Cardiothoracic Activity

Key messages

- **At 31 March 2016, there were 248 patients on the active heart transplant list, 316 on the lung list and 14 on the heart/lung list**
- **Of the 785 organ donors after brain death, 265 (34%) were cardiothoracic organ donors**
- **The number of heart transplants from deceased donors increased by 8% to 195 this year; over 80% of these were urgent heart transplants**
- **The number of lung and heart/lung transplants from deceased donors increased by 1% to 188**

7.1 Overview

Last year the number of heart transplants rose by 8% to 195 and the number of lung or heart/lung transplants increased by 1% to 188. There were increases in both the heart and the lung transplant lists since March 2015. The number of patients registered on the active heart transplant list at year end has increased by 182% since 2007, while the number of patients registered for a lung or heart/lung transplant has increased by 13% since 2007.

A summary of the deceased donor cardiothoracic activity from 1 April 2006 to 31 March 2016 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 2006 - 31 March 2016, Number of donors, transplants and patients on the active transplant list at 31 March

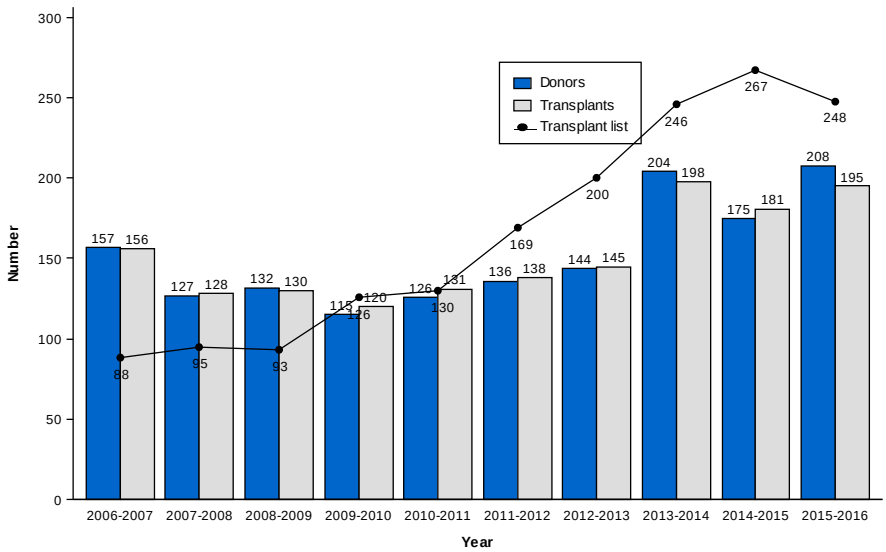
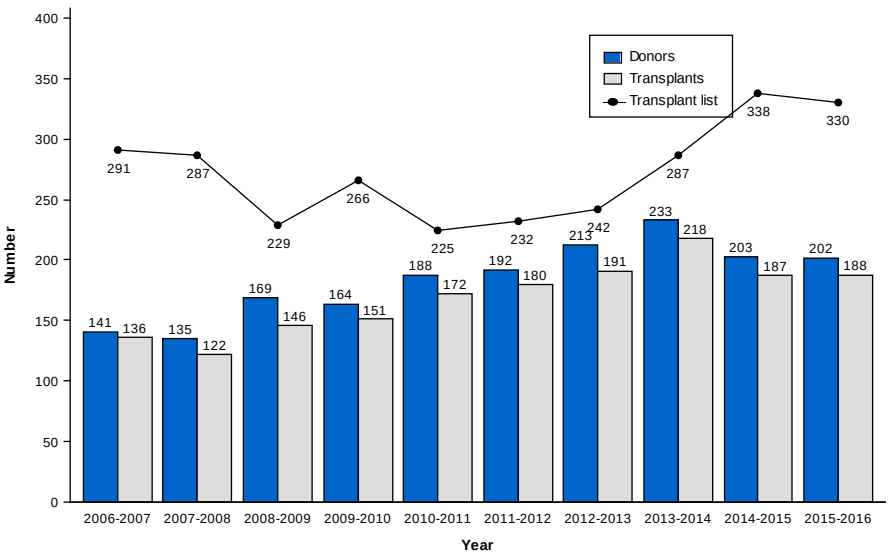


Figure 7.2 Deceased donor lung and heart/lung programme in the UK, 1 April 2006 - 31 March 2016, Number of donors, transplants and patients on the active transplant list at 31 March



7.2 Transplant list

Table 7.1 shows the number of patients on the active transplant lists at 31 March 2016 by centre. The lung transplant list accounts for 55% of the patients waiting for a cardiothoracic organ transplant. Overall, Newcastle and Harefield have the largest cardiothoracic organ transplant lists.

