Cardiothoracic Activity

Key messages

- **At 31 March 2018, there were 284 patients on the active heart transplant list, 344 on the lung list and 13 on the heart-lung list**
- **Of the 955 organ donors after brain death during 2017-2018, 304 (32%) were cardiothoracic organ donors**
- **As of 18 May 2017, patients can now be registered as urgent or super-urgent for a lung transplant**
- **The number of heart transplants remained the same at 198; 60% of these were urgent heart transplants, 18% were super-urgent and 22% were non-urgent**
- **The number of lung and heart-lung transplants from deceased donors increased by 20% this year to 214**
- **There were 25 DCD heart transplants in 2017-2018**

7.1 Overview

Last year the number of heart transplants remained the same as the previous year, at 198, and the number of lung or heart-lung transplants increased by 20% to 214. There has been an increase in the heart transplant list and a fall in the lung transplant list since March 2017. The number of patients waiting on the active heart transplant list at year end has increased by 205% since 2009, while the number of patients registered for a lung or heart-lung transplant has increased by 56% since 2009.

A summary of the deceased donor cardiothoracic activity from 1 April 2008 to 31 March 2018 is shown in **Figure 7.1** for heart activity and **Figure 7.2** for lung activity. Donors who donate both heart and lung(s) are included in both figures, but heart-lung block transplants and patients active on the transplant list for a heart-lung block are only included in **Figure 7.2**.

Figure 7.1 Deceased donor heart programme in the UK, 1 April 2008 - 31 March 2018, Number of donors, transplants and patients on the active transplant list at 31 March

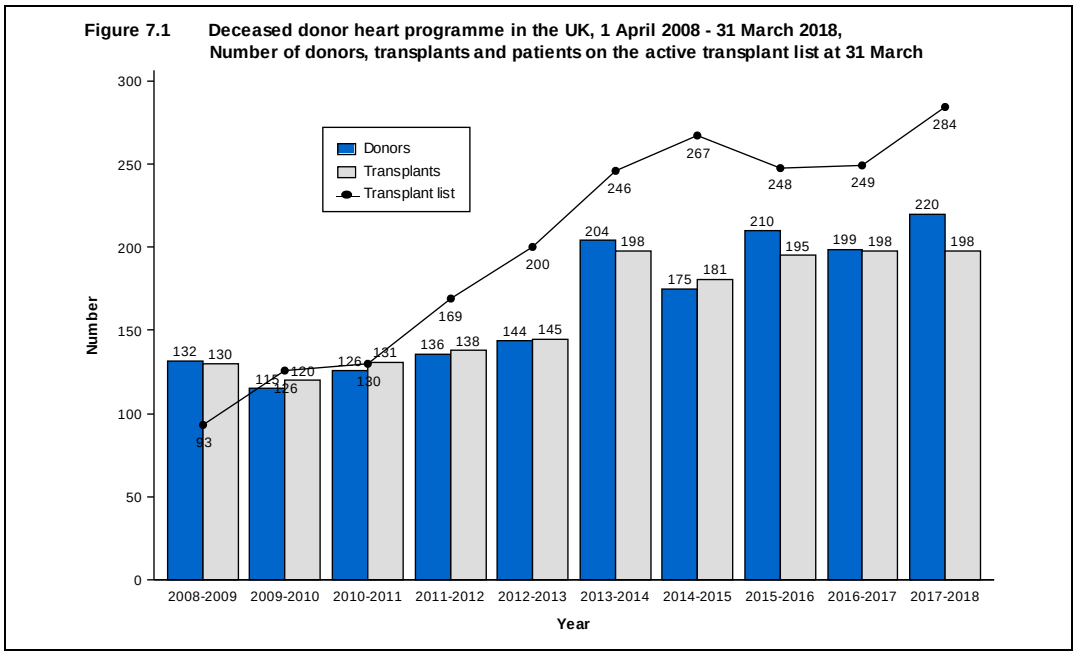
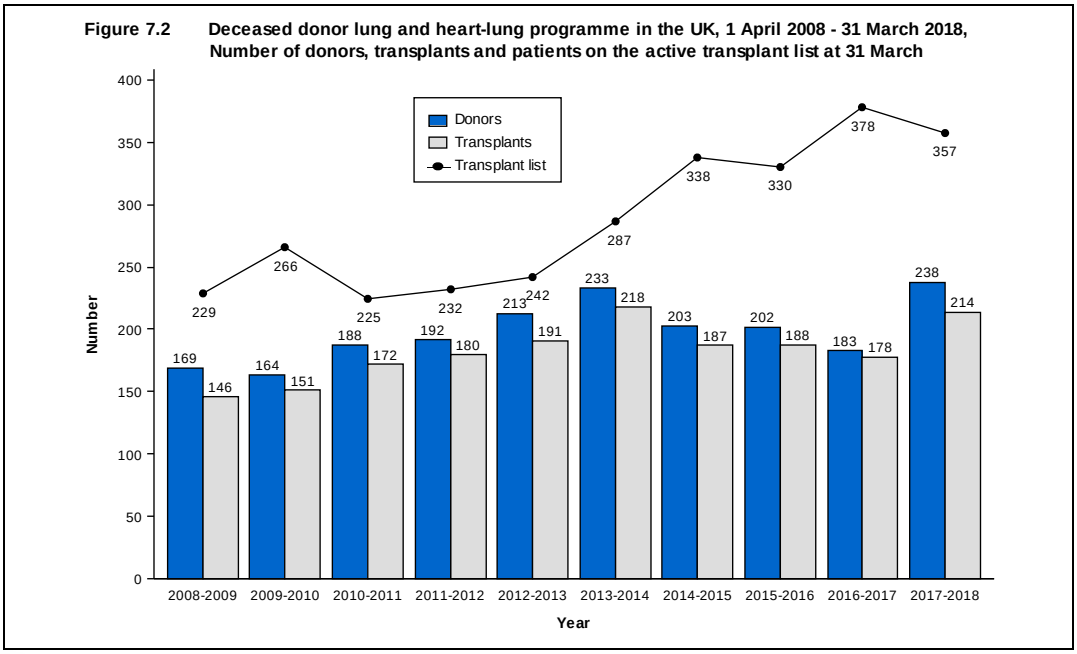


