NHS BLOOD AND TRANSPLANT
ORGAN AND TISSUE DONATION AND TRANSPLANTATION DIRECTORATE

THE TWENTY-SIXTH MEETING OF THE MULTI-VISCERAL AND COMPOSITE TISSUE ADVISORY GROUP MEETING AT 10:30 AM ON WEDNESDAY 31 MAY 2023 VIA MICROSOFT TEAMS

Present

Andrew Butler	**Chair MCTAG /** Cambridge University Hospitals
Richard Baker	Associate Medical Director – Governance, NHSBT
Carly Bambridge	Recipient Co-Ordinator Rep
Gemma Brewin	BSHI Rep
Chloe Brown	Statistics and Clinical Research, NHSBT
Alba Bueno	Birmingham Women and Children's NHS Foundation Trust
Kim Corbey	Recipient Co-ordinator
Gordon Crowe	Regional Manager, SNOD
Peter Friend	Oxford Intestinal Transplant Centre
Girish Gupte	Consultant Paediatric Hepatologist, Birmingham
Francisco Hernandez Oliveros	General Surgery, Hospital Universitario Quironsalud Madrid, Spain – Guest
Susan Hill	Paediatric Gastroenterologist and BSPGHAN Rep
Simon Kay	Composite Tissue Rep, Leeds Hand Transplant UK
Derek Manas	Medical Director, OTDT, NHSBT
Isabel Quiroga	Oxford Intestinal Transplant Centre
Tracey Rees	Scientific Officer, NHSBT
Khalid Sharif	Consultant Hepatobiliary and Transplant Surgeon, Birmingham
Lisa Sharkey	Cambridge Intestinal Transplant Centre
Pedro Simas	
Hector Vilca-Melendez	King's Intestinal Transplant Centre
Sarah Watson	NHS England
Anthony Wrigley	Lay Member, NHSBT

In attendance

Caroline Robinson	Advisory Group Support, NHSBT

	Item	Action
1	**Welcome and Apologies**	
	A Butler welcomed all to the meeting. Apologies were received from Ayesha Ali, Philip Allan, Chris Callaghan, Anthony Clarkson, Ian Currie, Samantha Duncan, Jonathan Hind, Ben Hume, Sian Lewis, John Richardson, Laura Stamp, Julie Whitney, Craig Wheelans	
2.	**Declaration of interest in relation to the agenda – MCTAG(23)01**	
	There were no declarations of interest at the meeting	
3.	**Minutes and Action Points of the MCTAG meeting held on 16 November 2022 – MCTAG(M)(22)02**	
3.1	Accuracy – The Minutes of the last meeting on 16 November 2022 were approved with one amendment. Items 21 and 22 were inadvertently reversed and this is now corrected.	
3.2	Action Points - **MCTAG(AP)(22)02**	
3.2.1 AP1	At the last meeting H Vilca-Melendez highlighted 2 patients who spent 1000 days on the waiting list. The issue of MV patients coming below hepablastoma in liver only grafts when it would be possible to	**ONGOING D Manas / J Whitney**

