NHS BLOOD AND TRANSPLANT
ORGAN AND TISSUE DONATION AND TRANSPLANTATION DIRECTORATE
THE THIRTY-SECOND MEETING OF THE RETRIEVAL ADVISORY GROUP (RAG)
ON THURSDAY 2 MAY 2024
VIA MICROSOFT TEAMS

MINUTES

Present:

Marius Berman (Chair)	Associate Clinical Lead for Organ Retrieval
Elijah Ablorsu	NORS Lead, Abdominal, Cardiff
Aimen Amer	NORS Lead, Abdominal, Newcastle
Liz Armstrong	Head of Transplant Development, NHSBT
Richard Baker	AMD Governance, NHSBT
Jennifer Baxter	BTS Representative
Sarah Beale	Service Development Manager, OTDT, NHSBT
Emma Billingham	Head of Commissioning, NHSBT
Andrew Butler	MCTAG Chair; NORS lead, Abdominal, Addenbrookes
Chris Callaghan	AMD Organ Utilisation, NHSBT
Becky Clarke	Regional Manager, Midlands and South-Central team
Sarah Cross	National Operational Co-ordinator, QUOD
Shahid Farid	NORS lead, Abdominal, Leeds
Jeanette Foley	Deputy Chief Nurse, OTDT, NHSBT
Diana Garcia Saez	National CLU Lead; Royal Brompton and Harefield Hospital
Shamik Ghosh	RAG Lay member
Rachel Hogg	Statistics and Clinical Research
Michael Hope	Abdominal Recipient Coordinator Representative
James Hunter	Clinical Science Coordinator, QUOD
Chris Johnston	NORS lead, Abdominal, Edinburgh
Hannah Jones	Business Support Officer, Commissioning, NHSBT
Jerome Jungschleger	NORS lead, CT, Newcastle
Pradeep Kaul	NORS lead, CT, Royal Papworth Hospital
Louise Kenny	Consultant Paediatric Surgeon, Newcastle
Emma Lawson	Innovation and Research Lead OTDT
Debbie Macklam	Head of Service Development, OTDT, NHSBT
Derek Manas	Medical Director, OTDT, NHSBT
Vipin Mehta	NORS Lead, CT, Manchester
Karen Mercer	Lead Transplant Co-ordinator, Kings
Cecelia McIntyre	Retrieval & Transplant Project Lead Specialist, OTDT, NHSBT
Helen McManus	National Professional Development Specialist, NHSBT
Zia Moinuddin	Manchester University NHS Hospitals
Jas Parmar	CTAG Lungs Chair; Royal Papworth Hospital
Joseph Parsons	Statistics and Clinical Research
Gavin Pettigrew	NORS lead, Abdominal, Addenbrookes
Steven Potter	RAG Lay member
David Quinn	NORS lead, CT, Birmingham
Isabel Quiroga	NORS lead, Abdominal, Oxford
Mark Roberts	Senior Commissioning Manager, OTDT, NHSBT
Ben Stutchfield	Consultant Transplant Surgeon, Edinburgh
Dominic Summers	Cambridge University Hospitals
Afshin Tavakoli	NORS lead, Abdominal, Manchester
Chris Watson	Joint Chair, Novel Technology Implementation Group
Daniel White	Recipient Transplant Co-ordinator
Julie Whitney	Head of Service Delivery, OTDT Hub, NHSBT

Sarah Whittingham	Team Manager, Yorkshire, OTDT, NHSBT
Amanda Wolfe	QA Manager, ODT, NHSBT

In Attendance:

Caroline Robinson	Advisory Group Support, NHSBT (Minutes)