During 2015-2016, 289 patients joined the heart transplant list while 11 joined the heart/lung list and 270 joined the lung transplant list. Outcomes as at 31 March 2016 for patients on the list at 1 April 2015 and those joining the list during the year are shown in **Table 7.2**.

Table 7.3 shows the transplant list rate per million population by country/Strategic Health Authority of patient's residence. The overall heart transplant list rate at 31 March 2016 was 4.0 pmp and ranged from 2.8 to 8.0 across the Strategic Health Authorities. The overall lung transplant list rate was 5.1 pmp and ranged from 2.7 to 6.3 across the Strategic Health Authorities.

Table 7.1 Patients on the cardiothoracic transplant lists at 31 March 2016 (2015) in the UK, by centre

Centre	Active transplant lists									
	Heart				Heart/lung		Lung		**TOTAL**	
	Non-urgent		Urgent							
Adult										
Birmingham	18	(22)	3	(2)	1	(0)	30	(34)	**52**	**(58)**
Glasgow	13	(6)	4	(3)	0	(0)	0	(0)	**17**	**(9)**
Great Ormond Street	2	(4)	0	(0)	0	(0)	2	(3)	**4**	**(7)**
Harefield	62	(66)	5	(3)	2	(2)	125	(115)	**194**	**(186)**
Manchester	17	(24)	1	(4)	1	(2)	46	(49)	**65**	**(79)**
Newcastle	43	(59)	4	(2)	4	(4)	61	(86)	**112**	**(151)**
Papworth	39	(40)	2	(5)	6	(4)	45	(27)	**92**	**(76)**
TOTAL	**194**	**(221)**	**19**	**(19)**	**14**	**(12)**	**309**	**(314)**	**536**	**(566)**
Paediatric										
Great Ormond Street	17	(18)	5	(4)	0	(1)	7	(9)	**29**	**(32)**
Newcastle	6	(4)	7	(1)	0	(0)	0	(2)	**13**	**(7)**
TOTAL	**23**	**(22)**	**12**	**(5)**	**0**	**(1)**	**7**	**(11)**	**42**	**(39)**

Table 7.2 Cardiothoracic transplant lists and new registrations in the UK, 1 April 2015 - 31 March 2016

Outcome of patient at 31 March 2016	Active and suspended patients at 1 April 2015		New registrations in 2015-2016[1]		**TOTAL**	
	N	%	N	%	**N**	**%**
Heart transplant list						
Remained active/suspended	152	57	117	40	**269**	**48**
Transplanted	72	27	121	42	**193**	**35**
Removed	23	9	31	11	**54**	**10**
Died	22	8	20	7	**42**	**8**
TOTAL	**269**		**289**		**558**	
Heart/lung transplant list						
Remained active/suspended	8	57	6	55	**14**	**56**
Transplanted[2]	4	29	3	27	**7**	**28**
Died	2	14	2	18	**4**	**16**
TOTAL	**14**		**11**		**25**	
Lung transplant list						
Remained active/suspended	151	49	166	61	**317**	**55**
Transplanted	94	30	80	30	**174**	**30**
Removed	28	9	7	3	**35**	**6**
Died	38	12	17	6	**55**	**9**
TOTAL	**311**		**270**		**581**	

[1] Includes re-registrations for second or subsequent transplants
[2] Heart, lung or heart/lung

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)[1]				Lung transplant list (pmp)[1]			
	2016		2015		2016		2015	
North East	21	(8.0)	31	(11.8)	7	(2.7)	15	(5.7)
North West	23	(3.2)	29	(4.1)	39	(5.5)	46	(6.5)
Yorkshire and The Humber	21	(3.9)	21	(3.9)	26	(4.9)	29	(5.4)
North of England	**65**	**(4.3)**	**81**	**(5.4)**	**72**	**(4.8)**	**90**	**(6.0)**
East Midlands	13	(2.8)	12	(2.6)	16	(3.4)	19	(4.1)
West Midlands	24	(4.2)	20	(3.5)	29	(5.1)	29	(5.1)
East of England	24	(4.0)	24	(4.0)	32	(5.3)	22	(3.7)
Midlands and East	**61**	**(3.7)**	**56**	**(3.4)**	**77**	**(4.7)**	**70**	**(4.3)**
London	**37**	**(4.3)**	**36**	**(4.2)**	**46**	**(5.4)**	**38**	**(4.4)**
South East Coast	19	(4.1)	23	(5.0)	26	(5.7)	26	(5.7)
South Central	15	(3.5)	18	(4.2)	27	(6.3)	19	(4.4)
South West	20	(3.7)	25	(4.6)	34	(6.3)	27	(5.0)
South of England	**54**	**(3.8)**	**66**	**(4.6)**	**87**	**(6.1)**	**72**	**(5.0)**
England	**217**	**(4.0)**	**239**	**(4.4)**	**282**	**(5.2)**	**270**	**(5.0)**
Isle of Man	**0**	**(0.0)**	**1**	**(12.5)**	**0**	**(0.0)**	**0**	**(0.0)**
Channel Islands	**0**	**(0.0)**	**0**	**(0.0)**	**0**	**(0.0)**	**2**	**(12.5)**
Wales	**10**	**(3.2)**	**13**	**(4.2)**	**17**	**(5.5)**	**23**	**(7.4)**
Scotland	**24**	**(4.5)**	**13**	**(2.4)**	**22**	**(4.1)**	**26**	**(4.9)**
Northern Ireland	**5**	**(2.7)**	**8**	**(4.3)**	**7**	**(3.8)**	**12**	**(6.5)**
TOTAL[2,3]	**262**	**(4.0)**	**280**	**(4.3)**	**330**	**(5.1)**	**338**	**(5.2)**

