

NHS BLOOD AND TRANSPLANT

OCULAR TISSUE ADVISORY GROUP

CONFERENCE PRESENTATIONS, CURRENT AND FUTURE WORK

INTRODUCTION

- 1 This report summarises current and future work being undertaken by NHS Blood and Transplant, as well as providing details of conference presentations given and abstracts submitted.

CONFERENCE PRESENTATIONS

- 2 A poster presentation on the stability of visual outcome after corneal transplantation was given at the Association for Research in Vision and Ophthalmology (ARVO) Annual Meeting in May 2016. This work has been undertaken in collaboration with colleagues from the Bristol Eye Hospital and work is now underway to prepare a paper for publication.
- 3 Two further presentations were given at ARVO, by colleagues from the Royal Liverpool University Hospital and the Bristol Eye Bank, for work that is being undertaken in collaboration with NHSBT looking at the influence of gender incompatibility on corneal transplant outcomes (Liverpool oral presentation) and also whether HLA class I matching influences PK outcomes (Bristol poster presentation). The results of the gender incompatibility analysis have now also been accepted for publication in the American Journal of Transplantation.
- 4 An update of graft outcomes following endothelial keratoplasty was presented at the Bowman Club meeting in March 2016.

PUBLICATIONS

- 5 Papers in preparation and those submitted or accepted for publication are listed below. Publications since 2006 are listed in the appendix.

Papers in preparation

OTAG10

Armitage WJ, Jones MNA, Zambrano I, Kaye SB, Tole DM.

Factors predicting primary graft failure in corneal transplantation.

Papers submitted/accepted for publication

OTAG20

Hopkinson CL, Romano V, Kaye R, Steger B, Stewart R, Tsagkatakaki M, Jones MNA, Larkin DFP, Kaye SB. The influence of donor and recipient gender incompatibility on corneal graft rejection and failure [Accepted by *American Journal of Transplantation*]

OTAG21

Steger B, Curnow E, Kaye A, Romano V, Cheeseman R, Jones MNA, Kaye SB. Bilateral corneal transplants increase graft survival in the first eye [Submitted to *Ophthalmology* currently answering reviewers' comments].

OTAG22

SJ Robbie, MNA Jones, DFP Larkin

The influence of socio-economic deprivation on visual acuity in patients undergoing corneal transplantation [Rejected by *British Journal of Ophthalmology*]

CURRENT AND FUTURE WORK

- 6 Further work has been undertaken in collaboration with the SN-OD teams to look at eye procurement from solid organ donors (EPSOD). This is an ongoing project and the results for 2015/16 are reported as a separate agenda item.
- 7 Work is also underway looking at the incidence of graft failure or rejection in the presence of pre-operative corneal neovascularisation. This project is being undertaken in collaboration with colleagues from Moorfields Eye Hospital and the Royal Liverpool University Hospital.
- 8 Work is due to commence shortly on two further projects. The first is a project in collaboration with colleagues from the Royal Liverpool University Hospital looking at the impact of donor factors on the failure or rejection of corneal grafts following penetrating keratoplasty. The second project, in collaboration with Bristol Eye Hospital, will characterise the rate of graft dislocation and primary graft failure following endothelial keratoplasty.
- 9 There are also two other projects, suggested by colleagues in the Royal Liverpool University Hospital and Moorfields Eye Hospital that have been approved by the OTAG audit and analysis sub group. These are currently either awaiting resource or sufficient data for analysis:
 - Determine whether a larger graft size results in improved graft survival following endothelial keratoplasty (Liverpool)
 - Trends in incidence of rejection and impact on corneal transplant survival (Moorfields)

Dave Collett and Mark Jones
Statistics and Clinical Studies

January 2016

APPENDIX

AUDIT AND RESEARCH PUBLICATION LIST

Publications since 2006

OTAG1

Jaycock PD, Jones MNA, Males J, Armitage WJ, Cook SD, Tole DM, Kaye SB. Outcomes of same-sizing versus oversizing donor trephines in keratoconic patients undergoing first penetrating keratoplasty. *Ophthalmology* 2008; 115(2): 268-275.

OTAG2

Nguyen DQ, Mumford LL, Jones MNA, Armitage WJ, Cook SD, Kaye SB, Tole DM. The visual and refractive outcomes of combined penetrating keratoplasty, cataract extraction and intraocular lens insertion. *Eye* 2009; 23(6): 1295-301.

OTAG3

Ross AH, Jones MNA, Nguyen DQ, Jaycock PD, Armitage WJ, Cook SD, Kaye SB, Tole DM. Long-term topical steroid treatment following penetrating keratoplasty in patients with pseudophakic bullous keratoplasty. *Ophthalmology* 2009; 116(12): 2369-72.

