NHS BLOOD AND TRANSPLANT
ORGAN DONATION AND TRANSPLANTATION DIRECTORATE
THE TWENTY-FIFTH MEETING OF THE RETRIEVAL ADVISORY GROUP
ON TUESDAY 30 MARCH FROM 9:30 UNTIL 2:30PM
VIA MICROSOFT TEAMS
MINUTES

Present:

Ian Currie **(Chair)**	UK Clinical Lead for Organ Retrieval
Elijah Ablorsu	NORS lead, Abdominal, Cardiff
Aimen Amer	NORS lead, Abdominal, Newcastle
Liz Armstrong	Head of Transplant Development, NHSBT
John Asher	Clinical Lead – Medical Informatics, OTDT, NHSBT
Marius Berman (Deputy Chair)	Associate Clinical Lead for Organ Retrieval
Andrew Butler	Chair, MCTAG, NHSBT
Chris Callaghan	Associate Medical Director for Organ Utilisation
Miriam Cortes Cerisuelo	NORS lead, Abdominal, King's College
Sarah Cross	National Operational Coordinator – QUOD
Philip Curry	NORS lead, Cardiothoracic, Glasgow
Shahid Farid	NORS lead, Abdominal, Leeds
Jeanette Foley	Head of Clinical Governance, OTDT, NHSBT
John Forsythe	Medical Director, OTDT, NHSBT
Shamik Ghosh	Lay Member for RAG, NHSBT
Rebecca Hendry	Statistics and Clinical Studies, NHSBT
Rachel Hogg	Statistics and Clinical Studies, NHSBT
John Isaac	Deputy Chair, Liver Advisory Group
Chris Johnston	On behalf of Avinash Sewpaul, NORS lead, Abdominal, Edinburgh
Pradeep Kaul	NORS lead, Cardiothoracic, Papworth
Debbie Macklam	Senior Commissioning Manager, NHSBT
Majid Mukadam	NORS lead, Cardiothoracic, Birmingham
Derek Manas	Associate Medical Director for Governance (Retrieval and Transplantation)
Cecilia McIntyre	Retrieval and Transplant Project Lead Specialist
Vipin Mehta	Representing NORS lead, CT, Manchester
Hynek Mergental	NORS lead, Abdominal, Birmingham
Majid Mukadam	Representing NORS lead, CT Birmingham
Gavin Pettigrew	Chair, RINTAG
Theodora Pissanou	NORS lead, Abdominal, Royal Free
Rutger Ploeg	Principal Investigator, QUOD
Hannah Poulton	Lay Member for RAG, NHSBT
Richard Quigley	Cardiothoracic Recipient Coordinator Representative
Karen Quinn	Assistant Director, UK Commissioning, NHSBT
Isabel Quiroga	NORS lead, Abdominal, Oxford
Nicky Ramsay	Cardiothoracic Perioperative Representative
Mark Roberts	Head of Commissioning Development, OTDT, NHSBT
Antonio Rubino	Intensive Care Physician, Royal Papworth Hospital
Marian Ryan	NORS Workforce Transformation Project Lead, OTDT Commissioning
Catherine Slater	Quality Assurance Manager, NHSBT
Afshin Tavakoli	NORS lead, Abdominal, Manchester
Chris Watson	Joint Chair, Novel Technology Implementation Group
Steve White	Chair, Pancreas Advisory Group, NHSBT
Julie Whitney	Head of Service Delivery, OTDT Hub, NHSBT

Bartholomeij Zych	NORS lead, Cardiothoracic, Harefield

In Attendance:

Ms Caroline Robinson	Clinical and Support Services Manager, OTDT, NHSBT

Post meeting:

Ms Hannah Westoby	Clinical and Support Services, OTDT, NHSBT (Minutes)

