NHS BLOOD AND TRANSPLANT
ORGAN DONATION AND TRANSPLANTATION DIRECTORATE
THE TWENTY-SECOND MEETING OF THE NHSBT CTAG HEARTS ADVISORY GROUP
ON WEDNESDAY 17 APRIL 2024 AT MARY WARD HOUSE, LONDON

MINUTES

Attendees:

Rajamiyer Venkateswaran	**CTAG Hearts Chair;** Centre Director, Wythenshawe Hospital
Lynne Ayton	Transplant Managers Forum Representative
Marius Berman	Chair, Retrieval Advisory Group; Papworth Hospital
David Briggs	H&I Representative, NHSBT
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
Margaret Harrison	CTAG Lay Member Representative
Maggie Kemmner	National Head of Transformation, NHS England
Jola Kwinta	Transplant Co-ordinator, Royal Brompton and Harefield Hospital
Guy Macgowan	Cardiologist, Freeman Hospital, Newcastle
Debbie Macklam	Head of Service Development, OTDT, NHSBT
Derek Manas	Medical Director, OTDT, NHSBT
Stephen Pettit	CT Centre Director, Royal Papworth Hospital
Aaron Ranasinghe	Lead CLU Hearts; Cardiac Consultant Surgeon, Queen Elizabeth Hospital, Birmingham
Zdenka Reinhardt	Cardiologist, Freeman Hospital, Newcastle
Miguel Reyes Roque	Statistics and Clinical Research, NHSBT
Sally Rushton	Senior Statistician, Statistics and Clinical Research, NHSBT
Marian Ryan	Specialist Nurse Organ Donation
Fernando Riesgo-Gil	Interim Centre Director (Hearts), Royal Brompton and Harefield Hospital
Philip Seeley	Recipient Transplant Co-ordinator, Newcastle
Asif Shah	Consultant Cardiothoracic Surgeon, Newcastle
Jacob Simmonds	Consultant Cardiologist, Great Ormond Street Hospital
Lewis Simmonds	Statistics and Clinical Research, NHSBT
Daniel White	Recipient Transplant Co-ordinator, Royal Papworth Hospital
Julie Whitney	Head of Service Delivery, OTDT Hub, NHSBT
Michelle Willicombe	Consultant Nephrologist, Imperial College, London

In attendance:

Caroline Robinson (Minutes)	Advisory Group Support, NHSBT

Apologies received:
Ayesha Ali, Liz Armstrong, Jonathan Dalzell, Dale Gardiner, Shamik Ghosh, Roseanne McDonald, Maria Monteagudo-Vela, Craig Wheelans

