

**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. This paper reviews adult cardiothoracic zonal activity between 1 April 2010 and 31 March 2013, and includes donation after circulatory death lung activity for the first time.

RESULTS

- 2 During the last three financial years, there were 366 adult DBD heart donors, 492 adult DBD lung donors and 84 adult DCD lung donors from the UK (3 hearts, 38 DBD lungs and 4 DCD lungs were offered for transplant, but declined and then used for research).
- 3 The range of the heart balance of exchange increased again in 2012/2013 and this relates to the increasing use of the Urgent Heart Allocation Scheme (UHAS). Manchester were the only net importers of donor hearts, while Birmingham, Papworth and Glasgow were net exporters.
- 4 The range of the DBD lung balance of exchange decreased in 2012/2013. Harefield and Manchester were net importers of lungs for transplant, while the other three centres were net exporters. Over the last three years, Birmingham were consistent net exporters of DCD lung transplants, while Harefield were consistent net importers.
- 5 Overall 27% of offered hearts, 29% of offered DBD lungs and 8% of offered DCD lungs were transplanted in 2012/2013.

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 heart donation and transplant activity in 2012/2013, but there is some imbalance in the lung activity.
- 7 A further paper proposing changes to the cardiothoracic allocation zones is presented under 'Zonal boundary changes' item on the agenda.

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INTRODUCTION

- 1 The current zonal arrangements for the English cardiothoracic transplant centres came into effect on 1 April 2003. This paper reviews adult cardiothoracic zonal activity between 1 April 2010 and 31 March 2013, and includes donation after circulatory death lung activity for the first time.

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 2010 to 31 March 2013. Data on adult registrations on the cardiothoracic transplant list for the period 1 April 2012 to 31 March 2013 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 366 adult DBD heart donors, 492 adult DBD lung donors and 84 adult DCD lung donors from the UK (3 hearts, 38 DBD lungs and 4 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 increased again in 2012/2013 and this relates to the increasing use of the Urgent Heart Allocation Scheme (UHAS). Manchester were the only net importers of donor hearts, while Birmingham, Papworth and Glasgow were net exporters. 'No suitable recipients' and the UHAS and were the main reasons for exporting hearts, influencing 28 (47%) and 19 (32%) of the 60 exports in the last financial year, respectively.
- 9 The range of the DBD lung balance of exchange decreased in 2012/2013. Harefield and Manchester were net importers of lungs for transplant, while the other three centres were net exporters. Nationally, 'organ unsuitable – clinical' and 'no suitable recipients' were the main reasons given for exporting lungs, affecting 20 (33%) and 21 (30%) of the 60 exports in the last financial year, respectively.
- 10 DCD lung transplants often cross zonal boundaries. Over the last three years, Birmingham were consistent net exporters of DCD lung transplants, while Harefield were consistent 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 27% of offered hearts, 29% of offered DBD lungs and 8% of offered DCD lungs were transplanted in 2012/2013.

Transplant list

- 13 **Tables 5a and 5b** show the registration outcome by centre as at 31 March 2013 of adult patients registered on the UK active and suspended cardiothoracic transplant list as at 1 April 2012 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 2010 to 31 March 2013.

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 heart donation and transplant activity in 2012/2013, but there is some imbalance in the lung activity.
- 17 A further paper proposing changes to the cardiothoracic allocation zones is presented under 'Zonal boundary changes' item on the agenda.

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Statistics and Clinical Studies

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Table 1a Adult cardiothoracic DBD donors from UK donor hospitals, 1 April 2010 – 31 March 2013

Donation zone	2010/2011 ¹					2011/2012 ²					2012/2013 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	23	21	19	12	33	28	22	30	18	57	25	19	23	13	45
Glasgow	10	9	15	10	28	4	3	9	5	16	11	8	15	9	28
Harefield	15	14	37	24	73	14	11	28	17	56	21	16	32	19	62
Manchester	12	11	15	10	29	15	12	23	14	41	13	10	20	12	35
Newcastle	23	21	30	19	57	23	18	38	23	73	23	18	40	23	78
Papworth	27	25	38	25	74	41	33	39	23	75	38	29	41	24	82
TOTAL	110	100	154	100	294	125	100	167	100	318	131	100	171	100	330

¹ Includes 3 hearts and 2 lungs declined for transplant but subsequently used for research, also includes 1 heart and 4 lungs that were retrieved by an overseas centre

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

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

Table 1b Adult cardiothoracic DCD donors from UK donor hospitals, 1 April 2010 – 31 March 2013

