

BACKGROUND

- Characterizing the burden of physical impairments among ESRD patients is important to clinical care
- Lower functional status has been associated with higher mortality risk in kidney transplant (KT) recipients
- Like lower functional status, physical impairments might affect KT recipients, but outcomes in this population have not been well characterized

METHODS

Study Population

- Prospective two-center cohort of 500 adult KT recipients (6/2013-12/2017)
- National registry population (N=76,097)

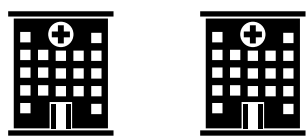
Analyses

- Exposures: Self-reported hearing, visual, physical, or walking impairment.
- Outcomes: Death-censored Graft Failure and Mortality
- Models: Hybrid Registry-Augmented Cox regression adjusted for donor, recipient, and transplant factors

National Registry  
(SRTR)



Two-Center  
Cohort



Impairment  
+  
Predicted  
values

Demographics,  
comorbidities, transplant  
characteristics,  
outcomes

RESULTS


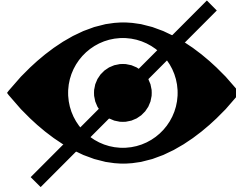


	 Hearing Impairment	 Visual Impairment	 Physical Impairment	 Walking Impairment
Cohort Prevalence	10%	16%	9%	12%
aHR Graft Failure	3.5 (1.0-12.9)	3.9 (1.4-11.4)	0.7 (0.1-6.0)	0.6 (0.1-4.3)
aHR Mortality	1.0 (0.3-3.6)	1.2 (0.5-3.0)	1.6 (0.5-5.0)	3.6 (1.5-8.8)

Table 1: Prevalence of Impairments and Association with Graft Failure and Mortality.

KT Recipients by Visual Disability

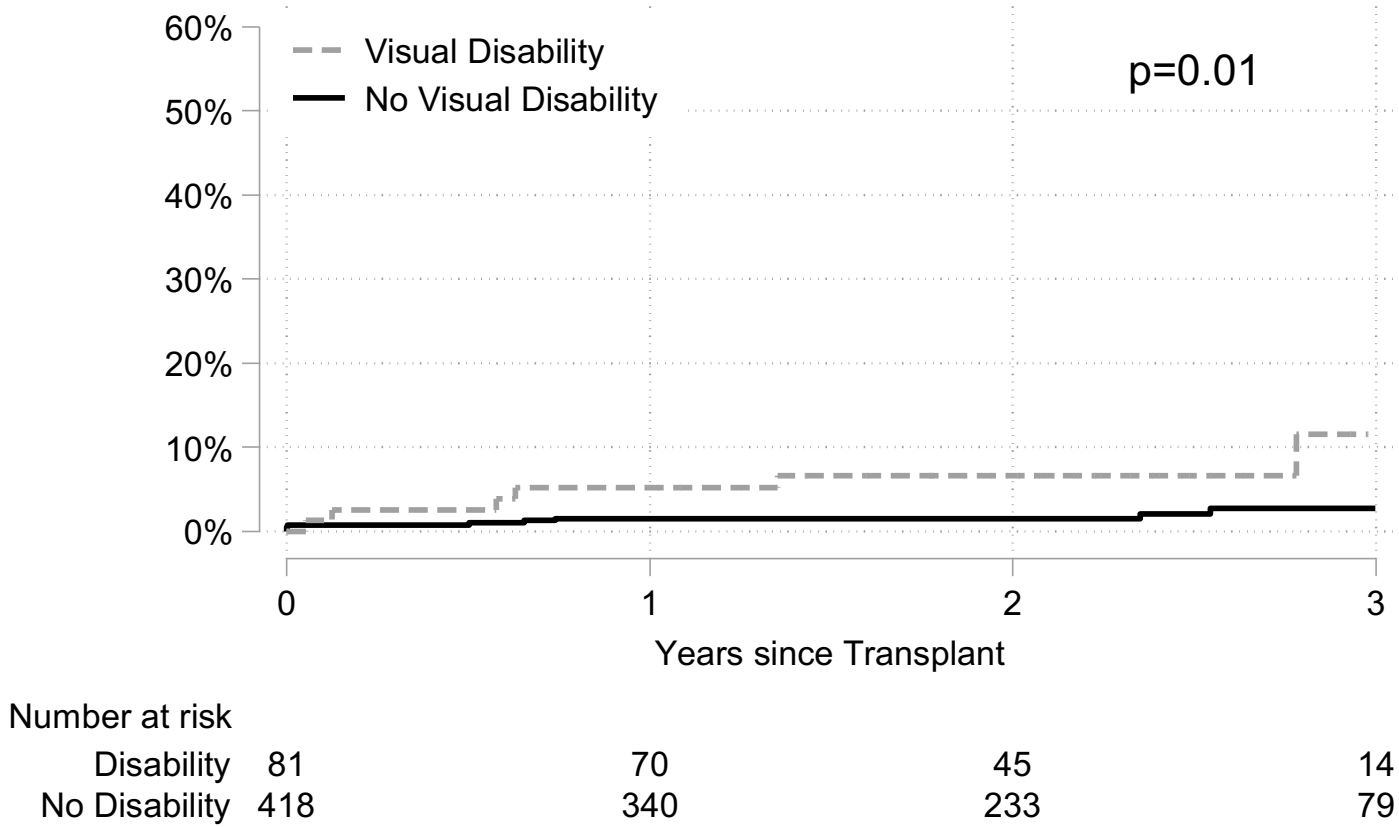


Figure 1: Visual Impairment and Graft Failure.