Figure 7.2 Deceased donor lung and heart-lung programme in the UK, 1 April 2008 - 31 March 2018, Number of donors, transplants and patients on the active transplant list at 31 March



7.2 Transplant list

As of 18 May 2017, patients can be registered urgently and super-urgently on the lung transplant waiting list. These two new tiers were introduced with the primary aim to improve access to transplant for the sickest patients on the transplant list.

Table 7.1 shows the number of patients on the active transplant lists at 31 March 2018 by centre. There were two patients waiting on the super-urgent heart transplant list. There were no patients waiting on the super-urgent lung transplant list, and two patients waiting on the urgent lung transplant list. The lung transplant list accounts for 54% of the patients waiting for a cardiothoracic organ transplant. Overall, Newcastle and Harefield had the largest cardiothoracic lists on 31 March 2018.

Table 7.1 Patients on the cardiothoracic transplant lists at 31 March 2018 (2017) in the UK, by centre

Centre	Active transplant lists															
	Heart						Heart-lung		Lung						TOTAL	
	Non-urgent		Urgent		Super-urgent				Non-urgent		Urgent		Super-urgent			
Adult																
Birmingham	33	(26)	5	(4)	1	(0)	2	(2)	41	(44)	0	(0)	0	(0)	**82**	**(76)**
Glasgow	22	(13)	1	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	**23**	**(13)**
Great Ormond Street[1]	0	(1)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	**0**	**(1)**
Harefield	68	(51)	11	(9)	0	(0)	3	(3)	132	(141)	0	(0)	0	(0)	**214**	**(204)**
Manchester	30	(23)	3	(1)	1	(0)	4	(4)	44	(42)	0	(0)	0	(0)	**82**	**(70)**
Newcastle	61	(50)	7	(5)	0	(0)	2	(5)	88	(95)	0	(0)	0	(0)	**158**	**(155)**
Papworth	14	(35)	1	(2)	0	(0)	2	(2)	34	(30)	1	(0)	0	(0)	**52**	**(69)**
TOTAL	**228**	**(199)**	**28**	**(21)**	**2**	**(0)**	**13[2]**	**(16)**	**339**	**(352)**	**1**	**(0)**	**0**	**(0)**	**611**	**(588)**
Paediatric																
Great Ormond Street	15	(14)	8	(4)	0	(0)	0	(2)	1	(3)	1	(0)	0	(0)	**25**	**(23)**
Newcastle	1	(7)	2	(4)	0	(0)	0	(0)	2	(5)	0	(0)	0	(0)	**5**	**(16)**
TOTAL	**16**	**(21)**	**10**	**(8)**	**0**	**(0)**	**0**	**(2)**	**3**	**(8)**	**1**	**(0)**	**0**	**(0)**	**30**	**(39)**

[1] Paediatric patients are aged under 16 years at 31 March 2018 (2017). Note that 1 patient active at 31 March 2017 at Great Ormond Street had turned 16 whilst on the list and so is categorised here as adult.
[2] All non-urgent

During 2017-2018, 332 patients joined the heart transplant list while 12 joined the heart-lung transplant list and 284 joined the lung transplant list. Registration outcomes as at 31 March 2018 for patients on the list at 1 April 2017 and those joining the list during the year are shown in **Table 7.2**.

Table 7.2 Cardiothoracic organ transplant lists and new registrations in the UK, 1 April 2017 - 31 March 2018

Outcome of patient at 31 March 2018	Active and suspended patients at 1 April 2017		New registrations in 2017-2018[1]		**TOTAL**	
	N	%	N	%	**N**	**%**
Heart transplant list						
Remained active/suspended	162	60	138	42	**300**	**50**
Transplanted	60	22	137	41	**197**	**33**
Removed	35	13	46	14	**81**	**14**
Died	11	4	11	3	**22**	**4**
TOTAL	**268**		**332**		**600**	
Heart-lung transplant list						
Remained active/suspended	9	53	5	38	**14**	**47**
Transplanted[2]	6	35	6	46	**12**	**40**
Removed	1	6	0	0	**1**	**3**
Died	2	12	1	8	**3**	**10**
TOTAL	**18**		**12**		**30**	
Lung transplant list						
Remained active/suspended	191	53	155	55	**346**	**54**
Transplanted	98	27	99	35	**197**	**31**
Removed	35	10	5	2	**40**	**6**
Died	36	10	25	9	**61**	**9**
TOTAL	**360**		**284**		**644**	

[1] Includes re-registrations for second or subsequent transplants
[2] Patient may have received heart, lung or heart-lung

Table 7.3 shows the transplant list rates per million population by country/Strategic Health Authority of patient's residence. The overall UK heart transplant list rate at 31 March 2018 was 4.3 pmp and ranged from 1.5 to 6.4 across the Strategic Health Authorities. The overall UK lung transplant list rate was 5.4 pmp and ranged from 3.8 to 7.7 across the Strategic Health Authorities.

