



Survival Rates Following Transplantation

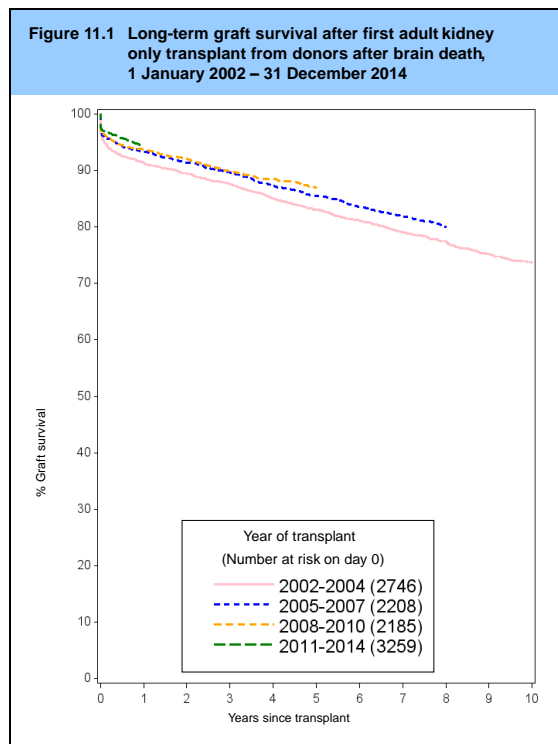
This chapter shows graft survival rates over time for kidney, pancreas and cornea transplants, and patient survival estimates for kidney, pancreas, cardiothoracic, liver and intestinal transplants, performed in the UK. Separate estimates are presented for adult and paediatric patients (using organ specific 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, two and five year survival over the time periods shown, $p < 0.01$ in each case. **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 ($p > 0.08$).

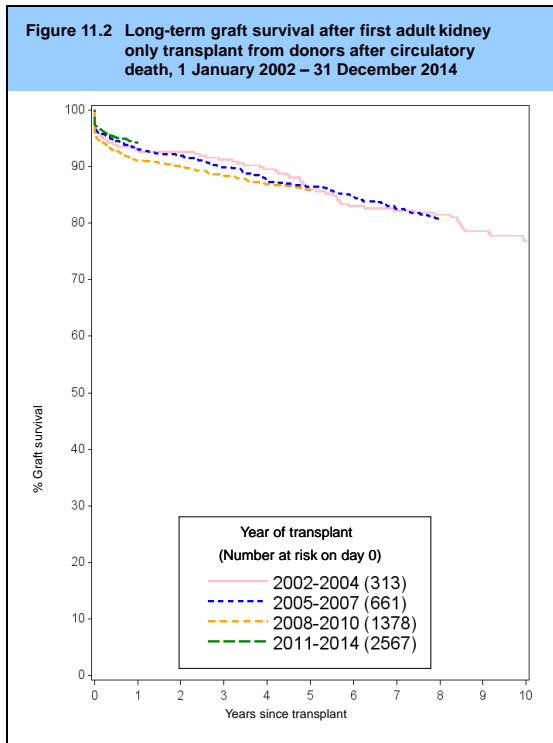


| Year of transplant | No. at risk on day 0 | % Graft survival (95% confidence interval) | | | | |
|--------------------|----------------------|--|------------|------------|------------|--|
| | | One year | Two year | Five year | Ten year | |
| 2002-2004 | 2746 | 91 (90-92) | 89 (88-91) | 83 (82-84) | 74 (72-75) | |
| 2005-2007 | 2208 | 93 (92-94) | 91 (90-93) | 85 (84-87) | | |
| 2008-2010 | 2185 | 94 (93-95) | 92 (91-93) | 87 (85-88) | | |
| 2011-2014 | 3259 | 94 (93-95) | | | | |

| Year of transplant | No. at risk on day 0 | % Patient survival (95% confidence interval) | | | | |
|--------------------|----------------------|--|------------|------------|------------|--|
| | | One year | Two year | Five year | Ten year | |
| 2002-2004 | 2748 | 96 (95-96) | 94 (93-95) | 88 (87-89) | 75 (74-77) | |
| 2005-2007 | 2210 | 97 (96-98) | 95 (94-96) | 89 (88-91) | | |
| 2008-2010 | 2185 | 96 (95-97) | 95 (94-95) | 90 (88-91) | | |
| 2011-2014 | 3261 | 96 (96-97) | | | | |

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, $p=0.003$. One year graft and patient survival are comparable for DBD and DCD donor transplants in the most recent time periods. **Table 11.4** shows the patient survival estimates and confidence intervals for each time period analysed. There were no statistically significant changes in patient survival over time ($p>0.4$).

