



What will the new Kidney Offering Scheme mean for transplant centres?

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Background

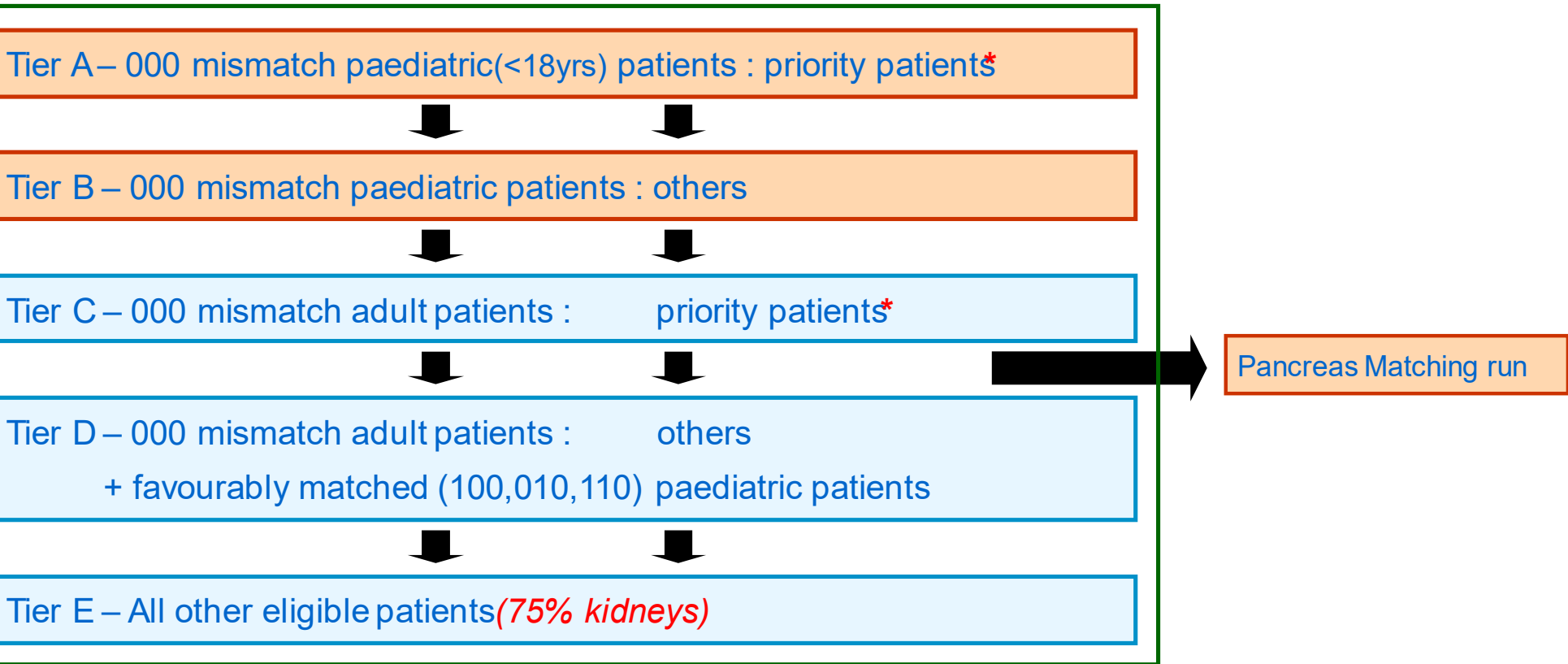
Kidney Advisory Group reviewed 2006 Kidney Allocation Scheme to identify if a change was needed

Three working groups were set up to look at:

- Design and review of Kidney Offering scheme
- Philosophy of Allocation
- HLA Working group

Current DBD Scheme

donors after brain death kidneys allocated by national rules -



ulted antigens, Restricted blood group compatible matches,
level 4 mismatches (2 B & 1 DR mm or 2 DR mm grafts)