No.	Item	Action
	Welcome and Apologies	
	R Venkateswaran welcomed all to the meeting. Apologies are shown above. The CT community was congratulated on achieving 237 heart transplants this year. GOSH were also congratulated on doing 20+ heart transplants.	
1.	**Declarations of Interest in relation to the Agenda CTAGH(20)22**	
	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 October 2023 CTAGH(M)(23)02 and CTAGH(AP)(23)02**	
2.1	The Minutes of the CTAG Hearts Meeting held on 18 October were accepted. L Ayton and P Curry will be added to the list of attendees for that meeting.	
2.2	The following Action Points were discussed:	
2.2.1	AP1 - CTAG Patients Routine Blood Monitoring Report – *See Item 7.3*	
2.2.2	AP2 - ISHLT – There has been no data submission to ISHLT since 2018-19. However, several centres worldwide have now restarted involvement in the ISHLT registry. A new Data Sharing Agreement has been finalised for UK data and NHSBT are working on the annual extraction code.	**COMPLETE**
2.2.3	AP3 - CLU Update – The issue of some centres receiving letters despite responding to the first letter was raised and this will be addressed in a review of the process. The aim will be to standardise the declines across all organs. A Ranasinghe will review the process for offer declines. *See also Item 8.1*	**COMPLETE**
2.2.4	AP4 - Heart Allocation – *see Item 11.4*	**ONGOING**
2.2.5	AP5 - Super-urgent paediatrics and ECMO – Paediatric patients on ECMO needing super-urgent heart transplant need discussing between the two paediatric centres prior to listing and an agreement made on the urgency relative to patients waiting on Berlin Hearts. J Whitney to organise a meeting to agree wording in the policy with J Simmonds and Z Reinhardt.	**ONGOING**
2.2.6	AP6 – Six-month review of 20 CM rule change for GOSH – A review will be conducted post-June 2024 once 6 months has passed. This should include data on the impact of the removal of the 20 cm rule on Newcastle paediatric patients. S Rushton to bring review to Centre Directors meeting followed by CTAG-Heart in the Autumn.	**S Rushton**
2.2.7	AP7 - No need for LN and Spleen to accompany hearts on retrieval - It is proposed to move away from sending spleen/lymph samples with the organ and instead, send 40ml of peripheral blood. Centres have been asked to contact their H&I labs regarding this issue.	**COMPLETE**
3.	**Medical Director's Report**	
3.1	Developments in NHSBT – **CTAG(24)29**	
	D Manas gave an update on current issues and reminded group members that CTAG is the meeting that endorses decisions. All units should endeavour to have a representative at these meetings. • DCD hearts and CLUs will be included in baseline funding for the coming year. • NHSE has agreed to fund an interim programme for histopathology which will start in October. • Teams are reminded that trust engagement is essential for support of ISOU's sub-groups. All trusts have been notified that they need to appoint board members to assist the work for the 4 recommendations. Full details of latest developments are shown in the MD Bulletin circulated.	
3.2	New Appointments	
	• D Briggs was welcomed to the meeting. He will act as Interim Scientific Officer following the retirement of T Rees. • A Project Manager has been appointed to help with organ utilisation. There is also a business case for Deloitte to assist with the OUG implementation. • The CT review will take place, beginning in the coming week. This will be an information gathering exercise initially and NHSE will be responsible for the final review. M Kemmner, who was welcomed to CTAG Hearts, will lead from NHSE Collaborative. Only adult services will be included in the review. A separate quality team will align with methodology and approach. • Transplantpath has now gone live • There are no open CUSUM signals for heart currently. • The consent rate is still low (58-60%) and work is ongoing to improve this.	
4.	**Governance Issues**	

4.1	Non-Compliance with Heart Allocation	
	• R Baker reiterated that DCD hearts should not be accepted without an ECHO. • There have also been incidents around recipient teams requesting repeat ECHOs which can delay the transplant process. • Due to cardioplegia and time on OCS, a heart was not used as the implanting team felt the time for transplant had been exceeded. CTAG members are asked to note that litigation can result if the policy is not followed. Any deviations from or requests to change the policy need to be done formally. This will be discussed further outside the meeting. **ACTION: DCD heart policy needs review by R Venkateswaran, D Macklam and M Berman**	**R Venkateswaran / D Macklam / M Berman**
4.2	Clinical Governance Report - **CTAGH(24)01**	
	This report was circulated prior to the meeting. Numbers are steady with 40-50 issues per month. Delays in hearts leaving the donor site are reported and so recipient and transplant teams are asked to be aware of this.	
4.3	CUSUM Monitoring of 90-day outcomes following heart transplantation - **CTAGH(24)02**	
	This report was circulated prior to the meeting. There have been no CUSUM signals for heart transplantation in the last 6 months.	
4.4	Re-transplant into CUSUM calculation – **CTAGH(24)03**	
	At a previous CTAG meeting, it was agreed to update the heart CUSUM monitoring process and change from patient survival to transplant survival to allow for inclusion of re-transplant cases in monitoring. The paper circulated presents the transplant failure rates for the current baseline period (1 January 2015 and 31 December 2018) nationally and by centre, along with simulation results for the different chart limit and rate change options that could be monitored. There was agreement from CTAG Hearts regarding the chart limit and rate of change to be used in the updated CUSUMs for monitoring transplant survival (2.5 for adults and 1.5 for paediatric patients) and this will be taken to OTDT CARE for sign off and then to SMT. A date for implementation will then be agreed and sent to centres prior to any change. **ACTION: S Rushton to check paediatric limits in other organs.** The policy around registering patients for early re-transplantation was discussed in light of a recent case where a patient received a re-transplant from a zonal donor. It was agreed: • Any use of a heart for re-transplant in a SU and U patient needs to go through adjudication. • A centre can use a zonal heart for a non-urgent patient. • No change to the policy is needed currently.	**S Rushton**
4.5	Group 2 Transplants	
	There were no recent transplants to discuss.	
5.	**OTDT Hub Update**	
	• J Whitney stated that some 3-month forms are outstanding. She will contact relevant centres directly. • Transplantpath is now live and getting good feedback.	
5.1	Sustainability and Certainty in Organ Retrieval (SCORE)	
	D Macklam gave an update on the work of SCORE. • A planned arrival window (PAW) of 10pm to 3am has been defined by the NORS working group for NORS teams. This assumes no impact to super urgent recipients, one retrieval per team per night and donors are registered with the Hub by 8am. This encourages certainty and ensures organs arrive in daytime hours and the implant time is at optimal times for recipients. • A PAW + has been defined to review donors registered after 8am and before 4pm	

