NHS BLOOD AND TRANSPLANT ORGAN AND TISSUE DONATION AND TRANSPLANTATION DIRECTORATE THE THIRTY-FIRST MEETING OF THE RETRIEVAL ADVISORY GROUP (RAG) ON THURSDAY 8 JUNE 2023 VIA MICROSOFT TEAMS

MINUTES

Present:

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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
Richard Baker	AMD Governance, NHSBT
Sarah Beale	Service Development Manager, OTDT, NHSBT
Helen Bullock	Product Owner, OTDT, NHSBT
Andrew Butler	NORS Lead, Abdominal, Addenbrookes; Chair, Multi-visceral
	Advisory Group, NHSBT
Chris Callaghan	AMD Organ Utilisation, NHSBT
Akila Chandrasekar	Transfusion Medicine Consultant, NHSBT
Becky Clarke	Regional Manager, Midlands and South-Central team
Sarah Cross	National Operational Co-ordinator, QUOD
Ian Currie	AMD Organ Retrieval, NHSBT
Jeanette Foley	Deputy Chief Nurse, OTDT, NHSBT
Henk Giele	Consultant, Plastic Reconstruction and Hand Surgery, Oxford
Shamik Ghosh	Lay Member for RAG, NHSBT
Michael Hope	Abdominal Recipient Coordinator Representative
Chris Johnston	NORS Lead, Abdominal, Edinburgh
Jerome Jungschleger	NORS Lead, CT, Newcastle
Emma Lawson	Innovation and Research Lead OTDT
Debbie Macklam	Head of Service Development, OTDT, NHSBT
Cecelia McIntyre	Retrieval & Transplant Project Lead Specialist, OTDT, NHSBT
Vipin Mehta	NORS Lead, CT, Manchester
Karen Mercer	Lead Transplant Co-ordinator, Kings
Lisa Mumford	Statistics and Clinical Research, NHSBT
Michela Noseda	Lecturer, Cardiac Molecular Pathology, Imperial
Jas Parmar	Chair, CTAG Lungs Advisory Group, NHSBT
Gavin Pettigrew	NORS Lead, Abdominal, Addenbrookes; Chair, RINTAG
Karen Quinn	Assistant Director, UK Commissioning, NHSBT
Isabel Quiroga	NORS Lead, Abdominal, Oxford
Miguel Angel Reyes Roque	Statistics and Clinical Research, NHSBT
James Richards	Royal Free Hospital
Mark Roberts	Senior Commissioning Manager, OTDT, NHSBT
Antonio Rubino	Intensive Care Physician, Royal Papworth Hospital
Ben Stutchfield	Consultant Transplant Surgeon, Edinburgh
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
Bart Zych	NORS Lead, Cardiothoracic, Harefield
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In Attendance:

Caroline Robinson	Advisory Group Support, NHSBT (Minutes)
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		ACTION
1.	WELCOME, INTRODUCTION, APOLOGIES,	
	ANNOUNCEMENTS AND THANKS	
	 M Berman (Chair) welcomed everyone to the meeting Apologies were noted from Ayesha Ali, Aimen Amer, 	
	Miriam Cortes Cerisuelo, Shahid Farid, James Hunter,	
	Derek Manas, Hynek Mergental, Majid Mukadam,	
	Theodora Pissanou, Ian Thomas, Douglas Thorburn,	
	David van Dellen	
1.1	Announcement of new NORS lead – David Bartlett, the new	
	abdominal lead for Birmingham was announced.	
1.2	Resignation of Lay member – In her absence, Hannah Poulton	
	was thanked for her previous attendance and hard work at RAG.	
	M Berman acknowledged the important role of lay members in	
	the work of the advisory groups. It is hoped that as there are now	
	two vacancies for lay members, recruitment is planned to replace	
	her.	
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	
3.1	Minutes - RAG(M)(23)01 - The Minutes of the last RAG meeting	
0	on 8 February 2023 were approved.	
3.2	Action Points - RAG(AP)(23)01 - The Action Points from the	
	previous meeting on 8 February 2023 were updated as follows:	
3.2.1	AP1 – MCTAG Update – Donor imaging using CT in	ONGOING
	circumstances where a modified MV graft is being considered is	M Berman / A
	an aspiration to minimise delays and inappropriate travel for	Butler
	retrieval teams and recipients. A working group to discuss	
	involvement of SNODs, CLODs, and the Donation Action	
	Framework is planned and a response from a representative from	
	the Royal College of Radiologists to join the group is awaited.	
3.2.2	AP2 – NORS Annual Report – Work to investigate why teams are	ONGOING
	going out but not proceeding with retrieval is ongoing	D Manas / M
2 2 2	AD2 Plug Light Audit - L Mumford will being a general generalist	Berman COMPLETE
3.2.3	AP3 – Blue Light Audit - L Mumford will bring a report regarding	COMPLETE
	the relationship between flights and blue light use to the next	
3.2.4	RAG meeting. AP4 – Critical Updates – UW/HTK	COMPLETE
0.2.4	AI 7 - OIIIIOAI OPUAICS - OW/ITIK	See Item 5.1
3.2.5	AP5 – Clinical Governance Report - Since the last RAG meeting,	COMPLETE
0.2.0	work has been undertaken to see if there are ways to strengthen	
	the electronic format for the surgical safety checklist to report	
	ABO transcription errors or to return to a paper format until	
	Transplant Path is introduced later this year. The checklist is	
	ready for circulation to NORS teams shortly.	
3.2.6	AP6 – Super Urgent Liver Report - Whenever CT organs are	COMPLETE
	offered, the length of process time increases significantly (8.8	See also Item 7
	hours for CT compared with 5.4 hours for abdominal offering).	
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	The wording 'expression of interest' has been removed from the documents but remains for the moment on the computer system. Changing the culture to definite acceptance of an offer will take more time. Further changes to the offering system are coming due to the work on the SCORE programme.	
3.2.7	AP7 - Super Urgent Liver Report –	ONGOING
	At the last meeting it was emphasised that CT teams	a) R Hogg
	should arrive for retrieval 2 hours before knife to skin and	b) M
	the abdominal team 1 hour before. However, frequently,	Roberts c) M Berman
	both teams arrive at the same time which leads to delays. ACTION: R Hogg will produce a report for the autumn	/ C
	meeting.	McIntyre
	 One factor affecting delays is drivers who state they need 	momityio
	to take a break, sometimes after only 2 hours. 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. Further	
	information is available at <u>Drivers' Hours (dvla-contact-</u>	
	number.co.uk)	
	ACTION: M Roberts to check break times	
	Refreshments were provided in the past, but this is now North past. Teams are reminded that under A genda for. On the control of the c	
	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/C McIntyre to send teams draft	
	letter for their trusts regarding responsibilities for	
	refreshments	
	 Teams can delay the process particularly when it's close 	
	to handover	
3.2.8	Organ Damage Report – L Mumford will look at DCD organ	ONGOING
	specific damage rates by NRP status and there will be a report at	L Mumford
3.2.9	the next RAG meeting Organ Damage Imaging Pilot Study Protocol –	ONGOING
3.2.9	E Ablorsu reported that on completion of the pilot there	D Manas
	was positive feedback mainly from SNODS and	Dimarias
	especially from the SW region. 3 teams in Leeds,	
	Manchester and Cardiff have implemented the protocol	
	with wider rollout likely and a report at the next RAG	
	meeting	
	 A meeting has also been held with different imaging 	
	groups (damage / organ utilisation / research /	
	governance / Transplant Path) to ensure they were all	
	working in the same way.	
	ACTION: D Manas to arrange a follow up meeting with all imaging groups	
3.2.10	CUSUM Experience Feedback – A Tavakoli's presentation	COMPLETE
0.2.10	highlighting his team's experience of looking at organ damage	
	within a short period of 3 months has been circulated in an	
	within a short period of 3 months has been circulated in an anonymised version to be included on the website.	
3.2.11	anonymised version to be included on the website. Offering Cardiothoracic Organs for research - Akila	COMPLETE
3.2.11	anonymised version to be included on the website. Offering Cardiothoracic Organs for research - Akila Chandrasekar/Andrew Parry have been invited to this RAG	COMPLETE See Item 15
	anonymised version to be included on the website. Offering Cardiothoracic Organs for research - Akila Chandrasekar/Andrew Parry have been invited to this RAG meeting to discuss homograft and valve requirements.	See Item 15
3.2.11	anonymised version to be included on the website. Offering Cardiothoracic Organs for research - Akila Chandrasekar/Andrew Parry have been invited to this RAG	