[1] Includes patients waiting for both heart and lungs
[2] Includes heart patients in 2016 (2015) resident in: Republic of Ireland 5(6); Overseas 1(0)
[3] Includes lung patients in 2016 (2015) resident in: Republic of Ireland 2(5)

An indication of longer term outcomes for patients listed for a cardiothoracic organ transplant is summarised in **Figure 7.3**, **Figure 7.4** and **Figure 7.5**. This is only for first registrations for these patients. **Figure 7.4** includes all patients who have been urgently listed over the period, including those who have moved from the routine list. These charts showsthe proportion of patients transplanted or still waiting six months, one year, two years and three years after joining the non-urgent or urgent heart list or the lung list, respectively. It also shows the proportion removed from the transplant list, moved to urgent/routine list, and those dying while on the transplant list. Within six months of listing, 11% of non-urgent heart patients are transplanted while 7% have died while waiting. For patients listed for an urgent transplant, 67% are transplanted within six months, while 9% die on the list. Of those listed for a lung transplant, 40% are transplanted within six months, rising to 69% after three years. The patients removed from these lists may also subsequently have died.

Figure 7.3 **Post-registration outcome for 161 first non-urgent heart only registrations made in the UK, 1 April 2012 - 31 March 2013**

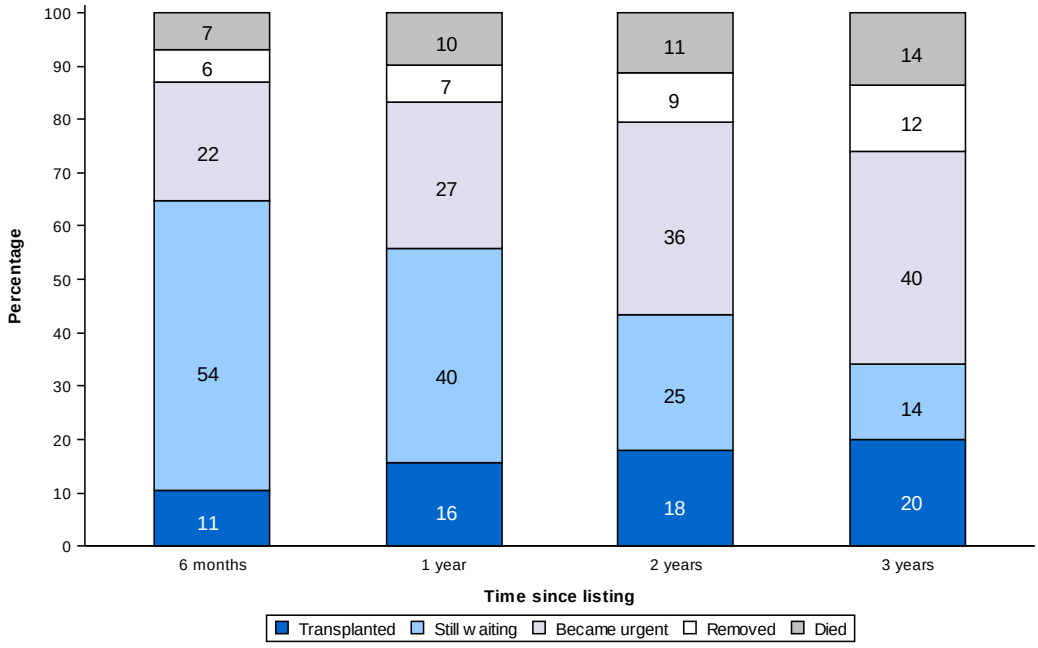


Figure 7.4 **Post-registration outcome for 159 first urgent heart only registrations made in the UK, 1 April 2012 - 31 March 2013**

