



AUSTRALIAN CORNEAL GRAFT REGISTRY

2026 Report to Contributors

Dr Miriam C Keane PhD

The ACGR is funded by the Commonwealth Government of Australia via the Organ and Tissue Authority (DonateLife)

New ACGR registration and follow-up forms

Registry No. <small>Registry use only</small>	THE AUSTRALIAN CORNEAL GRAFT REGISTRY REGISTRATION FORM	Date Rec'd <small>Registry use only</small>
OPERATING SURGEON (surname and initial): _____ CONSULTANT (if different): _____		STATE: _____

RECIPIENT IDENTIFICATION

Patient's name: SURNAME _____ FIRST NAME _____

Patient's record number (if applicable): _____ Please select applicable boxes

Patient's date of birth: / / Patient's sex: Male Female

Patient's ethnicity/ancestry (optional): _____

Date of graft: / / Eye grafted: R L

CONFIRMATION OF CONSENT (please tick) I have gained consent from the corneal graft recipient to:
 Forward their data to the Australian Corneal Graft Registry (ACGR)
 Allow the ACGR to perform confidential linkage with the National Death Index to determine if recipients have died

AT WHICH ADDRESS SHOULD THE ACGR SEEK FOLLOW-UP?: _____

RECIPIENT HISTORY

Past history/original pathology/underlying diseases (in words):	<small>Office use only</small>
Current indications for graft/current pathology (in words):	

If this is a repeat graft, what was the reason for, and date of, failure of the previous graft (tick/specify):

Primary non-function Detachment Rejection Endothelial failure Date of failure: / /
 Other: / /

Immediately prior to the graft, the eye to be grafted was (please circle): Phakic Aphakic Pseudophakic

Number of PREVIOUS grafts (EXCLUDING THIS GRAFT) in the eye grafted today (PLEASE CHECK EYE IS INDICATED ABOVE):
 PK: EK: DALK: CAIRS: Limbal: Other: TOTAL:
(Total number of previous grafts in eye grafted today)

Number of grafts in contralateral eye (if known):

Pre-graft best corrected visual acuity, without pinhole (please advise acuity in both eyes): R: _____ L: _____

Does the patient have any of the following:

	Yes	No	Unknown
History of collagen cross-linking on grafted eye			
Current inflammation of eye/use of topical steroids in past 2 weeks			
Active HSV infection at time of graft			
History of raised intraocular pressure/glaucoma			
Raised intraocular pressure at time of graft			
History of glaucoma surgery in grafted eye			
History of any intraocular surgery in grafted eye (including previous grafts)			

Presence of vessels in the recipient cornea: Please select applicable boxes

4 Quadrant	3 Quadrant	2 Quadrant	1 Quadrant	None
Pain Relief	Improved Visual Acuity	Tectonic/ Structural Repair	Cosmesis	

Desired outcomes (please select as many as apply):

► Registration

- New CAIRS data collected
- Updates to EK techniques
- Accompanying procedures
- IOL type options provided
- Recipient's ethnicity (optional)

OPERATIVE DETAILS: Please tick relevant graft type and complete all applicable details

Penetrating Converted from lamellar Planned type: _____
 Donor button size: _____ mm Host bed size: _____ mm

DALK Big Bubble Manual Please specify: _____
 Donor button size: _____ mm Host bed size: _____ mm

Endothelial Keratoplasty DSEK DSAEK DMEK UT-DSAEK Thickness: _____
 Donor button size: _____ mm Incision size: _____ mm Suture's to wound: No Yes

Technique (please select and specify as many as apply)
 Forceps IOL injector Suture pull through Folded AC maintainer

Glide Type: _____ Glass tube Type: _____
 Viscoelastic Tamponade: Air SF6 Other Type: _____
 Other (please specify): _____

Patch graft (please circle): Corneal Scleral Both Thickness: Full Partial
 Donor button size: _____ mm Host bed size: _____ mm Details: _____

Limbal (sclerostem-ecthoconjunctival) Details: _____

CAIRS Channel depth: _____ um Segments: 1 2 Pre-op uncorrected VA: _____
 Donor preparation: Laser Manual Host preparation: Laser Manual Donor: Fresh Frozen

TIME OF DAY GRAFT PERFORMED: _____ : _____ AM PM

ACCOMPANYING PROCEDURES (please tick as many as apply)

Cataract removal Pseudophakic IOL inserted Phakic IOL/IOL inserted Type: _____
 Pseudophakic IOL exchanged SLT Peripheral iridectomy Vitrectomy

Glaucoma tube: Repositioned Trimmed Other (please specify): _____

Immediately following the graft, the grafted eye was (please circle): Phakic Aphakic Pseudophakic

If pseudophakic: IOL type: AC Sulcus Capsular Sutured Mono Tri EDOF Model: _____

FURTHER COMMENTS: _____

EYE BANK AND DONOR INFORMATION

Collection Eye Bank State: _____ Eye Bank number: _____ Interim Eye Bank number (if applicable): _____
 Donor age (in years): _____ Donor sex: Male Female Multiple organ donor: No Yes Other tissue/bone donor

Cause of donor death: _____ OFFICE USE ONLY

TIMES AND DATES (please fill in as many as are known using a 24 hour clock)

Donor death:	Time	:	Date	/ /	Optisol	<input type="checkbox"/>
Enucleation of eye:	Time	:	Date	/ /	Organ culture	<input type="checkbox"/>
Storage of cornea:	Time	:	Date	/ /	Moist pot	<input type="checkbox"/>
De-swelling commenced:	Time	:	Date	/ /	Frozen	<input type="checkbox"/>

Endothelial cell count (per mm²): _____ Pre-cut: Pre-loaded:

Version December 2025

New ACGR registration and follow-up forms

Registry No. <small>Registry use only</small>	THE AUSTRALIAN CORNEAL GRAFT REGISTRY CAIRS FOLLOW-UP FORM	Date Rec'd <small>Registry use only</small>
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OPERATING SURGEON: _____ STATE: _____

PATIENT IDENTIFICATION

Patient name: _____ UR Number: _____
 Date of birth: _____ Eye: _____
 Date of graft: _____ Follow-up previously provided up to: _____

GRAFT STATUS

DATE PATIENT LAST SEEN BY YOU

GRAFT SURVIVING ON THIS DATE Yes No (please circle) If no, REGRAFTED?

