Figure Legends

Figure 1. Creation of the patient cohort.

Figure 2a. Kaplan Meier curves illustrating time to patient death, stratified by viral status.

Figure 2b. Kaplan Meier curves illustrating time to allograft loss, non-death censored.

Supplemental Figure 1a. Patient survival stratified by viral status for the “unknown” cohort, overlaid on curves from the known serostatus cohort.

Supplemental Figure 1b. Allograft survival stratified by viral status for the “unknown” cohort, overlaid on curves from the known serostatus cohort.

Supplemental Table 1a. Kaplan Meier patient survival estimates.

Time (year)	HIV-/HCV-	HCV+	HIV+	HIV+/HCV+
1	0.96	0.94	0.95	0.92
2	0.93	0.90	0.91	0.85
3	0.90	0.84	0.89	0.73
4	0.87	0.78	0.85	0.66
5	0.84	0.73	0.85	0.53
6	0.80	0.66	0.78	0.31
7	0.76	0.61	0.75	0.19
8	0.72	0.55	0.66	0.19

Supplemental Table 1b. Kaplan Meier allograft survival estimates.

Time (year)	HIV-/HCV-	HCV+	HIV+	HIV+/HCV+
1	0.94	0.91	0.89	0.86
2	0.90	0.85	0.85	0.79
3	0.86	0.78	0.81	0.60
4	0.81	0.71	0.74	0.55
5	0.77	0.64	0.71	0.44
6	0.72	0.57	0.66	0.14
7	0.67	0.51	0.63	0.10
8	0.62	0.44	0.51	0.10

Supplemental Table 2. Multivariable models for death and allograft loss stratified by transplant era.

Models for Death				Models for Allograft loss			
	HR	**p value**	**95% CI**		**HR**	**p value**	**95% CI**
1996-2004				**1996-2004**			
HIV-/HCV-	REF			HIV-/HCV-	REF		
HCV+	1.43	<0.001	1.25-1.66	HCV+	1.42	<0.001	1.18-1.71
HIV+	1.02	0.96	0.38-2.72	HIV+	0.34	0.28	0.05-2.43
HIV+/HCV+	26.1	0.001	3.65-186.9	HIV+/HCV+	-	-	-
2004-2008				**2004-2008**			
HIV-/HCV-	REF			HIV-/HCV-	REF		
HCV+	1.31	<0.001	1.16-1.47	HCV+	1.36	<0.001	1.20-1.53
HIV+	1.01	0.96	0.57-1.79	HIV+	0.98	0.95	0.51-1.88
HIV+/HCV+	3.77	<0.001	1.95-7.29	HIV+/HCV+	10.6	<0.001	5.01-22.4
2008-2013				**2008-2013**			
HIV-/HCV-	REF			HIV-/HCV-	REF		
HCV+	1.17	0.04	1.00-1.37	HCV+	1.17	0.06	0.99-1.37
HIV+	1.25	0.28	0.83-1.87	HIV+	0.66	0.11	0.39-1.10
HIV+/HCV+	1.92	0.04	1.02-3.62	HIV+/HCV+	1.84	0.07	0.94-3.61

Supplemental Table 3. Clinical and demographic characteristics of the "unknown serostatus" cohort.

