



Survival Rates Following Transplantation

This chapter shows graft survival rates over time for kidney, pancreas and corneal transplants, and patient survival estimates for kidney, pancreas, cardiothoracic, liver, and intestinal transplants, performed in the UK. Separate estimates are presented for adult and paediatric patients (using organ-specific age definitions) and for transplants from donors after brain death and donors after circulatory death.

In all cases, the Kaplan-Meier estimate of the survivor function was used to provide the survival rate and groups (years) were compared using the log-rank test. The analyses do not take account of risk factors which may change over time. Graft survival is defined as time from transplant to graft failure, censoring for death with a functioning graft and grafts still functioning at time of analysis. Patient survival is defined as time from transplant to patient death, censoring for patients still alive at time of analysis. Both analyses consider only first transplants.

11.1 Kidney graft and patient survival

11.1.1 Adult kidney recipients – donor after brain death (DBD)

Figure 11.1 shows long-term graft survival in adult (≥ 18 years) recipients for first kidney only transplant from donors after brain death. **Table 11.1** shows the graft survival estimates and confidence intervals for one, two, five and ten years post-transplant. There have been significant improvements in one and two-year survival over the time periods shown, ($p < 0.05$). **Table 11.2** shows the patient survival estimates and confidence intervals for one, two, five and ten years post-transplant. There were no statistically significant changes in patient survival over time ($p > 0.07$).

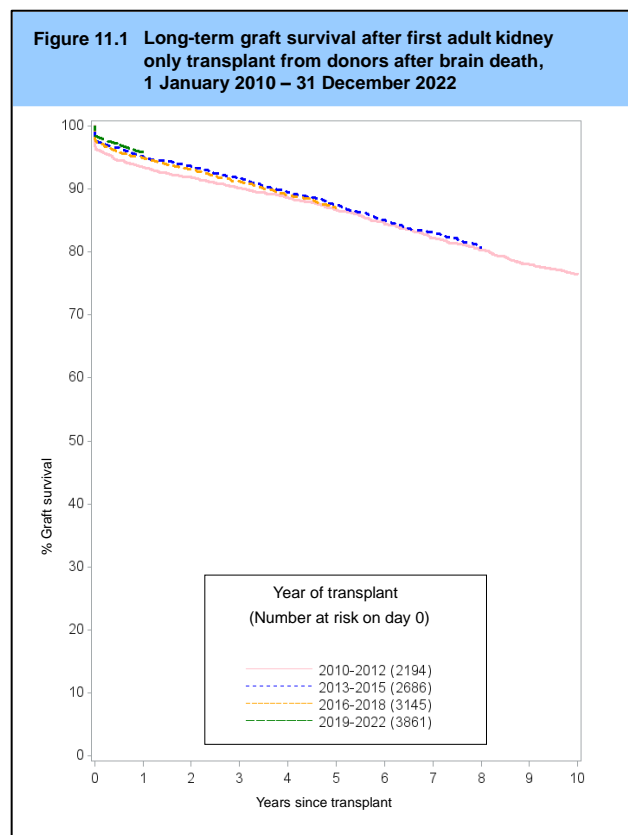


Table 11.1 Graft survival after first adult kidney only transplant from a DBD

Year of transplant	No. at risk on day 0	% Graft survival (95% confidence interval)				
		One year	Two year	Five year	Ten year	
2010-2012	2194	93 (92-94)	92 (91-93)	87 (85-88)	77 (75-78)	
2013-2015	2686	95 (94-96)	94 (93-94)	87 (86-89)	77 (75-78)	
2016-2018	3145	95 (94-96)	93 (92-94)	87 (86-88)	76 (75-77)	
2019-2022	3861	96 (95-96)	93 (92-94)	87 (86-88)	77 (75-78)	

Table 11.2 Patient survival after first adult kidney only transplant from a DBD

Year of transplant	No. at risk on day 0	% Patient survival (95% confidence interval)				
		One year	Two year	Five year	Ten year	
2010-2012	2196	96 (96-97)	94 (93-95)	89 (87-90)	73 (71-75)	
2013-2015	2687	97 (96-97)	95 (94-96)	89 (87-90)	73 (71-75)	
2016-2018	3146	97 (96-98)	95 (94-96)	87 (85-88)	73 (71-75)	
2019-2022	3862	96 (95-97)	95 (94-96)	87 (85-88)	73 (71-75)	

11.1.2 Adult kidney recipients – donor after circulatory death (DCD)

Long-term graft survival in adult recipients for kidney transplants from donors after circulatory death is shown in **Figure 11.2**. **Table 11.3** shows the graft survival estimates and confidence intervals for one, two, five and ten years post-transplant. There has been significant variation in one-year survival over the time periods shown, $p=0.002$ **Table 11.4** shows the patient survival estimates and confidence intervals for each time period analysed. There was a statistically significant difference in patient survival over time at one- and five-year post-transplant ($p=0.01$).

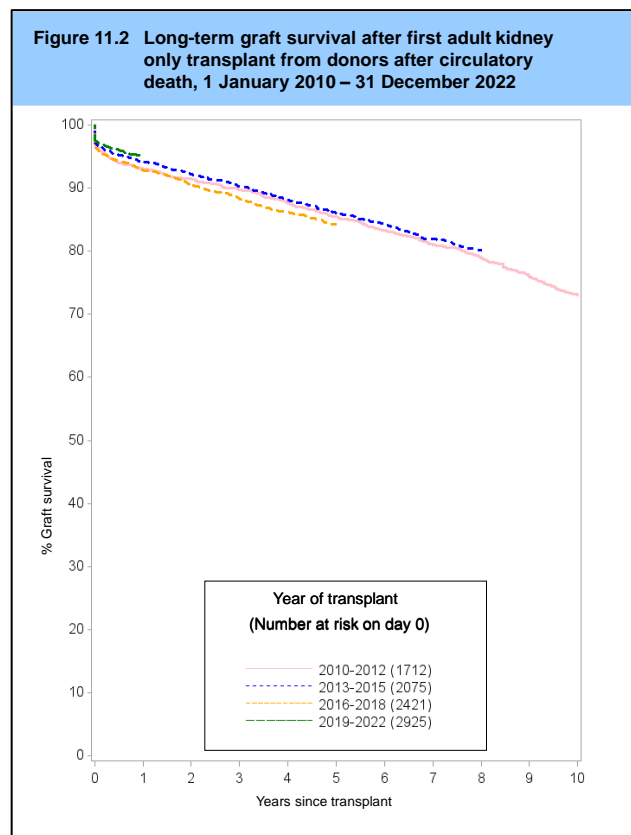


Table 11.3 Graft survival after first adult kidney only transplant from a DCD

Year of transplant	No. at risk on day 0	% Graft survival (95% confidence interval)			
		One year	Two year	Five year	Ten year
2010-2012	1712	93 (92-94)	91 (90-93)	85 (84-87)	73 (71-75)
2013-2015	2075	94 (93-95)	92 (91-93)	86 (84-88)	73 (71-75)
2016-2018	2421	93 (92-94)	90 (89-92)	84 (83-86)	73 (71-75)
2019-2022	2925	95 (94-96)	94 (93-95)	86 (84-88)	73 (71-75)

Table 11.4 Patient survival after first adult kidney only transplant from a DCD

Year of transplant	No. at risk on day 0	% Patient survival (95% confidence interval)			
		One year	Two year	Five year	Ten year
2010-2012	1712	95 (94-96)	93 (92-94)	85 (83-87)	66 (64-69)
2013-2015	2076	96 (96-97)	95 (93-95)	86 (85-88)	66 (64-69)
2016-2018	2422	97 (96-98)	95 (94-96)	83 (81-84)	66 (64-69)
2019-2022	2926	96 (95-97)	95 (94-96)	83 (81-84)	66 (64-69)

11.1.3 Adult kidney recipients – living donor

Long-term graft survival in adult recipients for living donor kidney transplants in the UK is shown in **Figure 11.3**. **Table 11.5** shows graft survival estimates and confidence intervals for each time period analysed. There has been a significant improvement in one-, two-, and five-year survival over the time periods shown ($p < 0.0001$, $p = 0.001$ and $p = 0.002$, respectively). **Table 11.6** shows the patient survival estimates and confidence intervals for one, two, five and ten years post-transplant. There were no statistically significant changes in patient survival over time ($p > 0.3$).