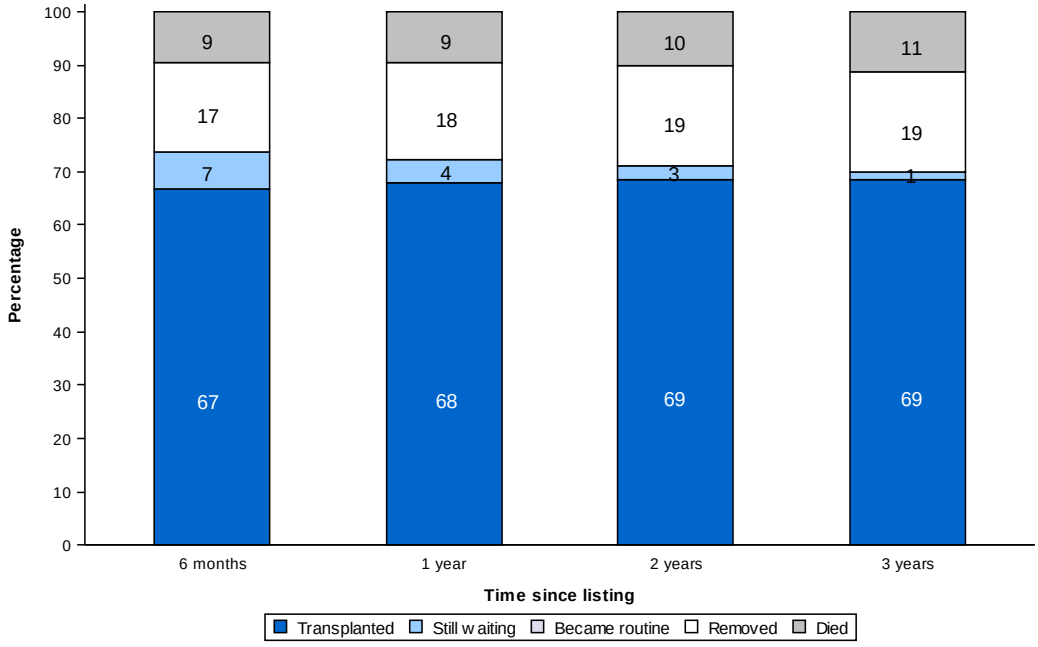


Figure 7.5 **Post-registration outcome for 253 first lung only registrations made in the UK, 1 April 2012 - 31 March 2013**

