

NHS BLOOD AND TRANSPLANT

CARDIOTHORACIC ADVISORY GROUP

ZONAL ACTIVITY SUMMARY

INTRODUCTION

- 1 The current zonal arrangements for the English cardiothoracic transplant centres came into effect on 1 April 2003, although following the establishment of the CTAG Zonal Allocation Working Group, minor changes were made on 15 January 2015 (see CTAG paper CTAG(15)S30). This paper reviews adult cardiothoracic zonal activity between 1 April 2012 and 31 March 2015, and includes donation after circulatory death (DCD) lung activity. DCD hearts are not included in the analysis.

RESULTS

- 2 The range of the heart balance of exchange decreased in 2014/2015. Manchester and Birmingham were net importers of donor hearts, while, Glasgow, Newcastle, Papworth and Harefield were net exporters. 'No suitable recipients' and the UHAS were the main reasons for exporting hearts, influencing 15 (49%) and 37 (20%) of the 75 exports in the last financial year, respectively.
- 3 The range of the DBD lung balance of exchange decreased in 2014/2015. Newcastle and Manchester were net importers of lungs for transplant, while Birmingham and Papworth were net exporters. Import and export activity at Harefield were equal. Nationally, 'organ unsuitable – clinical' and 'no suitable recipients' were the main reasons given for exporting lungs, affecting 13 (37%) and 8 (23%) of the 35 exports in the last financial year, respectively.
- 4 The range of DCD lung balance of exchange increased in 2014/15 relative to the previous year. Over the last three years, Manchester and Papworth were net exporters of DCD lung transplants, while Birmingham, Newcastle, and Harefield were net importers. 'Organ unsuitable – clinical' and 'no suitable recipients' were also the main reasons given for exporting DCD lungs in the last financial year.
- 5 Overall 32% of offered hearts, 24% of offered DBD lungs and 10% of offered DCD lungs were transplanted in 2014/2015.

CONCLUSION

- 6 Imbalances in the zonal arrangements change from year to year with few consistent features. Overall, the revised zonal arrangements appeared relatively satisfactory for donation and transplant activity in 2014/2015.

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September 2015

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INTRODUCTION

- 1 The current zonal arrangements for the English cardiothoracic transplant centres came into effect on 1 April 2003, although following the establishment of the CTAG Zonal Allocation Working Group, minor changes were made on 15 January 2015 (see CTAG paper CTAG(15)S30). This paper reviews adult cardiothoracic zonal activity between 1 April 2012 and 31 March 2015, and includes donation after circulatory death (DCD) lung activity. DCD hearts are not included in the analysis.

METHODS

- 2 Data on adult cardiothoracic donation after brain death (DBD) and donation after circulatory death (DCD) donors from each cardiothoracic zone, and adult cardiothoracic transplants performed at each transplant centre were obtained from the UK Transplant Registry, for the period 1 April 2012 to 31 March 2015. Data on adult registrations on the cardiothoracic transplant list for the period 1 April 2014 to 31 March 2015 were also obtained.
- 3 Adult donors are those who were aged 16 years or older at the time of death. Adult patients are those aged 16 years or older at time of registration on the transplant list. Adult transplants are those where the recipient was aged 16 years or older at time of transplant.
- 4 Hearts only ever intended for research or retrieved for valves only are not included in these analyses.

RESULTS

Donors

- 5 **Table 1a** shows the number of adult cardiothoracic DBD donors provided by each cardiothoracic donation zone, and **Table 1b** the number of DCD donors. Note that if a donor donated both a heart and lung(s) then they are counted as both a heart and as a lung donor. Donors whose organs were offered for transplant, but declined and then subsequently used for research are included in the table, as well as donors whose organs were retrieved by overseas teams.
- 6 During the last three financial years, there were 481 adult DBD heart donors, 511 adult DBD lung donors and 118 adult DCD lung donors from the UK (5

hearts and 6 DBD lungs and 7 DCD lungs were offered for transplant, but declined and then used for research).