		ACTION
1.	**WELCOME, INTRODUCTIONS, APOLOGIES, ANNOUNCEMENTS AND THANKS**	
	• M Berman (Chair) welcomed everyone to the meeting • Apologies were noted from Jen Barnwell, Sarah Cross, Ian Currie, Victoria Gauden, Theodora Pissanou, Ian Thomas, Bart Zych	
2.	**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***	
3.	**MINUTES, ACTION POINTS AND MATTERS ARISING FROM 30 NOVEMBER 2023**	
3.1	Minutes – **RAG(M)(23)02** – The Minutes of the last RAG meeting on 8 June 2023 were approved with one change to Item 15 - TA-NRP. The first sentence should read *'This research study involving Papworth and Cambridge seeks to exclude cerebral perfusion during TA-NRP'.*	
3.2	Action Points – **RAG(AP)(23)03** - the following Action Points were discussed	
3.2.1	Donor imaging using CT - 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. **ACTION: M Berman will chase the Royal College of Radiologists regarding their guidelines**	**ONGOING / M BERMAN**
3.2.2	NORS Annual Report – a) The report will be published towards end Summer. Work to investigate why teams are going out but not proceeding with retrieval is ongoing. This and the resilience of the CT workforce is being discussed further at the CT Centre Directors' meeting and in the work programme for SCORE. b) S Beale reported that a blank template is going back to the NORS management group for them to use, either as a team as a whole or with individual team members. This is not part of the NORS service model workstream	**a) ONGOING** **b) COMPLETE**
3.2.3	Super Urgent Liver Report – It has been emphasised that CT teams should arrive for retrieval 2 hours before knife to skin and the abdominal team 1 hour before (mainly for DBD cases). Although less delays have been reported recently, this problem continues. When this has been investigated it was noted it is often the DCD team where delays are occurring. There is only one DCD on call at any time and this can cause delays so DCD retrieval teams must communicate with abdominal teams via SNODs and the Hub is critical. Timings for retrievals also needs to be considered. DBD donors should also go down the DBD route in order to relieve the strain and there is no evidence that DBD is being converted to DCD except as a last resort.	**ONGOING** **a) D Macklam / M Roberts** **b) D White**

	ACTION: a) Comms to be agreed from CT teams to relevant parties. b) D White to remind co-ordinators that there is only one DCD retrieval team on call covering the whole of the UK.	
3.2.4	NORS Leads Forum – this has been set up so that units can learn from each other's experiences. The first meeting will be on 23 May at 4 pm.	**COMPLETE**
3.2.5	Organ - Imaging Pilot Study Protocol – presented at last RAG	**COMPLETE**
3.2.6	HTK/UW – *see Item 12.1*	**ONGOING**
3.2.7	Organ Damage Imaging Protocol – the organ damage imaging protocol was presented previously. CT will not be included due to low levels of damage. **ACTION: L Armstrong to circulate SOP and MPD regarding organ imaging**	
3.2.8	Clinical Governance – At the last RAG It was reiterated that only one biopsy should be taken regardless of whether it is inadequate or not. M Berman sent an email to R Ravanan regarding two biopsy sites incidents **ACTION: M Berman to attend the KAG meeting in July to discuss these further.**	**ONGOING**
3.2.9	Registration for Peri-operatives and Surgeons in Novel Technologies – As NORS registration has been very useful, the same recognition is now being planned for NRP to help centres appoint new fellows and surgical trainees. **ACTION: a) C Johnston to forward a draft to A Butler and then to circulate proposed guidelines b) M Berman to chase this 1st week June to ensure all parties on board.**	**ONGOING a) C Johnston b) M Berman**
3.2.10	XVIVO NIHP for DBD hearts - adult and paediatric – *See Item 20.2*	
3.2.11	Perfadex for Lung Transport – A paper will go to SMT in June	**COMPLETE**
3.3	Matters Arising – No issues were raised	
4.	**SERVICE DEVELOPMENT**	
4.1	A Feasibility Study of Uncontrolled Donation after Circulatory Death – **RAG(24)01 / RAG(24)02** This feasibility study of uncontrolled DCD donation at Addenbrookes will place up to 20 out of a pool of 25 potential donors under the age of 60 who have had a witnessed out of hospital cardiac arrest of less than 15 minutes where resuscitation failed. These will be placed on NRP in ICU after confirmation of death to give sufficient time for consent. The study has RINTAG approval and aims to substantially increase the pool of prospective donors. Details are given in the paper and protocol circulated. The Cambridge surgical team will do the retrievals with a second surgical and scrub team if necessary. It was noted: • Some teams (eg Edinburgh) would not be able to contribute to uncontrolled DCD setting as they are not in fhe fast track system. • The project has REC approval as it is considered a research programme. • There would be the same donor screening, virology, access to medical records, contact with coroner etc as with other retrievals. **The study received consensus support and as such – RAG approval.**	
4.2	Ex VIVO Lung Perfusion (EVLP) – **RAG(24)03**	
4.2.1	Manchester - V Mehta gave a presentation of the pilot EVLP programme in Manchester which has funding of £80K allowing 4 procedures to take place. Details are in the papers circulated. The main impact is that longer pulmonary cuffs, LA and trachea will be requested from the retrieval team. Directly transplantable lungs (by any centre which has a suitable recipient) should not be put on EVLP as there is no need/justification. For the Hub: • Hub offering and allocation and all retrieval stays the same process. • When a donor Lung is offered to Manchester from the Hub it will be accepted as usual if it can be used directly for transplant.	**E BILLINGHAM**

