

Survival Benefit of Kidney Transplant among HIV+ Waitlist Candidates

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Disclosures

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I have no financial relationships to disclose within the past 12 months relevant to my presentation. The ACCME defines 'relevant' financial relationships as financial relationships in any amount occurring within the past 12 months that create a conflict of interest.

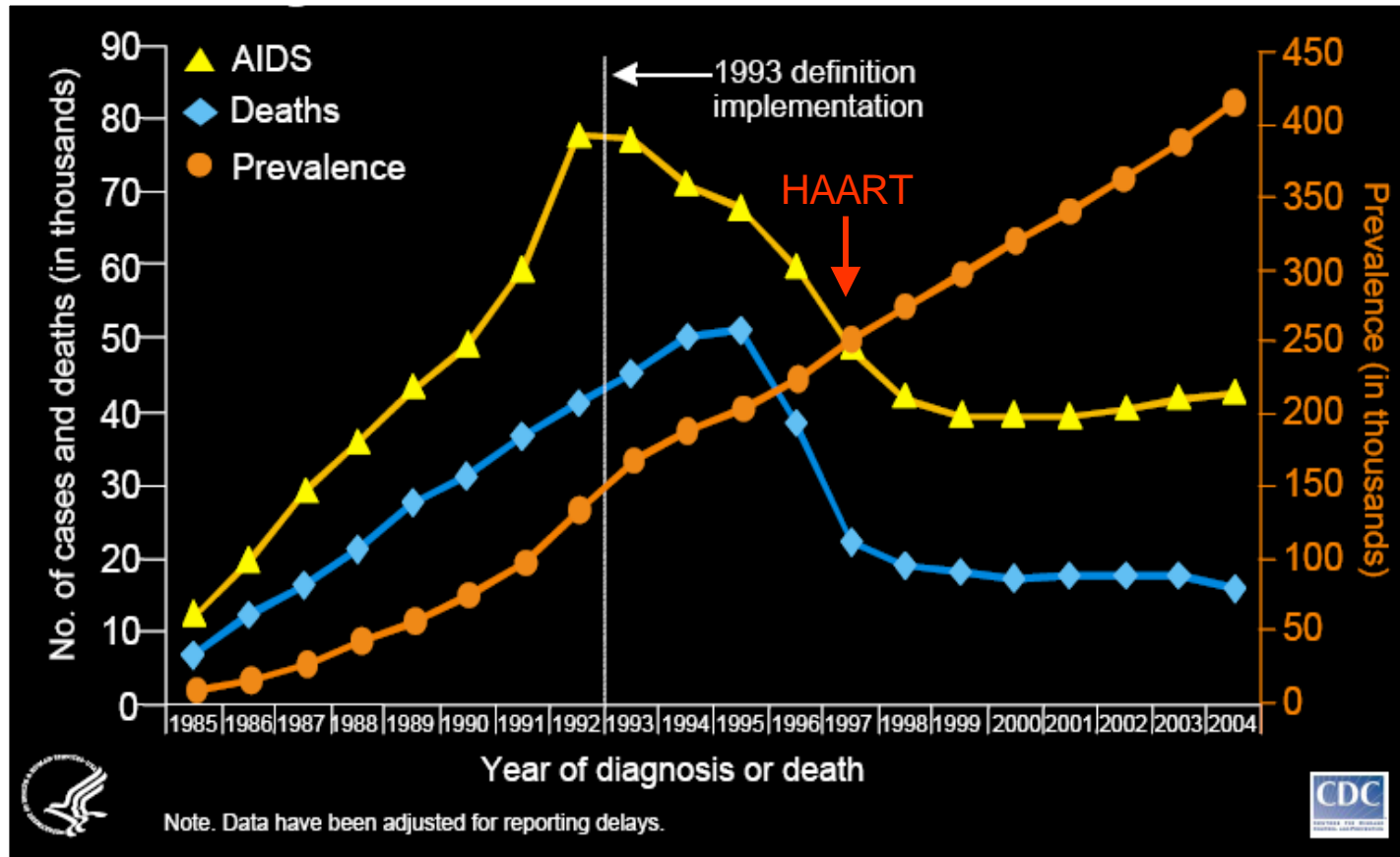
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My presentation does not include discussion of off-label or investigational use.