Table 7.3 Active cardiothoracic transplant list at 31 March, by country/ Strategic Health Authority of patient residence

Country/ Strategic Health Authority of residence	Heart transplant list (pmp) 2018		2017		Lung transplant list (pmp)[1] 2018		2017	
North East	17	(6.4)	16	(6.1)	10	(3.8)	13	(4.9)
North West	36	(5.0)	36	(5.0)	35	(4.8)	38	(5.3)
Yorkshire and The Humber	25	(4.6)	14	(2.6)	40	(7.4)	37	(6.8)
North of England	**78**	**(5.1)**	**66**	**(4.3)**	**85**	**(5.6)**	**88**	**(5.8)**
East Midlands	7	(1.5)	12	(2.5)	21	(4.4)	17	(3.6)
West Midlands	29	(5.0)	28	(4.8)	34	(5.9)	39	(6.7)
East of England	20	(3.3)	16	(2.6)	32	(5.2)	23	(3.8)
Midlands and East	**56**	**(3.4)**	**56**	**(3.4)**	**87**	**(5.2)**	**79**	**(4.7)**
London	**34**	**(3.9)**	**32**	**(3.6)**	**33**	**(3.8)**	**35**	**(4.0)**
South East Coast	24	(5.2)	20	(4.3)	36	(7.7)	37	(7.9)
South Central	17	(3.9)	16	(3.7)	21	(4.8)	25	(5.7)
South West	19	(3.4)	14	(2.5)	31	(5.6)	37	(6.7)
South of England	**60**	**(4.1)**	**50**	**(3.4)**	**88**	**(6.1)**	**99**	**(6.8)**
England	**228**	**(4.1)**	**204**	**(3.7)**	**293**	**(5.3)**	**301**	**(5.4)**
Isle of Man	**0**	**(0.0)**	**0**	**(0.0)**	**0**	**(0.0)**	**0**	**(0.0)**
Channel Islands	**0**	**(0.0)**	**0**	**(0.0)**	**0**	**(0.0)**	**0**	**(0.0)**
Wales	**10**	**(3.2)**	**7**	**(2.3)**	**19**	**(6.1)**	**25**	**(8.0)**
Scotland	**30**	**(5.6)**	**24**	**(4.4)**	**33**	**(6.1)**	**34**	**(6.3)**
Northern Ireland	**9**	**(4.8)**	**8**	**(4.3)**	**11**	**(5.9)**	**14**	**(7.5)**
TOTAL[2,3]	**284**	**(4.3)**	**249**	**(3.8)**	**357**	**(5.4)**	**378**	**(5.7)**

[1] Includes patients waiting for both heart and lungs
[2] Includes heart patients in 2018 (2017) resident in: UK unknown 2 (1); Republic of Ireland 1(2); Overseas 4(3)
[3] Includes lung patients in 2018 (2017) resident in: UK unknown 1 (1); Republic of Ireland 0(3)

The transplant list outcomes for adult patients listed for a cardiothoracic organ transplant between 1 April 2014 and 31 March 2015 are summarised in **Figure 7.3**, **Figure 7.4** and **Figure 7.5**. These show the proportion of patients transplanted, still waiting, removed and those who died within six months, one year, two years and three years after joining the non-urgent or urgent heart list or the lung list, respectively. Within six months of listing, 13% of non-urgent heart patients were transplanted while 7% had died, compared with 70% transplanted and 8% died for urgent heart patients. Of those listed for a non-urgent lung transplant, 33% were transplanted within six months, rising to 56% after three years. The patients removed from these lists may have subsequently died.

Figure 7.3 **Post-registration outcome for 151 first non-urgent heart only registrations made in the UK, 1 April 2014 - 31 March 2015**