	• If it cannot be used directly for transplant the transplant coordinator will tell the Hub if it can be used for EVLP for transplant. Standard offering to other centres continues. • If all centres think the lung is not directly transplantable, the Hub will offer it back to Manchester for EVLP for transplant. • For fast track, the same applies, ie, if not directly transplantable it will be given to EVLP for transplant. The programme has previously gone to CTAG Lungs and RINTAG but does not go through the research pathway as the lungs are for transplant. It was noted: • Appropriate criteria need to be clear to avoid EVLP being regarded as an ineffective tool. • If this is not standard care in the UK, it could be regarded as 'research' (despite being standard care elsewhere. There is precedent elsewhere with a similar liver programme and it is advised that HRA guidelines are followed. **ACTION: E Billingham to circulate the HRA guidelines to establish whether this programme is classified as 'research'.** • It is suggested that this could fall under consent donor family consent for 'other scheduled purposed' and this would need to be confirmed. It was confirmed that organs are not necessarily non-transplantable but may have been declined due to eg, lack of information, no CT scan etc. This programme will be discussed further at the autumn RAG meeting.	
4.2.2	P Kaul gave a presentation of the EVLP programme at Papworth. EVLP is not standard care largely due to finance. Unfortunately, utilisation of organs in the UK is poor and mortality on the waiting list is high (with utilisation of DCD lungs in single figures). COVID also meant a planned partnership with XVIVO came to a halt, so work has been ongoing to get NHS charity funding for a time and resource limited programme lasting 1 year. A CPC application outlines any research remits and highlights that this is an extension of the lung transplantation programme. • Any offer to Papworth will be evaluated. • Use of EVLP will be considered for any borderline offers using standard criteria. • Those donors who appear to have poor function, but previous good medical history will be those who are considered for EVLP. • The hope is that EVLP will reduce primary graft dysfunction. • No offering or acceptance practices will be changed. Papworth proposed NHSBT keeping a registry of all EVLP patients so there is data that could help get national funding in future. However, it was noted that while there is a model from liver perfusion work, creating a registry is time consuming and expensive and the advisory group would need to define the data that is needed and how this will be recorded**.** **ACTION: a) P Kaul to send the proposal to NHSBT Commissioning/E Billingham b) Proposal to be discussed with G Pettigrew offline regarding whether this is 'research'.** **Post RAG, there were further discussions with Professor Manas, Dr Pettigrew and a representative from the MHRA.** **Professor Manas confirmed that the Papworth protocol could be considered as a service development but that the Manchester protocol would require further refinement and should be considered as research. As recommend further discussion with the MRHA was undertaken about the RPH protocol and it was confirmed that there were no regulatory issues with the RPH proposal.**	**P Kaul / E Billingham / M Berman** **P Kaul / G Pettigrew / M Berman**

