Figure S1. cfDNA measurements as an estimator for beta cell loss. A. cfDNA measurements (copies/mL, blue) at 1hr (n=31/37, positive cfDNA) vs. 24hrs (n=8/37, positive cfDNA) (p<0.0001), and estimation of absolute beta cell loss (number of cells, red) at 1hr vs. 24hrs (p<0.0001). B. Estimated relative beta cell loss from the original islet preparation at 1hr vs. 24hrs (p<0.0001). Figure is represented with log 2 scale and data points with cfDNA<0.06 are not represented. cfDNA (circulating free DNA). Summary data are reported as median (interquartile range), two-tailed Mann-Whitney, 95% confidence interval.

Table S1. Estimated beta cell loss at 1hr and 24hrs after clinical islet allotransplantation based on blood circulating free beta cell-specific DNA and estimated patient's total plasma volume.

	1 hour	24 hours	p-value
Number of patients	31	8	-
Median DNA copies/mL (range)	934 (105 – 6647)	93 (64 – 476)	<0.0001
Estimated absolute beta cell loss (number of cells)	5.2×10^6 (349,198 – 3.3×10^7)	427,991 (297,815 – 1.6×10^6	<0.0001
Estimated relative beta cell loss (percentage from original preparation)	1.2% (0.06% – 8.9%)	0.09% (0.06 – 0.3%)	<0.0001

cfDNA (circulating free DNA).

Table S2. Patients with late beta cell mortality at 7 days and 1 month after clinical islet

allotransplantation based on blood circulating free beta cell-specific DNA.

	1hr-cfDNA	24hrs-cfDNA	7 day-cfDNA	1 month-cfDNA	3 month-Insulin independence
Subject 1	2,060.6	2.3	57.3	10.7	Yes
Subject 2	1,748.6	45.5	62.3	0	No
Subject 3	382.6	0	1.8	80.1	No
Subject 4	454.2	0	0	73.3	Yes

cfDNA (circulating free DNA).