

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

INTRODUCTION

- 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 which is presented to CTAG every 6 months.
- 2 This report considers heart-lung transplant recipients who were transplanted during the period of 1 January 2017 (the beginning of the CUSUM monitoring period) to 30 April 2018 (to allow time for 90-day follow-up information to be received). Similarly to the monthly CUSUM charts, this report excludes other multi-organ transplants and re-transplantations.
- 3 The number of registrations, deaths on the list and transplants are presented for patients registered for their first heart-lung transplant between 1 January 2017 and 30 April 2018.
- 4 Additionally, this paper now includes a section on patients registered for an urgent heart-lung transplant. Such registrations must be approved by the CTAG Adjudication Panel.

TRANSPLANTS

- 5 **Table 1** shows the number of heart-lung transplants at each centre between 1 January 2017 and 30 April 2018 and the number of deaths within 90 days post-transplant. Nationally there were 13 heart-lung transplants in the time period.

Table 1 Heart-lung transplants between 1 January 2017 and 30 April 2018			
Patient group	Centre	Number of transplants (Number urgent)	Number of deaths within 90 days post- transplant
Adult	Newcastle	3 (1)	0
	Papworth	2 (1)	1
	Harefield	5 (4) ¹	2
	Birmingham	2 (1)	0
	Manchester	1 (1)	0
Total		13 (8)	3

¹ Two transplants performed by Harefield were super-urgent and are included in the urgent numbers

- 6 **Table 2** shows the primary disease group for these 13 heart-lung transplant recipients.

Centre	Primary Disease					
	Congenital Heart Disease	Primary Pulmonary Hypertension	Sarcoid	Restrictive cardiomyopathy	Hypertrophic cardiomyopathy	Other
Adult						
Newcastle	2	0	0	0	0	1
Papworth	0	1	0	0	0	1
Harefield	0	1	0	1	1	2
Birmingham	1	0	1	0	0	0
Manchester	0	0	0	0	0	1
Total	3	2	1	1	1	5

REGISTRATIONS

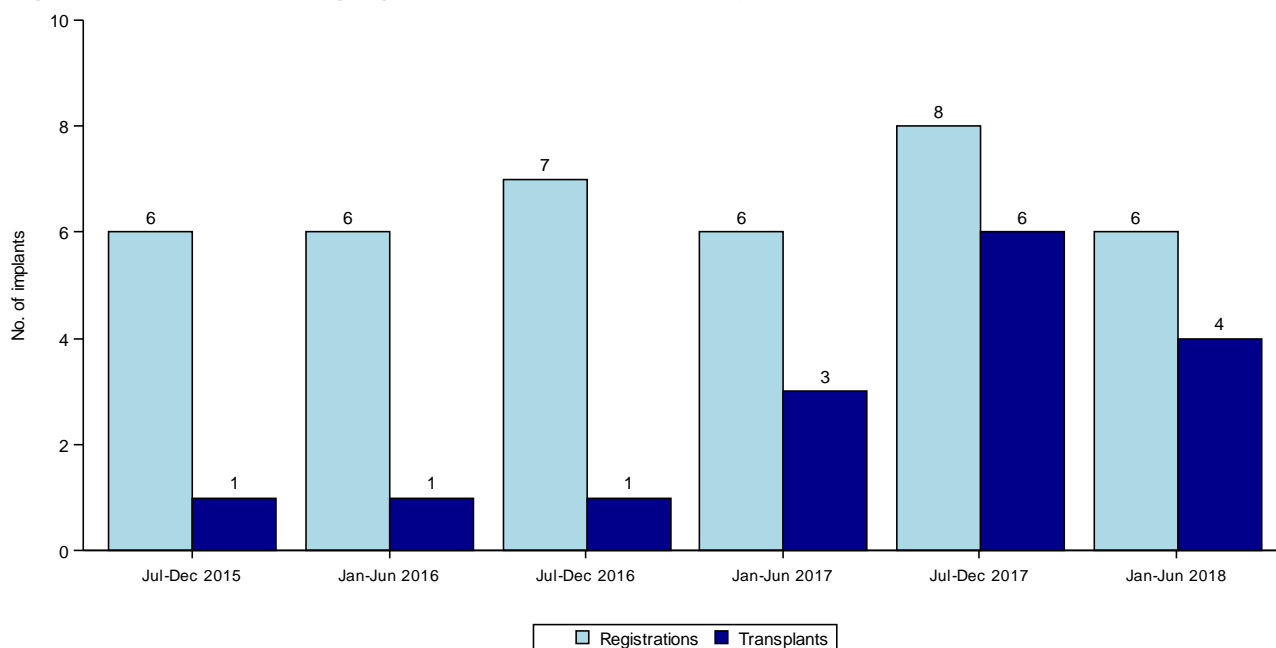
- 7 **Table 3** shows the number of patients registered for a heart-lung transplant during the analysis period and the subsequent number of deaths on the list and number of transplants. Of the 18 registrations, 5 patients received a heart-lung transplant and 1 patient received a lung only transplant, as at 21 September 2018.

Age group	Centre	Number of registrations	Number of deaths on list	Number of transplants	Number of removals	Number still waiting ¹
Adult	Birmingham	4	0	1	1	2
	Harefield	6	1	4	0	1
	Manchester	5	1	1 ²	0	3
	Newcastle	1	0	0	1	0
	Papworth	1	0	0	0	1
Total		17	2	6	2	7
Paediatric	Great Ormond Street	1	0	0	0	1
Total		1	0	0	0	1
TOTAL		18	2	6	2	8

¹ Either active or suspended
² patient received a lung only transplant

- 8 **Figure 1** shows the number of heart-lung registrations and transplants over the last 36 months, split into 6 month periods. The number of transplants has increased over time, with the highest number during July-December 2017. The number of registrations has remained relatively stable.

Figure 1 Number of heart-lung registrations and transplants, 1 July 2015 - 30 June 2018



URGENT HEART-LUNG PATIENTS

- 9 Since 1 January 2017, up to the end of August 2018, there have been four urgent and two super-urgent heart-lung block registrations. The two super-urgent registrations were not approved by the CTAG Adjudication Panel. **Table 4 (removed as patient specific)** provides the details of these patients, as well as a further five patients that were submitted to the CTAG Adjudication Panel but were rejected. Several of those rejected were listed for single organ transplants instead.

SUMMARY

- 10 Combined heart-lung transplantation remains uncommon although activity has increased over the last three years.
- 11 Urgent heart-lung registration is becoming more common, with 6 since 1 January 2017. Although not formally approved, there have been two super-urgent listings resulting in very quick transplants.