

**NHS BLOOD AND TRANSPLANT
ORGAN AND TISSUE DONATION AND TRANSPLANTATION
DIRECTORATE
CTAG CLINICAL AUDIT GROUP MS TEAMS VIRTUAL MEETING
THURSDAY 27TH AUGUST 2020 13:30 – 15:30**

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Conference ID: 955 525 135#

MINUTES

PRESENT

Nawwar Al Attar (NAA)	CTAG Clinical Audit Group Chair
Marius Berman (MB)	Donor Management and Organ Retrieval Representative
Matthew Fenton (MF)	Paediatrics Representative
Gill Hardman (GH)	Cardiothoracic Clinical Audit Fellow
Margaret Harrison (MH)	CTAG Lay Member Representative
Lisa Mumford (LM)	Head of ODT Studies (Deputy for Sally Rushton (SR))
Ruth Sutcliffe (RS)	Allied Health Professional

IN ATTEMNDANCE

Lucy Newman (LN)	Secretary
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APOLOGIES

Mo Al Aloul (MAA)	Lung Transplantation Representative
Steve Pettit (SP)	Heart Transplantation Representative
Steve Shaw (SS)	MCS Representative

1 CTCAG(20)06 – Declarations of Interest

There were no declarations of interest in relation to the meeting today.

2 CTCAG(M)(19)02 – Minutes of the last meeting held on Thursday 27th February 2020

2.1 Accuracy

The minutes were agreed as an accurate record of the last meeting.

2.2 Matters arising

NAA will write to H & I Representative T Rees to invite her to join CTCAG to offer advice or recommendations in relation to specific projects, papers and reports relating to sensitisation. CTAG is working on a project to review sensitisation in patients on the heart transplant waiting list and the Clinical Audit Group would like to do some work in this area. NAA will report back at the next meeting.

NAA

There was a meeting of the UK Organ Donation and Transplantation Network focussing on research just before the Pandemic but due to the impact of COVID there is no further activity to report.

ISHLT have opened to abstract submissions.

3 Membership and Structure of the Clinical Audit Group

3.1 CTCAG(20)07 – Attendance and Memberships of CTCAG (For Information)

Membership of CTCAG reflects different areas of Cardiothoracic Transplantation and was discussed with the group. This is the first time that the Cardiothoracic Transplant Fellow has been a member of the Clinical Audit Group, RS also brings valuable insight from Allied Health Professionals. The group agreed that representation is good and offers varied opinions on projects, and the addition of H & I in relation to pertinent matters would be a valuable addition.

3.2 Vacancy

The position of Donor Management and Organ Retrieval Representative becomes vacant in November, the current incumbent MB has been welcomed to reapply but has declined due to other commitments, MB will offer any support he can to the new member once elected. *The*

LN

vacancy will be advertised at the upcoming Autumn CTAG Heart and Lung Meetings for interested persons to send their expression of interest in the position.

CTCAG Meetings will continue using MS Teams or equivalent in line with NHSBT advice.

SR is returning later in the year and will be joining CTAGH and CTAGL Autumn meetings.

4 Data Applications

There were 2 recent data applications details of which will be circulated after this meeting.

The first is from Christophe Silling, a senior physician at the University of Heart and Vascular Centre in Hamburg on behalf of the Director of the Department of Cardiovascular Surgery and Past President of the International Society of Heart and Lung Transplantation; they are requesting data on patients with ACHD or inherited myopathies on the transplant waiting list, they plan to merge the data from the UK with other European datasets to form a larger cohort of patients to review. This study is following a growing number of patients with congenital heart disease, and patients with inherited cardiomyopathies undergoing heart or heart lung transplants, together with Euro Transplant they intend to develop a database and investigate two specific patient cohorts:

- patients with ACHD on the waiting list
- patients with ACHD on the waiting list while receiving ICD Therapy

The cohort will include data from Austria, Belgium, Netherlands, Germany, Croatia, Luxembourg, Slovenia and Hungary and the team hopes to add data from UK, France, Italy and Spain. The request covers 123 different variables which would take the team away from other valuable work, but it will be considered if CTCAG feels it would be valuable to participate in the study.

