

Intestinal Activity

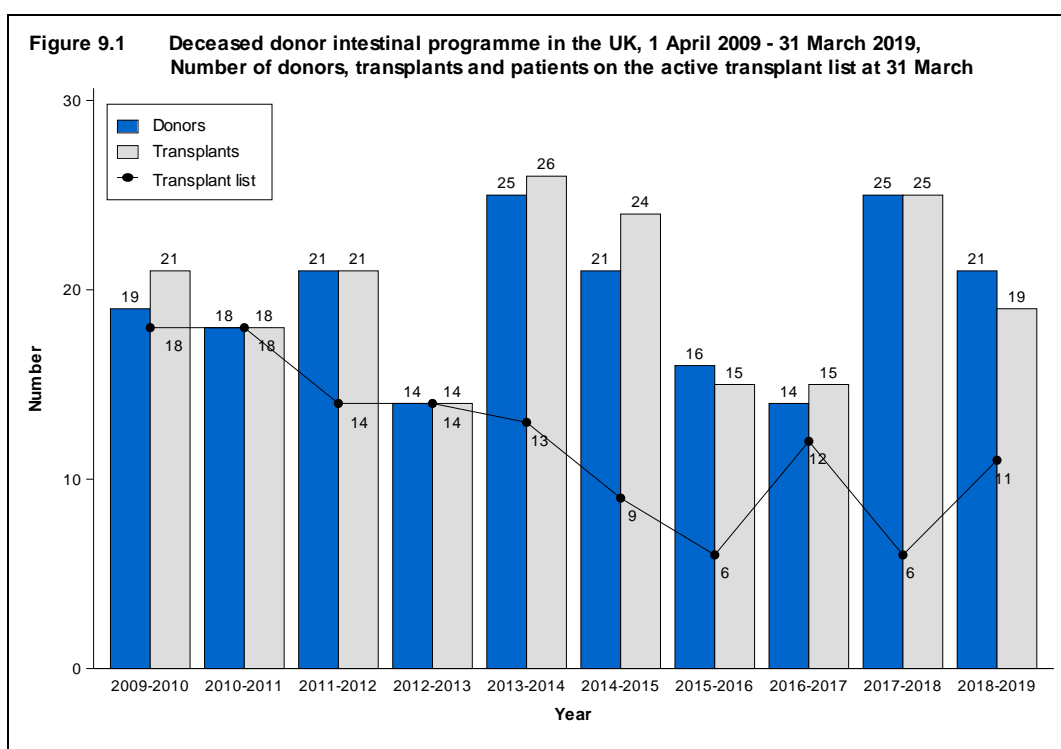
Key messages

- There were 11 patients on the active intestinal transplant list at 31 March 2019 in total
- There were 27 registrations for an intestinal transplant in 2018-2019, corresponding to 27 patients (19 adult and 8 paediatric patients)
- 19 intestinal transplants were carried out in 2018-2019 (25 in the previous year)
- On average, patients wait around 3 months for a transplant

9.1 Overview

A national Intestinal Allocation Scheme has been in place since 2013. Patients are prioritised according to a points system based on a range of clinical factors including donor-recipient age matching, loss of intravenous line access, liver failure, diagnosis of malignancy, in-hospital status, additional organs required, sensitisation and waiting time. A score is calculated for every potentially suitable patient on the national active transplant list and donor organs are allocated preferentially to the patient with the most points.

A summary of activity for deceased donor intestinal transplants and the transplant list at year end for the last ten years is shown in **Figure 9.1**. The number of patients registered on the active transplant list at 31 March 2019 for an intestinal transplant has fallen by 39% since 2010. Last year the number of intestinal transplants fell in comparison to the previous year by 24%.



9.2 Transplant list

In 2018-2019, there were 27 registrations for an intestinal transplant corresponding to 27 patients. The outcome of these registrations for paediatric (aged <18 years) and adult patients, as at 31 March 2019, broken down by transplant centre can be found in **Table 9.1**. Overall, 9 (33%) remained active/suspended, 15 (56%) resulted in a transplant, 1 (4%) died on the transplant list, and 2 (7%) were removed.