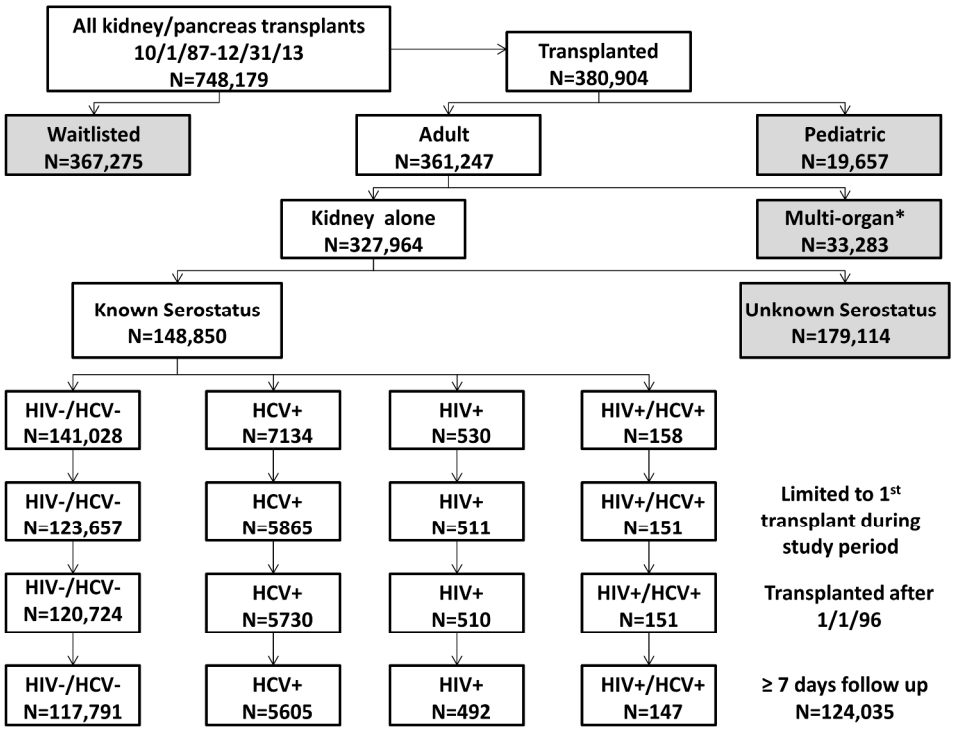
	HCV unknown/HIV unknown n=89,780	p value *compared to HIV-/HCV-*	HCV+/HIV unknown n=3680	p value *compared to HCV+*	HCV unknown/HIV+ n=23	p value *compared to HIV+*
Patient Characteristics						
Median age (IQR)	49 (38-59)	<0.001	49 (43-56)	<0.001	46 (40-52)	0.94
Male gender (%)	53,409(59.5)	0.001	2641 (71.7)	0.12	20 (86.9)	0.28
Race (%)						
African American	19,581 (21.8)		1819 (49.5)		15 (65.2)	
Caucasian	51,963 (57.8)		1233 (33.6)		4 (17.4)	
Latino	11,096 (12.4)	<0.001	395 (10.7)	0.001	3 (13)	0.51
Asian	5,136 (5.7)		156 (4.2)		1 (4.4)	
Other	2004 (2.3)		77 (2)		0 (0)	
Cause of ESRD (%)						
Diabetes	21,989 (24.5)		921 (25)		3 (13.1)	
Hypertension	18,886 (21)		1210 (32.9)		11 (47.8)	
Glomerular disease	20,120 (22.4)	<0.001	583 (15.8)	<0.001	2 (8.7)	0.76
Cystic disease	9351 (10.5)		197 (5.4)		0 (0)	
Other	7684 (8.6)		280 (7.6)		3 (13.1)	
Missing data	11,750 (13)		489 (13.5)		4 (17.3)	
Pre-transplant dialysis (%)	75,609 (84.3)	<0.001	3431 (93.2)	<0.001	23 (100)	0.41

