

**NHS BLOOD AND TRANSPLANT**  
**CARDIOTHORACIC ADVISORY GROUP**  
**HEART-LUNG TRANSPLANT OUTCOMES**

**BACKGROUND**

- 1 From October 2014, the monthly CUSUM charts for the monitoring of 90-day mortality rates following lung transplantation have excluded heart-lung transplants. In order to continue monitoring activity and outcomes for these transplants, this regular paper was introduced.
- 2 This report considers heart-lung transplant patients who were transplanted during the period of 1 January 2011 (the beginning of the CUSUM monitoring period) to 31 October 2016 (to allow time for 90-day follow-up information to be received). Similarly to the monthly CUSUM charts, this report has excluded multi-organ transplants and re-transplantations.
- 3 Median waiting time to transplant and the number of deaths on the list are also provided. These outcomes are presented for patients registered for their first heart-lung transplant between 1 January 2011 and 31 October 2016. Patients who were also registered for abdominal organs are excluded from the cohort.

**OUTCOMES**

- 4 **Table 1** shows the number of heart-lung transplants at each centre between 1 January 2011 and 31 October 2016 and the number of deaths within 90 days post-transplant. Nationally there were 23 heart-lung transplants in the time period.

<b>Patient group</b>	<b>Centre</b>	<b>Number of transplants</b>	<b>Number of deaths within 90 days post-transplant</b>
Adult	Newcastle	2	1
	Papworth	14	1
	Harefield	1	1
	Birmingham	2 <sup>1</sup>	0
	Manchester	3	0
Paediatric	Newcastle	1	1
<b>Total</b>		<b>23</b>	<b>4</b>

<sup>1</sup> one patient was registered urgently

- 5 **Table 2** shows the primary disease group for these 23 heart-lung transplant patients.

Patient group	Centre	Primary disease						
		Congenital Heart Disease	Other Heart Disease	Primary Pulmonary Hypertension	Cystic Fibrosis	Bronchiectasis	Dilated Cardiomyopathy - other	Other
Adult	Newcastle	1	0	1	0	0	0	0
	Papworth	1	0	5	3	1	0	4
	Harefield	0	0	1	0	0	0	0
	Birmingham	0	1	0	0	0	1	0
	Manchester	0	0	3	0	0	0	0
Paediatric	Newcastle	1	0	0	0	0	0	0
<b>Total</b>		<b>3</b>	<b>1</b>	<b>10</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>4</b>

6 **Table 3** shows the number of patients registered for a heart-lung transplant during the analysis period and the subsequent number of deaths on the list and number of transplants. The overall median waiting time to transplant for adult patients was estimated to be 2.1 years (95% confidence interval: 1.1 to 3.0 years). Of the 55 adult and 7 paediatric registrations, 4 of these patients received a bilateral lung only transplant and 1 patient received a heart only transplant. These patients were censored at the time of transplant for the median waiting time analysis.

Patient group	Centre	Number of registrations	Number of deaths on list	Number of transplants
Adult	Birmingham	4	3	1
	Glasgow	1	0	0
	Harefield	5	1	2 <sup>a</sup>
	Manchester	8	2	4 <sup>b</sup>
	Newcastle	9	0	2
	Papworth	28	9	14 <sup>c</sup>
<b>Total</b>		<b>55</b>	<b>15</b>	<b>23</b>
Paediatric	GOSH	6	3	1 <sup>d</sup>
	Harefield	1	0	0
<b>Total</b>		<b>7</b>	<b>3</b>	<b>1</b>

<sup>a</sup> 1 of the 2 patients transplanted at Harefield received a bilateral lung transplant  
<sup>b</sup> 1 of the 4 patients transplanted at Manchester received a heart only transplant  
<sup>c</sup> 2 of the 14 patients transplanted at Papworth received a bilateral lung transplant  
<sup>d</sup> 1 patient transplanted at GOSH received a bilateral lung transplant