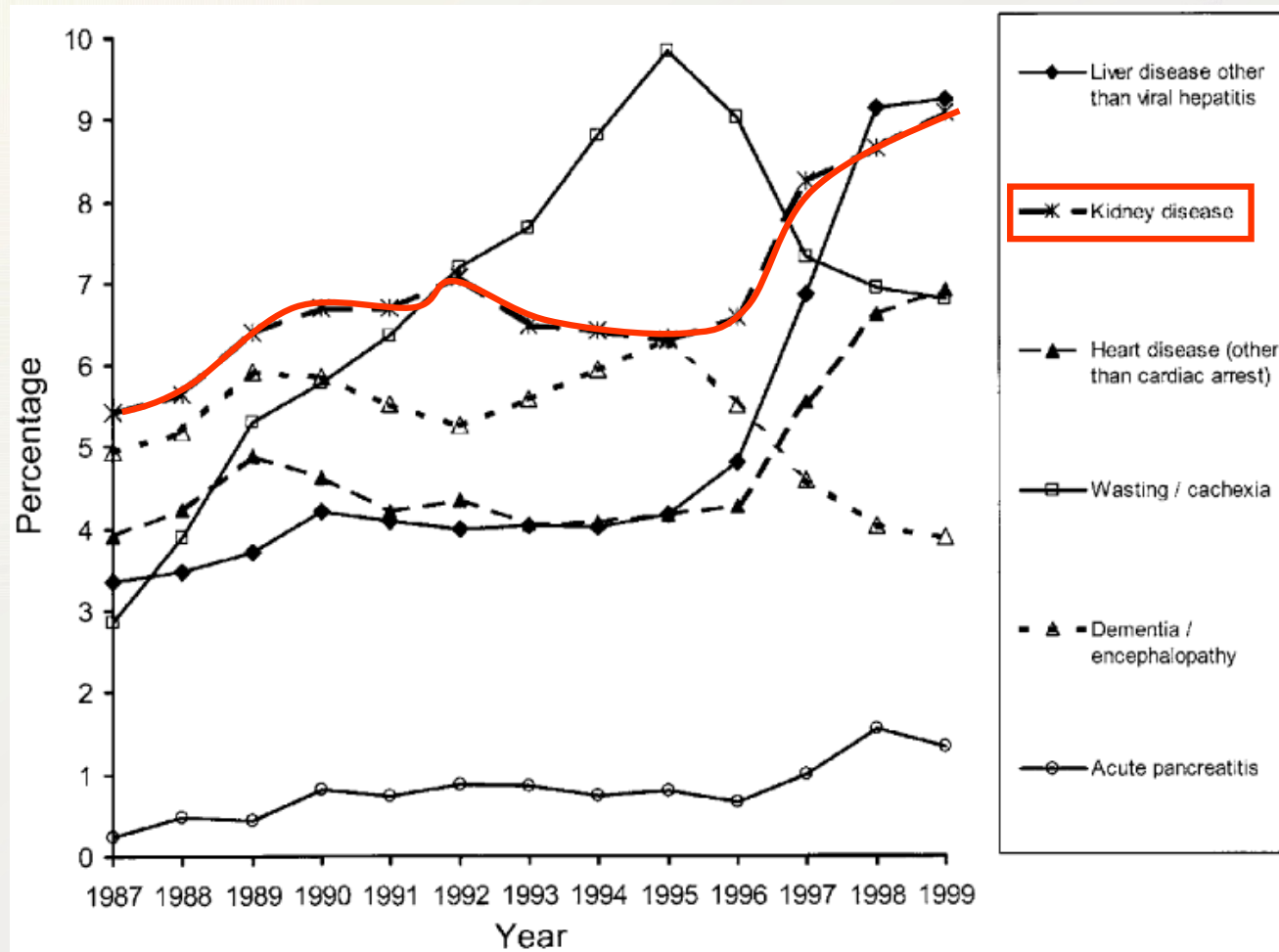
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HIV Epidemic in the United States

Prevalence and Mortality



HIV and Chronic Disease Changing Trends

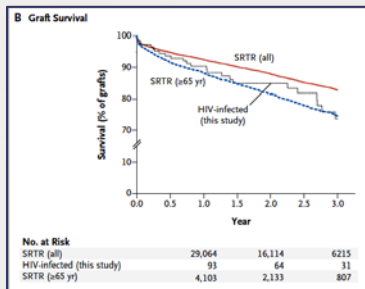
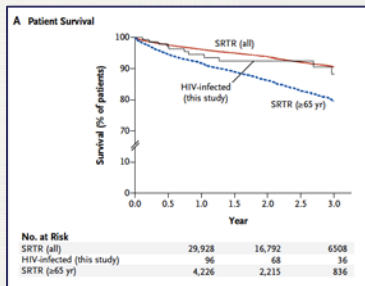


Transplant Outcomes Patient and Graft Survival

ORIGINAL ARTICLE

Outcomes of Kidney Transplantation in HIV-Infected Recipients

Peter G. Stock, M.D., Ph.D., Burc Barin, M.S., Barbara Murphy, M.D., Douglas Hanto, M.D., Ph.D., Jorge M. Diego, M.D., Jimmy Light, M.D., Charles Davis, M.D., Emily Blumberg, M.D., David Simon, M.D., Ph.D., Aruna Subramanian, M.D., J. Michael Millis, M.D., G. Marshall Lyon, M.D., Kenneth Brayman, M.D., Doug Slakey, M.D., Ron Shapiro, M.D., Joseph Melancon, M.D., Jeffrey M. Jacobson, M.D., Valentina Stosor, M.D., Jean L. Olson, M.D., Donald M. Stablein, Ph.D., and Michelle E. Roland, M.D. for the HIV-TR Investigators

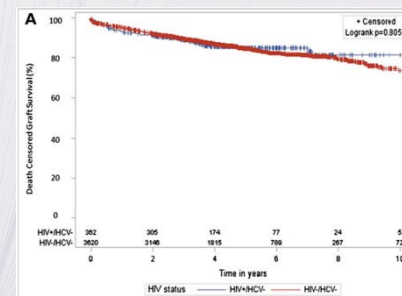
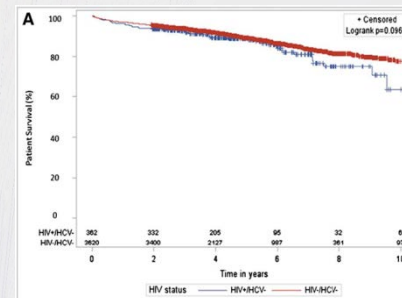