IF NO, DATE GRAFT FAILED

REASONS FOR GRAFT FAILURE:	1. _____	<small>Office use only</small>
	2. _____	

PATIENT STATUS (please tick if applicable and provide any further information known)

DECEASED (if known) DATE OF DEATH (if known)

LOST TO FOLLOW-UP DATE LOST

FOLLOW-UP ELSEWHERE (please advise the name and address of the follow-up doctor below)

POST OPERATIVE EVENTS

HAVE ANY OF THE FOLLOWING OCCURRED SINCE LAST REPORTED FOLLOW-UP (please tick all that apply):

VASCULARIZATION OF CORNEA	<input type="checkbox"/>	MICROBIAL KERATITIS/ABSCESS	<input type="checkbox"/>	OEDEMA	<input type="checkbox"/>
GRAFT EXTRUSION	<input type="checkbox"/>	GRAFT REJECTION	<input type="checkbox"/>	INFILTRATES	<input type="checkbox"/>

OTHER SIGNIFICANT EVENTS

	<small>Office use only</small>

- ▶ Follow-up
- ▶ New CAIRS form
- ▶ DALK and EK separate
- ▶ Combined operative and refractive surgery
- ▶ Most common surgeries as tick boxes

OPERATIVE PROCEDURES ON THE GRAFTED EYE – prior to regrant, if applicable

HAVE ANY OPERATIVE PROCEDURES, INCLUDING REFRACTIVE SURGERY, BEEN PERFORMED ON THE GRAFTED EYE? (please tick as many as apply) Yes No

CATARACT REMOVED	<input type="checkbox"/>	VITRECTOMY	<input type="checkbox"/>	YAG/CAPSULOTOMY	<input type="checkbox"/>
PSEUDOPHAKIC IOL INSERTED	<input type="checkbox"/>	IOL REMOVED	<input type="checkbox"/>	TARDORRHAPHY	<input type="checkbox"/>
PHAKIC/PIGGY-BACK IOL INSERTED	<input type="checkbox"/>	IOL EXCHANGED	<input type="checkbox"/>	SLT	<input type="checkbox"/>
SUTURE ADJUSTMENT	<input type="checkbox"/>	RELAXING INCISION	<input type="checkbox"/>	EXCIMER LASER LASIK	<input type="checkbox"/>
COMPRESSION SUTURES	<input type="checkbox"/>	WEDGE RESECTION	<input type="checkbox"/>	PRK	<input type="checkbox"/>
CXL	<input type="checkbox"/>	KERATOTOMY	<input type="checkbox"/>	PTK	<input type="checkbox"/>

OTHER (please specify): _____

POST GRAFT VISUAL OUTCOME – at date last seen, or date of failure, if applicable

VISUAL CORRECTION IN THE GRAFTED EYE

IS THE PATIENT: Phakic Aphakic Pseudophakic DO THEY HAVE A PHAKIC IOL/ICL: Yes No

Please specify types of IOLs/ICL in situ: _____

TO ACHIEVE BEST CORRECTED VISUAL ACUITY IN THE GRAFTED EYE (please circle):

ARE SPECTACLES WORN? Yes No ARE REMOVABLE CONTACT LENSES WORN? Yes No

BILATERAL SNELLEN ACUITY (please provide BCVA with preferred correction but without pinhole)

GRAFTED EYE HAS NO VISUAL POTENTIAL (tick if applicable) GRAFTED EYE CONTRALATERAL EYE

SNELLEN ACUITY WITH PINHOLE: GRAFTED EYE CONTRALATERAL EYE

FACTORS AFFECTING VISUAL ACUITY IN GRAFTED EYE (please tick all that apply)

ASTIGMATISM: IRREGULAR MAJOR (±SD) Dioptres: _____ K-reading: _____

CATARACT	<input type="checkbox"/>	CME	<input type="checkbox"/>	ANISOMETROPIA	<input type="checkbox"/>	RETINAL DETACHMENT	<input type="checkbox"/>
GLAUCOMA	<input type="checkbox"/>	ARMD	<input type="checkbox"/>	OPACITY/SCAR	<input type="checkbox"/>	DIABETIC RETINOPATHY	<input type="checkbox"/>
AMBLYOPIA	<input type="checkbox"/>	MYOPIA	<input type="checkbox"/>	POSTERIOR CAPSULAR OPACITY	<input type="checkbox"/>	EPIRETINAL MEMBRANE	<input type="checkbox"/>