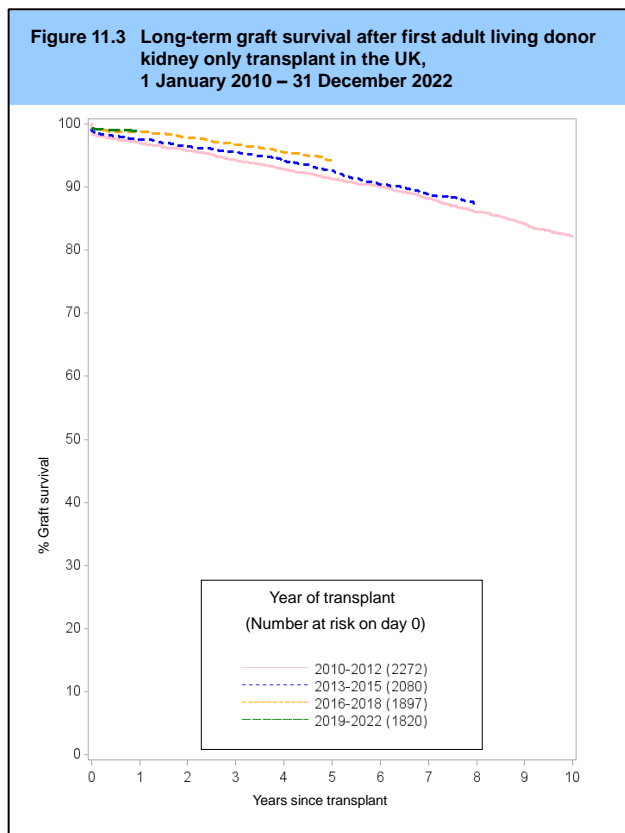


Table 11.5 Graft survival after first adult living donor kidney transplant

Year of transplant	No. at risk on day 0	% Graft survival (95% confidence interval)			
		One year	Two year	Five year	Ten year
2010-2012	2272	97 (96-98)	96 (95-97)	91 (90-92)	82 (80-84)
2013-2015	2080	98 (97-98)	96 (95-97)	93 (91-94)	
2016-2018	1897	99 (98-99)	98 (97-98)	94 (93-95)	
2019-2022	1820	99 (98-99)			

Table 11.6 Patient survival after first adult living donor kidney transplant

Year of transplant	No. at risk on day 0	% Patient survival (95% confidence interval)			
		One year	Two year	Five year	Ten year
2010-2012	2272	99 (98-99)	98 (97-98)	94 (93-95)	85 (83-86)
2013-2015	2080	99 (98-99)	98 (98-99)	95 (94-96)	
2016-2018	1899	99 (99-100)	98 (98-99)	94 (93-95)	
2019-2022	1821	99 (99-99)			

11.1.4 Paediatric kidney recipients – donor after brain death (DBD)

Figure 11.4 shows long-term graft survival in paediatric (<18 years) recipients for first kidney only transplants from donors after brain death. Graft survival estimates and confidence intervals are shown for each time period analysed in **Table 11.7**. There were no statistically significant changes in graft survival over time ($p>0.8$). **Table 11.8** shows the patient survival estimates and confidence intervals for one, two, five and ten years post-transplant. There were no statistically significant changes in patient survival over time ($p>0.4$). There were insufficient paediatric recipients of first kidney only transplants from donors after circulatory death to permit reliable analysis.

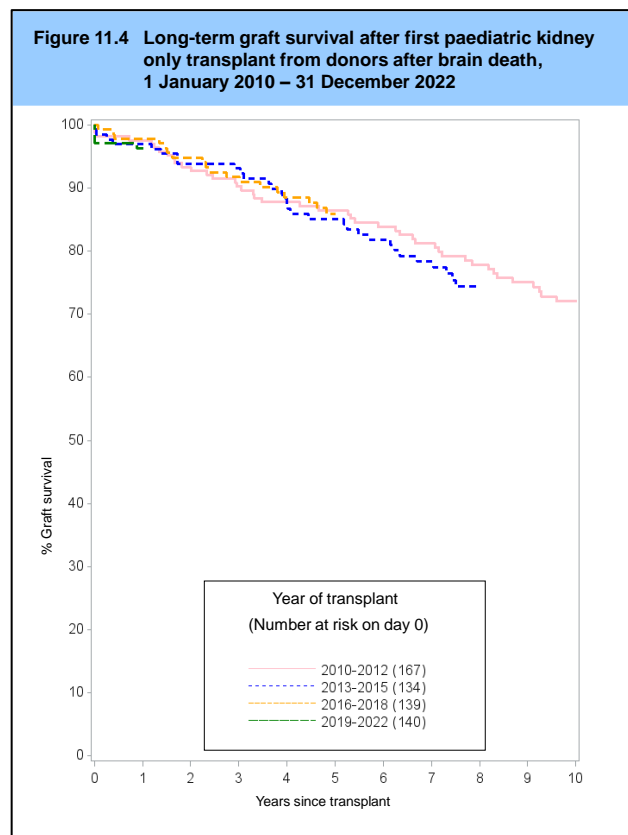


Table 11.7 Graft survival after first paediatric kidney only transplant from a DBD									
Year of transplant	No. at risk on day 0	% Graft survival (95% confidence interval)							
		One year		Two year		Five year		Ten year	
2010-2012	167	98	(94-99)	93	(88-96)	86	(80-91)	72	(64-79)
2013-2015	134	97	(92-99)	94	(88-97)	85	(78-90)		
2016-2018	139	98	(93-99)	95	(89-97)	86	(79-91)		
2019-2022	140	96	(91-98)						

Table 11.8 Patient survival after first paediatric kidney only transplant from a DBD									
Year of transplant	No. at risk on day 0	% Patient survival (95% confidence interval)							
		One year		Two year		Five year		Ten year	
2010-2012	167	99	(96-100)	99	(95-100)	96	(91-98)	93	(88-96)
2013-2015	134	99	(95-100)	99	(95-100)	99	(95-100)		
2016-2018	139	99	(95-100)	99	(95-100)	99	(95-100)		
2019-2022	140	100	-						

11.1.5 Paediatric kidney recipients - living donor

Long-term graft survival in paediatric recipients for living donor kidney transplants in the UK is shown in **Figure 11.5**. **Table 11.9** shows graft survival estimates and confidence intervals for each time period analysed. There has been a significant improvement in five-year survival over the time periods shown ($p=0.03$). **Table 11.10** shows the patient survival estimates and confidence intervals for one, two, five and ten years post-transplant. There were no statistically significant changes in patient survival over time ($p>0.3$).

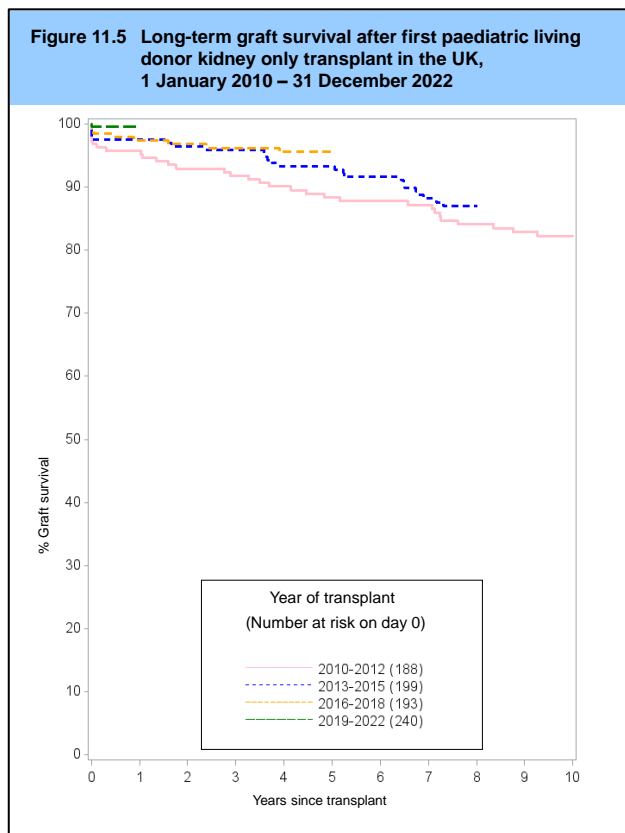


Table 11.9 Graft survival after first paediatric living donor kidney transplant

Year of transplant	No. at risk on day 0	% Graft survival (95% confidence interval)				
		One year	Two year	Five year	Ten year	
2010-2012	188	96 (92-98)	93 (88-96)	88 (83-92)	82 (76-87)	
2013-2015	199	97 (94-99)	96 (93-98)	93 (89-96)		
2016-2018	193	97 (94-99)	97 (93-99)	96 (91-98)		
2019-2022	240	100 (97-100)				