		ACTION
1.	**WELCOME, INTRODUCTION & APOLOGIES**	
	• Welcome • Apologies were received from Ayesha Ali, Catherine Coyle, Dale Gardiner, Victoria Gauden, Olive McGowan, Jayan Parameshwar, Rommel Ravanan, Douglas Thorburn. • Introduction – new Lay Members: Mr Shamik Ghosh and Ms Hannah Poulton were introduced to the meeting	
2.	**DECLARATONS OF INTEREST**	
	No declarations of interest were reported.	
3.	**MINUTES, ACTION POINTS AND MATTERS ARISING**	
3.1	Minutes – The Minutes of the last RAG meeting on 29/09/20 were approved with no amendments.	
3.2	Action Points - The Action Points from the previous meeting on 29/09/20 were updated as follows	
AP1	**Bile sampling in Organ Donors**: Mr S Fahid (Leeds) has proposed an addition to QUOD, allowing the collection of bile in DBD donors.	Deferred to Autumn meeting
AP2	**Paediatric kidneys** (donor <20kg) should be **retrieved with a cuff of bladder** to facilitate implant.	Completed
AP3	**Organ photograph**y as a key omission in a governance matter.	Completed
AP4	**Small bowel and pancreas offering;** an amendment to HUB documentation such that the above scenario is managed appropriately, whether small bowel is offered and accepted or whether later declined, to avoid confusion over allocation of pancreas.	Completed
AP5	**Retrieval damage –** action D Manas and I Currie to discuss proposal to meet with all NORS leads on a six-monthly basis to discuss damage rates and how to improve these. This has been deferred to allow data collection to form new damage scale.	Deferred
AP6	**INOAR go-live date 13 January 2021 –** VG to circulate INOAR details prior to launch	Completed
AP7	**Histopathology Project.** Discussed in Agenda.	Completed
AP8	**Blue light group**. Discussed separately in Agenda.	Ongoing
AP9	**Human Tissue (Scotland) (Authorisation) Act 2019:** implication for teams retrieving in Scotland (opt-out legislation 2021). Opt-out Implementation date: 26 March 2021.	Completed
AP10	**Food availability at donor hospitals.** Discussed separately in Agenda	Ongoing
Carried over	**Liver sharing using warm perfusion machines.** Sharing arrangements have been agreed by LAG.	Completed
3.3	Matters Arising – there were no matters discussed at the meeting	
4.	**OTDT MEDICAL DIRECTOR'S UPDATE**	
	• Thanks to everyone regarding work during COVID during the surges. All transplant centres now open again.	

	Restricted waiting lists in some centres – thanks to collaboration and coordination involved in achieving this. • Thanks to all teams for incredible work regarding the retrieval service in very trying circumstances. • Opt out; Please note – deemed legislation now enacted in Scotland on 26th March. NI has closed consultation and heading in same direction. For retrieval teams – need to be aware of the legislation and implications for retrieval. • NHSBT Strategy – delayed launch – strategy submitted within deadlines but did not get through the peak of workload of UK govt prior to elections. NHSBT looking at what this means for projects going forward. Thanks especially to Karen Quinn for her invaluable input on this. • Clinical leads for Utilisation – thanks to those involved in CLUs project. Continuing the work into this financial year. Successful project thus far. • Announcements regarding Associate Medical Director positions which reflect reorganisation within NHSBT. Took opportunity to strengthen the presentation and visibility of posts. No change in management of retrieval – currently very strong – not anticipating changing this. Derek Manas is responsible for governance (retrieval and transplant). • Have been a number of donors that have been referred after a catastrophic event which is related to vaccine induced thrombotic thrombocytopenia. Associated with Anti platelet factor 4. All clinical leads have received initial guidance doc for patients with this syndrome. Now thinking about what about accepting organs from these donors. Balance of going ahead and leaving patients on the waiting list. Issue that is developing.	
5.	**UPDATE FROM ADVISORY GROUP CHAIRS**	
	• MCTAG - A Butler – during pandemic, limited no. of active patients on the list. Oxford shut. Reactivating all patients again now. We would not consider using organs from donors with thrombosis issues. • CTAG - apologies • KAG – apologies • LAG – Meetings every week. Also Core meeting recently. Making a lot of changes. Only clinical urgent pts on list but re-opening to all. Working with different centres for back up. Now repatriating to home centres. Birmingham is only centre that is limited to clinically urgent list at present. Back up system with buddy centre if lose ITU so can move to another centre. Reacting to circumstances as they arise. Creativity and energy demonstrated by different advisory groups especially liver moving complex pts to different centres across the country. • PAG – S White – doing similar things to LAG. Twice monthly COVID meetings. Every centre except one to be open soon. Injury rate for pancreases remains an issue. Pancreas preservation when liver will be split, and allocation of accessory blood vessels – no explicit advisory documentation on this currently, although there has never been any suggestion that the pancreas will be	

