



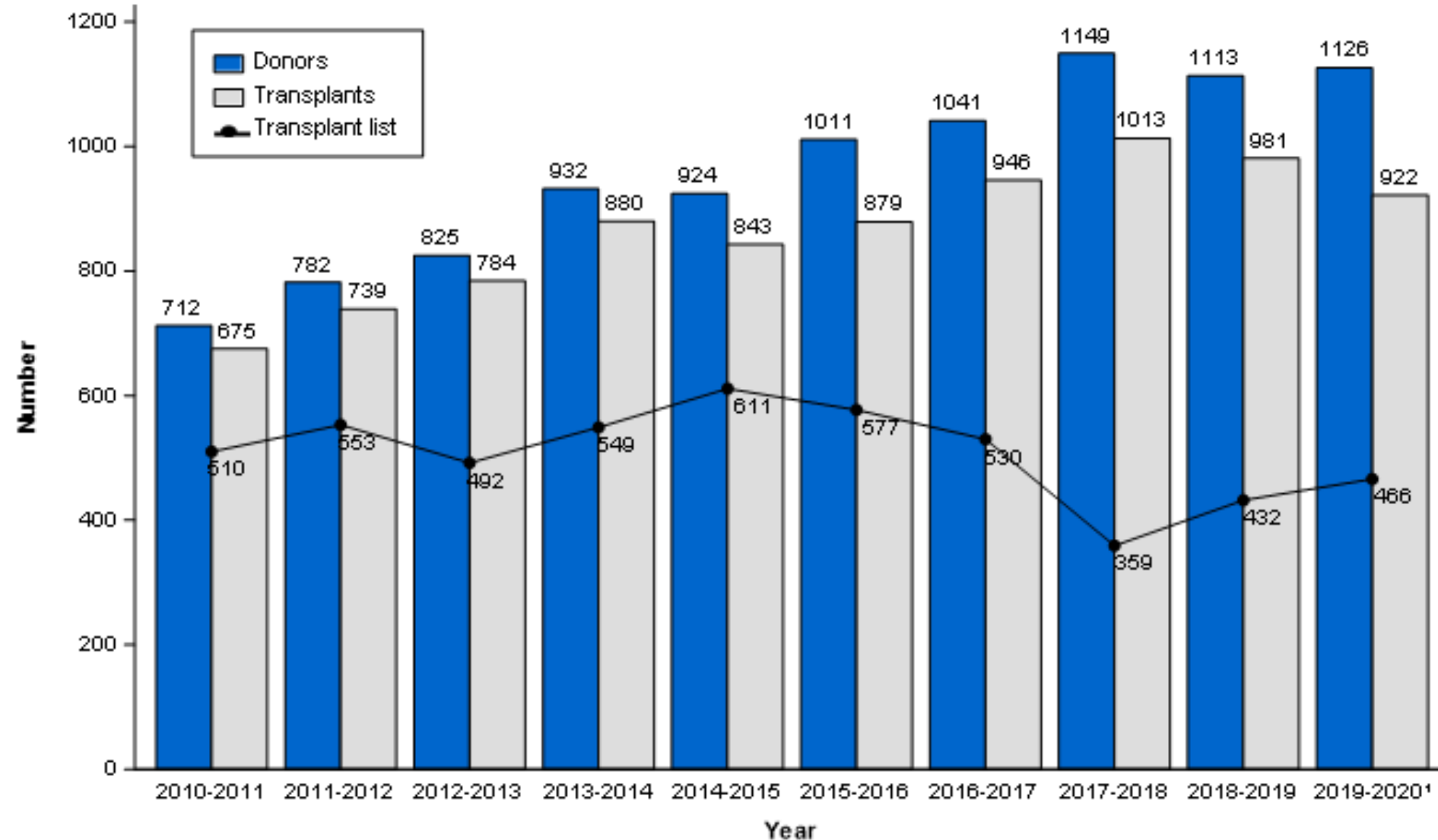
Overview: LDLT in Context Setting the Scene & Solutions

Douglas Thorburn

Outline

1. UK Liver transplant: Where are we now?
 2. What are the potential solutions?
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Number of deceased donors, transplants and patients on the active transplant list – livers up to 31 March 2020



