NHS BLOOD AND TRANSPLANT
ORGAN DONATION AND TRANSPLANTATION DIRECTORATE
THE TWENTIETH MEETING OF THE NHSBT CTAG HEARTS ADVISORY GROUP
ON WEDNESDAY 16 NOVEMBER 2022
VIA MICROSOFT TEAMS

MINUTES

Attendees:

Rajamiyer Venkateswaren	**CTAG Hearts Chair,** Centre Director, Wythenshawe Hospital
Lynne Ayton	Transplant Managers Forum Representative
Robert Burns	Co-Chair, CTAG Patient Group
Paul Callan	Consultant Cardiologist, Manchester University NHS Foundation Trust
Ian Currie	Associate Medical Director – Retrieval, NHSBT
Philip Curry	Consultant Cardiac / Transplant Surgeon. Golden Jubilee National Hospital
Jonathan Dalzell	Centre Director, Cardiologist, Golden Jubilee National Hospital
John Dark	Professor Cardiac Surgery, Newcastle
John Dunning	Centre Director, Royal Brompton and Harefield Hospital
Diana Garcia Saez	Specialty Doctor Cardiothoracic Surgery and Transplantation, Harefield
Dale Gardiner	Associate Medical Director – Deceased Organ Donation, NHSBT
Shamik Ghosh	CTAG Lay Member Representative
Margaret Harrison	CTAG Lay Member Representative
Sern Lim	Cardiologist, Queen Elizabeth Hospital, Birmingham
Guy MacGowan	Cardiologist, Freeman Hospital, Newcastle
Jorge Mascaro	Centre Director, Queen Elizabeth Hospital, Birmingham
Jonathan McGuinness	CTAG Hearts, Northern Ireland Observer
Simon Messer	Senior Cardiothoracic Surgical Registrar, Royal Papworth Hospital
Andrew Morley-Smith	Consultant Cardiologist, Harefield Hospital
Jasvir Parmar	Chair CTAG Lungs, Royal Papworth Hospital
Stephen Pettit	Centre Director, Cardiologist, Royal Papworth Hospital
Aaron Ranasinghe	Lead CLU Hearts; Cardiac Consultant Surgeon, Queen Elizabeth Hospital, Birmingham
Zdenka Reinhardt	Cardiologist, Freeman Hospital, Newcastle
Sally Rushton	Principal Statistician, Statistics and Clinical Research, NHSBT
Marian Ryan	Specialist Nurse Organ Donation
Philip Seeley	Transplant Co-ordinator, Freeman Hospital
Jacob Simmonds	Consultant Cardiologist, Great Ormond Street Hospital
Laura Stamp	Lead Nurse Recipient Coordinator, NHSBT
Craig Wheelans	National Services Division, NHS Scotland
Julie Whitney	Head of Service Delivery, OTDT Hub, NHSBT
Claire Williment	Accountable Executive – Organ Utilisation Programme; Legislation Implementation, NHSBT

In attendance:

Nkechi Onwuka	Statistician, Statistics and Clinical Research, NHSBT
Caroline Robinson (Minutes)	Clinical and Support Services, NHSBT
Lewis Simmonds	Statistician, Statistics and Clinical Research, NHSBT

Apologies received:
Ayesha Ali, Richard Baker, Marius Berman, Stephen Clark, Catherine Coyle, Matthew Fenton, Anushka Govias-Smith, Delordson Kallan, Debbie Macklam, Derek Manas, Fernando Riesgo Gil, Steven Shaw, Sarah Watson

No.	Item	Action
	Welcome and Apologies	
	R Venkateswaran welcomed everyone to the meeting and details of apologies were given (see above).	
1.	**Declarations of Interest in relation to the Agenda**	
	There were no declarations of interest in relation to today's Agenda.	

