

**NHS BLOOD AND TRANSPLANT
CARDIOTHORACIC ADVISORY GROUP – LUNG 8 SEPTEMBER 2021**

NHSBT CLINICAL RESEARCH FELLOW IN CARDIOTHORACIC TRANSPLANTATION PROJECT UPDATE

INTRODUCTION

See previous document CTAG Lung 1 April 2020 - Project proposals

SUMMARY

This paper has been written to update the Cardiothoracic Advisory Groups (CTAG) on work carried out by the NHSBT Clinical Research and Clinical Audit Fellow in Cardiothoracic Transplantation, within the project entitled ***Developing strategies to increase donor lung utilisation in UK Cardiothoracic Transplantation.***

PROJECT SUMMARY

The project encompasses the following study areas:

STUDY AREAS SUMMARY

- 1 Development of the UK Lung Risk Index**
 - i. Development of the UK Lung Risk Index
 - ii. Primary Graft Dysfunction (PGD) after lung transplantation in the UK: Incidence, risk factors and patient outcomes
 - iii. Evaluating the feasibility, utility and validity of lung risk scores in the UK lung transplant population

- 2 Evaluation and quality improvement of UK Donor Management**
 - i. Evaluation and quality improvement of UK Donor Management

- 3 Cardiothoracic organ utilisation**
 - i. Organ utilisation in UK lung transplant practice: Analysis of UK Transplant Registry data
 - ii. Understanding donor organ utilisation decisions in UK heart and lung transplantation: a questionnaire study
 - iii. Mechanisms of decision making in UK Cardiothoracic organ donor utilisation for transplantation: a qualitative interview study

- 4 UK Lung Transplantation and Utilisation in Donation after Circulatory Death (DCD)**
 - i. UK lung transplantation and utilisation in Donation after Circulatory Death (DCD)

- 5 The impact of the SARS-CoV-2 pandemic on UK Cardiothoracic transplantation**
 - i. The impact of the SARS-CoV-2 and COVID-19 pandemic on UK heart and lung transplantation

UPDATES

1. Development of the UK Lung Risk Index

- i. Development of the UK Lung Risk Index*
- ii. Primary Graft Dysfunction (PGD) after lung transplantation in the UK: Incidence, risk factors and patient outcomes*

Variables for the definition and grading of lung Primary Graft Dysfunction (PGD) in the first 72 hours post transplantation have been collected for all adult, first time, lung-only recipients from 1 January 2010 to 31 December 2019.

This data will be used as an outcome within the Lung Risk Index modelling. A data application has been submitted for an additional data analysis of PGD after lung transplantation in the UK.

The completed dataset will be returned to each centre by the end of 2021 and access to all PGD data will be available via NHSBT data application.

Thank you to the centre directors, coordinators and other team members who have facilitated centre visits, access to data and data collection.

3. Cardiothoracic organ utilisation

iii. Decision making in Cardiothoracic Donor Organ Utilisation: a qualitative study

We will shortly be recruiting for this study and would like to invite **participation from UK Cardiothoracic transplant surgeons and coordinators** to take part in a 1 hour semi-structured interview, conducted via zoom. Details of the study and an invite to participate will be sent by email to centre directors and we ask that you disseminate this amongst your staff. Further information about the study is presented below.

Decision making in Cardiothoracic Donor Organ Utilisation: a qualitative study

IRAS Number: 302339

Sponsors/protocol Number: 202021 35 Hardman 1.0

1. Rationale

Increasing heart and lung donor utilisation provides a potential area to increase the number of transplants performed and reduce patient mortality on the transplant waiting list. Without a better understanding of how surgeons decide which organs to accept for transplantation and which organs to not use, we cannot design effective interventions to target these behaviours and improve organ utilisation.

2. Research aims and questions

The aim of this study is to identify and critically analyse the process of clinical decision making in donor organ utilisation in UK heart and lung transplantation.

To address the research aim, the study will ask the following questions:

- How do heart and lung transplant surgeons and recipient coordinators explain how they make decisions about which deceased donor organs to use for transplantation?
- What individual and organisational factors influence these decisions?
- How do these healthcare professionals learn to make organ utilisation decisions?
- does the practice of utilisation decision-making change over time and clinician experience?

3. Study design

This is a multi-centre, qualitative study with semi-structured interviews with health professionals involved in decision making in response to an offer of a heart or lungs from a donor, for transplantation.

Interviews will be conducted with consultant cardiothoracic transplant surgeons and recipient coordinators to explore how the decision to accept or decline an organ is made, what influences these decisions and how this skill/practice of decision making is learned and changed over years of clinical practice experience. Audio

recordings of interviews will be transcribed and a thematic analysis performed. Planned Size of Sample:
Recruitment and study will continue until data saturation has been achieved.
Approximately 30 participants

Planned Study Period: January 2022 to July 2022