58% increase in deceased liver donors since 2010/2011

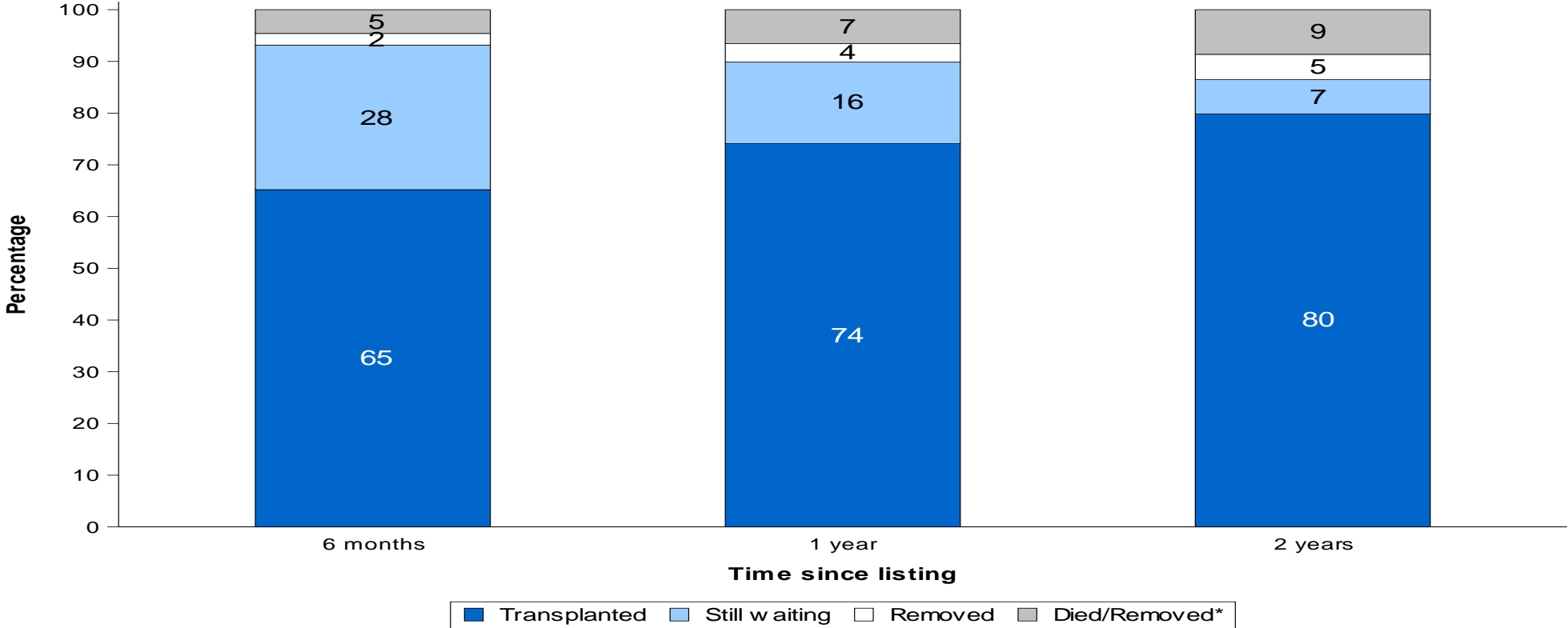
37% increase in deceased liver transplants since 2010/2011