3.2.13	NHSBT Endorsed NRP Accreditation for Surgeons – A small	COMPLETE
	group is taking forward the proposal for the NORS registration	See also Item
	process to expand it to include NRP for perfusion practitioners	10.7
3.3	Matters Arising - No issues were raised	
4.	MEDICAL DIRECTOR'S UPDATE	
4.1	In D Manas' absence, C Callaghan reported the following:	
	 CLUs – NHSBT has continued to fund lead CLUs but 	
	there is still no funding for local CLUs, although these	
	have continued in their roles. A new lead Liver CLU will	
	be recruited following the departure of R Prasad.	
	 DCD funding – is secure for 2023-24 but sustainable 	
	funding beyond this is unconfirmed and remains a	
	concern.	
	 NRP/Histopathology – Although funding has been 	
	requested there is no confirmation from NHSE or DHSC,	
	or for histopathology.	
	 OUG – following publication of the OUG report, an 	
	implementation steering group, ISOU, has had its first	
	meeting and will decide who will take responsibility for	
	each recommendation. There is no funding attached to	
	this work.	
	 <u>Lung Summit</u> – The CT review is an important part of the 	
	OUG work. Following the Lung Summit in February, lung	
	transplant numbers have increased, and the full	
	recommendations will be discussed at CTAG Lungs in	
	June.	
	Consent – DBD numbers have dropped in the last year	
	while DCD numbers have increased. Overall, consent	
	rates have decreased which is a concern. A meeting is	
	planned with DoH minister, Neil O'Brien to discuss this and other issues.	
	 RINTAG – This advisory group is to be dissolved and 	
	replaced with an R&D steering committee to fall in line	
	with other areas of NHSBT.	
	EOS Mobile/EOS replacement – Transplant Path is	
	progressing well, and implementation is planned for later	
	this year. See Item 14	
	 HHV8 – A letter has been circulated by I Ushiro-Lumb/D 	
	Manas regarding the introduction of HHV8 screening for	
	deceased donors. Following implementation, results will	
	come back after retrieval.	
	 Junior Doctors' strikes – the next strike planned starts on 	
	14 June. All teams are asked to check the effect of this	
	on the NORS teams.	
4.1	New appointments – there are no new appointments to report.	
_	ODITIOAL LIDDATES	
5.	CRITICAL UPDATES	M Danner:
5.1	HTK/UW –	M Berman
	HTK must be kept refrigerated while in storage. Additional fridges were supplied to the NORS teams to enable this.	
	fridges were supplied to the NORS teams to enable this	
	to happen.	
	If fridge capacity is an issue for any of the teams, it is	
	suggested teams contact Pharmapal.	

	 In summary: Manufacturer's instructions are to keep HTK refrigerated while in storage, and to transport on ice. Full storage instructions are circulated with these Minutes UW/HTK preference Emma Billingham contacted all retrieval teams earlier this year to find out whether they would prefer to use UW or HTK. She received responses from Birmingham, Cardiff, Edinburgh, Kings, Leeds, Newcastle and Oxford all stating they would prefer to use UW (other centres have not yet responded). We do not yet have a contract in place with an alternative supplier of UW but intend to go out to tender shortly for this. In summary: NORS teams' preference is for UW. A tender process will be undertaken to secure contracts for all organ perfusion fluid including UW. ACTION: M Berman to write to E Billingham re HTK storage and centres' preferences regarding UW v. HTK 	
6.	CLINICAL GOVERNANCE – RAG(23)09	
	 The Clinical Governance report is circulated again with these Minutes. Two cases were highlighted: In the first case a pancreas arrived at the transplant centre with the bile duct attached. It is agreed that the bile duct suture ligation should occur at the point of retrieval. In the second incident, both abdominal and CT teams were present. When the CT team had left and the cavity was being closed, it was found the heart was missing. It was later found in clinical waste. It was emphasized that retrieval teams who remove an organ that is not to be transplanted, are required to replace it in the donor's body out of respect and for traceability. This was previously highlighted after a serious incident in 2020. 	
7.	SUSTAINABILITY AND CERTAINTY IN ORGAN RETRIEVAL	
	(SCORE) UPDATE	
	D Macklam gave an overview of the Sustainability and Certainty in Organ Retrieval (SCORE) project which aims To reduce operational pressure on the system and provide certainty through planned elective windows for retrieval	
	 Re-design the retrieval service model to optimise capacity against donation potential Identify areas where recruitment, retention and development can be improved Ensure service sustainability for NRP and DCD Hearts, then support future innovation, new techniques and 	
	 technologies to increase organ quality and preservation. To improve survival outcomes for patients; some organs function better if reperfusion does not take place at night. For NORS teams the aim is: To provide more predictable working patterns to reduce workforce planning pressures Identify best practice models for NORS staffing Increase local Trust awareness and provide 	
	acknowledgement through formal service recognition	