	Please note that it is the policy of NHSBT to publish all papers on the website unless the papers include patient identifiable information, preliminary or unconfirmed data, confidential and commercial information or will preclude publication in a peer-reviewed professional journal. Authors of such papers should indicate whether their paper falls into these categories	
2.	**Minutes and Action Points of the CTAGH Meeting held on 18 May 2022 CTAGH(M)(22)01 and CTAGH(AP)(22)01**	
2.1	The Minutes of the CTAG Hearts Meeting held on 18 May 2022 were accepted.	
2.2	The following Action Points were discussed:	
2.2.1	AP1: Long waiting patients on urgent list	*See Item 8*
2.2.2	AP2: LVAD Complications Project	*See Item 11.3*
2.2.3	AP3: COVID-19 Update - U Stock agreed previously to investigate why Harefield data is not populated in the data shown for hospital bed occupancy data. R Venkateswaran has discussed this with J Dunning and can be closed.	**COMPLETE**
2.2.4	AP4: JIF Board meeting update	*See Item 9.1*
2.2.5	AP5: DCD Hearts Regular report: A letter has been sent regarding continued DCD funding and this has been secured for this financial year. There is uncertainty beyond this, and K Quinn has asked Centre Directors if they wish to update their letter, particularly in view of the increased numbers of DCD heart transplants taking place. This will be discussed further at the Centre Directors' meeting in December.	*See Item 9.2* **ONGOING**
2.2.6	AP6: Offer Review Schemes – heart: At the last meeting IVS less than or equal to 12 mm in the criteria was queried as 13 mm is now recommended as the threshold. It was confirmed that this will be changed within the criteria. All criteria will be reviewed and modified as necessary. D Garcia Saez agreed to alter IVS from less than or equal to 12 mm to less than or equal to 13 mm in HQD definition	**COMPLETE**
2.2.7	AP7: Heart Liver update: Heart liver results will be reported in the Annual Cardiothoracic Report.	**COMPLETE**
2.2.8	AP8: Summary of Adjudication Panel Appeals: Future reports will cover a more recent period of the last 3 years.	**COMPLETE**
2.2.9	AP9: Latest Centre activity summary	*See Item 12.2*
2.2.10	AP10: Laparotomy needed for donors of CT and Multi-visceral (MV) organs – this has been discussed and agreed at a CT Centre Directors' meeting	**COMPLETE**
2.2.11	AP11: Use of Sherpapak - R Venkateswaran to discuss possible next steps with Sherpapak to see what further support is possible	*See Item 14.3*
2.2.12	AP12: Signet Trial	*See Item 15.4*
2.2.13	AP13: F-CUSTOSS – M Berman was unable to attend to give an update at this meeting.	**ONGOING**
2.2.14	AP14: Workplan update	*See Item 14.5*
2.2.15	AP15: Donor heart acceptance from Irish donors - Hearts not utilised in the Republic of Ireland that are offered to UK recipients was discussed in the previous CTAG Hearts meeting. Retrieval is done by the Irish team, but there is no Swan Ganz as only direct pressure measurement and visual inspection are required by the Irish service. No offers are made without transthoracic echo. A UK team needs to fly to Ireland to bring back the heart to a recipient centre so there are cost and logistical implications. R Venkateswaran responded with the last CTAG meeting's feedback to Jim Egan from Organ and Donation Transplant Ireland. Since then, there have been a few offers made to the UK, but these have mainly not been taken up, usually for logistical reasons (eg flight shortages).	**COMPLETE**
3.	**Medical Director's Report**	
3.1	Developments in NHSBT	
	In D Manas' absence, D Gardiner gave the following update: • DCD Funding has been secured for the current year and further funding has been requested. Funding overall remains tight, and some project management support has been lost. • CLUs – Funding for local CLUs has been lost but lead CLU funding for Q3+4 is secure.	

