Exit from Medicare coverage improves outcomes among those employed after kidney transplant

Jacob A. Ford, MS

INTRODUCTION

Public insurance coverage at the time of kidney transplant (KTx), or changing from private to public insurance coverage after transplant, are associated with decreased graft survival.1-3 KTx recipients, unlike recipients of other solid organ transplants, have historically been eligible for coverage of immunosuppressant medications for 36 months following transplant under Medicare Part B.4 Using data from the United Network for Organ Sharing (UNOS), we tested the hypothesis that return to employment after KTx moderates the association between early Medicare exit and graft failure or mortality.

MATERIALS & METHODS

The study was deemed not human subjects research by the local IRB. Data were obtained from the UNOS registry, including follow-up through November 2020. KTx recipients aged 18 years or older from January 2005 through November 2017 were included to allow for at least 3 years of follow-up data.

The primary outcome was a composite of mortality or graft failure, conditional on 3 years of post-transplant survival with a functioning graft.

Patients were categorized into four groups:

- No Work
- Non Return to Work
- Return to Work
- Return or Retain Work

Survival analysis used Kaplan-Meier curves with a log-rank test, and multivariable Cox proportional hazards models.

In the primary analysis, the insurance coverage covariate (exited Medicare coverage vs. retained coverage) was interacted with employment status to test the hypothesis that return to employment would moderate the association between Medicare exit and post-transplant outcomes.

RESULTS

The sample included 45,289 patients with a median follow-up time of 7 years. Of this sample, 12,797 patients (28%) experienced death or graft failure during follow-up and 12,777 (28%) changed insurance coverage from Medicare. During the first 3 years post-transplant, 16,673 patients participated in paid work (37%), and 23,489 achieved a functional status score of 100% (51%).

Among patients who returned to work, a change in insurance coverage from Medicare was associated with a 7% reduction in hazard of the composite outcome of graft failure or patient mortality (HR: 0.93; 95% CI: 0.87, 0.99; p=0.024). Particularly, a change to private insurance was associated with reduced hazard of graft failure or patient mortality among those returning to work (HR: 0.89; 95% CI: 0.83, 0.96; p<0.001).

DISCUSSION

Early exit from Medicare was favorably associated or not associated with patient and graft survival greater than 3 years after transplant, depending on whether patients returned to work.

Patients who return to work regardless of insurance coverage type tend to have better graft survival.

This potentially demonstrates that patients able to return to employment and either gain coverage through their employer or purchase coverage individually through the marketplace have better long-term graft survival compared to patients who return to work but stay insured by Medicare.

Multiple studies indicate that patients who were employed prior to transplantation are most likely to return to work after KTx,5,6

About half of patients who consider themselves able to work after KTx are employed.

REFERENCES


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