NHS BLOOD AND TRANSPLANT
ORGAN AND TISSUE DONATION AND TRANSPLANTATION DIRECTORATE
THE THIRTY-SECOND MEETING OF THE RETRIEVAL ADVISORY GROUP (RAG)
ON THURSDAY 30 NOVEMBER 2023
VIA MICROSOFT TEAMS

MINUTES

Present:

Marius Berman (Chair)	Associate Clinical Lead for Organ Retrieval
Elijah Ablorsu	NORS lead, Abdominal, Cardiff
Waqas Akhtar	Royal Brompton and Harefield Hospital
Liz Armstrong	Head of Transplant Development, NHSBT
David Bartlett	NORS lead, abdominal, Birmingham
Sarah Beale	Service Development Manager, OTDT, NHSBT
Becky Clarke	Regional Manager, Midlands and South-Central team
Sarah Cross	National Operational Co-ordinator, QUOD
Ian Currie	AMD Organ Retrieval, NHSBT
Muhammad Dosani	NORS abdominal Joint Lead, Newcastle
Victoria Gauden	National Quality Manager, OTDT, NHSBT
Michael Hope	Abdominal Recipient Coordinator Representative
Chris Johnston	NORS lead, Abdominal, Edinburgh
Louise Kenny	Consultant Paediatric Surgeon, Newcastle
Debbie Macklam	Head of Service Development, OTDT, NHSBT
Derek Manas	Medical Director, OTDT, NHSBT
Kirsty McNally	Clinical Governance Lead, OTDT, NHSBT
Karen Mercer	Lead Transplant Co-ordinator, Kings
Lisa Mumford	Statistics and Clinical Research, NHSBT
Theodora Pissanou	NORS lead, abdominal, Royal Free Hospital
David Quinn	NORS CT Lead, Birmingham
James RIchards	Consultant abdominal surgeon, Royal Free Hospital
Mark Roberts	Senior Commissioning Manager, OTDT, NHSBT
Afshin Tavakoli	NORS lead, Abdominal, Manchester
Hector Vilca-Melendez	Consultant abdominal surgeon, Kings
Chris Watson	Joint Chair, Novel Technology Implementation Group
Daniel White	Recipient Transplant Co-ordinator
Luke Williams	Cardiology, Royal Papworth Hospital
Bart Zych	NORS CT lead, Royal Brompton and Harefield Hospital

In Attendance:

Caroline Robinson	Advisory Group Support, NHSBT (Minutes)

		ACTION
1.	**REGISTRATION FOR MEETING**	
	The meeting opened at 10 am.	
2.	**WELCOME, INTRODUCTIONS, APOLOGIES, ANNOUNCEMENTS AND THANKS**	
	• M Berman (Chair) welcomed everyone to the meeting • Apologies were noted from Ayesha Ali, Emma Billingham, Chris Callaghan, Miriam Cortes Cerisuelo, Shahid Farid, Jeanette Foley, Shamik Ghosh, James Hunter, Cecelia McIntyre, Karen Quinn, Stephanie Russell, Julie Whitney, Sarah Whittingham	