- 7 **Tables 2a, 2c and 2e** show the exchange of adult organs. **Tables 2b, 2d and 2f** show the reasons for exporting adult organs. Organs that were offered for transplant, but declined and then subsequently used for research are excluded.
- 8 The range of the heart balance of exchange decreased in 2014/2015. Manchester and Birmingham were net importers of donor hearts, while, Glasgow, Newcastle, Papworth and Harefield were net exporters. 'No suitable recipients' and the UHAS were the main reasons for exporting hearts, influencing 15 (49%) and 37 (20%) of the 75 exports in the last financial year, respectively.
- 9 The range of the DBD lung balance of exchange decreased in 2014/2015. Newcastle and Manchester were net importers of lungs for transplant, while Birmingham and Papworth were net exporters. Import and export activity at Harefield was equal. Nationally, 'organ unsuitable – clinical' and 'no suitable recipients' were the main reasons given for exporting lungs, affecting 13 (37%) and 8 (23%) of the 35 exports in the last financial year, respectively.
- 10 The range of DCD lung balance of exchange increased in 2014/15 relative to the previous year. Over the last three years, Manchester and Papworth were net exporters of DCD lung transplants, while Birmingham, Newcastle, and Harefield were net importers. 'Organ unsuitable – clinical' and 'no suitable recipients' were also the main reasons given for exporting DCD lungs in the last financial year.
- 11 **Table 3a** shows the total number of adult DBD donor hearts that were offered for transplant by UK donation zones, together with the final outcome of each organ. The same information for DBD lungs offered for transplant is shown in **Table 3b**, and DCD lungs in **Table 3c**.
- 12 **Table 4a and 4b** show the percentage of organs offered from each donation zone that were subsequently transplanted. Overall 32% of offered hearts, 24% of offered DBD lungs and 10% of offered DCD lungs were transplanted in 2014/2015.

Transplant list

- 13 **Tables 5a and 5b** show the registration outcome by centre as at 31 March 2015 of adult patients registered on the UK active and suspended cardiothoracic transplant list as at 1 April 2014 and those new registrations during the financial year.

Transplants

- 14 **Tables 6a and 6b** show the distribution of adult deceased donor cardiothoracic transplants by transplant centre for the period 1 April 2012 to 31 March 2015.

Overall activity

- 15 **Tables 7a and 7b** summarise the overall activity for each zone/centre by financial year.

CONCLUSION

- 16 Imbalances in the zonal arrangements change from year to year with few consistent features. Overall, the revised zonal arrangements appeared relatively satisfactory for donation and transplant activity in 2014/2015.

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Table 1a Adult cardiothoracic DBD donors from UK donor hospitals, 1 April 2012 – 31 March 2015

Donation zone	2012/2013 ¹					2013/2014 ²					2014/2015 ³				
	Heart donors		Lung donors		Lungs donated	Heart donors		Lung donors		Lungs donated	Heart donors		Lung donors		Lungs donated
	N	%	N	%		N	%	N	%		N	%	N	%	
Birmingham	25	19	23	13	45	23	12	26	14	49	26	16	24	16	43
Glasgow	11	8	15	9	28	16	8	22	12	41	17	11	11	7	21
Harefield	21	16	32	19	62	45	24	46	24	90	32	20	41	27	82
Manchester	13	10	20	12	35	23	12	23	12	44	25	16	17	11	32
Newcastle	23	18	40	23	78	33	17	32	17	61	23	14	25	17	47
Papworth	38	29	41	24	82	49	26	41	22	79	38	24	32	21	63
TOTAL	131	100	171	100	330	189	100	190	100	364	161	100	150	100	288

¹ Includes 2 DBD lungs declined for transplant but subsequently used for research, also includes 3 hearts and 18 lungs that were retrieved by an overseas centre

² Includes 3 hearts and 2 DBD lungs declined for transplant but subsequently used for research, also includes 1 heart and 8 lungs that were retrieved by an overseas centre

³ Includes 2 hearts and 2 DBD lungs declined for transplant but subsequently used for research, also includes 2 heart and 4 lungs that were retrieved by an overseas centre