	use split livers was taken to LAG. A Butler reported there have been amicable joint meetings with the paediatric centres, plus Leeds, and there is agreement that these patients will be given priority. It was also agreed it is important to know the patient numbers involved. **ACTION: As the only option is a size match for those needing liver and bowel transplant and the numbers are quite small, D Manas agreed to speak to J Whitney about putting a manual process in place to highlight small donors who would benefit from a split liver.**	
3.2.2 AP2	Conflict in using smaller donor organs in MV recipients and for paediatric hepatoblastoma patients – As above, clarity was required around the definition of 'small' donor organs. A Butler has discussed with H Vilca-Melendez and R Prasad (Leeds) re: a virtual meeting to discuss this..	**COMPLETE**
3.2.3 AP3	Review of Cytomegalovirus (CMV) and Epstein Barr virus (EBV) infections in Intestinal transplantation UK wide experience – (17.3.21) - incidence, outcome and strategies – Previously, A Butler contacted A Clarkson regarding inconsistent reporting of EBV status which can be a substantial risk for MV recipients if is not reported and can determine whether organs are utilized. Since the last meeting, several labs have changed their processes to enable more consistent reporting, but some problems remain. **ACTION: R Baker agreed to discuss this with I Ushiro Lumb,**	**ONGOING R Baker**
3.2.4 AP4	Tabelecleucel –S Watson previously stated NHSE has been having discussions about use of Tabelecleucel to treat PTLD caused by EBV. Post meeting, S Watson reported that following the transition of Tabelecleucel to Pierre Fabre as Marketing Authorisation holder it was confirmed that the Expanded Access Program programme will not continue in the UK. The company are reassessing the timing of launch and the NICE TA: Tabelecleucel for treating post-transplant lymphoproliferative disorder caused by EBV [ID1203] has therefore been suspended.	**COMPLETE**
3.2.5.1 AP5	Governance –The logistical problems of getting an accurate weight for a donor which is particularly important for intestinal patients were noted previously. It was also noted that the height of a donor can also help to determine more accurate recording of an organ's weight along with access to recent ultrasounds and CT scans. D Harvey is proposing a study re estimation tools to compare weights estimated by tools and actual weights to see if a solution can be found to this problem. **ACTION: G Crowe to discuss progress of proposed trial with M Hackett**	**ONGOING G Crowe / M Hackett / D Harvey**
3.2.5.2 AP6	Patient survival after intestinal transplantation – **MCTAG(22)02 –** P Allan, L Sharkey, J Hinds and G Gupte have discussed drafting a proposal to define measures for graft failure based on eg: • Need for PN in 28 days – Yes/No • Expected irreversibility at 3 months • Explant • Relisting for transplant. There was discussion around returning to parenteral nutrition (PN) but this would not apply to all patients so the group agreed graft failures should be defined as: (i) Graft explant (ii) Relisting for repeat transplant, or (iii) Irreversible graft dysfunction such that you would normally opt for options (i) or (ii) but where there are	**ONGOING P Allan / L Sharkey / J Hinds / G Gupte**

	medical, surgical, immunological or patient factors that prevent this happening. **ACTION: The above people will decide on minimum criteria for data collection from all centres on patients who return to PN post-transplant to determine irreversibility to ensure all patients are captured by the proposal.**	
3.2.6 AP7	M&F Proposal – Potential funding for film – D Manas stated that a proposal has been put forward to make films with Transplant TV using charitable NHS funds. A 7-minute film will cost about £6K and should involve information for clinicians and patients talking about their experiences. A decision is now needed on what should be included and who will be involved in a working group to take this project forward. The film needs to be short enough to retain people's interest and should be scripted. It is felt that education for clinicians and particularly referring clinicians should be a focus with 2-3 minutes of patient stories, long term outcomes and survival after intestinal transplant. **ACTION: A working group will be set up to discuss taking this forward.**	**ONGOING D Manas**
3.2.7 AP8	Web Information on intestinal and MV transplantation on the new NHSBT website	***See Item 4***
3.2.8 AP9	Patient survival after intestinal transplantation – potential further subdivisions in future reports (malignancy v. non malignancy)	***See Item 8.1***
3.2.9 AP10	Disproportionate waiting time for liver and bowel patients compared to a liver patient only – It was previously noted there is cohort of recipients being placed below super urgent and hepablastoma and above MV. Donors need to be a specific size and of good quality for MV transplant which is not necessarily the case for liver recipients and donors. This is now having an impact on MV outcomes, particularly for paediatric recipients. **ACTION: A Butler to talk to D Thorburn re: prioritizing or categorizing access to the small donors for MV and setting a threshold for donor age for ACLF rather than for MV.**	**ONGOING A Butler**
3.2.10 AP11	Discussion re: potential changes to allocation policy - **MCTAG(22)18**	***See Item 10.2***
3.2.11 AP12	Service Review Discussion	***See Item 11***
3.2.12 AP13	Update on Uterine Transplantation	***See Item 14***
4.	**Web information on intestinal and multi-visceral transplantation on the new NHSBT website for patients - https://www.nhsbt.nhs.uk/organ-transplantation/**	
	L Sharkey reported that this is now with C Callaghan to be checked for consistency with other organ groups with the same sub-headings and FAQ's. Paediatrics is being included. There will be a further update at the next meeting.	
5.	**Medical Director's Report**	
5.1	D Manas gave the Medical Director's report: • There is still no funding for CLUs. NHSBT continues to fund lead CLUs, and a business case is now with NHSE for future funding. • There has been no overall funding uplift for OTDT for 4 years so there is minimal funding for transplantation with some of the programme and OUP to be wound up sooner than expected.	

