

Intestinal Activity

Key messages

- There were 12 patients on the active intestinal transplant list at 31 March 2017 in total
- 27 patients were registered for an intestinal transplant in 2016-2017 (18 adult and 9 paediatric patients).
- 15 intestinal transplants were carried out in 2016-2017 (15 in the previous year)
- On average, patients wait around 2 months for a transplant

9.1 Overview

During 2016-2017, there were 27 registrations for an intestinal transplant. As at 31 March 2017, 11 (41%) registrations remained active/suspended, 13 (48%) resulted in a transplant, 3 (11%) resulted in a death on the transplant list.

Over the last two years (between 1 April 2015 and 31 March 2017), the number of intestinal transplants has remained at 15 transplants carried out in 2016-2017 and in 2015-2016.

A national Intestinal Allocation Scheme was introduced in July 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 the intestine is allocated preferentially to the patient with the most points. This differs from the previous system in which donor intestines were allocated to patients purely on waiting time.

9.2 Transplant list

In 2016-2017, there were 27 registrations for an intestinal transplant. The outcome of these registrations for paediatric (aged <18 years) and adult patients, as at 31 March 2017, broken down by transplant centre can be found in **Table 9.1**.

Table 9.1 Outcome of intestinal registrations in the UK, 1 April 2016 and 31 March 2017									
Transplant centre	Outcome of registrations as at 31 March 2017								TOTAL
	Transplanted		Died		Removed		Active/Susp		
	N	%	N	%	N	%	N	%	
Adult									
Cambridge	5	42	2	17	0	0	5	42	12
Oxford	5	83	1	17	0	0	0	0	6
TOTAL	10	56	3	17	0	0	5	28	18
Paediatric									
Birmingham	0	0	0	0	0	0	4	100	4
King's College	3	60	0	0	0	0	2	40	5
TOTAL	3	33	0	0	0	0	6	67	9

Table 9.2 shows the intestinal transplant list rate in the UK by country/Strategic Health Authority of patient's residence. At 31 March 2017, the overall transplant list rate was 0.2 pmp and ranged from 0 to 0.2 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)			
	2017		2016	
North East	0	(0.0)	0	(0.0)
North West	0	(0.0)	0	(0.0)
Yorkshire and The Humber	0	(0.0)	0	(0.0)
North of England	0	(0.0)	0	(0.0)
East Midlands	2	(0.4)	1	(0.2)
West Midlands	0	(0.0)	1	(0.2)
East of England	0	(0.0)	1	(0.2)
Midlands and East	2	(0.1)	3	(0.2)
London	1	(0.1)	1	(0.1)
South East Coast	1	(0.2)	0	(0.0)
South Central	0	(0.0)	1	(0.2)
South West	1	(0.2)	1	(0.2)
South of England	2	(0.1)	2	(0.1)
England	5	(0.1)	6	(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	1	(0.2)	0	(0.0)
Northern Ireland	0	(0.0)	0	(0.0)
TOTAL¹	12	(0.2)	6	(0.1)

¹ Includes 6 patients in 2017 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 66 days for a transplant.

Table 9.3 Median waiting time to intestinal transplant in the UK, for patients registered 1 April 2013 - 31 March 2016			
Registration type	Number of patients registered	Waiting time (days)	
		Median	95% Confidence interval
Bowel only ¹	10	58	30 – 86
Liver, bowel and pancreas ¹	39	134	49 – 219
Bowel and pancreas ¹	16	65	16 – 114
TOTAL	65	66	43 – 89

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 0.2 pmp and ranged from 0 to 0.7 pmp across the Strategic Health Authorities. Of the 829 DBD solid organ donors, 14 (2%) donated their small bowel.

Table 9.4 Intestinal donation rates for deceased donors after brain death in the UK, 1 April 2016 - 31 March 2017, by country/Strategic Health Authority						
Country/ Strategic Health Authority of residence	Solid organ donors (pmp)		Intestinal donors (pmp)		% of solid organ donors	Organs used
North East	53	(20.2)	0	(0.0)	-	-
North West	90	(12.6)	1	(0.1)	1.1	1
Yorkshire and The Humber	59	(10.9)	1	(0.2)	1.7	1
North of England	202	(13.3)	2	(0.1)	1.0	2
East Midlands	39	(8.3)	2	(0.4)	5.1	2
West Midlands	72	(12.5)	4	(0.7)	5.6	4
East of England	74	(12.2)	1	(0.2)	1.4	1
Midlands and East	185	(11.2)	7	(0.4)	3.8	7
London	96	(11.1)	1	(0.1)	1.0	1
South East Coast	73	(15.8)	1	(0.2)	1.4	1
South Central	51	(11.8)	0	(0.0)	-	-
South West	67	(12.2)	0	(0.0)	-	-
South of England	191	(13.2)	1	(0.1)	0.5	1
England	674	(12.3)	11	(0.2)	1.6	11
Isle of Man	2	(25.0)	0	(0.0)	-	-
Channel Islands	4	(25.0)	0	(0.0)	-	-
Wales	39	(12.6)	0	(0.0)	-	-
Scotland	79	(14.7)	1	(0.2)	1.3	1
Northern Ireland	31	(16.8)	2	(1.1)	6.5	2
TOTAL¹	829	(12.7)	14	(0.2)	1.7	14

¹ Includes 13 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 2015-2016 and 2016-2017. In 2016-2017, there were a total of 15 transplants, 11 adult and 4 paediatric transplants.

At 31 March 2017 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 2016 - 31 March 2017 (2015-2016)										
Transplant centre	Transplant type									
	BO		LBP		MV		MMV		TOTAL	
Adult										
Cambridge	0	(0)	0	(0)	2	(6)	4	(3)	6	(9)
Oxford	3	(0)	0	(0)	0	(0)	2	(3)	5	(3)
TOTAL¹	3	(0)	0	(0)	2	(6)	6	(6)	11	(12)
Paediatric										
Birmingham	0	(1)	1	(1)	0	(0)	0	(0)	1	(2)
King's College	1	(0)	0	(0)	2	(1)	0	(0)	3	(1)
TOTAL	1	(1)	1	(1)	2	(1)	0	(0)	4	(3)
¹ Excludes one abdominal wall only transplant 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										

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 2016 - 31 March 2017, 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	(43)	4	(27)	7	(58)
18 - 34	5	(36)	2	(13)	2	(17)
35 - 49	2	(14)	5	(33)	2	(17)
50 - 59	1	(7)	4	(27)	1	(8)
mean (SD)	25	(14)	36	(19)	19	(21)
Male	6	(43)	11	(73)	5	(42)
Female	8	(57)	4	(27)	7	(58)
White	11	(79)	12	(80)	12	(100)
Asian	1	(7)	1	(7)	0	(0)
Other	2	(14)	2	(13)	0	(0)
O	6	(43)	3	(20)	7	(58)
A	7	(50)	7	(47)	5	(42)
B	1	(7)	3	(20)	0	(0)
AB	0	(0)	2	(13)	0	(0)
First graft			14	(93)	11	(92)
Re-graft			1	(7)	1	(8)
TOTAL	14	(100)	15¹	(100)	12	(100)

¹ Includes 1 overseas donors