Table 11.10 Patient survival after first paediatric living donor kidney transplant

Year of transplant	No. at risk on day 0	% Patient survival (95% confidence interval)				
		One year	Two year	Five year	Ten year	
2010-2012	189	99 (96-100)	99 (96-100)	99 (96-100)	97 (93-99)	
2013-2015	199	99 (96-100)	99 (96-100)	98 (95-100)		
2016-2018	193	99 (96-100)	98 (95-99)	97 (93-99)		
2019-2022	240	99 (96-100)				

11.2 Pancreas graft and patient survival

11.2.1 Simultaneous pancreas/kidney transplants - donor after brain death (DBD)

Figure 11.6 shows long-term graft survival in recipients receiving their first simultaneous pancreas/kidney (SPK) transplant performed from donors after brain death. Graft and patient survival estimates and confidence intervals are shown at one, two, five and ten years post-transplant in **Table 11.11** and **Table 11.12** respectively. Results relate to adults only as there are no paediatric pancreas transplant recipients. There were no statistically significant changes in graft survival over time ($p>0.2$). Differences in patient survival are not significant over time ($p>0.07$).

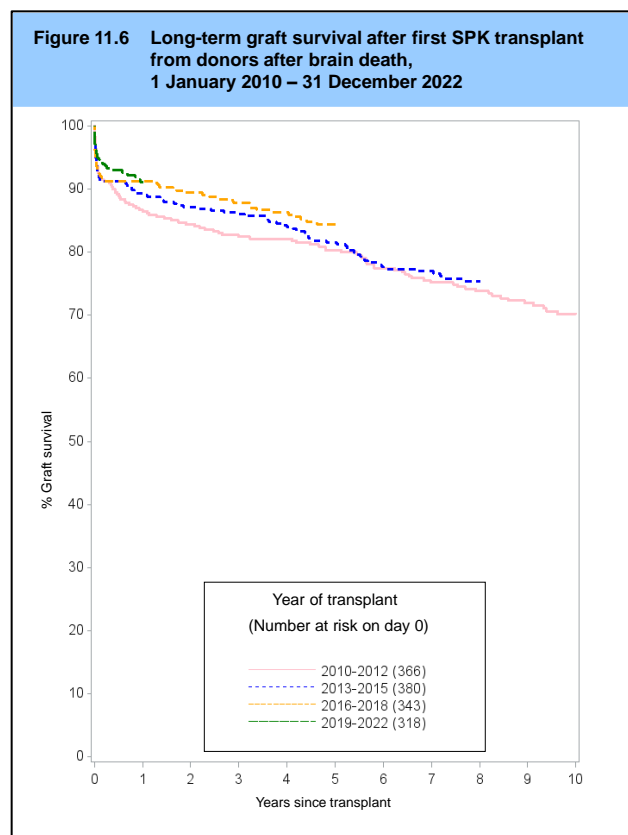


Table 11.11 Graft survival after first SPK transplant from a DBD

Year of transplant	No. at risk on day 0	% Graft survival (95% confidence interval)			
		One year	Two year	Five year	Ten year
2010-2012	366	86 (82-90)	84 (80-88)	80 (76-84)	70 (65-75)
2013-2015	380	89 (86-92)	87 (83-90)	82 (77-85)	-
2016-2018	343	91 (88-94)	89 (86-92)	84 (80-88)	-
2019-2022	318	91 (87-94)	-	-	-

Table 11.12 Patient survival after first SPK transplant from a DBD

Year of transplant	No. at risk on day 0	% Patient survival (95% confidence interval)			
		One year	Two year	Five year	Ten year
2010-2012	366	96 (94-98)	94 (91-96)	88 (84-91)	73 (68-78)
2013-2015	381	97 (95-98)	97 (95-98)	90 (86-92)	-
2016-2018	345	99 (97-100)	97 (94-98)	92 (88-95)	-
2019-2022	320	97 (94-98)	-	-	-

11.2.2 Simultaneous pancreas/kidney transplants - donor after circulatory death (DCD)

Figure 11.7 shows pancreas graft survival in recipients receiving their first SPK transplant performed from donors after circulatory death. Graft and patient survival estimates and confidence intervals are shown at one, two, five and ten years in **Table 11.13** and **Table 11.14** respectively. Results are for adult patients only. There has been a significant improvement in one-, two- and five-year graft survival over the time periods shown, $p < 0.05$. Differences in patient survival are not significant over time ($p > 0.2$).

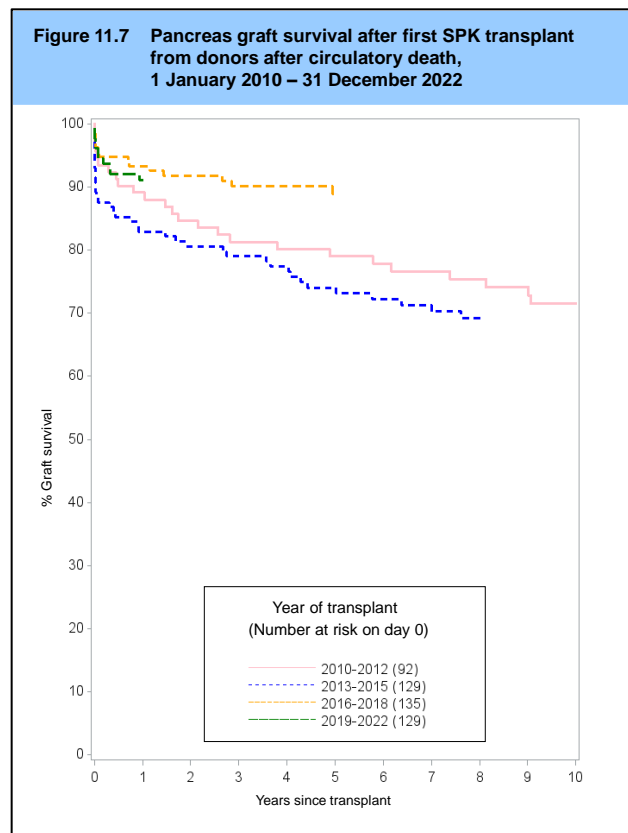


Table 11.13 Graft survival after first SPK transplant from a DCD

Year of transplant	No. at risk on day 0	% Graft survival (95% confidence interval)				
		One year	Two year	Five year	Ten year	
2010-2012	92	89 (81-94)	85 (76-91)	79 (69-86)	72 (61-80)	
2013-2015	129	83 (75-88)	81 (73-86)	74 (65-81)	-	
2016-2018	135	93 (88-96)	92 (86-95)	89 (82-93)	-	
2019-2022	129	91 (84-95)	-	-	-	

Table 11.14 Patient survival after first SPK transplant from a DCD

Year of transplant	No. at risk on day 0	% Patient survival (95% confidence interval)			
		One year	Two year	Five year	Ten year
2010-2012	92	98 (92-99)	94 (87-98)	91 (83-95)	79 (69-87)
2013-2015	130	100	98 (93-100)	94 (87-97)	-
2016-2018	136	98 (94-100)	98 (93-99)	94 (88-97)	-
2019-2022	130	97 (91-99)	-	-	-

11.2.3 Pancreas only transplants - donor after brain death (DBD)

Figure 11.8 shows long-term graft survival in recipients receiving their first pancreas only transplant performed from donors after brain death. Graft and patient survival estimates and confidence intervals are shown at one, two, five and ten years in **Table 11.15** and **Table 11.16** respectively. Results are for adult patients only. There were no statistically significant changes in graft or patient survival over time ($p>0.1$).

