

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. The Annual Report on Cardiothoracic Organ Transplantation for 2021/2022 has recently been published on the website and the Annual Report on Mechanical Circulatory Support Related to Heart Transplantation is in development.
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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PRESENTATIONS

5. There are no recent presentations of note.

PUBLICATIONS

6. Three recent studies have been submitted to medical journals for publication:
 - Early Experience of a New National Lung Allocation Scheme in the UK Based on Clinical Urgency
 - A National Pilot of Donation After Circulatory Death (DCD) Heart Transplantation Within the UK
 - The Effect of Cold and Warm Ischemia Time on Survival After Lung Transplantation in the United Kingdom

APPLICATIONS FOR DATA

7. There have been 4 recent applications for national registry data:

Centre	Applicant	Application date	Study title	Status
Papworth	John Louca	22/08/2022	A retrospective audit to determine the potential of heart donation from circulatory determined death (DCD) donors	In progress
Harefield	Anand Jothidasan	27/08/2022	Does oxygen consumption of the heart on the OCS have any effect on the transplant outcome?	In progress
Newcastle	Andy Woods	30/08/2022	A UK review of driveline dressing practice in patients with durable Left Ventricular Assist Devices (LVADs)	Complete
University of Cambridge	Timing Liu	03/10/2022	Use of machine learning analysis of donor lung allocation in the UK to inform future lung allocation policies	In progress

RECENT AND FUTURE WORK

8. We have recently reviewed the adult heart post-transplant risk-model used in the Cardiothoracic Annual Report to produce risk-adjusted survival rates. This was following the previous development of the model in 2016. The adult lung risk-model will be reviewed in 2023.
9. In Organ Utilisation, an analysis of lungs turned down due to capacity issues following acceptance of a heart for transplant has recently been performed which will be shared with the CTAG-Lung. We have also been involved in the recent introduction of the pilot heart and lung offer review schemes and the newly developed "Higher Quality Organ" definitions will be used to generate funnel plots to compare centre utilisation rates. Support has also been provided to the CTAG Clinical Research Fellow Gill Hardman to complete her projects in lung utilisation.
10. Statistical analyses have been provided to the CTAG Heart Allocation Working Group (HAWG) to review outcomes of patients who receive urgent transplant following

LVAD complications as well as super-urgent transplant outcomes from ECMO versus temporary VAD bridging.

11. We have also supported the CTAG Lung Allocation Working Group (LAWG), working closely with Sam Kennedy at Newcastle University to aid simulations of different possible future lung allocation systems.
12. We continue to support the DCD heart programme, providing regular monitoring reports and reviewing the outcomes of the Joint Innovation Fund UK wide pilot.
13. Progress is continuing on the enhancements to the UK VAD Database, with the delayed launch now expected in 2023.

Sally Rushton
Statistics and Clinical Research

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