¹ Waiting list as at 29 February 2020

Outcomes after registration

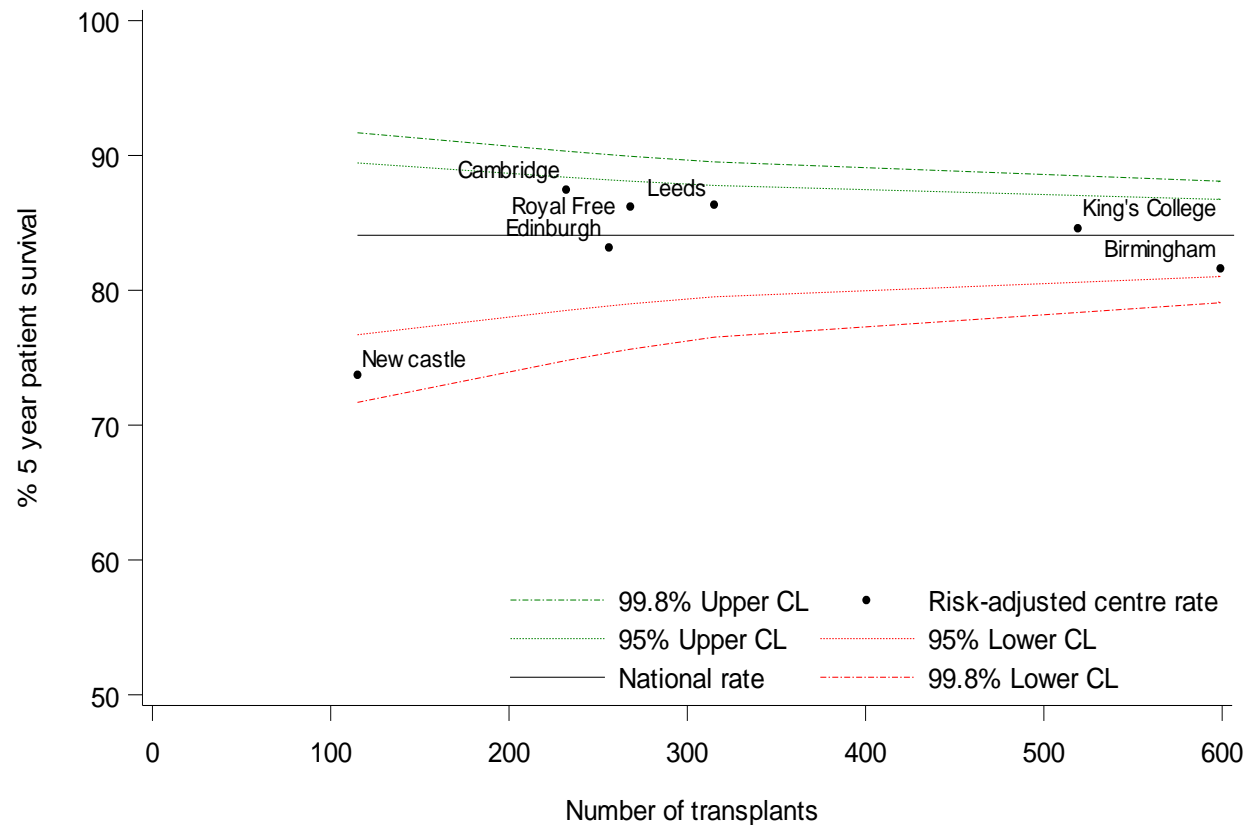
1/4/2018 – 31/3/2019

Figure 2.3 Post-registration outcome for 1066 new elective liver only registrations made in the UK, 1 April 2018 - 31 March 2019



*Removals due to condition deteriorating

Risk adjusted 5 year patient survival rates for first adult elective liver transplantation