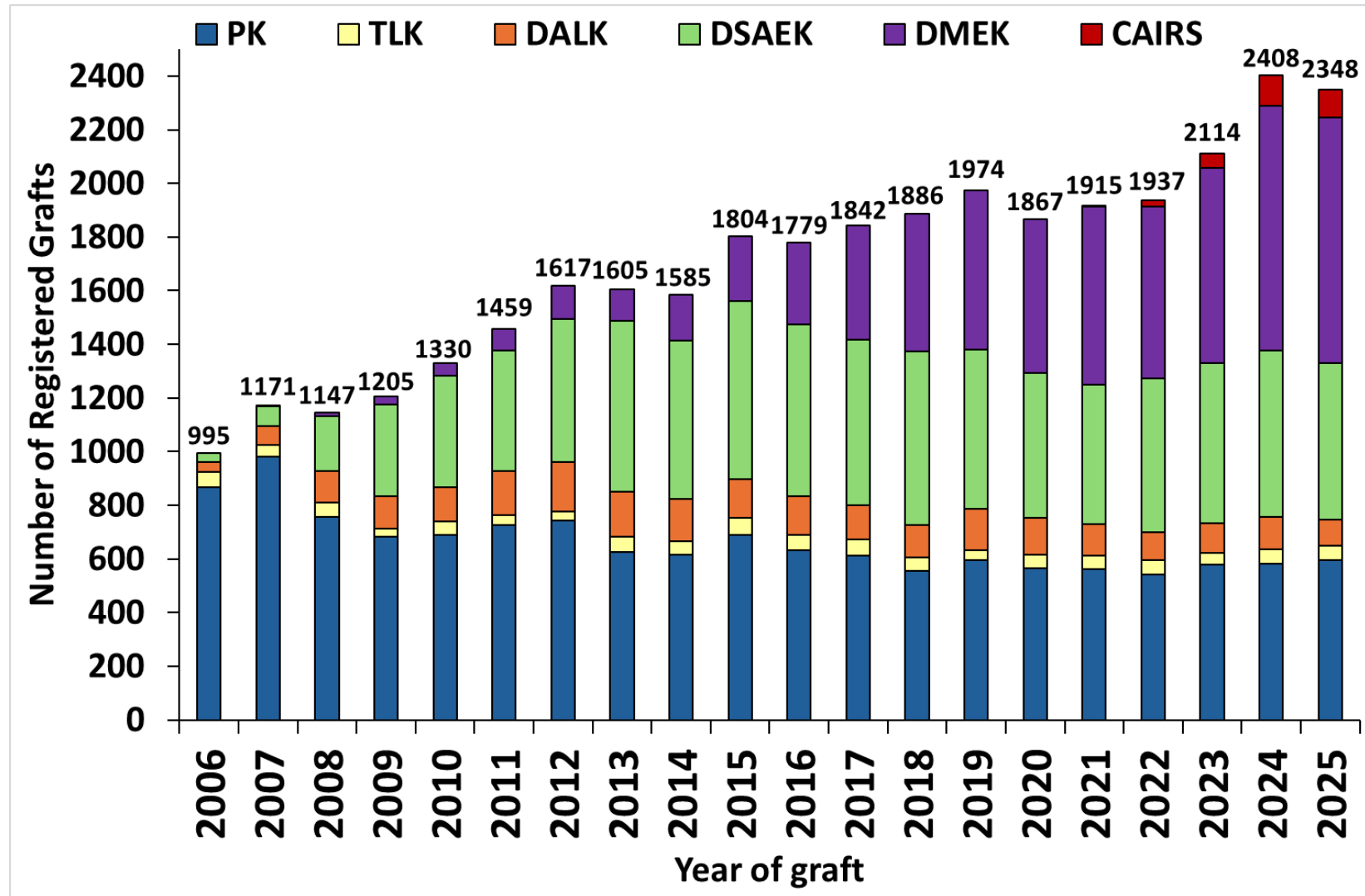
OTHER (please specify): _____

PAIN RELIEVED? Yes No CENTRAL GRAFT PACHYMETRY ENDOTHELIAL CELL COUNT (per mm²)

OTHER COMMENTS: _____

PLEASE RETURN THIS FORM TO: The Australian Corneal Graft Registry, Room 346, Health and Medical Research Building, College of Medicine and Public Health, Flinders University, BEDFORD PARK S.A. 5042
 PHONE: (08) 8432 4600 FAX: (08) 8432 4606

Registered Grafts 2006 to 2025



*Excludes limbal grafts. Registrations for grafts performed in 2025 are still being received and entered in the database