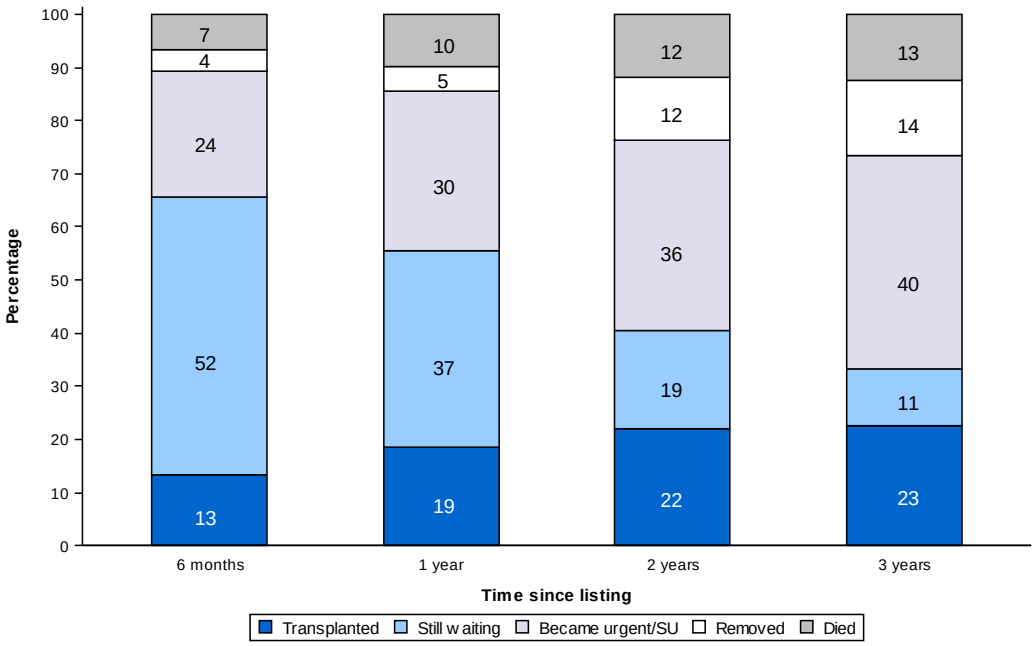


Figure 7.4 **Post-registration outcome for 214 first urgent heart only registrations made in the UK, 1 April 2014 - 31 March 2015**

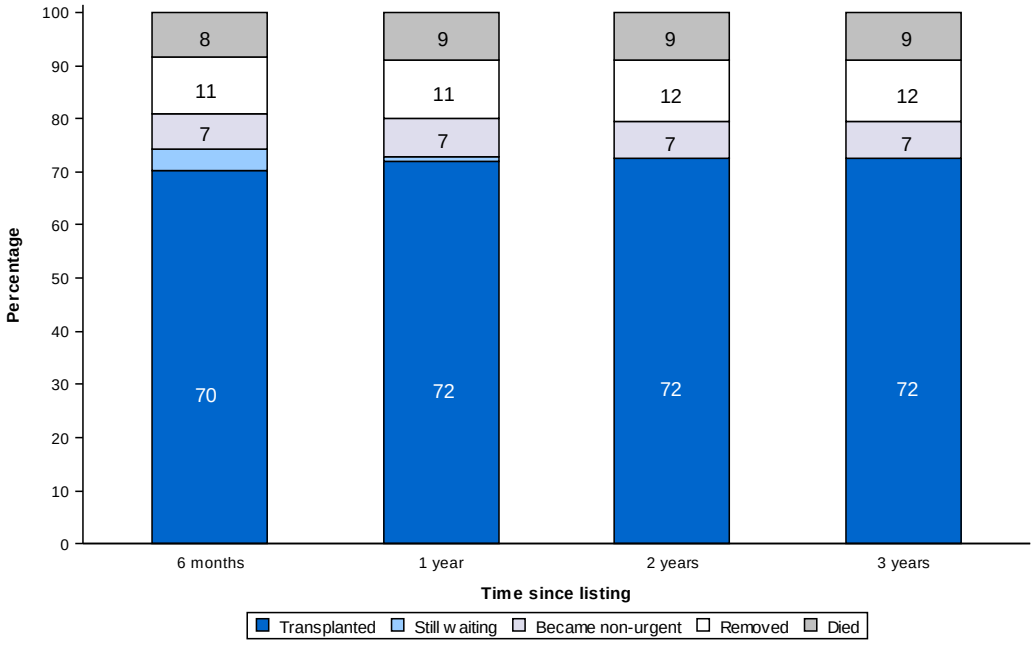


Figure 7.5 **Post-registration outcome for 309 first lung only registrations made in the UK, 1 April 2014 - 31 March 2015**