	• DCE Heart funding is secure for this financial year, but there is no sustainable funding agreed as yet beyond this. • There is no project management funding, so all new projects need to be completed with the resource available. • There are concerns going forward about funding for donor recognition and CLODs so this will be reviewed by D Gardiner. • There is no funding for NRP, but a business case has gone in for this and no funding for machine perfusion or ARCs. • Some progress has been made with histology reporting but there is nothing new to report as yet. • The OUG report has been published and there are 12 recommendations, 6 of which are assigned to NHSBT and NHSE jointly. A steering group has been set up with all the lead organisations and a meeting will be held in 2 weeks to look at prioritisation. Empowering patients is a high priority, and each transplant centre will be expected to have a patient group that meets and records Minutes and outcomes. IT connectivity with all patients able to view their results is also a high priority. There is no funding attached to OUG implementation. • Work is ongoing to make changes to NORS teams and changing retrieval times through SCORE. • A Lung Summit was held in February and the 18 recommendations from this will be shared soon. Since the summit there has been an improvement in lung transplantation. The CT review is now with NHSE • Consent rates have been lower than hoped with liver, pancreas, CT and small bowel utilisation rates showing a need for improvement. • RINTAG is to be dissolved as an advisory group and will become an R&D steering group to bring it in line with other parts of NHSBT. • Transplant Path (the replacement for EOS) will become live in November and is being demonstrated currently in different fora. • Corneal grafts – Due to low corneal graft numbers and a need to import corneal grafts currently, an Eye Summit is planned for 5 July.	
5.2	<u>Appointments</u> - There are no new appointments. A new lead Liver CLU will be appointed due to R Prasad's move to USA	
6.	**Clinical Governance Report for MCTAG – MCTAG(23)02**	
	This report was circulated prior to the meeting and shows that there are around 50 incidents per month. The following issues were highlighted: • A survey of 5 MV retrievals showed rectus fascia is not routinely documented on the HTA A form which prevents clear traceability. It was agreed that there is currently ambiguity about where this should be documented and clarification re the nomenclature is needed on the form To ensure robust traceability from donor to recipient, rectus fascia centres must document retrieval on the HTA A form, within the 'state which organs were retrieved' section by the NORS lead or deputy.	**R Baker**

	ACTION: R Baker to discuss recording of rectus fascia on HTA A form with I Currie and M Berman • Due to UW contamination, most centres are now using HDK. It is hoped that a new provider for UW will be agreed in the next 2 months.	
7.	**OTDT Hub Update**	
7.1	There was no update at the meeting.	
8.	**Summary from Statistics and Clinical Research – MCTAG(23)03 – circulated for information.**	
	The report circulated prior to the meeting provides an update from Statistics and Clinical Research and illustrates current and future work in in MV transplantation. • All papers, reports and presentations from the team are published on the ODT clinical site www.odt.nhs.uk • Rebeka Jenkins, an NHSE funded Research Fellow joined the team in January. She will be working with the BTRU on PREMS looking at all organs and age groups. It was noted that it has been hard to get good QoL data for MV transplantation and adult and paediatric patient involvement in MCTAG would be helpful. **ACTION: R Baker to discuss with the NHSBT Clinical Team** • Data on the most recent national activity and outcomes were well received at the Intestinal Transplant Symposium in February. Nominated contacts from each centre are now needed to collect more extensive intestinal data. • The OTDT activity report for 2022-23 along with the annual intestinal report will be published over the summer.	**R Baker**
8.1	Patient survival after intestinal transplantation – potential further subdivisions in future reports (malignancy v. non malignancy) **MCTAG(23)04 –** this report on patient survival following deceased donor intestinal transplantation for transplants performed nationally was circulated prior to the meeting. • The report covers 1 January 2007 to 31 December 2022 during which 273 elective intestinal transplants were carried out in first time recipients. • Follow-up data is available on the UK Transplant Registry (UKTR) on 13 March 2023 for 269 (99%) patients. • The report excludes one living donor transplant performed at King's College in 2017. • There is no significant difference in 90 days, 1, 5 and 10 year patient survival rates for adult and paediatric patients. • For paediatric patients, bowel only transplants have superior outcomes • For adult patients, the modified MV or bowel and pancreas transplants appear to have superior outcomes when analysed to 5 years post-transplant. • Caution is advised when interpreting 10 year survival estimates due to the small number of patients entering the time interval alive, which may produce unstable estimates. Key messages are shown in the report circulated. • A Butler raised a question from the last meeting which highlights that data for patients transplanted for cancer are not separated from those transplanted for non-malignant reasons. This is a relatively new area and therefore it is	**L Sharkey / C Brown**