5.	**CLINICAL GOVERNANCE – RAG(24)04**	
	The paper was circulated prior to the meeting and a couple of cases included are worth sharing with teams. DCD heart teams' capacity is highlighted and this is being discussed within Commissioning and will be reviewed at HOG. Wider service review underway. A wider service review and follow up is planned. • Noted that one case refers to a delay due to waiting for lymph and spleen. This is not needed for hearts for transplant.	
5.1	Clinical Governance ODT-INC-7515 (ODT-OCC-9425) – Details were circulated for information.	
6.	**DCD HEART RETRIEVAL – SIGNED OFF BY RETRIEVAL SURGEONS – RAG(24)05 - 2:14.**	
6.1	DCD Hearts – As the current equipment in use for DCD Hearts is the most expensive single use item it is important that this is used responsibly. A draft proposal for retrieval surgeons was shown at the meeting suggesting: • All surgeons are signed off to perform DBD heart and lung and DCD lung retrievals. Registration would be maintained by NHSBT. • Surgeons should have been involved in >15 DCD heart retrievals. • Surgeons should have performed >10 DCD heart retrievals using direct procurement as first operator to include aspects of retrieval – planning, team brief, surgery, managing the heart on novel technology system during its delivery to the recipient hospital. • For those with previous DCD heart experience, a lower number of procedures would be required as per their NORS Clinical Lead. Assessment and sign off can be by an experienced DCD heart surgeon. • Surgeons should have attended formal training delivered by a novel technology company, (eg TransMedics for the OCS system). • It is desirable that surgeons attend or review learning material from the NHSBT masterclass aNRP with direct lung procurement and participate in monthly DCD heart debriefs. • Final sign off will be by a surgeon with current DCD heart retrieval expertise (as per NHSBT current record at time of sign off). This proposal has been circulated to CT Centre Directors and NORS leads. The following comments were made at RAG: • More definition is needed on criteria for previous DCD heart experience. Some senior surgeons may have previous experience from some time ago. • There is no distinguishing between heart retrievals when there is NRP or no NRP currently. It is noted there are still many surgeons who have not experience N-ARP retrievals. It was felt that observation of a DCD N-ARP retrieval should be a requirement. • Performing >10 DCD heart retrievals remains slightly unrealistic given the number of these in the UK currently. It will probably take some time to register surgeons so experience of a high number of retrievals is possibly more important than numbers of surgeons achieving the above competencies. However, given the increased numbers of DCD runs, it could be easier to achieve the numbers desired. • There should be some form of assessment for joining the register. There is currently no maintenance of competency and there is reliance on NORS leads to send out competent surgeons to do retrievals.	**M Berman**

	The OCS Competency Pack to be used to create an OCS operator register (which was not circulated prior to the meeting) will be discussed further offline. **Action: To be further discussed and finalised. M. Berman**	
7.	**SUSTAINABILITY AND CERTAINTY IN ORGAN RETRIEVAL (SCORE) UPDATE**	
	D Macklam gave a presentation to the group. SCORE aims to create and deliver improvements within OTDT over 10 years to increase certainty and provide support for sustainability. A change of culture from 'as fast as possible' to 'increased certainty' will be needed. For NORS: • Offering opens at 08:00 and closes at 16:00 • The proposed planned arrival time for NORS teams is between 22:00 and 03:00 • NORS attendance is expected within 24 hours of registration with the Hub with abdominal achieving 97.5% and CT 92.7% of this target. • It is assumed there will be capacity for a priority pathway (eg SU liver recipients), one retrieval per team per night and donors are registered with the Hub by 08:00 • Organs arrive at recipient hospitals during daytime hours. Implant then takes place at optimal time for surgery staff and recipient. Factors affecting the Planned Arrival Window (PAW): • Whether the donor has CT organs placed (as these have shorter viability than from retrieval to implant and would therefore have to arrive later in the process. • What time the organs have been accepted • Flight availability – it is anticipated that NORS teams are allocated for the evening and transport arranged. The next workstream meeting is on 11 June 2024. The NORS Workstream Group is a fixed term group that will look at: • The impact of PAW on to improve workforce planning by Trust and health boards. • Engagement with Trusts and health boards to help retain staff. • Empower NORS teams to raise their profile within Trusts. • Facilitation of shared practice and form a NORS Collaborative Forum. An outline business case will come out later this year. **ACTION: S Beale to look at impact on ITUs of new arrangements (both for donors and recipients)**	**S Beale**
8.	**ORGAN DAMAGE REPORT – RAG(24)07**	
	This report was circulated prior to the meeting: • For DBD donors, damage rates are high ranging from 89% for pancreas to 96% for heart. DCD donors had slightly lower damage rates ranging from 86% for lungs to 98% for hearts. It is noted that the numbers of pancreas retrievals are small, and it is a challenging procedure. • Most teams were in line with the national rates for damage free retrievals across donor types with some exceptions as indicated in the paper circulated. To ensure more accurate reporting it is important that recipient surgeons report damage on HTA-B forms as soon as possible.	
9.	**ITEMS FOR NEXT NORS ANNUAL REPORT (ORGAN RETRIEVAL TIMES, STAND DOWN CATEGORIES)**	

