Employment and Transplant Status among End-Stage Renal Disease Patients Receiving Dialysis

Deborah Evans, MA, LCSW;[1] Duane Dunn, MSW;[1] Shelley Murphy, MSW, LSW;[1] Kristi Robinson, MSW, LCSW;[1] Rich Mutell, MBA, MA;[2] Paul Broughton;[2] Deborah Benner, MA, RDN, CSR[1]

[1]DaVita Inc, Denver, CO, USA; [2]Apex Health Innovations, Simi Valley, CA, USA

Introduction

- For patients with end-stage renal disease (ESRD), receipt of a transplant offers the best possible long-term treatment option.
  - However, qualification for placement on the active transplant list requires a high level of motivation and engagement.
- ESRD patients who continue to work while receiving dialysis have higher quality-of-life scores compared to those who are unemployed.[1,2,3]
- Many factors that dialysis patients perceive as barriers to maintaining employment (eg, access to transportation, depression, lack of motivation) could also make it more difficult to navigate the transplant process. Conversely, positive outcomes of employment, such as improved financial status, may facilitate process completion.

Objective

We sought to characterize transplant status among employed versus unemployed patients at a large dialysis organization (LDO)

Methods

- Data on patient employment and transplant status were derived from LDO electronic health records for active LDO patients as of 01 May 2016.
- Employment and transplant status information is collected by LDO social workers during the course of routine care.
- Employment categories considered were:
  - Working (regular full-time, regular part-time, or per diem)
  - Unemployed
  - Retired
  - Other (short-term disability, long-term disability, caregiver, homemaker, student, training, volunteer, and receiving workers' compensation)
- Transplant categories considered were:
  - Active
  - Delisted
  - Denied
  - In work-up
  - Inactive
  - Not interested
  - On hold
  - Pending patient follow-up
- Transplant status was assessed for patients within employment status groups and age strata.

Results

- A flow chart depicting the kidney transplant management process for LDO patients is presented in Figure 1.
- As of May 2016, there were 91,231 active patients with available transplant and employment status information in the LDO database.
  - 17,816 (19.5%) were employed
  - 28,185 (30.9%) were unemployed
  - 24,352 (26.7%) were retired
- Transplant status among LDO patients by employment status is presented in Figure 2.
  - Compared to unemployed patients, employed patients were more likely to have transplant status listed as "active" (34% vs 19%) and less likely to have transplant status listed as "denied" or "pending patient follow-up" (11 % vs 20% and 20% vs 25%, respectively).
- Stratification of patients on the basis of age revealed that trends were conserved across age groups (Table 1).

Figure 1. LDO Kidney Transplant Management Process

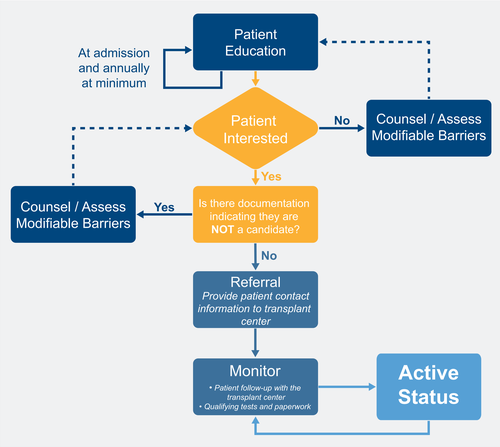

Figure 2. Transplant Status among Active LDO Patients as of May 2016, by Employment Status

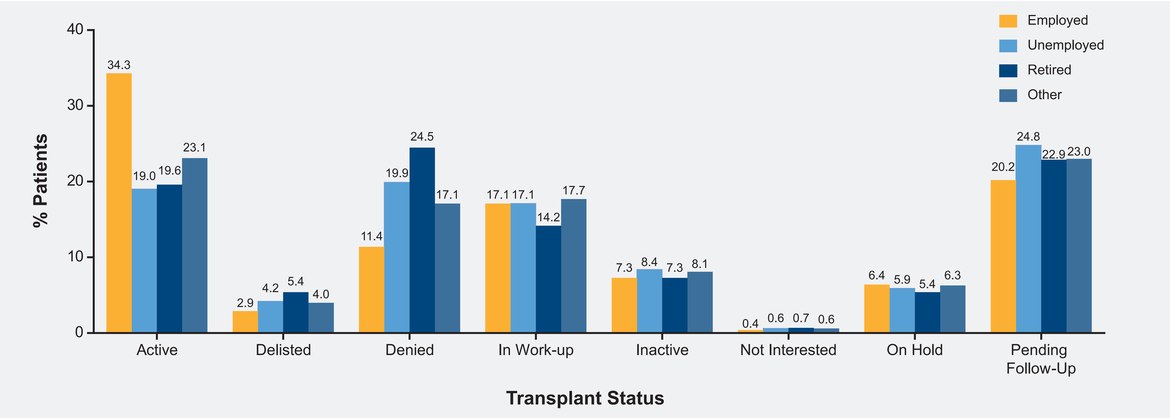

Table 1. Transplant and Employment Status by Age

	Age Group (years)						
	18-29	30-39	40-49	50-59	60-69	70-79	80-89
Employed, N	**1164**	**2553**	**4705**	**5451**	**3215**	**693**	**34**
Active, %	35.2	34.8	36.1	34.4	33.2	25.4	11.8
Denied, %	10.5	10.4	10.9	10.9	11.4	23.4	38.2
Pending Follow-Up, %	22.3	21.0	18.8	19.8	21.2	21.1	20.6
Other [a], %	32.0	33.8	34.2	34.8	34.3	30.2	29.4
Unemployed, N	**1562**	**3604**	**6910**	**10,341**	**5280**	**451**	**34**
Active, %	24.5	20.3	20.5	18.6	15.9	12.4	0.0
Denied, %	14.5	17.4	17.8	20.1	24.4	34.6	52.9
Pending Follow-Up, %	25.3	25.1	24.9	25.0	24.2	25.1	17.6
Other [a], %	35.7	37.2	36.8	36.4	35.5	27.9	29.4

[a] Encompasses transplant statuses: delisted, in work-up, inactive, not interested, and on hold

Conclusions

- Among LDO patients who had expressed interest in transplant, those who were employed were more likely to progress through the qualification steps to active transplant status than those who were unemployed.
- Initiatives designed to encourage dialysis patients to continue working or to return to employment may also result in an increase in the numbers of patients who are able to successfully complete the transplant qualification process.
- However, it is not known whether this relationship may be an indication of better overall health and health literacy in employed patients, which could contribute to a greater ability to navigate and manage the complicated transplant referral and evaluation process.

References

1. Lopes A, Bragg-Gresham J, Goodkin D, et al. Factors associated with health-related quality of life among hemodialysis patients in the DOPPS. *Qual Life Res*. 2007;16(4):545-557.
2. Curtin RB, Oberley ET, Sacksteder P, Friedman A. Differences between employed and nonemployed dialysis patients. *Am J Kidney Dis*. 1996;27(4):533-540.
3. Kutner NG, Zhang R, Huang Y, Johansen KL. Depressed mood, usual activity level, and continued employment after starting dialysis. *Clin J Am Soc Nephrol*. 2010;5(11):2040-2045.

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*Correspondence: deborah.evans@davita.com

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