	Further strengthen the network through facilitation of community shared learning The SCORE Programme Board has approved the structure of workstreams which are now in the process of being set up. The initial design and planning phase will last until the end of August with detailed design and planning running from September to March 2024. Implementation is planned for April 2025. Colleagues who wish to be involved in the programme workstreams should contact D Macklam and SCORE will become a standing item on the RAG agenda.	
	ODOAN DAMAGE REPORT DAG(00)40	
8.	ORGAN DAMAGE REPORT – RAG(23)10	
	 The report of organ damage rates circulated prior to the meeting, covers the period 22 July 2021 to 31 March 2023. M Angel Reyes Roque was thanked for his work on this. In summary: Rates of damage free retrievals for DBD organs were high ranging from 87% for pancreas to 97% for heart. DCD donors had slightly lower rates ranging from 85% for lungs to 98% for hearts. Most teams were in line with the national rate for damage 	
	free retrieval across donor type and some organs had some significant differences as outlined in the circulated report. The challenges of maintaining competencies in the team when there is low intensity activity for some areas was highlighted.	
	2:43	
9.	CUSUM MONITORING – RAG(23)11	
	B Stutchfield gave an overview of work that has been done by R Hogg, H Mergental and I Currie over several years to introduce quarterly CUSUM monitoring for abdominal organ loss due to retrieval damage. Details are in the paper circulated. Key points raised were: • The methodology compares organ loss due to retrieval damage rates with the expected rate based on national data between 1 April 2016 and 31 March 2021. • Each quarter, teams will be asked to monitor their organ loss due to retrieval damage. • During the first 12 months, there will be no formal monitoring, but teams may be asked to investigate results by the OTDT Medical Director, AMD for Retrieval and the RAG Chair. The following feedback/comments were made: • Maintaining competencies for surgeons in pancreas retrieval which is a small level of activity, is challenging and this may affect injury rates for centres. • A comment was made that challenging data can be lengthy and difficult and requires contacting several different departments. It was clarified that the HTA-B form is a medical record and therefore it needs to be returned to the person who completed it if any change is needed. Centres are encouraged to report damage or to state whether any of the monthly data returns are inaccurate as once they are included in CUSUM it is hard to remove them. J Whitney, M Roberts and Governance also review cases where there is a difference between what is reported and what centres report for moderate and severe damage and ask for clarification. This is not	

	done for mild damage because they are not included in CUSUM reports.	
10.	EDUCATION AND RESEARCH	
10.1	Masterclass Update – The Masterclass will continue virtually with a series of lecture-based material from 30-Oct-1 Nov (Monday, Tuesday, Weds). However, as it is difficult to deliver operative skills virtually, there will also be 2 days of cadaveric sessions in the Evelyn Cambridge Surgical Training Centre on 4-5 Dec. 50 delegates are planned with around 20 tutors. Some lecture content will be included on techniques for operative management of donors and tutors will be needed for this. Both the virtual and cadaveric sessions are priced lower than the original Masterclass because of the financial support of NHSBT and external sponsors and should deliver around 40 hours of education. Dates will be circulated to everyone in the next couple of weeks.	
10.2	Lung Retrieval with A-NRP – A one day event was held in Edinburgh for CT community showing a technique being used in Strasbourg by Professor Anne Olland on how to retrieve lungs in the context of abdominal NRP in cadavers. This arose from a discussion about bleeding during lung retrieval. The event has been videoed but not circulated yet as it needs editing and finalisation. There will be another event on a single day basis for those who were unable to attend, but this may require trusts funding this for their attendees for travel and accommodation.	
10.3	 MCOG – The Masterclass Organising Group (MCOG) consisting of I Currie, M Berman, S Beale, E Billingham, NORS leads and other specialist perfusion practitioners meet to plan the Masterclass and other events and educational activities. These include: DCD with NRP - possible dates: 26 Sept and 2 Oct – this will not be as inclusive as the virtual Masterclass and is likely to be at College of Surgeons in Edinburgh Delivery of an online knowledge base for retrieval, consisting of a library of video material provided by 'learnPro'. Around 85% of UK hospitals have 'learnPro' accounts for use by retrieval team members, nurses and SNODs, and surgeons who will have dedicated logins. Hospital trusts need to ensure their governance procedures are followed for patient authorisation and donor family permissions. Retrieval Workbook – S Farid is taking the lead on developing this. It will be a hard copy that attendees will take away 	
10.4	NORS Compliance – There has been an increase in teams challenging a mobilisation call particularly around handover times or asking to renegotiate departure and arrival times. This then results in a lot of work re-organising teams and theatre times. If the system is to work efficiently and according to the contract, teams need to mobilise when the request comes through, and the tariff will be paid. There should be very few reasons for renegotiation of the time. Work is ongoing to record any changes and the first requested and final times for mustering and the results will be implemented on 31 July. Comments from the group included: • IT estimates of time needed for travel can be wrong and this may affect a team's arrival time.	