	• Following feedback from the engagement sessions further modelling is being undertaken to extend the planned arrival window to 8pm to 3am • Analysis is being undertaken by the group to understand demand and capacity within the PAW and to look to balance activity and include DCD hearts and ANRP • The Donation Working Group recommendations re donation screening, DCD assessment and donor optimisation will go to the May SCORE Programme Board • Working Groups for Support Services are awaiting output of the NORS Working Group to determine the implication on transport and laboratory services • NORS Workforce Working group has made recommendations and are working up an implementation plan. Synergies with ISOU are being reviewed. • There have been many engagement opportunities both verbally and at Advisory Groups, Networks, BTS. Site visits to all cardiothoracic centres will enable feedback and input. Those centres visited so far have been positive and feedback has been good.	
6.	**DCD Hearts**	
6.1	DCD Hearts Oversight Meeting update (Jan 2024)	
	In A Ali's absence there was no update at CTAG Hearts.	
6.2	DCD Hearts Regular Report - **CTAGH(24)04**	
	This report was circulated prior to the meeting and presents activity from 1 February 2015 to 31 January 2024 plus patient outcomes and offer data from 7 September 2020 to 31 January 2024. It was noted that DCD heart transplants are currently excluded from the centre-specific risk-adjusted survival rates in the annual report, and it was agreed that these transplants should be included. It was also noted: • IABP should be removed from post-transplant MCS table. • Reasons for decline of DCD hearts should distinguish between those where the team was in attendance and when they weren't. • ECMO is higher in units that have just started in the DCD programme, and this may change in future reports. • Because decline rates are affected by OCS duration, Papworth stated that they now start the operation while the heart is in transit. It is hoped this will improve results. • Funding and workforce issues are likely to have an affect on overall results. The Trust engagement group will make recommendations and needs to look at how surgeons are reimbursed and deployed. **ACTION: DCD and DBD survival rates will be included together in future annual reports. DCD will also be reported separately.** **S Rushton to consider alterations to regular DCD heart report**	**S Rushton**
6.3	DCD Heart Allocation – **CTAGH(24)32**	
	I Currie gave an overview of the work of the DCD Heart Allocation Group and his paper was circulated to the group at the meeting. Despite DCD hearts now providing 25% of all UK heart transplants therefore substantially contributing to UK transplantation, the programme is not yet a commissioned service with sustainable funding and is dependent on repeat funding applications to the DoH. The DCD Heart Allocation Group, considered the effects of allocating DCD hearts in the same fashion as DBD hearts: • Only 31% of named patient hearts are accepted and actually used for the highest priority urgent/super-urgent recipients (tissue incompatibility and size mis-match are intrinsic issues in cardiac transplant) suggesting that increasing the pool of named patient grafts may have less effect than expected • There will be an Increased need/cost for air travel (cost per plane and number of planes needed will rise together) • A reduction in transplant rates is likely to result for long-waiting, less urgent patients who currently can receive a DCD heart	