	• Planned review of NORS – retrieval is being moved into the night and workforce and novel technology (esp NRP) are being reviewed as part of retrieval process. • Flights – these remain at a premium and centres need to consider carefully requests for flights and be aware of the 'by road' comparison. • Lung Transplantation - there is a plan to have a lung summit early next year to include commissioners to look at innovative models to resolve the current crisis in lung transplantation. Support from the heart community in this initiative is also important. • Opt out legislation – work continues slowly in Northern Ireland due to delays in forming a government there, and in Guernsey • BTRU - a new 5-year cycle has started and NHIR are willing to consider affiliates from other centres. • DCERT – the Donor Characterisation Electronic Record is funded and ready to go	
3.2	New Appointments	
	The following new appointments/recruitment are announced: • D Manas now has a new PA – Contact Abby Horne – abigail.horne@nhsbt.nhs.uk - Tel: 07385 525 004 • Interviews will take place shortly for Alex Manara's replacement as national lead for Quality Assurance • Recruitment is ongoing for a new Chair of OTAG (Ocular and Tissue Advisory Group)	
4.	**Governance Issues**	
4.1	Non-Compliance with Heart Allocation	
	In R Baker's absence, there were no issues of non-compliance reported.	
4.2	Clinical Governance Report - **CTAGH(22)54**	
	This paper was circulated for information.	
4.3	CUSUM Monitoring of 30-day outcomes following heart transplantation - **CTAGH(22)36**	
	The most recent monitoring report for September 2022 was circulated post meeting. In April 2022 the outcome for the heart transplant CUSUMs was changed from 30 days to 90 days mortality. DCD heart transplants are also now included in the expected mortality rates as well as the monitoring cohort. Since the last Cardiothoracic Advisory Group meeting there have been no heart CUSUM signals.	
4.4	Group 2 Transplants	
	There were no recent transplants to discuss.	
5.	**OTDT Hub Update**	
5.1	Performance Dashboard – **CTAGH(22)55**	
	This monthly report for September was circulated prior to the meeting. J Whitney stated that this dashboard for both heart and lungs is sent to Transplant Co-ordinators monthly for cascade within centres: • Offers accepted within the 45-60 minutes compliance period are coded green. Outside this period is first coded amber. Those offers that seriously breach the time compliance period are coded red. Centres can click on the dashboard to see which of their offers were outside the compliance period. • The dashboard also provides an end of month snapshot of regulatory compliance for HTA-A and HTA-B forms. Currently most forms are being returned and this helps to ensure there is complete data collection. • Outstanding transplant record forms, 3-month follow up forms and long term follow up are also highlighted. It was agreed that the dashboard is very helpful and encourages centres to discuss and improve areas and to highlight good results.	
5.3	Super Urgent Liver Pathway – **CTAGH(22)56**	
	This presentation was circulated post meeting. The super-urgent pathway was brought in about 9 months ago to expedite CT offering if a liver has been accepted for a super-urgent recipient. Offering starts when the liver has been accepted.	

	• During the period 1 Nov 2021-31 July 2022, 93 super-urgent livers were transplanted. In 77 of these cases (83%), at least one CT organ was offered. • The matching time takes 8.8 hours if a CT organ is offered and 5.3 hours if not. Since introducing the pathway this period has been shortened by about 1 hour. This reduction in time is important. While mechanical support can be used as a bridge for CT patients if there is a time delay, this is not possible for a liver recipient where every half hour or hour delay can be the difference between life and death and a bridge to transplant is not available. • All cases are monitored to see where any marginal gains can be made to improve the pathway with M Berman joining from the CT community and I Currie co-chairing with J Whitney from a liver and retrieval perspective. L Stamp also participates from the recipient co-ordinator perspective • Areas for development and positive practice/excellence are identified along with any themes. These are shown in the presentation circulated. Key points for CT surgeons to consider are: • Full consideration of an organ and accepting or declining an organ at the group offer stage rather than 'expressing an interest'. • Strict adherence to the 45-60 minutes offer times is essential. Centre Directors have agreed that as the numbers of super-urgent liver cases are small, it is essential that surgeons are made aware of any case immediately when it arises and of the need to make a definite decision regarding a CT organ. • Direct communication between CT and liver surgeons and agreed timelines between centres to identify delays early in the process is critical. Centres will now receive feedback regarding individual cases as well as good practice and areas for development.	
6.	**Risk Adjusted Survival Rates - CTAGH(22)51**	
	S Rushton stated that the model presented in the paper circulated was used in the recently published Annual Report on Cardiothoracic Transplantation to calculate risk-adjusted survival rates at 30 days, 90 days, 1 year and 5 years post heart transplant. DCD reporting is done separately. Thanks were expressed to S Lim and S Pettit for their advice. • For short term survival a cohort of 926 DBD heart only adult transplants in the UK between April 2014 and March 2021 was used • For longer term survival of 5 years, an older cohort from April 2010 and March 2017 was used. The same inclusion criteria were applied. • Cox proportional hazards models were built separately for each time horizon. These were stratified by centre to allow different baseline hazard functions for each centre. A stepwise variable selection method was used, with a significance level of 0.1. • A number of recipient, donor and transplant variables were considered and the effect of those selected are shown in the report circulated. • The risk adjusted outcomes for all centres fall within the 95% confidence intervals for the national rate. It was noted that the 6 CT centres in the UK are not making the same decisions about donor risk and recipient risk and there are differences between risk adjusted and unadjusted outcomes from several centres. It is still important to present unadjusted outcomes as there is a responsibility to show transparency regarding decisions to use donor organs. Unadjusted outcomes therefore still need to be presented in the annual report with some care regarding the wording that is attached to ensure appropriate understanding by all who read it. It is agreed that: • The model is an improvement on what was available previously from both a statistical and clinical perspective and there will be another review in 5 years' time.	