Donation zone	2010/2011 ¹			2011/2012			2012/2013		
	Lung donors		Lungs donated	Lung donors		Lungs donated	Lung donors		Lungs donated
	N	%		N	%		N	%	
Birmingham	6	23	12	8	38	16	7	19	14
Glasgow	1	4	2	2	10	4	4	11	8
Harefield	8	31	16	2	10	4	5	14	10
Manchester	2	8	4	2	10	4	5	14	9
Newcastle	5	19	10	2	10	4	8	22	16
Papworth	4	15	8	5	24	9	8	22	16
TOTAL	26	100	52	21	100	41	37	100	73

¹ Includes 4 lungs declined for transplant but subsequently used for research

Table 2a Balance of exchange of adult DBD donor hearts donated in the UK, 1 April 2010 - 31 March 2013

Donation zone	2010/2011				2011/2012				2012/2013			
	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	22	10	9	+1	28	19	12	+7	25	12	7	+5
Glasgow	10	7	5	+2	4	3	7	-4	11	6	5	+1
Harefield	14	13	7	+6	14	12	7	+5	21	11	11	0
Manchester	12	10	10	0	15	5	8	-3	13	3	12	-9
Newcastle	23	10	12	-2	23	12	13	-1	23	10	10	0
Papworth	26	13	11	+2	41	19	12	+7	38	18	8	+10
TOTAL	107¹	63	54²	+9²	125	70	59³	+11³	131	60	53	+7⁴

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

² An additional 8 hearts were received by Great Ormond St. and 1 went overseas

³ An additional 7 hearts were received by Great Ormond St. and 4 went overseas

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

Table 2b Primary reasons¹ for exporting adult DBD donor hearts donated in the UK, 1 April 2010 - 31 March 2013

		Birmingham	Glasgow	Harefield	Manchester	Newcastle	Papworth	Total
		N	N	N	N	N	N	
Urgent Heart	10/11	2	4	3	6	2	6	23
	11/12	8	1	4	3	1	6	23
	12/13	5	4	0	0	3	7	19
Offered to national pool as payback	10/11	0	0	1	0	0	0	1
Logistics	10/11	2	0	3	0	1	0	6
	11/12	1	0	0	0	0	2	3
	12/13	0	0	0	1	0	1	2
Donor unsuitable – age	11/12	0	0	2	0	0	0	2
Donor unsuitable - medical	10/11	0	1	0	0	0	0	1
	11/12	0	0	0	0	1	0	1
	12/13	0	0	0	1	0	2	3
Organ unsuitable - clinical	10/11	0	0	1	1	1	3	6
	11/12	1	0	3	0	2	5	11
	12/13	1	1	4	0	0	1	7
No suitable recipients	10/11	6	1	5	3	5	3	23
	11/12	9	2	2	1	8	4	26
	12/13	6	0	7	1	7	7	28
Other	10/11	0	1	0	0	1	1	3
	11/12	0	0	1	1	0	2	4
	12/13	0	1	0	0	0	0	1
TOTAL	10/11	10	7	13	10	10	13	63
	11/12	19	3	12	5	12	19	70
	12/13	12	6	11	3	10	18	60

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 2010 - 31 March 2013

Donation zone	2010/2011				2011/2012				2012/2013			
	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	17	10	4	+6	29	19	5	+14	22	13	6	+7
Harefield	33	5	19	-14	27	7	19	-12	31	9	12	-3
Manchester	13	5	11	-6	24	9	7	+2	19	6	11	-5
Newcastle ¹	41	16	5	+11	46	12	7	+5	50	17	12	+5
Papworth	37	14	6	+8	39	13	9	+4	40	15	8	+7
TOTAL	141²	50	45³	+5³	165⁴	60	47⁵	+13⁵	162⁶	60	49⁷	+11⁷

¹ Includes 31 lung transplants from Scottish donors (11 in 2010/2011, 8 in 2011/12 and 12 in 2012/13).

