4-30-2003

UNH Study Examines Factors that Impact Long term Kidney Transplantation Graft Survival

Sharon Keeler

Related Links

National Institute of Diabetes and Digestive and Kidney Diseases

UNH Study Examines Factors that Impact Long-term Kidney Transplantation Graft Survival

By Sharon Keeler
UNH News Bureau
(603) 862-1566

April 30, 2003

DURHAM, N.H. -- A study between the University of New Hampshire and the Washington University School of Medicine has been awarded a grant exceeding $400,000 by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) to examine various factors that may affect long-term kidney transplantation graft survival.

According to Robert Woodward, Forrest D. McKerley Professor of Health Economics at UNH and the principal investigator, the study will expand upon his work previously published in the *American Journal of Transplantation* in 2001. The study demonstrated that low-income recipients had significantly greater graft loss after Medicare coverage of immunosuppressive medications ended. At that time, Woodward was a professor in Washington University's graduate health administration program.

This finding was important, because 75 percent of the approximately 13,000 individuals who receive kidney transplants each year fall into the low-income category defined in the study as those making less than $36,000 annually.

"The long-term survival of a kidney transplant requires that the recipient take expensive immunosuppressive medications for the life of the transplant," Woodward says. "The cost of these medications averages $12,000 per year. Unfortunately, the inability to afford these medications and subsequent noncompliance is one of the most common causes of graft loss after Medicare's coverage expires."

In the new study, the researchers will expand upon these investigations, examining factors such as race, cost of medications, Medicaid regulations, and state specific programs.

"We know, for example, that graft failure rates for African-Americans are substantially higher than those for Caucasians," Woodward says. "We're interested, among other things, in the extent to which race

affects the inter-relationship between income, Medicare insurance and immunosuppression prices."

Because individuals with end-state renal disease qualify for Medicare insurance coverage regardless of age, Woodward explains, it is the primary payer for more than 70 percent of kidney transplants and the secondary payer for many others.

In 1986 Medicare provided coverage for 80 percent of the cost of outpatient immunosuppressive medications for one year following kidney transplants. Between July 1993 and July 1995, Medicare gradually extended this initial coverage to three years. After this period, disabled individuals may qualify for Medicaid, but eligibility requirements vary by state.

"Medicare's change from one to three years immunosuppression coverage provides a natural experiment," Woodward says. "We estimated impact of the extended coverage by comparing the periods when only one year of coverage was provided with three years of coverage. And the forthcoming release of another year's data from the United States Renal Data System will enable a third comparison: Did the loss of insurance after three years increase the graft loss more among low-income recipients in patients transplanted since July 1995?"

The results of this project will provide guidance to both Medicare and state policy-makers responsible for determining the length of immunosuppression coverage, Woodward says.

"Specifically, it will identify those patients for which insurance had the greatest impact," he says. The results will also guide physicians in selecting among immunosuppressive medications with widely variable prices by identifying those patient groups for whom out-of-pocket price is an important determinant of long-term graft survival."

Back to UNH News Bureau