

**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 2011 and 31 March 2014, and includes donation after circulatory death lung activity.

**RESULTS**

- 2 During the last three financial years, there were 445 adult DBD heart donors, 528 adult DBD lung donors and 95 adult DCD lung donors from the UK (2 hearts and 5 DBD lungs were offered for transplant, but declined and then used for research).
- 3 The range of the heart balance of exchange increased again in 2013/2014 and this relates to the increasing use of the Urgent Heart Allocation Scheme (UHAS). Manchester, Glasgow, and Newcastle were net importers of donor hearts, while Birmingham, Papworth, and Harefield were net exporters.
- 4 The range of the DBD lung balance of exchange decreased in 2013/2014. Harefield and Manchester were net importers of lungs for transplant, while the other three centres were net exporters. Over the last three years, Birmingham, Newcastle, and Papworth were consistent net exporters of DCD lung transplants, while Harefield were consistent net importers.
- 5 Overall 37% of offered hearts, 31% of offered DBD lungs and 8% of offered DCD lungs were transplanted in 2013/2014.

**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 2013/2014, but there is some imbalance in the lung activity.
- 7 A further paper discussing future revisions to the cardiothoracic allocation zones is presented under 'Allocation zonal boundary changes' item on the agenda.

**Rebecca Curtis**  
**Statistics and Clinical Studies**

**September 2014**

# NHS BLOOD AND TRANSPLANT

## CARDIOTHORACIC ADVISORY GROUP

### ZONAL ACTIVITY

#### 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 2011 and 31 March 2014, and includes donation after circulatory death lung activity.

#### 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 2011 to 31 March 2014. Data on adult registrations on the cardiothoracic transplant list for the period 1 April 2013 to 31 March 2014 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 445 adult DBD heart donors, 528 adult DBD lung donors and 95 adult DCD lung donors from the UK (2 hearts and 5 DBD 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 2013/2014 and this relates to the increasing use of the Urgent Heart Allocation Scheme (UHAS). Manchester, Glasgow, and Newcastle were net importers of donor hearts, while Birmingham, Papworth and Harefield were net exporters. 'No suitable recipients' and the UHAS and were the main reasons for exporting hearts, influencing 36 (38%) and 35 (36%) of the 96 exports in the last financial year, respectively.
- 9 The range of the DBD lung balance of exchange decreased in 2013/2014. 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 (27%) and 27 (36%) of the 74 exports in the last financial year, respectively.
- 10 DCD lung transplants often cross zonal boundaries. Over the last three years, Birmingham, Newcastle, and Papworth 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 37% of offered hearts, 31% of offered DBD lungs and 8% of offered DCD lungs were transplanted in 2013/2014.

### Transplant list

- 13 **Tables 5a and 5b** show the registration outcome by centre as at 31 March 2014 of adult patients registered on the UK active and suspended cardiothoracic transplant list as at 1 April 2013 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 2011 to 31 March 2014.

**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 2013/2014, but there is some imbalance in the lung activity.
- 17     A further paper discussing future revisions to the cardiothoracic allocation zones is presented under 'Allocation zonal boundary changes' item on the agenda.

**Rebecca Curtis**  
**Statistics and Clinical Studies**

**September 2014**

**Table 1a Adult cardiothoracic DBD donors from UK donor hospitals, 1 April 2011 – 31 March 2014**

Donation zone	2011/2012 <sup>1</sup>					2012/2013 <sup>2</sup>					2013/2014 <sup>3</sup>				
	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	28	22	30	18	57	25	19	23	13	45	23	12	26	14	49
Glasgow	4	3	9	5	16	11	8	15	9	28	16	8	22	12	41
Harefield	14	11	28	17	56	21	16	32	19	62	45	24	46	24	90
Manchester	15	12	23	14	41	13	10	20	12	35	23	12	23	12	44
Newcastle	23	18	38	23	73	23	18	40	23	78	33	17	32	17	61
Papworth	41	33	39	23	75	38	29	41	24	82	49	26	41	22	79
<b>TOTAL</b>	<b>125</b>	<b>100</b>	<b>167</b>	<b>100</b>	<b>318</b>	<b>131</b>	<b>100</b>	<b>171</b>	<b>100</b>	<b>330</b>	<b>189</b>	<b>100</b>	<b>190</b>	<b>100</b>	<b>364</b>