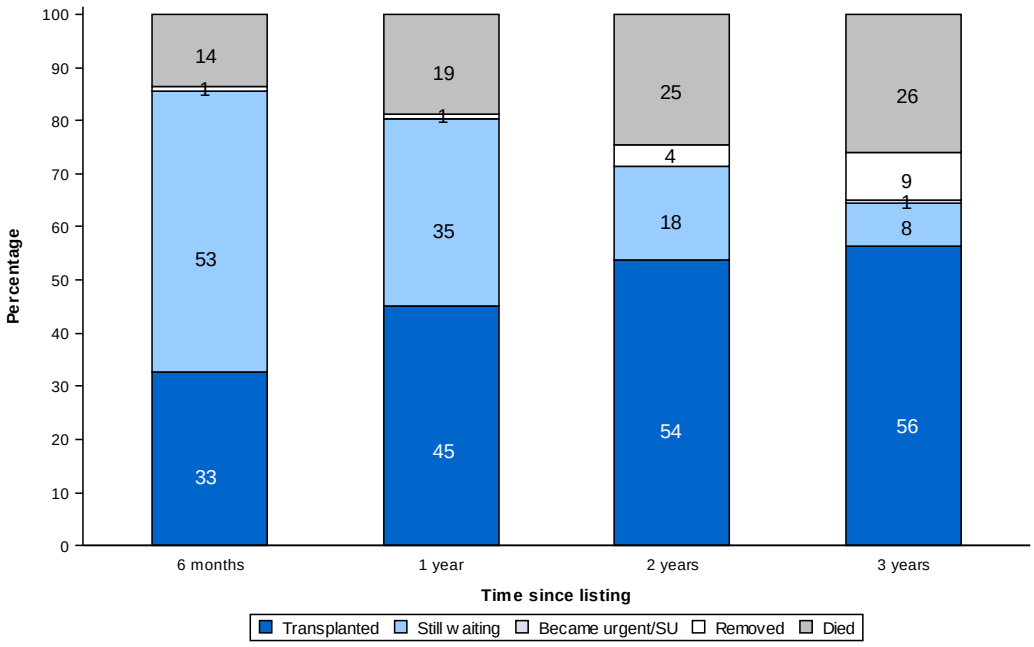


Table 7.4 and **Table 7.5** show the median waiting time to cardiothoracic organ transplant by blood group and ethnicity of patient, respectively, for patients registered between 1 April 2011 and 31 March 2015. The overall median waiting time to heart transplantation, for adults, was 1,065 days for patients who had never been on the urgent waiting list ('never urgent'). For patients who had been on the urgent list ('ever urgent'), the overall median time on the urgent list before transplant was 29 days. The overall median waiting time to lung transplantation, for adults, was 274 days, but for blood group O patients alone was 436 days. For paediatric heart patients, the median waiting time was 463 days for non-urgent registrations and 70 days for urgent registrations (this is not broken down by blood group or ethnicity due to low numbers). Median waiting time is not calculated for paediatric lung patients due to the small number of registrations. Note that these waiting times are not adjusted for other relevant factors which may be influential and which may differ across blood or ethnic groups.

Table 7.4 Median waiting time to cardiothoracic transplant in the UK, for patients registered 1 April 2011 - 31 March 2015, by blood group

Blood group	Number of patients registered	Waiting time (days) Median	95% Confidence interval
Adult never urgent heart			
O[1]	143	-	-
A	164	395	266 - 524
B	37	497	117 - 877
AB	17	58	15 - 101
TOTAL	**361**	**1065**	**548 - 1582**
Adult ever urgent heart (urgent waiting time only)			
O	251	47	38 - 56
A	221	17	14 - 20
B	71	32	19 - 45
AB	25	18	9 - 27
TOTAL	**568**	**29**	**25 - 33**
Paediatric never urgent heart	**32**	**463**	**0 - 1642**
Paediatric ever urgent heart (urgent waiting time only)	**160**	**70**	**46 - 94**
Adult lung			
O	496	436	358 - 514
A	451	158	131 - 185
B	113	231	195 - 267
AB	27	176	116 - 236
TOTAL	**1087**	**274**	**239 - 309**

[1] Median and/or 95% confidence interval cannot be estimated

Table 7.5 Median waiting time to cardiothoracic transplant in the UK, for patients registered 1 April 2011 - 31 March 2015, by ethnicity

Ethnicity	Number of patients registered	Waiting time (days) Median	95% Confidence interval
Adult never urgent heart			
White	321	1280	707 - 1853
Asian	17	344	188 - 500
Black[1]	15	-	-
Other[2]	7	-	-
TOTAL[3]	**361**	**1065**	**548 - 1582**
Adult ever urgent heart (urgent waiting time only)			
White	494	27	23 - 31
Asian	41	43	29 - 57
Black	16	71	64 - 78
Other	12	38	24 - 52
TOTAL[3]	**568**	**29**	**25 - 33**
Paediatric never urgent heart	**32**	**463**	**0 - 1642**
Paediatric ever urgent heart	**160**	**70**	**46 - 94**
Adult lung			
White	1027	261	227 - 295
Asian	38	1191	284 - 2098
Black	11	603	385 - 821
Other[2]	5	-	-
TOTAL[3]	**1087**	**274**	**239 - 309**

[1] Median and/or 95% confidence interval cannot be estimated
[2] Median waiting time not calculated for fewer than 10 patients
[3] Totals do not add up where we do not have ethnicity reported for all patients

7.3 Donor and organ supply

Table 7.6 shows the number of deceased organ donors identified in each heart allocation zone, and the number of donors that had their heart retrieved and transplanted, by donor type. It also shows the number in each zone who donated their lung(s) as well as their heart. Of the 955 DBD donors, 191 (20%) donated their heart, resulting in 183 transplants. Of the 619 DCD donors, 29 (5%) donated their heart, resulting in 25 transplants.

Table 7.7 shows the number of deceased organ donors identified in each lung allocation zone, and the number of donors that had their lungs retrieved and transplanted, by donor type. It also shows the number in each zone who donated their heart as well as their lung(s). Of the 955 DBD donors, 196 (21%) donated at least one lung, with 177 proceeding to transplantation. Of the 619 DCD donors, 42 (7%) donated at least one lung, with 38 proceeding to transplantation.

Note that from May 2017, hearts and lungs have had separate allocation zones and so the number of donors in zones does not match between heart and lung allocation zones. Prior to this, there were joint cardiothoracic allocation zones.