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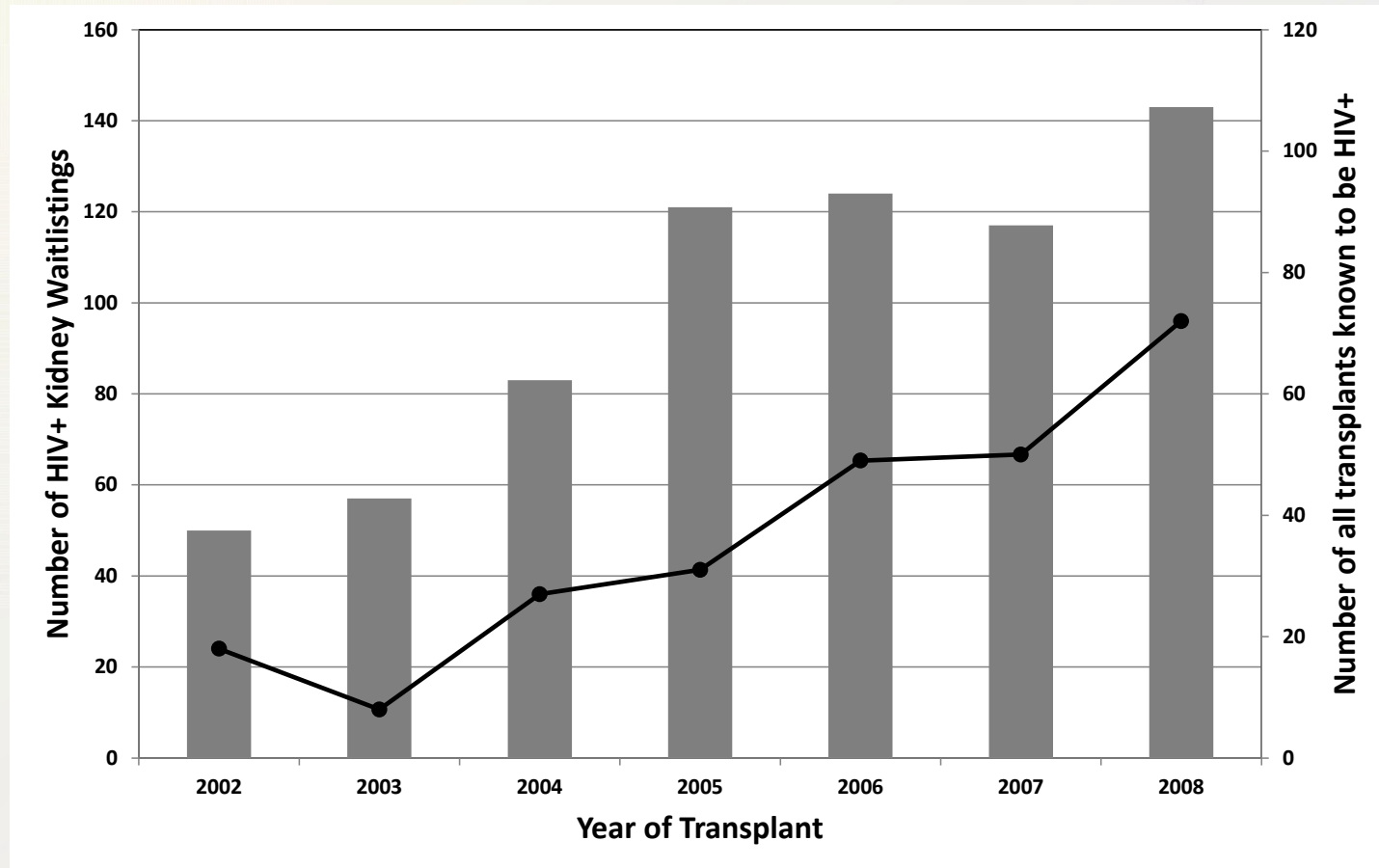
A National Study of Outcomes among HIV-Infected Kidney Transplant Recipients

Jayne E. Locke,* Shikha Mehta,* Rhiannon D. Reed,* Paul MacLennan,* Allan Massie,† Anoma Nellore,* Christine Durand,‡ and Dorry L. Segev†

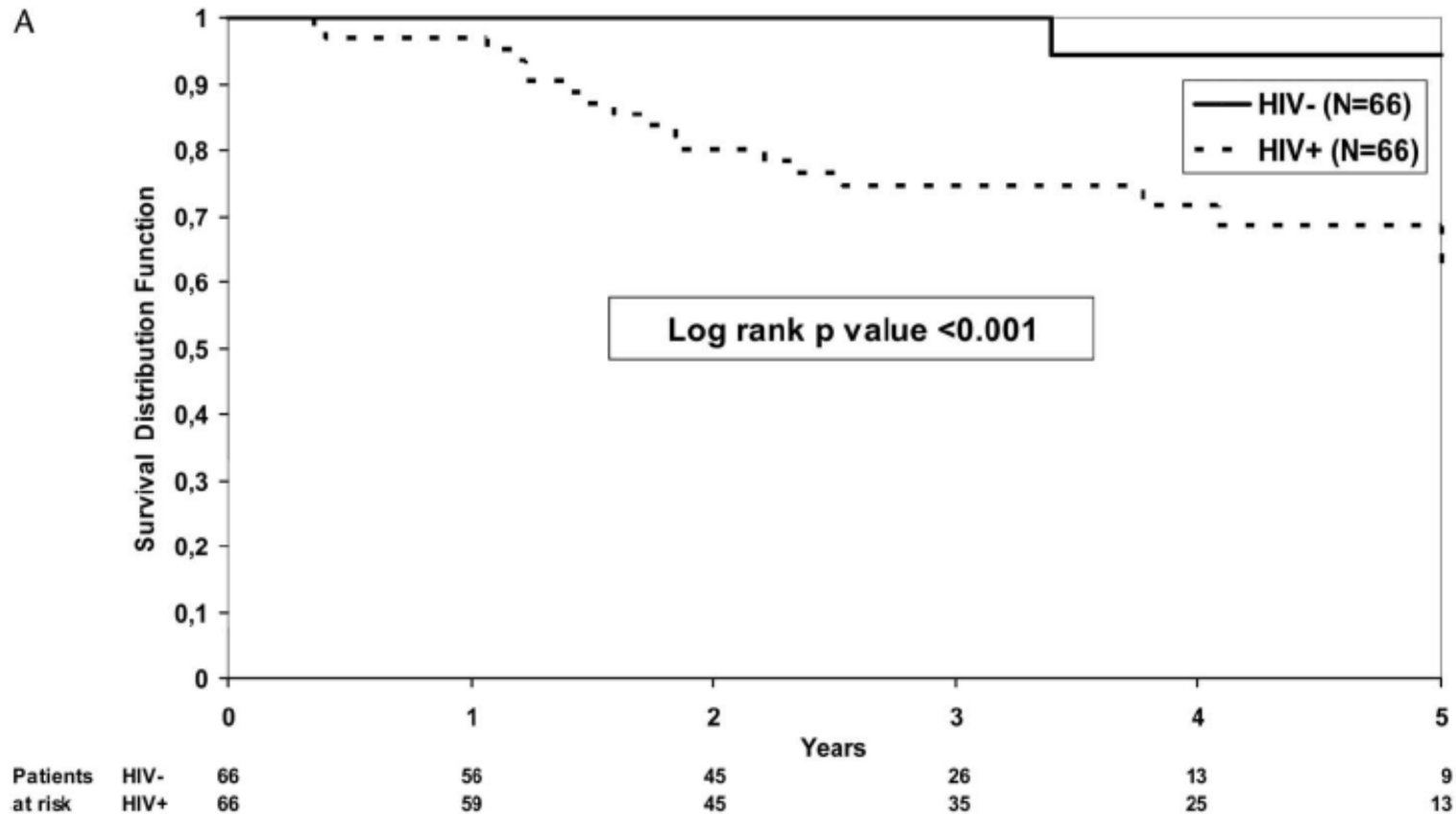
*Comprehensive Transplant Institute, University of Alabama at Birmingham, Birmingham, Alabama; †Departments of Surgery and Epidemiology, Johns Hopkins University, Baltimore, Maryland; and ‡Department of Medicine, Division of Infectious Diseases, Johns Hopkins University, Baltimore, Maryland