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 3 by an overseas centre

⁴ Excludes 3 lungs declined for transplant but subsequently used for research

⁵ An additional 4 lung transplants were performed by Great Ormond St. and 9 by an overseas centre

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

⁷ An additional 2 lung transplants were performed by Great Ormond St. and 9 by an overseas centre

Table 2d Primary reasons¹ for exporting adult DBD donor lungs donated in the UK, 1 April 2010 - 31 March 2013

		Birmingham N	Harefield N	Manchester N	Newcastle N	Papworth N	Total
Logistics	10/11	4	3	1	5	3	16
	11/12	2	0	4	1	0	7
	12/13	4	2	3	4	1	14
Donor unsuitable - age	11/12	1	1	0	0	0	2
	12/13	0	1	0	1	1	3
Donor unsuitable - medical	10/11	0	0	0	1	1	2
	11/12	0	0	0	2	0	2
	12/13	0	0	0	0	1	1
Organ unsuitable - clinical	10/11	1	1	2	2	6	12
	11/12	8	3	1	6	6	24
	12/13	5	5	2	6	2	20
No suitable recipients	10/11	4	0	2	5	4	15
	11/12	7	3	3	2	6	21
	12/13	4	1	1	4	8	18
Other	10/11	1	1	0	3	0	5
	11/12	1	0	1	1	1	4
	12/13	0	0	0	1	2	3
TOTAL	10/11	10	5	5	16	14	50
	11/12	19	7	9	12	13	60
	12/13	13	9	6	17	15	60

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 2010 - 31 March 2013

Donation zone	2010/2011				2011/2012				2012/2013			
	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	5	5	0	+5	7	7	0	+7	7	6	0	+6
Harefield	8	0	3	-3	2	0	10	-10	5	0	9	-9
Manchester	2	1	0	+1	3	2	2	0	4	2	0	+2
Newcastle ¹	4	0	3	-3	3	2	1	+1	10	5	6	-1
Papworth	3	2	2	0	5	3	1	+2	7	4	2	+2
TOTAL	22²	8	8	0	20	14	14	0	33	17	17	0

¹ Includes 5 lung transplants from Scottish donors (2 in 2011/12 and 3 in 2012/13).

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

Table 2f Primary reasons¹ for exporting adult DCD donor lungs donated in the UK, 1 April 2010 - 31 March 2013

		Birmingham N	Harefield N	Manchester N	Newcastle N	Papworth N	Total
Logistics	12/13	0	0	0	2	1	3
Donor unsuitable - medical	11/12	0	0	1	0	0	1
Organ unsuitable - clinical	11/12	0	0	0	1	0	1
	12/13	1	0	0	2	2	5
No suitable recipients	10/11	0	0	0	0	1	1
	11/12	0	0	1	1	2	4
	12/13	4	0	1	0	0	5
Other	10/11	2	0	1	0	0	3
	11/12	4	0	0	0	1	5
	12/13	1	0	0	1	1	3
Centre doesn't perform DCD grafts	10/11	3	0	0	0	0	3
	11/12	3	0	0	0	0	3
Unknown	10/11	0	0	0	0	1	1
	11/12	0	0	1	0	0	1
TOTAL	10/11	5	0	1	0	2	8
	11/12	7	0	2	2	3	14
	12/13	6	0	2	5	4	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 2010 - 31 March 2013

Donation zone	2010/2011 ¹							2011/2012 ²							2012/2013 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	61	0	1	12	10	84	17	48	0	0	9	19	76	16	54	0	0	13	12	79	16
Glasgow	26	0	0	3	7	36	7	32	0	0	1	3	36	8	31	0	0	5	6	42	9
Harefield	82	0	1	1	13	97	19	78	0	0	2	12	92	20	68	0	0	10	11	89	18
Manchester	52	0	0	2	10	64	13	37	0	0	10	5	52	11	40	0	0	10	3	53	11
Newcastle	57	0	0	13	10	80	16	70	0	0	11	12	93	20	68	0	0	13	10	91	19
Papworth	110	0	1	13	13	137	28	79	0	0	22	19	120	26	94	0	0	20	18	132	27
TOTAL	388	0	3	44	63	498	100	344	0	0	55	70	469	100	355	0	0	71	60	486	100

¹ Includes 3 offered hearts declined for transplant but subsequently used for research and 1 heart retrieved by an overseas centre

² Includes 2 hearts retrieved by an overseas centre

³ Includes 3 hearts retrieved by an overseas centre

⁴ Includes hearts offered for transplant but subsequently retrieved for heart valves only

Table 3b Final outcome of adult DBD donor lungs offered for transplant by UK donation zones, 1 April 2010 - 31 March 2013

