

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.
3. Please note our current arrangements for staff responsibilities in support of organs and tissues.

Area	Lead	Contact
Head of Organ Donation and Transplantation Studies	Lisa Mumford	lisa.mumford@nhsbt.nhs.uk
Organ donation	Susanna Madden	susanna.madden@nhsbt.nhs.uk
Organ retrieval	Rachel Hogg	rachel.hogg@nhsbt.nhs.uk
Ocular tissue	Cathy Hopkinson	cathy.hopkinson@nhsbt.nhs.uk
Organ utilisation	Jenny Mehew	jennifer.mehew@nhsbt.nhs.uk
Enquiries		statistical.enquiries@nhsbt.nhs.uk
Deceased kidney transplantation	Chloe Brown	chloe.brown@nhsbt.nhs.uk
Living kidney transplantation	Matthew Robb	matthew.robb@nhsbt.nhs.uk
Pancreas transplantation	Shaminie Shanmugaranjan	shaminie.shanmugaranjan@nhsbt.nhs.uk
Liver, multi-visceral and composite tissue transplantation	Rhiannon Taylor	rhiannon.taylor@nhsbt.nhs.uk
Cardiothoracic transplantation	Sally Rushton	sally.rushton@nhsbt.nhs.uk

PRESENTATIONS

4. In January 2026, a presentation was given at the NHSBT Clinical and R&D Conference on a decade of DCD heart transplants.
5. A summary of recent cardiothoracic transplant activity, donation trends, and waiting times and outcomes was presented at the annual British Transplantation Society Congress in March 2026.

6. Slides for both presentations can be found under Cardiothoracic here:
<https://www.odt.nhs.uk/statistics-and-reports/slides-and-presentations/>.

PUBLICATIONS

7. Two recent studies have been submitted for publication and are awaiting decision:
- Heart-lung Transplantation in the United Kingdom: Trends and Outcomes over four decades
 - The United Kingdom National Programme of DCD Heart Transplantation: A Focus on Retrieval Timings and Techniques

APPLICATIONS FOR DATA

8. There have been two new applications for national registry data and there is one previous application on hold:

Centre	Applicant	Application date	Study title	Status
Newcastle	Nicholas Chilvers	10/02/2024	The impact of time from withdrawal of treatment to asystole and ischaemic times on recipient outcomes after DCD heart and lung transplantation	On hold
Great Ormond Street Hospital / UCL	Constance Burns	22/01/2026	Predicting Outcomes for Paediatric Solid Organ Transplant Recipients: A Machine Learning Approach	In progress
Papworth / University of Cambridge	Lois Kim	Application form pending	Health economics modelling study transport of DBD hearts, adult and pediatrics using HOPE	In discussion

RECENT AND FUTURE WORK

9. Data analysis has been performed to inform a future points-based heart allocation scheme that is being developed by the CTAG Heart Allocation Working Group, chaired by Dr Sern Lim. This has involved survival analysis for different characteristics and subgroups of patients and is on-going. Concurrently with this work, a model has been developed in-house to simulate the current heart allocation sequence, in order to examine the potential impact of changes to the existing sequence. This work is also on-going.
10. Work is progressing in collaboration with Newcastle University regarding their organ allocation simulator in the context of lung allocation. There are some final changes needed to the statistical models that are used in these simulations and further work required to refine the proposals that have been developed by the CTAG-Lung Allocation Working Group.
11. We continue to support the NHS England Heart and Lung Transformation Programme with organ utilisation analyses and provision of other data.

12. The Statistics Team have been supporting the Assessment and Recovery Centres programme at various levels, including discussion around data monitoring and assessing the impact of the Lung-ARC pilot. As part of this a statistical model has been developed to predict the probability of lung utilisation using available donor data.
13. After a long hiatus, the International Registry for Mechanically Assisted Circulatory Support (IMACS) re-opened in 2023, and finally in January 2026, thanks to the work of Miguel Reyes in the Statistics Team, data were successfully transferred from the UK Mechanical Circulatory Support Database on adult patients implanted with Left Ventricular Assist Devices (LVAD) to IMACS.

Sally Rushton
Statistics and Clinical Research

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