Effect of COVID on UK Liver Transplant

Challenges

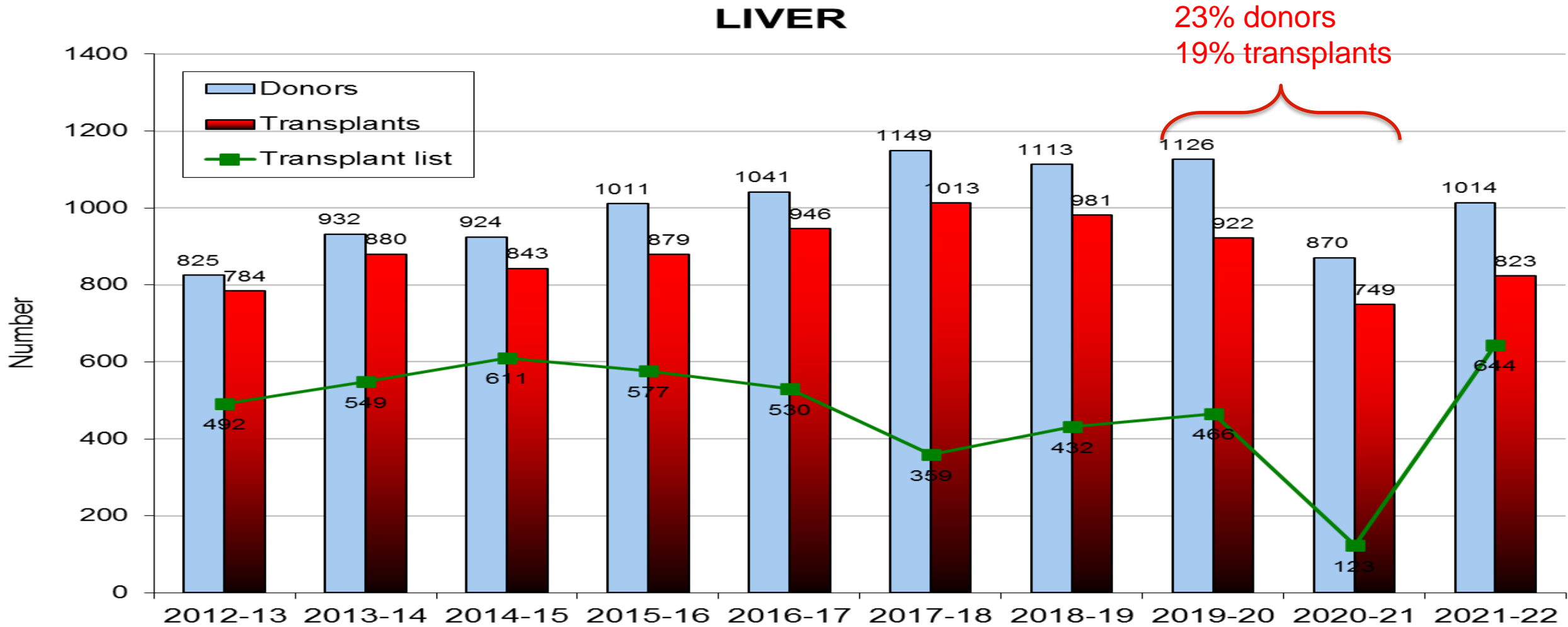
- Reduction in donor numbers (DCD > DBD)
- Lack of ITU capacity in transplant centres
- High prevalence of COVID within OLT hospital wards
- Increase in late declines for logistics
- Centre closures

Response

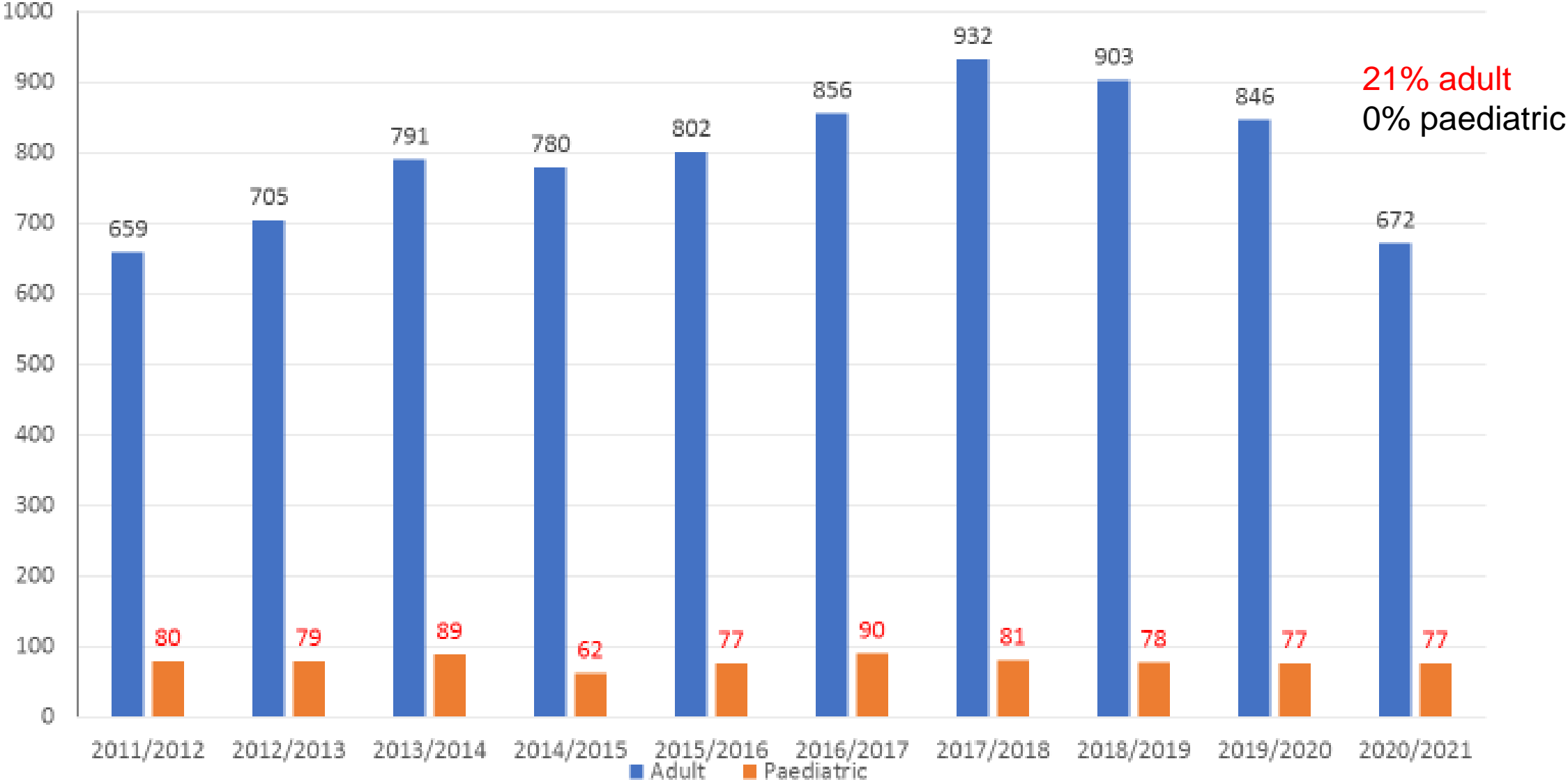
- Function as a national programme
- Close collaboration between all adult and paediatric centres
- Weekly meetings of centre directors, NHSBT and hub representatives and commissioners
- Dynamic decision making on procedures and processes including offering