LM will respond to the requestor asking for a research protocol, highlighting the data fields that are available in the standard cardiothoracic dataset and the request will be reconsidered by CTCAG when further information is available from the requestor.

LM

LN will recirculate the terms of reference for cardiothoracic dataset release to the members of the group.

LN

The second data application is countersigned by NAA on behalf of Sanjeet Singh (SSi) who completed the PGD Study as part of his PHD when he was in post as Cardiothoracic Transplant Fellow. He would like to carry out a complete multivariate analysis on the data that he collated and update the audit data. SSi established contacts at each transplant centre to ensure the data he collected was relevant to the definition of PGD as detailed by the 2013 ISHLT Paper.

From this study data, a PGD predictor score was developed which has been applied locally in Glasgow to predict PGD likelihood in heart transplant patients. SSi and NAA would like to validate it nationally to establish its usefulness, this would present no further burden on the Statistics and Clinical Studies Team, *SSi will be in contact with GH to discuss so that the work can be continued.*

NAA/SSi

5 Cardiothoracic Fellow Project

5.1 CTCAG(20)08 – The Impact of the SARS-CoV-2 Pandemic on UK Heart and Lung Transplantation

GH

This is the only project active during the pandemic; headed by GH. In March / April an informal request was submitted to CTCAG to review all data and the national variation in practice during the COVID-19 Pandemic. This is the initial report reviewing the early period of March to May 2020 and covers heart and lung transplantation. GH thanked all participants.

The pandemic had an impact on all types of solid organ transplant due to the risk of transmission from donors, high resource requirements for treatment of infected patients combined with resource intensive requirements for patients in heart and lung transplant surgery, concerns that patients would contract COVID during aftercare, and the impact of the illness on those who are immunosuppressed or who have other risk factors.

For future planning for interruption to service on a widescale level, the report uses data from three sources; the UK Transplant Registry (UKTR), confirmed cases reported to UKTR, and the National Survey approved by this group which was conducted between 15th May and 18th June and completed by all cardiothoracic transplant centres.

It includes a retrospective look at transplantation data submitted between 1st Jan 2019 and 31st May 2020 with the pandemic period defined as 1st March to 31st May 2020 compared with the same period last year. The report reviews five areas which impacted centres and collected qualitative and quantitative data in the following areas:

1. Local prevalence of COVID-19
2. Organ Donation and Utilisation
3. Transplant Activity
4. Transplant Waiting List
5. Recipient Management

The survey received a 100% response rate, with data from all seven centres. Common themes were donors and activity, outpatients monitoring, waiting lists, and how individual centres made changes to consideration of donor acceptance criteria. Reported issues were similar to those reported by NORS teams such as provision of PPE. All centres confirmed they had streamlined their services, particularly in terms of using video conferencing etc... for patient follow-ups. All centres had at various stages suspended registration on the waiting list for routine non-urgent patients, but this was re-starting around May when the survey was carried out.

Local prevalence of COVID-19

The NHS England speciality guide was used to define phases of the pandemic and assess the impact locally within each centre. The National Survey asked centres when they were in each phase of the pandemic (1-Preparation, 2-Escalation, 3-Crisis (compensated), 4-Crisis (uncompensated), 5-Resolution, 6-Recovery (and back to 7-Normal Ways of Working)). Areas with a high local prevalence, or centres with ECMO provision had a greater burden from COVID compared to those with lower prevalence and no ECMO available showing clear variation of the impact of COVID on centres locally.

Heart Transplantation:

Organ Donation and Utilisation

During the pandemic period (March to May) there was an overall reduction of 31% in the number of donors where the heart was offered and at least one other organ was accepted for transplant for a patient. This is mirrored in DBD and DCD donors. However, more of the donor hearts offered were used for transplantation showing an increase in utilisation of donor hearts by 35% during the pandemic period compared to 26% utilisation rate in the same period 2019.