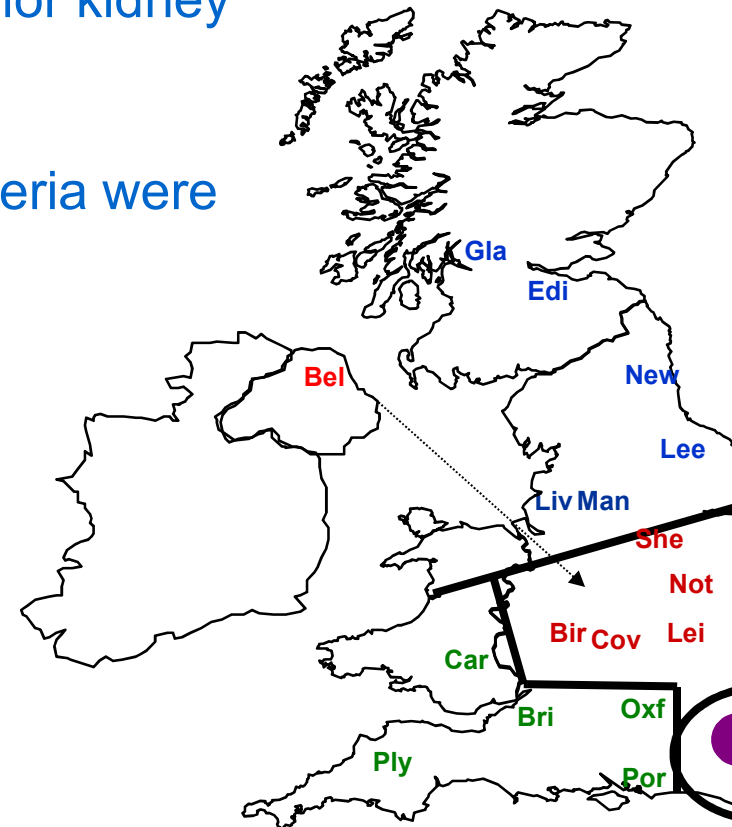
Current DCD Scheme

one kidney retained locally, second kidney shared regionally within four
e-defined regions

both kidneys to be prioritised according to the 2006 DBD donor kidney
location scheme principles

to avoid significant changes to centre activity, donor age criteria were
applied to manage the 'phasing-in' process

Currently one kidney from donors aged 5 to 64
shared regionally



Key Objectives

Blood and Tra

unify DBD and DCD offering with all DBD and DCD kidneys allocated through the scheme

more effective 'quality' matching between donor and recipient

better tailored HLA matching by age

geographical equity of access

avoid prolonged waiting times that are predictable

waiting time from earliest of start of dialysis or activation on the list

age should be a continuous factor

Summary of basic principles

deceased donor kidneys are allocated through scheme:

Tier A Patients with matchability score = 10 or 100% cRF or ≥ 7 years

low blood group O to B, HLA level 4 transplants

Within Tier A; patients prioritised by matchability score and waiting time from dialysis

Tier B All other patients

low HLA level 4 transplants for matchability score 8 and 9 only

Within Tier B; patients prioritised by point score

Factors included in points score:

Donor and recipient risk index match (D1-D4, R1-R4),

Waiting time from earliest of start of dialysis or activation date on the list,

HLA match & age points combined, Location points, Matchability points,
Total mismatch points, Blood group points