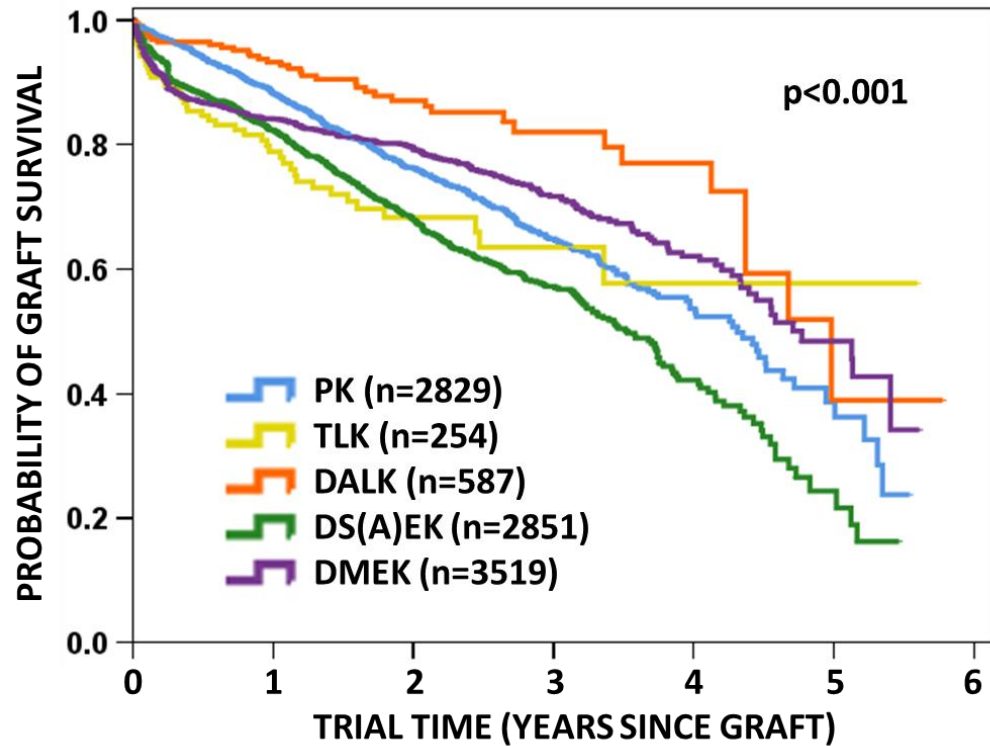
The ACGR Database - Feb 2025

		Registered	Followed	Failed
	Total*	51,601	77%	25%
1985	PK	29,811 (58%)	83%	28%
2000	DALK	2,572 (5%)	62%	9%
2006	DS(A)EK	9,848 (19%)	75%	26%
2007	DMEK	7,059 (14%)	63%	17%
2021	CAIRS	294 (<1%)	23%	4%

***Patch/TLK and limbal graft included in totals but not shown**

Survival of Recent Registered Grafts

2020 to 2024

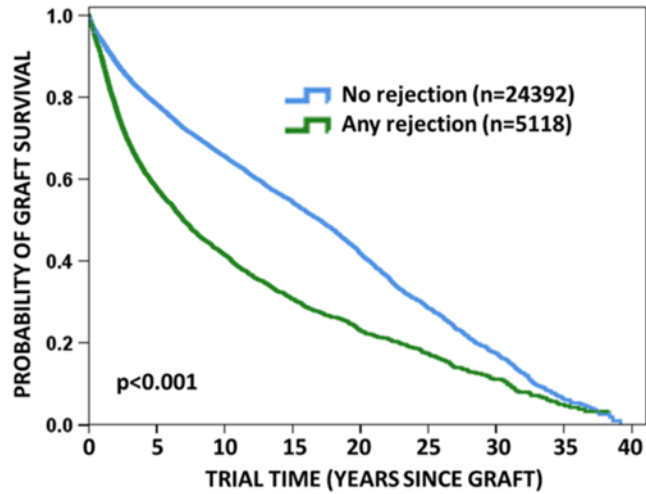


	PK	DALK	DS(A)EK	DMEK
Failed previous	54%	4%	36%	19%
Fuchs' dystrophy	1%	0%	28%	67%
BK/endo failure	4%	0%	32%	13%
Keratoconus	20%	71%	0%	0%