	sacrificed when the liver is split. Pleased to take this forward outside the meeting with Steve White, Derek Manas and Ian Currie on documentation of vessel sharing. • RINTAG – introduction of INOAR. Pithia suspended – plan to restart July. Work will be done with retrieval teams regarding this.	
6.	**CLINICAL GOVERNANCE**	
6.1	• NHSBT Clinical Governance Report – J Foley. • Incidents around NORS teams not being aware of coroner restrictions. Sadie Von Joel is working through retrieval coordinators in NORS centres to ensure NORS teams have sight of CDDF prior to arrival, to avoid difficulties around unsuspected coroner restrictions and the like. If EOS logins needed to view CDDF – contact Laura Ellis Morgan. • Retrieval competency in paediatric donors. Most teams are happy to retrieve within NORS guidelines on weights and sizes of donors. Recipient surgeons may be invited to assist as appropriate if there is concern. • Chest closure has been an issue. Prolene may not be strong enough and can open after retrieval teams have left. Standard practice is a mortician's stitch with heavy silk.	**NORS Leads to discuss closure with teams**
6.2	Swab Count at Retrieval – CMc –The statement is in response to several incidents reported in relation to incorrect counts, frequently associated with missing raytec swabs. It won't delay proceedings. At the team safety briefing the procedure for the surgical count must be discussed and agreed. IC agreed that the guidance document should be adopted and added to the NORS guidelines as an appendix. It was suggested that a different colour swab could be used for cardiothoracic teams, however, this was not agreed upon as once the swab has been used and blood and other fluids are on it all looks the same. The easiest way is to put the swabs into a central area and all count at the end. Thanks were extended to Cecelia for producing the document. CMc and IC to talk offline after the meeting to finalise the document before circulation to the perioperative leads and NORS leads to put the guidance in motion before the NORS guidelines are completed in a few months' time. **ACTION: CMc – to talk offline with IC – then circulate to teams**	**CMc and IC**
6.3	HTA A forms revision – for awareness only – all of the A forms excepting pancreas now include a record of NRP or TANRP, and a comment on warm perfusion technology in transit. The pancreas form is currently being updated to include these. All other forms are now in use and teams should be using the new forms. If members have any comments please send them to **IC.**	
7.	**ORGAN DAMAGE**	
7.1	Organ Damage Report – Rachel Hogg - this refers to the 24 months from 1 January 2019 until 31 December 2020. The rates	

	of damage are determined according to organs reported with moderate or severe damage as recorded on the HTA-B form by the receiving surgeon. RH highlighted that some centres have quite a number of outstanding B forms. This will be followed up as a matter of urgency as they are a legal requirement. It was advised to interpret some of the damage data with caution, as the lack of B forms made some data less reliable. B forms – JW advised that centres that are currently missing have been given a deadline of 30 April. The clinical director will be chased in the first instance. Complications when retrieving DCD hearts has led to Papworth having a significantly high DCD lung retrieval injury rate. Action is being taken at a local level.	
7.2	<u>Organ Damage Data Collection</u> Upgrades to damage data collection (HTA-B forms). The drop-down menus on the B forms will be changed in June 2021. The following will now be available to code retrieval damage. 10. No effect/no damage. Surgical damage was absent or had no clinical effect. 11. Mild effect. Damage was present but organ was repaired for transplant. 12. Moderate effect. Damage contributed, along with other serious concerns, to the decision not to use the organ. 13. Severe effect. Damage was the primary factor in the decision to decline for transplantation. The organ would have been used if no damage was present. 14. Not performed (organ not inspected for damage) The latter (Code 14) applies when an organ is, for example, brought back to base with the NORS team and then disposed of. In order to reflect the above changes, upgrades to RTI forms will also take place at the same time as follows; 10. No Effect/No Damage. Surgical damage is absent or has no clinical effect. 11. Mild Effect. Damage is present but organ can be repaired for transplant. 12. Moderate Effect. Damage may contribute, with other significant factors, to a decision not to use the organ. 13. Severe Effect. Damage is severe and would be sufficient in isolation to result in decline for transplantation. The organ could have been used if no damage was present. These changes to B form and RTI form will either go live simultaneously or within a few days of each other. These changes will allow the development of a national Retrieval CUSUM to support more objective and credible management of retrieval injury.	
7.3	<u>Changes to RTI form</u> – In addition, RTI updates will include; “Heart retrieved by your team?”	

