

LONG-TERM PATIENT SURVIVAL FOR HEART TRANSPLANT RECIPIENTS IN THE UK

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Background: The National Heart Transplantation Programme in the UK was established in 1979 and since then nearly 5000 heart transplants have been performed. The aim of this study was to investigate the long-term patient survival of these heart transplant recipients.

Methods: Data on cadaveric and domino heart only transplants performed in the nine designated cardiothoracic centres in the UK from 1 January 1985 to 31 December 2002 were obtained from the National Transplant Database. Multi-organ transplants, urgent transplants and regrafts were excluded from the analyses. Long-term patient survival estimates were obtained using the Kaplan-Meier method. Patient survival time was calculated as time from first graft to patient death with censoring at last follow-up for patients still alive at time of analysis.

Results: Between 1985 and 2002, 4264 cadaveric and domino first heart only transplants were analysed: 3853 (90%) in adult and 411 (10%) in paediatric recipients. Patient survival estimates and corresponding 95% confidence intervals (CI) were 67% (CI 66-68%) at 5 years, 52% (CI 50-54%) at 10 years and 35% (CI 32-38%) at 15 years post-transplant. The median patient survival time was 10.6 years (95% CI 10.1-11.1 years). There was some evidence to suggest better long-term patient survival for paediatric recipients compared with adult recipients: 46% and 34%, respectively, of patients surviving at least 15 years, $p=0.12$.

Analysing these data by year of transplant (in three-year groups from 1985 to 2002) showed that patient survival was significantly different between the groups, $p<0.0001$, with recipients of more recent transplants doing better. This was mainly due to a significant improvement in patient survival in the first three months post-transplant over the years analysed. Three month patient survival was 79% (95% CI 75-82%) for recipients of transplants in 1985 to 1987 compared with 86% (95% CI 83-89%) for recipients of transplants in 2000 to 2002, $p<0.0001$. Analysis of long-term patient survival of those recipients still alive three months post-transplant showed no statistically significant effect of transplant year.

Conclusions: Since 1985, long-term patient survival of heart only transplant recipients has improved in the UK, with 50% of patients surviving at least 10.6 years. This improvement in patient survival has been mainly in the first three months post-transplant.