	important to access good information for patients. Currently, it is hard to advise patients of likely outcomes. • It would be helpful to have a footnote regarding recurrent catheter associated bloodstream infections compared with liver disease. **ACTION: L Sharkey will re-circulate the proposed interim data collection spreadsheet for comment and suggestions on capturing transplant indication** • Determining the reason for transplant can be difficult to identify for transplant co-ordinators • A query was raised about the labelling within the report relating to patient survival from first transplant. **ACTION: C Brown to amend the title on Table 1 to reflect patient survival is from time of first transplant.** • The most common causes of death in patients up to 10 years after first elective transplant is 'Multi-system failure' or 'Other identified cause of death'. Issues like severe rejection or sepsis don't appear to be captured at present or are recorded in free text. It was agreed the data captured on cause of death should be more organ specific and should include GvHD, rejection if possible.	
8.2	<u>Aligning definition of tx type with International Registry data</u> - **MCTAG(23)05 –**This new report, circulated prior to the meeting, shows patient survival following deceased donor intestinal transplantation, using the International Registry transplant type definitions. It has been produced as current transplant type definitions used in data collection within the UK differ from those used in the International Registry. Transplant type has been reassigned to all the transplants in the cohort and the Kaplan Meier curves have been re-run to look at patient survival rates. The cohort used is the same as the previous report in Item 8.1. • MCTAG members are asked to take note of the key messages in the report and to ensure timely provision of 3-month and annual follow up date to NHSBT and are asked to consider how to take this data forward. • It was agreed the report highlights the substantial difference between full MV transplant and anything else and aligns much more with the International definitions for different transplant types. It was noted that on the adult side it is not necessarily liver inclusion that makes a difference for survival. Small bowel alone, modified MV and liver small bowel are very equivalent. However, there is a big drop off when the stomach is included as part of a full MV transplant in terms of outcome. • The data indicate that if moving to a full MV transplant for adults, there is a greater chance of mortality – the patient survival rate at 3 years post transplant was 48%. This was hidden in the previous transplant type definitions • It was noted that the liver does not always offer protection against rejection. The data shows that in paediatric recipients, patient survival rates were lower at 1 year when the liver is included as opposed to just an isolated small bowel, although the difference was not statistically significant. More exploration of the data is needed to find the cause of death in these patients. • Caution was advised for longer term outcomes due to small numbers by transplant type	