Table 1b Adult cardiothoracic DCD lung donors from UK donor hospitals, 1 April 2012 – 31 March 2015									
Donation zone	2012/2013			2013/2014			2014/2015*		
	Lung donors		Lungs donated	Lung donors		Lungs donated	Lung donors		Lungs donated
	N	%		N	%		N	%	
Birmingham	7	19	14	6	16	12	6	14	12
Glasgow	4	11	8	4	11	8	3	7	6
Harefield	5	14	10	10	27	20	5	11	10
Manchester	5	14	9	2	5	4	10	23	20
Newcastle	8	22	16	10	27	20	8	18	16
Papworth	8	22	16	5	14	8	12	27	21
TOTAL	37	100	73	37	100	72	44	100	85

*There was 1 DCD heart donor from Papworth in 2014/2015

Table 2a Balance of exchange of adult DBD donor hearts donated in the UK, 1 April 2012 - 31 March 2015

Donation zone	2012/2013				2013/2014				2014/2015			
	Number of hearts donated	Hearts exported from zone	Hearts imported to zone	Activity balance	Number of hearts donated	Hearts exported from zone	Hearts imported to zone	Activity balance	Number of hearts donated	Hearts exported from zone	Hearts imported to zone	Activity balance
Birmingham	25	12	7	+5	23	11	8	+3	25	9	14	-5
Glasgow	11	6	5	+1	16	10	13	-3	17	11	7	+4
Harefield	21	11	11	0	44	28	12	+16	32	18	11	+7
Manchester	13	3	12	-9	23	12	17	-5	24	11	13	-2
Newcastle	23	10	10	0	32	18	19	-1	23	11	8	+3
Papworth	38	18	8	+10	48	17	16	+1	39	15	12	+3
TOTAL	131¹	60	53²	+7²	186³	96	85⁴	+11⁴	160⁵	75	65⁶	+10⁶

¹ Excludes 3 hearts declined for transplant but subsequently used for research

² An additional 4 hearts were received by Great Ormond St. and 3 went overseas

³ Excludes 2 hearts declined for transplant but subsequently used for research

⁴ An additional 9 hearts were received by Great Ormond St. and 2 went overseas

⁵ Excludes 5 hearts declined for transplant but subsequently used for research

⁶ An additional 8 hearts were received by Great Ormond St. and 2 went overseas

Table 2b Primary reasons¹ for exporting adult DBD donor hearts donated in the UK, 1 April 2012 - 31 March 2015

		Birmingham N	Glasgow N	Harefield N	Manchester N	Newcastle N	Papworth N	Total
Urgent Heart	2012/13	5	4	0	0	3	7	19
	2013/14	4	4	8	2	10	7	35
	2014/15	2	6	0	1	2	4	15
Logistics	2012/13	0	0	0	1	0	1	2
	2013/14	1	0	0	0	2	1	4
	2014/15	0	0	2	0	0	0	2
Donor unsuitable – age	2013/14	0	0	1	0	0	0	1
	2014/15	0	0	0	0	0	1	1
Donor unsuitable - medical	2012/13	0	0	0	1	0	2	3
	2013/14	0	0	1	0	0	0	1
	2014/15	0	0	1	0	0	0	1
Organ unsuitable - clinical	2012/13	1	1	4	0	0	1	7
	2013/14	1	1	4	2	0	5	13
	2014/15	0	3	5	2	0	2	12
No suitable recipients	2012/13	6	0	7	1	7	7	28
	2013/14	4	5	9	7	6	4	35
	2014/15	6	1	9	7	6	8	37
Other	2012/13	0	1	0	0	0	0	1
	2013/14	1	0	1	1	0	0	3
	2014/15	1	1	1	1	3	0	7
Distance (euro)	2013/14	0	0	1	0	0	0	1
Donor Unsuitable - cod	2013/14	0	0	2	0	0	0	2
Not Reported	2013/14	0	0	1	0	0	0	1
TOTAL	2012/13	12	6	11	3	10	18	60
	2013/14	11	10	28	12	18	17	96
	2014/15	9	11	18	11	11	15	75