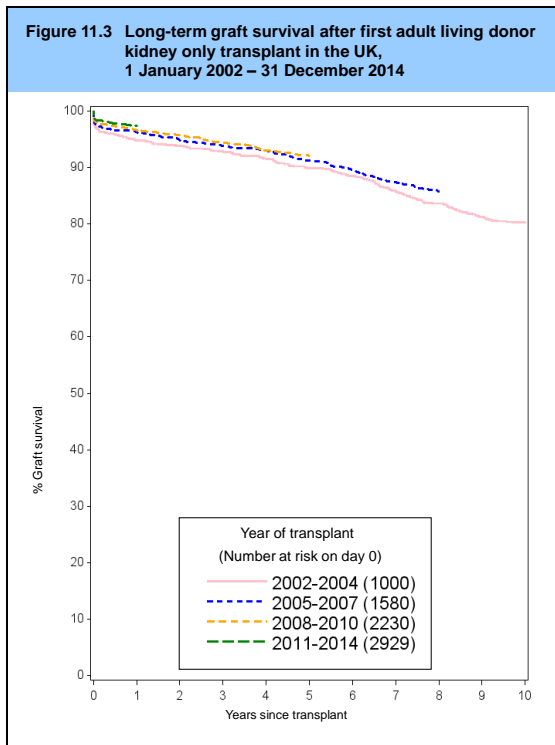


| Table 11.3 Graft survival after first adult kidney only transplant from a DCD | | | | | | | | |
|--|----------------------|--|------------|------------|------------|--|--|--|
| Year of transplant | No. at risk on day 0 | % Graft survival (95% confidence interval) | | | | | | |
| | | One year | Two year | Five year | Ten year | | | |
| 2002-2004 | 313 | 93 (89-95) | 93 (89-95) | 86 (81-89) | 77 (71-81) | | | |
| 2005-2007 | 661 | 93 (91-95) | 92 (89-94) | 86 (84-89) | | | | |
| 2008-2010 | 1378 | 91 (89-92) | 90 (88-92) | 86 (84-88) | | | | |
| 2011-2014 | 2567 | 94 (93-95) | | | | | | |

| 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 | | | |
| 2002-2004 | 314 | 97 (94-98) | 95 (92-97) | 87 (83-91) | 72 (66-77) | | | |
| 2005-2007 | 661 | 95 (93-97) | 93 (91-95) | 87 (84-89) | | | | |
| 2008-2010 | 1378 | 95 (94-96) | 94 (92-95) | 87 (85-89) | | | | |
| 2011-2014 | 2568 | 96 (95-97) | | | | | | |

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 year survival over the time periods shown, $p=0.001$. **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 ($p>0.07$).

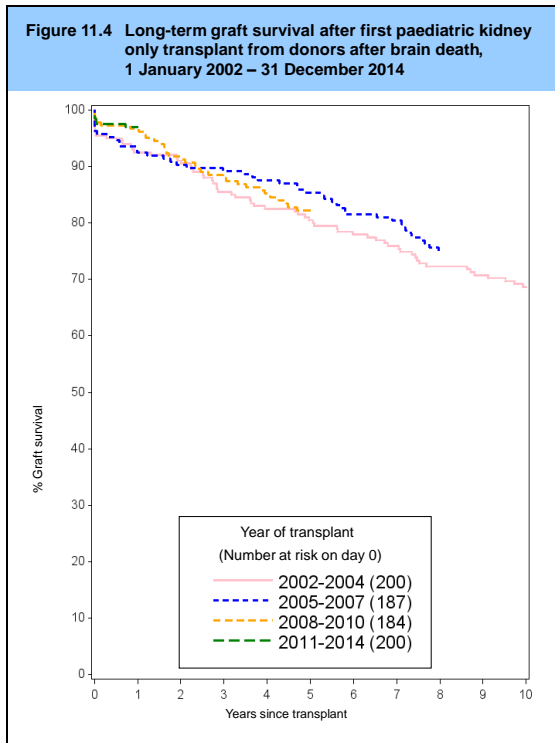


| Year of transplant | No. at risk on day 0 | % Graft survival (95% confidence interval) | | | | | | | |
|--------------------|----------------------|--|---------|----------|---------|-----------|---------|----------|---------|
| | | One year | | Two year | | Five year | | Ten year | |
| 2002-2004 | 1000 | 95 | (93-96) | 94 | (92-95) | 90 | (88-92) | 80 | (78-83) |
| 2005-2007 | 1580 | 96 | (95-97) | 95 | (94-96) | 91 | (90-93) | | |
| 2008-2010 | 2230 | 97 | (96-97) | 96 | (95-96) | 92 | (91-93) | | |
| 2011-2014 | 2929 | 97 | (97-98) | | | | | | |

| Year of transplant | No. at risk on day 0 | % Patient survival (95% confidence interval) | | | | | | | |
|--------------------|----------------------|--|---------|----------|---------|-----------|---------|----------|---------|
| | | One year | | Two year | | Five year | | Ten year | |
| 2002-2004 | 999 | 98 | (97-99) | 98 | (96-98) | 95 | (94-97) | 89 | (87-91) |
| 2005-2007 | 1579 | 99 | (98-99) | 98 | (97-99) | 96 | (95-97) | | |
| 2008-2010 | 2230 | 99 | (98-99) | 98 | (97-98) | 94 | (93-95) | | |
| 2011-2014 | 2928 | 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 ($p>0.07$). **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 ($p>0.3$). There were insufficient paediatric recipients of first kidney only transplants from donors after circulatory death to permit reliable analysis.

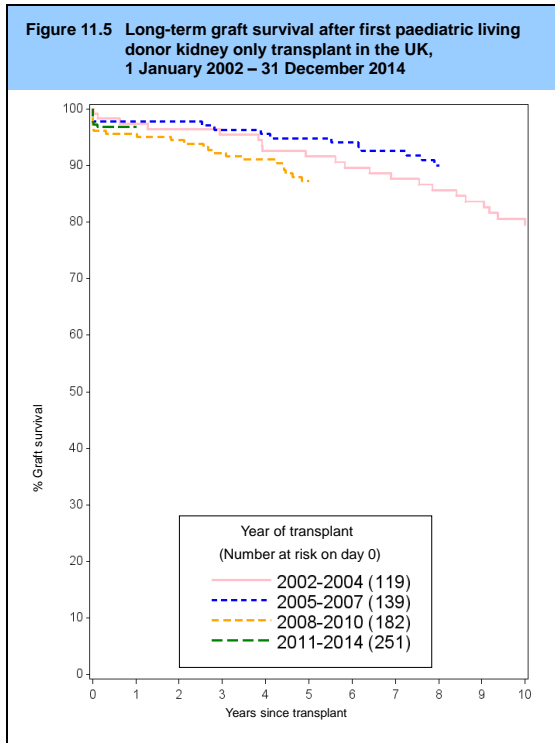


| Table 11.7 Graft survival after first paediatric kidney only transplant from a DBD | | | | | | | | |
|--|----------------------|--|------------|------------|------------|--|--|--|
| Year of transplant | No. at risk on day 0 | % Graft survival (95% confidence interval) | | | | | | |
| | | One year | Two year | Five year | Ten year | | | |
| 2002-2004 | 200 | 93 (88-95) | 91 (86-94) | 80 (74-85) | 69 (62-75) | | | |
| 2005-2007 | 187 | 92 (88-95) | 90 (85-94) | 85 (79-90) | | | | |
| 2008-2010 | 184 | 97 (93-99) | 92 (87-95) | 82 (76-87) | | | | |
| 2011-2014 | 200 | 97 (93-99) | | | | | | |