<sup>1</sup> 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

<sup>2</sup> 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

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

**Table 1b Adult cardiothoracic DCD donors from UK donor hospitals, 1 April 2011 – 31 March 2014**

Donation zone	2011/2012			2012/2013			2013/2014		
	Lung donors		Lungs donated	Lung donors		Lungs donated	Lung donors		Lungs donated
	N	%		N	%		N	%	
Birmingham	8	38	16	7	19	14	6	16	42
Glasgow	2	10	4	4	11	8	4	11	20
Harefield	2	10	4	5	14	10	10	27	34
Manchester	2	10	4	5	14	9	2	5	17
Newcastle	2	10	4	8	22	16	10	27	40
Papworth	5	24	9	8	22	16	5	14	33
<b>TOTAL</b>	<b>21</b>	<b>100</b>	<b>41</b>	<b>37</b>	<b>100</b>	<b>73</b>	<b>37</b>	<b>100</b>	<b>186</b>

**Table 2a Balance of exchange of adult DBD donor hearts donated in the UK, 1 April 2011 - 31 March 2014**

Donation zone	2011/2012				2012/2013				2013/2014			
	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	28	19	12	+7	25	12	7	+5	23	11	8	+3
Glasgow	4	3	7	-4	11	6	5	+1	16	10	13	-3
Harefield	14	12	7	+5	21	11	11	0	44	28	12	+16
Manchester	15	5	8	-3	13	3	12	-9	23	12	17	-5
Newcastle	23	12	13	-1	23	10	10	0	33	18	19	-1
Papworth	41	19	12	+7	38	18	8	+10	48	17	16	+1
<b>TOTAL</b>	<b>125</b>	<b>70</b>	<b>59<sup>1</sup></b>	<b>+11<sup>1</sup></b>	<b>131</b>	<b>60</b>	<b>53<sup>2</sup></b>	<b>+7<sup>2</sup></b>	<b>187<sup>3</sup></b>	<b>96</b>	<b>85<sup>4</sup></b>	<b>+11<sup>4</sup></b>

<sup>1</sup> An additional 7 hearts were received by Great Ormond St. and 4 went overseas

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

<sup>3</sup> Excludes 2 hearts declined for transplant but subsequently used for research

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

**Table 2b Primary reasons<sup>1</sup> for exporting adult DBD donor hearts donated in the UK, 1 April 2011 - 31 March 2014**

		Birmingham	Glasgow	Harefield	Manchester	Newcastle	Papworth	Total
		N	N	N	N	N	N	
Urgent Heart	11/12	8	1	4	3	1	6	23
	12/13	5	4	0	0	3	7	19
	12/14	4	4	8	2	10	7	35
Logistics	11/12	1	0	0	0	0	2	3
	12/13	0	0	0	1	0	1	2
	13/14	1	0	0	0	2	1	4
Donor unsuitable – age	11/12	0	0	2	0	0	0	2
	13/14	0	0	1	0	0	0	1
Donor unsuitable - medical	11/12	0	0	0	0	1	0	1
	12/13	0	0	0	1	0	2	3
	13/14	0	0	1	0	0	0	1
Organ unsuitable - clinical	11/12	1	0	3	0	2	5	11
	12/13	1	1	4	0	0	1	7
	13/14	1	1	3	2	0	5	12
No suitable recipients	11/12	9	2	2	1	8	4	26
	12/13	6	0	7	1	7	7	28
	13/14	4	5	10	7	6	4	36
Other	11/12	0	0	1	1	0	2	4
	12/13	0	1	0	0	0	0	1
	13/14	1	0	1	1	0	0	3
Distance (euro)	13/14	0	0	1	1	0	2	4
Donor Unsuitable - cod	13/14	0	0	2	0	0	0	2
Not Reported	13/14	0	0	1	0	0	0	1
<b>TOTAL</b>	<b>11/12</b>	<b>19</b>	<b>3</b>	<b>12</b>	<b>5</b>	<b>12</b>	<b>19</b>	<b>70</b>
	<b>12/13</b>	<b>12</b>	<b>6</b>	<b>11</b>	<b>3</b>	<b>10</b>	<b>18</b>	<b>60</b>
	<b>13/14</b>	<b>11</b>	<b>10</b>	<b>28</b>	<b>12</b>	<b>18</b>	<b>17</b>	<b>96</b>