OTAG5

Jones MNA, Armitage WJ, Ayliffe W, DF Larkin, Kaye SB. Penetrating and Deep Anterior Lamellar Keratoplasty for keratoconus: a comparison of graft outcomes in the UK. *Investigative Ophthalmology and Visual Science* 2009; 50(12): 5625 - 5629.

Cazabon S, Quah SA, Jones MNA, Batterbury M, Kaye SB. Sequential versus combined penetrating keratoplasty and cataract surgery. *Optometry and Vision Science* 2010; 87(7): 482-486.

Kaye S, Baddon A, Jones M, Armitage WJ, Fehily D, Warwick RM. A UK scheme for reporting serious adverse events and reactions associated with ocular tissue transplantation. *Journal of Cell and Tissue Banking* 2010; 11(1): 39-46.

OTAG6

Goodfellow JFB, Nabili SN, Jones MNA, Nguyen DQ, Armitage WJ, Cook SD, Tole DM. Antiviral Prophylaxis following corneal transplantation for herpetic keratitis. *Eye* 2011; 25(4): 470-4.

OTAG7

Larkin DFP, Mumford LL, Jones MNA. Centre-specific variation in corneal transplant outcomes in the United Kingdom. *Transplantation* 2011; 91(3): 354-359.

OTAG8

Keenan TDL, Carley F, Yeates D, Jones MNA, Rushton S, Goldacre MJ. Trends in corneal graft surgery in the United Kingdom. *British Journal of Ophthalmology* 2011; 95(4): 468-72.

OTAG9

Stewart RMK, Jones MNA, Batterbury M, Tole DM, Larkin DFP, Kaye SB. Effect of glaucoma on graft survival according to indication for penetrating keratoplasty. *American Journal of Ophthalmology* 2011; 151(2): 257-62.

Kaye SB, Baddon A, Jones MNA, Armitage WJ, Fehily D, Warwick RM. A UK scheme for reporting serious adverse events and reactions associated with ocular tissue transplantation. *Cell and Tissue Banking* 2010; 11(1): 39-46.

Gaum L, Reynolds I, Jones MNA, Clarkson A, Gillan H and Kaye S. Tissue and corneal donation and transplantation in the UK. *British Journal of Anaesthesia* 2012; 108 suppl 1: i43-i47.

OTAG8

Keenan TDL, Jones MNA, Rushton S, Carley F. Trends in indications for corneal graft surgery in the United Kingdom. *Archives of Ophthalmology* 2012; 130(5): 621-628

OTAG11

Stylianides A, Jones MNA, Stewart RMK, Murphy CC, Goodson NJ, Kaye SB. Mortality and Graft Survival of Patients Receiving Penetrating Keratoplasty for Rheumatoid Arthritis associated Corneal Ulceration. *Ophthalmology* 2013; 120(4): 682-686

OTAG14

Chua P, Azuara-Blanco A, Hulme W, Jones MNA, Kaye SB. The effect of socioeconomic deprivation on corneal graft survival in the UK. *Ophthalmology* 2013; 120(12): 2436-2441

OTAG12

Armitage WJ, Jones MNA, Zambrano I, Carley F, Tole DM. Influence of donor and recipient factors on five-year graft survival of corneas stored by organ culture used in penetrating keratoplasty. *Investigative Ophthalmology and Visual Science* 2014; 55(2): 784-791.

OTAG15

Kasbekar S, Jones MNA, Ahmad S, Kaye SB. Corneal Transplant Surgery for Keratoconus and the Effect of Surgeon Experience on Deep Anterior Lamellar Keratoplasty Outcomes. *American Journal of Ophthalmology* 2014; 158(6): 1239-1246

OTAG16

Greenrod E, Jones MNA, Kaye DB, Larkin DFP. Center and Surgeon Effect on Outcomes of Endothelial Keratoplasty versus Penetrating Keratoplasty in the United Kingdom. *American Journal of Ophthalmology* 2014; 158(5): 957-966

OTAG18

Chen JY, Jones MNA, Srinivasan S, Neal TJ, Armitage WJ, Kaye SB. Endophthalmitis after penetrating keratoplasty. *Ophthalmology* 2015; 122(1) 25-30

OTAG17

GS Figueiredo, MNA Jones, Y Krishna, FC Figueiredo, DFP Larkin, SB Kaye
Transplant rejection following endothelial keratoplasty and penetrating keratoplasty in the United Kingdom: incidence and survival. *American Journal of Ophthalmology* 2015; Jun 23 [Epub ahead of print]

OTAG19

Wakefield MJ, Armitage WJ, Jones MNA, Kaye SB, Larkin DFP, Tole D, Prydal J. The impact of donor age and endothelial cell density on graft survival following penetrating keratoplasty. *British Journal of Ophthalmology* 2015 [Epub ahead of print].