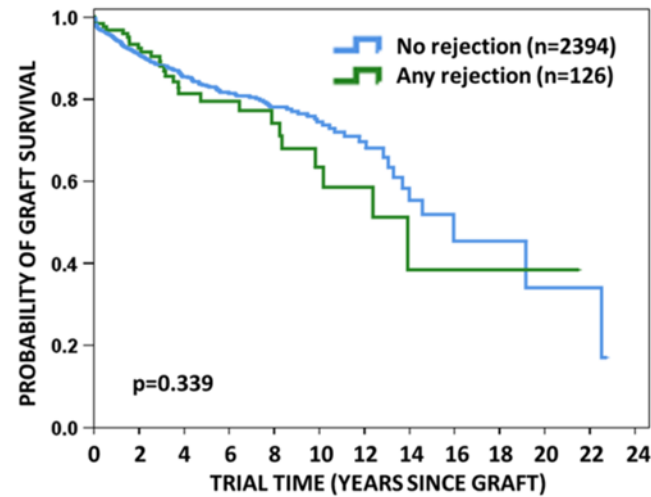
REJECTION PAPER

Rejection - overall influence

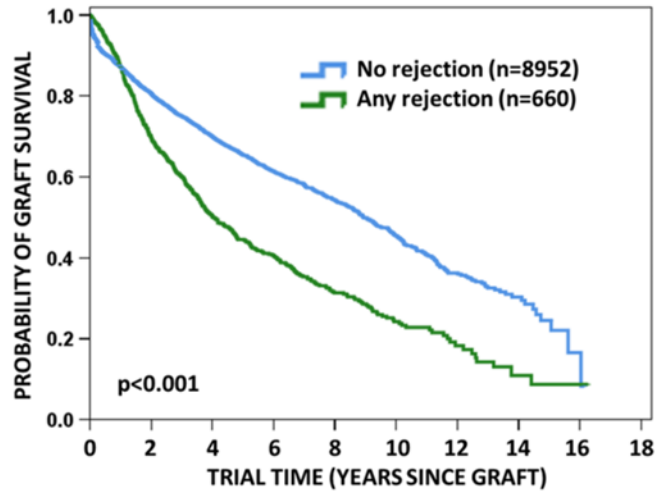
PK



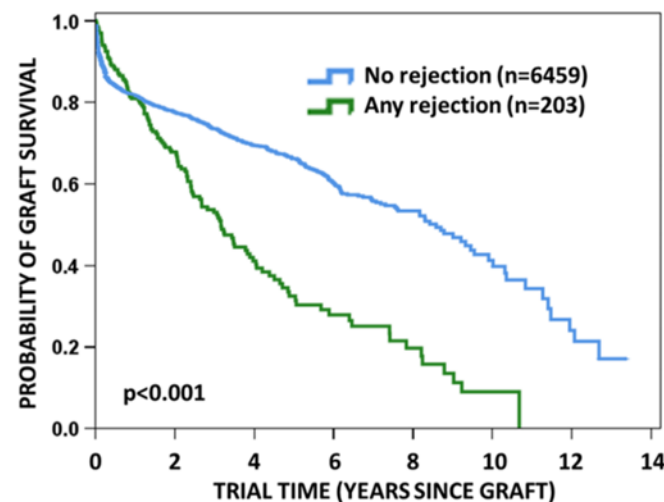
DALK



DS(A)EK



DMEK

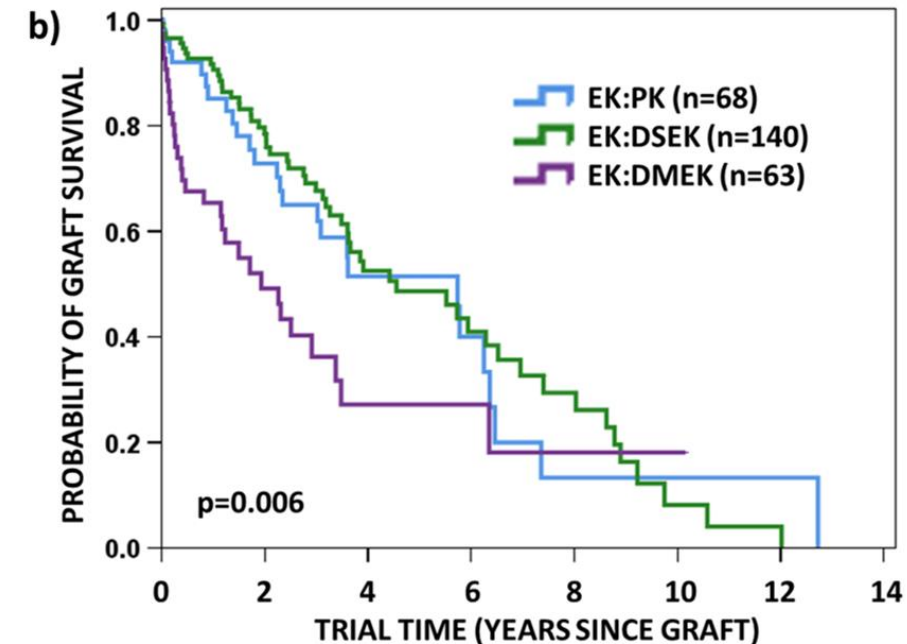
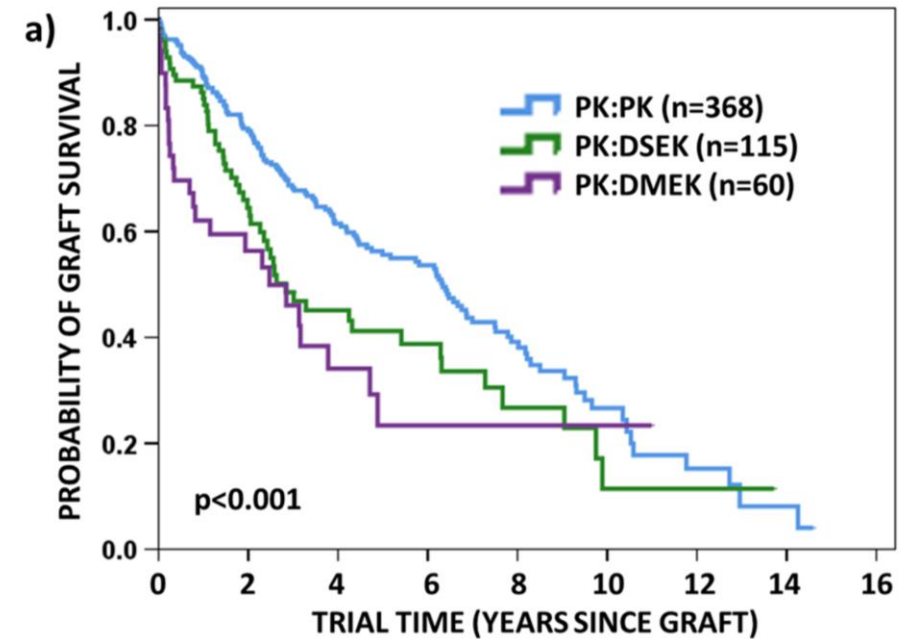