	It was agreed it would be useful to continue getting the report aligned with international registry data and to include the pancreas as an adjunct organ for isolated small bowel only to ensure complete data capture. Removal of the pancreas as a mandatory organ from the liver small bowel so have small bowel and liver would allow capture of any living donor liver small bowel. **ACTION: C Brown to move the pancreas from a mandatory to an optional organ for the small bowel and liver small bowel transplant types.** C Brown and her colleague, Adam Young were acknowledged for an enormous amount of work.	
9.	**Ethical Issues Relevant to NRP**	
	Francisco Hernandez Oliveros attended the meeting to present the experiences his team have had in Spain with DCD NRP paediatric retrievals. The following was highlighted: • There are longer waiting times for Intestinal transplantation (median 222 days) and 30% mortality on the waiting list. • DCD organs are now used for all organs in paediatric transplants except intestinal organs due to a 20-minute touch period. An animal study was illustrated to demonstrate the viability of DCD bowel grafts in a paediatric programme with surgery taking place in the OR rather than ICU and with the parent present for most of the time. In summary: • Based on limited experience, DCD MV transplantation is safe and a valid way to improve the pool of donors • Heart resuscitation may be crucial due to the need for warm ischaemia time with the flow of blood to the brain clamped off and the multi-disciplinary team involved in this trial included cardiovascular surgeons and perfusionists • Further research is needed regarding the risk of NEC. It was noted that Birmingham is considering taking this forward in the UK, but only with patients of Birmingham Children's Hospital and Kings are also keen to proceed. Thamara Perera is taking this forward to the national NRP group on Birmingham's behalf. This will also need further discussion with NHSBT and NHSE and a change control put in place once the centre has identified patients for the procedure. Each centre will then need ethical approval and Medical Director sign off.	
10.	**National Bowel Allocation**	
10.1	Performance report of the National Bowel Allocation Scheme (NBAS)– **MCTAG(23)06**.- • This report circulated prior to the meeting shows the recent performance of the NBAS and illustrates patients active on the transplant list between 1 July 2022 and 31 December 2022 a comparison of 1-year post-registration outcomes over time, median time to transplant and prolonged registrations. MCTAG members are asked to review the results and notify NHSBT via ODT online of any data amendments, eg deaths, removals. **ACTION: a) C Brown to split Table 2 into adult and paediatric data in future reports. b) Data on long waiting times (eg the proportion transplanted within <1 year, 1-2 years, >2 years) will be included in future reports.** • The issue of patients previously referred from EU countries tha do not do small bowel transplantation was raised.	**a & b) C Brown** **a) R Baker**

	ACTION: R Baker to discuss with D Manas whether these patients still qualify as Group One patients now the UK is out of the EU.	
10.2	Discussion re: potential changes to allocation policy -	
	This document was created some time ago when there was little data supporting the way in which points were allocated for intestinal transplantation. **ACTION: C Watson to revisit the policy now there is more information and data to address the potential for allocating points to levels of severity of liver disease.**	**C Watson**
11.	**Service Review Discussion**	
	Intestinal transplantation is now well developed but there are no opportunities for peer review or CUSUM. At the last meeting, it was agreed that it would be appropriate for the group to consider what the service should look like at a national level. As the OUG report has recommended a service review of all transplantation it was agreed to wait to hear what will come out of this before any further work.	
12.	**Group 2 Bowel Transplants**	
	There were no Group 2 Bowel Transplants to report	
13.	**Update re: Hand Transplantation**	
	S Kay reported: • Leeds has now completed 17 limb transplantations in 10 patients and is the most prolific unit in the western world. The UK is now a leader in this field. Hand transplantation is important due to the need to help sepsis survivors and scleroderma. • Ischaemia and the need to inspect the donation are factors in ensuring success and affect retrieval times. • Improving engagement with SNODs and extending retrieval areas and zones is a priority as Leeds does its own retrievals for upper limb transplantation. An audit of the numbers of donor families approached and consent rates for SOT and limbs should provide useful data and improve the profile of limb donation. S Kay will liaise with I Quiroga over education needed for SNODs for limb and uterine transplantation. • The increase in DCD donation potentially offers opportunities to increase numbers. Following a recent offer of a DBD donor from a neurosurgical unit that couldn't go ahead after the 2nd brain stem test and another offer of a DCD donor for hand transplantation, it has become evident that there is a need to update guidelines, SOPs and protocols to include DCD. • Children have been excluded from the programme due to the need to put them on immunosuppression at an early age. However, this is now being considered for limbless patients who are already immuno-suppressed and the team will now look at amending SOPs to include these children. If limbs are perfectly matched and age appropriate, they should grow alongside the child. Consenting children for complex invasive procedures that don't extend life has also raised ethical issues that needs further consideration. A Wrigley offered to liaise with S Kay on this issue.	