	• Unadjusted funnel plots will be included in next year's report and the report will be divided into two separate annual reports as it is already very lengthy. • For rolling updates, it is important for centres to consider what factors should be collected to ensure that the 5-year update takes these into account.	
7.	**Re-Transplantation**	
7.1	Inclusion in CUSUM	
	Re-transplantation is not included in CUSUM. Currently, only recipient survival (ie the time between transplant and patient death) is included in the CUSUM report. If re-transplantation is included, individual organ success will need to be considered. Including re-transplantation would mean a change from patient survival to transplant survival (with transplant survival ending in graft failure or death). Each transplant would be included. There have been 16 heart only re-transplants in the last 5 years. If re-transplantation is to be included in CUSUM, this will involve recoding of the CUSUMs by the Statistics team and so will take some time to initiate. The following points were made in the meeting: • It is right to include re-transplantation to ensure donor organs are used appropriately and the right recipients are chosen. • It was suggested that there should be differentiation between re-transplantation because of graft failure or because of graft vasculopathy. However, it was also felt that transparency is important and so including every re-transplantation in CUSUM is probably appropriate. • Re-transplantation is more likely to have a negative outcome because of the patient's condition. It was suggested that these patients should have a different weight as a result. However, this would add an extra level of complexity. **ACTION: S Rushton to look into how re-transplantation can be included in CUSUM reporting**	**S Rushton**
7.2	Adjudication for Early Transplant	
	The policy is not clear currently concerning when adjudication is needed for an early re-transplantation. For long term re-transplantation, if patients meet the urgent criteria they will automatically go on the urgent list. The registration form currently states: • Adult and paediatric patients will NOT be eligible within 3 months of previous transplant, including acute cases The policy states that: • Patients that have had a previous transplant may not be registered on the urgent or super-urgent list until 3 months have elapsed. The following points were made: • The numbers are small, so it is useful to know about all these patients for information sharing, education and transparency. • As most patients can be given mechanical support in the interim, 6 months seems an appropriate period to take these patients to the adjudication panel. • If there is graft failure from a first transplant, a procurement or transport issue or immunology it is probably going to be clear very quickly whether re-transplantation is needed. However, patients may need building up to be fit enough to go ahead with another major surgery. • It was agreed that removing the wording on 3 months is necessary. However, the need for early re-transplantation should not be used as a means to avoid a CUSUM signal. **ACTION: R Venkateswaran will take the lead on re-wording the policy to circulate to Centre Directors for discussion and approval.**	**R Venkateswaran**
8.	**Long Waiting Urgent Patients**	