Transplant Activity

Currently heart transplant activity is 10% down on last year which is a total of 7 fewer heart transplants carried out during the first part of 2020. This equates to 38 heart transplants this year compared to 43 last year. The proportions of Super-Urgent and Urgent heart transplants are primarily the same as last year, with activity levels reasonably well maintained at all centres. 38 recipients were transplanted during the pandemic (28 adult, 10 paediatric), 7 super urgent, 25 urgent and 6 non-urgent ; at 30 days post-transplant follow-up was available for 34 of those, three post-transplant patients had died and one was readmitted for ward level care with COVID-19 following surgery.

Transplant Waiting List

A snapshot of patients on the heart waiting list on 31st May 2020 shows a total of 346 patients, (306 non-urgent, 39 urgent and 1 super-urgent) compared to 264 patients last year (264 non-urgent, 50 urgent and 0 super-urgent) which is an overall increase of 10%. The report shows no significant change to the proportions of patients who died, were removed or transplanted from the waiting list, with no significant difference in mortality rates on the waiting list this year compared to last year.

Transplant assessment was suspended in most centres during the pandemic, so the number of registrations for 2020 compared to 2019 has fallen. It was anticipated that there would be an

increase in the used of Mechanical Circulatory Support for patients as a result of the pandemic but there is no evidence of this yet.

Patients who are three or more months post-transplant, 27 patients were confirmed to have contracted COVID-19, the mean post-transplant time was 9 years, and 7 of these transplants were within the last year. Follow-up information was available for 18 of these 27 patients, 7 had died, with all 7 of those being patients who had been transplanted more than 12 months previously

Lung Donation:

Organ Donation and Utilisation

During the pandemic period (March to May) there was an overall reduction of 49% in the number of donors where the lungs were offered and at least one other organ was accepted for transplant for a patient. This is mirrored in DBD and DCD donors. Less of the donor lungs offered were used for transplantation showing a utilisation rate of just 11% during the pandemic (compared to 24% for the same period a in 2019). During the pandemic period, there were 109 donor lungs offered which were turned down resulting in 51% less transplants this year compared with the same period last year.

Transplant Activity

58% of lung transplant activity during the pandemic was carried out by one centre, 83% (10 of a total 12 lung transplants) when a second centre is added so activity wasn't maintained across the centres in the same way it was with hearts. The proportions of Super-Urgent and Urgent lung transplants are primarily the same as last year. 12 recipients were transplanted during the pandemic (all adult bilateral transplants), 0 super urgent, 2 and 8 non-urgent ; at 30 days post-transplant follow-up was available for all 12 patients, of those, one post-transplant patient has died and no further patients are reported with confirmed COVID-19 at the time of analysis.

Transplant Waiting List

A snapshot of patients on the lung waiting list on 31st May 2020 shows a total of 341 patients, (339 non-urgent, 2 urgent and 0 super-urgent) compared to 326 patients last year (323 non-urgent, 3 urgent and 0 super-urgent) which is an overall increase of 5% during the pandemic period. During the specific three-month pandemic period there was a significant increase in the number of patients on the waiting list and there has also been an increase in mortality on the waiting list, specifically during the pandemic period. There were 2 confirmed COVID cases in patients on the waiting list, further clinical information is only available for one of these patients died a short while after being admitted to hospital for ward level care.

Transplant assessment was suspended in most centres during the pandemic, so the number of registrations for 2020 compared to 2019 has fallen by 62% but the total number of patients on the waiting list has increased.

Patients who are three or more months post-transplant, 26 patients were confirmed to have contracted COVID-19, the mean post-transplant time was 5.3 years, and 5 of these transplants were within the last year. Follow-up information was available for 12 of these 26 patients, 9 had died, with 8 of those being patients who had been transplanted more than 12 months and one patient who was transplanted in the last 6 months.

Suggestions for follow-up:

In relation to the Lung Summit last October, how many of the 109 donor lungs would have been ideal lungs compared with the ideal lung criteria?

6 Active and Planned Projects

Due to COVID-19 research projects were paused in almost all centres.

6.1 MCS - HM3 (L)VAD Project

This project remains on hold. Any relevant project updates will follow in due course.