	1 = No, 2 = yes, for heart tx, 3 = yes, for tissue bank Thanks to Julie Whitney, Rachel Hogg, Rebecca Curtis and the Organ Damage Group (D Manas, Chair) who for their hard work on the organ damage scales over the last 2 years.	
7.4	Organ Damage photography • Introduction – D Manas – deciphering organ damage is difficult for the governance team. More common to have photos of organs that have been damaged. Need to standardise how damaged organ photographs are taken. Need to set up a Working group to standardise the views that are required. • It was suggested that the technique of photographing damaged organs would be the first priority, rather than routine organ photography • Still photography, use of videos and to standardise the views required- Miriam Cortes Cerisuelo, Shahid Farid, Elijah Ablorsu, Afshin Tavakoli, Marius Berman, Chris Watson have volunteered to help and any other volunteers to let Marius Berman, Ian Currie or Derek Manas know. It was suggested that a NORS lead should chair. • Once the techniques have been worked out, the goal would be to roll out the techniques to NORS teams/SNODs who would be taking the photographs. **Action: RAG members should email IC, DM or MB with an expression of interest to join the organ damage photography working group.**	**RAG members**
8.	**NTIG**	
8.1	DCD Heart Programme update MB advised that since September 2020, a slower start than predicted but now picking up - 11 DCD heart transplants have taken place. 3 designated teams, 4 implanting centres (Harefield, Papworth, Newcastle and Great Ormond Street). To the best of knowledge 100% survival so far but early days. For various reasons Manchester have pulled back from the programme last week. Pleased to report that Harefield and Papworth will pick up the on-call duties and with mixed teams (surgeons from one team and perioperative personnel from the other). This has brought levels of trust and collaboration between teams to a whole new level. For DCD donors, **retrieval teams should not approach the donor/do the additional investigations.** Should see the donor for the first time when confirm identify in theatre. IC thanked MB for his work and dedication to the project, also exemplified by the teams mentioned above. MB also reported that Marian Ryan and Antonio Rubino have produced a report with great collaboration between teams. **Action: HW to circulate the report from Marion Ryan to RAG members.**	**HW**
8.2	ANRP Steering Group update/ANRP consumables funding and governance –	

	CW presented a paper created by Jenny Mehew - The presentation showed data from 2011 until 2019. In general terms, NRP increases utilisation of organs from DCD donors, reduces re-transplant in DCD liver, increases 1 year eGFR in kidneys, and is non-inferior in DCD pancreas. As more data accrue, it is likely that these data will become stronger still. Funding is not forthcoming from the DHSC as yet. However, the Welsh, Northern Ireland and Scottish governments have assisted with the funding. If wish to start NRP, there is funding held in Edinburgh for consumables, but not staff costs. Keen to incentivise NRP and increase utilisation and safety. The information needs to be advertised through to the other Advisory Groups – LAG, PAG and KAG, Chris Watson is presenting at each of the meetings mentioned. If teams wish to build a business case for NRP please get in touch with Debbie Macklam.	
8.3	<u>Interval in lung retrieval in DCD donors utilising ANRP and CT organ retrieval</u> - First 30 minutes of abdominal NRP is most crucial time. Previous cases have had major difficulty when lung retrieval proceeds very rapidly at the same time as ANRP. Organ loss is the main concern. It is agreed that the **CT team will cold perfuse the lung in situ and then stand back until 30 minutes of ANRP**. The lung team will then retrieve the lungs with scrupulous attention to haemostasis and careful dissection, to maximise organ utilisation above and below diaphragm, and minimise damage. All 6 CT NORS teams are encouraged to do DCD retrieval with NRP. Contact Marius Berman for more information. Huge step forward. **Teams are encouraged to speak to MB if CT retrieval is planned with abdominal NRP. National Protocols must be followed in detail on all occasions.**	**CT NORS Leads to note and discuss with NORS surgeons**
8.4	<u>National Protocols; ANRP; DCD heart/lung</u> – Attached *For awareness only*	
9.	**RESEARCH AND DEVELOPMENT**	
9.1	<u>QUOD Data and Governance Report</u> – SC reported the milestone of 5000 QUOD donors was reached just before Christmas 2020, and went through the data. QUOD sampling collection was paused for 4 months last year, end of March till end of July 2020, and the pause in sampling has impacted the numbers on the research. Some QUOD box availability issues were due to Covid and this has also contributed to the overall drop in QUOD numbers. However, in the last few weeks numbers have started to increase which is in line with the number of donors in general. Measures put in place to ensure that there are always boxes available.	