Candidate Waitlisting and Kidney Transplant Rates among HIV+



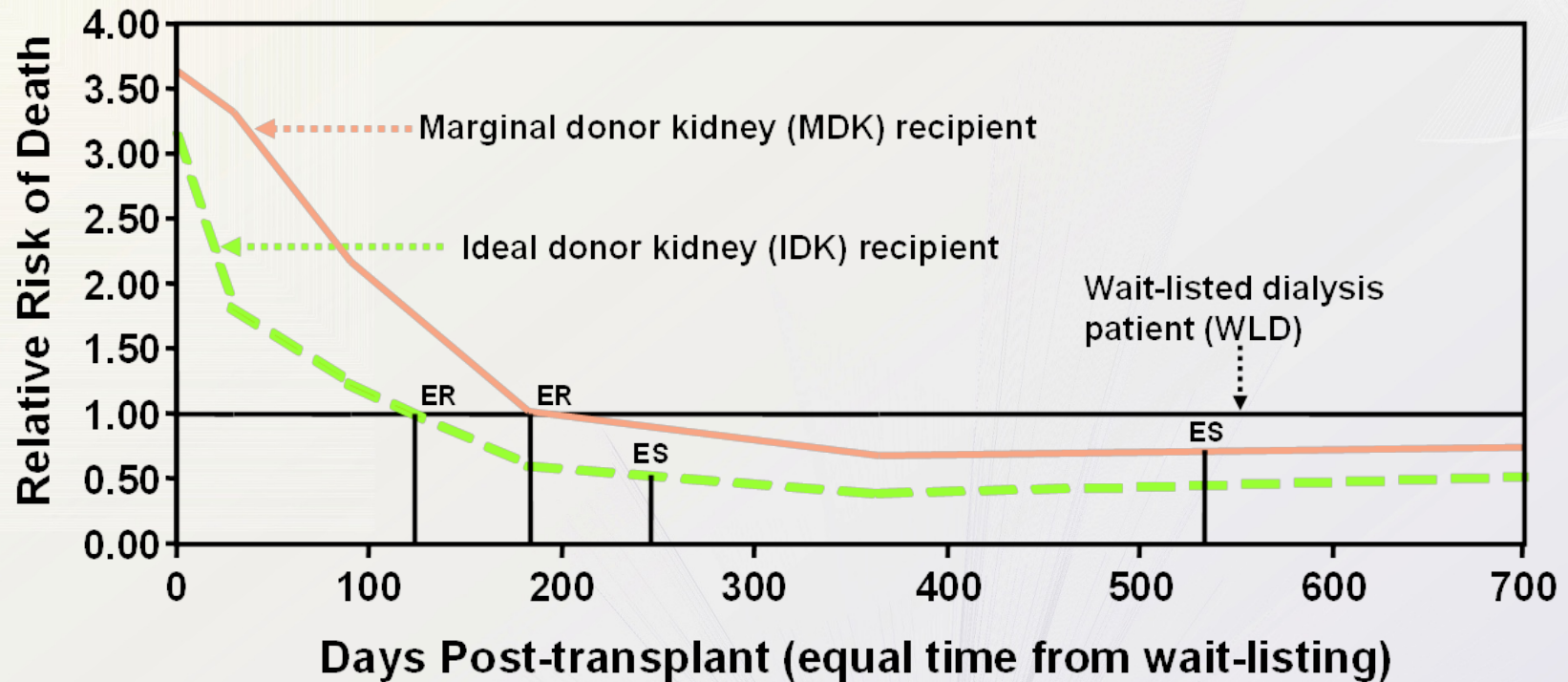
HIV+ Patients have Lower Survival on Hemodialysis



Trullas et al. J AIDS. 2011.