<sup>1</sup> 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 2011 - 31 March 2014**

Donation zone	2011/2012				2012/2013				2013/2014			
	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	29	19	5	+14	22	13	6	+7	24	16	11	+5
Harefield	27	7	19	-12	31	9	12	-3	45	18	22	-4
Manchester	24	9	7	+2	19	6	11	-5	24	11	15	-4
Newcastle <sup>1</sup>	46	12	7	+5	50	17	12	+5	50	19	16	+3
Papworth	39	13	9	+4	40	15	8	+7	40	18	12	+6
<b>TOTAL</b>	<b>165<sup>2</sup></b>	<b>60</b>	<b>47<sup>3</sup></b>	<b>+13<sup>3</sup></b>	<b>162<sup>4</sup></b>	<b>60</b>	<b>49<sup>5</sup></b>	<b>+11<sup>5</sup></b>	<b>183<sup>6</sup></b>	<b>82</b>	<b>76<sup>7</sup></b>	<b>+6<sup>7</sup></b>

<sup>1</sup> Includes 39 lung transplants from Scottish donors (8 in 2011/12, 12 in 2012/13, and 19 in 2013/14).

<sup>2</sup> Excludes 3 lungs declined for transplant but subsequently used for research.

<sup>3</sup> An additional 4 lung transplants were performed by Great Ormond St. and 9 by an overseas centre

<sup>4</sup> Excludes 2 lungs declined for transplant but subsequently used for research.

<sup>5</sup> An additional 2 lung transplants were performed by Great Ormond St. and 9 by an overseas centre

<sup>6</sup> Excludes 2 lungs declined for transplant but subsequently used for research.

<sup>7</sup> An additional 9 lung transplants performed by an overseas centre

**Table 2d Primary reasons<sup>1</sup> for exporting adult DBD donor lungs donated in the UK, 1 April 2011 - 31 March 2014**

		Birmingham N	Harefield N	Manchester N	Newcastle N	Papworth N	Total
Logistics	11/12	2	0	4	1	0	7
	12/13	4	2	3	4	1	14
	13/14	4	3	1	6	1	15
Donor unsuitable - age	11/12	1	1	0	0	0	2
	12/13	0	1	0	1	1	3
	13/14	0	0	1	0	0	1
Donor unsuitable - medical	11/12	0	0	0	2	0	2
	12/13	0	0	0	0	1	1
	13/14	0	1	0	0	0	1
Organ unsuitable - clinical	11/12	8	3	1	6	6	24
	12/13	5	5	2	6	2	20
	13/14	3	5	2	3	7	20
No suitable recipients	11/12	7	3	3	2	6	21
	12/13	4	1	1	4	8	18
	13/14	5	6	5	6	5	27
Other	11/12	1	0	1	1	1	4
	12/13	0	0	0	1	2	3
	13/14	0	2	0	2	3	7
<b>TOTAL</b>	<b>11/12</b>	19	7	9	12	13	60
	<b>12/13</b>	13	9	6	17	15	60
	<b>13/14</b>	13	17	9	18	17	74

