

NHS BLOOD AND TRANSPLANT CARDIOTHORACIC ADVISORY GROUP

SUMMARY FROM STATISTICS AND CLINICAL RESEARCH

INTRODUCTION

1. This paper provides an update from Statistics and Clinical Research and summarises recent presentations, publications, and current and future work in the area of cardiothoracic transplantation.

UPDATE FROM STATISTICS AND CLINICAL RESEARCH

2. New and updated reports, all Advisory Group papers and conference presentations continue to be posted on the ODT Clinical Site www.odt.nhs.uk. Since the last meeting, the Interim Report on Cardiothoracic Transplantation has been published. Also, in February, the Annual Report on Mechanical Circulatory Support Related to Heart Transplantation was published.
3. Risk communication tools for all organs have been developed using available data and are accessible from <https://www.odt.nhs.uk/transplantation/tools-policies-and-guidance/risk-communication-tools/>. These tools are designed to support conversations between patients and clinicians at the time of listing with regards to the risks and benefits of transplantation.
4. Please note our current arrangements for staff responsibilities in support of organs and tissues.

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5. The team have been supporting the Organ Utilisation Programme by working with the Clinical Leads for Organ Utilisation to develop new higher quality donor definitions. These will be used in the upcoming pilot heart and lung offer review schemes and to track trends in utilisation rates. A comparison of international heart and lung utilisation data has been produced using data from the Global Observatory on Donation and Transplantation and EuroTransplant. We have also been providing ongoing statistical support for the Heart and Lung Fixed Term Working Groups to determine the data specifications relating to machine perfusion data collection for the proposed Assessment and Recovery Centres (ARCs).

PRESENTATIONS

6. There are no recent presentations of note.

PUBLICATIONS

7. There are no recent publications of note, however several projects are nearing submission:
- Impact of Donor and Recipient Age on 5-year Survival Following Heart Transplantation: A 25-Year National Analysis from the UK
 - Early Experience of a New National Lung Allocation Scheme in the UK Based on Clinical Urgency
 - Outcomes of the UK Joint Innovation Fund National DCD Heart Transplant Programme

APPLICATIONS FOR DATA

8. There have been 3 recent applications for national registry data:

Centre	Applicant	Application date	Study title	Status
Harefield	Hassiba Smail	22/08/2021	A retrospective review of declined lung donors: Estimating the potential of ex-vivo lung perfusion	Complete
Newcastle	John Dark	29/10/2021	Post transplant renal injury and long term outcome after adult lung transplantation	In progress
Newcastle	John Dark	26/01/2022	The full potential of DCD heart donation in the UK	In progress

RECENT AND FUTURE WORK

9. We have been supporting IT development work to formalise urgent heart-lung listing and offering. The improvements went live on 11th May 2022 were communicated to centres along with updated policies and registration documentation.
10. Statistical support has been provided to the CTAG Heart Allocation Sub-Group (HASG) as well as the CTAG Lung Allocation Sub-Group (LASG). For the HASG, we have been reviewing the outcomes of heart-liver transplants as well as aiding the refinement of criteria for patients urgently listed. For the LASG, existing prediction

models for waiting list and post-transplant survival have been used to explore the feasibility of different allocation models including a transplant benefit style approach.

11. We have been making changes to the heart CUSUM monitoring as requested by CTAG-Heart; changing the outcome from 30 day to 90 day mortality and including DCD heart transplants in the baseline expected mortality rates. These changes were implemented in April 2022.
12. A project examining the outcomes of patients urgently listed for heart transplantation due to LVAD complications has been progressing and will be presented at this meeting.
13. We are continuing to work with IT colleagues on the enhancements to the UK VAD Database, with the delayed launch now expected in late 2022.
14. We have continued to support the DCD heart programme, providing regular monitoring reports, supporting the Business Case for future funding, and reviewing the Joint Innovation Fund UK wide pilot.
15. Fixed term projects and regular reports are listed in **Tables 1** and **2** below

Sally Rushton
Statistics and Clinical Research

May 2022

	Title	Planned completion date	Current priority	S&CR resource reqd
1	Formalisation of urgent heart-lung registration and offering	April 2022	***	***
2	VAD Database enhancements	Autumn 2022	***	***
3	Heart CUSUM changes	April 2022	***	***
4	Lung Allocation Support Lung Allocation Sub-Group	Unknown	**	***
5	Heart Allocation Support Heart Allocation Sub-Group	Unknown	**	**
6	DCD Heart Programme Support Joint Innovation Fund UK wide DCD heart pilot	Spring 2022	***	***
7	Organ utilisation projects Supporting work of Cardiothoracic Clinical Research Fellow and Clinical Leads for Utilisation	2022	**	**
8	Review of outcomes of urgent heart transplantation in patients with LVAD-related complications	2022	**	***
9	Age related outcomes in heart and lung transplantation	2022	*	***
10	Review of cardiothoracic registry forms	2022	*	**
11	Update of ISHLT data extract	2022	**	**

Table 2 Regular Reports

	Title	Frequency	Current priority	Time taken
1	Summary of CUSUM signals for CTAG	Biannually	**	< 2 hours
2	Zonal activity review and adjustment of zonal boundaries if required for CTAG	Annually	**	One week
3	Adjudication panel review of cases for CTAG Heart and CTAG Lung	Biannually	**	Two days
4	DCD Heart activity report	Quarterly	**	One day
5	Annual Report on Cardiothoracic Transplantation	Annually	***	One month
6	Interim Report on Cardiothoracic Transplantation	Annually	***	One week
7	Annual Report on Mechanical Circulatory Support Related to Heart Transplantation	Annually	***	Two weeks
8	Monthly reporting of transplant and VAD numbers to NHS England	Monthly	***	Half day
9	Centre specific organ offer reports	Monthly and Quarterly	**	Half day
10	CUSUM reports to centres	Monthly	***	Half day
11	Organ damage and usage reports to NORS teams	Monthly	**	<2 hours
12	VAD data chasing reports	Monthly/quarterly	**	<2 hours