

Most lupus nephritis patients with end-stage renal disease opt for hemodialysis therapy

November 7 2011

Newly published research shows that more patients with end-stage renal disease (ESRD) caused by lupus nephritis choose hemodialysis as their initial kidney replacement therapy over peritoneal dialysis and preemptive kidney transplantation. Results of the study now available in *Arthritis Care & Research*, a journal of the American College of Rheumatology (ACR), also found that African Americans, Medicaid recipients, those without health insurance, and the unemployed had significantly reduced initiation of peritoneal dialysis.

According to ACR estimates up to 322,000 adult Americans have systemic [lupus](#) erythematosus—a chronic autoimmune disease where the immune system becomes overactive and creates antibodies that attack healthy tissues and organs. When inflammation of the kidneys occurs, known as [lupus nephritis](#), [patients](#) are at risk of ESRD. Previous studies report that as many as 60% of lupus patients develop nephritis, with roughly 20% of these cases advancing to ESRD over a 10-year period. Lupus patients with nephritis who progress to ESRD must select kidney replacement options such as hemodialysis, [peritoneal dialysis](#), or kidney transplantation.

"Our study is the first and largest observational investigation of initial kidney replacement therapies selected by patients with lupus nephritis ESRD," said Dr. Karen Costenbader, the study's senior author and rheumatologist at the Brigham and Women's Hospital Lupus Center in Boston, Massachusetts. Using the U.S. Renal Data System (USRDS), researchers identified 11,317 patients with ESRD caused by lupus

nephritis, between 1995 and 2006. The USRDS tracks information on ESRD patients in the U.S. who receive dialysis or kidney transplantation. Clinical and sociodemographic information was examined to determine the use patterns of kidney replacement therapies.

Study findings indicate that 82% of subjects initiated hemodialysis, 12% used peritoneal dialysis, while only 3% went straight to [kidney transplantation](#) without any type of dialysis. Those receiving peritoneal dialysis—an at home process that allows patients to filter out toxins from the blood using a catheter that has been surgically implanted into the abdomen—were more likely to be female and White, and to have private insurance compared to Medicare or no insurance. Those patients who were employed, had higher levels of albumin and hemoglobin levels, and lower levels of creatinine in the blood—all indicators of better health status—were also more likely to use an at home renal replacement method.

In 2011 the Centers for Medicare and Medicaid Services changed its payment policy for ESRD and now provide strong incentive for at home peritoneal dialysis. "Our findings show choice of kidney replacement therapy is closely linked to race, ethnicity, employment status and medical insurance type," concluded Dr. Costenbader. "Given the added incentives from healthcare coverage providers, knowledge of the social and demographic characteristics involved with dialysis choice provides rheumatologists with greater insight for treating lupus nephritis patients with ESRD." The authors recommend future studies compare the effectiveness of kidney replacement therapies and examine the sociodemographic variations involved in selecting the appropriate type of therapy.

More information: "Variation in Initial Kidney Replacement Therapy for End-Stage Renal Disease Due to LN in the U.S." Amy Devlin, Sushrut Waikar, Daniel H. Solomon, Bing Lu, Tamara Shakevich,

Graciela S. Alarcón, Wolfgang C. Winkelmayr, and Karen H. Costenbader. Arthritis Care and Research; Published Online: November 7, 2011 ([DOI: 10.1002/acr.20607](https://doi.org/10.1002/acr.20607))

Provided by Wiley

Citation: Most lupus nephritis patients with end-stage renal disease opt for hemodialysis therapy (2011, November 7) retrieved 24 April 2024 from <https://medicalxpress.com/news/2011-11-lupus-nephritis-patients-end-stage-renal.html>

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