| 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 | | | |
| 2002-2004 | 201 | 100 (-) | 100 (-) | 98 (95-99) | 97 (93-99) | | | |
| 2005-2007 | 188 | 99 (96-100) | 99 (96-100) | 99 (96-100) | | | | |
| 2008-2010 | 184 | 99 (96-100) | 99 (96-100) | 98 (94-99) | | | | |
| 2011-2014 | 200 | 99 (96-100) | | | | | | |

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 were no statistically significant differences in graft survival over time ($p>0.07$). **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 differences in patient survival over time ($p>0.1$).



| 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 | |
| 2002-2004 | 119 | 97 | (92-99) | 96 | (91-99) | 92 | (84-96) | 80 | (70-86) |
| 2005-2007 | 139 | 98 | (93-99) | 98 | (93-99) | 95 | (89-98) | | |
| 2008-2010 | 182 | 96 | (91-98) | 94 | (90-97) | 87 | (81-91) | | |
| 2011-2014 | 251 | 97 | (94-98) | | | | | | |

| 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 | |
| 2002-2004 | 119 | 97 | (92-99) | 97 | (92-99) | 96 | (91-99) | 93 | (87-97) |
| 2005-2007 | 139 | 100 | (-) | 100 | (-) | 100 | (-) | | |
| 2008-2010 | 182 | 99 | (96-100) | 99 | (96-100) | 97 | (93-99) | | |
| 2011-2014 | 251 | 99 | (97-100) | | | | | | |

11.2 Pancreas graft and patient survival

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

Figure 11.6 shows long-term graft survival in recipients receiving their first simultaneous kidney/pancreas (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 has been significant variation in graft survival at one and two years post-transplant over time ($p < 0.03$). Differences in patient survival are significant at one year ($p = 0.03$).

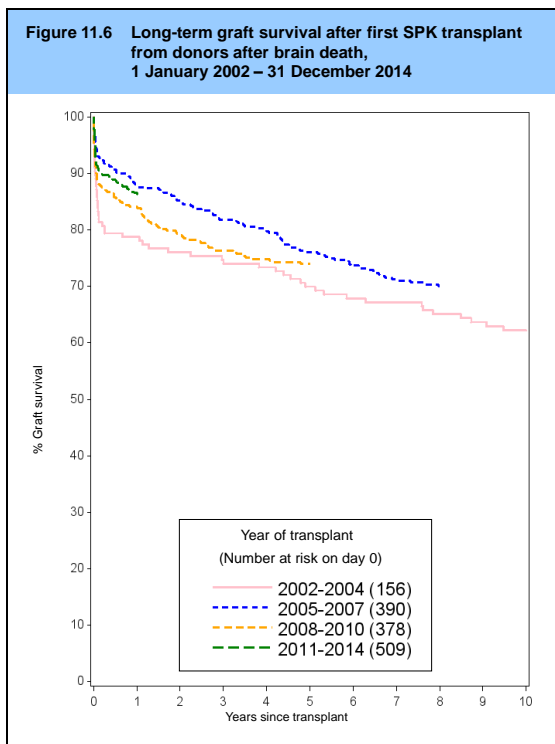


Table 11.11 Graft survival after first SPK transplant from a DBD

| Year of transplant | No. at risk on day 0 | % Graft survival (95% confidence interval) | | | |
|--------------------|----------------------|--|------------|------------|------------|
| | | One year | Two year | Five year | Ten year |
| 2002-2004 | 156 | 79 (71-84) | 76 (69-82) | 70 (62-77) | 62 (54-69) |
| 2005-2007 | 390 | 88 (84-91) | 85 (81-88) | 76 (71-80) | |
| 2008-2010 | 378 | 84 (80-87) | 79 (75-83) | 74 (69-78) | |
| 2011-2014 | 509 | 86 (83-89) | | | |

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 |
| 2002-2004 | 156 | 91 (85-95) | 90 (84-94) | 83 (76-89) | 73 (65-80) |
| 2005-2007 | 393 | 95 (93-97) | 94 (91-96) | 90 (86-92) | |
| 2008-2010 | 379 | 97 (95-98) | 95 (92-96) | 89 (85-92) | |
| 2011-2014 | 511 | 96 (94-97) | | | |

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

The majority of simultaneous kidney/pancreas (SPK) transplants from a DCD have been performed since 1 January 2007, so there are insufficient data available to analyse long-term survival. **Figure 11.7** shows pancreas graft survival in recipients receiving their first SPK transplant performed from donors after circulatory death, 2008 – 2010 and 2011-2014. Graft and patient survival estimates and confidence intervals are shown at one, two and three years in **Table 11.13** and **Table 11.14** respectively. Results are for adult patients only.