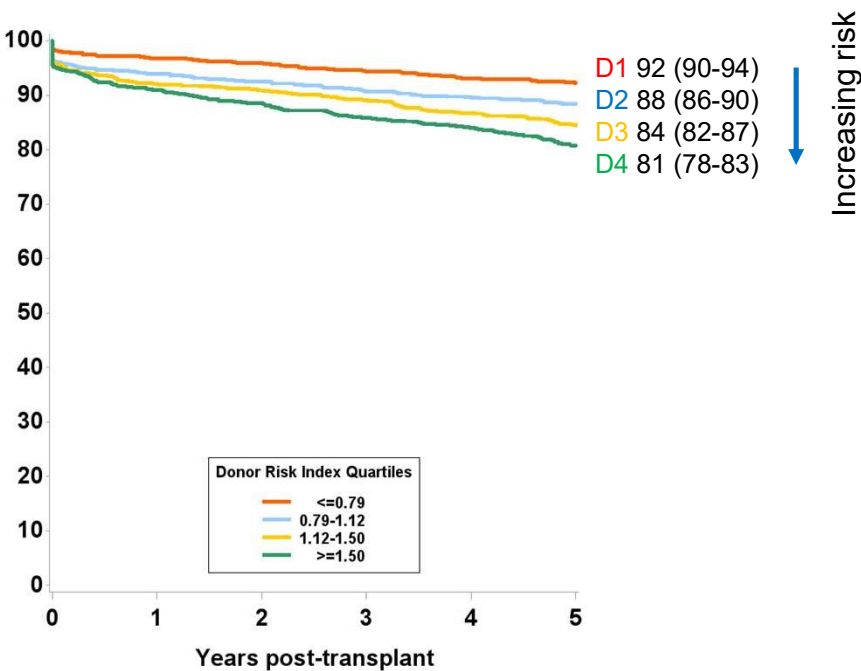
Risk indices

Blood and Tra

Donor Risk Index

Cox model: 5 year graft survival

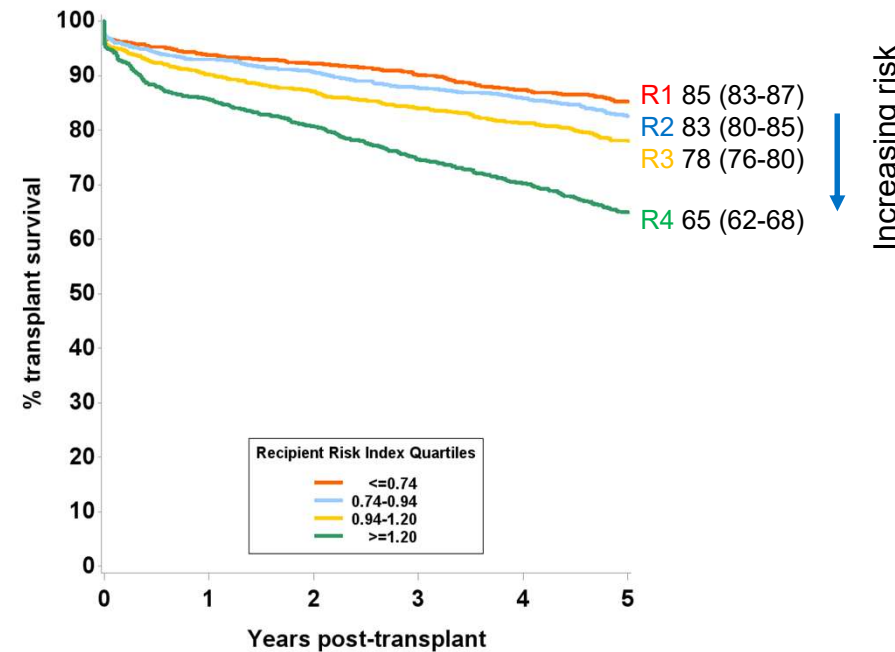
Donor Factor	Hazard Ratio	p-value
Age	1.02	<0.0001
Height	0.86	0.0005
Hospital stay	1.02	0.006
CMV	1.2	0.02
eGFR	0.98	0.02
Female	0.83	0.04
Hypertension	1.15	0.1



Recipient Risk Index

Cox model: 5 year transplant survival

Recipient Factor	Hazard Ratio	p-value
Age (≤ 25)	1.00	0.9
Age (> 25)	1.02	<0.001
Dialysis status	1.43	<0.001
Diabetic	1.32	0.003
Time on dialysis (years)	1.03	0.004



Matchability score

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Number in last 10,000 donors

blood group identical and HLA compatible (calculated Reaction Frequency)