Median years on dialysis (IQR)	2.2 (1.1-3.9)	<0.001	2.9 (1.5-5)	0.003	3.3 (1.5-6.2)	0.05
PRA≥30% (%)	17,056 (14.5)	<0.001	508 (13.8)	0.14	4 (17.3)	0.95
Pre-transplant diabetes (%)	25,495 (28.4)	<0.001	1129 (30.7)	<0.001	5 (21.7)	0.20
Median total days on wait list (IQR)	406 (160-891)	<0.001	436 (168-948)	0.02	620 (215-808)	0.72
Transplant Characteristics						
Deceased donor (%)	54,673 (60.9)	<0.001	2790 (75.8)	0.32	17 (73.9)	0.76
Expanded criteria donor (%)	9420 (17.3)	<0.001	374 (13.5)	0.003	4 (23.5)	0.02
Median donor age	40 (27-50)	<0.001	40 (29-49)	<0.001	42 (27-54)	0.39
HCV+ donor (%)	638 (0.7)	<0.001	917 (24.9)	<0.001	2 (8.7)	0.01
Median cold ischemia time (hours)	14 (2-22)	<0.001	17 (9-24)	0.001	16 (6.5-24)	0.61
Delayed graft function (%)	15,305 (17.1)	<0.001	945 (25.6)	0.01	6 (26.1)	0.60
Acute rejection in the 1st year (%)	9606 (8.2)	<0.001	547 (14.9)	<0.001	2 (8.7)	0.55
Induction Type Lymphodepleting Non-Lymphodepleting	 29,097 (32.4) 22,338 (24.9)	<0.001	 1231 (33.5) 926 (25.2)	<0.001	 6 (26.1) 4 (17.3)	0.60

Supplemental Table 4. Multivariable models for patient death and allograft loss, with the known and unknown serostatus patients combined.

	Predicting Patient Death			Predicting Allograft Loss		
Variable	**HR**	**p value**	**95% CI**	**HR**	**p value**	**95% CI**
Viral Factors						
HIV-/HCV-	REF			REF		
HCV+	1.44	<0.001	1.36-1.53	1.42	<0.001	1.33-1.52
HIV+	0.77	0.11	0.56-1.06	0.55	0.003	0.37-0.81
HIV+/HCV+	1.87	0.005	1.20-2.90	2.22	0.001	1.38-3.58
Recipient Factors						
Age <40 years	REF			REF		
Age 40-60 years	1.81	<0.001	1.74-1.89	0.86	<0.001	0.84-0.90
Age >60 years	3.07	<0.001	2.94-3.21	1.11	<0.001	1.07-1.16
Male	0.96	0.003	0.93-0.98	0.96	0.01	0.93-0.99
African American	1.05	<0.001	1.02-1.08	1.30	<0.001	1.26-1.34
Pre-transplant diabetes	1.77	<0.001	1.72-1.81	1.42	<0.001	1.38-1.46
Pre-transplant dialysis	1.60	<0.001	1.53-1.67	1.56	<0.001	1.47-1.65
Years on dialysis	1.02	<0.001	1.02-1.03	-	-	-
PRA ≥30%	-	-	-	1.03	0.11	0.99-1.07
Transplant Factors						
Deceased donor	1.38	<0.001	1.34-1.42	1.67	<0.001	1.60-1.75
Expanded criteria	-	-	-	1.39	<0.001	1.34-1.45

donor						
Diabetic donor	-	-	-	1.14	<0.001	1.08-1.22
HCV+ donor	1.97	<0.001	1.72-2.27	2.01	<0.001	1.68-2.39
HCV donor*HCV recipient	0.52	<0.001	0.43-0.61	0.53	<0.001	0.43-0.65
Acute rejection in the 1st year	-	-	-	1.73	<0.001	1.67-1.79
Lymphodepleting induction	REF			REF		
Non-lymphodepleting induction	1.17	<0.001	1.13-1.19	1.24	<0.001	1.21-1.28



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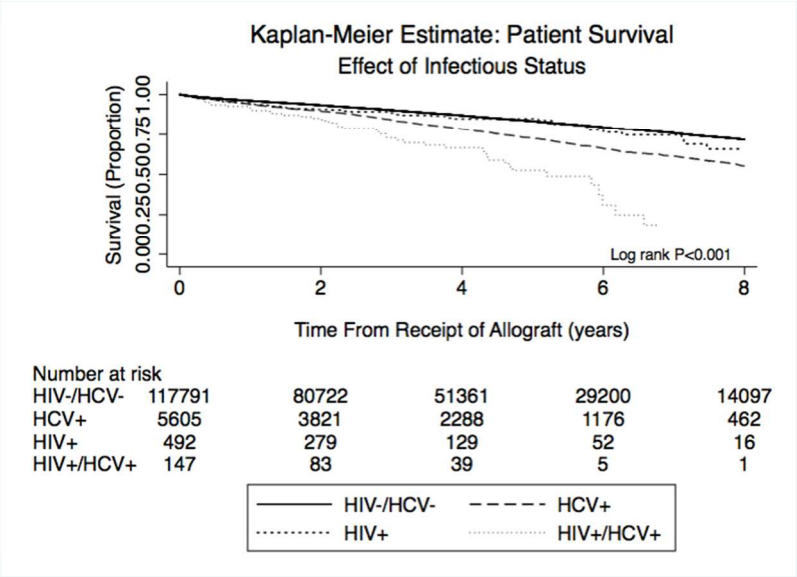