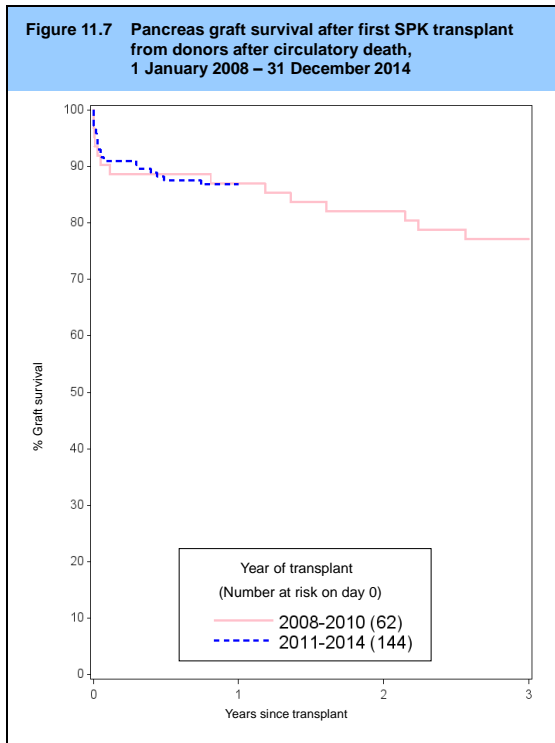


Table 11.13 Graft survival after first SPK transplant from a DCD

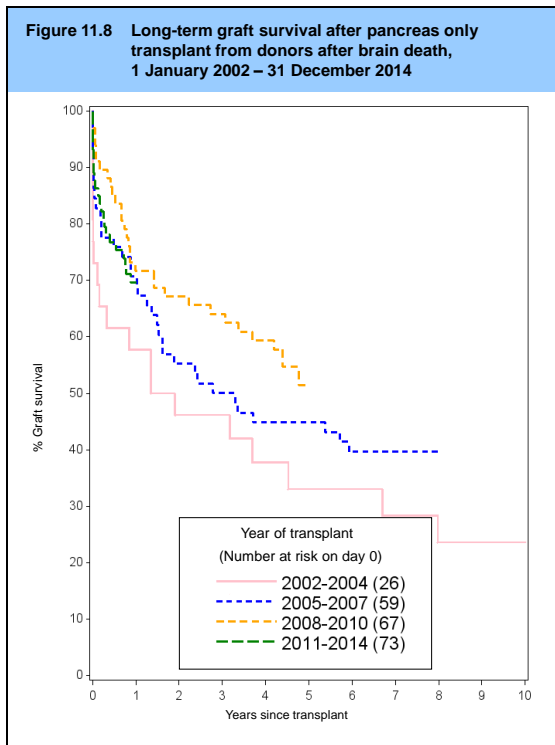
| Year of transplant | No. at risk on day 0 | % Graft survival (95% confidence interval) | | | |
|--------------------|----------------------|--|------------|------------|--|
| | | One year | Two year | Three year | |
| 2008-2010 | 62 | 87 (76-93) | 82 (70-90) | 77 (64-86) | |
| 2011-2014 | 144 | 87 (80-91) | | | |

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 | Three year |
| 2008-2010 | 63 | 97 (88-99) | 91 (81-96) | 91 (81-96) |
| 2011-2014 | 144 | 99 (95-100) | | |

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 differences in graft or patient survival over time ($p>0.09$ and $p>0.2$).



| 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 | |
| 2002-2004 | 26 | 58 | (37-74) | 46 | (27-64) | 33 | (16-51) | 24 | (9-42) |
| 2005-2007 | 59 | 71 | (57-81) | 55 | (42-67) | 45 | (32-57) | | |
| 2008-2010 | 67 | 72 | (59-81) | 67 | (54-77) | 51 | (39-63) | | |
| 2011-2014 | 73 | 70 | (58-79) | | | | | | |

| 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 | |
| 2002-2004 | 26 | 100 | (-) | 100 | (-) | 78 | (51-91) | 43 | (20-64) |
| 2005-2007 | 61 | 97 | (87-99) | 95 | (84-98) | 93 | (81-97) | | |
| 2008-2010 | 68 | 94 | (84-98) | 90 | (80-96) | 83 | (70-90) | | |
| 2011-2014 | 73 | 98 | (89-100) | | | | | | |

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 brain death, 2008-2010 and 2011-2014. Graft and patient survival estimates and confidence intervals are shown at one, two and three years in **Table 11.17** and **Table 11.18** respectively. Results are for adult patients only.

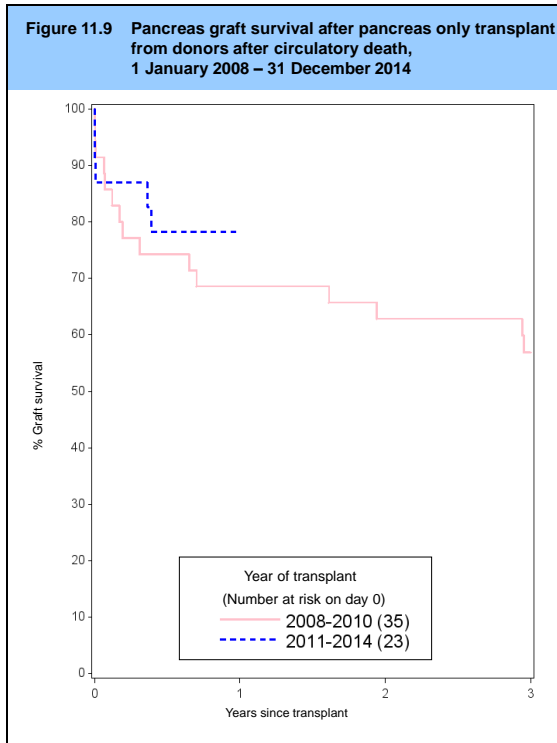


Table 11.17 Graft survival after first pancreas only transplant from a DCD

| Year of transplant | No. at risk on day 0 | % Graft survival (95% confidence interval) | | | |
|--------------------|----------------------|--|------------|------------|--|
| | | One year | Two year | Three year | |
| 2008-2010 | 35 | 69 (50-81) | 63 (45-76) | 57 (39-71) | |
| 2011-2014 | 23 | 78 (55-90) | | | |

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 | Three year | |
| 2008-2010 | 35 | 97 (81-100) | 97 (81-100) | 94 (78-98) | |
| 2011-2014 | 23 | 95 (72-99) | | | |

11.3 Cardiothoracic patient survival

11.3.1 Adult heart recipients

Long-term patient survival for adult (≥ 16 years) recipients after first heart only transplants is shown in **Figure 11.10**. Domino and deceased donor (DBD only) transplants are included as well as urgent patients. **Table 11.19** 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 over time ($p > 0.2$).