▶ Any rejection episode leads to poorer survival

▶ Primary non-function masks rejection early on

Effect on repeat graft following failure from rejection

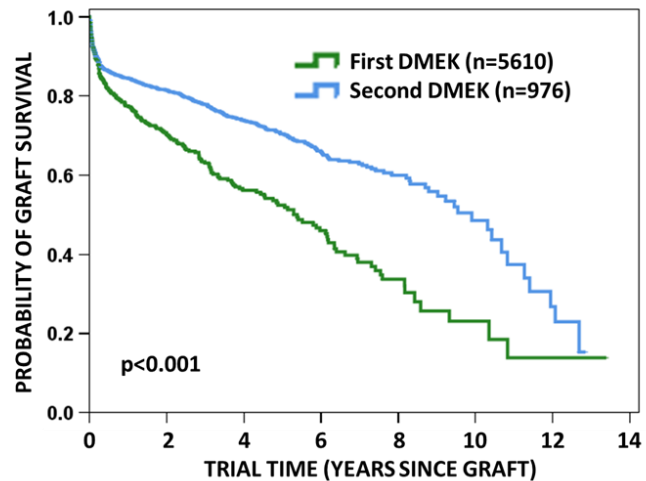
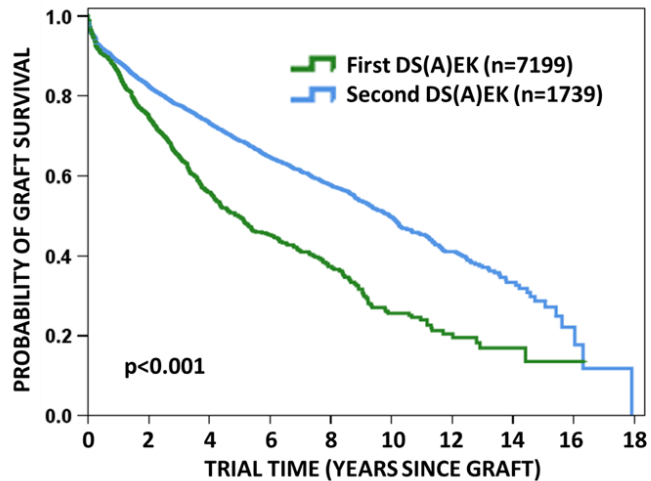
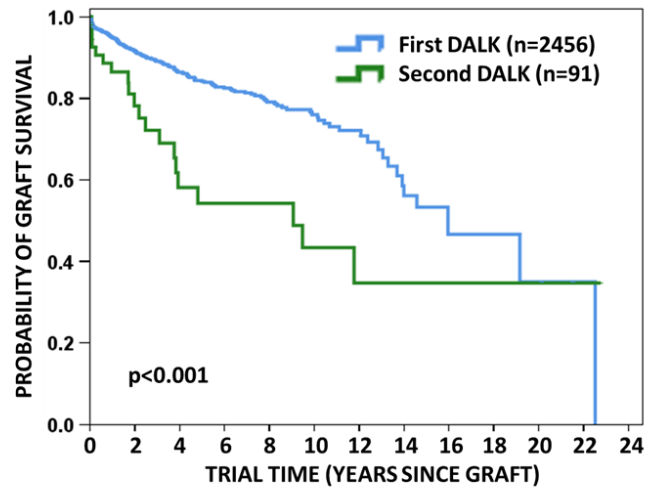
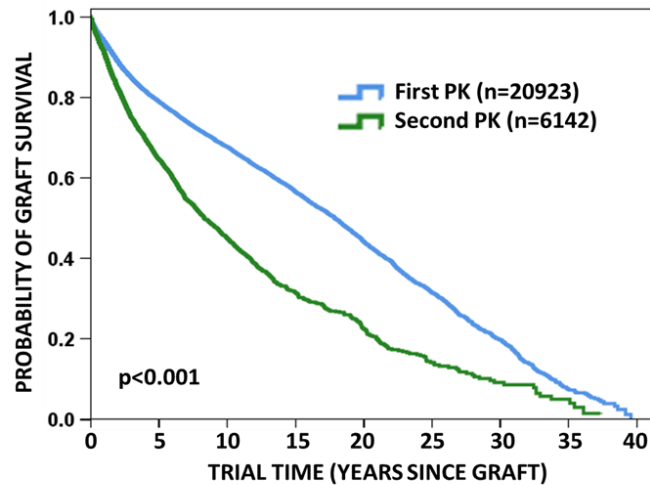
- ▶ Grafts performed from 2008 to 2025
- ▶ All original indications for graft
- ▶ Following original PK
 - ▶ Second PK significantly better survival
- ▶ Following original EK
 - ▶ DMEK significantly poorer survival