Table 9.1 Outcome of intestinal registrations in the UK, 1 April 2018 and 31 March 2019									
Transplant centre	Transplanted		Outcome of registrations as at 31 March 2019				Active/Susp		TOTAL
	N	%	Died	Removed	N	%	N	%	
Adult									
Cambridge	7	64	0	0	1	9	3	27	11
Oxford	7	88	0	0	1	13	0	0	8
TOTAL	14	74	0	0	2	11	3	16	19
Paediatric									
Birmingham	1	100	0	0	0	0	0	0	1
King's College	0	0	1	14	0	0	6	86	7
TOTAL	1	13	1	13	0	0	6	75	8

Table 9.2 shows the active intestinal transplant list in the UK at 31 March 2019 and 2018 by country/ former Strategic Health Authority of patient's residence. At 31 March 2019, the overall transplant list rate was 0.2 pmp and ranged from 0.0 to 0.6 pmp across the Strategic Health Authorities, although these numbers are very small so these are not meaningful differences.

Table 9.2 Active intestinal transplant list at 31 March, by country/ Strategic Health Authority of patient residence				
Country/ Strategic Health Authority of residence	Intestinal transplant list (pmp)			
	2019		2018	
North East	0	(0.0)	0	(0.0)
North West	0	(0.0)	0	(0.0)
Yorkshire and The Humber	0	(0.0)	1	(0.2)
North of England	0	(0.0)	1	(0.1)
East Midlands	1	(0.2)	1	(0.2)
West Midlands	0	(0.0)	0	(0.0)
East of England	4	(0.6)	1	(0.2)
Midlands and East	5	(0.3)	2	(0.1)
London	2	(0.2)	0	(0.0)
South East Coast	1	(0.2)	1	(0.2)
South Central	1	(0.2)	0	(0.0)
South West	1	(0.2)	1	(0.2)
South of England	3	(0.2)	2	(0.1)
England	10	(0.2)	5	(0.1)
Isle of Man	0	(0.0)	0	(0.0)
Channel Islands	0	(0.0)	0	(0.0)
Wales	0	(0.0)	0	(0.0)
Scotland	0	(0.0)	0	(0.0)
Northern Ireland	0	(0.0)	0	(0.0)
TOTAL¹	11	(0.2)	6	(0.1)

¹Includes patients in 2019 (2018) resident Overseas 1 (0), 0 (1) resident in the UK with an unknown postcode

Table 9.3 shows median waiting time to elective intestinal transplant by registration type. On average, patients wait 77 days for a transplant, but those requiring a liver wait significantly longer.

Table 9.3 Median waiting time to intestinal transplant in the UK, for patients registered 1 April 2014 - 31 March 2018, by registration type			
Registration type	Number of patients registered	Waiting time (days)	
		Median	95% Confidence interval
Bowel only ¹	13	58	37 – 79
Liver, bowel and pancreas ¹	51	152	87 – 217
Bowel and pancreas ¹	27	44	0 – 100
TOTAL	91	77	41 – 113

¹ May also include any of: stomach, spleen, abdominal wall, kidney

9.3 Donor and organ supply

The rates per million population (pmp) for intestinal donors are shown in **Table 9.4** by donor country/Strategic Health Authority of residence. The overall DBD intestinal donor rate was 0.3 pmp and ranged from 0.0 to 0.7 pmp across the Strategic Health Authorities. Of the 962 DBD solid organ donors, 21 (2%) donated their small bowel.

Table 9.4 Intestinal donation rates for deceased donors after brain death in the UK, 1 April 2018 - 31 March 2019, by Country/Strategic Health Authority						
Country/ Strategic Health Authority of residence	Solid organ donors (pmp)		Intestinal donors (pmp)		% of solid organ donors	Intestine transplanted
North East	64	(24.2)	1	(0.4)	1.6	1
North West	110	(15.2)	2	(0.3)	1.8	2
Yorkshire and The Humber	79	(14.5)	2	(0.4)	2.5	1
North of England	253	(16.5)	5	(0.3)	2.0	4
East Midlands	62	(13.0)	0	(0.0)	-	-
West Midlands	73	(12.5)	0	(0.0)	-	-
East of England	85	(13.8)	0	(0.0)	-	-
Midlands and East	220	(13.1)	0	(0.0)	-	-
London	116	(13.1)	2	(0.2)	1.7	2
South East Coast	83	(17.7)	3	(0.6)	3.6	3
South Central	62	(14.2)	2	(0.5)	3.2	2
South West	80	(14.4)	4	(0.7)	5.0	4
South of England	225	(15.4)	9	(0.6)	4.0	9
England	814	(14.6)	16	(0.3)	2.0	15
Isle of Man	2	(25.0)	0	(0.0)	-	-
Channel Islands	1	(6.3)	0	(0.0)	-	-
Wales	51	(16.3)	2	(0.6)	3.9	2
Scotland	68	(12.5)	1	(0.2)	1.5	1
Northern Ireland	26	(13.9)	2	(1.1)	7.7	1
TOTAL¹	962	(14.6)	21	(0.3)	2.2	19