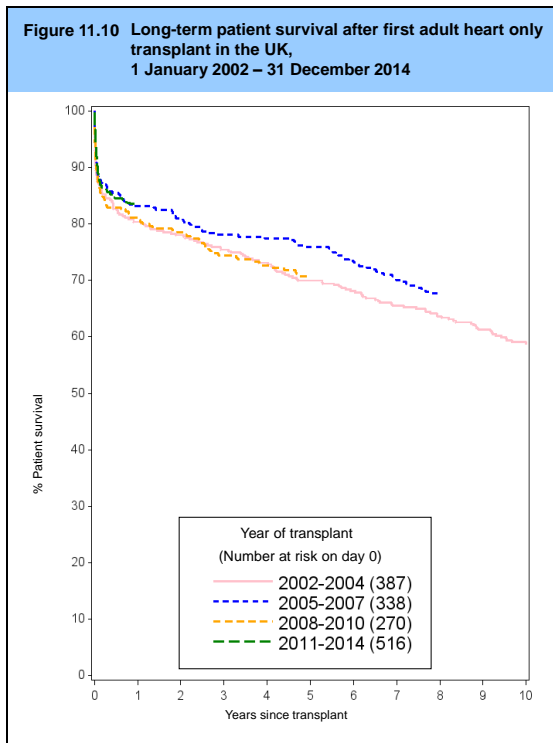


Table 11.19 Patient survival after first adult heart only transplant

| Year of transplant | No. at risk on day 0 | % Patient survival (95% confidence interval) | | | | | | | |
|--------------------|----------------------|--|---------|----------|---------|-----------|---------|----------|---------|
| | | One year | | Two year | | Five year | | Ten year | |
| 2002-2004 | 387 | 80 | (76-84) | 78 | (74-82) | 70 | (65-74) | 59 | (54-64) |
| 2005-2007 | 338 | 83 | (79-87) | 81 | (76-85) | 76 | (71-80) | | |
| 2008-2010 | 270 | 81 | (76-85) | 79 | (73-83) | 71 | (65-76) | | |
| 2011-2014 | 516 | 84 | (80-86) | | | | | | |

11.3.2 Adult heart/lung block recipients

Patient survival for adult recipients after first heart/lung block transplants is shown in **Figure 11.11**. Patient survival estimates and confidence intervals for each time period analysed are shown in **Table 11.20**. There were no statistically significant differences in patient survival over time ($p>0.3$).

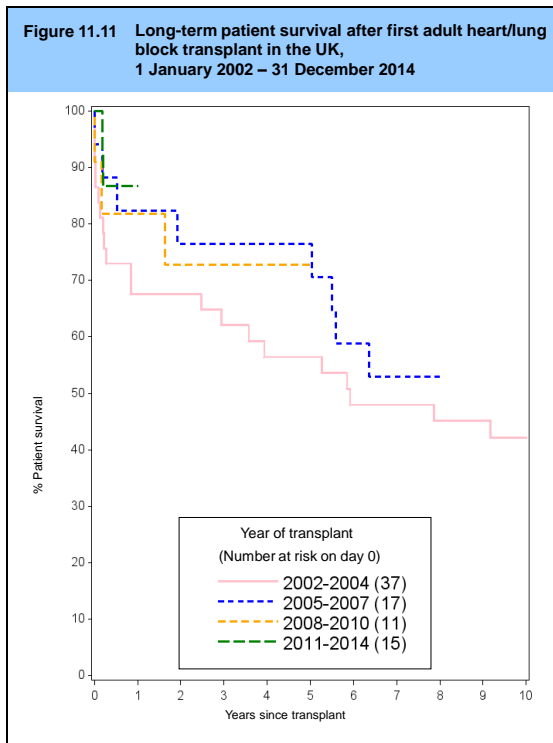


Table 11.20 Patient survival after first adult heart/lung block transplant

| Year of transplant | No. at risk on day 0 | % Patient survival (95% confidence interval) | | | |
|--------------------|----------------------|--|------------|------------|------------|
| | | One year | Two year | Five year | Ten year |
| 2002-2004 | 37 | 68 (50-80) | 68 (50-80) | 56 (39-71) | 42 (26-57) |
| 2005-2007 | 17 | 82 (55-94) | 76 (49-90) | 76 (49-90) | - |
| 2008-2010 | 11 | 82 (45-95) | 73 (37-90) | 73 (37-90) | - |
| 2011-2014 | 15 | 87 (56-96) | - | - | - |

11.3.3 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 11.12**, with survival estimates and confidence intervals shown in **Table 11.21**. There were no statistically significant differences in patient survival over time ($p>0.07$).