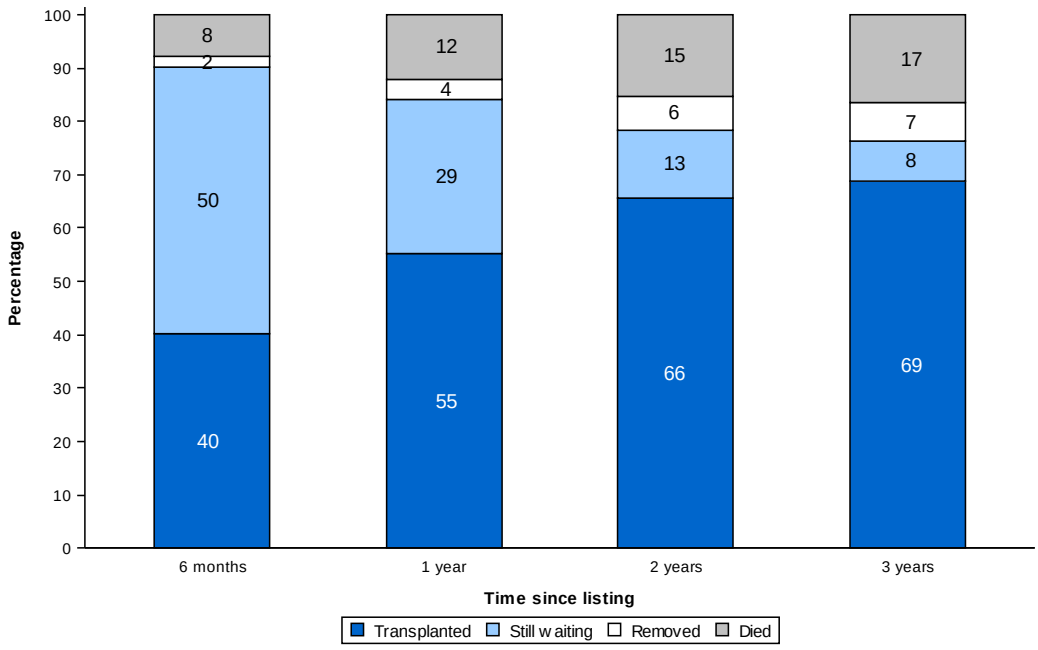


Table 7.4 and **Table 7.5** show the median waiting time to cardiothoracic organ transplant by blood group and ethnicity, respectively, for patients registered between April 2011 and March 2014. Median waiting time for adult never urgent heart patients is 1280 days overall, compared with 23 days for ever urgent heart patients who registered as urgent irrespective of routine status throughout registration. Adult lung patients have a median waiting time of 256 days, but blood group O patients alone have a much longer waiting time of 406 days. The median waiting time for paediatric never urgent heart patients is 463 days, compared to 60 days for paediatric ever urgent heart patients; these are not broken down by blood group or ethnicity due to low numbers. Paediatric recipients are aged less than 16 years at time of listing. 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 2014

Blood group	Number of patients registered	Waiting time (days) Median	95% Confidence interval
Adult never urgent heart			
O[1]	120	-	-
A	137	424	287 - 561
B	24	344	9 - 679
AB	15	58	19 - 97
TOTAL[1]	**296**	**1280**	**-**
Adult ever urgent heart			
O	90	43	30 - 56
A	93	12	8 - 16
B	38	28	21 - 35
AB	11	13	11 - 15
TOTAL	**232**	**23**	**18 - 28**
Paediatric never urgent heart	**24**	**463**	**0 - 1037**
Paediatric ever urgent heart	**91**	**60**	**41 - 79**
Adult lung			
O	377	406	331 - 481
A	315	137	107 - 167
B	83	182	87 - 277
AB	18	186	121 - 251
TOTAL	**793**	**256**	**217 - 295**

[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 2014

Ethnicity	Number of patients registered	Waiting time (days)	
		Median	95% Confidence interval
Adult never urgent heart			
White[1]	266	1283	-
Asian	11	143	0 - 357
Black[1]	12	-	-
Other[2]	6	-	-
TOTAL[1]	**296**	**1280**	**-**
Adult ever urgent heart			
White	197	22	16 - 28
Asian	19	36	9 - 63
Black[2]	5	-	-
Other[2]	8	-	-
TOTAL	**232**	**23**	**18 - 28**
Paediatric never urgent heart	**24**	**463**	**0 - 1037**
Paediatric ever urgent heart	**91**	**60**	**41 - 79**
Adult lung			
White	756	239	203 - 275
Asian	24	1217	121 - 2313
Black[2]	6	-	-
Other[2]	3	-	-
TOTAL	**793**	**256**	**217 - 295**

[1] Median and/or 95% confidence interval cannot be estimated
[2] Median waiting time not reported for fewer than 10 patients

Table 7.6 Cardiothoracic organ donors in the UK, 1 April 2015 - 31 March 2016 (2014-2015), by age group and allocation zone

Allocation zone	Type of cardiothoracic donor									
	Heart only		Heart & lung		Lung(s) only				TOTAL	
					DBD		DCD			
Adult										
Birmingham	11	(18)	7	(8)	11	(16)	6	(6)	35	(48)
Glasgow	4	(12)	6	(5)	10	(6)	5	(3)	25	(26)
Harefield	25	(20)	20	(12)	17	(29)	11	(5)	73	(66)
Manchester	27	(16)	13	(9)	7	(8)	3	(10)	50	(43)
Newcastle	12	(13)	13	(10)	16	(15)	6	(8)	47	(46)
Papworth	19	(23)	17	(15)	16	(17)	3	(12)	55	(67)
TOTAL	**98[1]**	**(102[2])**	**76[3]**	**(59)**	**77**	**(91)**	**34**	**(44)**	**285**	**(297)**
Paediatric[4]										
Birmingham	2	(1)	2	(0)	0	(0)	1	(0)	5	(1)
Glasgow	1	(0)	1	(1)	1	(0)	0	(0)	3	(1)
Harefield	2	(1)	1	(1)	0	(1)	1	(0)	4	(3)
Manchester	0	(0)	1	(1)	0	(1)	0	(0)	1	(2)
Newcastle	0	(3)	5	(1)	0	(0)	2	(0)	7	(4)
Papworth	0	(2)	0	(2)	0	(0)	0	(1)	0	(5)
TOTAL	**5**	**(7)**	**10**	**(6)**	**1**	**(2)**	**4**	**(1)**	**20**	**(16)**