¹ Primary reason for non-acceptance of zonal organ, hence export, as reported on the UK Transplant Registry

Logistics = (No staff, No beds, No beds/staff/theatre, Centre already transplanting, Centre closed, Poor weather), Donor unsuitable - medical = (X-match positive, Better match required, Tumour, Medication, Infection, Donor unsuitable – virology), Organ unsuitable - clinical = (Poor perfusion, HLA/ABO type, Poor function, Donor unsuitable - past history), No suitable recipients = (NSR, Donor unsuitable - size), Other = (Other, Organ used elsewhere, Offer waived, Recipient did not need transplant, Recipient refused transplant, Recipient died, Centre criteria not achieved).

Table 2c Balance of exchange of lung transplants using adult DBD donor lungs donated in the UK, 1 April 2012 - 31 March 2015

Donation zone	2012/2013				2013/2014				2014/2015			
	Number of txs	Lung txs exported from zone	Lung txs imported to zone	Activity balance	Number of txs	Lung txs exported from zone	Lung txs imported to zone	Activity balance	Number of txs	Lung txs exported from zone	Lung txs imported to zone	Activity balance
Birmingham	22	13	6	+7	24	16	11	+5	21	10	6	+4
Harefield	31	9	12	-3	45	18	22	-4	37	8	8	0
Manchester	19	6	11	-5	24	11	15	-4	17	6	8	-2
Newcastle ¹	50	17	12	+5	50	19	16	+3	32	7	9	-2
Papworth	40	15	8	+7	40	18	12	+6	34	9	5	+4
TOTAL	162²	60	49³	+11³	183⁴	82	76⁵	+6⁵	141⁶	40	36⁷	+4⁷

¹ Includes 40 lung transplants from Scottish donors (12 in 2012/13, 19 in 2013/14 and 9 in 2014/15).

² Excludes 2 lungs declined for transplant but subsequently used for research.

³ An additional 2 lung transplants were performed by Great Ormond St. and 9 by an overseas centre

⁴ Excludes 2 lungs declined for transplant but subsequently used for research.

⁵ An additional 6 lung transplants performed by an overseas centre

⁶ Excludes 2 lungs declined for transplant but subsequently used for research.

⁷ An additional 1 lung transplants were performed by Great Ormond St. and 3 by an overseas centre

Table 2d Primary reasons¹ for exporting adult DBD donor lungs donated in the UK, 1 April 2012 - 31 March 2015

		Birmingham N	Harefield N	Manchester N	Newcastle N	Papworth N	Total
Logistics	2012/2013	4	2	3	4	1	14
	2013/2014	4	3	1	6	1	15
	2014/2015	2	1	1	3	0	7
Donor unsuitable - age	2012/2013	0	1	0	1	1	3
	2013/2014	0	0	1	0	0	1
	2014/2015	1	1	0	0	0	2
Donor unsuitable - medical	2012/2013	0	0	0	0	1	1
	2013/2014	0	1	0	0	0	1
	2014/2015	0	0	0	1	0	1
Organ unsuitable - clinical	2012/2013	5	5	2	6	2	20
	2013/2014	3	5	2	3	7	20
	2014/2015	3	3	3	2	2	13
No suitable recipients	2012/2013	4	1	1	4	8	18
	2013/2014	5	6	5	6	5	27
	2014/2015	2	1	0	0	5	8
Other	2012/2013	0	0	0	1	2	3
	2013/2014	0	2	0	2	3	7
	2014/2015	0	2	1	0	1	4
Anatomical	2013/2014	0	0	0	0	1	1
Donor unstable	2013/2014	0	0	0	1	0	1
Donor unsuitable - cod	2013/2014	1	0	0	0	0	1
Transport difficulties	2012/2013	0	0	0	1	0	1
Total	2012/2013	13	9	6	17	15	60
	2013/2014	13	17	9	18	17	74
	2014/2015	8	8	5	6	8	35

¹ Primary reason for non-acceptance of zonal organ, hence export, as reported on the UK Transplant Registry

Logistics = (No staff, No beds, No beds/staff/theatre, Centre already transplanting, Centre closed), Donor unsuitable - medical = (X-match positive, Better match required, Tumour, Medication, Infection, Donor unsuitable - virology, Donor unsuitable – medical reason), Organ unsuitable - clinical = (Poor perfusion, HLA/ABO type, Poor function, Donor unsuitable - past history), No suitable recipients = (NSR, Donor unsuitable - size), Other = (Other, Organ used elsewhere, Offer waived, Recipient did not need transplant, Recipient refused transplant, Recipient died, Organ damaged).