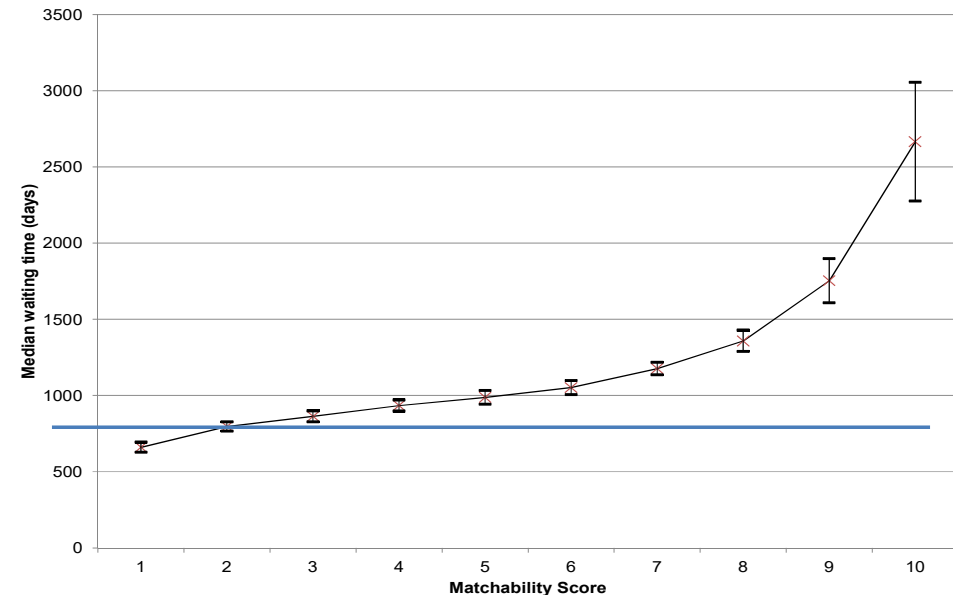
000, 100, 010, 110, 200, 210, 001, 101, 201 mismatch (Level 1 or 2).

All patients on the waiting list are then divided into deciles.