[1] Excludes 19 donors after circulatory death
[2] Excludes 1 donor after circulatory death
[3] Includes 2 donors after circulatory death
[4] Paediatric donors are aged 15 years or under

7.3 Donor and organ supply

The number of cardiothoracic organ donors classified by allocation zone of the donor hospital is summarised in **Table 7.6**. The numbers reflect the number of organs retrieved from within each zone (by any retrieval team) rather than the number of retrievals made by that centre. 34 of the 111 adult lung only donors were donors after circulatory death and there were no living donors. There were no domino heart donors. Of the 249 adult cardiothoracic donors after brain death, 39% donated only the heart, 30% heart and lung and 31% lung only. Of the 16 paediatric cardiothoracic donors after brain death, 31% donated only the heart, 63% heart and lung and 6% lung only.

Table 7.7 shows the number of organ donors after brain death identified in each allocation zone, the number that donated cardiothoracic organs and the number of organs retrieved.

Of the 785 organ donors after brain death, 34% donated cardiothoracic organs. Overall, 94% of the 500 organs retrieved were transplanted: 96% of hearts and 93% of lungs.

Table 7.7 Cardiothoracic organ donation and retrieval rates from donors after brain death in the UK, 1 April 2015 - 31 March 2016, by donation zone

Allocation zone	Number of donors		Number of organs retrieved (used)				TOTAL retrieved (used)	
	DBD solid organ	Cardiothoracic	Hearts		Lungs			
Birmingham	100	33	22	(22)	38	(38)	**60**	**(60)**
Glasgow	66	23	12	(11)	36	(30)	**48**	**(41)**
Harefield	217	65	48	(47)	76	(71)	**124**	**(118)**
Manchester	133	47	40	(38)	36	(36)	**76**	**(74)**
Newcastle[1]	120	46	30	(30)	64	(54)	**94**	**(84)**
Papworth	149	51	35	(32)	63	(63)	**98**	**(95)**
TOTAL	**785**	**265**	**187**	**(180)**	**313**	**(292)**	**500**	**(472)**

[1] Newcastle transplant adult and paediatric patients

The rates per million population for cardiothoracic donors are shown in **Table 7.8** by donor country/Strategic Health Authority of residence. No adjustments have been made for potential demographic differences in populations. The overall cardiothoracic donor rate was 5.0 pmp in 2015-2016 and varied across the Strategic Health Authorities from 3.4 pmp to 7.3 pmp, while the rate in Northern Ireland was 8.2 pmp.

Table 7.8 Cardiothoracic donation and retrieval rates for deceased donors in the UK, 1 April 2015 - 31 March 2016, by country/ Strategic Health Authority

Country/ Strategic Health Authority	Heart (pmp)		Lungs (pmp) DBD		Lungs (pmp) DCD		Total (pmp)	
North East	7	(2.7)	13	(5.0)	4	(1.5)	19	(7.3)
North West	25	(3.5)	13	(1.8)	2	(0.3)	30	(4.2)
Yorkshire and The Humber	19	(3.5)	16	(3.0)	4	(0.7)	29	(5.4)
North of England	**51**	**(3.4)**	**42**	**(2.8)**	**10**	**(0.7)**	**78**	**(5.2)**
East Midlands	12	(2.6)	8	(1.7)	0	(0.0)	16	(3.4)
West Midlands	14	(2.5)	6	(1.1)	3	(0.5)	21	(3.7)
East of England	28	(4.7)	17	(2.8)	2	(0.3)	36	(6.0)
Midlands and East	**54**	**(3.3)**	**31**	**(1.9)**	**5**	**(0.3)**	**73**	**(4.5)**
London	**31**	**(3.6)**	**16**	**(1.9)**	**5**	**(0.6)**	**42**	**(4.9)**
South East Coast	17	(3.7)	17	(3.7)	1	(0.2)	30	(6.5)
South Central	14	(3.3)	11	(2.6)	6	(1.4)	23	(5.4)
South West	13	(2.4)	10	(1.8)	5	(0.9)	24	(4.4)
South of England	**44**	**(3.1)**	**38**	**(2.7)**	**12**	**(0.8)**	**77**	**(5.4)**
England	**180**	**(3.3)**	**127**	**(2.3)**	**32**	**(0.6)**	**270**	**(5.0)**
Isle of Man	**1**	**(12.5)**	**0**	**(0.0)**	**0**	**(0.0)**	**1**	**(12.5)**
Channel Islands	**1**	**(6.3)**	**0**	**(0.0)**	**0**	**(0.0)**	**1**	**(6.3)**
Wales	**7**	**(2.3)**	**9**	**(2.9)**	**3**	**(1.0)**	**15**	**(4.9)**
Scotland	**11**	**(2.1)**	**16**	**(3.0)**	**2**	**(0.4)**	**22**	**(4.1)**
Northern Ireland	**8**	**(4.3)**	**10**	**(5.4)**	**3**	**(1.6)**	**15**	**(8.2)**
TOTAL[1]	**208**[2]	**(3.2)**	**162**	**(2.5)**	**40**	**(0.6)**	**324**	**(5.0)**