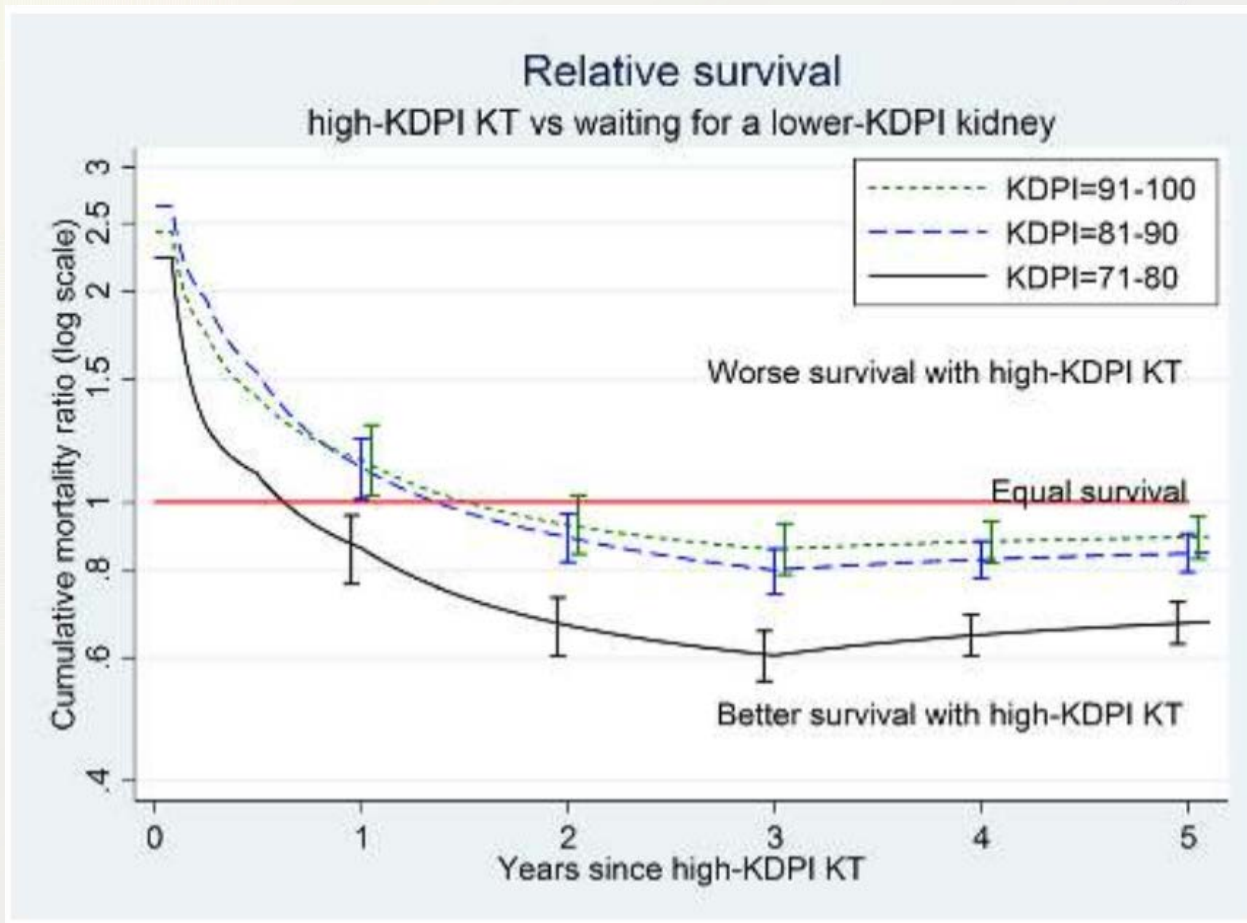
Kidney Transplantation and Survival Benefit

What about HIV+ Waitlist Candidates?



Kidney Transplantation and Survival Benefit

What about HIV+ Waitlist Candidates?



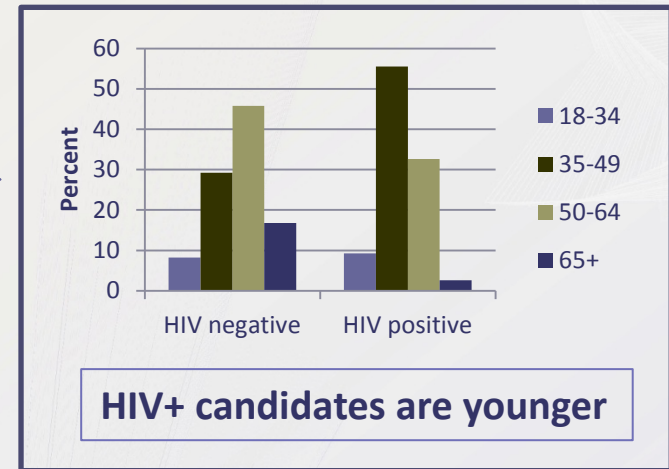
Methodology

- Identification of HIV+ kidney waitlistings [n=1,000]
 - IMS pharmacy fills were linked with SRTR data (2001-2012)
 - Candidates who filled ≥ 1 antiretroviral medication unique to HIV treatment were identified
 - Candidates were followed from the later of date of waitlisting or first known HIV medication fill
 - Simultaneous listings were collapsed [n=938 candidates]
- Time-to-event survival analyses were performed using Cox proportional hazards modeling
 - From the later of waitlisting/medication fill to earliest of 1) transplant; 2) death; or 3) administrative end of study