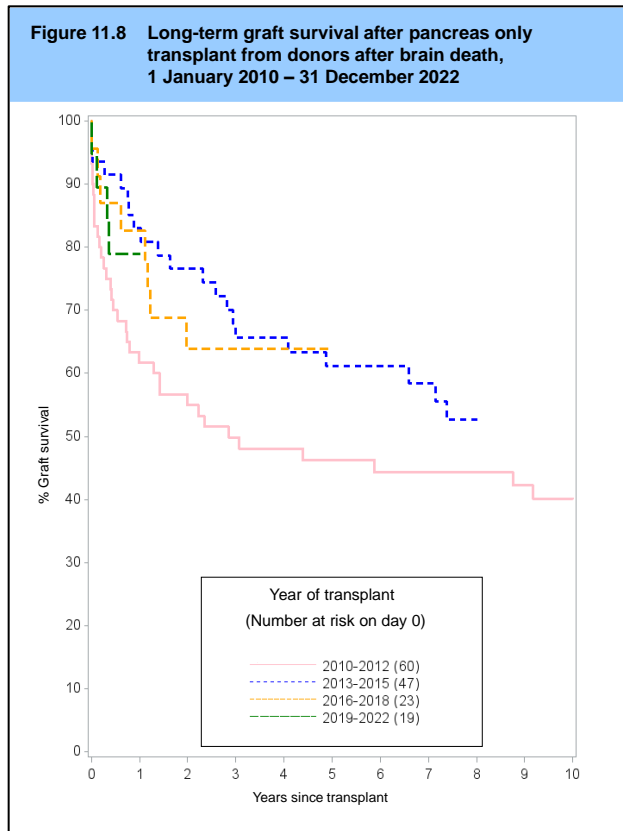


Table 11.15 Graft survival after first pancreas only transplant from a DBD

Year of transplant	No. at risk on day 0	% Graft survival (95% confidence interval)			
		One year	Two year	Five year	Ten year
2010-2012	60	62 (48-73)	55 (42-66)	46 (33-58)	40 (27-53)
2013-2015	47	83 (69-91)	77 (62-86)	61 (46-73)	52 (37-67)
2016-2018	23	83 (60-93)	64 (41-80)	64 (41-80)	64 (41-80)
2019-2022	19	79 (53-92)	79 (53-92)	79 (53-92)	79 (53-92)

Table 11.16 Patient survival after first pancreas only transplant from a DBD

Year of transplant	No. at risk on day 0	% Patient survival (95% confidence interval)			
		One year	Two year	Five year	Ten year
2010-2012	60	98 (86-100)	96 (84-99)	77 (61-87)	60 (43-74)
2013-2015	47	98 (86-100)	98 (86-100)	90 (76-96)	90 (76-96)
2016-2018	23	95 (72-99)	85 (60-95)	79 (53-92)	79 (53-92)
2019-2022	19	94 (65-99)	94 (65-99)	94 (65-99)	94 (65-99)

11.2.4 Pancreas only transplants - donor after circulatory death (DCD)

Figure 11.9 shows pancreas graft survival in recipients receiving their first pancreas only transplant performed from donors after circulatory death. Graft and patient survival estimates and confidence intervals are shown at one, two, five and ten years in **Table 11.17** and **Table 11.18** respectively. Results are for adult patients only and are based on small numbers so should be interpreted with caution.

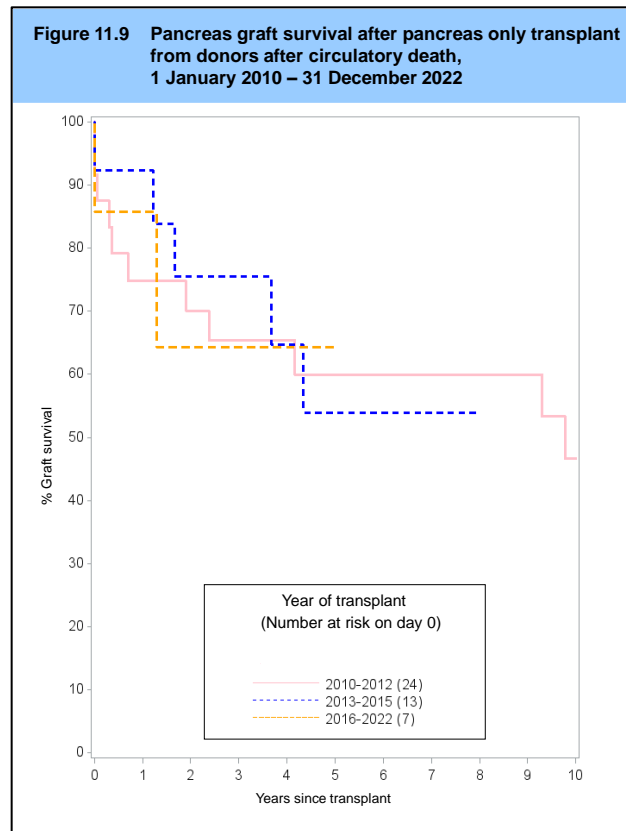


Table 11.17 Graft survival after first pancreas only transplant from a DCD

Year of transplant	No. at risk on day 0	% Graft survival (95% confidence interval)			
		One year	Two year	Five year	Ten year
2010-2012	24	75 (52-88)	70 (47-85)	60 (37-77)	47 (23-67)
2013-2015	13	92 (57-99)	76 (42-91)	54 (21-78)	
2016-2022	7	86 (33-98)	64 (15-90)	64 (15-90)	

Table 11.18 Patient survival after first pancreas only transplant from a DCD

Year of transplant	No. at risk on day 0	% Patient survival (95% confidence interval)			
		One year	Two year	Five year	Ten year
2010-2012	24	96 (73-99)	96 (73-99)	79 (53-92)	73 (47-88)
2013-2015	13	100	100	75 (41-91)	
2016-2022	7	100	-		

11.3 Cardiothoracic patient survival

11.3.1 Adult heart recipients – donors after brain death (DBD)

Long-term patient survival for adult (≥ 16 years) recipients after first heart only transplant performed from donors after brain death is shown in **Figure 11.10**. Super-urgent, urgent and non-urgent patients are included. **Table 11.19** shows the patient survival estimates and confidence intervals for one, two, five and ten years post-transplant for each transplant era. There were no statistically significant differences in patient survival across eras ($p > 0.07$).

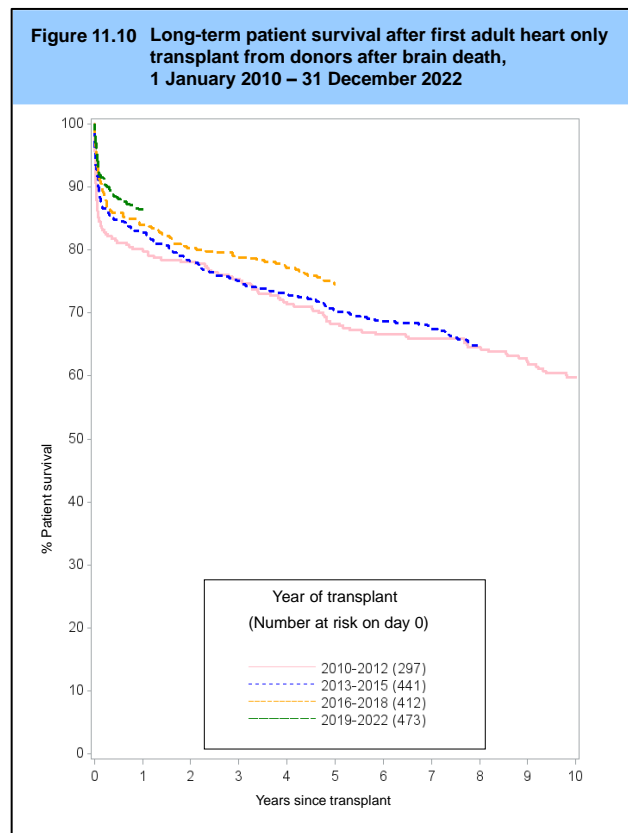


Table 11.19 Patient survival after first adult heart only transplant from a DBD					
Year of transplant	No. at risk on day 0	% Patient survival (95% confidence interval)			
		One year	Two year	Five year	Ten year
2010-2012	297	80 (75-84)	78 (73-82)	68 (63-73)	60 (54-65)
2013-2015	441	83 (79-86)	78 (74-82)	70 (66-74)	60 (54-65)
2016-2018	412	84 (80-87)	80 (76-84)	75 (70-79)	60 (54-65)
2019-2022	473	86 (83-89)	80 (76-84)	75 (70-79)	60 (54-65)

11.3.2 Adult heart recipients – donors after circulatory death (DCD)

Long-term patient survival for adult (≥ 16 years) recipients after first heart only transplant performed from donors after circulatory death is shown in **Figure 11.11**. Super-urgent, urgent, and non-urgent patients are included. **Table 11.20** shows the patient survival estimates and confidence intervals for one, two, and three years post-transplant for each transplant era.

