequent emergency department visits and hospitalizations, and an increased risk of premature death. To address the negative effects that depression can have on dialysis patients’ health and survival, the Centers for Medicare & Medicaid Services Quality Improvement Program (QIP) for end stage renal disease recently mandated that all dialysis facilities report individual patient screening and treatment plans for depression for payment year 2018. Little information, however, is available on the effectiveness of antidepressant therapy in patients on chronic hemodialysis or the acceptance of treatment by patients and clinicians.

To investigate, a team led by Steven Weisbord, MD, MSc, and Julio Pena-Polanco, MD, of the VA Pittsburgh Healthcare System and University of Pittsburgh School of Medicine, asked 101 patients on hemodialysis who were participating in the Symptom Management Involving ESRD (SMILE) trial to complete the Patient Health Questionnaire 9 (PHQ-9) each month. The prospective, multi-center, cluster-randomized SMILE trial compared 2 strategies for the management of 3 common symptoms in cognitively intact adults receiving chronic, (Continued on page 2)
Depression Undertreated

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In most cases, patients refused the recommendations because they felt their depression was attributable to an acute event, chronic illness, or other factors. Factors associated with refusal of treatment recommendations were older age, being married, and African American race, although only the association of older age with treatment refusal was statistically significant.

In 11 of 18 instances (61%) in which patients accepted the recommendation related to treatment for depression, renal providers were unwilling to provide treatment. In 8 of these 11 instances, the renal provider offered no explanation for not accepting the recommendation; in 2 instances, the provider deferred treatment recommendations to the patients’ primary care provider; and in 1 instance, the provider did not accept the recommendation because the patient was hospitalized.

“We discovered that some patients are on anti-depressant treatment that does not appear to be effective, and most who are not on treatment do not wish to be treated,” Weissbord said. “We also noted that when patients do request treatment, renal providers commonly do not prescribe treatment.”

Weissbord and his colleagues pointed to past research indicating that 90% of nephrologists provide primary care to their patients who are on dialysis and that as few as 20% of patients on chronic dialysis have a separate primary care provider.

“The apparent unwillingness of renal providers to consider implementing treatment for depression, particularly in the absence of primary providers who might assume this responsibility, represents a major obstacle to the systematic provision of therapy,” they wrote.

Considering Medicare’s recently released criteria for the end-stage renal disease QIP, the authors noted that the implementation of a performance measure based on screening and treatment is logically based on the assumption that patients wish to have the condition treated. Therefore, the results of this study suggest that the requirement to universally document and provide care for depression in dialysis patients may be premature.

In an accompanying editorial, Maree Hackett, PhD, and Meg Jardine, PhD, of the University of Sydney, Australia, noted that there are many challenges to the detection and treatment of depression in people on dialysis. “The importance of the inner experience may get lost by patients, carers and clinicians in a setting of intensive medical intervention, intercurrent comorbidities, and high rates of unwelcome events,” they wrote. They argued that a safe, effective, low-cost treatment for managing depression could help patients live well, rather than just survive, while on dialysis.

Low BP Related to Increased Cardiovascular Risk

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(Urine-Na)™—a seminal trial in which 9,270 patients with CKD were randomly assigned to ezetimibe/simvastatin versus placebo. The principal investigators of the SHARP Study (www.sharpinfo.org) were Colin Bainton, FRCP, FFPH, and Martin J. Landray, PhD, FRCP, also of CTSU.

The main SHARP results—published in The Lancet in 2011—showed that cholesterol-lowering therapy can substantially reduce the risk of major atherosclerotic events in CKD. Subsequent analyses of the SHARP data have yielded further insights on the outcomes and prognostic factors among people with CKD. In this new analysis, the SHARP investigators explored the paradoxical relationship between BP and cardiovascular risk in patients with CKD.

In apparently healthy adults, as BP increases so does the risk of death from ischemic heart disease, stroke, or heart failure. Risk is approximately doubled for each 20 mm Hg increase in “usual” systolic BP and each 10 mm Hg increase in diastolic BP—there is no threshold below which lower SBP is not associated with lower risk.

However, in CKD, the association curve is often U-shaped—cardiovascular risk is increased at both higher and lower BP values, including low-normal BP. One suggested reason is reverse causality: longstanding hypertension may lead to changes in cardiac structure and function, thus lowering BP while at the same time increasing cardiovascular risk.

Previous studies have found that at least half of patients with stage 4 to 5 CKD show cardiac structural abnormalities, often without signs or symptoms. In the Chronic Renal Insufficiency Cohort (CRIC) study, 75% of patients with an estimated glomerular filtration rate less than 30 mL/min per 1.73 m² had left ventricular hypertrophy on echocardiography.

Herrington and colleagues tested the hypothesis that the association between BP and cardiovascular risk might be confounded by the presence of such cardiac damage—patients who have CKD but have not yet developed cardiac disease might exhibit a positive loglinear association similar to that observed in apparently healthy adults.

To do this, the researchers needed a marker of cardiovascular risk. “The investigative trick was to use blood troponin-1 to identify those at lowest risk of subclinical heart disease,” Herrington explained. “This was based on several previous studies showing that troponin-1 is positively correlated with left ventricular mass and negatively correlated with cardiac function.”

In the SHARP cohort, higher baseline troponin-1 was associated with male sex, older age, higher systolic BP, a higher prevalence of diabetes, and