	• There is support for the ongoing work to change retrieval times to make surgery more feasible.	
14.	**Update on Uterine Transplantation**	
	I Quiroga reported: • The first living donor transplant was done on 12 February and the patient is doing well. • There was a deceased retrieval in December. The deceased programme is progressing slowly as Oxford is only working with the South-Central team. • There is ethics approval for 10 transplants over 2 years so progress is not as good as anticipated so discussions are underway to increase the number of donor teams which will involve further training and engagement with SNOD teams. • Those attending this meeting are asked not to circulate information regarding uterine transplantation at this stage. **ACTION: a) D Manas to look into how teams can be increased) b) Quiroga to send details of the living donation to L Burnapp c) P Friend to contact A Wrigley regarding ethical considerations for uterine transplantation.**	**a) D Manas b) I Quiroga c) P Friend / A Wrigley**
15.	**Potential Routine Inclusion of contrast enhanced CT scan in Donor Characterisation**	
	Getting CT scans for MV patients is being investigated as it is felt this will minimize long journeys and delays in treatment.	
16.	**Transfer of UK intestinal data to the international transplant registry (ITR)**	
	In J Hind's absence A Butler reported that there is no current mechanism for this to be done in an automatic way so manual input of data into the ITR is the only option. J Hind will continue to look into this issue.	
17.	**Ethics of normothermic regional perfusion in paediatric donors**	
	Not discussed at this meeting in J Hinds' absence.	
18.	**Update from Working Groups**	
18.1	Quality of Life Working Group: data collection – P Allan not available to provide an update **ACTION: A Butler will write to P Allan to get an update**	**A Butler / P Allan**
18.1.1	Adults – No discussion at the meeting	
18.1.2	Paediatrics – No discussion at the meeting	
19.	**Establishment of a centralised facility for chimerism testing**	
	There is no further information currently. It has been established that there is no need for this outside bowel transplantation and the cost of setting this up for the whole of the UK is too high. The meeting agreed that having this facility would be useful, but teams do not rely on chimerism testing when making active decisions.	
20.	**Feedback from Liver Advisory Group Meeting LAG(22)(M)02 - MCTAG(23)07**	
	The Minutes from the most recent Liver Advisory group in autumn 2022 were circulated prior to the meeting. Issues relating to hepatoblastoma tier and need for bowel containing grafts were highlighted at the most recent meeting held this month.	

21.	**Any Other Business**	
21.1	Multi-centre collaborative studies and research – G Gupte stated that it would be beneficial for centres to decide on what collaborative research studies from the UK could be selected for the next CIRTA meeting in 2025. It is suggested that C Brown provides a report for centres to look internally at principal causes of death of patients as this will help registration and learning points about the patient population. **ACTION: G Gupte to devise a simple spreadsheet to collect information/data for indications for transplantation and cause of death to circulate at the next meeting.**	**G Gupte**
21.2	Verbal Update on: Study to evaluate the accuracy of two weight estimation calculations for donor characterization – G Brewin stated that the report on the detection and characterization of clinically relevant antibodies and allied transplantation which was written as joint guidelines between BSHI and BTS will be submitted for review in the next few months. Comment from Chloe *I don't think this was related to the study to evaluate the accuracy of two weight estimation tools for donor weight. Maybe this should be separated – please correct if necessary.*	
21.3	CIRTA – H Vilca-Melendez reported that the next CIRTA meeting will take place shortly. Representation from as many people in the UK is recommended at the meeting.	
22.	**Critical Updates from this meeting**	
	MCTAG members are asked to cascade information from this meeting to their centres as follows: • It is hoped that a new provider for UW will be confirmed in the next 2 months. In the meantime, centres should continue to use HDK and report any issues they have. • The meeting included a presentation from colleagues in Spain on their progress with DCD NRP paediatric retrievals for bowel and MV transplantation. • Ethical issues around more unusual transplantations (uterine and limb transplantation) were highlighted for further consideration and discussion. • Changes in definitions associated with different organ groups highlighted in data of the last 10 years will be helpful in future decision making.	
23.	**Date of next meeting**	
	This is currently set for **Weds 4 October via Microsoft Teams.** Further information about the next meeting will be sent in due course.	