	M Berman asked attendees to feedback what information they would like to include in the next NORS Annual Report. Suggestions include cross clamp organ perfusion, out of the body boxing, and leaving theatre were suggested.	
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10.	**A-NRP STEERING GROUP**	
	C Watson reported that there is some funding for this from the Department of Health to go alongside funding previously established from the Scottish, Northern Irish and Welsh Health Boards. This amounted to £1M. • This does not allow centres to employ staff or purchase new equipment. For this more notification is needed about recurrent funding. • Ben Cole will go to all retrieval centres asking what is needed to produce a service now and in the future. • NRP now accounts for about 20% of all DCD retrievals, and 50% of all livers transplanted in this financial year. From NRP retrieval about 66% of livers are retrieved compared to non-NRP retrieval which is about 25%. • 7 out of 10 NORS teams now undertake NRP. • Utilisation is high and there are better outcomes at 3 months and 1 year for livers and kidneys. Numbers for pancreas are not sufficient to provide a statistical difference. It was suggested by sensible allocation of teams able to provide NRP to DCD donors, teams could substantially increase the number of liver transplants that take place. It was noted that not all teams are funded centrally to deliver NRP – only Cambridge, Edinburgh and Cardiff receive funding. Increased funding this year (albeit limited) could be used to ensure more teams could use NRP. **ACTION: D Macklam, J Whitney and A Butler to take this issue forward via the SCORE steering group.**	**D Macklam / J Whitney / A Butler**
11.	**MEDICAL DIRECTOR'S UPDATE**	
	D Manas reminded the group that the advisory groups are there to ratify decisions and new initiatives and to decide on policy and allocation. Any proposals coming out of sub-groups and working groups will need to come to the advisory group for approval. Those involved in retrieval were thanked for their hard work and better recognition will be a focus in SCORE.	
11.	<u>New Developments</u> • RINTAG has been replaced with an R&I Steering Committee to be chaired by R Ravanan until a new Chair is appointed. The first meeting will take place after a review of all the research underway has taken place. • <u>Finances</u> at NHSBT remain tight but there is funding for DCD Hearts, CLUs and HSV8 for the coming year. • Money (£1M) has been allocated for NRP, but this cannot be used to run the service or buy equipment. It can be used to employ perfusionists or to educate people to support units. • A meeting held in the House of Lords asked questions regarding poor donation rates. In response, NHSBT highlighted issues like NRP, TA-NRP, ARCs, DCD Hearts etc so there is now increased knowledge at a high level. With a new government likely and potential new funding the NHSBT Board is keen to get ARCs started. • <u>Histopathology</u> – the service is ready to roll out in the next 2 months. Cambridge and Scotland will not join the service. Machines in these centres will be moved to units who are part of the service. • <u>OUG</u> is ongoing via ISOU. Trust engagement is a particular priority for reimbursement for retrieval and transport.	