End of financial year activity

LIVER



UK Deceased donor liver transplants in the UK, 1 April 2011 - 31 March 2021, by age group



UK Liver Deceased Donors 19/20 - 21/22

Financial Year	DBD n. (%)	$\Delta\%$ v 19/20	DCD n. (%)	$\Delta\%$ v 19/20	Total n.	$\Delta\%$ v 19/20	Deceased Donor Liver Tx n.	$\Delta\%$ v 19/20
2019/2020	848 (75)		278 (25)		1126		907	
2020/2021	688 (79)	-20	182 (21)	-35	870	-23	739	-19
2021/2022	705 (70)	-17	309 (30)	+11	1014	-10	813	-10

NHSBT Transplant Activity 22/23 to 3rd Feb 23

DONOR AND TRANSPLANT ACTIVITY						
	Current year (01.04.22 - 29.01.23)	Previous year (01.04.21 - 29.01.22)	% Change²	Pre-COVID year (01.04.19 - 29.01.20)	% Change²	Previous full financial year (2021/2022)
ORGAN DONORS						
Donors after brain death (DBD)	648	673	-3.7	802	-19.2	785
Donors after circulatory death (DCD)	546	494	10.5	550	-0.7	612
Total deceased donors (DD)	1194	1167	2.3	1352	-11.7	1397
Non-proceeding deceased donors (DD) ³	376	425	-11.5	595	-36.8	499
Living donors (LD) - 1 mth in arrears ⁴	648	726	-10.7	807	-19.7	936
ORGAN TRANSPLANTS						
Deceased donors (DD)						
Liver/lobe ⁶	728	680	7.1	768	-5.2	813

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Number on the UK waiting list: January 2019 to 12th January 2023

Figure 11 Number of patients on the liver transplant list at the end of each month, January 2019 - 12 January 2023