<sup>1</sup> 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 2011 - 31 March 2014**

Donation zone	2011/2012				2012/2013				2013/2014			
	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	7	0	+7	7	6	0	+6	5	4	2	+2
Harefield	2	0	10	-10	5	0	9	-9	9	3	6	-3
Manchester	3	2	2	0	4	2	0	+2	3	1	1	0
Newcastle <sup>1</sup>	3	2	1	+1	10	5	6	-1	11	3	2	+1
Papworth	5	3	1	+2	7	4	2	+2	5	2	1	+1
<b>TOTAL</b>	<b>20</b>	<b>14</b>	<b>14</b>	<b>0</b>	<b>33</b>	<b>17</b>	<b>17</b>	<b>0</b>	<b>33</b>	<b>13</b>	<b>12<sup>2</sup></b>	<b>+1<sup>2</sup></b>

<sup>1</sup> Includes 7 lung transplants from Scottish donors (2 in 2011/12, 3 in 2012/13, and 2 in 2013/14).

<sup>2</sup> An additional lung transplant was performed by Great Ormond St.

**Table 2f Primary reasons<sup>1</sup> for exporting adult DCD donor lungs donated in the UK, 1 April 2011 - 31 March 2014**

		Birmingham	Harefield	Manchester	Newcastle	Papworth	Total
		N	N	N	N	N	
Logistics	12/13	0	0	0	2	1	3
	13/14	1	1	0	0	0	2
Donor Unsuitable - age	13/14	0	1	0	0	0	1
Donor unsuitable - medical	11/12	0	0	1	0	0	1
	13/14	0	0	0	0	1	1
Organ unsuitable - clinical	11/12	0	0	0	1	0	1
	12/13	1	0	0	2	2	5
	13/14	1	0	0	2	0	3
No suitable recipients	11/12	0	0	1	1	2	4
	12/13	4	0	1	0	0	5
	13/14	2	1	0	0	0	3
Other	11/12	4	0	0	0	1	5
	12/13	1	0	0	1	1	3
Anatomical	13/14	0	0	0	1	0	1
Centre doesn't perform DCD lung grafts	11/12	3	0	0	0	0	3
Unknown	12/13	0	0	1	0	0	1
<b>TOTAL</b>	<b>11/12</b>	7	0	2	2	3	14
	<b>12/13</b>	6	0	2	5	4	17
	<b>13/14</b>	4	3	0	3	1	11

<sup>1</sup> 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 2011 - 31 March 2014**

Donation zone	2011/2012 <sup>1</sup>							2012/2013 <sup>2</sup>							2013/2014 <sup>3</sup>						
	Hearts offered, not retrieved <sup>4</sup>	Hearts retrieved, not transplanted		Hearts transplanted		Total hearts offered		Hearts offered, not retrieved <sup>4</sup>	Hearts retrieved, not transplanted		Hearts transplanted		Total hearts offered		Hearts offered, not retrieved <sup>4</sup>	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	48	0	0	9	19	76	16	54	0	0	13	12	79	16	46	0	1	12	10	69	14
Glasgow	32	0	0	1	3	36	8	31	0	0	5	6	42	9	32	0	0	6	10	48	10
Harefield	78	0	0	2	12	92	20	68	0	0	10	11	89	18	61	2	0	15	28	106	22
Manchester	37	0	0	10	5	52	11	40	0	0	10	3	53	11	42	0	1	11	11	65	13
Newcastle	70	0	0	11	12	93	20	68	0	0	13	10	91	19	37	1	0	14	18	70	14
Papworth	79	0	0	22	19	120	26	94	0	0	20	18	132	27	79	0	2	31	16	128	26
<b>TOTAL</b>	<b>344</b>	<b>0</b>	<b>0</b>	<b>55</b>	<b>70</b>	<b>469</b>	<b>100</b>	<b>355</b>	<b>0</b>	<b>0</b>	<b>71</b>	<b>60</b>	<b>486</b>	<b>100</b>	<b>297</b>	<b>3</b>	<b>4</b>	<b>89</b>	<b>93</b>	<b>486</b>	<b>100</b>