	• There are consequences for other transplants (lung and liver in particular) when plane availability becomes a limiting factor. • There are longer preservation times with unknown graft and patient consequences. • DCD hearts as an option for VAD patients will be removed as these have a very low transplant rate in the named patient scheme. The conclusion of the group was that DCD hearts should be offered to super-urgent recipients on a national, named patient basis, but thereafter be offered on a regional/centre basis as currently. This addresses the matter of clinical urgency for the sickest patients whilst strongly mitigating negative financial and logistic consequences of national offering of all DCD hearts. (As equality and diversity issues are not part of heart allocation, any resultant effects will be on a random basis). At CTAG Hearts it was noted: • VAD patients will have fewer transplants. • Current acute surgical workforce issues for CT will have an impact. • All transplant centres are working differently. It is important that managers build allocation of DCD hearts into plans for 2024-25. Any comments on the paper circulated should be sent to I Currie ian.currie@nhsbt.nhs.uk The Minutes of the meeting of the group will be circulated shortly to all Heart Allocation Group members. Although a further meeting was suggested, it is now felt that future discussions will take place via ISOU as trust engagement is critical in future success.	
7.	**CTAG Patient Group**	
7.1	CTAG Patient Group (CTPG) report – **CTAGH(24)05**	
	The most recent CTPG report was circulated to CTAG Heart members. • R Burns highlighted concerns the Patient Group has regarding the proposed single adult cardiothoracic transplant tariff (currently a guide price) outlined in Appendix 2 to the report - **CTAGH(24)07.** **ACTION: J Parmar and R Venkateswaran to add their signatures to a letter to NHSE** • A response from the SoS for Health to the Patient Group's letter regarding funding of DCD Hearts is shown in Appendix 3 – **CTAGH(24)08**. Further information on CTPG is included in the report circulated and accompanying appendices – **CTAGH(24)06, 09, 10**	**J Parmar / R Venkateswaran**
7.2	Osteoporosis in the Cardiothoracic Transplant Population - **CTAGH(24)11 and CTAGH(24)30**	
	R Burns gave a presentation regarding osteoporosis in CT transplant population which has arisen due to patient concerns regarding delayed diagnosis and fragility fractures. A patient survey found: • Osteoporosis has a high prevalence in the heart transplant population. • Prevention and monitoring is less than clinically recommended. • Patients are likely suffering avoidable harm. • Transplant centres need to take ownership and implement clear processes in line with national guidelines. Particular concerns noted are: • High fracture prevalence – with potential missed vertebral fractures. • Lower than expected use / knowledge of modifiable factors. • Vitamin D supplements, Calcium intake and Exercise • Very little patient awareness of fracture risk assessments. • Lower than expected use of DEXA scanning. CTPG asks Transplant centres to ensure there are systems in place to: • Optimise modifiable risk factors. • Do regular monitoring with fracture risk assessments and / or DEXA • To manage patients according to fracture risk as per (National Osteoporosis National Osteoporosis Guideline Group (NOGG) guidelines. • To monitor and audit compliance with recommendations. One problem noted by CTAG Heart members is that a lot of patients don't regularly attend transplant centres where these issues would be more easily identified. Liver patients, however, have an annual review and this needs to	**S Pettit**

	happen in CT. It was agreed that transplant units need to look at ways to improve this problem and some work could be completed by transplant pharmacists. **ACTION: Papworth will audit 24-25 patients and S Pettit agreed to present this at the CTAG Hearts autumn meeting.**	
7.3	Launch of the Implementation Audit for the Recommendations of the Routine Post Transplant Bloods Working Group – **CTAGH(24)12**	
	The report and recommendations to review the current processes for the undertaking of routine blood tests post-transplant were presented to CTAG Hearts in May 2023. The CTAG Hearts Chair reported to the CTPG in October 2023 that all units had agreed to implement local recommendations. It was also agreed that an audit would follow and the form was circulated prior to the meeting – **CTAGH(24)13**. Access to patient advice lines was noted as a concern and an audit on this will follow.	
7.4	Update on COVID-19 / NICE – **CTAGH(24)14**	
	COVID-19 continues to present challenges to the CT transplant population impacting on quality of life. Patients have been positive about access to COVID vaccinations and will be eligible for booster vaccinations. R Burns highlighted: • A new generation prophylactic treatment for COVID-19 has been developed - Sipavibart - which is undergoing appraisal by NICE, Project documents | Sipavibart for preventing COVID-19 [ID6282] | Guidance | NICE • CTPG are preparing a patient organisation response to NICE regarding the need for preventative COVID-19 treatment, a draft of which is attached in appendix 1 **CTAGH(24)15**, much of the evidence gathered from a patient survey. The patient survey results will be presented in detail at CTAG Lungs in May 2024. • At CTAG Hearts in October 2023, CTPG reported that NICE had revised their guidance for Paxlovid use to include all people with heart failure. Subsequently, NHSE requested a funding variation period of one year for the expansion of the Paxlovid eligible population. A response and appeal letters against the delay to NICE are shown in **CTAGH(24)16, 17 and 18.** There has been a partial success, with access to Paxlovid (Overview | Nirmatrelvir plus ritonavir, sotrovimab and tocilizumab for treating COVID-19 | Guidance | NICE) now being available to some additional cardiac / transplant patient groups as shown in **CTAGH(24)14** Overall, there is disappointment at the lack of information on COVID-19 treatments being provided at both national and local levels with patients also reporting a lack of knowledge and guidance in some transplant centres.	
8.	**Heart Utilisation**	
8.1	CLU Update	
	A Ranasinghe congratulated the CT community on the number of heart transplants there have been this year. • Heart CLUs have stated there have not been many higher quality donors declined and therefore they are not receiving donors to review. This has been taken back to the CLU meeting and it has been decided that the criteria to keep higher quality donors will remain. • A donor decline audit will to out to CT Centre Directors to collect data to compare centres' results. Terms of reference and a standardised slide set are being developed along with draft metrics on organ utilisation for trust boards. • Last year's CT utilisation event had good feedback and future events will be held to every 2 years. • The last meeting this year will be the National Organ Utilisation conference.	
9.	**Heart Allocation**	
9.1	Review of Heart Zones – **CTAGH(24)20**	