3.	**DECLARATIONS OF INTEREST**	
	• No declarations of interest were reported. • ***RAG members are asked to declare if any information in papers for this meeting is sensitive content that should not be published on the public facing NHSBT OTDT website as soon as possible. A request for papers not included on the website should be made in writing to advisorygroupsupport@nhsbt.nhs.uk***	
4.	**MINUTES, ACTION POINTS AND MATTERS ARISING**	
4.1	Minutes – **RAG(M)(23)02** – The Minutes of the last RAG meeting on 8 June 2023 were approved.	
4.2	Action Points - **RAG(AP)(23)01** - The Action Points from the previous meeting on 8 June 2023 were updated as follows:	
4.2.1	AP1 – MCTAG Update – Donor imaging using CT in circumstances where a modified MV graft is being considered is an aspiration to minimise delays and inappropriate travel for retrieval teams and recipients. A representative from The Royal College of Radiologists has joined the working group to help draw up initial guidelines alongside SNODs and CLODs.	**ONGOING**
4.2.2	AP2 – NORS Annual Report – Work to investigate why teams are going out but not proceeding with retrieval is ongoing. This and the resilience of the CT workforce were highlighted as ongoing issues that will be discussed further at the CT Centre Directors' meeting and in the work programme for SCORE.	**ONGOING**
4.2.3	AP7 - Super Urgent Liver Report – At the last meeting it was emphasised that CT teams should arrive for retrieval 2 hours before knife to skin and the abdominal team 1 hour before. However, frequently, both teams arrive at the same time which leads to delays. Although less delays have been reported recently, this problem continues. It was reiterated this should be reported as an incident each time it happens so that it can be included in clinical reviews with every team to check whether there are logistical or other issues that need consideration. CT teams also reported issues on arrival (eg lack of staff availability on site, donor or family not being ready). It was agreed that CT teams should inform the SNODs and Hub if there are issues to stop other teams going out too early. **ACTION: D Macklam and M Roberts to check data to come up with a communications solution.**	**ONGOING** **D Macklam / M Roberts**
4.2.4	AP7 - Super Urgent Liver Report - Drivers previously stated they need to take a break, sometimes after only 2 hours causing delays for teams arriving on site. The legal requirements state 30 minutes to be taken after 5.5 hours and 45 minutes in a journey of 8.5 hours. Teams do not usually stop in a journey lasting 5 hours. It is agreed the proposed arrival time should be respected so any break taken should take this into account.	**COMPLETE**
4.2.5	AP7 - Super Urgent Liver Report Refreshments were provided in the past, but this is now very poor. Teams are reminded that under Agenda for Change, trusts should reimburse staff for food (lunch £5 or dinner £25) on production of receipts if going off site. **ACTION: M Berman to organise a NORS lead forum to share experiences and how to engage trusts to recognise their teams' needs**	**ONGOING** **M Berman**
4.2.6	Organ Damage Report	**COMPLETE** *See Item 9*

42.7	Organ - Imaging Pilot Study Protocol	**COMPLETE** *See Item 6.2*
4.2.8	Critical Updates - UW/HTK – M Berman to write to E Billingham re HTK storage and centres' preferences regarding UW v. HTK	**ONGOING** *See Item 6.1*
4.2.9	PACS System for NHSBT -	**COMPLETE** *See Item 13.3*
4.2.10	Focused Echo for Organ Donation – Previously, W Akhtar presented a donor ECHO assessment proforma that has been developed to guide level 1 scanners that are performing most assessments for donor hearts. This provides a step-by-step series of images that are needed as minimum criteria needed for measurement. This will now be implemented.	**COMPLETE**
4.2.11	Homograft Issues – Previously, A Chandrasekar spoke re concerns that there is not enough supply to meet the clinical requirements of the pulmonary homograft, so the plan is to divide the pulmonary homograft into two hemigrafts and to try to use it for homograft and pulmonary patches as well. Teams are now being trained to use staples and this will be mandated once all training is complete. No further incidents have been reported.	**COMPLETE**
4.2.12	Transport of Lungs in Perfadex –	*See Item 18.1*
4.2.13	SENTINEL Skin Flap study – It was previously agreed H Giele would circulate an information sheet for circulation to all CT Centres and NORS teams. H Giele is now attending the Masterclass in Cambridge this coming month, a training video is being made and this will start in the first half of 2024.	**COMPLETE**
4.2.14	Blue Light Monitoring -	**COMPLETE** *See Item 17*
4.3	Matters Arising - No issues were raised	
5.	**MEDICAL DIRECTOR'S UPDATE**	
5.1	D Manas reported the following: • Finances – remain very tight. • DCD Hearts are funded until the end of the financial year after which a new application will be needed. It is possible funding will run out before the end of March at which point a new application will be needed with the Department of Health. • NRP - There is no funding currently. • CLU Funding – this is secured until mid-2024 after which a new business plan will be needed. Lead CLUs are funded from NHSBT. • The living donor liver programme will start next year. • ISOU – This steering group set up to look at organ utilisation has now met 4 times bringing together NHSE, NHSBT and the Department of Health. Further engagement with trust CEOs is needed to ensure organ uitlisation is prioritised within trusts. • Lung Summit recommendations – The 5 recommendations that need action from ISOU and NHSE have been highlighted with them. All centres are being recommended to buy 10° fridges. • Histopathology – the main business case has been agreed with NHSE for a national histopathology plan. However, it is not clear when the money will be available. It is agreed that this needs to be transferred as capital rather than revenue. This is a critical part of organ	