SECOND GRAFTS

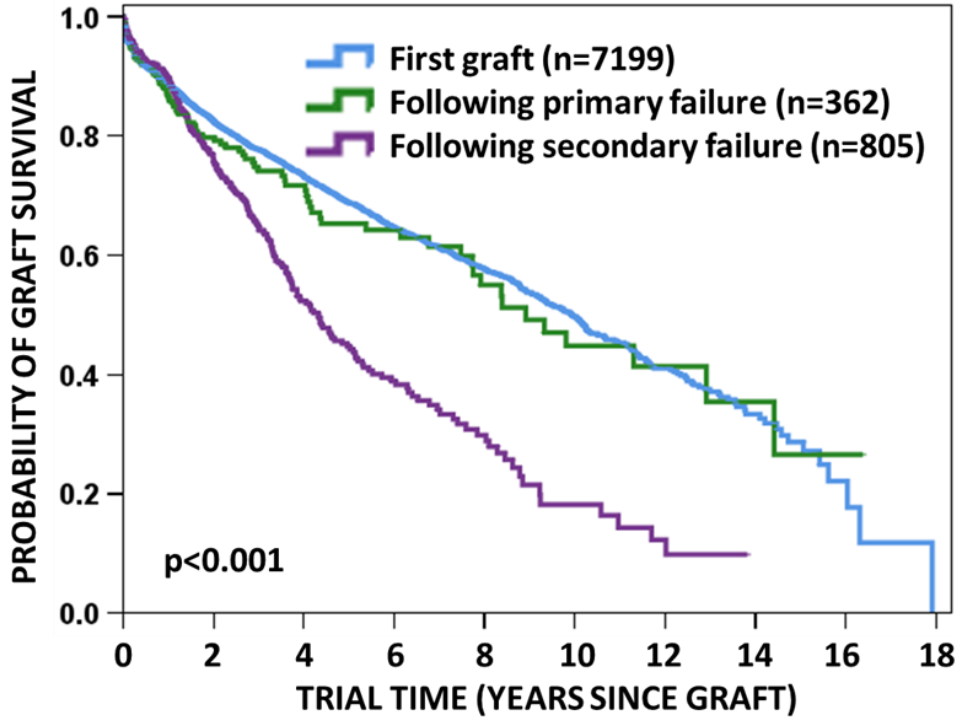
Survival of second grafts

▶ Second grafts significantly poorer survival

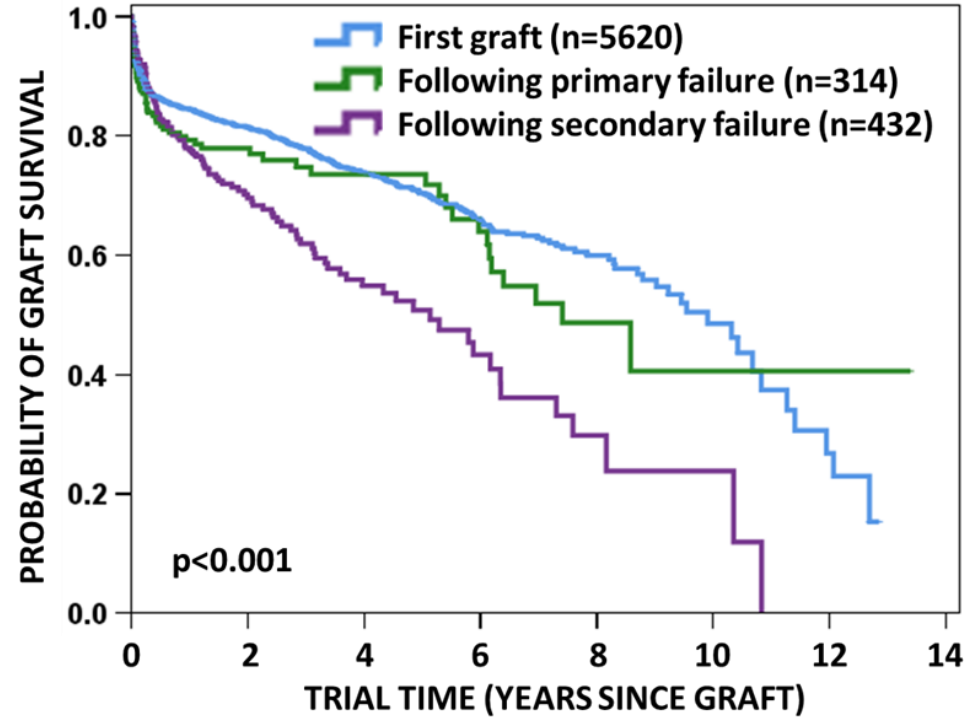


Survival of second endokeratoplasties

DS(A)EK

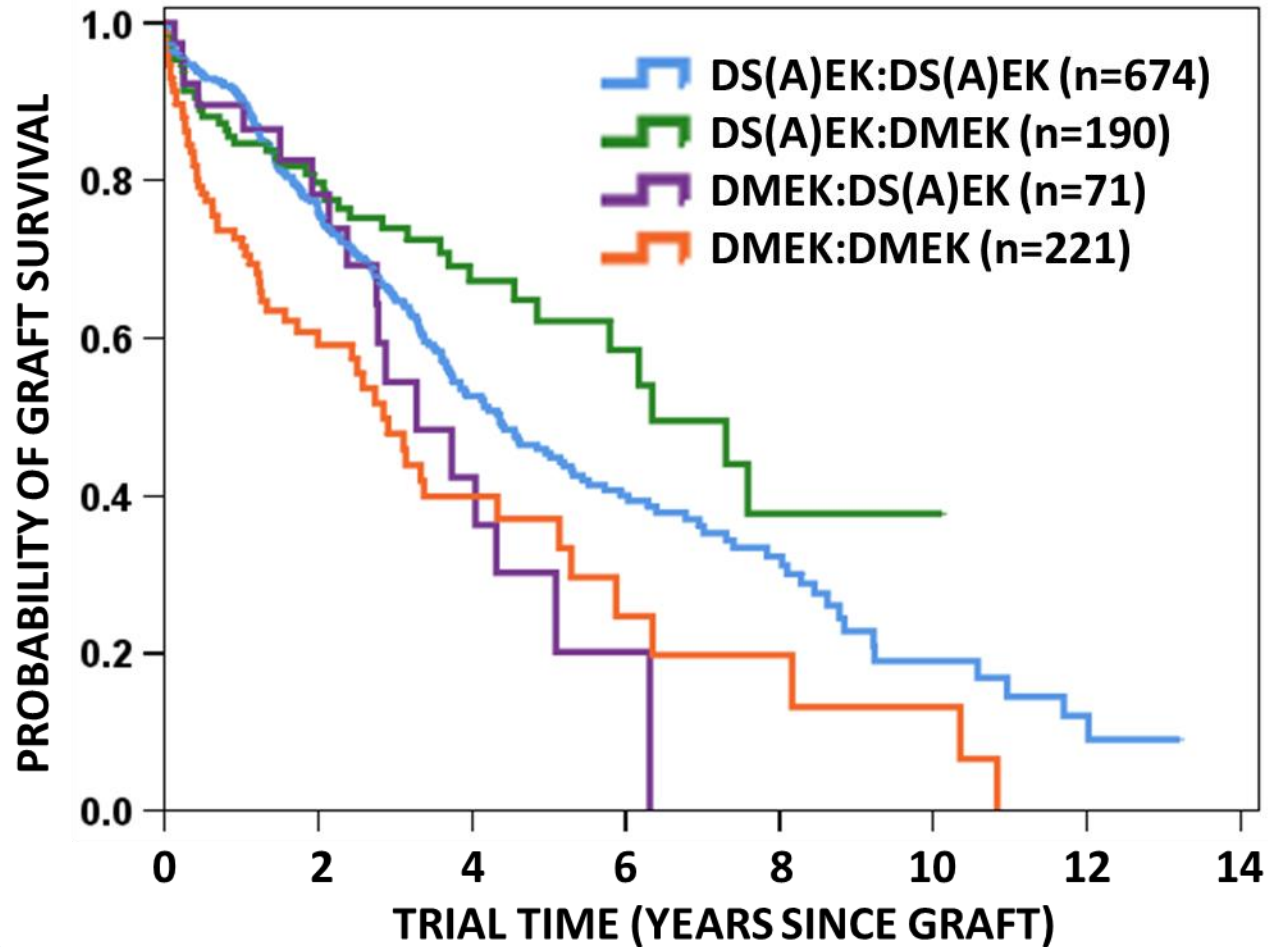


DMEK



- ▶ Primary versus secondary failure (including rejection)
- ▶ Repeat following primary failure equivalent to first grafts