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	 Travel times do not always reflect different road conditions at different times of the day. Teams are asked to speak to SNODs about any significant delay due to traffic. It can be challenging to pay people for mobilisation; team members may not be paid by their trusts for the period after their contracted time for work with the trust. It was noted that the Hub do their best not to mobilise teams near the time of their handover and will only do so if SNODs insist that it is needed due to instability or a family request. The contract states that teams can be mobilised up to 2 hours before the end of the on-call
	period and the tariff will be paid for the period after that 2-hour period.
	 As part of its remit SCORE will look into these issues in various workstreams.
	NORS leads are asked to remind team members to be civil when talking to non-clinical members of the Hub team.
10.5	INOAR and Utilisation or Organs for Research – RAG(23)12 – E Lawson gave an update following an internal stakeholder engagement meeting held in January and recent discussions at RINTAG. The purpose of the programme is to increase the number of organs available for research, focusing mainly on hearts, lungs, diabetic pancreas which have rarely been available previously. In January, the programme celebrated 2 years' work and offering of over 620 organs for research of which 172 have been accepted.
	 Only 11% of hearts have been accepted and removed for research which remains a concern (37/330). A pilot has been set up lasting 3-6 months for Cambridge and Edinburgh abdominal NORS teams to be trained to perfuse and package hearts for research studies in the absence of a CT NORs team. 40% lungs have been accepted (68/174)
	58% of diabetic pancreases have been accepted (67/116) The latest report was circulated for information.
10.6	Retrieval Adversity Score – RAG(23)21 – S Beale gave a presentation to look at the intensity of work for on call retrieval teams, (ie, hours call out/total hours on call), the additional adverse factors experienced by NORS teams resulting in an adversity score (eg back-to-back retrievals, delays in theatre, lengthy delays in travel, involvement of NRP, traumatic death of donor, paediatric donor). The adversity score is Sum of adverse events/no. of donors Base line score of 1 The higher the score, the more adversity experienced.
	Details are shown in the attached presentation. This has been taken to the NORS Management Forum where it was supported. One limitation is that data received is 2 months out-of-date, but it can be used to monitor activity to see if there are significant trends. Teams are invited to share this information with their teams and to use it in contract review meetings.
10.7	Registration for Peri-operatives and Surgeons in Novel Technologies – MCOG is working on registration for eg, advanced perfusion practitioners for NRP, OCS Hearts or being an NRP surgeon who can practise independently. Development

	of requirements and criteria will be discussed further at the Autumn RAG meeting.	
11.	TA-NRP	
	A Rubino discussed the research study across Papworth and Edinburgh that seeks to exclude cerebral perfusion during TA-NRP. This will happen specifically at Edinburgh due to logistics and facilities for doing CT angiograms. 10-15 cases have been factored in for the study in total and it has been discussed at NODC and RINTAG previously and will also go to KAG. The plan is to start in about September.	
12.	PACS SYSTEM FOR NHSBT - RAG(23)13 &RAG(23)14	
	A Rubino discussed the proposal to have a national NHSBT PACS system to help transfer of imaging ultrasound, CT lung, CT coronary angiograms from donor centres to transplant centres. This is to help avoid using WhatsApp and poor-quality image sharing. Due to time restraints, this will be discussed further at the next RAG meeting ACTION: A Rubino and W Akhtar to circulate information to centres to prepare for discussion at the next meeting.	A Rubino / W Akhtar
13.	FOCUSED ECHO FOR ORGAN DONATION – RAG(23)15 & RAG(23)16	
	W Akhtar presented a donor ECHO assessment proforma circulated prior to the meeting 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. The project aims to improve heart donor utilisation by focus active cardiography which is doing most UK donor heart assessments. ACTION: W Akhtar and A Rubino to discuss this with I Thomas	W Akhtar / A Rubino
14	TRANSPLANT PATH	
14	 H Bullock gave a presentation of Transplant Path and explained the process that is being undertaken for this to replace EOS in December/January. 18 workshops took place during the 'Discovery' phase. A key concern expressed was not being able to take the device into surgery. The 'Development' phase based on user requirements is ongoing and is due to finish in the summer. For the 'Testing' phase users from each organ group will be required. Transplant Path will be rolled out during the Training phase and accounts created for all users. There will be single sign in. Timings of all parts of the pathway will be recorded and the system should give live updates to users. Go Live is planned for December/January after which EOS will be decommissioned. Other systems will integrate with Transplant Path. In the future it is hoped donor identifiable information and digitalised HTA forms will be included. 	