	utilisation with 11 organs lost in the last weekend due to a lack of histopathology. • CT Review – The Terms of Reference with the Department of Health are now in place. This will be an external review taking place in February next year and will include workforce resilience. • Flights – centres are reminded that flights are costly and difficult to co-ordinate. NORS teams are asked to engage with The Hub when planning trips as they will be aware of road and flight times. • Drones – a number of drone companies are keen to engage with NHSBT but grant applications to date have failed. Problems getting reimbursement for nurses attending retrievals were noted due to the need to comply with Agenda for Change rules. NORS teams not receiving NHSBT funding paid for retrieval was also highlighted as it is being paid directly to trusts and it is not clear how this money is being used.	
5.1	New appointments • Varuna Aluvihare takes over from Doug Thorburn as LAG Chair • Anya Adair is the CLU lead for Liver. • Tracey Rees (H&I Scientific Officer) has now retired. Recruitment is underway to replace her. • Lisa Burnapp will 'retire and return' working part time in future. Recruitment is underway to provide living donor support alongside Lisa. • Carrie Scuffell has been recruited to support organ utilisation work. A project lead for organ utilisation is also being appointed.	
6.	**CRITICAL UPDATES**	
6.1	HTK/UW – The MHRA investigation remains ongoing so there is no clear timeframe on when Bridge to Life will be able to provide UW to the UK market and the recommendation to use HTK in the meantime remains. Some centres continue to express concerns regarding HTK and outcomes. While there appears to be no statistical difference between HTK and UW, the data possibly does not include more granularity on organ quality and longer preservation periods for organs which may make utilisation problematic. If centres elect in the meantime to use a supplier outside of NHSBT framework, they can be reimbursed at the same rate as for UW. **ACTION: Centres are asked to report any patient safety concerns regarding HTK via the link as this may help with decisions re: alternative suppliers.**	**All Centres**
6.2	Organ Damage Imaging Protocol – **RAG(23)22 –** E Ablorsu presented the work undertaken on an organ damage imaging protocol (circulated prior to the meeting) to address the need for more precise documentation of organ damage found during the retrieval procedure. The main reasons for its development are: • Transparency Enhancement – to capture tangible records of organ damage images at the time of retrieval. • Decision-making Efficiency – to help speed up the acceptance rate of damaged organs and improve overall utilisation.	**E Ablorsu / M Berman**

	• Robust reporting – the protocol aims to ensure immediate reporting and imaging of any detected damage. All of the above aims to facilitate governance. The trial ran for 3 months from 1 March to 31 May 2023 with 3 retrieval teams and the data indicates imaging frequency based on damage severity eg 13 livers with mild effects were imaged whereas none with moderate or severe impact underwent imaging. It is recommended that the Organ Damage Imaging Protocol is implemented. Full details of the data are shown in the paper circulated. **ACTION: E Ablorsu to discuss the use of the protocol for CT Organs with M Berman**	
7.	**CLINICAL GOVERNANCE – RAG(23)23 –** Two incidents are highlighted in the paper circulated prior to the meeting: • Incident One - A delay to retrieval was due to awaiting cardioplegia fluid from base as this had not been included with the NORS team's kit. The team has now created a NORS checklist to be completed by the NORS lead surgeon when the team prepares for departure to include confirmation of planned NORS activity, scrub equipment, retrieval practitioner equipment, HTA pink forms/DCD passport and heart/lung assessment equipment. • Incident Two - on examination at the accepting centre, the left kidney had significant adherent fat and the QUOD biopsy was taken from the lower pole of the kidney instead of the upper pole. This was not documented on the HTA A form. This is similar to another incident recently when an inadequate biopsy was taken and so a second biopsy was completed. It was reiterated at RAG that only one kidney biopsy should be taken regardless of whether it is inadequate or not. **ACTION: a) All NORS teams to read the NORS standards to understand the process and channels of communication b) M Berman to write to KAG Chair so this incident can be raised there.**	**a) ALL NORS teams** **b) M Berman**
8.	**SUSTAINABILITY AND CERTAINTY IN ORGAN RETRIEVAL (SCORE) UPDATE**	
8.1	D Macklam presented the work of SCORE which has been initiated to help with the pressures of staff shortages, recovery from COVID, more complex and older donors and issues around consent and workforce resilience. SCORE: • Is a programme of work to bring improvements to the whole pathway. • Aims to provide certainty and support for sustainability. • Aims to move from *'as fast as possible'* to *'certainty'* across the pathway. • Plans to identify and deliver improvements over a 10-year period. The 5 key areas identified for initial work are: • To increase certainty of donor potential through better donor screening to reduce non-proceeding donation. • To achieve financial sustainability by re-aligning costs within affordability, and to identify system inefficiencies.	