1, 2, 3 = easy to match,

4, 5, 6, 7 = moderate to match

8, 9, 10 = difficult to match





What it will mean for transplant centres

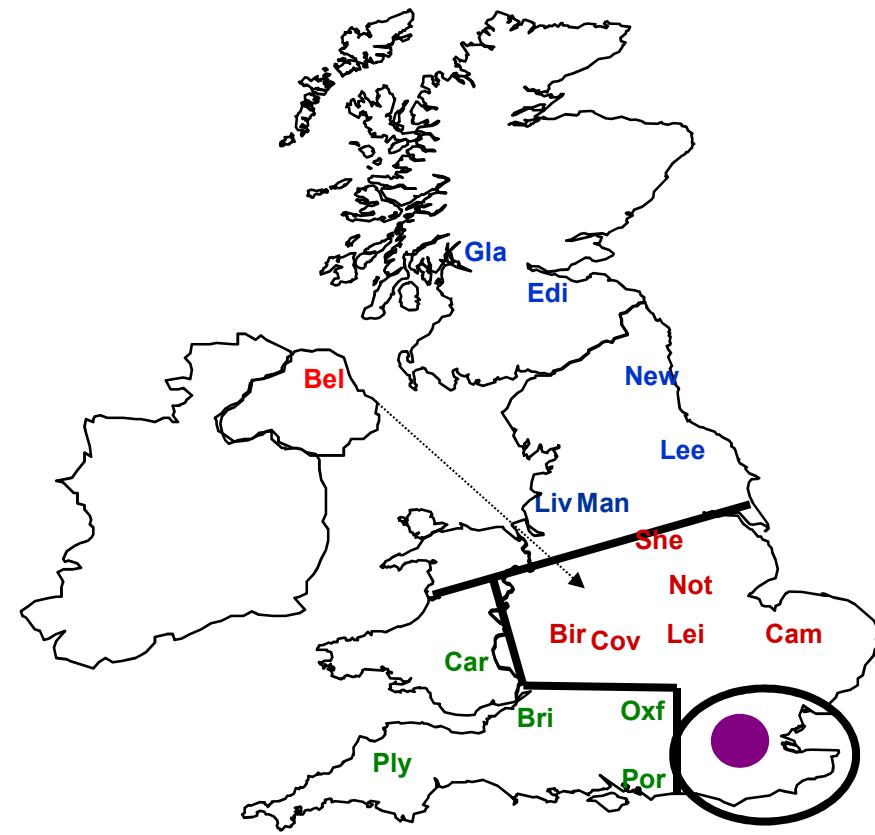


DCD Kidneys

Both kidneys to be allocated via the new kidney offering scheme

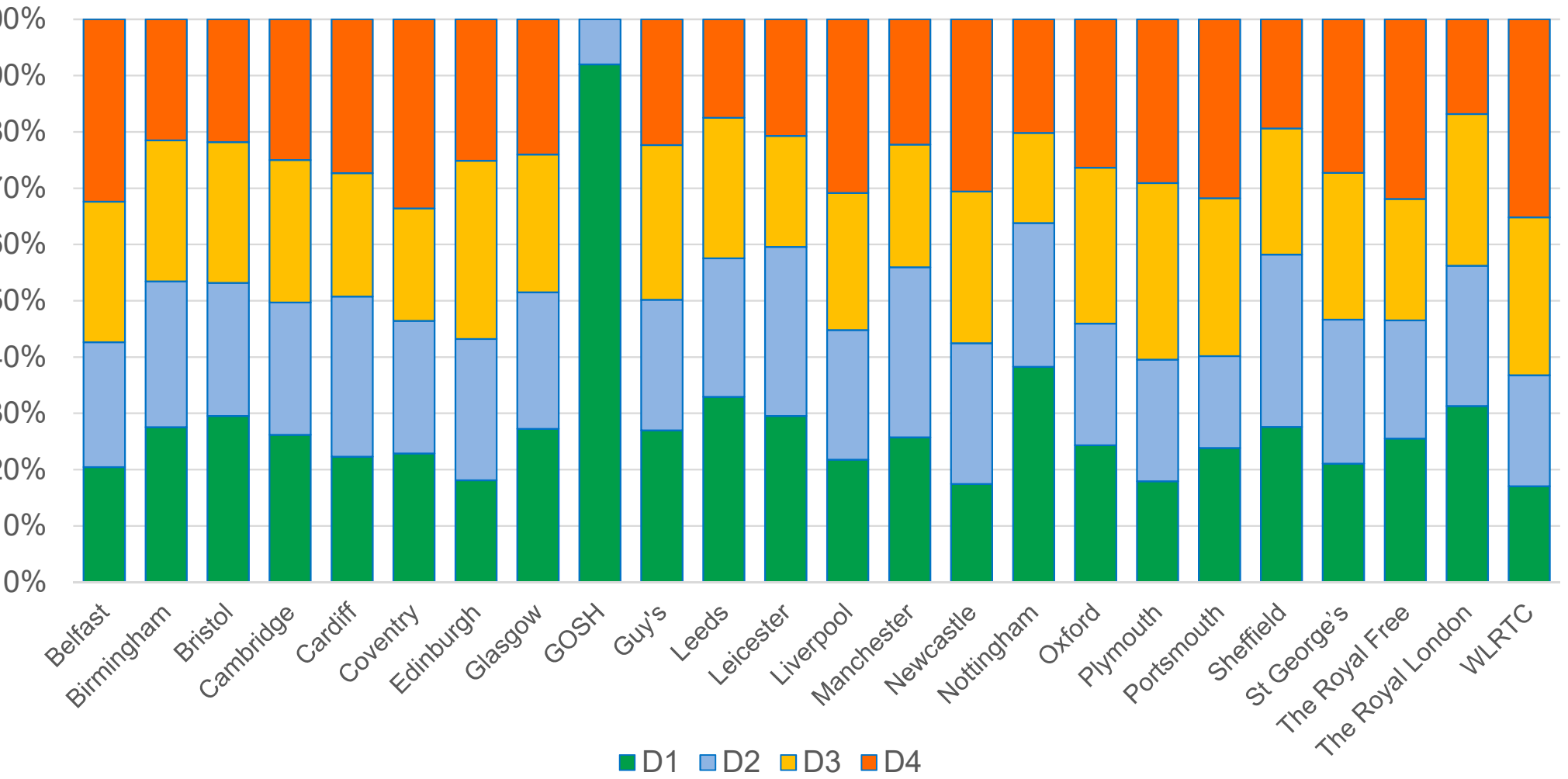
DCD kidneys will not be automatically retained