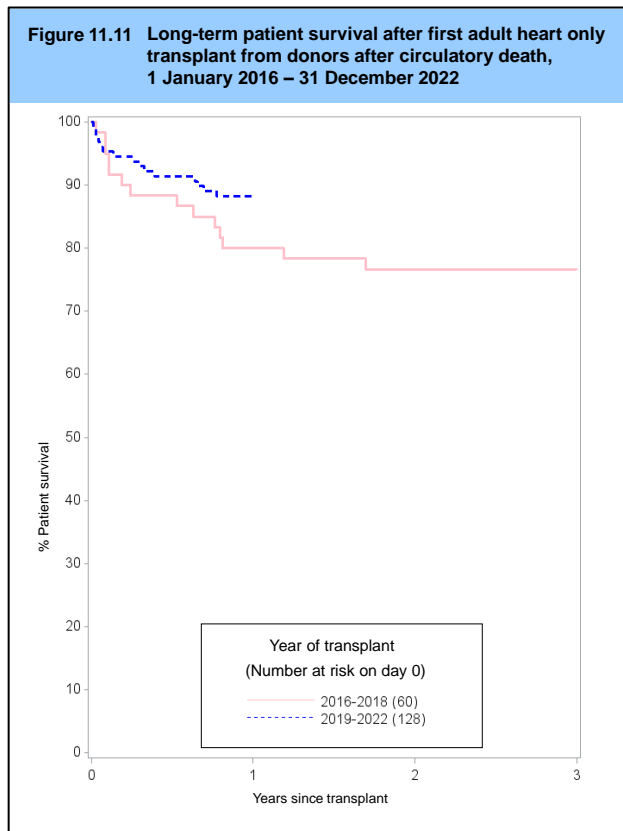


Table 11.20 Patient survival after first adult heart only transplant from a DCD

Year of transplant	No. at risk on day 0	% Patient survival (95% confidence interval)			
		One year	Two year	Three year	
2016-2018	60	80 (67-88)	77 (64-85)	77 (64-85)	
2019-2022	128	88 (81-93)	77 (64-85)	77 (64-85)	

11.3.3 Adult heart-lung block recipients – donors after brain death (DBD)

Patient survival for adult recipients after first heart-lung block transplant from donors after brain death is shown in **Figure 11.12**. Patient survival estimates and confidence intervals for each time period analysed are shown in **Table 11.21**. The number of transplants is small and thus confidence intervals for survival estimates are wide and overlap between eras indicating no statistically significant difference ($p>0.1$).

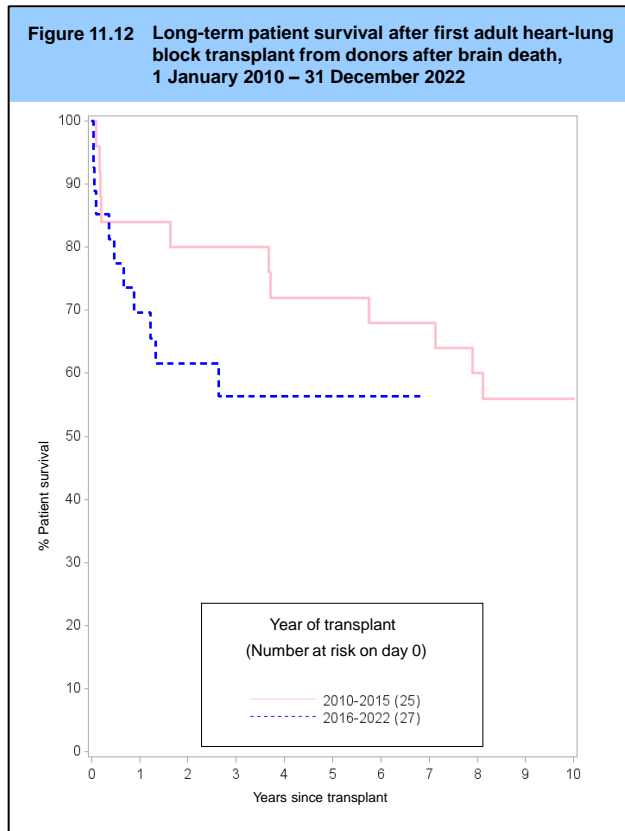


Table 11.21 Patient survival after first adult heart-lung block transplant from a DBD					
Year of transplant	No. at risk on day 0	% Patient survival (95% confidence interval)			
		One year	Two year	Five year	Ten year
2010-2015	25	84 (63-94)	80 (58-91)	72 (50-86)	56 (35-73)
2016-2022	27	70 (48-84)	61 (40-77)	56 (35-73)	

11.3.4 Adult lung recipients - donors after brain death (DBD)

Patient survival for adult recipients after first lung only transplant from donors after brain death is shown in **Figure 11.13**, with survival estimates and confidence intervals shown in **Table 11.22**. Super-urgent, urgent and non-urgent patients are included. There were no statistically significant differences in patient survival across eras ($p>0.7$).

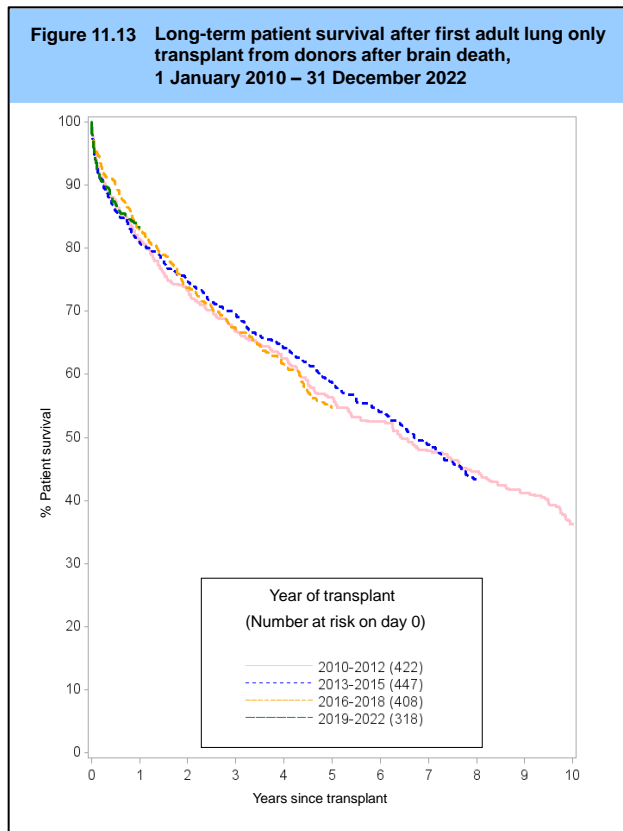


Table 11.22 Patient survival after first adult lung only transplant from a DBD

Year of transplant	No. at risk on day 0	% Patient survival (95% confidence interval)			
		One year	Two year	Five year	Ten year
2010-2012	422	81 (77-85)	73 (69-77)	56 (51-61)	36 (32-41)
2013-2015	447	81 (77-84)	75 (70-78)	58 (54-63)	
2016-2018	408	83 (79-86)	74 (69-78)	55 (50-59)	
2019-2022	318	83 (79-87)			

11.3.5 Adult lung recipients - donors after circulatory death (DCD)

Patient survival for adult recipients after first lung only transplant from donors after circulatory death is shown in **Figure 11.14**, by era, with survival estimates and confidence intervals shown in **Table 11.23**. Super-urgent, urgent and non-urgent patients are included.