	• To increase efficiency and achievability of retrieval by defining an optimal retrieval model • To commission a framework for perfusion technology to stabilise and sustain DCD and ANRP service. • To enable the NORS workforce to be sustainable so future recruitment is an attractive prospect. The 7 working groups are now set up and running; Donation, NORS Service Model, Support Services and NORS workforce make up the operational groups and Communication and Stakeholder Engagement, Business Care and Commissioning will make up the support and working groups. More detailed design and implementation will take place prior to the deadline of March 2025. The working groups will set key achievements and how these will be monitored. Contact SCORE@nhsbt.nhs.uk for more information.	
8.2	NORS modelling group – S Beale gave a presentation on the work taking place to increase donation, retrieval and transplantation efficiency. • The aim is to define the optimal window for retrieval by determining the earliest and latest times for NORS teams to arrive to create certainty, clearer communication and transparency for all along the pathway. • Assumptions made to model on 2022/23 data are that there will be no delay for super urgent liver recipients, no back to back retrievals and that donors need to be registered with the Hub by 0800 to give certainty for retrieval that evening. • Having reviewed all data, the workstream recommends a 'Planned Arrival Window' for NORS teams of 22:00-03:00 • This would allow for 97.5% of all abdominal attendances and 92.7% of all cardiothoracic attendances to occur within the planned arrival window. • This has been modelled on real data from July 2023, a month with 142 NORS attendances. • For the last week of July with 44 NORS attendances by abdominal teams and 17 from CT teams, this allowed for a more even distribution of donors over the week and improved allocation of NORS resources and transport. • It also highlighted the need for some clinical decision making in the Hub for those donors registered after 0800, who have organs accepted and there is capacity to retrieve. The risks/concerns identified in changing the pathway are: • As retrievals will happen overnight there could be a congestion of organs arriving in transplant centres. • Workload would intensify in the Hub overnight. • Clinical decision making will be needed in the Hub. • Paediatric patients may also be considered outside the pathway window identified, liaising with paediatric representatives for input. • Regional collaboratives have expressed concerns about getting death certification and doing withdrawal of life support at night with more junior staffing. • SNOD attendance at the donor hospital will be longer. • The blue light policy could mean bottleneck transport areas (eg M25/London, Birmingham) results in delays	