<sup>1</sup> Includes 2 hearts retrieved by overseas centres<sup>2</sup> Includes 3 hearts retrieved by overseas centres<sup>3</sup> Includes 2 hearts offered for transplant but subsequently used for research and 1 heart retrieved by an overseas centre

**Table 3b Final outcome of adult DBD donor lungs offered for transplant by UK donation zones, 1 April 2011 - 31 March 2014**

Donation zone	2011/2012 <sup>1</sup>							2012/2013 <sup>2</sup>							2013/2014 <sup>3</sup>						
	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	93	2	2	19	34	150	15	123	0	3	18	24	168	16	99	2	4	14	29	148	13
Glasgow	62	1	0	11	4	78	8	62	2	4	15	7	90	8	71	4	3	15	19	112	10
Harefield	132	0	2	40	14	188	19	132	2	0	44	16	194	18	145	2	0	54	34	235	21
Manchester	75	0	0	25	16	116	12	83	0	2	21	12	118	11	116	0	2	23	19	160	15
Newcastle	119	3	2	49	19	192	20	124	5	1	49	23	202	19	99	2	0	41	18	160	15
Papworth	183	0	2	48	25	258	26	208	2	4	48	28	290	27	206	5	3	41	30	285	26
TOTAL	664	6	8	192	112	982	100	732	11	14	195	110	1062	100	736	15	12	188	149	1100	100

<sup>1</sup> Includes 3 lungs declined for transplant but subsequently used for research and 18 lungs retrieved by overseas centres

<sup>2</sup> Includes 2 lungs declined for transplant but subsequently used for research and 18 lungs retrieved by overseas centres

<sup>3</sup> Includes 2 lungs offered for transplant but subsequently used for research and 8 lungs retrieved by overseas centres

**Table 3c Final outcome of adult DCD donor lungs offered for transplant by UK donation zones, 1 April 2011 - 31 March 2014**

Donation zone	2011/2012 <sup>1</sup>							2012/2013 <sup>2</sup>							2013/2014 <sup>3</sup>						
	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	120	0	2	0	14	136	21	104	0	0	2	12	118	16	110	2	0	2	8	122	16
Glasgow	44	0	0	2	2	48	7	60	2	0	6	0	68	9	58	2	2	4	0	66	9
Harefield	168	0	0	4	0	172	26	164	0	0	10	0	174	24	142	0	2	12	6	162	22
Manchester	70	0	0	1	3	74	11	95	0	4	2	3	104	14	70	0	0	3	1	74	10
Newcastle	80	2	0	0	2	84	13	76	6	0	2	8	92	13	103	2	1	12	5	123	17
Papworth	139	0	0	3	6	148	22	164	2	2	4	8	180	24	186	0	0	4	4	194	26
TOTAL	621	2	2	10	27	662	100	663	10	6	26	31	736	100	669	6	5	37	24	741	100

<sup>1</sup> Includes 3 offered lungs declined for transplant but subsequently used for research and 18 lungs retrieved by an overseas centre

<sup>2</sup> Includes 2 offered lungs declined for transplant but subsequently used for research and 18 lungs retrieved by an overseas centre

<sup>3</sup> Includes 2 offered lungs declined for transplant but subsequently used for research and 8 lungs retrieved by an overseas centre

**Table 4a Percentage of adult DBD donor offered organs that were transplanted, by UK donation zone, 1 April 2011 - 31 March 2014**