	D Kallan previously reported that several meetings have taken place regarding long waiting patients on the urgent list and a writing committee has been put together to review CTAG guidelines. **ACTION: An update will be requested from D Kallan prior to the next CTAG Hearts meeting.**	**D Kallan**
9.	**DCD Hearts**	
9.1	JIF Board Meeting Update (06.09.22)	
	A Ali was unable to attend the meeting to give an update from the Joint Innovation Fund Board (JIF).	
9.2	DCD Hearts Regular Report – **CTAGH(22)37**	
	This is a regular report at CTAG Heart meetings and at the JIF Board (now the DCD Heart Oversight Group). This paper presents activity and patient outcomes from 1 February 2015 to 30 June 2022 and offering data from 7 September 2020 to 30 June 2022. • As a further update to the report, for this financial year up to end October, there have been 33 DCD heart transplants. This compares with 44 in total in the last financial year. • Between 1 February 2015 and 30 June 2022, there were 368 DCD heart retrieval attendances, proceeding to 224 heart retrievals and 192 transplants. • Of the 192 DCD heart transplants, 67 were performed since the start of the JIF pilot. During the JIF pilot, the conversion from retrieval to transplanted increased to 89% from 84% pre-JIF; 58% of transplants were retrieved and transplanted by a different team compared with 6% pre-JIF. • Of the 192 DCD heart transplants, there have been 31 recorded deaths post-transplant; 8 within 30 days, 16 between 30 days and one year, and 7 after the first year. • The 1-year post-transplant survival rate since the start of the JIF was 86.2% which is comparable with the DBD heart survival rate (85.3%). • The percentage of recipients requiring mechanical support post-transplant increased during the JIF pilot, from 30% to 45% (DBD rate is 29%). It has been agreed in principle by Centre Directors that DCD hearts could be allocated the same as DBD so that a heart goes to the person who needs it most. However, any change may increase travel times for DCD hearts. Although current arrangements raise equity of access issues for patients. The lack of a sustainable funding model remains a frustration. DCD heart allocation is to be discussed at a dedicated meeting at the end of November.	
10.	**Heart Utilisation**	
10.1	CLU Update	
	A Ranasinghe attended the meeting. The lack of funding for local CLUs going forward is challenging so those who have continued their role, despite this, are thanked for their support. Centre Directors are encouraged to continue engaging with local CLUs and to send deputies to meetings if the local CLU is unable to go: • Work is ongoing with education and donor management/optimisation to assist SNODs when engaging with donors • Higher quality donors and offer review scheme – there have been some technical difficulties with both heart and lungs in getting data through to A Ranasinghe and V Gerosavili (Lung CLU) which are being investigated offline. • National Donor Review – it is hoped to re-start this in the New Year and will be an online review meeting to discuss interesting donors and cases. It is important that information on the outcomes for organ and recipient are passed initially to A Ranasinghe so that shared learning can be maximised. • Coronary Investigation imaging – all are asked to engage with any request for data regarding donors or patients who may have coronary artery problems that would benefit from a CT angiogram. The link to the recently Donations Action Framework is given here for any interest in setting up a	**R Venkateswaran**

	pilot for CT angiogram: https://www.odt.nhs.uk/deceased-donation/best-practice-guidance/donation-actions-framework/ **ACTION: R Venkateswaran to look into this at Wythenshawe**.	
10.2	Donor Heart Utilisation – national figures – **CTAGH(22)38**	
	In this document circulated prior to the meeting, a heart donor is defined as utilised when their heart has been transplanted in the UK. A lung donor is defined as utilised when at least one lung from the donor has been transplanted in the UK. The cohort is all deceased solid organ donors (who have had at least one organ retrieved for the purposes of transplantation) in the period 1 April 2019–30 June 2022, and the denominator is those with their heart offered or at least one lung offered, for heart and lung utilisation rates respectively. The data show an increasing trend in heart utilisation and a decreasing trend in lung utilisation over the time period. The report is updated 6-monthly and shared with CTAG and the Senior Management Team (SMT) for OTDT. •	
10.3	Organ Utilisation Group/Programme Update	
	C Williment stated that the report is now with the newly appointed minister, Neil O'Brien for final approval. It is hoped that this can be published before Christmas.	
11.	**Heart Allocation**	
11.1	Heart Allocation Sub-group (04.04.22-24.10.22) – **CTAGH(22)39**	
	S Lim gave an update on the work of this group. Data from January 2020 to December 2021 showed that almost 82% of all registrations on the Urgent Heart Allocation Scheme (UHAS) were under Category 21. This criterion was established on the basis that the 'need' for continuous inotropes identified a cohort of patients at increased mortality risk over a particular time horizon (eg: one-year mortality). In the absence of objective criteria to define the indications for inotropes, registration on Category 21 of the UHAS is susceptible to variations in clinical practice, inevitably resulting in heterogenous risk profiles. The membership of the group and the principles agreed are shown in the document circulated. The recommendations of the group are: • Adoption of three proposed sub-categories to Category 21 of the current UHAS. • An Audit on the impact of this revision of the UHAS on - A) Proportion of patients registered on UHAS; B) Waiting times and deterioration (death/ escalation to SUHAS) on the UHAS; C) Number and indications for referral to the adjudication process for urgent registration. • Regular (5-yearly) review of the UHAS. The proposed sub-categorisation of Category 21 of the UHAS is shown in the paper circulated. It was confirmed that Centre Directors have approved these with a proviso that the word 'unsuitable' is changed in the final wording of the policy to reflect that a patient may be suitable for LVAD therapy but this is not the preferred option. This was agreed and the changes overall were approved by the meeting.	
11.2	Outcomes of super urgent heart transplantation – **CTAGH(22)53**	
	The primary indication for super-urgent heart listing is short-term ventricular assist device (ST VAD) or veno-arterial extra-corporeal membrane oxygenation (VV-ECMO) support. This paper compares the number of patients registered, demographic characteristics, median waiting time and post-transplant survival between the two support types. The period analysed was 1 September 2017 to 31 March 2022. This is a preliminary analysis and needs refining, in particular the type of support needs verifying with all centres to see what mechanical support was being used at the time of transplantation and when the ECMO was removed. The analysis won't be published on the ODT Clinical Website until the data is confirmed. **ACTION: S Rushton to contact all centres to validate the data.**	**S Rushton**
11.3	LVAD Complications Project – **CTAGH(22)40**	