	A record number of samples have gone to researchers in the last year, lab team very busy, samples have doubled in the last six to twelve months which is excellent news.	
9.2	Minor change QUOD LV biopsy – MB discussed the proposed change in QUOD biopsies from untransplantable hearts. Currently 1 x 5mm punch biopsy is collected from each ventricle, which will change to taking 2 x 4mm punch biopsies from each ventricle. This will increase the usability of tissue for researchers as well as reducing the number of punch biopsy instruments in circulation, thereby reducing the risk of error by using the incorrect size punch. There was no objection to this change. **Action; Documentation, including SOPs, will now be updated and finalised by VG and SC.**	**VG and SC**
9.3	*Bile collection for QUOD – S Fahrid - deferred until autumn*	
9.4	INOAR update and launch – LA reported that INOAR went live on 13 January 2021. SNODs in QUOD-licensed hospitals in England, Northern Ireland and Wales and all hospitals in Scotland now discuss the opportunity with donor families to consent or provide authorisation to the removal and storage of the Heart, Lungs and Diabetic Pancreas for research. The INOAR project will be evaluated at 3 months. A report will be provided for the RINTAG meeting on 25 May 2021, including any recommendations to amend the INOAR process if required. Consent is around 75% at this stage, some have refused or declined and there are some non-approaches which need to be better understood. Thanks were extended to Liz and the team for getting this off the ground. It was agreed that the paper would be uploaded onto the OTDT website. Please refer to the paper for more information. It was also agreed that the SOP will be shared with all the teams and added to the OTDT website. Other organs can be added to the research over time. There is a high proportion of livers offered for research already.	
10.	**SHERPAPAK PROJECT**	
	MB reported that all cardiothoracic units have been interacting on this project. All units have used it. More data to be presented. 25 SherpaPaks used with good outcomes in UK. Need to standardise use. If unit wants to use it need to mobilise own team and own surgeon. Delays not an acceptable consequence. Discussed CTAG Hearts –Supportive of the concept to share hearts on SherpaPak, with hearts travelling accompanied by driver and not surgeon (cold perfusion). **Action: MB to circulate application to get colleagues' input.**	**MB**
11.	**BLUE LIGHT GROUP UPDATE**	
	K Quinn reported that after significant discussions with the Department of Transport, they have shifted to a slightly more positive view on Blue light exemptions providing NHSBT gathers adequate audit data. **Exceeding the speed limit remains out with the group of exemptions sought or supported by NHBST.**	