	transporting organs at different times of day. This will be investigated further by SCORE. • It will be essential to have support from all parts of the pathway onboard to make this change. • Work is ongoing with Julie Whitney in the offering workstream, Mark Roberts in the Logistics workstream and Liz Middlehurst in the donation workstream to move forward with concerns identified.	
9.	**ORGAN DAMAGE REPORT – RAG(23)24**	
	As part of the work of the fixed term working group in 2019, more robust definitions for organ damage grades were produced for data collected on the Retrieval Team Information (RTI) form and the HTA-B form to provide more objective damage recording. This went live on 22 July 2021 to both retrieval teams and recipient centres. The report circulated presents results on the first twelve months of use of the new grades and compares team rates of non-damage across donor type and organs. • For DBD donors, rates of damage-free retrieval across organs were high, ranging from 88% for pancreas to 96% for heart. • For DCD donors, rates of damage-free retrieval were slightly lower, ranging from 86% for lung to 98% for heart. • Across DBD and DCD donors, most damage reported was mild effect. Full results are shown in the report circulated.	
10.	**NORS ANNUAL REPORT – RAG(23)25**	
	The NORS Annual Report for 1 April 2022 to 31 March 2023 was circulated prior to the meeting and is published on the ODT website. L Mumford highlighted: • 1688 potential organ donors were attended by a retrieval team. 1424 were abdominal organ donations and 278 were CT organ donations. • On average 4.7 potential donors were attended (an increase on last year's 4.5 average) • On average abdominal teams attended at least 1 donor on 49% of on-call days in the year. CT teams attended 1 donor on35% of on-call days. • There were statistically significant differences in the mean number of DBD CT organs retrieved and subsequently transplanted across CT NORS teams. • The transplantation rates for retrieved organs were variable across organs (47% for DCD pancreases; up to 100% for DBD hearts) • There were workforce and funding challenges for DCD hearts. 58 DCD hearts were retrieved, 55 of which were transplanted in that period. • There were 168 A-NRP attendances with 129 proceeding to donation. Birmingham and Newcastle performed their first cases. **ACTION: S Beale to revisit Intensity score in the report for discussions about the workforce and how to support NORS better.**	**S Beale**
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11.	**A-NRP STEERING GROUP - RAG(23)26**	
	This quarterly report on NRP activity for the period 1 April 2015 to 30 June 2023 was circulated prior to the meeting. C Watson stated that all UK departments have agreed to fund money and that disposables can be reimbursed. Teams are keen and 1 in 6 of these are now using NRP. It was noted that NRP activity is recorded against the team performing NRP and this could be different from the retrieval team in attendance. • TA-NRP cases are excluded from the NRP activity analysis. A Rubino is undertaking a research study to provide evidence regarding blood flow to the brain. The outcome will determine next steps with TA-NRP. • It is hoped that this will facilitate lung retrieval with A-NRP. • 2 paediatric cases are reported. Full details of results are shown in the report circulated.	
12.	**CUSUM MONITORING – RAG(23)27**	
	At RAG in February 2023, it was agreed to introduce CUSUM monitoring for abdominal organ loss due to retrieval damage. Analyses will be produced quarterly to enable any changes in damage rates to be recorded compared with the national rate. • There is no formal monitoring during this first year, but teams may be asked to investigate cases by the OTDT Medical Director, AMD for Retrieval and RAG chair. • Two signals were identified in July and November. one in each quarter. Following discussions for the signal in July 2023, it was agreed that the team would not need to investigate this signal. The signal in November 2023 is under informal investigation and the team concerned has received a letter and asked to do an informal assessment of the cases. • Two more runs will be done prior to formalising investigations in future. • It is unlikely risk adjustment will be possible in future as the rates are likely to be too low.	
13.	**EDUCATION**	
13.1	Masterclass Update – About 50 delegates are taking part in this dissection Masterclass taking place on 4 and 5 December in Cambridge aiming to improve skills for (mostly) junior surgeons.	
13.2	Lung Retrieval with A-NRP – M Berman reported that all CT centres are involved in working out how to approach CT retrieval with NRP. This challenging operation involves very rapid dissection post cross clamp if there is no venous pressure and there are potential difficulties with blood in the veins. A recent workshop to teach stapling technique for DCD Lungs with NRP attracted 34 CT surgeons and focused on difficulties experienced trying to implement retrieval with NRP. In the future, the workshop will be run again and a monthly debrief will be held as there is acceptance that there is now a need to deliver more complex surgery with more machinery.	
13.3	Registration for Peri-operatives and Surgeons in Novel Technologies – **RAG(23)30 –** The Training and Registration programme for NORS surgeons has been an effective benchmark for recording competence in DBD/DCD organ retrieval. C Johnston presented a proposal to extend the	**C Johnston**