	This report details the most recent analysis of outcomes from urgent heart transplantation in patients with LVAD-related complications in the UK. The cohort now comprises 61 patients who received an urgent transplant after being approved between October 2016 and September 2021. The report incorporates extra data collected from centres which was needed to understand why there are poor outcomes for these patients and the results are shown in the paper circulated prior to the meeting. • In a cohort of 61 patients who received an urgent heart transplant due to LVAD-related complications, the survival at 90 days was 65.2%. • Poorer survival was associated with presence of systemic infection, the type of LVAD, recipient BMI, increased CRP, centre, ischaemia time and lower RAP, PASP and PADP. • Patients who received a TAH had particularly poor outcomes, without whom the survival rate at 90 days was 70.5% with the following variables associated: LVAD type, LVAD duration, centre, RAP, PASP and PADP. • It is important to note that the sample size was small, making it difficult to draw firm conclusions. It was agreed to review the results as an ongoing exercise in 1-2 years' time to increase the numbers of patients in the cohort, expanding the scope to include non-urgent patients (separating the 2 groups out - non-urgent and urgent) where survival is better, particularly as LVAD is being used as a bridge to transplant. **ACTION: An updated report will come to the CTAG Hearts meeting in 1 year's time, splitting urgent and non-urgent patients.**	**S Rushton**
12.	**Statistics and Clinical Research Reports**	
12.1	Summary from Statistics and Clinical Research – **CTAGH(22)41**	
	A summary paper was circulated. • The annual report has now been published. • The annual report on MCS related to adult heart transplantation is out for review. Paediatric data from Newcastle is still awaited and it is hoped to have the full report ready for publication within the next month. The PGD part of the report has been revised extensively to look at support on a per transplant basis rather than per implant and presenting data as a proportion of transplants performed. • The risk communication tools are live on the website. • There are a couple of papers awaiting publication, including one on DCD led by S Messer and M Berman. • Several national applications for data on different projects are also listed.	
12.2	Heart Performance Report – **CTAGH(22)57**	
	At the last meeting, D Gardiner presented this paper which shares data of heart transplants at each CT centre, including data from Canada. • Results indicate that heart transplants have increased by 25% on the same time last year and have increased by 13% on results pre-pandemic. • Canada has as many heart transplants as the UK but are not doing so well post-pandemic and does not do DCD Hearts. • DBD hearts has decreased compared with previous years, partly due to a drop in consent rates and high-profile media cases that have shaken the public's confidence in the NHS. Data for each centre is shown in the presentation circulated after the meeting for cascade within teams. It was agreed that this is useful information to share in each meeting.	
12.3	Conditional Survival – **CTAGH(22)52**	
	The paper circulated reports on long term adult only survival post-heart transplant both nationally and on a centre specific basis as well as survival conditional on surviving the first-year post-transplant between April 1995 and March 2015. Unadjusted Kaplan-Meier estimation method was used to calculate survival probabilities at 10 years and beyond both nationally and centre specific.	**S Rushton**