	Accountability via Transport provider IMT needs to be resolved. If it is decided to use blue lights, there needs to be a clear and substantial risk to the patient to justify risk to public, driver and NORS team if present. Use must be authorised by a named consultant recipient surgeon. Although numerous examples were discussed with DfT, the emphasis was on the mitigation of **substantial risk to patient outcome** rather than the organ type qualifying for exemptions. KQ thanked IC and MB for their input into the discussions. **Action; Communications on blue light use will be sent round to the NORS teams in the coming weeks.**	**IC/MB/KQ**
12.	**IMAGING IN ORGAN RETRIEVAL**	
12.1	Image transfer in CT – V Mehta. This is following a recent survey on organ utilisation. Asked what the local barriers are to using organs, the quality of cardiothoracic images is the greatest problem. Each centre is declining organs due to the lack of images. It was suggested that interested parties join together to discuss rather than several different groups all working on different projects. After discussion it was agreed that Vipin Mehta and John Asher discuss further the issues raised and can come to an arrangement. **Action 1: John Asher to liaise with Vipin Mehta regarding this project and how it can fit in with other projects after the RAG meeting to discuss further.** **Action 2: John Asher to discuss setting up a group to include Vipin Mehta, Chris Callaghan, Colin Wilson, Marius Berman, Derek Manas and Shamik Ghosh to start a group and discuss further.**	**JA/VM** **JA et al.**
12.2.1	Wearable technology – MB advised the group on smart glasses, giving real time imaging transferred from theatre to recipient surgeon. The pilot started at Papworth Hospital in January 2021 with a few teething problems. When surgeons are out on a retrieval, they send single use links to CT recipient surgeons of heart and lungs. Feedback will be recorded and hope by the Autumn 2021 meeting to have data to show RAG members. It will be discussed also at RINTAG in May. **Action: Item to go to RINTAG in May for discussion.**	**MB**
12.2.2	Abdominal Edinburgh - **No update – IC to circulate when available.**	
12.3	**FICE –** Antonio Rubino, Intensive Care physician/CLOD gave a presentation on FICE. A FICE scan: • Provides additional information at time of offer • Might be considered If TTE is difficult to obtain • Is an additional tool for donor optimisation • Is more available in ITU than echo (although it is not a 24/7 service) • There are 1500 accredited ICU doctors who can provide FICE • There are anecdotal stories of donation proceeding based on FICE results.	

	There is a process of certification/accreditation to use FICE with a training pathway lasting about 12 months to ensure adequate clinical governance. The meeting agreed that while important, it doesn't take over from TTE. This is a great initiative and very helpful in providing a qualitative rather than quantitative assessment particularly for areas that do not have easy access to TTE. There is concern that FICE is not meant to measure wall thickness which is an important metric for acceptance of a donor heart. Governance issues around image recording, reporting for quality assurance and access to expertise if clarification is needed were discussed. MB and AR are setting up a short-term working group to gain support amongst the CLOD community. This was welcomed and encouraged to take forward. **Action; Antonio Rubino would circulate the FICE paper to RAG members. Proceed with WG to explore feasibility and benefits of FICE**	**MB/AR**
13.	**SUPER URGENT LIVER GROUP UPDATE**	
	J Whitney – Offering for CT organs when super urgent liver is planned can delay liver transplant, especially troubling when the recipient is super-urgently listed and may die or become untransplantable in a matter of hours. The Super-Urgent offering scheme, which is a more rapid process for offering of CT organs, will be enacted in the next few weeks to expedite liver transplant when the recipient is registered as a Super-urgent.	
14.	**Pathway Intelligence Group**	
14.1	Pathway Summary Report – The group is made up of wide range of individuals representing all steps in the pathway from pre-donation to cross clamp. The group was a fixed-term working unit for a year. This report is the most detailed pathway information in UK DBD donors in recent years. Transplant has become a night-time and retrieval has become a daytime activity. The information contained teases out the weaknesses in the pathway and will form the basis for follow-on work to manage those aspects of the pathway which are currently excessively prolonged. IC went through the data at length, the plan is to share the data and present at NODC in the first instance. Secondly, to set up a new group which will take on the challenges of pathway management, so as to restore the optimal balance of retrieval and transplant timing. Comments welcomed from RAG members to IC.	
15.	**NORS TEAM SAFETY INITIATIVE**	
	This was brought into focus after lead vehicle of Newcastle team was recently in a road traffic accident. The team attended an injured passenger from one of the other vehicles. Thankfully all of the team and other passengers survived the crash, and no members of the NORS team were hurt. This event highlighted key issues, such as; what NHS insurance is provided for team members; do members have access to high	