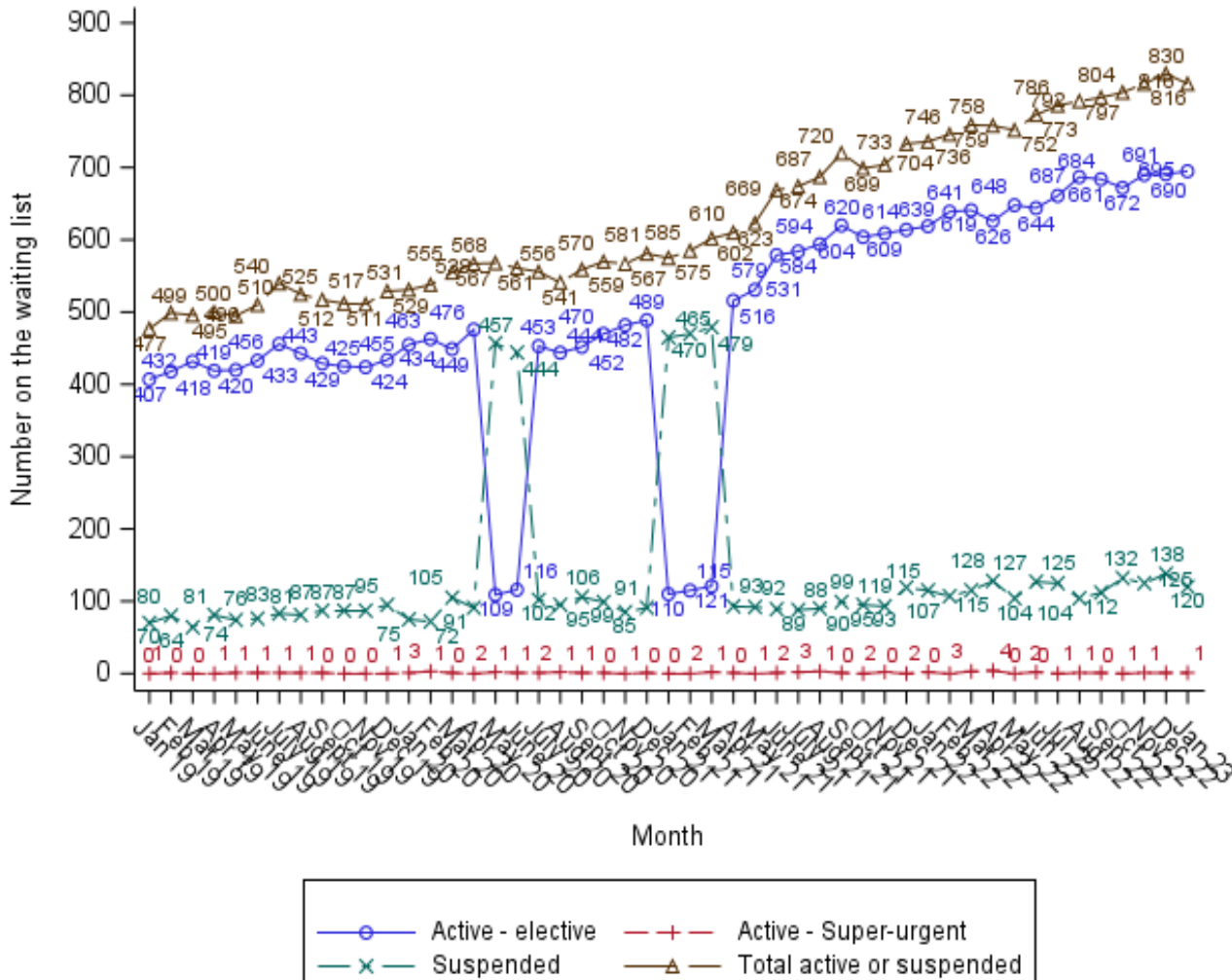
