

# Outcomes for Kidney Allograft Recipients with Language Barriers Post Transplantation – A Comparative Analysis



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## Introduction

The Black, Asian and Minority Ethnic (BAME) patients make up an increasing number of recipients of kidney allografts in the UK.<sup>1</sup> Some of these patients have poor English skills and language barriers which have been acknowledged by the NHS to lead to health inequalities in the NHS. In the field of transplantation, post transplantation care of an allograft recipient patient may be compromised due to language barriers e.g. in cases where patient may not understand the importance of their immunosuppression regime. There has been no study done comparing patients and/or kidney allograft outcomes between recipients with versus without language barriers.

## Aims

The aims of this study was to test the hypothesis that non native English Speakers may have poor outcomes after kidney transplantation compared to native English speakers.

## Methods

Data was extracted from the hospital informatics department for all kidney allograft patients that were transplanted between 2007 and 2015 at the Queen Elizabeth Hospital, Birmingham

Further data was collected manually for transplant patients from electronic patient records to create a comprehensive database

Patients were linked to data held with the Language and Communication Services to identify patients who ever required interpreting services

## Results

### Patient Demographics:

Variable	Interpreters(n=40)	Non-I (n=46)
Age (Median)	48 (35-61)	46 (32-60)
Gender (Male)	40.0% (16)	60.5% (655)
Type of Donor	Living	44.6% (483)
	Deceased	55.4% (600)
Post transplantation follow up (median time)	3.2 years	4.5 years

Interpreters had been requested for 40 recipients, with commonest languages including Urdu/Punjabi (n=25), Arabic (n=2), Bengali (n=2), Gujrati (n=2) and single cases of 9 other languages.