Baseline Demographics

HIV+ vs. HIV- Kidney Candidates

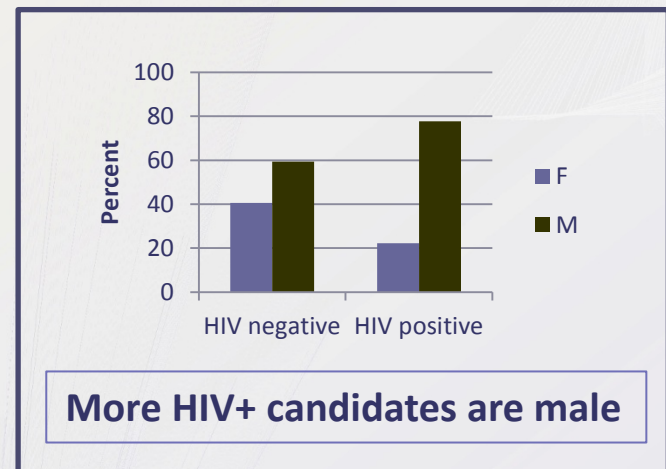
Characteristics	HIV positive (n=1,000)	HIV negative (n=90,590)	P-value
Number (%)			
Age at listing(years)			
18-34	93 (9.3%)	7,381 (8.2%)	<0.0001
35-49	555 (55.5%)	25,766 (29.4%)	
50-64	326 (32.6%)	41,793 (46.1%)	
65+	26 (2.6%)	15,650 (17.3%)	
Male	777 (77.7%)	53,725 (59.3%)	<0.0001
African-American	715 (71.5%)	22,648 (25.0%)	<0.0001
Cause of kidney disease			<0.0001
Diabetes	144 (14.4%)	29,604 (32.7%)	
Hypertension	326 (32.6%)	20,245 (22.4%)	
GN	99 (9.9%)	16,159 (17.8%)	
Other	431 (43.1%)	24,582 (27.1%)	
Years on dialysis at the time of listing, median (IQR)	2.98 (1.07 – 6.08)	0.80 (0.01-2.30)	<0.0001
Pre-emptive listing	75 (7.5%)	22,343 (24.7%)	<0.0001
PRA ≥ 80%	106 (10.6%)	11,557 (12.8%)	0.04
Willingness to accept an HCV+ kidney	133 (13.3%)	3380 (3.7%)	<0.0001
Willingness to accept an ECD kidney	407 (40.7%)	43,615 (48.2%)	<0.0001
Blood group type			0.001
A	307 (30.7%)	31,583 (34.9%)	
AB	33 (3.3%)	3,823 (4.2%)	
O	175 (17.5%)	12,698 (14.0%)	
B	485 (48.5%)	42,486 (46.9%)	
Diabetes	226 (22.6%)	39,066 (43.1%)	<0.0001
BMI , kg/m2, median (IQR)	25.0 (22-29)	28.0 (24-32)	<0.0001
Peripheral vascular disease	26 (2.6%)	4,677 (5.2%)	0.0003