	• Cardiothoracic review took place in the last week over 4 days. All teams presented well and were supportive of each other with plans for the future. Utilisation is the big problem with 70-80% turn down. There was discussion about CT scanning a working group will be set up to facilitate this. • Retrieval CUSUMs – responses to these are required in the same way as any other CUSUM. • HHV8 – all donors are screened. There have been 4 cases of transmission. There is no standardised treatment, but a working group will be set up to look at how patients can be followed up and treated.	
11.2	New appointments • Following Tracy Rees' retirement, David Briggs will be the H&I rep for the coming 6-8 months. • Lorna Marson has left her role as AMD for Research and is now a non-executive board member at NHSBT. • Laura Burton will be a Project Manager for OUG	
12.	**CRITICAL UPDATES**	
12.1	HTK/UW – Following concerns particularly regarding pancreas transplant and pancreas outcomes when HTK was introduced an audit was completed based on data supplied by centres on deceased donors who donated an abdominal organ between 1 Jan-30 Sept 2022 where UW was used and 1 Jan-30 Sept 2023 where HTK was used. The transplant cohort was: • Kidney first adult (>=18 years) – kidney only transplant • Pancreas first adult (>=18 years) - SPK transplant • Liver first adult (>=17 years) – liver only transplant In summary: • Slight drop in liver and kidney utilisation – this is an unadjusted analysis so there may be other factors influencing results • No significant difference in 90 day survival for any organ • Significant increase in kidney unadjusted DGF rate. However, this is not significant when adjusted and likely caused by increased number of DCD donors and longer cold ischaemia times in the HTK period. • Significantly lower 3-month eGFR in the HTK period which may be due to increased rates of DGF. • No significant difference in pancreas or liver outcomes. At the meeting, the RAG group reported some concerns regarding use of HTK including: • Immediate graft losses last year (not seen previously) and consecutive cases that could not be explained. • Incidents of thrombosis for no obvious technical reason • Increased pancreatitis resulting in longer hospital stays. • Some teams are not removing the organs in sequence. This is poor practice and while there is no data to support it, this could be why there is more DGF reported for kidneys. • Arterial damage on livers has been noted. Time frames for a hepatectomy of 14 minutes recorded on A forms would not support perfusion of 10 litres of HTK. However, there are higher rates of no damage reported via HTA-B forms during the HTK period. • Refrigerating HTK and shorter expiry dates are onerous. For centres like Edinburgh who rely on flights, carrying extra weight can mean trainees are not able to join the retrieval. The investigation with Bridge to Life is still ongoing. There are regular calls with the MHRA by way of update. E Billingham will write to centres once the	

	tender is awarded. This item will be discussed again at the next RAG meeting.	
12.2	Graft pancreatectomy times - There have been anecdotal reports that in some cases the pancreas is being left until the liver is perfused, bagged and boxed. No graft pancreatectomy times in donors are collected. This leads to prolonged relative warm ischaemia which cannot be detected in the recipient centre. It leads to sudden unexpected severe graft pancreatitis or graft loss and can be a serious risk to patients. It is suggested that pancreas and renal graft times should be added to the A forms as a matter of clinical urgency and good governance. A previous NORS review in 2015/16 looked at KPIs for timeliness and these are still part of the NORS contract. **ACTION: E Billingham and R Hogg to look into this issue offline.**	
13.	**DCD HEART OVERSIGHT GROUP (HOG)**	
	The next meeting, following postponement of the March meeting will take place in the next couple of weeks. • At the last meeting, D Gardiner gave a presentation around DCD donors and particularly DBD donors proceeding as DCD donors over 10 years. This amounted to less than 2% (c.12% per year). • There was an update on how the mOrgan is proceeding at Papworth to enable DCD hearts. Clinical trials are likely at the end of this year. • DCD Heart Allocation – based on centre basis currently and there is a move to look at the feasibility to move to SU and U route. The recommendation is that hearts are allocated on an urgent basis with moving to centre based if they are not accepted. This will go to SMT in May due to the implication for flight use. • Current activity challenges for DCD hearts. DCD donors have increased creating pressure for DCD teams leading to increased incidents. A fixed term working group will be set up to look into this following the HOG meeting. It was suggested use of flights are reviewed given the cost and environmental issues they have so they can be allocated more effectively. **ACTION: M Berman to involve lay members (S Potter and S Ghosh) in discussions of this issue in future.**	
13.1	Plan for Greater CT Resilience – This will be discussed as part of the CT review taking place shortly.	
14.	**CUSUM MONITORING – RAG(24)08**	
	This paper summarising CUSUM monitoring of abdominal organ loss due to retrieval damage was circulated prior to the meeting. The data circulated looks at current organ loss due to retrieval damage rates with an expected rate, based on national data between 1 April 2016 and 31 March 2021. • Each quarter, reports are sent to each team monitoring their organ loss due to retrieval damage rates. • Since the last Retrieval Advisory Group, there have been no signals.	
15	**NORS CLINICAL LEADS FORUM – 23 MAY 2024**	
	All NORS leads have been invited to this meeting which will start at 4 pm.	
16	**EDUCATION**	
16.1	Masterclass Update / Future updates – • The last Masterclass was held virtually and has proved a very successful format providing more accessibility and more participation from other countries. Dissections were recorded. This year, it will continue to be virtual from York and faculty members should have	