6.2 HGS Study Protocol

This project is on hold. Any relevant project updates will follow in due course.

6.3 Ongoing Lung Allocation Policy Work and S/ULAS Audit Work Organ and Tissue Donation and Transplantation Directorate

The work on the Lung Allocation Policy and S/ULAS is being carried out under the CTAGL Lungs remit. Any relevant project updates will be available in due course.

6.4 QUOD Retrieval Project Proposal

CTAGH Hearts discussed taking biopsies from all transplantable hearts two years ago when it was agreed that biopsies would be taken routinely from non-transplantable donor hearts, but this was paused until now. MB will discuss with the Chair of CTAG to establish whether it needs to be raised at CTAG before re-starting, and heart biopsies for transplantable hearts will only take place at Royal Papworth at this stage. This project will be placed on hold and any relevant project updates will follow in due course.

6.5 SUHAS Publication

The SUHAS Publication was accepted and published in Journal of Heart and Lung Transplantation following amendments by SR. As this project is now complete it will be removed from the CTCAG Agenda. (*J Heart Lung Transplant.* 2020; S1053-2498(20)31614-4.)

6.6

Age related outcomes in heart and lung transplantation

MB had been working closely with LM and F Smith, they have finished analysis of data relating to hearts with interesting findings which MB hopes to on age related outcomes, GH will take on the work related to lungs. Findings will be shared within centres; MB also hopes to present an abstract at ISHLT and a paper for the Journal of Heart and Lung. MB hopes to send the abstract with findings to CTCAG in the next few months.

7 Projects currently on hold

7.1 UK DCD Experience

GH will take on the work involved in this project which looks at DCD lungs and was initially submitted to IHLT online, followed by a verbal presentation. PGD Data will give a more complete understanding of outcomes for lung patients which can be used alongside the lung risk score as part of her wider utilisation work which involves reviewing DBD and DCD donor lungs being declined for transplant.

7.2 Paediatric Focus – Re-Transplantation of Cardiothoracic Organs

ZR planned this work during her paediatric rotation in CTCAG but faced several challenges with obtaining necessary data as numbers of paediatric patients listed for re-transplant are small. MF will discuss in more detail with ZR to establish whether this could be a viable project and will feed back to CTCAG in due course.

GH commented that her projects had not been impacted too much by COVID and are progressing well, she will call on CTCAG if she needs any further assistance with data collection.

8 Topic areas and discussion of new projects

8.1 Allied Health Professional Project – Does Sequential Offering Hinder Cardiopulmonary Organ Utilisation?

RS introduced her planned project which links with work which is underway to review the length of the donation pathway. RS plans to review donor organ offers over the past 12 months to establish reasons for declining cardiothoracic donor organs, with a view to devising a protocol for Organ Donation Nurses to follow to avoid offering inappropriate organs. The project would fit nicely with other projects concerning aspects of transplantation such as reviewing ideal donor hearts and ideal donor lungs which are offered but declined.

RS will discuss in more depth with GH; L Stamp has provided a copy of the policy for offering donor organs and RS will be able to access data from EOS or Donor Data Forms, and will approach SNODs to find out their views on running the project.

LM commented that the Statistics and Clinical Studies team carried are reviewing reasons for decline based on donor characteristics and factors associated with non-acceptance of donor hearts and lungs, but it's unlikely these projects will overlap. This work is being carried out with data on NTxD as opposed to directly within transplant centres.

9 Any Other Business

MF

MF proposed a project reviewing the impact of VADs and MCS on paediatric heart transplant, he will present a project proposal at the next Clinical Audit Group Meeting.

Dates of next meetings – Autumn 2020

CTAGL Lungs – 17/09/2020 1100-1600 via MS Teams
CTAGH Hearts – 28/09/2020 1100-1600 via MS Teams
CTPG Patient Group – 18/11/2020 1200-1600 via MS Teams

Dates of next meetings – Spring 2021

CTAGH Hearts - 22/03/2021 1100-1600 @ Venue or MS Teams TBC
CTAGL Lungs – 31/03/2021 1100-1600 @ Venue or MS Teams TBC