Table 7.6 Heart organ donation and retrieval rates in the UK, 1 April 2017 - 31 March 2018, by heart allocation zone and donor type

	DBD				DCD			
Heart Allocation Zone	**Number of donors**	**Number of heart donors (utilised)**		**Number donated heart and lungs**	**Number of donors**	**Number of heart donors (utilised)**		**Number donated heart and lungs**
Birmingham	130	33	(32)	12	89	2	(1)	0
Glasgow	66	10	(10)	8	43	0	(0)	0
Harefield	238	44	(41)	19	124	3	(3)	0
Manchester	200	33	(31)	12	120	5	(5)	1
Newcastle	129	23	(22)	12	112	7	(6)	2
Papworth	192	48	(47)	20	131	12	(10)	2
TOTAL	**955**	**191**	**(183)**	**83**	**619**	**29**	**(25)**	**5**

Table 7.7 Lung organ donation and retrieval rates in the UK, 1 April 2017 - 31 March 2018, by lung allocation zone and donor type

	DBD				DCD			
Lung Allocation Zone	**Number of donors**	**Number of lung donors (utilised)**		**Number donated heart and lungs**	**Number of donors**	**Number of lung donors (utilised)**		**Number donated heart and lungs**
Birmingham	128	25	(23)	11	88	5	(4)	0
Harefield	290	60	(55)	24	149	9	(9)	1
Manchester	200	34	(34)	14	140	6	(5)	1
Newcastle	166	47	(35)	17	105	9	(7)	1
Papworth	171	30	(30)	17	137	13	(13)	2
TOTAL	**955**	**196**	**(177)**	**83**	**619**	**42**	**(38)**	**5**

The rates per million population for cardiothoracic organ donors are shown in **Table 7.8** by country/Strategic Health Authority of residence. No adjustments have been made for potential demographic differences in populations. The overall cardiothoracic organ donor rate was 5.6 pmp in 2017-2018 and varied across the Strategic Health Authorities from 4.4 pmp to 7.8 pmp. Of the four nations the highest cardiothoracic organ donor rate was in Northern Ireland at 5.9 pmp.

Table 7.8 Cardiothoracic donation and retrieval rates for deceased donors in the UK, 1 April 2017 - 31 March 2018, by country/ Strategic Health Authority

Country/	Heart (pmp)				Lungs (pmp)				Total (pmp)	
Strategic Health Authority	DBD		DCD[1]		DBD		DCD			
North East	6	(2.3)	0	(0.0)	11	(4.2)	4	(1.5)	15	(5.7)
North West	19	(2.6)	4	(0.6)	22	(3.0)	4	(0.6)	42	(5.8)
Yorkshire and The Humber	14	(2.6)	8	(1.5)	17	(3.1)	5	(0.9)	34	(6.3)
North of England	**39**	**(2.6)**	**12**	**(0.8)**	**50**	**(3.3)**	**13**	**(0.9)**	**91**	**(6.0)**
East Midlands	11	(2.3)	0	(0.0)	9	(1.9)	6	(1.3)	22	(4.7)
West Midlands	13	(2.2)	1	(0.2)	11	(1.9)	5	(0.9)	27	(4.7)
East of England	27	(4.4)	7	(1.1)	22	(3.6)	6	(1.0)	48	(7.8)
Midlands and East	**51**	**(3.1)**	**8**	**(0.5)**	**42**	**(2.5)**	**17**	**(1.0)**	**97**	**(5.8)**
London	**31**	**(3.5)**	**5**	**(0.6)**	**26**	**(3.0)**	**4**	**(0.5)**	**54**	**(6.1)**
South East Coast	15	(3.2)	2	(0.4)	19	(4.1)	0	(0.0)	28	(6.0)
South Central	8	(1.8)	1	(0.2)	11	(2.5)	3	(0.7)	19	(4.4)
South West	21	(3.8)	1	(0.2)	15	(2.7)	2	(0.4)	32	(5.8)
South of England	**44**	**(3.0)**	**4**	**(0.3)**	**45**	**(3.1)**	**5**	**(0.3)**	**79**	**(5.4)**
England	**165**	**(3.0)**	**29**	**(0.5)**	**163**	**(2.9)**	**39**	**(0.7)**	**321**	**(5.8)**
Isle of Man	**0**	**(0.0)**	**0**	**(0.0)**	**0**	**(0.0)**	**0**	**(0.0)**	**0**	**(0.0)**
Channel Islands	**0**	**(0.0)**	**0**	**(0.0)**	**0**	**(0.0)**	**0**	**(0.0)**	**0**	**(0.0)**
Wales	**11**	**(3.5)**	**0**	**(0.0)**	**7**	**(2.3)**	**1**	**(0.3)**	**14**	**(4.5)**
Scotland	**9**	**(1.7)**	**0**	**(0.0)**	**21**	**(3.9)**	**1**	**(0.2)**	**24**	**(4.4)**
Northern Ireland	**6**	**(3.2)**	**0**	**(0.0)**	**5**	**(2.7)**	**1**	**(0.5)**	**11**	**(5.9)**
TOTAL[2]	**191**	**(2.9)**	**29**	**(0.4)**	**196**	**(3.0)**	**42**	**(0.6)**	**370**	**(5.6)**

[1] DCD heart donation is not operational in all areas
[2] Includes 7 donors where the hospital postcode was used in place of an unknown donor postcode

7.4 Transplants

The number of cardiothoracic organ transplants by recipient country/Strategic Health Authority of residence is shown in **Table 7.9**. No adjustments have been made for potential demographic differences in populations. The cardiothoracic organ transplant rate ranged from 4.1 to 8.0 pmp across Strategic Health Authorities and overall was 6.1 pmp. Lung transplant rates include a small number of heart-lung transplants.