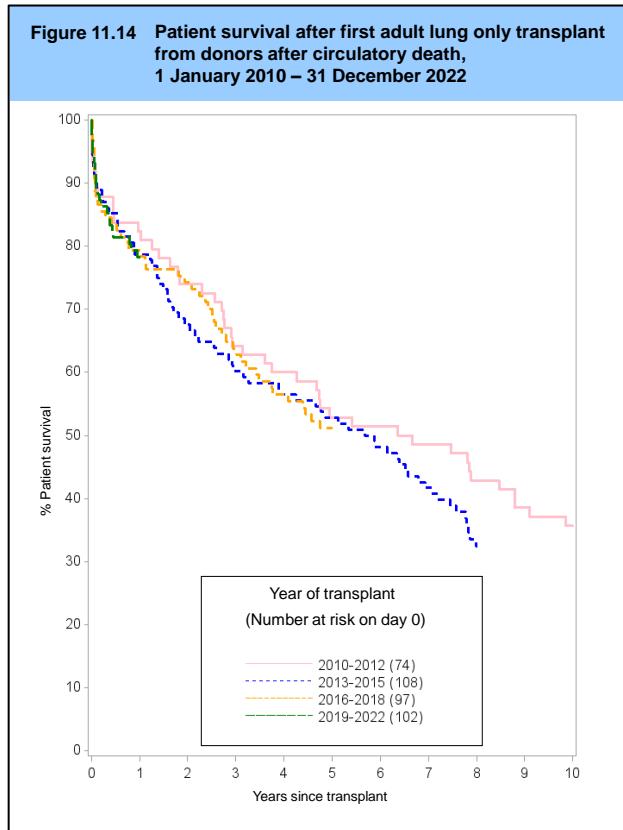


Table 11.23 Patient survival after first adult lung only transplant from a DCD

Year of transplant	No. at risk on day 0	% Patient survival (95% confidence interval)			
		One year	Two year	Three year	
2010-2012	74	82 (72-89)	74 (62-83)	53 (41-64)	
2013-2015	108	79 (70-85)	68 (58-76)	53 (43-62)	
2016-2018	97	79 (70-86)	74 (64-82)	51 (41-61)	
2019-2022	102	78 (69-85)			

11.3.6 Paediatric heart recipients – donors after brain death (DBD)

Long-term patient survival for paediatric recipients after first heart only transplant from donors after brain death is shown in **Figure 11.15**. Super-urgent, urgent and non-urgent patients are included. **Table 11.24** shows the patient survival estimates and confidence intervals for one, two, five, and ten years post-transplant. There were no statistically significant differences in patient survival across eras ($p>0.7$). The number of heart-lung transplant recipients was too small to analyse.

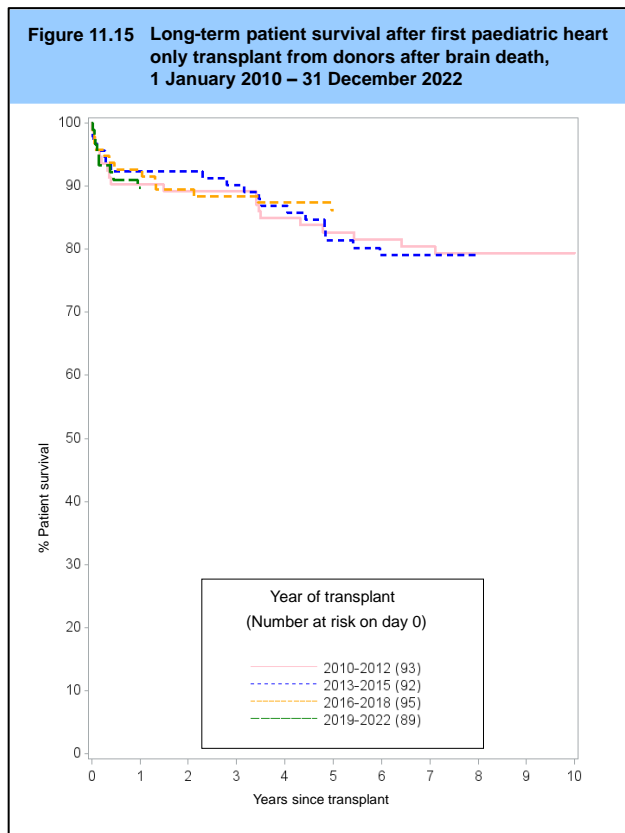


Table 11.24 Patient survival after first paediatric heart only transplant from a DBD

Year of transplant	No. at risk on day 0	% Patient survival (95% confidence interval)				
		One year	Two year	Five year	Ten year	
2010-2012	93	90 (82-95)	89 (81-94)	83 (73-89)	79 (70-86)	
2013-2015	92	92 (85-96)	92 (85-96)	81 (72-88)	79 (70-86)	
2016-2018	95	93 (85-96)	89 (81-94)	86 (77-92)	79 (70-86)	
2019-2022	89	90 (81-95)	89 (81-94)	83 (73-89)	79 (70-86)	

11.3.7 Paediatric lung recipients - donors after brain death (DBD)

Long-term patient survival for paediatric recipients after first lung only transplant from donors after brain death is shown in **Figure 11.16**. Super-urgent, urgent and non-urgent patients are included. **Table 11.25** shows the patient survival estimates and confidence intervals for one, two, five, and ten years post-transplant. There were no statistically significant differences in patient survival across eras ($p>0.2$).

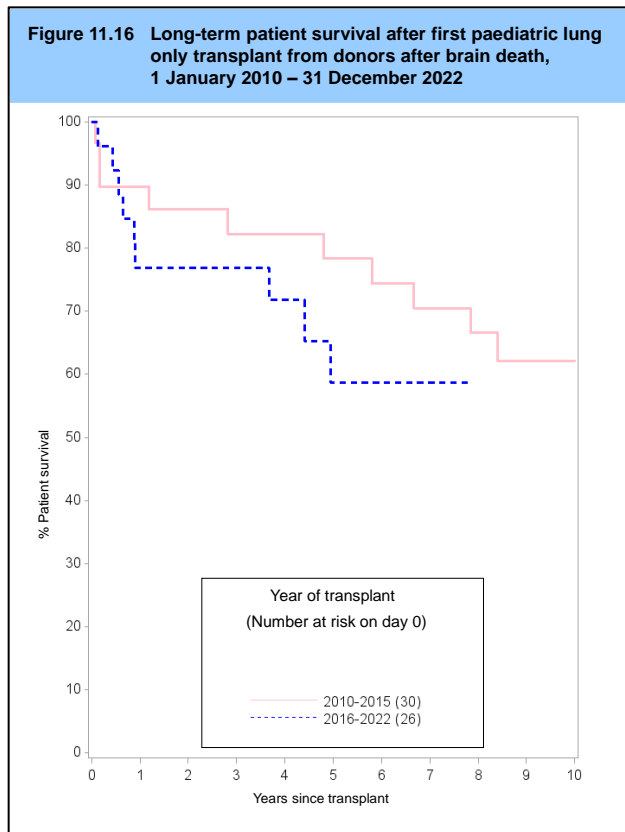


Table 11.25		Patient survival after first paediatric lung only transplant from a DBD							
Year of transplant	No. at risk on day 0	% Patient survival (95% confidence interval)							
		One year	Two year	Five year	Ten year				
2010-2015	30	90 (72-97)	86 (67-95)	78 (58-90)	62 (41-78)				
2016-2022	26	77 (56-89)	77 (56-89)	59 (34-77)					

11.4 Liver patient survival

11.4.1 Adult liver recipients - donor after brain death (DBD)

Long-term patient survival for adult (≥ 17 years) recipients after first elective NHS Group 1 liver only transplants from donors after brain death is shown in **Figure 11.17**. **Table 11.26** shows patient survival estimates at one, two, five, and ten years post-transplant. There were no statistically significant differences in patient survival across eras ($p > 0.09$). Whole liver transplants are included as well as reduced and split liver transplants.

