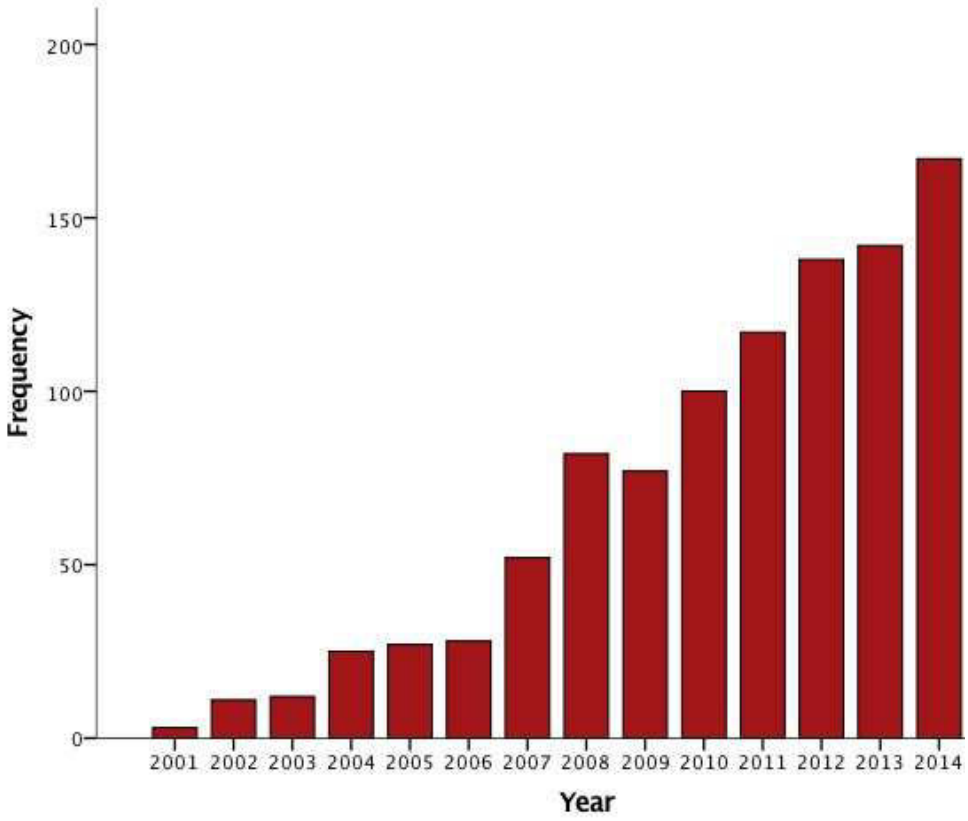


Figure S1:

Evolution of DCD Liver Transplantation in the UK January 2001- Dec 2014

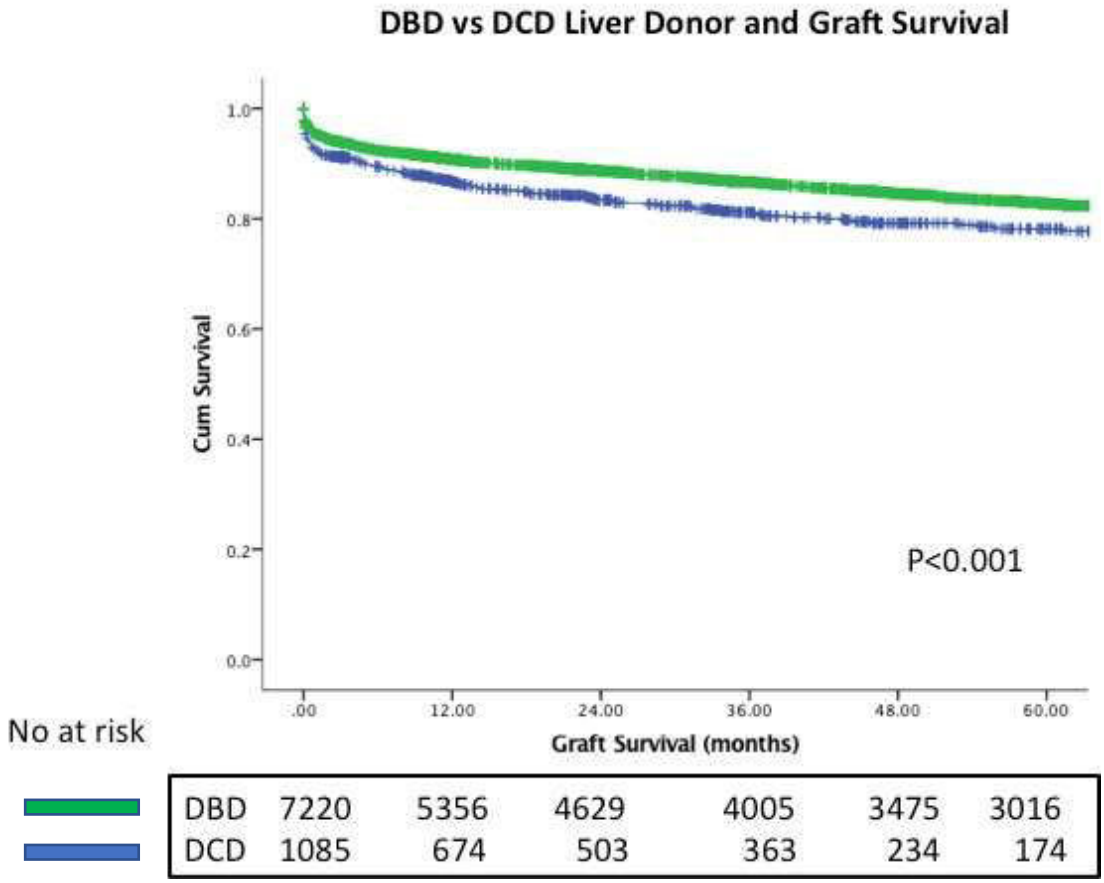


Figure S2:

Liver Transplant Graft Survival for DCD and DBD donors.

Supplementary Table A: Recipient Details

Variable	Data complete n (1112)	Mean SD / Median (IQR)
Age years	1112	52.8 (12)
Male gender	1112	667 (61%)
BMI kg/m^2	1109	26 (24-30)
Serum Sodium mmol/L	1112	138 (135 – 141)
Serum creatinine, µmol/L	1112	81 (65 – 101)
Serum INR	1112	1.5 (1.2-1.8)
Serum albumin, g/L	1112	31 (27-37)
Serum bilirubin, mmol/L	1112	41 (22-41)
UKELD	1093	53 (50 – 57)
MELD	1093	15 (11 - 20)
Previous abdominal surgery	1099	97 (8.7%)
Primary Liver Disease	1112	
ALD	301 (27%)	
HCV	211 (19%)	
Cancer	120 (11%)	
PBC	118 (10.6%)	
NAFLD	113 (10 %)	
PSC	72 (6.5%)	
HBV	55 (5%)	
AID	34 (3.1%)	
Metabolic	38 (4%)	
Other	50 (4.5%)	
Ethnicity		
White	917 (82.5%)	
Asian or Asian British	116 (10.4%)	
Black or Black British	33 (3%)	
Chinese/Oriental	15 (1.3%)	
Mixed	1 (0.1%)	
Other	29 (2.6%)	
Unknown	1 (0.1%)	

Supplementary Table B:Time Era, Pre and Post NORS Comparison

Variable	n	Pre Nors Median (IQR) / (%)	Post Nors Median (IQR) / (%)	p
Number	1112	351	761	
Donor Age	1112	42 yrs (27-52)	50 (35-60)	<0.001
Donor BMI	1084	25 (22-27)	25 (23-28)	0.56
W-A time	806	11 min (7-15)	14 min (9-17)	0.12
AS–AP time	1109	11 min (7-16)	13 min (9-18)	0.05
HT	1086	29 min (28-47)	37 min (40-60)	0.04
Liver out - Ice box	1092	29 min (2-35)	35 min (25-46)	0.01
AS-Ice Box	1091	72 min (57-85)	85 min (71-101)	0.001
Appearance	889			
Healthy		180	393	0.001
Suboptimal		80	236	
Steatosis	1087			
Yes		98	288	0.002
No		248	473	
Capsular Damage	1105			
Yes		55	162	0.040
No		289	599	
Multidonor	1112			0.725
Yes		329	709	
No		22	52	
Kidney	1112			0.545
Yes		329	705	
No		22	56	
Pancreas	1112			0.022
Yes		120	315	
No		231	446	
Lung	1112			0.128
Yes		32	93	
No		319	668	
CIT	1027	401 min (333-464)	438 (378-488)	0.01
WIT(2)	996	44 (37 – 52)	38 (31-45)	
Recipient Age	1112	53 (47-60)	55 (48-60)	0.102
Recipient BMI	1109	26 (24-30)	27 (24-30)	0.258
UKELD	1093	54 (51-70)	53 (50-57)	0.450
MELD	1093	15 (11-18)	15 (11-20)	0.561