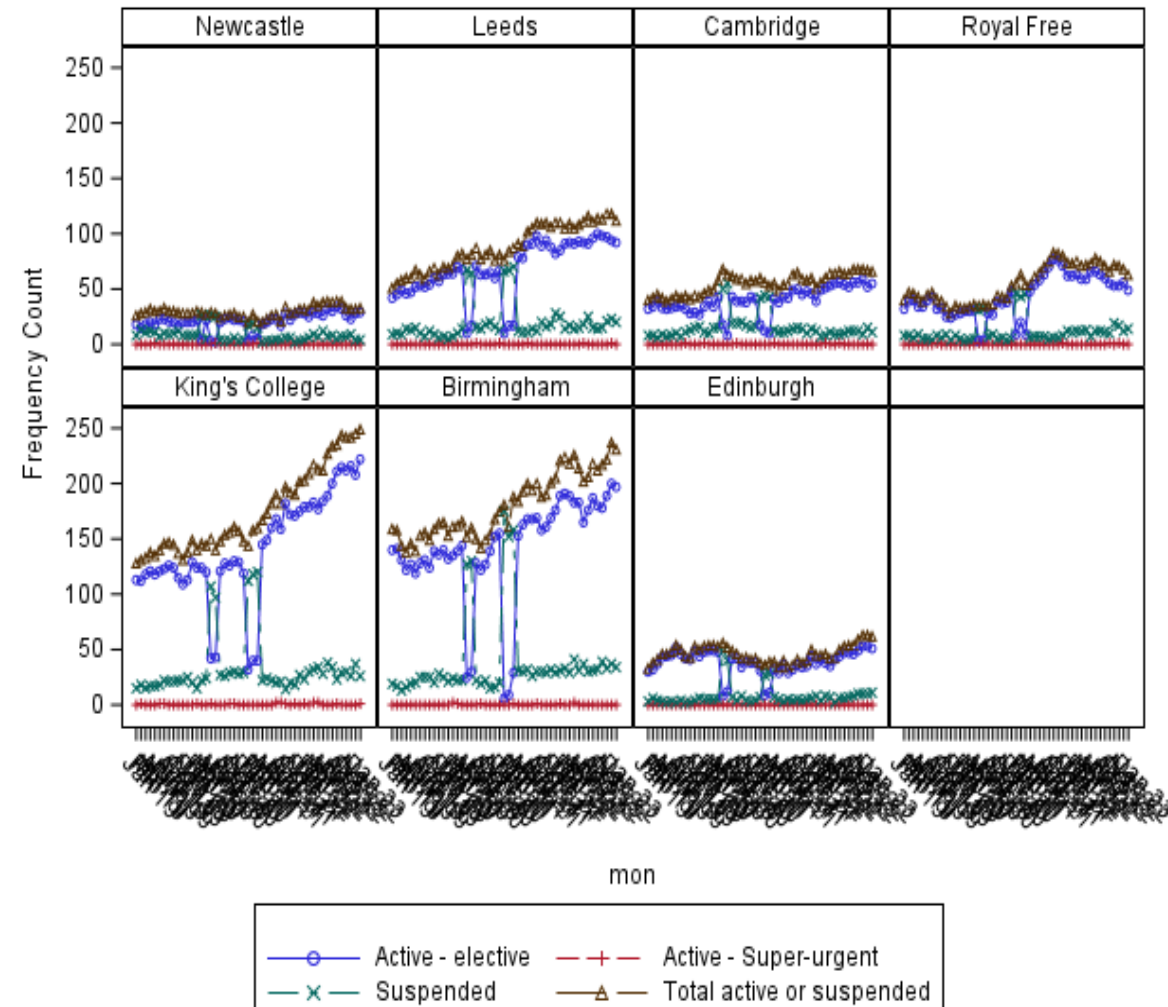