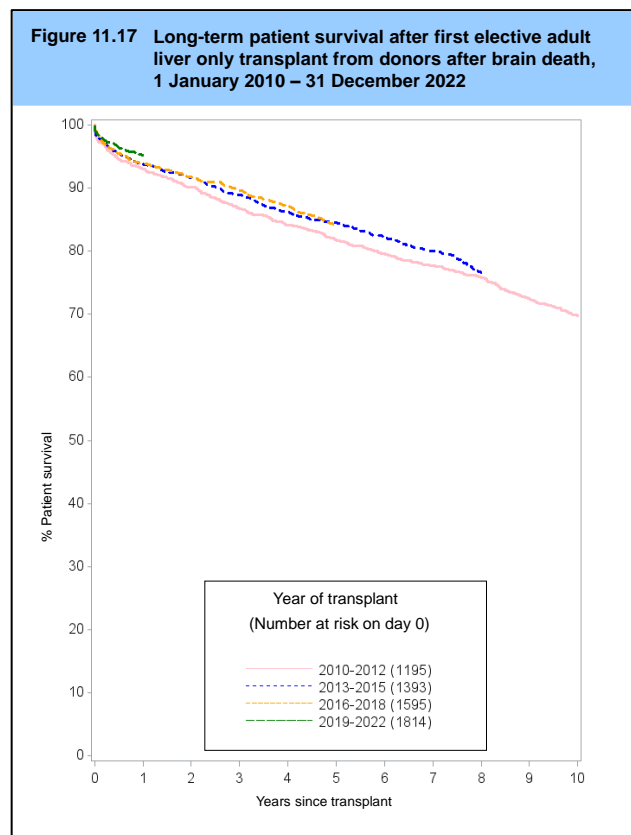


Table 11.26 Patient survival after first elective adult NHS Group 1 liver only transplant from a DBD

Year of transplant	No. at risk on day 0	% Patient survival (95% confidence interval)				
		One year	Two year	Five year	Ten year	
2010-2012	1195	93 (91-94)	90 (88-92)	82 (79-84)	70 (67-72)	
2013-2015	1393	94 (92-95)	92 (90-93)	84 (82-86)	70 (67-72)	
2016-2018	1595	94 (93-95)	92 (90-93)	84 (82-86)	70 (67-72)	
2019-2022	1814	95 (94-96)	92 (90-93)	84 (82-86)	70 (67-72)	

11.4.2 Adult liver recipients - donor after circulatory death (DCD)

Patient survival for adult (≥ 17 years) recipients after first elective NHS Group 1 liver only transplants from donors after circulatory death is shown in **Figure 11.18**. **Table 11.27** shows patient survival estimates at one, two and five years post-transplant. There is evidence of a change in one- and two-year patient survival over time ($p < 0.001$).

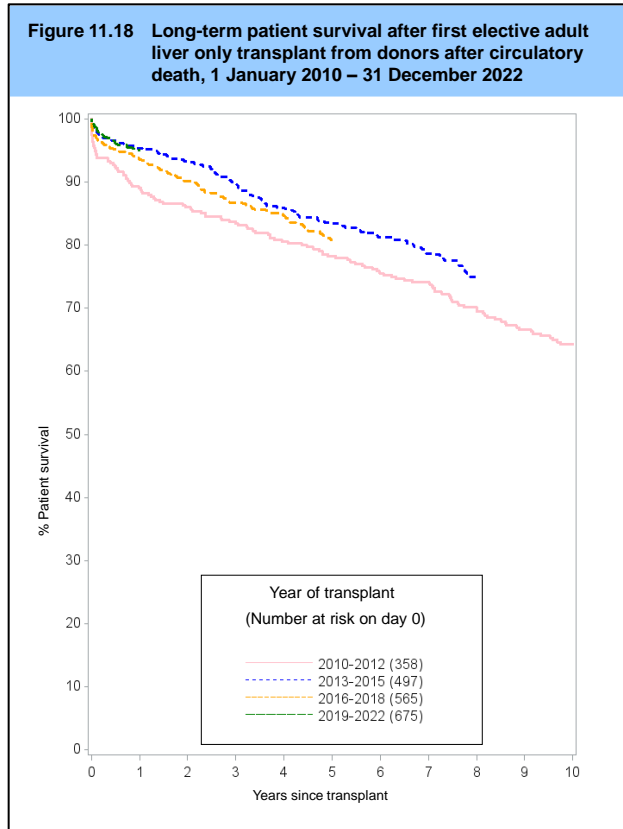


Table 11.27 Patient survival after first elective adult NHS Group 1 liver only transplant from a DCD

Year of transplant	No. at risk on day 0	% Patient survival (95% confidence interval)				
		One year	Two year	Five year	Ten year	
2010-2012	358	89 (85-92)	86 (82-89)	78 (74-82)	64 (59-69)	
2013-2015	497	95 (93-97)	93 (91-95)	83 (80-86)	-	
2016-2018	565	94 (91-95)	90 (87-92)	81 (77-84)	-	
2019-2022	675	95 (93-96)	-	-	-	

11.4.3 Paediatric liver recipients – donor after brain death (DBD)

Figure 11.19 and **Table 11.28** show long-term patient survival estimates for first elective liver only transplants from donors after brain death in paediatric (<17 years) recipients. There have been no statistically significant changes in one-, two- or five-year patient survival over the time period analysed ($p>0.1$). The number of paediatric transplants from donors after circulatory death was too small to estimate meaningful patient survival.

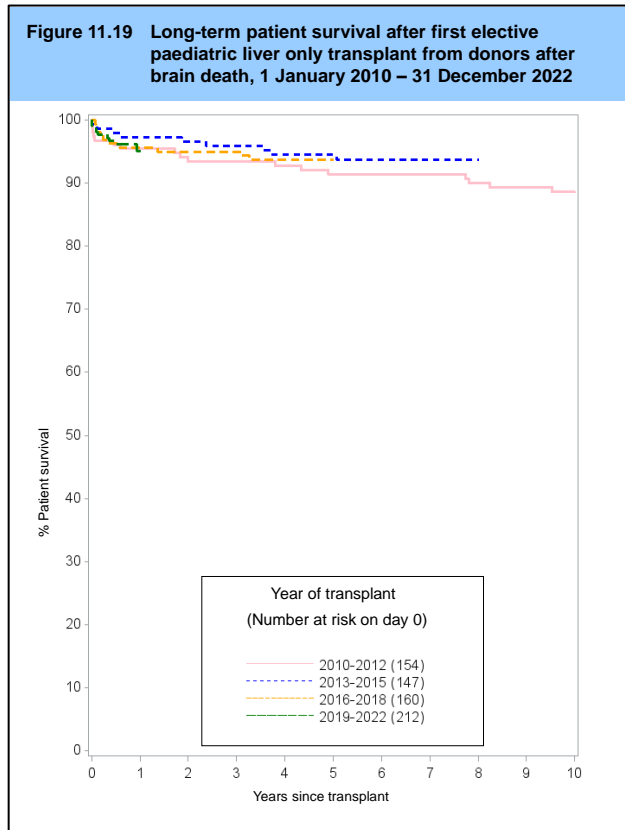


Table 11.28 Patient survival after first elective paediatric liver only transplant from a DBD

Year of transplant	No. at risk on day 0	% Patient survival (95% confidence interval)			
		One year	Two year	Five year	Ten year
2010-2012	154	95 (91-98)	93 (88-96)	91 (86-95)	89 (82-93)
2013-2015	147	97 (93-99)	97 (92-99)	94 (89-97)	-
2016-2018	160	96 (91-98)	95 (90-97)	94 (89-97)	-
2019-2022	212	95 (91-97)	-	-	-

11.5 Intestinal patient survival

Figure 11.20 and **Table 11.29** show patient survival estimates for recipients receiving their first intestinal transplant, by recipient age group (adults aged ≥ 18 years) and transplant era. Results should be interpreted cautiously due to the small cohort and the heterogeneity of transplant types (both transplants that involve and do not involve the liver are included).

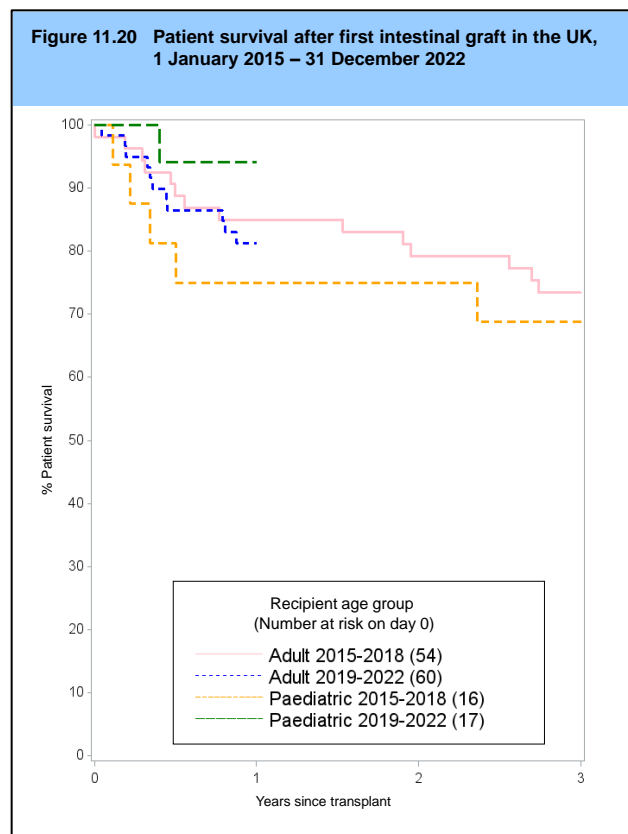


Table 11.29 Patient survival after first intestinal transplant

Recipient age group	No. at risk on day 0	% Patient survival (95% confidence interval)		
		One year	Two year	Three year
Adult				
2015-2018	54	85 (72-92)	79 (66-88)	73 (59-83)
2019-2022	60	81 (69-89)		
Paediatric				
2015-2018	16	75 (46-90)	75 (46-90)	69 (40-86)
2019-2022	17	94 (65-99)		

11.6 Corneal graft survival

11.6.1 Cornea grafts for keratoconus

Figure 11.21 shows graft survival estimates for first corneal transplant for keratoconus (KC) for grafts in 2010-2012, 2013-2015, 2016-2018 and 2019-2022. Graft survival estimates and confidence intervals are shown by transplant year at one, two and five years in **Table 11.30**.