Table 2e Balance of exchange of lung transplants using adult DCD donor lungs donated in the UK, 1 April 2012 - 31 March 2015

Donation zone	2012/2013				2013/2014				2014/2015			
	Number of txs	Lung txs exported from zone	Lung txs imported to zone	Activity balance	Number of txs	Lung txs exported from zone	Lung txs imported to zone	Activity balance	Number of txs	Lung txs exported from zone	Lung txs imported to zone	Activity balance
Birmingham	7	6	0	+6	5	4	2	+2	4	1	3	-2
Harefield	5	0	9	-9	9	3	6	-3	5	2	7	-5
Manchester	4	2	0	+2	3	1	1	0	10	6	1	+5
Newcastle ¹	10	5	6	-1	11	3	2	+1	7	2	3	-1
Papworth	7	4	2	+2	5	2	1	+1	12	7	4	+3
TOTAL	33	17	17	0	33	13	12²	+1²	39³	19	18⁴	0⁴

¹ Includes 7 lung transplants from Scottish donors (3 in 2012/13, 2 in 2013/14, and 2 in 2014/15).

² An additional 1 lung transplant was performed by Great Ormond St.

³ Excludes 7 lungs declined for transplant but subsequently used for research.

⁴ An additional 1 lung transplant was performed by Great Ormond St.

Table 2f Primary reasons¹ for exporting adult DCD donor lungs donated in the UK, 1 April 2012 - 31 March 2015

		Birmingham	Harefield	Manchester	Newcastle	Papworth	Total
		N	N	N	N	N	
Logistics	2012/2013	0	0	0	2	1	3
	2013/2014	1	1	0	0	0	2
	2014/2015	0	0	0	1	0	1
Donor unsuitable - age	2013/2014	0	1	0	0	0	1
	2014/2015	0	0	0	0	1	1
Donor unsuitable - medical	2013/2014	0	0	0	0	1	1
	2014/2015	0	1	0	0	0	1
Organ unsuitable - clinical	2012/2013	1	0	0	2	2	5
	2013/2014	1	0	0	2	0	3
	2014/2015	0	0	4	1	0	5
No suitable recipients	2012/2013	4	0	1	0	0	5
	2013/2014	2	1	0	0	0	3
	2014/2015	1	0	1	0	4	6
Other	2012/2013	1	0	0	1	1	3
	2014/2015	0	1	1	0	1	3
Anatomical	2013/2014	0	0	0	1	0	1
Unknown	2012/2013	0	0	1	0	0	1
Total	2012/2013	6	0	2	5	4	17
	2013/2014	4	3	0	3	1	11
	2014/2015	1	2	6	2	6	17

¹ Primary reason for non-acceptance of zonal organ, hence export, as reported on the UK Transplant Registry

Logistics = (No staff, No beds, No beds/staff/theatre, Centre already transplanting, Centre closed), Donor unsuitable - medical = (X-match positive, Better match required, Tumour, Medication, Infection, Donor unsuitable - virology, Donor unsuitable – medical reason), Organ unsuitable - clinical = (Poor perfusion, HLA/ABO type, Poor function, Donor unsuitable - past history), No suitable recipients = (NSR, Donor unsuitable - size), Other = (Other, Organ used elsewhere, Offer waived, Recipient did not need transplant, Recipient refused transplant, Recipient died, Organ damaged).

