

Renal Transplant Recipients with Good Function Post-Transplant Are More Likely To Die Than Return to Dialysis.

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Over 30% of patients receiving renal allografts lose the graft or die with a functioning graft by the end of five years. Collins et al showed that most of the patients in Stages 3 and 4 chronic kidney disease die of cardiovascular causes before needing renal replacement therapy. The aim of the study was to determine if renal transplant patients in more advanced stages of chronic kidney disease (CKD) died at a higher rate than the rate of their returning to dialysis. We analyzed data on adult (> 18 years) patients who received renal allografts between 1995 and 2001 and were alive with a functioning graft 7 days post-transplant. The GFR post transplant was calculated using the 4-variable (MDRD) formula. GFR was calculated at each post-transplant visit (6 mo, 1 year, and yearly thereafter). In the event the patient was not seen, the last known GFR was used. Of the 82,800 transplant recipients who met the inclusion criteria, 81,202 had baseline GFR and were included in the analysis. At baseline, 5% were in stage 1, 21% were at stage 2, 42% were at stage 3, 17% at stage 4, and 15% at stage 5. The approximate event rates over the 6 years of follow-up by CKD stage is shown in the following table:

CKD Stage	Approximate rate of return to dialysis per 100 patient-years	Approximate death rate per 100 patient-years
1 or 2	1	2
3	2.5	2.5
4	15	5
5	70	10

We conclude that renal transplant patients with poorly functioning grafts (stages 4 and 5) are more likely to return to dialysis than die, whereas renal transplants in stages 1 and 2 are more likely to die than return to dialysis.