Donation zone	2011/2012		2012/2013		2013/2014	
	% Hearts transplanted	% Lungs transplanted	% Hearts transplanted	% Lungs transplanted	% Hearts transplanted	% Lungs transplanted
Birmingham	37	35	32	25	32	29
Glasgow	11	19	26	24	33	30
Harefield	15	29	24	31	41	37
Manchester	29	35	25	28	34	26
Newcastle	25	35	25	36	46	37
Papworth	34	28	29	26	37	25
<b>TOTAL</b>	<b>27</b>	<b>31</b>	<b>27</b>	<b>29</b>	<b>37</b>	<b>31</b>

**Table 4b Percentage of adult DCD donor offered organs that were transplanted, by UK donation zone, 1 April 2011 - 31 March 2014**

Donation zone	2011/2012	2012/2013	2013/2014
	% Lungs transplanted	% Lungs transplanted	% Lungs transplanted
Birmingham	10	12	8
Glasgow	8	9	6
Harefield	2	6	11
Manchester	5	5	5
Newcastle	2	11	14
Papworth	6	7	4
<b>TOTAL</b>	<b>6</b>	<b>8</b>	<b>8</b>



**Table 5a****Registration outcome of adult patients on the heart transplant list, 1 April 2013 - 31 March 2014**

Centre	No. on active and suspended list (as at 1 April 2013)	New registrations (1 April 2013 – 31 March 2014)	TOTAL	Registration outcome (as at 31 March 2014)							
				Active/Suspended		Transplanted		Removed		Died	
				N	%	N	%	N	%	N	%
Birmingham	21	31	52	22	42	20	38	6	12	4	8
Glasgow	9	33	42	13	31	19	45	10	24	0	0
Great Ormond Street	3	3	6	1	17	3	50	1	17	1	17
Harefield	54	56	110	68	62	26	24	10	9	6	5
Manchester	16	41	57	17	30	31	54	7	12	2	4
Newcastle	42	54	96	50	52	28	29	9	9	9	9
Papworth	47	57	104	48	46	44	42	5	5	7	7
<b>TOTAL</b>	<b>192</b>	<b>275</b>	<b>467</b>	<b>219</b>	<b>47</b>	<b>171</b>	<b>37</b>	<b>48</b>	<b>10</b>	<b>29</b>	<b>6</b>

**Table 5b****Registration outcome of adult patients on the lung (inc. heart/lung) transplant list, 1 April 2013 - 31 March 2014**

Centre		No. on active and suspended list (as at 1 April 2013)	New registrations (1 April 2013 – 31 March 2014)	TOTAL	Registration outcome (as at 31 March 2014)							
					Active/Suspended		Transplanted		Removed		Died	
					N	%	N	%	N	%	N	%
Birmingham	L	20	39	59	24	41	21	36	3	5	11	19
	HL	0	2	2	1	50	1	50	0	0	0	0
Harefield	L	67	82	149	69	46	61	41	5	3	14	9
	HL	1	2	3	2	67	0	0	0	0	1	33
Manchester	L	40	54	94	50	53	30	32	6	6	8	9
	HL	0	2	2	2	100	0	0	0	0	0	0
Newcastle	L	52	88	140	67	48	53	38	6	4	14	10
	HL	2	1	3	2	67	1	33	0	0	0	0
Papworth	L	29	49	78	29	37	31	40	5	6	13	17
	HL	10	3	13	5	38	6	46	0	0	2	15
<b>TOTAL</b>	<b>L</b>	<b>208</b>	<b>312</b>	<b>520</b>	<b>239</b>	<b>46</b>	<b>196</b>	<b>38</b>	<b>25</b>	<b>5</b>	<b>60</b>	<b>12</b>
	<b>HL</b>	<b>13</b>	<b>10</b>	<b>23</b>	<b>12</b>	<b>52</b>	<b>8</b>	<b>35</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>13</b>