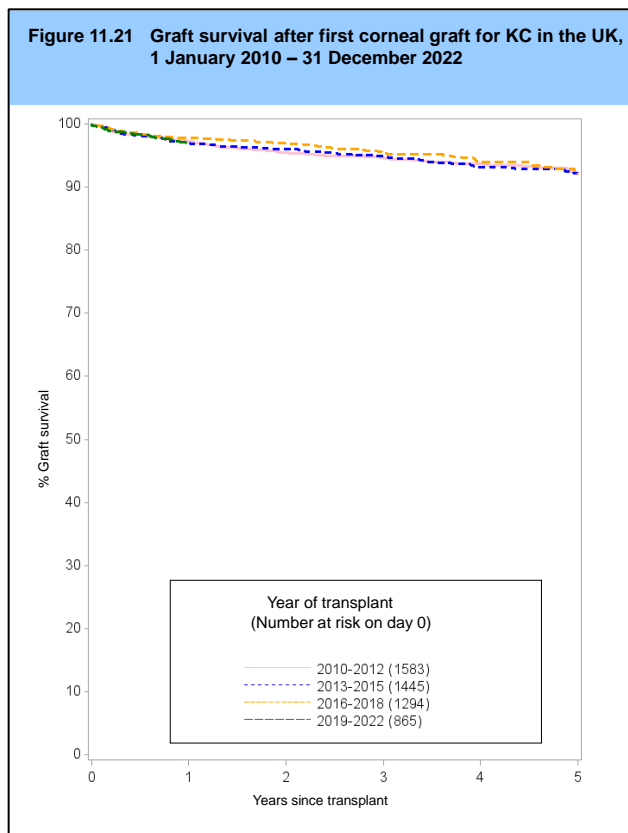


Table 11.30 Graft survival after first corneal graft for KC

Year of transplant	No. at risk on day 0	% Graft survival (95% confidence interval)			
		One year	Two year	Five year	
2010-2012	1583	97 (96-98)	95 (94-96)	92 (91-94)	
2013-2015	1445	97 (96-98)	96 (95-97)	92 (90-94)	
2016-2018	1294	98 (97-99)	97 (96-98)	92 (90-94)	
2019-2022	865	97 (95-98)			

11.6.2 Cornea grafts for Fuchs endothelial dystrophy

Figure 11.22 shows graft survival estimates for first corneal transplant for Fuchs endothelial dystrophy (FED) for grafts in 2010-2012, 2013-2015, 2016-2018 and 2019-2022. Graft survival estimates and confidence intervals are shown by transplant year at one, two and five years in **Table 11.31**.

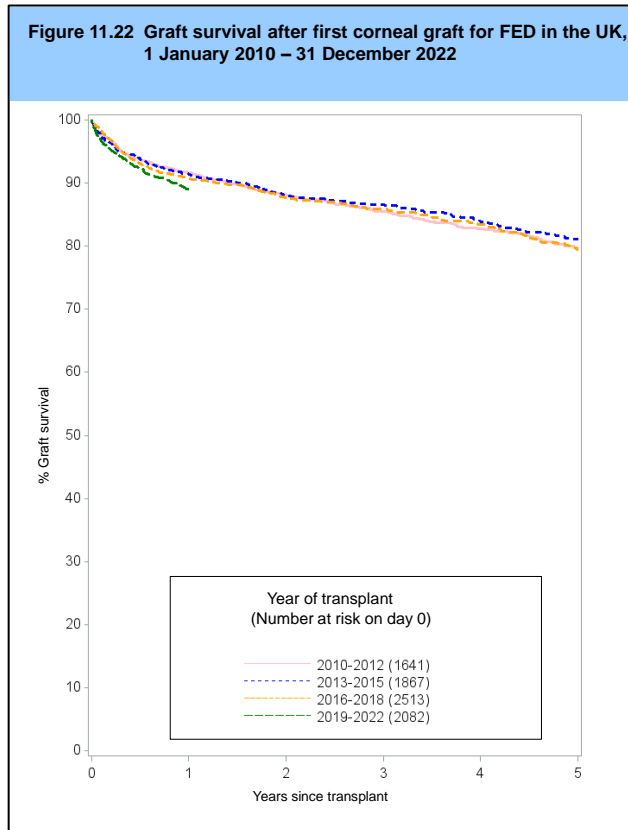


Table 11.31 Graft survival after first corneal graft for FED

Year of transplant	No. at risk on day 0	% Graft survival (95% confidence interval)			
		One year	Two year	Five year	
2010-2012	1641	92 (90-93)	88 (86-90)	80 (77-82)	
2013-2015	1867	91 (90-93)	88 (86-90)	81 (79-83)	
2016-2018	2513	91 (89-92)	88 (86-89)	79 (77-82)	
2019-2022	2082	89 (88-90)			

11.6.3 Cornea grafts for pseudophakic bullous keratopathy

Figure 11.23 shows graft survival estimates for first corneal transplant for pseudophakic bullous keratopathy (PBK) for in 2010-2012, 2013-2015, 2016-2018 and 2019-2022. Graft survival estimates and confidence intervals are shown by transplant year at one, two and five years in **Table 11.32**.

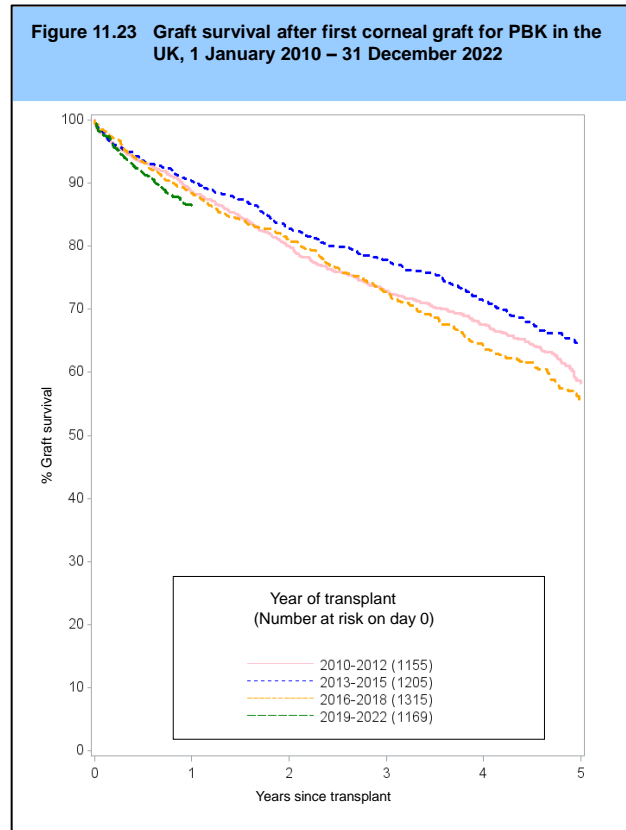


Table 11.32 Graft survival after first corneal graft for PBK

Year of transplant	No. at risk on day 0	% Graft survival (95% confidence interval)			
		One year	Two year	Five year	
2010-2012	1155	89 (87-90)	80 (77-82)	58 (54-62)	
2013-2015	1205	90 (88-92)	83 (80-85)	64 (61-68)	
2016-2018	1315	88 (87-90)	81 (78-83)	56 (51-60)	
2019-2022	1169	86 (84-88)			