	The report circulated shows up-to-date figures on each centre's percentage share of registrations onto the national heart transplant list and each centre's percentage share of heart donors that arose in their zone. The time periods analysed are 1 March 2022 to 29 February 2024 for registrations, and 1 March 2021 to 29 February 2024 for donors. • A significant difference was noted in the percentage share of heart registrations and donors at Birmingham and Newcastle, so changes will be made to the heart zonal boundaries. • The changes proposed in the report will be implemented, which means 19 donor hospitals will move zone. • There are no zones for paediatric allocation and allocation currently alternates between Newcastle and GOSH.	
9.2	Adjudication panel – **CTAGH(24)21**	
	The paper circulated reports on Heart Adjudication Panel referrals between 1 March 2021 and 29 February 2024 as well as urgent heart-lung adjudication panel referrals, which must be referred to the Lung Adjudication Panel but may also be referred to the Heart Adjudication Panel if standard urgent heart listing criteria are not met. Referrals for Total Artificial Heart (TAH) implantation are not currently presented. Since 29 March 2023, urgent or super-urgent registrations for patients with a previous heart transplant now need panel approval, regardless of category. The paper also reports on these cases. • It was noted that feedback on what outcomes for patients who go to the adjudication panel would be useful learning. • Rationalising the work needed for this report was discussed with a 30-day form. It was agreed that transplant teams would be asked to give a summary at the CQUIN meeting. **ACTION: S Rushton to consider incorporating outcomes of patients who are registered through the adjudication panel in future reports** It was noted that FRM4352 may be out of date with respect to exclusion criteria and the bullet points need review **ACTION: R Venkateswaran to coordinate clarifying bullet points on urgent/super-urgent form (FRM4352)**	**S Rushton** **R Venkateswaran**
10.	**Statistics and Clinical Research reports**	
10.1	Summary from Statistics and Clinical Research – **CTAGH(24)22**	
	This paper was circulated for information. The key message is that the new MCS Database, formally VAD Database, was launched at the end of January and any feedback on the new system should be emailed to lewis.simmonds@nhsbt.nhs.uk.	
10.2	Survival from listing – **CTAGH(24)23**	
	This paper was circulated prior to the meeting and explores two changes to the survival from listing analysis which were prompted by feedback from the clinical community: • Alignment of the inclusion period for registrations with the inclusion periods for the post-transplant survival analysis in the same report. • Re-classification of removals due to deteriorating condition as "deaths" instead of censored observations. • Changes will be implemented in the upcoming 2023/24 annual reports and equivalent changes will be made to the lung report. • A review of risk factors included in the survival from listing models will be undertaken and will be shared at the next CTAG Hearts meeting. The current factors in the heart analysis are age, sex, ethnicity, blood group, BMI, urgency status, primary disease, previous heart surgery, in hospital status at registration and on VAD/ECMO support at registration. • It was noted that a number of patients are being excluded from the analysis due to missing data on risk-factors. • Paediatric numbers are currently excluded from the reports, and it was agreed that survival from paediatric listing would also be useful.	

