

Intestinal Activity

Key messages

- The number of patients on the active intestinal transplant list at 31 March 2016 was 6
- 15 patients were registered for an intestinal transplant in 2015-2016 (11 adult and 5 paediatric patients).
- 15 intestinal transplants were carried out in 2015-2016 (24 in the previous period)
- On average, patients wait around 2 months for a transplant

9.1 Overview

During 2015-2016, there were 16 registrations for an intestinal transplant. As at 31 March 2016, 5 (31%) registrations remained active/suspended, 9 (56%) resulted in a transplant, 1 (6%) and 1 (6%) resulted in a death on, and removal from, the transplant list, respectively.

Over the last two years (between 1 April 2014 and 31 March 2016), the number of intestinal transplants has fallen, with 15 transplants carried out in 2015-2016 compared to 24 in 2014-2015.

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 2015-2016, there were 16 registrations for an intestinal transplant. The outcome of these registrations for paediatric (aged <18 years) and adult patients, as at 31 March 2016, broken down by transplant centre can be found in **Table 9.1**.

Table 9.1 Outcome of intestinal registrations in the UK, 1 April 2015 and 31 March 2016									
Transplant centre	Outcome of registrations as at 31 March 2016								TOTAL
	Transplanted		Died		Removed		Active/Susp		
	N	%	N	%	N	%	N	%	
Adult									
Birmingham	0	0	1	100	0	0	0	0	1
Cambridge	8	89	0	0	0	0	1	11	9
Oxford	1	100	0	0	0	0	0	0	1
TOTAL	9	82	1	9	0	0	1	9	11
Paediatric									
Birmingham	0	0	0	0	0	0	2	100	2
King's College	0	0	0	0	1	33	2	67	3
TOTAL	0	0	0	0	1	20	4	80	5

Table 9.2 shows the intestinal transplant list rate in the UK by country/Strategic Health Authority of patient's residence. At 31 March 2016, the overall transplant list rate was 0.1 pmp and ranged from 0 to 0.2 pmp across the Strategic Health Authorities, although these numbers are very small so differences are not meaningful.

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)			
	2016		2015	
North East	0	(0.0)	0	(0.0)
North West	0	(0.0)	1	(0.1)
Yorkshire and The Humber	0	(0.0)	0	(0.0)
North of England	0	(0.0)	1	(0.1)
East Midlands	1	(0.2)	2	(0.4)
West Midlands	1	(0.2)	0	(0.0)
East of England	1	(0.2)	3	(0.5)
Midlands and East	3	(0.2)	5	(0.3)
London	1	(0.1)	0	(0.0)
South East Coast	0	(0.0)	1	(0.2)
South Central	1	(0.2)	0	(0.0)
South West	1	(0.2)	1	(0.2)
South of England	2	(0.1)	2	(0.1)
England	6	(0.1)	8	(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	6	(0.1)	9	(0.1)

¹ Includes patients in 2016 (2015) resident Overseas 0 (1)

Table 9.3 shows median waiting time to elective intestinal transplant by registration type. On average, patients wait 68 days for a transplant.

Table 9.3 Median waiting time to intestinal transplant in the UK, for patients registered 1 April 2012 - 31 March 2015			
Registration type	Number of patients registered	Waiting time (days)	
		Median	95% Confidence interval
Bowel only ¹	17	34	8 – 60
Liver, bowel and pancreas ¹	37	134	11 – 257
Bowel and pancreas ¹	14	68	63 – 73
TOTAL	68	68	38 – 98

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 785 DBD solid organ donors, 16 (2%) donated their small bowel.

Table 9.4 Intestinal donation rates for deceased donors after brain death in the UK, 1 April 2015 - 31 March 2016, 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	40	(15.3)	0	(0.0)	-	-
North West	80	(11.2)	0	(0.0)	-	-
Yorkshire and The Humber	61	(11.4)	2	(0.4)	3.3	2
North of England	181	(12.0)	2	(0.1)	1.1	2
East Midlands	46	(9.9)	1	(0.2)	2.2	1
West Midlands	62	(10.9)	0	(0.0)	-	-
East of England	65	(10.8)	4	(0.7)	6.2	3
Midlands and East	173	(10.6)	5	(0.3)	2.9	4
London	85	(10.0)	2	(0.2)	2.4	2
South East Coast	81	(17.6)	0	(0.0)	-	-
South Central	60	(14.0)	1	(0.2)	1.7	1
South West	78	(14.4)	1	(0.2)	1.3	1
South of England	219	(15.3)	2	(0.1)	0.9	2
England	658	(12.1)	11	(0.2)	1.7	10
Isle of Man	1	(12.5)	0	(0.0)	-	-
Channel Islands	2	(12.5)	0	(0.0)	-	-
Wales	37	(12.0)	0	(0.0)	-	-
Scotland	58	(10.8)	4	(0.7)	6.9	4
Northern Ireland	29	(15.8)	1	(0.5)	3.4	1
TOTAL¹	785	(12.1)	16	(0.2)	2.0	15

¹ Includes 11 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 2014-2015 and 2015-2016. In 2015-2016, there were a total of 15 transplants, 12 adult and 3 paediatric transplants.

At 31 March 2016 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 2015 - 31 March 2016 (2014-2015)										
Transplant centre	BO		Transplant type				MMV		TOTAL	
			LBP		MV					
Adult										
Cambridge	0	(0)	0	(0)	6	(8)	3	(3)	9	(11)
Oxford	0	(3)	0	(0)	0	(0)	3	(1)	3	(4)
TOTAL	0	(3)	0	(0)	6	(8)	6	(4)	12	(15)
Paediatric										
Birmingham	1	(2)	1	(2)	0	(0)	0	(0)	2	(4)
King's College	0	(1)	0	(1)	1	(3)	0	(0)	1	(5)
TOTAL	1	(3)	1	(3)	1	(3)	0	(0)	3	(9)
BO = Bowel only (may also include stomach/spleen/abdominal wall/kidney/colon) 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 is shown in **Table 9.6**.

Table 9.6 Demographic characteristics of deceased intestinal donors and transplant recipients 1 April 2015 - 31 March 2016, 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	5	(31)	3	(20)	4	(67)
18 - 34	9	(56)	4	(27)	2	(33)
35 - 49	1	(6)	3	(20)	0	(0)
50 - 59	1	(6)	3	(20)	0	(0)
60 - 69	0	(0)	2	(13)	0	(0)
70+	0	(0)	0	(0)	0	(0)
mean (SD)	23	(14)	35	(21)	12	(13)
Male	9	(56)	6	(40)	4	(67)
Female	7	(44)	9	(60)	2	(33)
White	15	(94)	13	(87)	6	(100)
Asian	1	(6)	1	(7)	0	(0)
Other	0	(0)	1	(7)	0	(0)
O	11	(69)	6	(40)	3	(50)
A	5	(31)	7	(47)	2	(33)
B	0	(0)	1	(7)	1	(17)
AB	0	(0)	1	(7)	0	(0)
First graft			14	(93)	4	(67)
Re-graft			1	(7)	2	(33)
TOTAL	16	(100)	15	(100)	6	(100)