Table S1: Calcineurin inhibitor use in the first 90 days after transplant

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Table S5: Etiology of end organ disease and association with obesity

Figure S1: Landmark Analysis

Figure S2: Study population

Figure S3: Change in body mass index overtime by organ group in the 5 years after transplant

Table S1: Calcineurin inhibitor use in the first 90 days after transplant

	N	Heart (n=123)	Lung (n=24)	Liver (n=135)	Kidney (n=122)	Multiorgan ^a (n=6)	Overall (n=410)	
Calcineurin inhibitor used		Mean <u>+</u> SD						
Tacrolimus (standard protocol)	343						_	
Mean tacrolimus level (ug/L)		10.9 <u>+</u> 1.2	12.9 <u>+</u> 2.82	11.9 <u>+</u> 1.7	10.9 <u>+</u> 1.1	14.7 <u>+</u> 3.4	11.4 <u>+</u> 1.6	
Cyclosporine	27							
Mean cyclosporine level (ug/L)		367.2 ± 96.3	322.5 ± 33.0	_	_	_	328.2 ± 73.1	
Transitioned from cyclosporine to tacrolimus	13							
Mean tacrolimus level (ug/L)		11.9 ± 2.7	14.5 ± 1.1	_	_	_	13.4 ± 2.5	
Mean cyclosporine level (ug/L)		266.0 ± 46.1	232.6 ± 104.6	_	_	_	250.5 ± 75.8	
Tacrolimus with sirolimus (renal- sparing protocol)	20							
Mean tacrolimus level (ug/L)		10.0 ± 1.5	_	10.5 ± 3.6	10.3 ± 0.3	_	10.3 ± 2.6	
Mean sirolimus level (ug/L)		8.3 ± 2.4	_	7.4 ± 3.3	7.8 ± 1.6	_	7.8 ± 2.7	
^a Children receiving a combination of organs (Liver, Small Bowel, and/or Pancreas)								

Table S2: Rates of obesity after transplantation by donor status for liver and kidney recipients

		Living Donor	
Organ Type	Liver (n=52)	Kidney (n=58)	Overall (n=110)
Obesity, n (%)	18 (34.6)	12 (20.7)	30 (27.3)
Incidence rate ^a , [95% CI]	112.3 [70.7, 178.2]	96.8 [55.0, 170.5]	105.5 [73.8, 150.9]
		Deceased Donor	
Organ Type	Liver (n=83)	Kidney (n=64)	Overall (n=147)
Obesity, n (%)	16 (19.3)	13 (20.3)	29 (19.7)
Incidence rate ^a , [95% CI]	54.8 [33.6, 89.4]	80.3 [46.6, 138.3]	63.9 [44.4, 92.0]
		Incident Rate Ratio	
Incident Rate Ratio, [95% CI]	0.49 [0.23, 1.01]	0.83 [0.35, 1.99]	0.61 [0.35, 1.04]
^a Per 1000 person-years			

Table S3: Incidence Rates of Obesity Posttransplantation by Organ Group Overall and Stratified by Fluid Overload Weight Adjustments

	Original Measurements	Reduced Baseline Weight Measurements by	Reduced Baseline Weight Measurements by		
		500g	500g for < 3 Years Old		
Obesity, n (%)					
Heart	20 (16.3)	21 (16.7)	21 (16.7)		
Lung	3 (12.5)	3 (12.5)	3 (12.5)		
Liver	34 (25.2)	36 (26.3)	36 (26.3)		
Kidney	25 (20.5)	27 (21.4)	25 (20.5)		
Multiorgan	4 (66.7)	4 (66.7)	4 (66.7)		
Total	86 (21.0)	91 (21.7)	89 (21.4)		
Incidence Rate ^a					
Heart	39.0 [25.2, 60.4]	40.7 [26.5, 62.4]	40.7 [26.5, 62.4]		
Lung	57.1 [18.4, 176.9]	57.1 [18.4, 176.9]	57.1 [18.4, 176.9]		
Liver	75.2 [53.7, 105.2]	79.5 [57.4, 110.3]	79.5 [57.4, 110.3]		
Kidney	87.5 [59.1, 129.4]	91.2 [62.6, 133.0]	87.5 [59.1, 129.4]		
Multiorgan	247.7 [93.0, 660.0]	247.7 [93.0, 660.0]	247.7 [93.0, 660.0]		
Total	65.2 [52.7, 80.4]	68.2 [55.5, 83.8]	67.3 [54.6, 82.8]		
^a Per 1000 person-ye	ars				

Table S4: Risk of Age at Transplant on Obesity Stratified by Median Time Followed

	Time Followed < 3.6 Years					Time Foll	llowed ≥ 3.6			
Characteristics	Hazard Ratio [95% CI]	р	Adjust Hazard Ratio* [95% CI]	р	Hazard Ratio [95% CI]	р	Adjust Hazard Ratio* [95% CI]	р		
Age at transplant (years)	0.93 [0.87, 0.98]	0.009	0.86 [0.80, 0.93]	0.001	0.90 [0.85, 0.96]	0.001	0.82 [0.74, 0.90]	0.001		