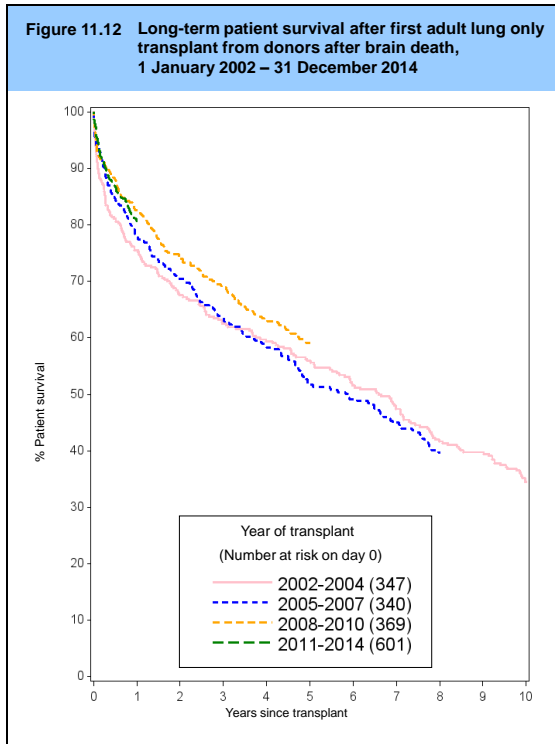


Table 11.21 Patient survival after first adult lung only transplant from a DBD

| Year of transplant | No. at risk on day 0 | % Patient survival (95% confidence interval) | | | | | |
|--------------------|----------------------|--|------------|------------|------------|--|--|
| | | One year | Two year | Five year | Ten year | | |
| 2002-2004 | 347 | 76 (71-80) | 68 (62-72) | 56 (50-61) | 34 (29-40) | | |
| 2005-2007 | 340 | 78 (73-82) | 70 (65-75) | 52 (46-57) | 34 (29-40) | | |
| 2008-2010 | 369 | 83 (78-86) | 74 (69-78) | 59 (54-64) | 34 (29-40) | | |
| 2011-2014 | 601 | 81 (77-84) | 74 (69-78) | 59 (54-64) | 34 (29-40) | | |

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

The majority of lung transplants from a DCD have been performed since 1 January 2007, so there are insufficient data available to analyse long-term patient survival. Patient survival for adult recipients after first lung only transplant from donors after circulatory death is shown in **Figure 11.13**, with survival estimates and confidence intervals shown in **Table 11.22**.

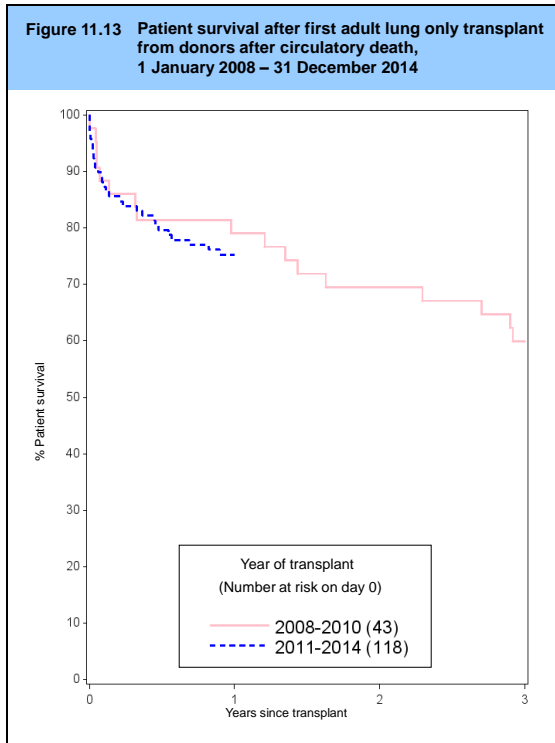


Table 11.22 Patient survival after first adult lung only transplant from a DCD

| Year of transplant | No. at risk on day 0 | % Patient survival (95% confidence interval) | | | |
|--------------------|----------------------|--|------------|------------|--|
| | | One year | Two year | Three year | |
| 2008-2010 | 43 | 79 (64-89) | 69 (53-81) | 60 (44-73) | |
| 2011-2014 | 118 | 75 (66-82) | | | |

11.3.5 Paediatric heart recipients

Long-term patient survival for paediatric recipients after first heart only transplant is shown in **Figure 11.14**. Domino and deceased donor transplants (DBD donors only) are included as well as transplants for urgent patients. **Table 11.23** shows the patient survival estimates and confidence intervals for one, two, five and ten years post-transplant. There is no evidence of an improvement in one, two or five year survival over the time period analysed, $p>0.3$. The number of paediatric lung and heart/lung transplant recipients was too small for analysis.

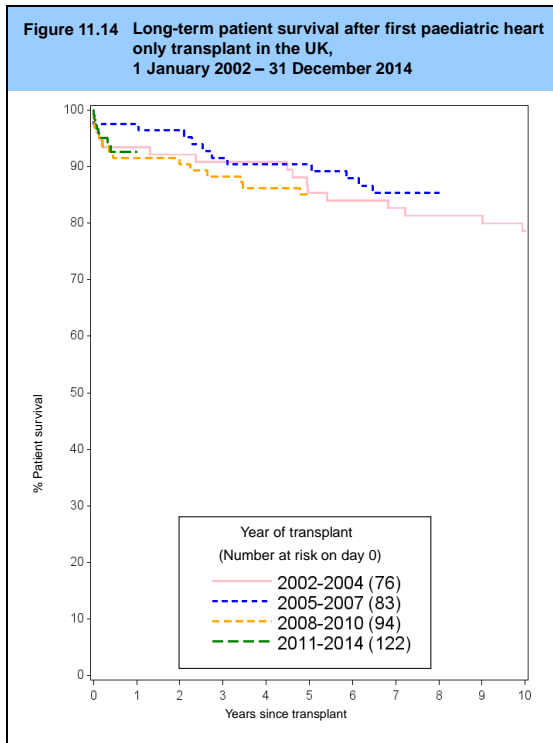


Table 11.23 Patient survival after first paediatric heart only transplant

| Year of transplant | No. at risk on day 0 | % Patient survival (95% confidence interval) | | | | |
|--------------------|----------------------|--|------------|------------|------------|--|
| | | One year | Two year | Five year | Ten year | |
| 2002-2004 | 76 | 93 (85-97) | 92 (83-96) | 85 (75-92) | 79 (67-86) | |
| 2005-2007 | 83 | 98 (91-99) | 96 (89-99) | 90 (82-95) | | |
| 2008-2010 | 94 | 91 (84-96) | 90 (82-95) | 85 (76-91) | | |
| 2011-2014 | 122 | 93 (86-96) | | | | |

11.4 Liver patient survival

11.4.1 Adult recipients - donor after brain death (DBD)

Long-term patient survival for adult (≥ 17 years) recipients after first elective liver only transplants from donors after brain death is shown in **Figure 11.15**. **Table 11.24** shows patient survival estimates at one, two, five and ten years post-transplant. There have been significant improvements in one, two and five year patient survival over the time periods analysed, $p < 0.002$ in each case.