[1] Includes 4 donors where the hospital postcode was used in place of an unknown donor postcode
[2] Includes 21 donors after circulatory death

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 transplant rate ranged from 4.1 to 11.8 pmp across Strategic Health Authorities and overall was 5.9 pmp. Lung transplants include the small number of heart/lung transplants performed.

Table 7.9 Cardiothoracic transplant rates per million population (pmp) in the UK, 1 April 2015 - 31 March 2016, by country/ Strategic Health Authority

Country/ Strategic Health Authority	Heart (pmp)		Lungs (pmp) DBD		Lungs (pmp) DCD		Total (pmp)	
North East	20	(7.6)	9	(3.4)	2	(0.8)	31	(11.8)
North West	25	(3.5)	19	(2.7)	3	(0.4)	47	(6.6)
Yorkshire and The Humber	9	(1.7)	9	(1.7)	4	(0.7)	22	(4.1)
North of England	**54**	**(3.6)**	**37**	**(2.4)**	**9**	**(0.6)**	**100**	**(6.6)**
East Midlands	8	(1.7)	11	(2.4)	2	(0.4)	21	(4.5)
West Midlands	20	(3.5)	19	(3.3)	2	(0.4)	41	(7.2)
East of England	25	(4.2)	20	(3.3)	1	(0.2)	46	(7.6)
Midlands and East	**53**	**(3.2)**	**50**	**(3.1)**	**5**	**(0.3)**	**108**	**(6.6)**
London	**25**	**(2.9)**	**9**	**(1.1)**	**2**	**(0.2)**	**36**	**(4.2)**
South East Coast	10	(2.2)	15	(3.3)	5	(1.1)	30	(6.5)
South Central	11	(2.6)	9	(2.1)	4	(0.9)	24	(5.6)
South West	13	(2.4)	10	(1.8)	3	(0.6)	26	(4.8)
South of England	**34**	**(2.4)**	**34**	**(2.4)**	**12**	**(0.8)**	**80**	**(5.6)**
England	**166**	**(3.1)**	**130**	**(2.4)**	**28**	**(0.5)**	**324**	**(6.0)**
Isle of Man	**1**	**(12.5)**	**0**	**(0.0)**	**0**	**(0.0)**	**1**	**(12.5)**
Channel Islands	**0**	**(0.0)**	**0**	**(0.0)**	**0**	**(0.0)**	**0**	**(0.0)**
Wales	**11**	**(3.6)**	**12**	**(3.9)**	**3**	**(1.0)**	**26**	**(8.4)**
Scotland	**9**	**(1.7)**	**8**	**(1.5)**	**2**	**(0.4)**	**19**	**(3.6)**
Northern Ireland	**7**	**(3.8)**	**1**	**(0.5)**	**2**	**(1.1)**	**10**	**(5.4)**
TOTAL[1]	**194[2]**	**(3.0)**	**151**	**(2.3)**	**35**	**(0.5)**	**380**	**(5.9)**

[1] Excludes 3 recipients who reside in the Republic of Ireland
[2] Includes 19 donors after circulatory death

Table 7.10 shows cardiothoracic transplant activity for each centre. In 2015-2016, a total of 383 transplants were carried out, an increase of 4% on 2014-2015. Of these, 51% were deceased donor heart transplants. The 173 adult lung transplants include 33 (19%) from donors after circulatory death: 12 were performed by Harefield, 11 by Newcastle, 4 by Papworth, 3 by Manchester and 3 by Birmingham. The 161 adult heart transplants include 19 (12%) from donors after circulatory death: 15 were performed by Papworth and 4 by Harefield.