	• UK median survival time following heart transplantation is 12.9 years but increases to 15.9 when those patients who died within the first year post-transplant are excluded. • In the most recent transplant era (2005/6-2009-10, the UK estimates are 14.5 years and 16.3 conditional on surviving the first year • Nationally, 78 patients survived beyond 25 years post-transplant. **ACTION: It was agreed that European data would be checked for comparison with UK results.**	
13.	**Reports from Sub-groups**	
13.1	CTAG Patient Group (22/06/22) - **CTAGH(22)42**	
	The next meeting is scheduled for 7 December 2022. R Burns stated that the report circulated outlines the current activities of the group, some of which are detailed below. In addition, COVID experiences are variable and while many patients are grateful for the vaccine programme and other treatments, there is disappointment regarding the national decision on EVUSHELD. The meeting in June had over 40 participants and representation has increased with 25 different stakeholder groups and charities now receiving invitations to attend.	
13.1.1	Cardiac Allograft Vasculopathy – **CTAGH(22)43**	
	Cardiac allograft vasculopathy (CAV) is the leading cause of morbidity and mortality in heart transplant patients beyond the first post-transplant year, accounting for 30% of all mortality in this patient group. R Burns has been contacted by the patient community asking if they will approach CTAG Hearts to advocate a coordinated and increased focus on CAV. The patient community recognises the significant impact CAV has not only on long-term survival but also quality of life. It was noted that diagnosis and treatment of CAV is complex at present for only 6 centres to manage and further research and trials are probably necessary for which grants are needed. Practice and monitoring vary across the centres. **ACTION: Consider set up of a working group to discuss this issue further To discuss at the Heart Allocation and/or Centre Directors' meeting.**	**S Lim / S Pettit / R Venkateswaran**
13.1.2	CTAG Patients Routine Bloods Working Group – **CTAGH(22)44**	
	In this working group, many patients have highlighted the difficulties they face trying to access primary care for blood tests requested by transplant centres. The group has looked at immunosuppression management and the differences in how blood tests are done and results communicated to patients. Further information is in the document circulated and the appendices below.	
13.1.3	CTAG Patients Routine Bloods – Appendix One – **CTAGH(22)45**	
	Circulated for information	
13.1.4	CTAG Patients Routine Bloods – Appendix Two – **CTAGH(22)46**	
	Circulated for information	
13.1.5	CTAG Patients – Psychology Support	
	The variations in service and lack of specialist resources for patients has been highlighted as a major issue. The provision of services is complex with many centres not employing the psychology support that is on offer making it hard to improve issues that arise.	
13.2	CT Centre Directors' meeting (14/10/22) – **CTAGH(22)48**	
	The Centre Directors meet every 6-7 weeks, and the most recent Minutes are attached. Please see *Item 14.2* below	
14	**Reports and Discussion Points from the Chair**	
14.1	RAG Update (11/10/22)	
	In M Berman's absence, I Currie stated: • Masterclass - Following record numbers of attendees last year, the next NHSBT Masterclass will take place in January 2023 and will follow the same process as last year combining face-to-face attendance in Edinburgh with a virtual hybrid option. Centres are asked to encourage any new surgeons to attend as well as anyone who would like some refresher training/education.	