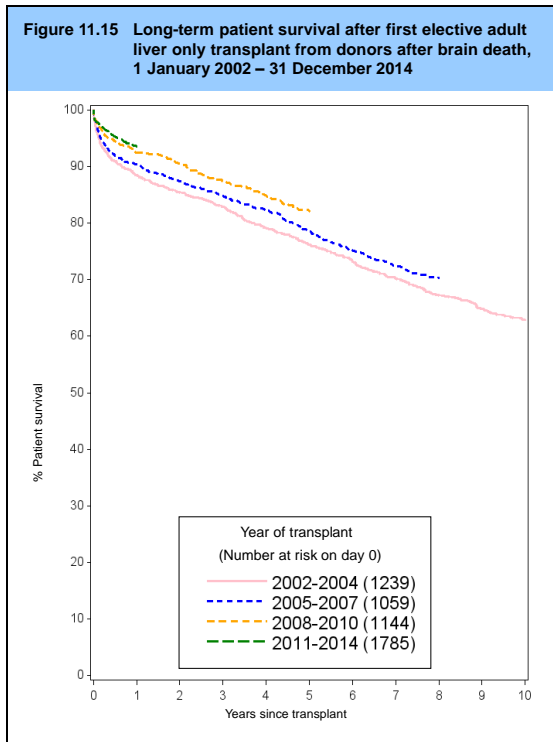


Table 11.24 Patient survival after first elective adult liver only transplant from a DBD

| Year of transplant | No. at risk on day 0 | % Patient survival (95% confidence interval) | | | | |
|--------------------|----------------------|--|------------|------------|------------|--|
| | | One year | Two year | Five year | Ten year | |
| 2002-2004 | 1239 | 89 (87-90) | 85 (83-87) | 76 (74-78) | 63 (60-66) | |
| 2005-2007 | 1059 | 90 (89-92) | 87 (85-89) | 79 (76-81) | | |
| 2008-2010 | 1144 | 93 (91-94) | 91 (89-92) | 82 (80-84) | | |
| 2011-2014 | 1785 | 94 (92-95) | | | | |

11.4.2 Adult recipients - donor after circulatory death (DCD)

Patient survival for adult (≥ 17 years) recipients after first elective liver only transplants from donors after circulatory death is shown in **Figure 11.16**. Between 1 January 2002 and 31 December 2004 there were only 15 of these liver transplants with follow up information, so it is not possible to estimate long term patient survival. **Table 11.25** shows patient survival estimates at one, two and five years post-transplant.

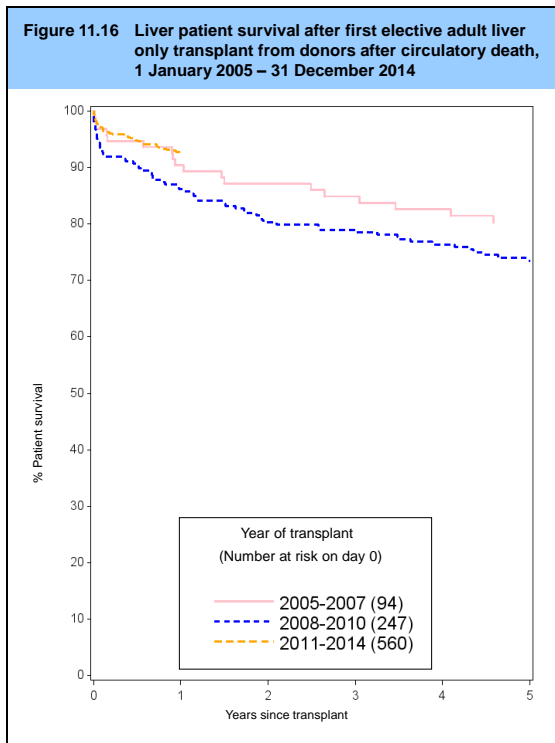


Table 11.25 Patient survival after first elective adult liver only transplant from a DCD

| Year of transplant | No. at risk on day 0 | % Patient survival (95% confidence interval) | | | |
|--------------------|----------------------|--|------------|------------|--|
| | | One year | Two year | Five year | |
| 2005-2007 | 94 | 90 (82-95) | 87 (78-92) | 80 (71-87) | |
| 2008-2010 | 247 | 86 (81-90) | 80 (75-85) | 73 (67-79) | |
| 2011-2014 | 560 | 93 (90-95) | | | |

11.4.3 Paediatric recipients - donor after brain death (DBD)

Figure 11.17 and **Table 11.26** 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 improvements in one, two or five year patient survival over the time period analysed ($p>0.8$). The number of paediatric transplants from donors after circulatory death was too small to estimate meaningful patient survival.