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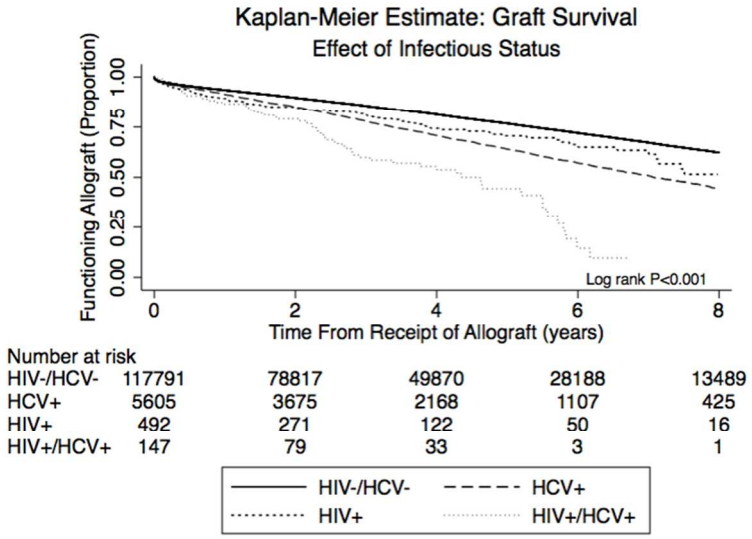

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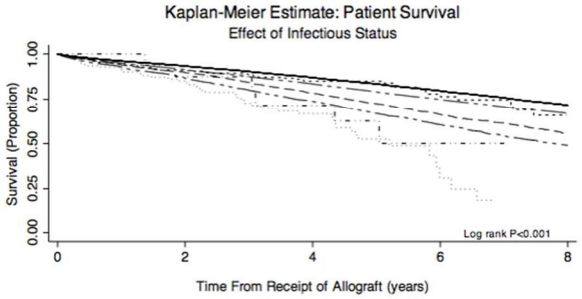

Number at risk					
HIV-/HCV-	117791	80722	51361	29200	14097
HCV+	5605	3821	2288	1176	462
HIV+	492	279	129	52	16
HIV+/HCV+	147	83	39	5	1
HIV/HCV Unknown	89780	75378	61577	47721	34993
HCV+/HIV Unknown	3680	2936	2221	1579	1074
HIV+/HCV Unknown	23	14	9	3	1

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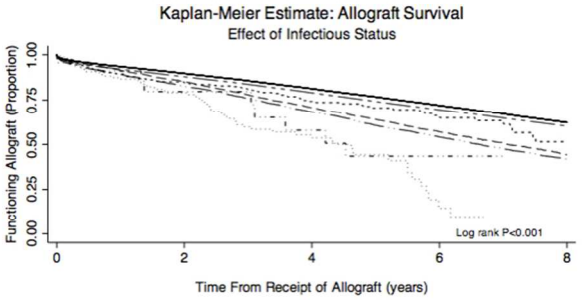

Number at risk					
HIV-/HCV-	117791	78817	49870	28188	13489
HCV+	5605	3675	2168	1107	425
HIV+	492	271	122	50	16
HIV+/HCV+	147	79	33	3	1
HIV/HCV Unknown	89780	72429	58483	45143	33039
HCV+/HIV Unknown	3680	2758	2019	1414	958
HIV+/HCV Unknown	23	14	8	3	1

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