Baseline Demographics

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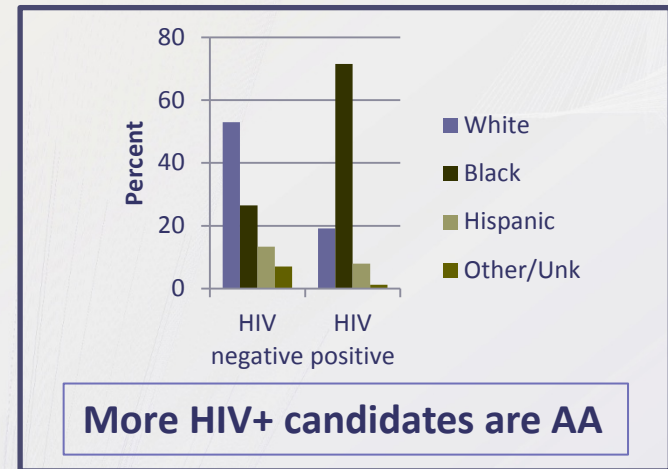
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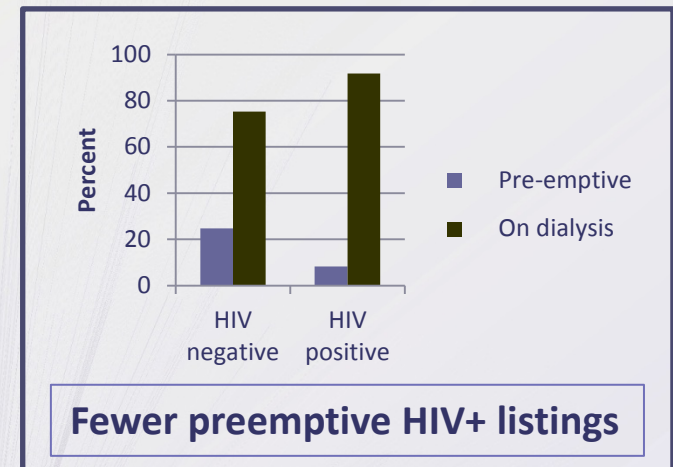
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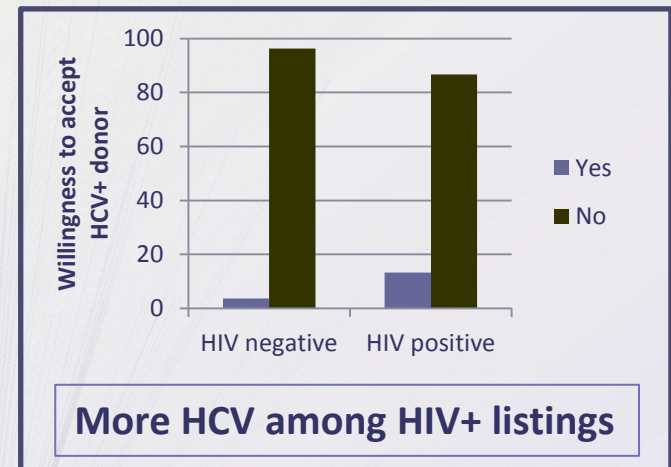
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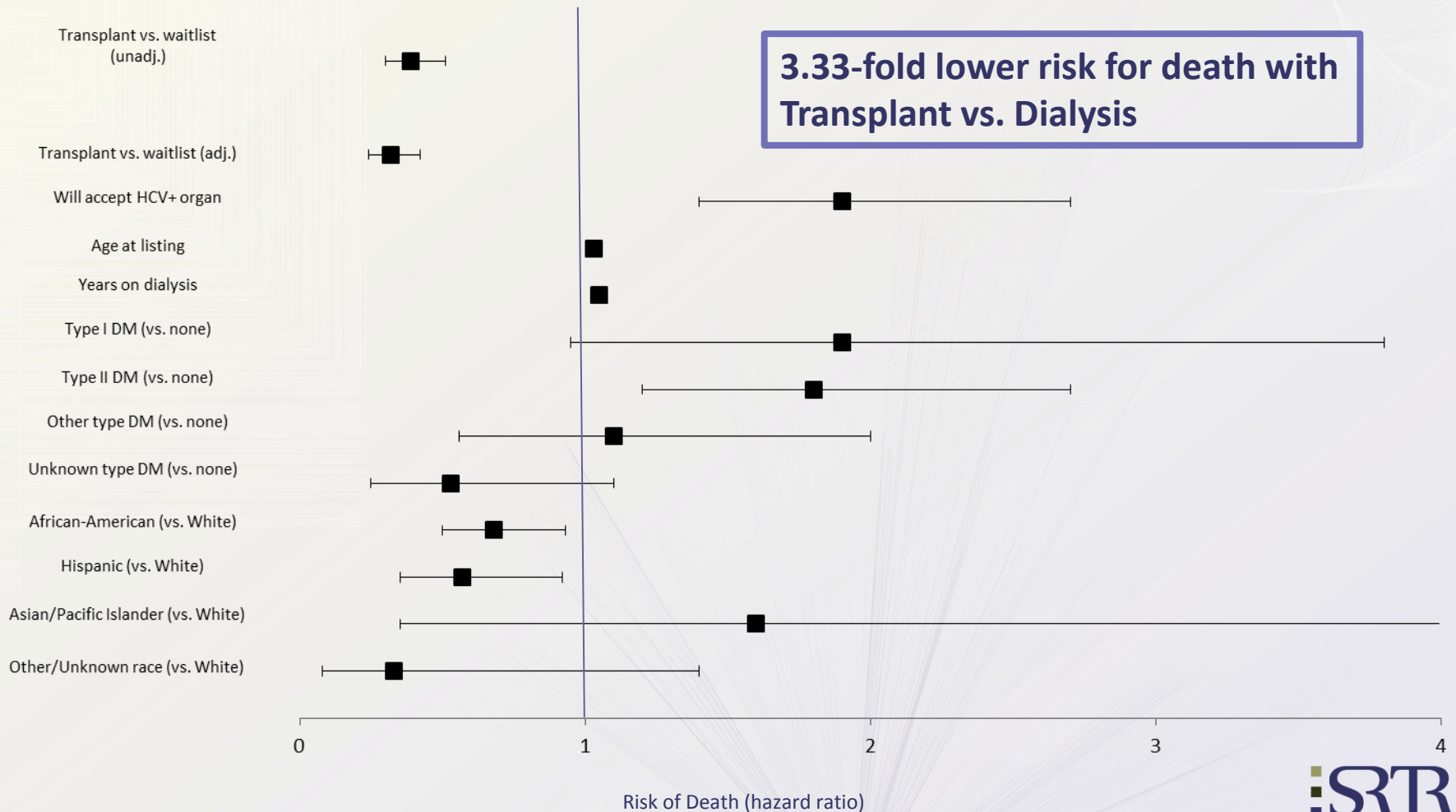
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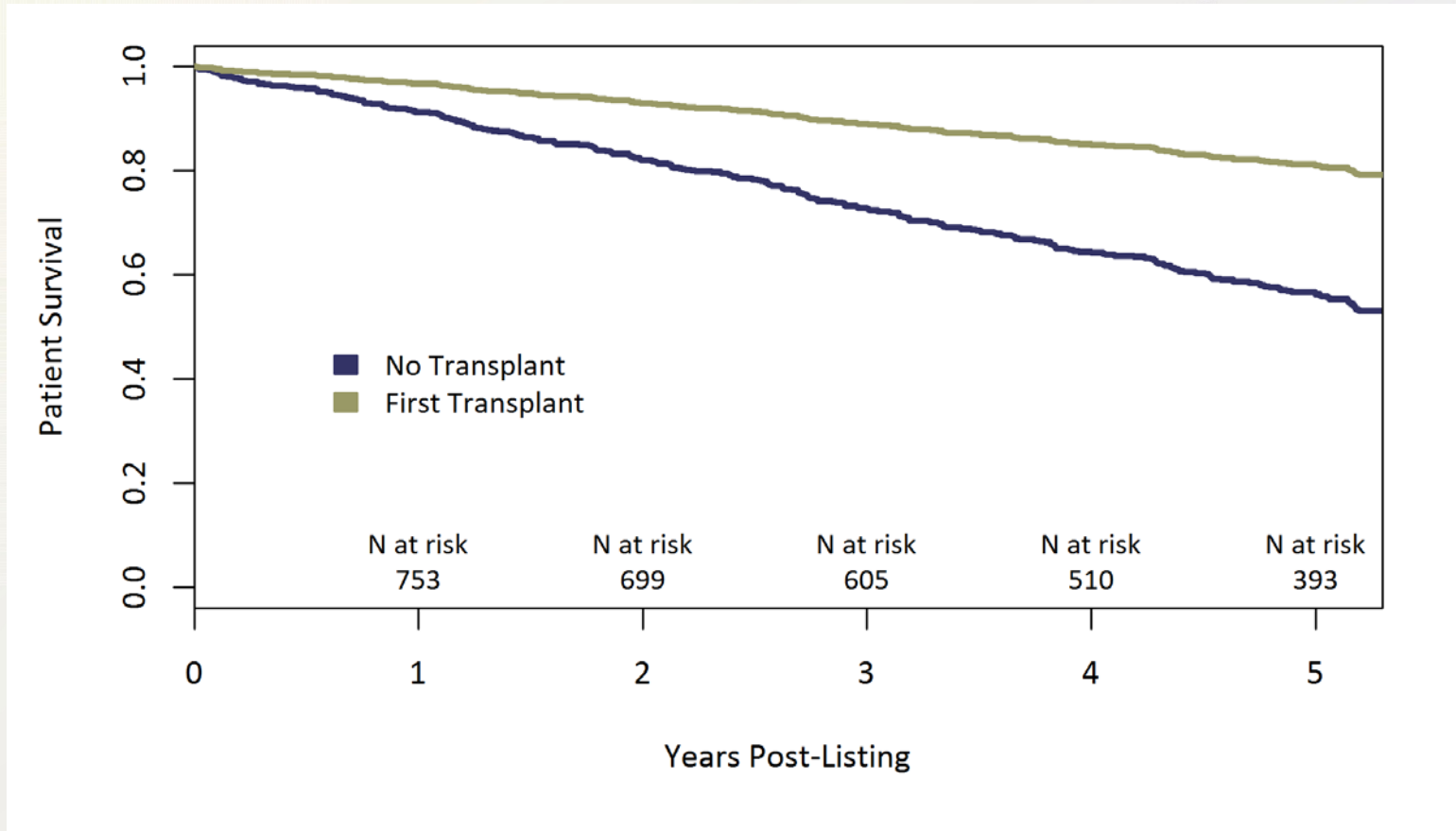
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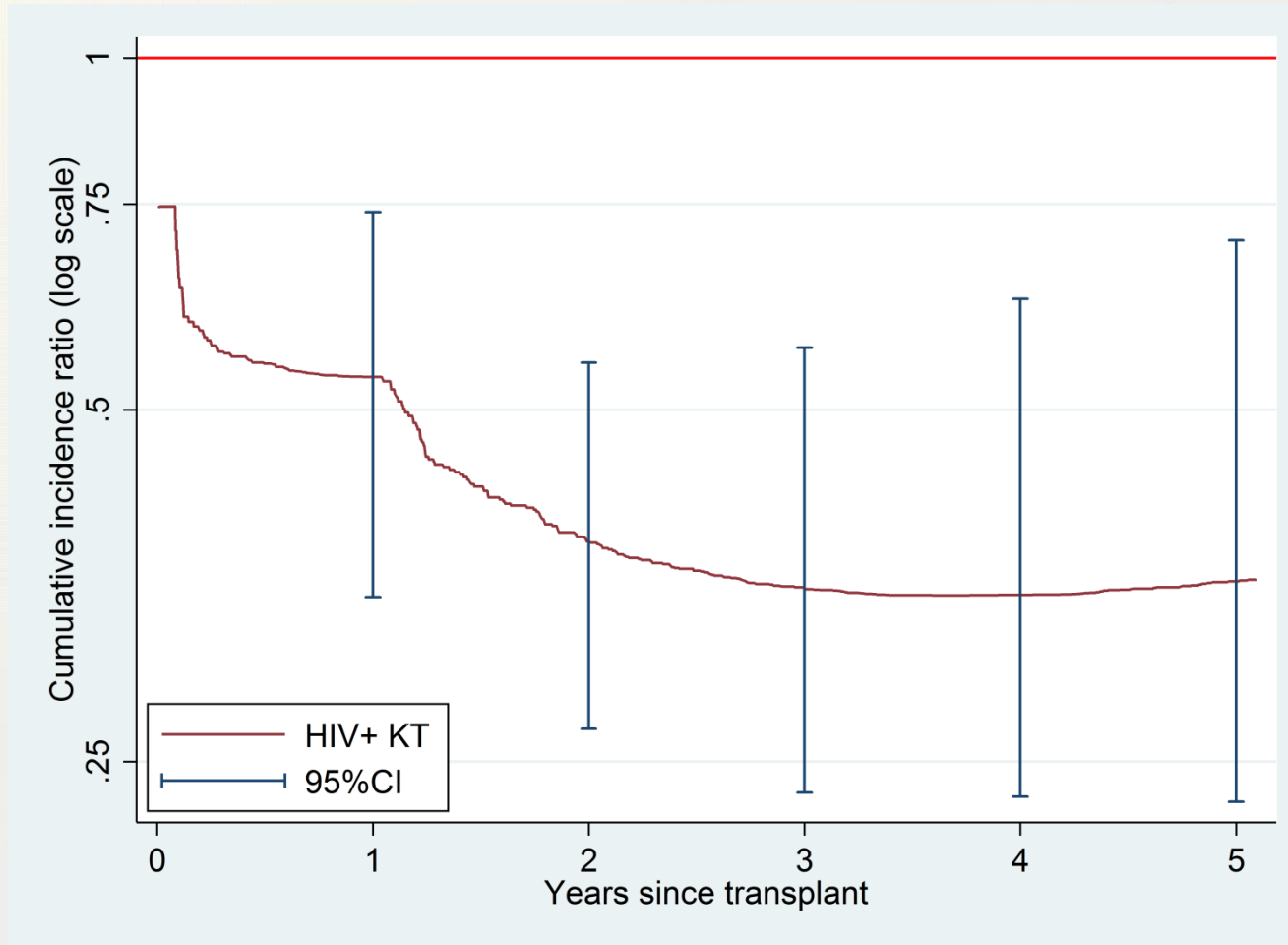
Do HIV+ ESRD Patients Derive a Survival Benefit from Kidney Transplantation?



Kidney Transplantation is Associated with a Significant Survival Benefit among HIV+ Candidates



Kidney Transplantation is Associated with a Significant Survival Benefit among HIV+ Candidates



Conclusions

- Compared to dialysis, kidney transplantation is associated with a 70% or 3.33-fold reduction in risk for death among HIV+ ESRD patients
- Unlike the HIV- KT population, HIV+ kidney transplant recipients achieve this benefit within the first few days post-transplant
- These data provide additional evidence for the continued practice of HIV+ kidney transplantation in the US

Acknowledgements

- University of Alabama at Birmingham Comprehensive Transplant Institute
 - Roslyn B. Mannon, MD
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 - Allan Massie, PhD
 - Christine Durand, MD
 - Lauren Kucirka, MPH

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 - Sally Gustafson, MS
 - Jon Snyder, PhD, MS