Table 3a Final outcome of adult DBD donor hearts offered for transplant by UK donation zones, 1 April 2012 - 31 March 2015

Donation zone	2012/2013 ¹							2013/2014 ²							2014/2015 ³						
	Hearts offered, not retrieved ⁴	Hearts retrieved, not transplanted		Hearts transplanted		Total hearts offered		Hearts offered, not retrieved ⁴	Hearts retrieved, not transplanted		Hearts transplanted		Total hearts offered		Hearts offered, not retrieved ⁴	Hearts retrieved, not transplanted		Hearts transplanted		Total hearts offered	
		Zonal	Non-zonal	Zonal	Non-zonal	N	%		Zonal	Non-zonal	Zonal	Non-zonal	N	%		Zonal	Non-zonal	Zonal	Non-zonal	N	%
Birmingham	54	0	0	13	12	79	16	46	0	1	12	10	69	14	49	0	1	16	9	75	15
Glasgow	31	0	0	5	6	42	9	32	0	0	6	10	48	10	33	0	0	6	11	50	10
Harefield	68	0	0	10	11	89	18	61	2	0	15	28	106	22	72	0	0	14	18	104	21
Manchester	40	0	0	10	3	53	11	42	0	1	11	11	65	13	42	0	1	13	11	67	14
Newcastle	68	0	0	13	10	91	19	37	1	0	14	18	70	14	47	0	0	12	11	70	14
Papworth	94	0	0	20	18	132	27	79	0	2	31	16	128	26	83	1	0	22	15	121	25
TOTAL	355	0	0	71	60	486	100	297	3	4	89	93	486	100	326	1	2	83	75	487	100

¹ Includes 3 hearts retrieved by overseas centres² Includes 3 hearts offered for transplant but subsequently used for research and 1 heart retrieved by an overseas centre³ Includes 2 hearts offered for transplant but subsequently used for research and 2 hearts retrieved by overseas centres

Table 3b Final outcome of adult DBD donor lungs offered for transplant by UK donation zones, 1 April 2012 - 31 March 2015

Donation zone	2012/2013 ¹							2013/2014 ²							2014/2015 ³						
	Lungs offered, not retrieved	Lungs retrieved, not transplanted		Lungs transplanted		Total lungs offered		Lungs offered, not retrieved	Lungs retrieved, not transplanted		Lungs transplanted		Total lungs offered		Lungs offered, not retrieved	Lungs retrieved, not transplanted		Lungs transplanted		Total lungs offered	
		Zonal	Non-zonal	Zonal	Non-zonal	N	%		Zonal	Non-zonal	Zonal	Non-zonal	N	%		Zonal	Non-zonal	Zonal	Non-zonal	N	%
Birmingham	123	0	3	18	24	168	16	99	2	4	14	29	148	13	121	5	0	21	17	164	15
Glasgow	62	2	4	15	7	90	8	71	4	3	15	19	112	10	83	2	2	17	0	104	9
Harefield	132	2	0	44	16	194	18	145	2	0	54	34	235	21	186	8	0	58	16	268	24
Manchester	83	0	2	21	12	118	11	116	0	2	23	19	160	15	106	1	0	19	12	138	13
Newcastle	124	5	1	49	23	202	19	99	2	0	41	18	160	15	111	4	0	32	11	158	14
Papworth	208	2	4	48	28	290	27	206	5	3	41	30	285	26	203	0	1	47	15	266	24
TOTAL	732	11	14	195	110	1062	100	736	15	12	188	149	1100	100	810	20	3	194	71	1098	100

¹ Includes 2 lungs declined for transplant but subsequently used for research and 18 lungs retrieved by overseas centres² Includes 2 lungs declined for transplant but subsequently used for research and 8 lungs retrieved by overseas centres³ Includes 2 lungs offered for transplant but subsequently used for research and 4 lungs retrieved by overseas centres

Table 3c Final outcome of adult DCD donor lungs offered for transplant by UK donation zones, 1 April 2012 - 31 March 2015