	registration scheme to include surgeons and peri-operatives involved in novel technologies. It is believed this could ensure consistently high levels of service for NRP across centres as well as helping other centres to make fellow and consultant appointments. **ACTION: C Johnston to circulate the proposed scheme to all NORS centres.**	
14.	**RESEARCH**	
14.1	INOAR and utilisation of organs for research – L Armstrong stated SMT continues to support initiatives across the current INOAR pathway to increase the number of organs available for research and thanked SNODs, the Hub and NORS colleagues for their continued assistance. BTRU and other research colleagues have also expressed their gratitude. The impact of the initiative has been particularly successful for increasing numbers of lungs and diabetic pancreases for research.	
14.2	GENEX - Investigation of myocardial gene expression in transplantable hearts by RNA sequencing – L Williams explained this research which involves retrieving and implanting hearts by the Papworth team. 3 mm punch biopsies are taken to look at differences between DCD and DBD and whether gene expression changes can be linked to problems encountered. Any queries should be sent to Luke Williams luke.williams5@nhs.net	
14.3	PACS system for NHSBT – W Akhtar gave an update on this proposal to create a transplant repository of information that can be reviewed for a set period (likely to be 10 days). A trial funded with donor recognition monies will run in CT centres in London and SE from 8 January for 3 months and data will be shown after the trial has finished. Imaging remains the property of the trust. Operationally, user guides will be available. Any queries about the proposal going forward should contact w.akhtar@rbht.nhs.uk	
14.4	F-CUSToS: Feasibility study for Randomised Controlled Trial of CUstodiol – This primary graft dysfunction study involves splitting 50 patients into 2 groups of 25 with one group using CUstodiol. NORS teams involved in this will need to take both CUstodiol and other solutions to retrievals. Most data will come from NHSBT Transplant Registry and all NORS teams will be recruited. Any queries should be sent to Luke Williams luke.williams5@nhs.net	
14.5	NORS Teams - Retrieving Organs for Research – • Challenges remain for perfused hearts for research and Cambridge and Edinburgh abdominal teams continue to retrieve and perfuse hearts for research alongside CT NORS teams. • A RINTAG stakeholders' day was held in May where it was suggested researchers (non-NORS) attend organ retrievals and remove organs for research. This request has been considered by ODT QA, Research and OTDT Commissioning and was taken to SMT in September 2023 with reference to dignity of the deceased, safety, licensing and indemnity and it was decided these requests should be declined. • Two letters will be sent in due course to NORS leads for cascade to teams: ○ Abdominal NORS – The Always Explant policy was communicated in 2016 and documented in NORS	

	Standards – *'All abdominal organs either accepted or being offered for transplant inspected on the back table and subsequently declined for transplantation – these organs may be offered for research'* o CT NORS – Teams should consider staying to remove the heart for research, particularly if cross clamp is anticipated in 30 minutes time. ***Post meeting – letters sent from Derek Manas to CT and abdominal teams 5 December 2023***	

14.6	XVIVO NIHP for DBD hearts - adult and paediatric – L Kenny, consultant paediatric surgeon at Newcastle, gave a presentation on this programme to improve transplant potential and times using XVIVO NIHP for DBD hearts (which is now being used internationally). • Last year, this was used extensively in Australia and New Zealand. The European trial finished recruiting this year. Early results from the European trial look promising. • There are 31 children on the list (the longest child has been waiting 5 years, the longest urgent child has been waiting 3 years). Adolescents are also proposed at Newcastle. • Changes to the recipient process and informed consent will be needed. Only DBD hearts will be used and the plan is to extend the preservation time. Individual children on a named patient basis and lower risk patients will be used initially. This will disadvantage some patients, so this has to be clear when presenting the plan to the MHRA. • The trial is verified for air and road. However, there are closures are Newcastle Airport currently. • Funding is approved for Newcastle. GOSH has been contacted to ensure there is equitable access for paediatric transplants. • No changes to allocation or offering are planned. Any additional components to retrieval are the box itself, staff and blood from Newcastle. • It is suggested that Newcastle retrieve the first 5 hearts. The proposal will go to MHRA on compassionate grounds. It is hoped that NORS will support this going forward as this could mean an increase of 2-3 hearts per year. It was agreed that a 'walk through' process is needed to ensure the process is clear. **ACTION: a) L Kenny to submit to the Research and Development Group b) L Armstrong to share legal advice regarding listing some children but not all.**	**a) L Kenny** **b) L Armstrong**
15.	**TA-NRP**	*See also Item 11*
	This research study involving Papworth and Edinburgh seeks to exclude cerebral perfusion during TA-NRP. This will happen specifically at Cambridge due to logistics and facilities for doing CT angiograms. 10-15 cases have been factored in for the study in total.	

