

Causes of Racial Disparities in Living Donor Kidney Transplantation

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- The authors have no relevant financial disclosures

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- Minorities awaiting kidney transplant in the United States suffer significant health disparities in rates of living donor kidney transplant.
- Recipient factors, such as Social Determinants of Health (SDH) have been identified as a potential cause of these disparities
- However, limited data exists as to what factors in potential living donors may affect these health disparities.
 - Lack of data on the effect of SDH vs medical or surgical factors

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- We sought to examine how donor factors might affect rates of living donor kidney transplantation in minorities
- We wished to determine the effect of medical and surgical factors vs SDH in the evaluation of potential living kidney donors

Causes of Racial Disparities in Living Donor Kidney Transplantation: Methods

- Methods: Retrospective review of all living kidney donor candidates evaluated at a single transplant center between 2014 and 2022
 - Center had two different sets of medical and surgical guidelines
 - 2014-2016—More conservative medical and surgical guidelines
 - 2017-2022—More liberal medical and surgical guidelines
- Potential donors were compared for acceptance and declination rates across both eras. Data extracted including demographics, SDH, final committee decisions, and rates of living kidney donation.

Causes of Racial Disparities in Living Donor Kidney Transplantation: Data

- A total of 201 donors for 165 potential recipients were identified across both eras
 - Era 1-28 donors
 - Era 2-173 donors
- Although no minorities were evaluated in Era 1 (0/28), in Era 2 only 15 minorities were evaluated for living kidney donation despite an increase in total donors evaluated
- Rates of decline for living donors in Era 2 was higher for minorities than for white candidates.
 - 1/15 minority candidates was approved (8.3%)
 - 30/139 white candidates approved (21.6%)

Causes of Racial Disparities in Living Donor Kidney Transplantation: Data

- Reasons for non-acceptance of minority vs white donors did not show any significant differences in regards to either medical or surgical factors or SDH as the reason for decline
- A further finding was that all white living kidney donors donated to white recipients in both Era 1 and Era 2 and the single minority donor in Era 2 donated to a minority.

Evaluation Outcome		Race				Total		
		Other	W	B/AA	A			
Era 1: 2014-2016	approved	Count	2	18			20	
		% within Race	50.0%	75.0%			71.4%	
	decl/inelig	Count	2	6			8	
		% within Race	50.0%	25.0%			28.6%	
	Total	Count	4	24			28	
		% within Race	100.0%	100.0%			100.0%	
Era 2: 2017-2022	active	Count	1	3	0	0	4	
		% within Race	5.6%	2.2%	0.0%	0.0%	2.3%	
	approved	Count	3	30	1	0	34	
		% within Race	16.7%	21.6%	8.3%	0.0%	19.7%	
	decl/inelig	Count	14	103	11	4	132	
		% within Race	77.8%	74.1%	91.7%	100.0%	76.3%	
	deferred	Count	0	3	0	0	3	
		% within Race	0.0%	2.2%	0.0%	0.0%	1.7%	
	Total	Count	18	139	12	4	173	
		% within Race	100.0%	100.0%	100.0%	100.0%	100.0%	
	Total	active	Count	1	3	0	0	4
			% within Race	4.5%	1.8%	0.0%	0.0%	2.0%
approved		Count	5	48	1	0	54	
		% within Race	22.7%	29.4%	8.3%	0.0%	26.9%	
decl/inelig		Count	16	109	11	4	140	
		% within Race	72.7%	66.9%	91.7%	100.0%	69.7%	
deferred		Count	0	3	0	0	3	
		% within Race	0.0%	1.8%	0.0%	0.0%	1.5%	
Total		Count	22	163	12	4	201	
		% within Race	100.0%	100.0%	100.0%	100.0%	100.0%	

Causes of Racial Disparities in Living Donor Kidney Transplantation: Conclusions

- Liberalizing medical and surgical guidelines led to an increase in the number of living donors evaluated and total numbers of living donor transplants
- However, this increase in evaluants did not translate into significantly increased rates of living kidney donation among minorities.
- Neither medical or surgical factors nor SDH could account for these disparities.

Causes of Racial Disparities in Living Donor Kidney Transplantation: Conclusions

- These data suggests that institutional and societal factors affect of rates of living donor transplantation among minorities and changes in medical and surgical guidelines for living kidney donors are not sufficient to affect these disparities
- Limitations: This data is a limited data set and bias of center location, center personnel, overall rate of living or deceased donation may have had an effect on these results
- More research is needed to investigate these disparities and to provide effective policies to address them.