**Table 6a Adult deceased donor heart transplant activity in the UK, 1 April 2011 - 31 March 2014**

Transplant centre	2011/2012				2012/2013				2013/2014			
	Non-urgent N	Urgent N	Total N	%	Non-urgent N	Urgent N	Total N	%	Non-urgent N	Urgent N	Total N	%
Birmingham	12	10	22	21	8	12	20	17	3	17	20	12
Glasgow	5	4	9	9	4	5	9	7	5	14	19	11
Harefield	3	6	9	9	7	14	21	17	3	23	26	15
Manchester	6	12	18	17	8	14	22	18	5	26	31	18
Newcastle	8	9	17	16	2	20	22	18	8	20	28	16
Papworth	9	20	29	28	11	15	26	21	17	27	44	26
<i>GOSH</i>	1	0	1	1	0	1	1	1	1	2	3	2
<b>TOTAL</b>	<b>44</b>	<b>61</b>	<b>105</b>	<b>100</b>	<b>40</b>	<b>81</b>	<b>121<sup>1</sup></b>	<b>100</b>	<b>42</b>	<b>129</b>	<b>171<sup>2</sup></b>	<b>100</b>

<sup>1</sup> Includes 3 heart/kidney transplants<sup>2</sup> Includes 1 heart/kidney transplant

**Table 6b** Adult deceased donor lung transplant activity in the UK, 1 April 2011 - 31 March 2014

Transplant centre	2011/2012					2012/2013					2013/2014				
	HL	L		Total		HL	L		Total		HL	L		Total	
	N	DBD	DCD	N	%	N	DBD	DCD	N	%	N	DBD	DCD	N	%
Birmingham	0	15	0	15	9	0	15	1	16	9	1	18	3	22	10
Harefield	0	39	12	51	29	0	34	14	48	26	0	50	12	62	29
Manchester	0	22	4	26	15	0	24	2	26	14	0	28	3	31	15
Newcastle	0	43	2	45	26	1	46	12	59	31	1	45	11	57	27
Papworth	5	30	3	38	22	2	31	5	38	20	5	29	4	38	18
<i>GOSH</i>	<i>0</i>	<i>1</i>	<i>0</i>	<i>1</i>	<i>1</i>	<i>0</i>	<i>1</i>	<i>0</i>	<i>1</i>	<i>1</i>	<i>0</i>	<i>1</i>	<i>0</i>	<i>1</i>	<i>0</i>
<b>TOTAL</b>	<b>5</b>	<b>150</b>	<b>21</b>	<b>176</b>	<b>100</b>	<b>3</b>	<b>151</b>	<b>34</b>	<b>188</b>	<b>100</b>	<b>7</b>	<b>171</b>	<b>33</b>	<b>211</b>	<b>100</b>

HL – heart/lung, L - lung

**Table 7a**      **Summary of adult deceased donor heart activity in the UK, 1 April 2011 – 31 March 2014**

Donation zone/ Centre	2011/2012		2012/2013		% Total donors	2013/2014	
	% Total donors	% Total transplants	% Total donors	% Total transplants		% Total transplants	% Total registrations
Birmingham	22	21	19	17	12	12	11
Glasgow	3	9	8	7	8	11	9
Harefield	11	9	16	17	24	15	24
Manchester	12	17	10	18	12	18	12
Newcastle	18	16	18	18	17	16	21
Papworth	33	28	29	21	26	26	22
<b>TOTAL</b>	<b>100</b>	<b>100<sup>1</sup></b>	<b>100</b>	<b>100<sup>1</sup></b>	<b>100</b>	<b>100<sup>1</sup></b>	<b>100</b>

<sup>1</sup> 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 2011 – 31 March 2014**

Donation zone/ Centre	2011/2012		2012/2013		% Total donors	2013/2014	
	% Total donors	% Total transplants	% Total donors	% Total transplants		% Total transplants	% Total registrations
Birmingham	20	9	14	9	14	10	11
Harefield	16	29	18	26	25	29	28
Manchester	13	15	12	14	11	15	18
Newcastle	27	26	32	31	30	27	26
Papworth	24	22	24	20	20	18	17
<b>TOTAL</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Glasgow lung donors are counted within Newcastle's zone.