16.	**DCD HEART ALLOCATION – CTAG HEARTS UPDATE**	
	At the Spring CTAG Hearts meeting it was agreed a fixed term working group chaired by I Currie would look at issues around DCD Heart Allocation. • Currently DCD hearts are allocated zonally to cut down transport time. The outcome is hearts are often allocated to non-urgent patients (who would otherwise be unlikely to receive a heart transplant). The first meeting of the group agreed that DCD hearts should be for patients in most need. • Long range transport across the country would involve more flights and this has cost implications. This is hard to model, and it is difficult to make allocation an equitable scheme. Any change to the existing model will change access to heart transplants for non-urgent patients. There was 98% completion of data after the last meeting and no distinction for OCS time. Proportional allocation still needs to be discussed to try to resolve this difficult issue and the next meeting of the group will be on 10 January 2024.	
17.	**BLUE LIGHT MONITORING – RAG(23)28**	
	The cohort considered in the report circulated was for journeys for organs and NORS teams where blue lights were used between 1 January 2023 and 30 September 2023 (data at 9 November 2023). Data was provided by the transport provider (IMT) and linked to the UK Transplant Registry using ODT donor ID. Only journeys that carry organs are advocated as a potential correct use of a blue light. • There were 192 blue light journeys (a reduction on the previous year). • There were 652 incidences of blue lights being activated. • The average time blue lights were used was under 20 minutes. • The longest time was 100 minutes. • Journeys where a blue light was activated took place between 8 am and 6 pm which is reassuring. Teams are reminded that the Dept of Transport rules have no provision for transport of organs in the road traffic regulations and therefore blue lights should be used appropriately and not routinely. Collection of data on this issue will continue. Full details of activity are shown in the report circulated.	
18.	**ANY OTHER BUSINESS**	
18.1	<u>Perfadex for Lung Transport</u> – It has been highlighted that unlike other countries where a preservation solution is used, lungs in the UK are transported in saline. While there is a cost implication linked to use of Perfadex, this is likely to be similar to UW/HTK. It was agreed that the retrieval process should procure lungs as safely as possible, and this cannot be achieved using saline, although there is currently no evidence/trial results to support use of Perfadex. Centres using 10° fridges also require preservation in a solution like Perfadex. No trial is ongoing to indicate the safety issues around saline v. Perfadex. **ACTION: M Berman will also take this issue forward.**	**M Berman**

18.2	Newcastle Airport- potential closures for 16 weeks at night – Retrieval teams are asked to discuss any potential incoming organs with their transport provider to see whether it is possible for these to go ahead at Newcastle despite closure.	
18.3	No need for LN and Spleen to accompany hearts on retrieval – As reported at CTAG Hearts meeting, there have been several incidents where a deceased donor heart has been delayed leaving theatre due to waiting for lymph/spleen samples. To prevent this, and to set an aspiration that all hearts should leave theatre within 30 minutes of cross clamp, it is proposed to move away from sending spleen/lymph samples with the organ and instead, send 40ml of peripheral blood. This should enable any retrospective testing and DNA storage if required. This should be implemented together with TransplantPath, but not later than 2/2024.	
18.4	Key points from today's meeting for cascade to centres • HTK - Centres are asked to report any patient safety concerns regarding HTK via the link as this may help with decisions re: alternative suppliers. • QUOD Kidney Biopsy - Only one kidney biopsy should be taken regardless of whether it is inadequate or not. • Clinical Governance - All NORS teams to read the NORS standards to understand the process and channels of communication	
18.5	Date of next meeting – *An invitation to the next meeting to be held via Microsoft Teams was sent out post meeting.* ***The proposed date is Thursday 2 May 2024.***	
19.	**CIRCULATED FOR INFORMATION ONLY**	
19.1	*QUOD Data and Governance Update* **– RAG(23)29**	