	received details. Anyone wishing to contribute should contact I Currie and M Berman. • A hands-on Masterclass was also held in Cambridge. Feedback was very good and another session at Cambridge is planned. • The next virtual Masterclass will take place on 12-14 November 2024. • The cadaveric Masterclass will be on 14-15 January 2025. It was suggested that as QUOD has not been included in this for the last couple of years, it is included again this year. Confirmation is also needed on when the NRP Masterclass is to be held.	
16.2	Lung Retrieval with A-NRP – With funding from NHSE and NHSBT, 2 sessions were held. Over 40 CT surgeons participated in Edinburgh with lungs procurement using the French model of utilising staples. **ACTION M Berman to give E Billingham numbers and costings for staples to see how this can be taken forward.**	**M Berman**
17.	**RESEARCH**	
17.1	NORS certified surgeons attending retrievals for research organs • Previous RAG meetings have discussed increasing the number of hearts available for research. Through INOAR there has been an increase in organs for research amounting to 300+. However, there have not been so many hearts. Addenbrookes and Edinburgh abdominal teams have therefore been trained to perfuse DBD hearts with cardioplegia. • Now a second offering point is proposed to offer hearts that have been declined for transplantation for research. Training will be needed for SNODs. The documents are currently out with QA and it is hoped this can go live in June. • It is envisaged that CT NORS teams will stay on site to do retrievals depending other activity and how busy the team has been previously. This will part of a larger review of the contract and KPIs for this will be explored. It is hoped that this will also enable good training for younger surgeons. The need for appropriate clinical standards was emphasised.	
18.	**TA-NRP**	
	Paused in 2019 – A full research study is due to start imminently. Several A-NRP with CT assessment have taken place at Cambridge. Assessment will follow to check whether UK regulations are being maintained and there is positive feedback so far.	
19.	**BLUE LIGHT MONITORING – RAG(24)09**	
	The latest report indicates that higher density areas across the country are requesting blue lights. Blue lights for kidneys have decreased and the number of blue light activations overall have also decreased.	
20.	**ANY OTHER BUSINESS**	
20.1	Perfadex for Lung Transport – A paper on this will go to SMT in June.	
20.2	Update on Paediatric DBD hearts – HOPE – L Kenny gave a full presentation at RAG in November. Last week received a blanket waiver was received from HMRA for all children on the heart waiting list at the Freeman Hospital and all children will be consented for XVIVO retrieval. Currently, the Freeman Hospital will retrieve for Freeman only, but the hope is to expand this in future. Several hearts in the last few years have been turned down, usually due to distance and recently because of the airport closure in Newcastle so this new initiative will make a difference. The process will be managed via the Hub and the Freeman team will fly with the equipment needed for DBD only. The scheme will be for paediatric retrieval only for patients on the Freeman	

	list who are 17 years and under and the waiver received is based on age. A further update will come to the next meeting.	
20.3	Key points from today's meeting for cascade to centres – to be circulated in the Minutes – M Berman summarised points for RAG attendees to take back to their teams: • There was one governance issue regarding liver retrieval and IVC. Dissection should be inside the pericardium of the IVC. • Retrieval teams should not challenge the donation process. • There is no evidence of an increase in DBDs going through the DCD pathway despite anecdotal reporting.	
20.4	Date of next meeting – 7 November 2024 – This will be face-to-face and the venue is to be agreed	
21.	**FOR INFORMATION ONLY**	
21.1	*QUOD Data and Governance Update* ***– RAG(24)06***	