¹ Includes 9 donors where the hospital postcode was used in place of an unknown donor postcode

9.4 Transplants

Table 9.5 shows intestinal transplant activity by transplant centre and transplant type for financial years 2017-2018 and 2018-2019. In 2018-2019, there were a total of 19 transplants, 16 adult and 3 paediatric transplants.

At 31 March 2019 there were approximately 100 recipients with a functioning intestinal transplant (or multi-organ including intestine) being followed-up as reported to the UK Transplant Registry.

Table 9.5 Intestinal transplants in the UK, by age group, centre and type, 1 April 2018 - 31 March 2019 (2017-2018)												
Transplant centre	Transplant type										TOTAL	
	BO		LBP		MV		MMV		LB			
Adult												
Cambridge	0	(1)	0	(0)	5	(7)	3	(5)	0	(0)	8	(13)
Oxford	7	(4)	0	(0)	0	(0)	1	(0)	0	(0)	8	(4)
TOTAL	7	(5)	0	(0)	5	(7)	4	(5)	0	(0)	16	(17)
Paediatric												
Birmingham	1	(0)	0	(2)	0	(2)	0	(0)	0	(0)	1	(4)
Cambridge	0	(0)	0	(0)	0	(1)	0	(0)	0	(0)	0	(1)
King's College	0	(1)	1	(0)	1	(2)	0	(0)	0	(1)	2	(4)
TOTAL	1	(1)	1	(2)	1	(5)	0	(0)	0	(1)	3	(9)
BO = Bowel only (may also include stomach/spleen/abdominal wall/kidney/colon)												
BP = Bowel and pancreas												
LBP = Liver, bowel and pancreas												
MV = Multivisceral – liver, bowel and pancreas plus stomach/spleen/abdominal wall/kidney/colon												
MMV = Modified multivisceral – bowel and pancreas plus stomach/spleen/abdominal wall/kidney/colon												
LB = Liver and bowel												

9.5 Demographic characteristics

The age group, sex, ethnicity and blood group of intestinal donors, transplant recipients and transplant list patients are shown in **Table 9.6**.

Table 9.6 Demographic characteristics of deceased intestinal donors and transplant recipients 1 April 2018 - 31 March 2019, and transplant list patients at 31 March in the UK						
Age group (years)	Donors		Transplant recipients		Active transplant list patients	
	N	(%)	N	(%)	N	(%)
0 - 17	6	(29)	3	(16)	7	(64)
18 - 34	7	(33)	6	(32)	2	(18)
35 - 49	8	(38)	6	(32)	1	(9)
50 - 59	0	(0)	3	(16)	0	(0)
60 - 69	0	(0)	1	(5)	1	(9)
70+	0	(0)	0	(0)	0	(0)
mean (SD)	24	(14)	36	(16)	17	(19)
Male	8	(38)	14	(74)	4	(36)
Female	13	(62)	5	(26)	7	(64)
White	21	(100)	17	(89)	7	(64)
Asian	0	(0)	2	(11)	1	(9)
Chinese	0	(0)	0	(0)	1	(9)
Other	0	(0)	0	(0)	2	(18)
O	13	(62)	7	(37)	5	(45)
A	7	(33)	9	(47)	5	(45)
B	1	(5)	3	(16)	0	(0)
AB	0	(0)	0	(0)	1	(9)
First graft			19	(100)	9	(82)
Re-graft			0	(0)	2	(18)
TOTAL	21¹	(100)	19	(100)	11	(100)

¹ Includes 2 donors whose bowel was retrieved but not transplanted