Donation zone	2012/2013							2013/2014							2014/2015 ¹						
	Lungs offered, not retrieved	Lungs retrieved, not transplanted		Lungs transplanted		Total lungs offered		Lungs offered, not retrieved	Lungs retrieved, not transplanted		Lungs transplanted		Total lungs offered		Lungs offered, not retrieved	Lungs retrieved, not transplanted		Lungs transplanted		Total lungs offered	
		Zonal	Non-zonal	Zonal	Non-zonal	N	%		Zonal	Non-zonal	Zonal	Non-zonal	N	%		Zonal	Non-zonal	Zonal	Non-zonal	N	%
Birmingham	104	0	0	2	12	118	16	110	2	0	2	8	122	16	92	0	4	6	2	104	15
Glasgow	60	2	0	6	0	68	9	58	2	2	4	0	66	9	64	2	0	4	0	70	10
Harefield	164	0	0	10	0	174	24	142	0	2	12	6	162	22	114	0	0	6	4	124	18
Manchester	95	0	4	2	3	104	14	70	0	0	3	1	74	10	80	0	0	7	13	100	14
Newcastle	76	6	0	2	8	92	13	105	2	1	12	5	125	17	100	2	4	6	4	116	17
Papworth	164	2	2	4	8	180	24	186	0	0	4	4	194	26	167	0	1	8	12	188	27
TOTAL	663	10	6	26	31	736	100	671	6	5	37	24	743	100	617	4	9	37	35	702	100

¹ Includes 7 DCD lung offers declined for transplant but subsequently used for research

Table 4a Percentage of adult DBD donor offered organs that were transplanted, by UK donation zone,
1 April 2012 - 31 March 2015

Donation zone	2012/2013		2013/2014		2014/2015	
	% Hearts transplanted	% Lungs transplanted	% Hearts transplanted	% Lungs transplanted	% Hearts transplanted	% Lungs transplanted
Birmingham	32	25	32	29	33	23
Glasgow	26	24	33	30	34	16
Harefield	24	31	41	37	31	28
Manchester	25	28	34	26	36	22
Newcastle	25	36	46	37	33	27
Papworth	29	26	37	25	31	23
TOTAL	27	29	37	31	32	24

Table 4b Percentage of adult DCD donor offered organs that were transplanted, by UK donation zone,
1 April 2012 - 31 March 2015

Donation zone	2012/2013	2013/2014	2014/2015
	% Lungs transplanted	% Lungs transplanted	% Lungs transplanted
Birmingham	12	8	8
Glasgow	9	6	6
Harefield	6	11	8
Manchester	5	5	20
Newcastle	11	14	9
Papworth	7	4	11
TOTAL	8	8	10

Table 5a**Registration outcome of adult patients on the heart transplant list, 1 April 2014 - 31 March 2015**

Centre	No. on active and suspended list (as at 1 April 2014)	New registrations (1 April 2014 – 31 March 2015)	TOTAL	Registration outcome (as at 31 March 2015)							
				Active/Suspended		Transplanted		Removed		Died	
				N	%	N	%	N	%	N	%
Birmingham	23	53	76	29	38	31	41	9	12	7	9
Glasgow	13	22	35	10	29	13	37	10	29	2	6
Great Ormond Street	1	0	1	1	100	0	0	0	0	0	0
Harefield	67	32	99	68	69	25	25	3	3	3	3
Manchester	17	43	60	29	48	26	43	4	7	1	2
Newcastle	50	40	90	63	70	14	16	5	6	8	9
Papworth	48	47	95	50	53	33	35	7	7	5	5
TOTAL	219	237	456	250	55	142	31	38	8	26	6

Table 5b**Registration outcome of adult patients on the lung (inc. heart/lung) transplant list, 1 April 2014 - 31 March 2015**

Centre		No. on active and suspended list (as at 1 April 2014)	New registrations (1 April 2014 – 31 March 2015)	TOTAL	Registration outcome (as at 31 March 2015)							
					Active/Suspended		Transplanted		Removed		Died	
					N	%	N	%	N	%	N	%
Birmingham	L	24	40	64	35	55	23	36	1	2	5	8
	HL	1	0	1	0	0	0	0	0	0	1	100
Harefield	L	67	94	161	109	68	49	30	0	0	3	2
	HL	2	1	3	3	100	0	0	0	0	0	0
Manchester	L	50	38	88	53	60	23	26	5	6	7	8
	HL	2	1	3	2	67	0	0	1	33	0	0
Newcastle	L	67	72	139	87	63	39	28	2	1	11	8
	HL	2	2	4	3	75	0	0	1	25	0	0
Papworth	L	30	55	85	29	34	35	41	6	7	15	18
	HL	6	5	11	4	36	3	27	1	9	3	27
TOTAL	L	238	299	537	313	58	169	31	14	3	41	8
	HL	13	9	22	12	55	3	14	3	14	4	18