^{*}Adjusted for sex, organ group, age at transplant, baseline BMI, and cumulative prednisone dosage from time of transplant to 3 months posttransplant

Table S5: Etiology of end organ disease and association with obesity

Etiology	n (%)	Hazard Ratio [95% CI]	p-value	Adjusted for Age at Transplant Hazard Ratio [95% CI]	p-value
Heart Transplant Recipients' Etiology					
Cardiomyopathy	64 (52.0)	ref.	_	ref.	_
Congenital Heart Disease	58 (47.2)	3.91 [1.42, 10.81]	0.008	2.94 [1.02, 8.52]	0.05
Other Heart Etiology ^b	<5	$omitted^a$	_	omitted ^a	_
Lung Transplant Recipients' Etiology					
Cystic Fibrosis	17 (70.8)	ref.	_	ref.	_
Other Lung Etiology ^c	7 (29.2)	1.13 [0.10, 12.52]	0.9	0.33 [0.01, 14.06]	0.6
Liver Transplant Recipients' Etiology					
Acute Liver Failure	23 (17.0)	ref.	_	ref.	_
Other Cholestatic Diseases	18 (13.4)	0.99 [0.22, 4.42]	0.9	3.87 [0.76, 19.63]	0.1
Biliary Atresia	50 (37.0)	2.21 [0.75, 6.49]	0.2	1.70 [0.58, 5.04]	0.3
Metabolic Disease	20 (14.8)	1.40 [0.37, 5.20]	0.6	1.89 [0.51, 7.05]	0.3
Malignancy	14 (10.4)	0.38 [0.04, 3.43]	0.4	0.56 [0.06, 5.03]	0.6
Other Liver Etiology ^d	10 (7.4)	1.16 [0.21, 6.33]	0.9	1.82 [0.33, 9.99]	0.5
Kidney Transplant Recipients' Etiology					
Inflammatory Diseases	39 (32.0)	ref.	_	ref.	_
Genetic Diseases	17 (13.9)	1.92 [0.43, 8.56]	0.4	1.52 [0.34, 6.80]	0.6
Obstruction/Anatomical Malformations	54 (44.3)	3.08 [1.01, 9.35]	0.05	2.61 [0.86, 7.94]	0.1
Other Kidney Etiology ^e	12 (9.8)	2.05 [0.75, 5.63]	0.2	0.83 [0.28, 2.42]	0.7

^a Omitted due to small sample size

^b Includes Unknown etiology

^c Includes Primary Pulmonary Hypertension, Interstitial Lung Disease, Surfactant B Deficiency, Bronchiolitis Obliterans etiology

^d Includes Autoimmune Hepatitis, Budd-Chiari Syndrome, Congenital Hepatic Fibrosis, and Unknown etiology

^e Includes Unknown etiology

Figure S1: Landmark Analysis

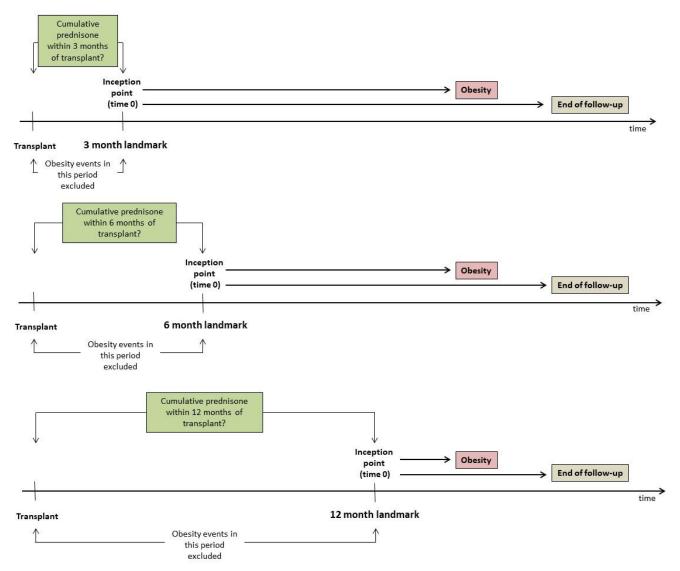


Figure **S2**: Study population **Screened Participants** n=528 Limited Height/Weight Data (Wheelchair Bound) and Small Bowel Recipients (small sample size) n=5 Prevalent Obesity n=78 Limited Follow-up n=35 Final Cohort n=410

Figure S3: Change in body mass index overtime by organ group in the 5 years after transplant Heart ▲ Lung Liver 9 Body Mass Index (BMI) Z-Score 4 2 0 Ņ ဖှ 1 2 1 2 3 4 5 0 2 2 3 4 5 0 3 4 5 0 1 3 4 5 **Time After Time After Transplant (Years) Transplant** Heart Lung Liver Kidney (Years) n=24 n=122 n=123 n=135 0 1 n=19 n=90 n=76 n=94 2 n=49 n=11 n=48 n=37 3 n=32 n=8 n=32 n=33 n=29 n=20 4 n<5 n=19 5 n=22 n<5 n=18 n=13