	Centres are encouraged to contact H Bullock for further information and for demonstrations of how the Transplant Path will work.	
	Will WOIK.	
15.	HOMOGRAFT ISSUES	
		a) A Chandrasekar b) M Berman
16.	J Parmar highlighted an issue that unlike other countries where a preservation solution is used, lungs in the UK are transported in saline. It was agreed that the retrieval process should procure lungs as safely as possible, and this cannot be achieved using saline. Centres using 10° fridges also require preservation in a solution like Perfadex. This will be discussed at CTAG Lungs in June and will be included in SCORE discussions. ACTION: J Parmar and M Berman will discuss with E Billingham.	J Parmar / M Berman
47	OFNITING A CIVIN STAR AND LUNG TO ANODE ANTION	
17.	SENTINEL – SKIN FLAP AND LUNG TRANSPLANTION H Giele, plastic reconstructive and hand surgeon at Oxford, explained the study he is doing for SENTINEL skin flaps with lung transplants funded by NIHR. This randomised trial involves all 5 units in the UK and has been through RINTAG and the other NHSBT committees. • Participants can only be included if there is a combined lung and skin offer. • The SNOD will ask if a skin flap can be included when a lung donation is offered • The recipient centre will then co-ordinator with a skin flap on call person who will randomise the patient to either have a lung transplant or a lung transplant with skin flap. • If randomised to lung and skin, a skin flap specialist will join the NORS team and will retrieve the skin flap from	H Giele / M Berman

	the forearm during the retrieval process and after the lungs have been accepted. This will then travel with the lung to the recipient centre to be implanted by the plastic surgery team. No DCD donors will be included. It was noted that space is at a premium during retrievals ACTION: H Giele to send round an information sheet for M Berman to send to all CT centres/NORS teams.	
18.	DCD HEART ALLOCATION – CTAG HEARTS UPDATE	
	This new short-term working group to discuss DCD Heart Allocation was agreed at CTAG Hearts and will be chaired by Ian Currie. The first meeting is taking place on 4 August and further details will follow.	
19.	BLUE LIGHT MONITORING	
	M Roberts stated that data is still being collected on blue light usage. Data has also been collected on additional data around how many times a blue light has been activated and for how long. ACTION: M Roberts to present full 12 months data at next RAG meeting.	
20.	ANY OTHER BUSINESS	
20.1	Key Points from Today's Meeting for Cascade to Centres –	
	 All RAG attendees are asked to circulate these Minutes to team members in their centres. Homograft requirements - are included in these Minutes and should be circulated to all team members The SENTINEL skinflap protocol will be sent to RAG members who are asked to cascade this to their teams. HTK Storage a) HTK must be kept refrigerated while in storage. Additional fridges were supplied to the NORS teams to enable this to happen. b) If fridge capacity is an issue for any of the teams, it is suggested teams contact Pharmapal. c) In summary: Manufacturer's instructions are to keep HTK refrigerated while in storage, and to transport on ice. Full storage instructions are circulated with these Minutes. UW/HTK preference a) Emma Billingham contacted all retrieval teams earlier this year to find out whether they would prefer to use UW or HTK. She received responses from Birmingham, Cardiff, Edinburgh, Kings, Leeds, Newcastle and Oxford all stating they would prefer to use UW (other centres have 	
00.0	not yet responded). b) We do not yet have a contract in place with an alternative supplier of UW but intend to go out to tender shortly for this. c) In summary: NORS teams' preference is for UW. A tender process will be undertaken to secure contracts for all organ perfusion fluid including UW.	
20.2	<u>Date of Next Meeting</u> – Provisionally set for Thursday 30 November – Face to Face – venue TBA	
21	CIRCULATED FOR INFORMATION ONLY	
	ONCOLATED FOR INFORMATION ONLY	

21.1	QUOD Data and Governance Update - RAG(23)17	
22.2	Super Urgent Liver Project - RAG(23)18	
21.3	SaBTO Recommendations for YYV8 Testing – RAG(23)19	