Figure 12 Number of patients on the liver transplant list at the end of each month, by centre, January 2019 - 12 January 2023



NHSBT Transplant Activity 22/23 to 3rd Feb 23

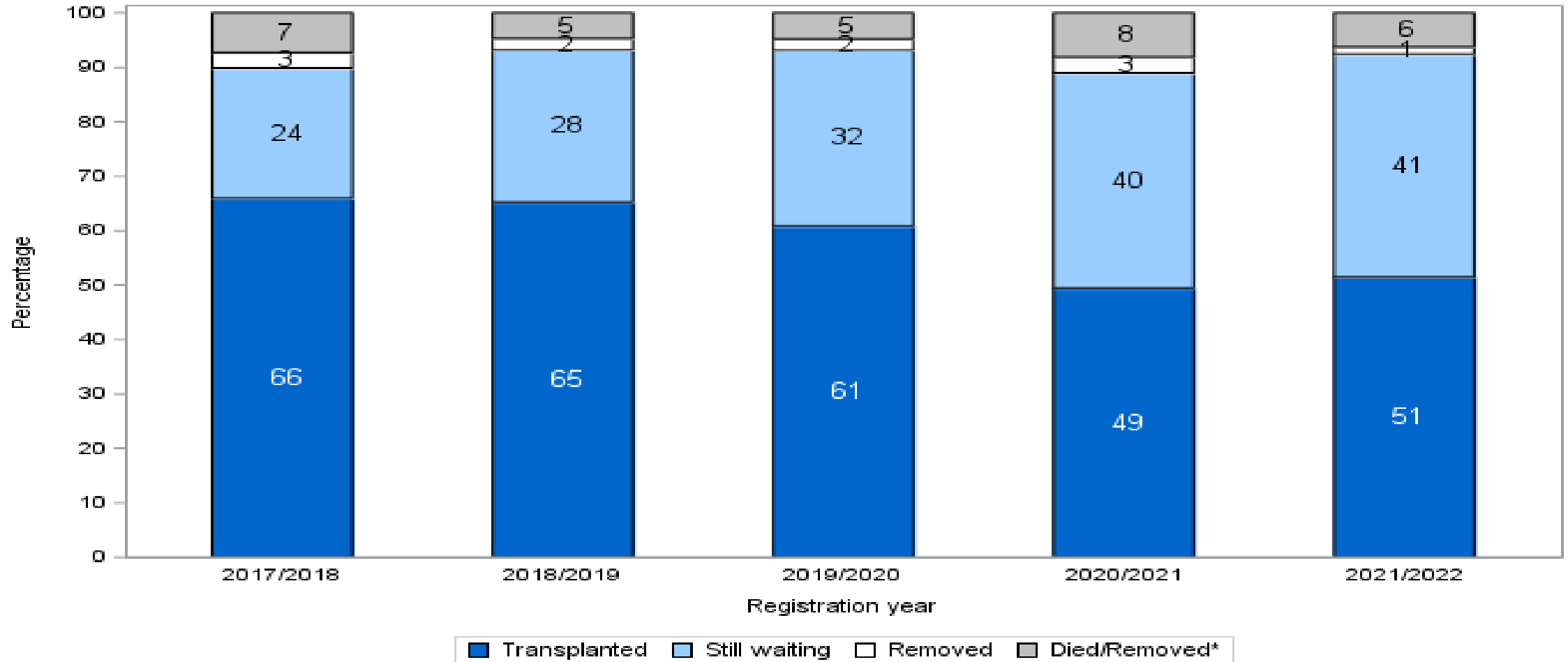
ACTIVE TRANSPLANT LIST

	<i>Current at 02.02.23</i>		<i>Previous year</i>		<i>End of last year</i>
	Total	<i>(Paediatric <18yrs)</i>	<i>at 28.02.22</i>	<i>% Change</i>	<i>31.03.22</i>
Liver	648	(43)	605	7.1	612

Median waiting times for liver only transplant by blood group and year


Table 1 Median (95% Confidence Interval) waiting time to liver only transplant for adult elective patients registered 1 April 2017 to 31 March 2022, by financial year of registration and blood group										
	O		A		B		AB		Overall	
	N	Median (95% CI)	N	Median (95% CI)	N	Median (95% CI)	N	Median (95% CI)	N	Median (95% CI)
2017/2018	390	101 (77, 125)	332	40 (32, 48)	81	97 (82, 112)	36	66 (20, 112)	839	66 (57, 75)
2018/2019	399	87 (61, 113)	372	41 (30, 52)	93	119 (74, 164)	35	21 (15, 27)	899	61 (51, 71)
2019/2020	393	98 (76, 120)	326	56 (42, 70)	103	90 (42, 138)	52	31 (8, 54)	874	73 (62, 84)
2020/2021	352	146 (102, 190)	308	61 (38, 84)	91	116 (60, 172)	22	18 (12, 24)	773	96 (79, 113)
2021/2022	430	222 (162, 282)	388	88 (67, 109)	121	174 (81, 267)	30	20 (7, 53)	969	136 (115, 157)

Six month post-registration outcome for new adult elective liver only registrations made in the UK, 2017-2022




*Removals due to condition deteriorating

The Liver Transplant Challenge 2023

- Waiting list largest ever recorded
 - Donor numbers reduced (DBD > DCD)
 - Transplant activity down
 - Waiting times increasing
 - Trend towards increased waiting list mortality
- 

What are the solutions?

- **Maximising deceased donor liver transplant**
 - ***Increased utilization of existing donor pool***
 - Marginal DBDs – Cold and Normothermic perfusion
 - DCD utilization – NRP +/- Machine perfusion
 - ***Increasing donation***
- 

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- **Maximising deceased donor liver transplant**
 - ***Increased utilization of existing donor pool***
 - Marginal DBDs – Cold and Normothermic perfusion
 - DCD utilization – NRP +/- Machine perfusion
 - ***Increasing donation***
 - **Live donor liver transplantation**
- 