KT Recipients by Walking Disability

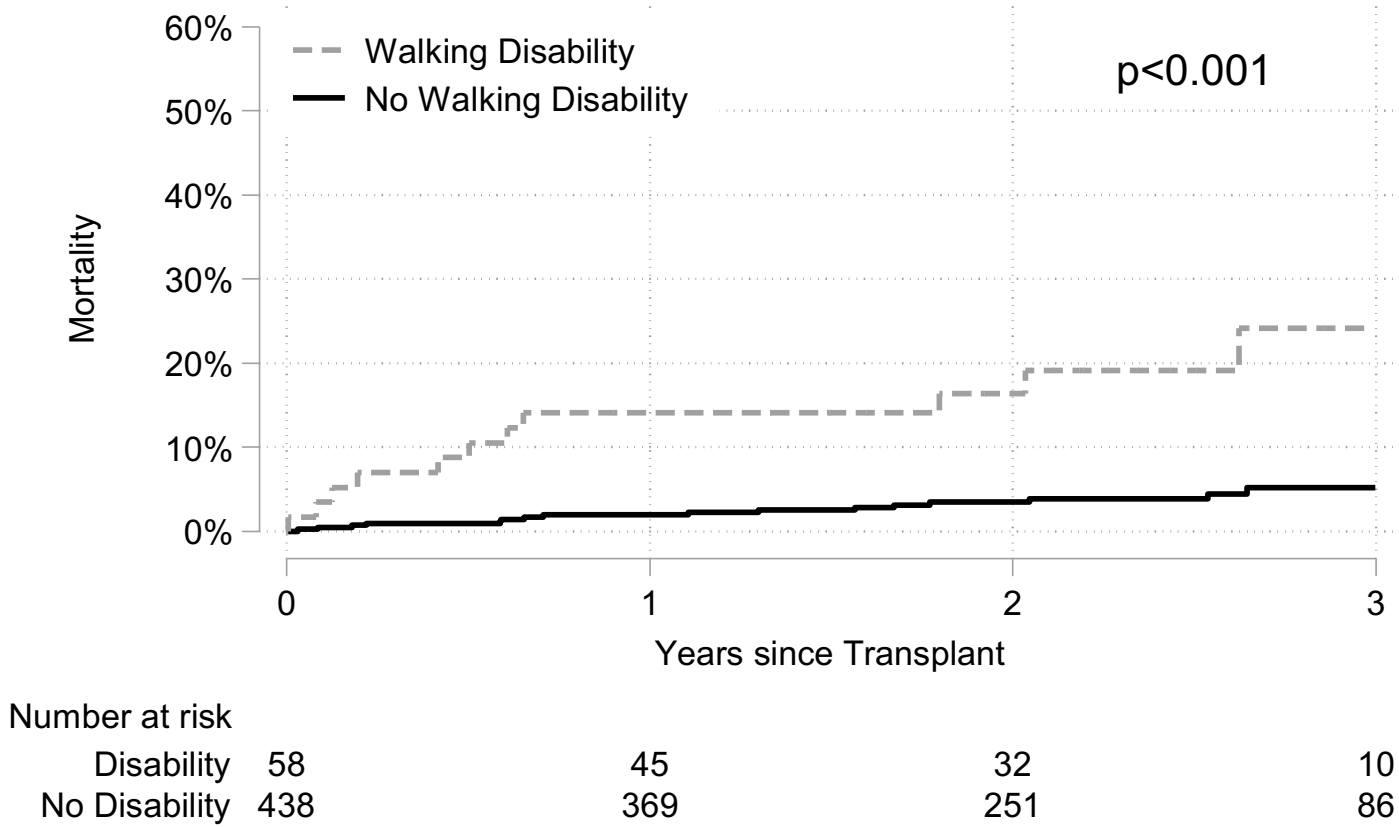


Figure 2: Walking Impairment and Mortality.

SUMMARY & KEY TAKE-AWAYS

- Self-reported disabilities/impairments were prevalent (24%) in our study
- For most patients, disability/impairment was not associated with worse post-KT outcomes
- Visual impairment → higher hazard of graft failure [aHR: 3.9 (1.4-11.4)]
- Walking disability → higher hazard of mortality [aHR: 3.6 (1.5-8.8)]
- Future work should identify potential mechanisms leading to these outcomes
- Interventions are needed to mitigate the effects of visual impairment and walking disability among KT recipients
- KT centers should consider providing additional supportive care and close monitoring to recipients with visual impairments or walking disabilities

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**Conflict of Interest:** No authors have a conflict of interest to report. This study used data from the Scientific Registry of Transplant Recipients (SRTR). We would like the acknowledge the role of the NIH in supporting this work: grant numbers K01AG043501 (PI: McAdams-DeMarco), R01AG055781 (PI: McAdams-DeMarco), F30DK116658 (PI: Shaffer), F32AG053025 (PI: Haugen), K01AG050699 (PI: Gross), K24DK101828 (PI: Segev), and R01DK096008 (PI: Segev).