Table 6a Adult deceased donor heart transplant activity in the UK, 1 April 2012 - 31 March 2015

Transplant centre	2012/2013				2013/2014				2014/2015			
	Non-urgent	Urgent	Total		Non-urgent	Urgent	Total		Non-urgent	Urgent	Total	
	N	N	N	%	N	N	N	%	N	N	N	%
Birmingham	8	12	20	17	3	17	20	12	3	28	31	22
Glasgow	4	5	9	7	5	14	19	11	5	8	13	9
Harefield	7	14	21	17	3	23	26	15	2	23	25	17
Manchester	8	14	22	18	5	26	31	18	2	24	26	18
Newcastle	2	20	22	18	8	20	28	16	2	13	15	10
Papworth	11	15	26	21	17	27	44	26	11	22	33	23
<i>GOSH</i>	<i>0</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>2</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
TOTAL	40	81	121¹	100	42	129	171²	100	25	118	143³	100

¹ Includes 3 heart/kidney transplants² Includes 1 heart/kidney transplant³ Includes 1 heart/kidney transplant

Table 6b Adult deceased donor lung transplant activity in the UK, 1 April 2012 - 31 March 2015

Transplant centre	2012/2013					2013/2014					2014/2015				
	HL	L		Total		HL	L		Total		HL	L		Total	
	N	DBD	DCD	N	%	N	DBD	DCD	N	%	N	DBD	DCD	N	%
Birmingham	0	15	1	16	9	1	18	3	22	10	0	18	6	24	13
Harefield	0	34	14	48	26	0	50	12	62	29	0	39	10	49	27
Manchester	0	24	2	26	14	0	28	3	31	15	0	19	5	24	13
Newcastle	1	46	12	59	31	1	45	11	57	27	0	34	8	42	23
Papworth	2	31	5	38	20	5	29	4	38	18	1	30	9	40	22
GOSH	0	1	0	1	1	0	1	0	1	0	0	0	1	1	1
TOTAL	3	151	34	188	100	7	171	33	211	100	1	140	39	180 ¹	100

HL – heart/lung, L - lung

¹ Includes 1 lung/kidney transplant

Table 7a **Summary of adult deceased donor heart activity in the UK, 1 April 2012 – 31 March 2015**

Donation zone/ Centre	2012/2013		2013/2014		% Total donors	2014/2015		% Total registrations
	% Total donors	% Total transplants	% Total donors	% Total transplants		% Total transplants		
Birmingham	19	17	12	12	16	22	16	
Glasgow	8	7	8	11	10	9	8	
Harefield	16	17	24	15	20	17	22	
Manchester	10	18	12	18	15	18	13	
Newcastle	18	18	17	16	14	10	20	
Papworth	29	21	26	26	24	23	21	
TOTAL	100	100¹	100	100¹	100	100¹	100	

¹ Includes 1% performed at Great Ormond Street

Table 7b **Summary of adult deceased donor lung (including DCD and heart/lung) activity in the UK,
1 April 2012 – 31 March 2015**

Donation zone/ Centre	2012/2013		2013/2014		% Total donors	2014/2015	
	% Total donors	% Total transplants	% Total donors	% Total transplants		% Total transplants	% Total registrations
Birmingham	14	9	14	10	15	13	12
Harefield	18	26	25	29	24	27	29
Manchester	12	14	11	15	14	13	16
Newcastle*	32	31	30	27	24	23	26
Papworth	24	20	20	18	23	22	17
TOTAL	100	100	100	100	100	100	100

*Glasgow lung donors are counted within Newcastle's zone.