	• Hearts for Research - Edinburgh and Cambridge abdominal teams are now retrieving hearts for research. Teams are reminded that if a CT organ is declined by all centres, retrieval teams could still be asked to remain to retrieve a heart for research and this could be valuable retrieval experience for younger surgeons. • Uterine Transplantation – This programme is now live in Oxford and SNODs have been given guidelines at donor hospitals.	
14.2	CTAG Lungs Update (28/09/22)	
	J Parmar stated that there is a crisis in lung transplantation currently, with numbers of transplants declining significantly. One of the issues is that if a heart is being transplanted within a centre, the lung cannot be transplanted as well and so there is a risk of non-utilisation. The following has been agreed: • The Lung Allocation Group is examining the ways in which donor lungs are allocated and any adjustments that can be made. • CUSUM monitoring and cross-commissioning collaboration. For trusts and boards in particular: • Consider calling out an unused high-quality lung as a 'never' event • Develop KPIs to draw attention to unused organs • Review funding arrangements to replace block contracts with activity related (Tariff) to incentivise lung transplantation • Look at removing any disincentives (competing interests) • Surgical workforce (job plans) For professional societies: • Engagement with training committees and curriculum changes to encourage training and education in lung transplantation to counteract surgical retirements For centres and transplant team: • 10-degree fridge – this would benefit centres as it would be possible to delay a lung transplant if a heart transplant is also taking place within the centre. • Recruit and train transplant professionals (Surgeons and perfusion specialists) • Clarify parameters for lung donation Longer term ARCS, OUG and OUP outputs and organisational structure (ie number of centres and co-location of heart and lung transplant centres) may be reviewed. It was also noted that new treatments for Cystic Fibrosis will affect the demand for lung transplantation over the next decade. A face-to-face lung summit is planned for first CTAG Lungs meeting of 2023 on 22 February.	
14.3	Use of Sherpapak	
	R Venkateswaran stated that in the USA there is to be no randomised trial as Sherpapak has been shown to work and to help with reductions in PGD, hospital stays and early return to sinus state and so it is likely it will be used there. The company is very keen to work in the UK **ACTION: R Venkateswaran to set up virtual meeting to share abstracts**	**R Venkateswaran**
14.4	QUOD Update – **CTAGH(22)49**	
	The latest QUOD statistics for October 2022 were circulated prior to the meeting. The numbers of donors are increasing post COVID. However, BAL samples (which were stopped during COVID) remain low.	
14.5	Workplan update - **CTAGH(22)50**	
	This was circulated for information **ACTION: CAV to be added to this.**	**R Venkateswaran**
15.	**For Information**	
15.1	Transplant Activity Report	
	see https://www.odt.nhs.uk/statistics-and-reports/annual-activity-report/	
15.2	NHSBT ICT Update for Advisory Groups	

	No report was received prior to the meeting. Any update will be circulated post meeting.	
15.3	Histopathology update	
	This was not discussed at the meeting. However, the business case for the national plan has been completed and is with NHSE. Work is ongoing on an interim plan.	
15.4	Signet Trial	
	J Dark stated that this study funded by NIHR was originally presented to CTAG in Autumn 2020 and will randomise 600 DBD donors a year for 4 years to receive either simvastatin or standard care. The trial has been slow to get started due to COVID pressures, but is going well now as donor centres are open. There have been no adverse effects and the one-year report will be submitted to NIHR shortly. If any donors are involved in other studies or clinical evaluations, please inform J Dark so that an agreement on data exchange can be set up. **ACTION: J Dark will report back in one year's time (18 October 2023 meeting)**	**J Dark**
16.	**Any Other Business**	
16.1	Increased Costs of Impella	
	L Ayton raised the proposed significant increase in cost of impella from £8K to £35K. While use is low, it was suggested that centres buy ahead of the price increase and share supplies when required. Impella 5 is being phased out to be replaced by 5.5. for the left side. This is due to the cost in Europe rising. **ACTION: L Ayton to discussion at the transplant managers' meeting.**	**L Ayton**
16.2	Date of next meeting	
	The next meeting is scheduled for *Weds 10 May 2023* and will take place at the *Wesley Hotel in London*. Future dates of CTAG meetings for 2023 are shown below	

Date of next CTAG meetings

CTAG Patients Group – Weds 7 December 2022 – 10:30-13:30 – via Microsoft Teams
CTAG LUNGS SUMMIT– Weds 22 February 2023 – 10:30-14:30 – Face-to-face – TBA
CTAG Hearts Meeting – Weds 10 May 2023 – 10:30-14:30 – Face to Face meeting, Wesley Hotel
CTAG Lungs Meeting – Weds 14 June 2023 – 10:30-14:30 – Face to Face meeting, venue to be arranged
CTAG Hearts Meeting – Weds 18 October 2023 – via Microsoft Teams
CTAG Lungs Meeting – Weds 8 November 2023 – 10:30-14:30 - via Microsoft Teams