### Post - Transplant Outcomes:

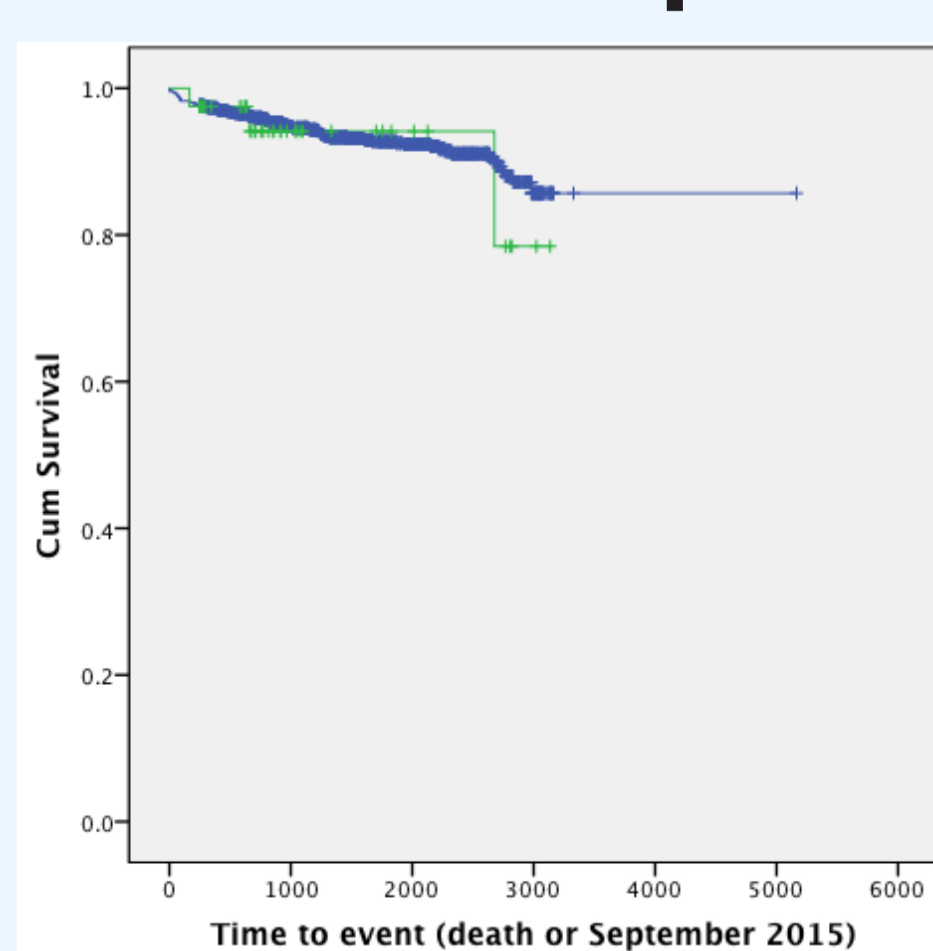


Fig 1: Patient Survival

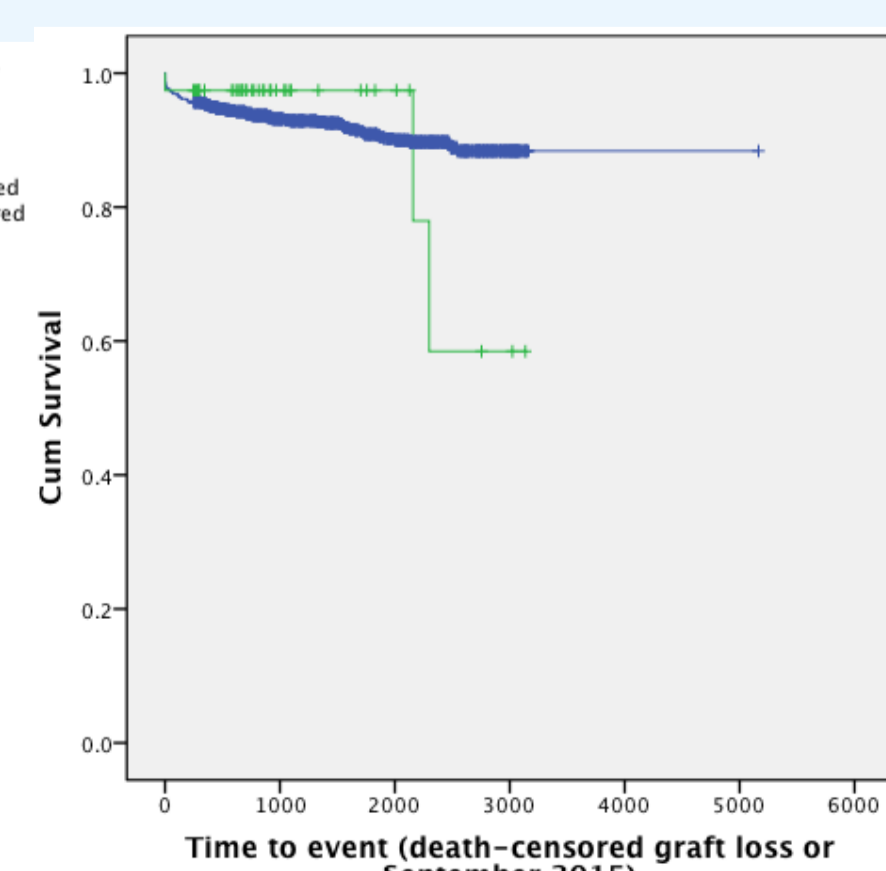


Fig 2: Death-Censored Graft Survival

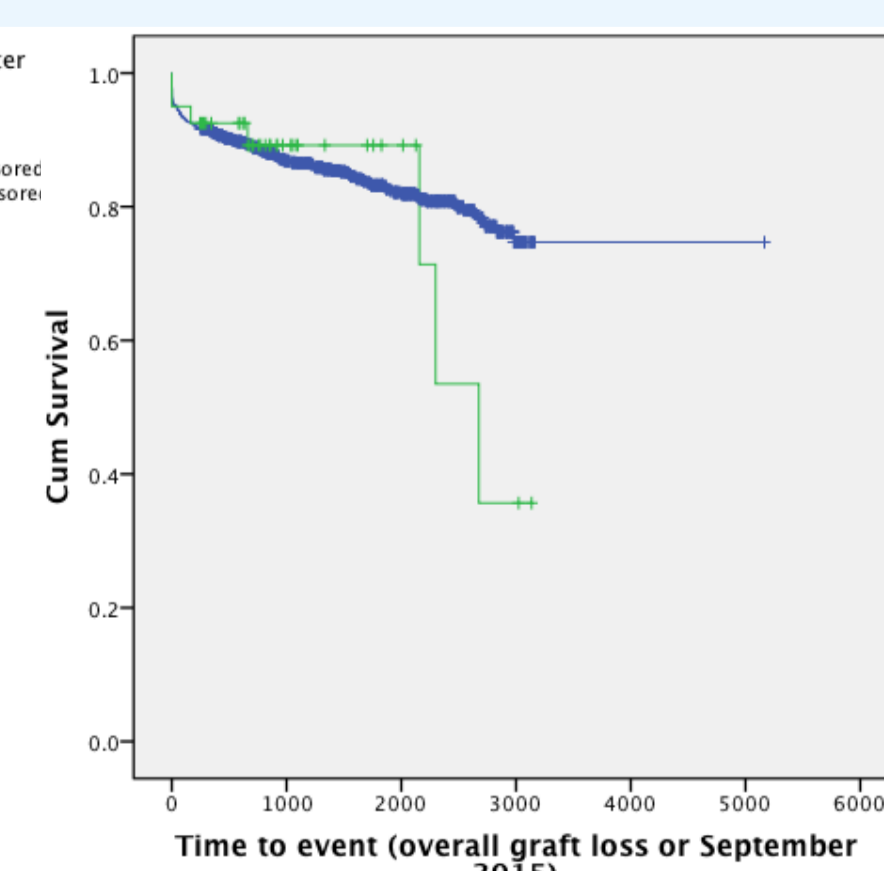


Fig 3: Overall Graft Survival

## Results continued..

	Parameter		
	N (%)	Interpreter users	P-Value
Patient Survival	N (%)	1.1.48 (0.253-5.20)	0.858
	Unadjusted HR (95% CI)	1.266 (0.399-4.015)	0.689
	Fully Adjusted HR (95% CI)*		
Overall Graft Survival	N (%)		
	Unadjusted HR (95% CI)	1.274 (0.598-2.714)	0.530
	Fully Adjusted HR (95% CI)*	1.248 (0.476-3.273)	0.652
Death-Censored Graft Survival	N (%)		
	Unadjusted HR (95% CI)	1.086 (0.343-3.433)	0.889
	Fully Adjusted HR (95% CI)*	1.016 (0.230-4.484)	0.983

Interpreters vs. non-interpreters demonstrated *equivalent patient survival* (92.5% versus 92.9% respectively, p=0.551), *death-censored graft survival* (90.0% versus 89.8% respectively, p=0.615) and *overall graft survival* (82.5% versus 84.1% respectively, p=0.461)

### Post - Transplant Events:

Patients that required interpreter services did not suffer from worse rates of cardiac/cerebrovascular/cancer events or PTDM

Outcomes	Interpreters	Non-Interpreters	P value
Cardiac Event	5.0%	6.1%	NS
Cerebrovascular event	5.0%	2,3%	NS
Post Transplant Cancer	0%	6.3%	NS
PTDM	2.5%	4.3%	NS
Any Rejection	2.5%	14.8%	0.029

Fig 4: Rate of Post Transplant Events between users and non-users of interpreters

## Discussion

### Key Findings:

Our results showed that kidney allograft recipients with poor English skills who require interpreting services do not suffer from adverse patient or graft outcomes.

### Limitations:

A major confounder to this analysis were patients who had poor English skills but did not utilise the interpreting services (due to family relatives interpreting on their behalf.)

Despite this limitation, our results are encouraging for kidney allograft recipients who do not speak English comfortably and supports use of professional interpreting services for long-term clinical follow up post kidney transplantation to achieve suitable standard of care

## Conclusion

- Kidney allograft recipients who require interpreting services had equivalent patient survival, overall graft survival and death censored graft survival than those who did not.
- Those recipients that utilised interpreting services did not suffer from worse post transplantation outcomes (e.g. PTDM, cardiac events)
- Further research needed using National Registry data

## References

1- UK Renal Registry. UK Renal Registry: The seventeenth annual report. Bristol: The Renal Association, December 2014.