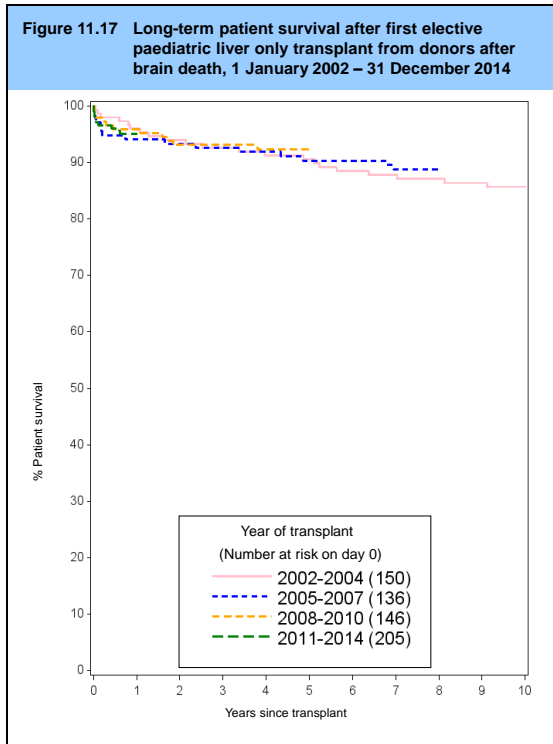


Table 11.26 Patient survival after first elective paediatric liver only transplant from a DBD

| Year of transplant | No. at risk on day 0 | % Patient survival (95% confidence interval) | | | | |
|--------------------|----------------------|--|------------|------------|------------|--|
| | | One year | Two year | Five year | Ten year | |
| 2002-2004 | 150 | 96 (91-98) | 94 (89-97) | 91 (85-94) | 86 (79-90) | |
| 2005-2007 | 136 | 94 (89-97) | 93 (88-96) | 90 (84-94) | 86 (79-90) | |
| 2008-2010 | 146 | 96 (91-98) | 93 (88-96) | 92 (87-96) | 86 (79-90) | |
| 2011-2014 | 205 | 95 (91-97) | 93 (88-96) | 92 (87-96) | 86 (79-90) | |

11.5 Intestinal patient survival

The majority of intestinal transplants have been performed since 1 January 2006, so there are insufficient data available to analyse long-term patient survival. **Figure 11.18** and **Table 11.27** show one-year patient survival estimates for recipients receiving their first intestinal transplant, 2007-2010 and 2011-2014, by recipient age group (adults aged ≥ 18 years).

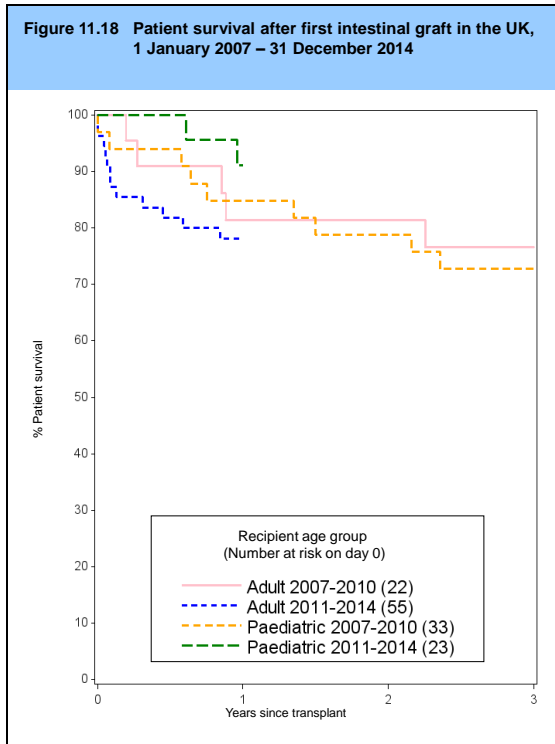


Table 11.27 Patient survival after first intestinal transplant in the UK, 1 January 2007 - 31 December 2014

| Recipient age group | No. at risk on day 0 | % Patient survival (95% confidence interval) One year | |
|---------------------|----------------------|---|---------|
| Adult | | | |
| 2007-2010 | 22 | 81 | (58-93) |
| 2011-2014 | 55 | 78 | (65-87) |
| Paediatric | | | |
| 2007-2010 | 33 | 85 | (67-93) |
| 2011-2014 | 23 | 91 | (69-98) |

11.6 Cornea graft survival

Figure 11.19 shows graft survival estimates for first penetrating keratoplasty (PK) for grafts 2005 – 2007, 2008 – 2010 and 2011 - 2014. Graft survival estimates and confidence intervals are shown by transplant year at one, two and five years in **Table 11.28**.

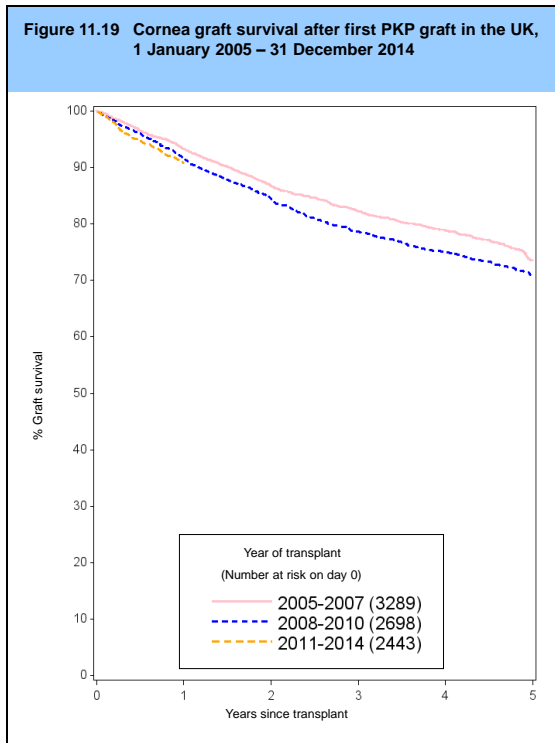


Table 11.28 Cornea graft survival after first PK in the UK

| Year of transplant | No. at risk on day 0 | % Graft survival (95% confidence interval) | | | | | |
|--------------------|----------------------|--|---------|----------|---------|-----------|---------|
| | | One year | | Two year | | Five year | |
| 2005-2007 | 3289 | 93 | (92-94) | 87 | (86-88) | 74 | (72-75) |
| 2008-2010 | 2698 | 92 | (90-93) | 85 | (83-86) | 71 | (69-73) |
| 2011-2014 | 2443 | 91 | (90-92) | | | | |