	ACTION: S Rushton to check how many patients have been excluded and explore survival from listing for paedatrics.	
11.	**Reports from sub-groups**	
11.1	CT Centre Directors' Report (15/03/2024)	
	The upcoming CT review has been a major topic for discussion at CT Centre Director meetings which take place every 6 weeks. In addition, changes in the SCORE programme, data submission to ISHLT and changes to the heart selection criteria have been additional topics discussed recently.	
11.2	CT Transplant Co-ordinators' Report	
	Transplant Co-ordinators continue to meet with colleagues: • Birmingham is communicating risk for high-risk donors and is waiting to hear if there is any feedback. It was noted that all risk options should be discussed with recipients at all centres. Risk communication tools are on the website. • Papworth reported that they have published donor choices online and risk communication tools are on the NHSBT website. • There is good feedback on Transplantpath.	
11.3	Retrieval Advisory Group Update (30/11/2023)	
	M Berman reported: • A small working group is looking at the paediatric DCD workstream. • Work on XVIVO and mOrgan is progressing. • A Rubino is setting up a UK trial on A-NRP and TA-NRP. The UK trial has not yet started by TA-NRP is progressing in other countries. • Work is ongoing on heart retrievals for research to meet an unsatisfied need.	
11.4	Workplan update – **CTAGH(24)31**	
	The current CTAG Hearts workplan is circulated with these Minutes. R Venkateswaran reported: • A fixed term working group discussed Vasculopathy in one meeting. However, it was noted that each unit has its own choices on this issue and there is uncertainty about what should be done to treat this. As a result, variation in practice results. There will a possible opportunity to look at this further when the CT service specification is up for review.	
12.	**SIGNET Trial**	
12.1	Update on SIGNET Trial – **CTAGH(24)33**	
	An update is circulated with these Minutes	
13.	**HLA selected red call transfusions**	
13.1	HLA selected red cell transfusions for CT tx recipients to avoid HLA sensitisation – **CTAGH(24)24 and CTAGH(24)25**	
	Dr M Willicombe from Imperial College attended the meeting to give a presentation previously seen at the Kidney Advisory Group. A UK working group have undertaken several work packages including studies where HLA typing of blood donors has been undertaken showing the development of transfusion specific HLA antibodies in 38% of transfused waitlist candidates. An NHSBT pilot programme to supply HLA selected blood to kidney transplant recipients has started at Imperial College Kidney and Transplant Centre in April 2024 aiming to assess feasibility and the prospective collection of data in transfused patients receiving HLA selected blood. If successful, extension of the pilot programme to include other kidney and CT centres can be considered ahead of a national roll out. HLA sensitisation is an important consideration for cardiac transplant recipients, and blood transfusions are not uncommon. However, unique to cardiac transplantation is the use of LVADs, which are an independent risk factor for sensitisation. CTAG Hearts members are asked to consider: • Is there support for this initiative? • Should CT centres be included in the extended pilot programme?	

	• A CTAG Hearts member is asked to represent CTAG Hearts on a NHSBT steering committee to independently advise on the pilot and guide a national roll out, if data supports it? Interested parties are asked to contact michelle.willicombe@nhs.net	
14.	**For Information**	
14.1	Transplant Activity Report	
	See link https://www.odt.nhs.uk/statistics-and-reports/annual-activity-report/	
14.2	NHSBT ICT Update for Advisory Groups	
	There was no update for this meeting.	
14.3	QUOD Update – **CTAGH(24)26**	
	This paper was circulated for information	
14.4	Change to Heart transplantation: Selection Criteria and Recipient Registration Policy - POL229 (effective 26/02/24) – circulated for information.	
15.	**Any other business**	
15.1	Cardiogenic Shock	
	Incidents of cardiogenic shock are being identified in patients in London in VA ECMO patients with the expectation transplant centres will take on the patients. Based on Harefield's experience, setting this up will be a lot of work. It was agreed there is no capacity to take on this work at present.	
15.2	Key points from this meeting to cascade to teams	
	VENKAT TO DO	
15.3	Next CTAG Hearts Meeting	
	• It was announced that R Venkateswaran will continue as CTAG Hearts Chair for the next 2 years. • The next meeting of CTAG Hearts will be in October and further details will be sent to the group when they are available.	

Dates of future CTAG meetings

CTAG Lungs – Thursday 16 May 2024, Wesley Hotel, London – 10:30 am–2:30 pm
CTAG Patient Group meeting - TBA