Survival of repeat EK following secondary failure

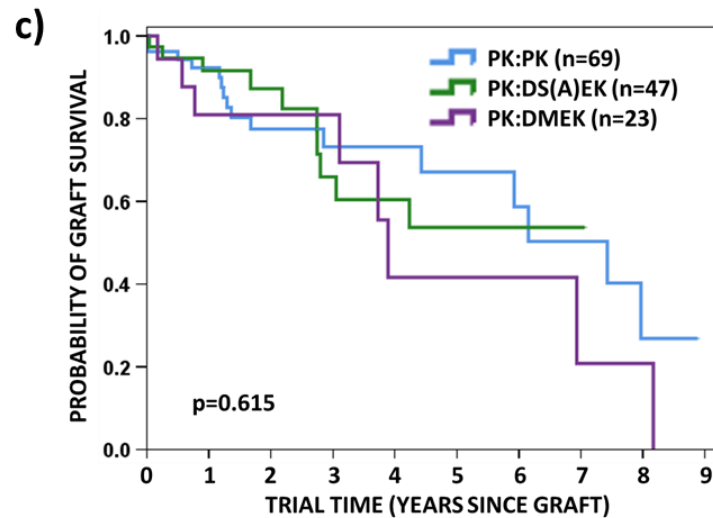
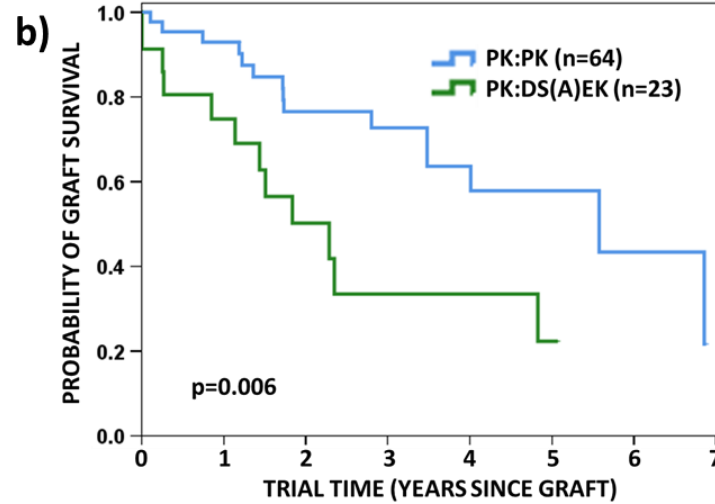
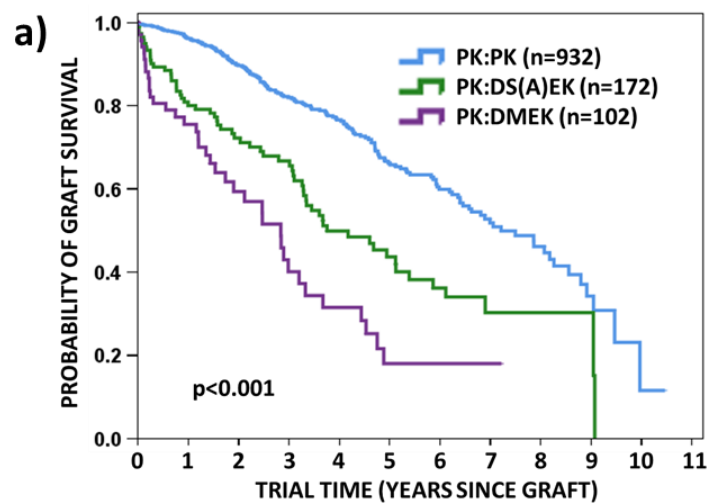


DSEK:DSEK
vs
DSEK:DMEK
 $p=0.087$

DMEK:DSEK
vs
DMEK:DMEK
 $p=0.453$

BOTH $p>0.05$

Survival of second grafts following PK



► 2015 - 2024

- a) Keratoconus
- b) Bullous keratopathy/
endothelial failure
- c) Fuchs' endothelial
corneal dystrophy

Summary

- ▶ Registrations nearing 2500 per year
- ▶ Rejection episodes impact survival of PK & EK
- ▶ Difference in survival across graft type in repeats
- ▶ Repeat EK following PNFG equivalent to first
- ▶ PK:PK survival superior for KC and BK but not FED

Acknowledgments

▶ Contributing surgeons and eye banks

Phone: 08 8432 4600; Email: miriam.keane@flinders.edu.au

<https://www.flinders.edu.au/fhmri/research/fhmri-eye-vision/corneal-graft-registry>

2025 report: <https://doi.org/10.25957/vfa8-8r43>



Melissa Keryn Miriam Vicky Cec Jern Yee



Assistance with updating the records held within the database is provided by the Australian Institute of Health and Welfare through linkage with the National Death Index