Points score used to keep kidneys within current
4 defined regions unless a difficult to match /
long waiting patient is identified



Simulated transplants – Donor Risk Index

Blood and Tra



Local allocation of kidneys

Blood and Tra

neys will still be available through the scheme for centres to use in a patient of choice:

kidneys from donors aged between 2 and 5 will be offered to centres en-bloc

kidneys from D4 donors aged over 70 will be offered to centres to use as dual or individually

kidneys dispatched but reallocated because the patient for whom the kidney has been accepted cannot subsequently receive the transplant, assuming no Tier A recipients are identified

kidneys offered through the Fast Track Scheme



Blood and Transp

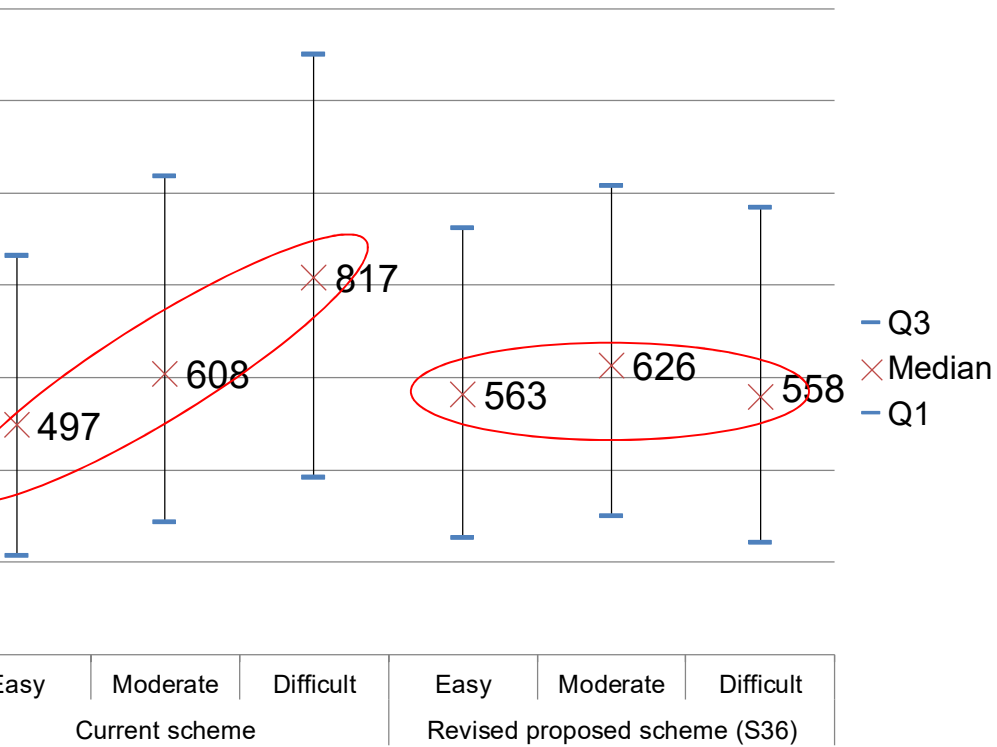
ey benefits



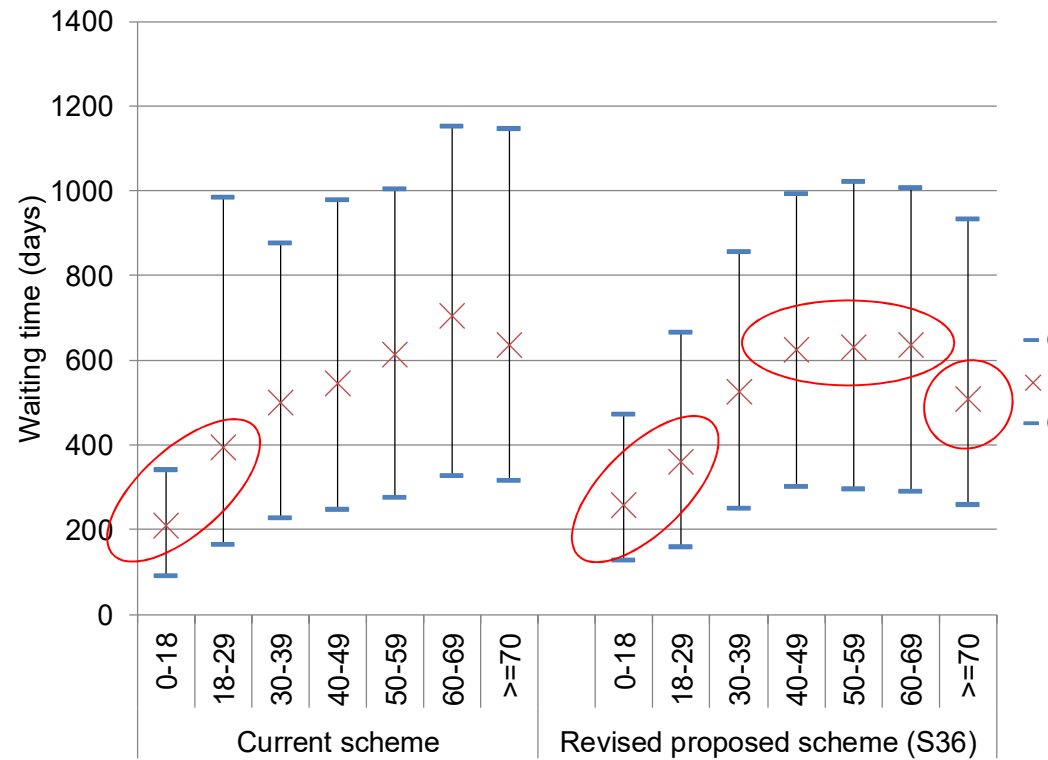
Waiting time

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Matchability



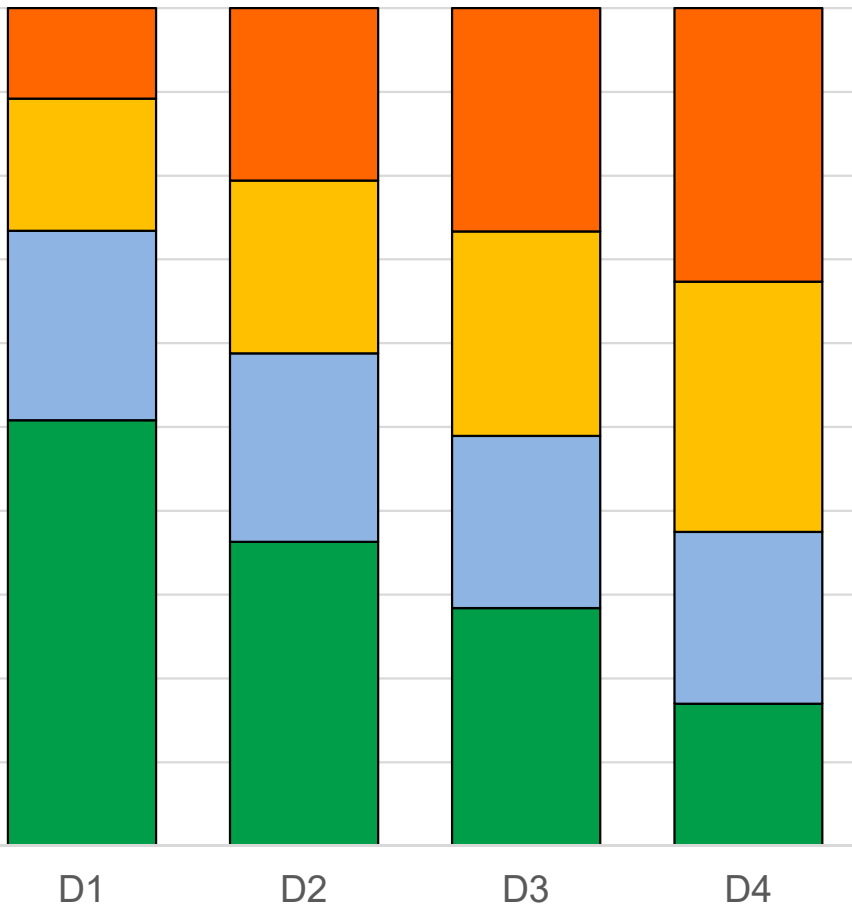
Age



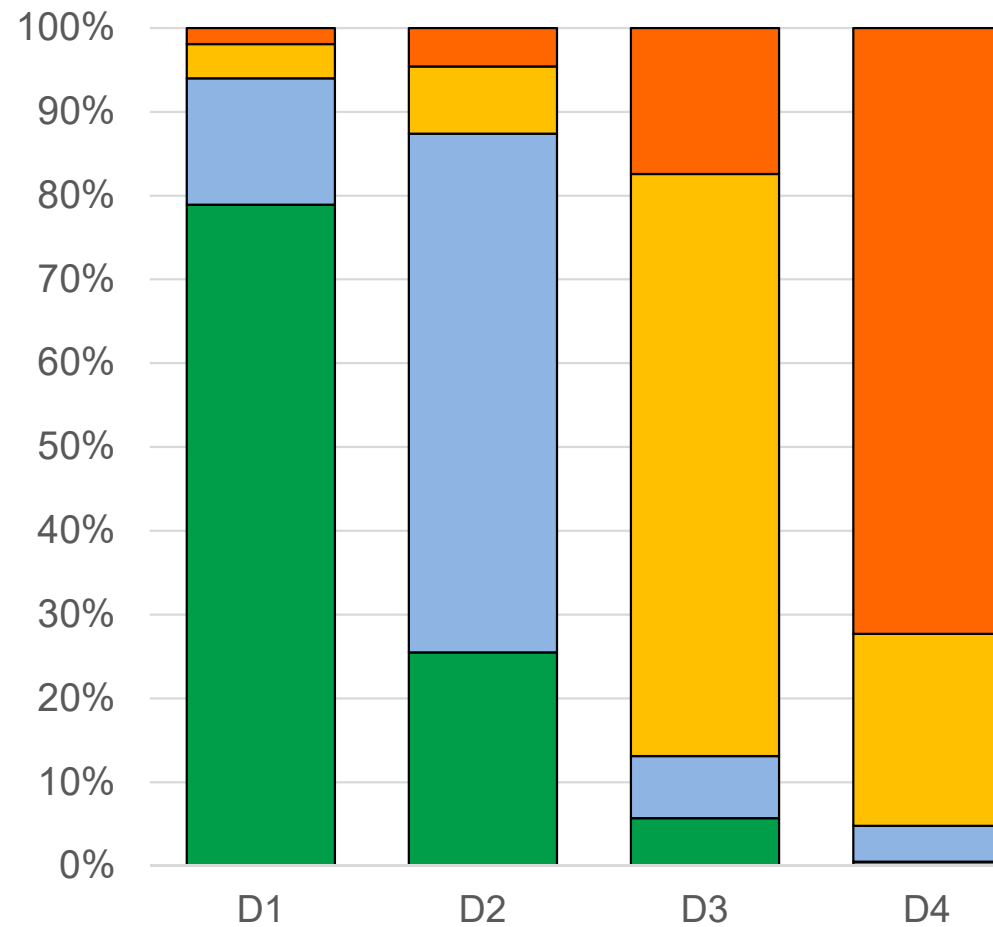
Improved longevity matching

Blood and Tra

Current scheme



Proposed scheme



Summary

Blood and Tra

A new Kidney Offering Scheme has been produced in line with key objectives

UK Kidney Advisory Group have approved proposed scheme

Transplant activity not due to change dramatically for transplant centres

Prolonged waiting time avoided where possible for patients in addition to improved longevity matched transplants

Scheme to be implemented summer 2019



Acknowledgments

Kidney Offering Scheme Working Group

Blood and Tra

Chris Watson (Chair)

Rachel Johnson

Chris Dudley

Lorna Marson

Sue Fuggle

Phil Mason

John Forsythe

Lisa Mumford

Peter Friend

Keith Rigg

Rachel Hilton

David Turner