Table 7.9 Cardiothoracic transplant rates per million population (pmp) in the UK, 1 April 2017 - 31 March 2018, by country/ Strategic Health Authority

Country/ Strategic Health Authority	Heart (pmp)				Lungs (pmp)				Total (pmp)	
	DBD		DCD[1]		DBD		DCD			
North East	9	(3.4)	0	(0.0)	8	(3.0)	2	(0.8)	19	(7.2)
North West	21	(2.9)	3	(0.4)	26	(3.6)	4	(0.6)	54	(7.5)
Yorkshire and The Humber	5	(0.9)	1	(0.2)	14	(2.6)	2	(0.4)	22	(4.1)
North of England	**35**	**(2.3)**	**4**	**(0.3)**	**48**	**(3.1)**	**8**	**(0.5)**	**95**	**(6.2)**
East Midlands	12	(2.5)	4	(0.8)	10	(2.1)	3	(0.6)	29	(6.1)
West Midlands	13	(2.2)	1	(0.2)	17	(2.9)	3	(0.5)	34	(5.9)
East of England	15	(2.4)	6	(1.0)	18	(2.9)	3	(0.5)	42	(6.9)
Midlands and East	**40**	**(2.4)**	**11**	**(0.7)**	**45**	**(2.7)**	**9**	**(0.5)**	**105**	**(6.3)**
London	**32**	**(3.6)**	**3**	**(0.3)**	**8**	**(0.9)**	**1**	**(0.1)**	**44**	**(5.0)**
South East Coast	12	(2.6)	1	(0.2)	13	(2.8)	5	(1.1)	31	(6.7)
South Central	10	(2.3)	2	(0.5)	19	(4.4)	4	(0.9)	35	(8.0)
South West	12	(2.2)	2	(0.4)	12	(2.2)	4	(0.7)	30	(5.4)
South of England	**34**	**(2.3)**	**5**	**(0.3)**	**44**	**(3.0)**	**13**	**(0.9)**	**96**	**(6.6)**
England	**141**	**(2.6)**	**23**	**(0.4)**	**145**	**(2.6)**	**31**	**(0.6)**	**340**	**(6.2)**
Isle of Man	**1**	**(12.5)**	**0**	**(0.0)**	**0**	**(0.0)**	**0**	**(0.0)**	**1**	**(12.5)**
Channel Islands	**0**	**(0.0)**	**0**	**(0.0)**	**0**	**(0.0)**	**0**	**(0.0)**	**0**	**(0.0)**
Wales	**3**	**(1.0)**	**0**	**(0.0)**	**12**	**(3.9)**	**1**	**(0.3)**	**16**	**(5.1)**
Scotland	**15**	**(2.8)**	**1**	**(0.2)**	**12**	**(2.2)**	**4**	**(0.7)**	**32**	**(5.9)**
Northern Ireland	**7**	**(3.8)**	**1**	**(0.5)**	**5**	**(2.7)**	**2**	**(1.1)**	**15**	**(8.1)**
TOTAL[2,3]	**168**	**(2.6)**	**25**	**(0.4)**	**174**	**(2.6)**	**38**	**(0.6)**	**405**	**(6.1)**

[1] DCD heart transplantation is not operational in all areas
[2] Excludes 5 recipients who reside in the Republic of Ireland and 2 recipients who reside overseas
[3] Includes 1 recipient whose postcode was unknown

Table 7.10 and **Table 7.11** show cardiothoracic organ transplant activity for each centre by urgency status and donor type, respectively. In 2017-2018, a total of 412 transplants were carried out; an increase of 10% on 2016-2017. Of these, 198 were heart transplants, of which 154 (78%) were in urgent or super-urgent patients and additionally, 25 (13%) were achieved from donors after circulatory death. There were a total of 202 lung transplants, of which 48 (24%) were in urgent patients and 6 (3%) in super-urgent patients. Of the 12 heart-lung transplants carried out, 7 were in urgent or super-urgent patients.

Table 7.10 Cardiothoracic transplants from deceased donors, 1 April 2017 - 31 March 2018 (2016-2017), by age group and centre

Transplant centre	Transplant type														TOTAL	
	Heart						Heart/ lung		Lung(s)							
	Non-urgent		Urgent		Super-urgent				Non-urgent		Urgent		Super-urgent			
Adult																
Birmingham	1	(1)	17	(20)	2	(5)	2	(0)	13	(15)	5	(0)	2	(0)	42	(41)
Glasgow	1	(2)	4	(9)	6	(4)	0	(0)	0	(0)	0	(0)	0	(0)	11	(15)
Great Ormond Street	0	(0)	0	(0)	0	(0)	0	(0)	0	(1)	0	(0)	0	(0)	0	(1)
Harefield	2	(3)	22	(18)	8	(0)	5	(0)	51	(41)	5	(0)	3	(0)	96	(62)
Manchester	7	(5)	8	(20)	6	(3)	1	(1)	23	(33)	6	(0)	0	(0)	51	(62)
Newcastle	1	(5)	17	(23)	4	(0)	3	(0)	25	(33)	18	(0)	0	(0)	68	(61)
Papworth	21	(19)	27	(25)	8	(3)	1	(1)	32	(43)	12	(0)	1	(0)	102	(91)
TOTAL	**33**	**(35)**	**95**	**(115)**	**34**	**(15)**	**12**	**(2)**	**144**	**(166)**	**46**	**(0)**	**6**	**(0)**	**370**	**(333)**
Paediatric[1]																
Great Ormond Street	6	(3)	10	(11)	0	(0)	0	(0)	2	(8)	1	(0)	0	(0)	19	(22)
Harefield	0	(0)	0	(1)	1	(0)	0	(0)	0	(0)	0	(0)	0	(0)	1	(1)
Newcastle	5	(2)	14	(16)	0	(0)	0	(0)	2	(2)	1	(0)	0	(0)	22	(20)
TOTAL	**11**	**(5)**	**24**	**(28)**	**1**	**(0)**	**0**	**(0)**	**4**	**(10)**	**2**	**(0)**	**0**	**(0)**	**42**	**(43)**