	visibility jackets when out on retrieval; has every NORS lead considered safety implications for their teams? It was agreed that a team debrief after an incident was critically important. NHSBT and transport providers should be involved in debrief to bring additional information. In such rare and dangerous situations, it is prudent to be aware of potential PTSD and refer to occupational health as appropriate. Aimer Amen (NORS Lead, Newcastle) is in talks with the Automobile Association and is asking about training sessions on road safety. IC to engage with management team in various centres to make them aware of the situation that retrieval teams are under, and an awareness of risks to teams. Critical care outreach teams would be aware of road safety and issues surrounding it and go to parts of highlands and helicopter (reach out to them). Protocol to collect and teaching hospitals to get? It was suggested that a clause could be put in NORS contracts, but it was agreed that it would be inappropriate as contracts are clinical. It was agreed that a document be written to best understand the NORS teams and to lever to use for Managers in Trusts and make them aware of the importance of team safety. **Action; IC** to set up a safety forum for NORS teams with a meeting before summer holiday period	**IC**
16.	**NORS REFRESHMENT REPORT**	
	C McIntyre. NORS Teams – 2020 survey identified food and drink supply on retrieval to be a major source of concern for NORS team members. An initial proposal was for the transport provider to purchase sandwiches, crisps and drinks in advance of collecting the NORS team, which would be covered by appropriate transport fees. Unfortunately, this initial proposal raised several legal, contractual, safety and logistical issues that could impact upon members of the retrieval team, NHSBT and the transport provider. The survey carried out to address refreshments for NORS teams had an excellent response, with some particularly innovative responses, none more so than Centre 8 (Leeds). Given some centres currently have no arrangements, in the first instance the feedback should be shared across the service, and all NORS Centres asked to continue to give this issue their attention. NHSBT is undertaking a review of the mobilisation KPI and the need for members of the team to purchase food and drink will be built into any new timings. Invite the Centre Eight lead to a future RAG to **Action; Cecilia McIntyre to take forward; share feedback amongst all NORS teams (anonymised), invite Leeds (Centre 8) to next call, and invite Leeds to present their solution,**	

	including cost implications, and impact on team well-being and performance at next RAG.	**CMc**
17.	**NORS MUSTERING REPORT**	
	Marion Ryan presented the report and asked RAG the following: **Action Requested** RAG is asked to review and approve; • The recommendation to increase NORS muster time to maximum of 90 minutes from the current maximum of 60 minutes. • Monitoring agreed and actual departure time and for NHSBT to investigate any NORS team departures > 30 minutes later than the new 90 minute muster time as breaches and apply penalties as agreed. • Monitoring arrival time at the donor hospital and for NHSBT to investigate arrivals > 30 minutes late as appropriate. If the paper is approved by RAG, this will be passed to SMT for NHSBT approval prior to implementation of a 6-month trial period. The new mustering time protocol was **approved.** **Action; MR to take forward with SMT**	**MR**
18.	**FTWU FOR NORS CONTRACT REVIEW MEETINGS**	
	IC advised that the "contract review meetings" format might change and asked for suggestions for content of meetings. **Action; Members to email IC/MB with their views on format and content of contract review meetings** **Action; IC/MB to receive any points for consideration and interim meeting to re-format and circulate outcome to NORS teams prior to 21-22 round of contract reviews.**	**All NORS Leads** **IC/MB**
19.	**SCOTTISH OPT OUT: 26 MARCH 2021**	
	Changes for those retrieving in Scotland. Awareness only. Info, support and bespoke learning from Lesley.Logan2@gov.scot	
20.	**NORS GUIDELINES UPDATE**	
	IC advised that the publication of version 9 is hoped to be by the end of April/beginning of May 2021, if members have any further amendments that it will go into the next release, and will be updated on a six monthly basis. **Action; IC asked members to share with teams once released, and to ensure that NORS surgeons read the document.** It is imperative that NORS surgeons have read this; there are a number of practice updates which relate to retrieval surgery.	**NORS Leads**
21.	**ANY OTHER BUSINESS**	
	Protocol agreed for liver sharing whilst on organox at LAG. **Action; John Isaac - To share with IC** Histopathology – DM as chair of Histopath Group has worked up options appraisal document and finalised.	**JI**

	Much better than situation we are currently in, and the service should be 24 hours a day. Hope to have national histopathology service funded. Thanks to all who have helped especially Liz Armstrong.	
	DATE OF NEXT MEETING: **Sept/Oct 2021 -** Further information will follow in due course	