Donation zone	2010/2011 ¹							2011/2012 ²							2012/2013 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	141	0	4	11	18	174	17	93	2	2	19	34	150	15	123	0	3	18	24	168	16
Glasgow	51	5	2	12	9	79	8	62	1	0	11	4	78	8	62	2	4	15	7	90	8
Harefield	137	2	6	56	9	210	20	132	0	2	40	14	188	19	132	2	0	44	16	194	18
Manchester	101	2	2	15	10	130	13	75	0	0	25	16	116	12	83	0	2	21	12	118	11
Newcastle	103	1	2	34	20	160	16	119	3	2	49	19	192	20	124	5	1	49	23	202	19
Papworth	198	2	4	42	26	272	27	183	0	2	48	25	258	26	208	2	4	48	28	290	27
TOTAL	731	12	20	170	92	1025	100	664	6	8	192	112	982	100	732	11	14	195	110	1062	100

¹ Includes 2 offered lungs declined for transplant but subsequently used for research and 4 lungs retrieved by an overseas centre

² Includes 3 offered lungs declined for transplant but subsequently used for research and 18 lungs retrieved by an overseas centre

³ Includes 2 offered lungs declined for transplant but subsequently used for research and 18 lungs retrieved by an overseas centre

Table 3c Final outcome of adult DCD donor lungs offered for transplant by UK donation zones, 1 April 2010 - 31 March 2013

Donation zone	2010/2011 ¹							2011/2012 ²							2012/2013 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	70	0	2	0	10	82	19	120	0	2	0	14	136	21	104	0	0	2	12	118	16
Glasgow	34	2	0	0	0	36	8	44	0	0	2	2	48	7	60	2	0	6	0	68	9
Harefield	86	0	0	16	0	102	23	168	0	0	4	0	172	26	160	0	0	10	0	170	23
Manchester	30	0	0	2	2	34	8	70	0	0	1	3	74	11	95	0	4	2	3	104	14
Newcastle	58	2	0	8	0	68	16	80	2	0	0	2	84	13	76	6	0	2	8	92	13
Papworth	108	0	2	2	4	116	26	139	0	0	3	6	148	22	164	2	2	4	8	180	25
TOTAL	386	4	4	28	16	438	100	621	2	2	10	27	662	100	659	10	6	26	31	732	100

¹ Includes 2 offered lungs declined for transplant but subsequently used for research and 4 lungs retrieved by an overseas centre

² Includes 3 offered lungs declined for transplant but subsequently used for research and 18 lungs retrieved by an overseas centre

³

Table 4a **Percentage of adult DBD donor offered organs that were transplanted, by UK donation zone,
1 April 2010 - 31 March 2013**

Donation zone	2010/2011		2011/2012		2012/2013	
	% Hearts transplanted	% Lungs transplanted	% Hearts transplanted	% Lungs transplanted	% Hearts transplanted	% Lungs transplanted
Birmingham	26	17	37	35	32	25
Glasgow	28	27	11	19	26	24
Harefield	14	31	15	29	24	31
Manchester	19	19	29	35	25	28
Newcastle	29	34	25	35	25	36
Papworth	19	25	34	28	29	26
TOTAL	21	26	27	31	27	29

Table 4b **Percentage of adult DCD donor offered organs that were transplanted, by UK donation zone,
1 April 2010 - 31 March 2013**

Donation zone	2010/2011	2011/2012	2012/2013
	% Lungs transplanted	% Lungs transplanted	% Lungs transplanted
Birmingham	12	10	12
Glasgow	0	8	9
Harefield	16	2	6
Manchester	12	5	5
Newcastle	12	2	11
Papworth	5	6	7
TOTAL	10	6	8

Table 5a**Registration outcome of adult patients on the heart transplant list, 1 April 2012 - 31 March 2013**

Centre	No. on active and suspended list (as at 1 April 2012)	New registrations (1 April 2012 – 31 March 2013)	TOTAL	Registration outcome (as at 31 March 2013)							
				Active/Suspended		Transplanted		Removed		Died	
				N	%	N	%	N	%	N	%
Birmingham	9	35	44	21	48	19	43	2	5	2	5
Glasgow	9	16	25	9	36	9	36	6	24	1	4
Great Ormond Street	1	3	4	3	75	1	25	0	0	0	0
Harefield	43	46	89	53	60	21	24	8	9	7	8
Manchester	17	30	47	16	34	22	47	8	17	1	2
Newcastle	34	48	82	42	51	22	27	6	7	12	15
Papworth	45	43	88	47	53	26	30	10	11	5	6
TOTAL	158	221	379	191	50	120	32	40	11	28	7

Table 5b **Registration outcome of adult patients on the lung (inc. heart/lung) transplant list, 1 April 2012 - 31 March 2013**