[1] Paediatric recipients are aged under 16 years at time of transplant

Table 7.11 Cardiothoracic transplants from deceased donors, 1 April 2017 - 31 March 2018 (2016-2017), by age group and centre

Transplant centre	Transplant type												TOTAL	
	Heart				Heart/ lung				Lung(s)					
	DBD		DCD		DBD		DCD		DBD		DCD			
Adult														
Birmingham	20	(26)	0	(0)	2	(0)	0	(0)	17	(11)	3	(4)	42	(41)
Glasgow	11	(15)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	11	(15)
Great Ormond Street	0	(0)	0	(0)	0	(0)	0	(0)	0	(1)	0	(0)	0	(1)
Harefield	30	(19)	2	(2)	5	(0)	0	(0)	45	(36)	14	(5)	96	(62)
Manchester	15	(28)	6	(0)	1	(1)	0	(0)	25	(27)	4	(6)	51	(62)
Newcastle	22	(28)	0	(0)	3	(0)	0	(0)	35	(26)	8	(7)	68	(61)
Papworth	40	(35)	16	(12)	1	(1)	0	(0)	37	(37)	8	(6)	102	(91)
TOTAL	**138**	**(151)**	**24**	**(14)**	**12**	**(2)**	**0**	**(0)**	**159**	**(138)**	**37**	**(28)**	**370**	**(333)**
Paediatric[1]														
Great Ormond Street	16	(14)	0	(0)	0	(0)	0	(0)	3	(7)	0	(1)	19	(22)
Harefield	1	(1)	0	(0)	0	(0)	0	(0)	0	(0)	0	(0)	1	(1)
Newcastle	18	(18)	1	(0)	0	(0)	0	(0)	2	(2)	1	(0)	22	(20)
TOTAL	**35**	**(33)**	**1**	**(0)**	**0**	**(0)**	**0**	**(0)**	**5**	**(9)**	**1**	**(1)**	**42**	**(43)**

[1] Paediatric recipients are aged under 16 years at time of transplant

At 31 March 2018 there were approximately 4,000 recipients with a functioning cardiothoracic organ transplant being followed-up as reported to the UK Transplant Registry.

The length of time that elapses between cardiothoracic organs being removed from the donor and their transplantation into the recipient is called the total ischaemia time (IT). Generally, the shorter this time, the more likely the organ is to work immediately and the better the long-term outcome. In 2017-2018 the median IT for a DBD heart transplant was 3.4 hours (Inter-Quartile (IQ) range 2.8 – 4.3) and for a DCD heart transplant was 5.0 hours (IQ range 4.4 – 5.6) and overall was 3.6 hours (IQ range 2.9 – 4.7).

The median IT for DBD donor lung transplant was 5.0 hours (IQ range 4.2 – 5.9) and for a DCD donor lung transplant was 6.0 hours (IQ range 5.3 – 7.0) and overall was 5.3 hours (IQ range 4 .3-6.0). Please note some of these data include the use of donor organ maintenance systems, in which cases the IT reported will be an overestimate of the true ischaemia time.

7.5 Demographic characteristics

The age group, sex, ethnicity and blood group of deceased donors, transplant recipients and patients on the transplant list are shown in **Table 7.12**.

Table 7.12 Demographic characteristics of deceased cardiothoracic donors and transplant recipients 1 April 2017 - 31 March 2018, 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	24	(6)	46	(11)	35	(5)
18 - 34	116	(31)	76	(18)	100	(16)
35 - 49	107	(29)	80	(19)	142	(22)
50 - 59	83	(22)	117	(28)	210	(33)
60 - 69	37	(10)	90	(22)	150	(23)
70+	3	(1)	3	(1)	4	(1)
mean (SD)	40	(16)	44	(18)	47	(16)
Male	187	(51)	260	(63)	376	(59)
Female	183	(49)	152	(37)	265	(41)
White	335	(92)	364	(89)	577	(90)
Asian	6	(2)	24	(6)	39	(6)
Black	4	(1)	18	(4)	17	(3)
Chinese	3	(1)	1	(0)	1	(0)
Other	17	(5)	4	(1)	5	(1)
Not reported	5	-	1	-	2	-
O	197	(53)	171	(42)	333	(52)
A	134	(36)	183	(44)	222	(35)
B	32	(9)	45	(11)	71	(11)
AB	7	(2)	13	(3)	15	(2)
First graft			404	(98)	625	(98)
Re-graft			8	(2)	16	(2)
TOTAL	**370**	**(100)**	**412**	**(100)**	**641**	**(100)**