

# **Association between Longer Hospitalization and Development of de novo Donor Specific Antibodies in Simultaneous Liver- Kidney Transplant Recipients**

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**Supplementary Information**

**Supplementary Table 1.** Probability of long hospital stay in main analysis (>14 days versus ≤14 days) and in sensitivity analysis (>28 days versus ≤28 days) using logistic regression analysis

Covariates	Main analysis (>14 days)			Sensitivity analysis (>28 days)		
	Odds ratio	95% CI	<i>P</i> value	Odds ratio	95% CI	<i>P</i> value
<b>Recipient information</b>						
Age (+1 year)	1.11	1.01 to 1.23	0.029	1.44	0.91 to 2.27	0.120
Gender (vs male)	0.57	0.08 to 4.05	0.570	0.10	0.001 to 7.99	0.308
BMI (+ 1 unit: kg/m <sup>2</sup> )	0.76	0.60 to 0.95	0.018	1.19	0.81 to 1.77	0.373
Race						
Caucasian (vs African American)	0.35	0.02 to 5.61	0.458	0.06	<0.001 to 10.1	0.280
Other (vs African American)	0.45	0.02 to 8.79	0.599	3.94	0.02 to 1022.5	0.629
Marital status married (vs other)	1.32	0.23 to 7.43	0.755	0.41	0.007 to 22.7	0.665
Insurance						
Medicaid (vs. private)	25.8	0.09 to 7388.5	0.260	<0.001	<0.00001 to >10,000,000	0.457
Medicare (vs. private)	0.28	0.03 to 2.52	0.255	0.007	<0.001 to 14.7	0.202
Cause of ESLD						
Alcoholic hepatitis (vs. HCV)	47.8	1.90 to 1202.5	0.019	360.5	0.7 to 185498.8	0.065

HCV and Alcoholic hepatitis (vs. HCV)	315.7	1.33 to 74871.4	0.039	N/A	N/A	N/A
NASH (vs. HCV)	51.7	0.86 to 3094.9	0.059	75.8	0.41 to 13941.3	0.104
	1099.1	12.6 to 96162.7	0.002	361094.5	0.34 to	0.070
Other (vs. HCV)					>10,000,000	
Comorbidity – diabetes (vs. absence)	4.26	0.51to 35.7	0.182	123.1	0.51 to 29580.5	0.085
	12.4	0.69 to 223.7	0.088	1954001	0.41 to	0.065
Comorbidity – hypertension (vs. absence)					>10,000,000	
MELD score (+1 score)	1.54	1.18 to 2.01	0.001	1.77	0.99 to 3.17	0.055
First discharge destination						
Home with health service (vs. home without health service)	0.72	0.09 to 5.89	0.762	0.27	<0.001 to 95.1	0.665
Rehabilitation hospital (vs. home without health service)	261.2	8.02 to 8509.3	0.002	85230.4	1.14 to	0.047
					>10,000,000	
	39.4	1.47 to 1062.0	0.029	110966.8	1.66 to	0.040
Other (vs. home without health service)					>10,000,000	
Delayed graft function on allograft kidney (vs. absence)	80.5	2.80 to 2312.3	0.010	3422.1	0.14 to	0.114
					>1,000,000	
Blood type						
Type A (vs. type O)	0.41	0.05 to 3.25	0.400	0.02	<0.001 to 7.07	0.199
Type B (vs. type O)	0.006	0.0001 to 0.26	0.008	<0.001	<0.00001 to 27.5	0.134
	9.92	<0.00001 to	0.750	42364.2	1.06 to	0.049
Type AB (vs. type O)		>10,000,000			>10,000,000	

**Supplementary Table 2.** Probability of development of de-novo DSA and any post-transplant DSA using unadjusted and propensity score adjusted logistic regression models in sensitivity analysis.

	Risk of de novo DSA			Risk of any post-transplant DSA		
	Odds ratio	95% CI	<i>p</i> value	Odds ratio	95% CI	<i>p</i> value
Un-adjusted						
Length of hospital stay (each 5 days)	1.09	1.02-1.16	0.010	1.08	1.02-1.15	0.011
Adjusted						
Length of hospital stay (each 5 days)	1.15	1.02-1.28	0.017	1.11	1.01-1.21	0.022
PS score	0.07	0.001-4.00	0.200	0.30	0.18-5.16	0.408

Abbreviations: DSA: Donor specific antibody; PS: Propensity score; 95% CI: 95% confidence interval