Centre		No. on active and suspended list (as at 1 April 2012)	New registrations (1 April 2012 – 31 March 2013)	TOTAL	Registration outcome (as at 31 March 2013)							
					Active/Suspended		Transplanted		Removed		Died	
					N	%	N	%	N	%	N	%
Birmingham	L	18	24	42	20	48	13	31	3	7	6	14
	HL	2	2	4	0	0	1	25	3	75	0	0
Harefield	L	61	71	132	68	52	46	35	8	6	10	8
	HL	2	0	2	2	100	0	0	0	0	0	0
Manchester	L	24	50	74	40	54	25	34	2	3	7	9
Newcastle	L	72	51	123	53	43	53	43	1	1	16	13
	HL	3	0	3	2	67	1	33	0	0	0	0
Papworth	L	23	49	72	29	40	35	49	5	7	3	4
	HL	5	8	13	10	77	3	23	0	0	0	0
TOTAL	L	198	245	443	210	47	172	39	19	4	42	9
	HL	12	10	22	14	64	5	23	3	14	0	0

Table 6a Adult deceased donor heart transplant activity in the UK, 1 April 2010 - 31 March 2013

Transplant centre	2010/2011				2011/2012				2012/2013			
	Non-urgent	Urgent	Total		Non-urgent	Urgent	Total		Non-urgent	Urgent	Total	
	N	N	N	%	N	N	N	%	N	N	N	%
Birmingham	12	9	21	23	12	10	22	21	8	12	20	17
Glasgow	5	4	9	10	5	4	9	9	4	5	9	7
Harefield	3	6	9	10	3	6	9	9	7	14	21	17
Manchester	5	7	12	13	6	12	18	17	8	14	22	18
Newcastle	6	10	16	17	8	9	17	16	2	20	22	18
Papworth	10	14	24	26	9	20	29	28	11	15	26	21
<i>GOSH</i>	1	0	1	1	1	0	1	1	0	1	1	1
TOTAL	42	50	92	100	44	61	105	100	40	81	121^a	100

^a Include 3 heart/kidney transplants

Table 6b Adult deceased donor lung transplant activity in the UK, 1 April 2010 - 31 March 2013

Transplant centre	2010/2011					2011/2012					2012/2013				
	HL	L		Total		HL	L		Total		HL	L		Total	
	N	DBD	DCD	N	%	N	DBD	DCD	N	%	N	DBD	DCD	N	%
Birmingham	0	11	0	11	7	0	15	0	15	9	0	15	1	16	9
Harefield	0	47	11	58	35	0	39	12	51	29	0	34	14	48	26
Manchester	0	20	1	21	13	0	22	4	26	15	0	24	2	26	14
Newcastle	1	36	7	44	26	0	43	2	45	26	1	46	12	59	31
Papworth	2	27	3	32	19	5	30	3	38	22	2	31	5	38	20
<i>GOSH</i>	0	2	0	2	1	0	1	0	1	1	0	1	0	1	1
TOTAL	3	143	22	168	100	5	150	21	176	100	3	151	34	188	100

HL – heart/lung, L - lung

Table 7a **Summary of adult deceased donor heart activity in the UK, 1 April 2010 – 31 March 2013**

Donation zone/ Centre	2010/2011		2011/2012		% Total donors	2012/2013	
	% Total donors	% Total transplants	% Total donors	% Total transplants		% Total transplants	% Total registrations
Birmingham	21	23	22	21	19	17	16
Glasgow	9	10	3	9	8	7	7
Harefield	14	10	11	9	16	17	21
Manchester	11	13	12	17	10	18	14
Newcastle	21	17	18	16	18	18	22
Papworth	25	26	33	28	29	21	19
TOTAL	100	100¹	100	100¹	100	100¹	100¹

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 2010 – 31 March 2013**

Donation zone/ Centre	2010/2011		2011/2012		% Total donors	2012/2013	
	% Total donors	% Total transplants	% Total donors	% Total transplants		% Total transplants	% Total registrations
Birmingham	14	7	20	9	14	9	10
Harefield	25	35	16	29	18	26	28
Manchester	9	13	13	15	12	14	20
Newcastle	28	26	27	26	31	31	20
Papworth	23	19	23	22	24	20	22
TOTAL	100	100¹	100	100¹	100	100¹	100

Glasgow lung donors are counted within Newcastle's zone.

¹ Includes 1% performed at Great Ormond Street