

THE IMPACT OF PRIMARY DISEASE ON TWO YEAR GRAFT SURVIVAL OF CORNEAL TRANSPLANTS

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Background: UK Ocular Tissue Transplant Audit data collection forms were introduced in April 1999. This study summarised indications for graft and investigated graft survival, using data collected on the Audit forms. Completed forms are collected by UK Transplant and currently consist of a Transplant Record Form and an Annual Follow-up Form issued at one and two years post-transplant. In addition, the new Five Year Follow-up Form will be issued from April 2004. The data requested on these forms are more detailed than data collected for transplants undertaken prior to April 1999.

Methods: Unadjusted survival rates were obtained from Kaplan-Meier estimates. Two-year graft survival was analysed for first Penetrating Keratoplasty (PKP) grafts undertaken between 1 April 1999 and 31 August 2001. There were 3100 first PKP grafts in this time period, of which 2418 (78%) had a complete record of survival at two-year follow-up. The only patients considered were those receiving a first PKP graft (90.5% of all first grafts in the time period analysed) and the graft indications considered were Keratoconus, Fuchs' Dystrophy, Pseudophakic Corneal Oedema, Aphakic Corneal Oedema, Viral Infection and Bacterial Infection. All other graft indications were grouped together to provide an additional category.

Results: The main indications reported for the 3100 first PKP grafts undertaken between 1 April 1999 and 31 August 2001 were Keratoconus (26%), Fuchs' Dystrophy (20%) and Pseudophakic Corneal Oedema (20%). Two-year graft survival estimates for first PKP grafts ranged from 96% (95% CI 94-97%) for recipients with Keratoconus to 64% (95% CI 53-75%) for those who required a graft following a bacterial infection. There was significant variation in survival according to indication ($p < 0.0001$).

Conclusions: There are now sufficient data collected at time of transplant and at follow-up to enable meaningful analysis of the Audit data. The quality and completeness of the data are of a high standard. Preliminary investigation of first PKP grafts shows significant differences in two-year graft survival according to indication for graft.