W-A: withdrawal to asystole time
AS-AP: asystole to aortic perfusion time
HT: hepatectomy time
WIT (2): warm ischeamia time for implantation

Supplementary Table C. Factors Associated with Early Graft Loss (<90 days)

Variable		N	Early Graft Loss (%)	p
Time Period	1086			
	Pre NORS (2010)	348	27 (7.7)	
	Post NORS (2010)	738	64 (8.7)	0.612
Donor Age	1086			
	<30	255	19 (7.4)	
	30-39	138	14 (10.1)	
	40-49	208	23 (11)	
	50-59	250	20 (8)	
	>60	235	15 (6.3)	0,398
Donor Sex	1086			
	Female	358	39 (10.9)	
	Male	543	61 (11.2)	0.875
Donor BMI	1063			
	<18	35	1(5.7)	
	18-24	445	33 (7.4)	
	25-29	442	46 (10.4)	
	>30	141	11 (7.8)	0.238
Donor COD	1086			
	Trauma	170	21 (12.3)	
	Stroke	558	40 (7.1)	
	Anoxia	255	22 (8.6)	
	Other	103	8 (7.7)	0.201
Withdrawal-Asytole	**780**			
	<5-10	**276**	**7 (2.9)**	
	11-15	**201**	**14 (6.9)**	
	16-20	**136**	**5 (3.6)**	
	21-25	**66**	**2 (3)**	
	>25	**101**	**11(11)**	**0.015**
Hepatectomy Time	**1086**			
	<30	**362**	**23 (6.3)**	
	30-44	**413**	**41 (9.9)**	
	45-59	**210**	**13 (6.1)**	
	>60	**101**	**14 (14)**	**0.037**
Donor Steatosis	1081			
	Absent	701	54 (7.7)	
	Present	380	37 (9.7)	0.250
Organ Appearance	1086			
	Healthy	552	43 (7.7)	
	Suboptimal	314	36 (11.4)	0.083
Normal Anatomy	1082			
	Yes	755	63(8.3)	
	No	326	27 (8.2)	0.955
Capsule Damage	1079			
	Yes	212	17 (8)	
	No	867	74 (8.5)	0.808
Pancreas donor	1086			
	Yes	428	35 (8.1)	
	No	658	56 (8.5)	0.847
Lung Donor	995			
	Yes	119	4 (3.9)	
	No	967	87 (8.9)	0.07

CIT	**1003**			
<8 hrs		**714**	**56 (7.8)**	
>8 hrs		**289**	**34 (12)**	**0.049**
Recipient Age	1086			
<30		58	6 (10.3)	
30-39		55	7 (12.7)	
40-49		212	16 (7.5)	
50-59		427	36 (8.4)	
>60		334	26 (7.7)	0.757
Recipient BMI	1083			
<18		**28**	**2 (7.1)**	**-**
18-24		**323**	**16 (5)**	
25-29		**446**	**39 (8.7)**	
>30		**286**	**34 (12)**	**0.05**
Recipient Ethnic	1086			
Caucasian		894	81 (9)	
Asian		129	6 (4.6)	
Black		33	3 (9)	
Other		20	1 (5)	0.273
Indication	1086			
ALD		292	30 (10.3)	
AIH		33	2 (6)	
PSC		71	8 (11.2)	
Cancer/HCC		118	7 (6)	
HCV		207	10 (5)	
HBV		57	3 (5)	
PBC		114	8 (7)	0.312
(Other)*		*194*	*39 (20)*	
UKELD	1067			
<62		970	82 (8.4)	
>62		97	9 (9.2)	0.782
MELD	1067			
<25		958	82 (8.5)	
>25		109	9 (8.4)	0.910
Previous abdominal Surgery	**1085**			
Yes		**990**	**76 (7.6)**	
No		**95**	**15 (16)**	**0.003**
Implantation Time	973			
<30		159	18 (11.3)	
30-45		515	42 (8.1)	
45-60		226	23 (10.1)	
>60		73	5 (7)	0.517

Multivariate Logistic Regression Model for Early Graft Loss <90 days

Variable	n	HZ (95% CI)	p
Hepatectomy Time >60	87	3.287 (1.335-8.096)	0.010