Table 7.10 Cardiothoracic transplants, 1 April 2015 - 31 March 2016 (2014-2015), by age group and centre

Transplant centre	Transplant type										TOTAL	
	Heart				Heart/ lung		Lung(s)					
	Non-urgent		Urgent				DBD		DCD			
Adult												
Birmingham	3	(3)	23	(28)	1	(0)	21	(18)	3	(6)	51	(55)
Glasgow	0	(5)	7	(8)	0	(0)	0	(0)	0	(0)	7	(13)
Great Ormond Street	0	(0)	0	(0)	0	(0)	0	(0)	0	(1)	0	(1)
Harefield	4	(2)	21	(23)	1	(0)	37	(39)	12	(10)	75	(74)
Manchester	2	(2)	27	(24)	2	(0)	18	(19)	3	(5)	52	(50)
Newcastle	4	(2)	19	(13)	0	(0)	31	(34)	11	(8)	65	(57)
Papworth	21	(11)	30	(22)	2	(1)	33	(30)	4	(9)	90	(73)
TOTAL	**34[1]**	**(25[2])**	**127[3]**	**(118)**	**6**	**(1)**	**140**	**(140)**	**33**	**(39)**	**340**	**(323)**
Paediatric[4]												
Great Ormond Street	3	(2)	12	(14)	0	(0)	5	(5)	2	(1)	22	(22)
Newcastle	1	(2)	18	(19)	0	(0)	2	(1)	0	(0)	21	(22)
Papworth	0	(0)	0	(1)	0	(0)	0	(0)	0	(0)	0	(1)
TOTAL	**4**	**(4)**	**30**	**(34)**	**0**	**(0)**	**7**	**(6)**	**2**	**(1)**	**43**	**(45)**

[1] Includes 17 transplants from a donor after circulatory death (DCD); [2] Includes 1 transplant from a DCD
[3] Includes 2 transplants from a DCD; [4] Paediatric recipients are aged under 16 years at time of transplant

There were 127 adult urgent heart transplants in 2015-2016, representing 79% of all adult heart transplants (83% in 2014-2015). There were 30 paediatric urgent heart transplants in 2015-2016, representing 88% of all paediatric heart transplants (89% in 2014-2015). A small number of hearts and lungs were imported from outside the UK for transplantation in the UK: 2 hearts from the Republic of Ireland (ROI) and 3 from elsewhere, and 4 lungs from ROI. Further information is provided in **Appendix IV B**.

The length of time that elapses between cardiothoracic organs being removed from the donor to transplantation into the recipient is called the Cold Ischaemia Time (CIT). Generally, the shorter this time, the more likely the organ is to work immediately and the better the long-term outcome. In 2015-2016 the median CIT for a DBD heart transplant was 3.2 hours (Inter-Quartile (IQ) range 2.5-3.7). The median CIT for DBD donor lung transplant was 4.8 hours (IQ range 4.1-6.1) and for a DCD donor lung transplant was 5.9 hours (IQ range 5.0-6.8) and overall was 5.1 hours (IQ range 4.3-6.2). However, this analysis does not take account the use of donor organ maintenance systems for some transplants. These enable warm blood perfusion to continue ex-vivo during transplantation. For such transplants, the definition of ischaemia time used here (cross clamp to reperfusion) overestimates the true ischaemia time because the organ is not subject to ischaemia during transportation.

At 31 March 2016 there were approximately 3,800 recipients with a functioning cardiothoracic organ transplant being followed-up as reported to the UK Transplant Registry.

7.5 Demographic characteristics

The age group, sex, ethnicity and blood group of deceased donors, transplant recipients and patients on the transplant list is shown in **Table 7.11**.

Table 7.11 Demographic characteristics of deceased cardiothoracic donors and transplant recipients 1 April 2015 - 31 March 2016, and transplant list patients at 31 March in the UK

	Donors		Transplant recipients		Active transplant list patients	
	N	(%)	N	(%)	N	(%)
Age group (years)						
0 - 17	25	(8)	45	(12)	47	(8)
18 - 34	95	(29)	72	(19)	95	(16)
35 - 49	104	(32)	68	(18)	116	(20)
50 - 59	80	(25)	116	(30)	191	(33)
60 - 69	20	(6)	80	(21)	124	(21)
70+	0	(0)	2	(1)	5	(1)
mean (SD)	40	(15)	44	(18)	46	(17)
Sex						
Male	179	(55)	247	(64)	356	(62)
Female	145	(45)	135	(35)	222	(38)
Ethnicity						
White	303	(94)	329	(87)	517	(90)
Asian	12	(4)	34	(9)	34	(6)
Black	3	(1)	11	(3)	19	(3)
Chinese	0	(0)	1	(0)	2	(0)
Other	6	(2)	5	(1)	5	(1)
Not reported			3		1	
Blood group						
O	179	(55)	171	(45)	291	(50)
A	115	(35)	156	(41)	215	(37)
B	24	(7)	42	(11)	59	(10)
AB	6	(2)	14	(4)	13	(2)
Graft number						
First graft			378	(99)	559	(97)
Re-graft			5	(1)	19	(3)
TOTAL	**324**	**(100)**	**383**	**(100)**	**578**	**(100)**